



higher education
& training
Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA



EKURHULENI EAST TVET COLLEGE
"Committed to Excellence"

TENDER DOCUMENT

TENDER NO.: EEC /T13/2022

TENDER ENQUIRY OF THE CONSTRUCTION OF THE NEW MEDIA CENTRE

FOR

EKURHULENI EAST TVET COLLEGE

NAME OF TENDERER

FOR OFFICE USE

OFFICE STAMP

APPROVED/NOT APPROVED

THE PRINCIPAL

August 2022



PROCUREMENT DOCUMENT FOR BUILDING CONSTRUCTION

JBCC SERIES 2000 Edition 6.2 (MAY 2018)

PLEASE NOTE: TENDERS MUST BE SUBMITTED ON THE ORIGINAL TENDER DOCUMENTATION ISSUED. TENDER DOCUMENTATION MUST NOT BE REPRODUCED OR REARRANGED. ANY ADDITIONAL INFORMATION MUST BE SUBMITTED AS A SEPARATE ATTACHMENT TO THE TENDER DOCUMENT.

TENDER ENQUIRY OF THE CONSTRUCTION OF THE NEW WELLNESS CENTRE

Contents

Number Heading

THE TENDER

Part T1

Part T1.1: Tendering Procedures

- T1.1.1 Invitation to Bid
- T1.1.2 Terms and Conditions for Bidding
- T1.1.3 Notes to Tenderers
- T1.1.4 Supplementary Bid Information and Instructions

Part T1.2: Tender Data

Part T1.3: Standard Conditions of Tender

Part T2: Returnable Documents

- T2.1 Mandatory Returnable Documents
- T2.2 Returnable Schedules for Functionality Evaluation

THE CONTRACT

Part C1: Agreement and Contract Data

- C1.1 Form of Offer and Acceptance
- C1.2 Contract Data
- C1.3 Construction Guarantee
- C1.4 Occupational Health and Safety Agreement
- C1.5 Agreement in terms of Section 37 (2) of the Occupational Health and Safety Act No 85 of 1993

Part C2: Pricing Data

- C2.1 Pricing Instructions
- C2.2 Bills of Quantities

Part C3: Works Information

- C3 Works Information

Part C4: Site Information

- C4 Site Information

Part C5: Annexures

- PART A - Architectural Drawings and Schedules
 - PART B - Civil and Structural Drawings and Schedules
 - PART C - Electrical and ICT Drawings and Schedules
 - PART D - Mechanical Drawings and Schedules
 - PART E - OHS requirements
-

PART T1.1: TENDERING PROCEDURES

T1.1.1: Invitation to Bid

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE (NAME OF DEPARTMENT/ PUBLIC ENTITY)					
BID NUMBER:	EEC / T13/2022	CLOSING DATE:	26 September 2022	CLOSING TIME:	11:00
DESCRIPTION	PROPOSED CONSTRUCTION OF THE NEW WELLNESS CENTRE FOR EKURHULENI EAST TVET COLLEGE Tenderers must be registered with the CIDB in a GB class of construction works. It is estimated that the tenderers should have a CIDB contractor grading designation equal to or higher than 8GB or higher or 7GB PE.				
BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE BID BOX SITUATED AT (STREET ADDRESS)					
Ekurhuleni East TVET College, Central Office, Sam Ngema Road, Kwa Thema, Springs					
BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO			TECHNICAL ENQUIRIES MAY BE DIRECTED TO:		
CONTACT PERSON	Mxolisi Chonco		CONTACT PERSON	Mxolisi Chonco	
TELEPHONE NUMBER	011 730 6600		TELEPHONE NUMBER	011 730 6600	
FACSIMILE NUMBER	N/ A		FACSIMILE NUMBER	N/A	
E-MAIL ADDRESS	procurement@eec.edu.za		E-MAIL ADDRESS	procurement@eec.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 REG. 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 <input type="checkbox"/> Yes <input type="checkbox"/> No		[TICK APPLICABLE BOX] <input type="checkbox"/> Yes <input type="checkbox"/> No
[A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE MUST BE SUBMITTED IN ORDER TO QUALIFY FOR PREFERENCE POINTS FOR B-BBEE]					
1 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]		2 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.					

T1.1.2: 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.
1.4. THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (SBD7).
2. TAX COMPLIANCE REQUIREMENTS
2.1 BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS.
2.2 BIDDERS ARE REQUIRED TO SUBMIT THEIR UNIQUE PERSONAL IDENTIFICATION NUMBER (PIN) ISSUED BY SARS TO ENABLE THE ORGAN OF STATE TO VERIFY THE TAXPAYER'S PROFILE AND TAX STATUS.
2.3 APPLICATION FOR TAX COMPLIANCE STATUS (TCS) PIN MAY BE MADE VIA E-FILING THROUGH THE SARS WEBSITE WWW.SARS.GOV.ZA.
2.4 BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID.
2.5 IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED, EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER.
2.6 WHERE NO TCS PIN IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.
2.7 NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE, COMPANIES WITH DIRECTORS WHO ARE PERSONS IN THE SERVICE OF THE STATE, OR CLOSE CORPORATIONS WITH MEMBERS PERSONS IN THE SERVICE OF THE STATE."

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

SIGNATURE OF BIDDER:

CAPACITY UNDER WHICH THIS BID IS SIGNED:
(Proof of authority must be submitted e.g. company resolution)

DATE:

T1.1.3: Notes to Tenderers

1) GENERAL

All information is furnished in good faith for the guidance of the Tenderers and in no way shall such information relieve the Tenderers from the responsibility of ascertaining to their satisfaction the scope and conditions of the contract. They shall make all investigations necessary to inform themselves thoroughly as to the character and magnitude of the work, the facilities for delivery, placing and operating the necessary plant and for delivery and handling of materials at the site.

The tenderer shall inspect and examine the site and its surroundings and shall satisfy himself before submitting his tender as to the form and nature of the site, the quantities and nature of the work and the materials necessary for the completion of the works and the means of access to the site, the accommodation he may require and, in general, shall himself obtain all the necessary information as to risks, contingencies and other circumstances which may influence or affect his tender.

By the submission of a tender, the Tenderer acknowledges that they are familiar with:

- The enquiry document, local requirements, by-laws, permits, licences and costs pertaining to the Contract;
- Accepts all the terms and conditions of this tender.

No plea of ignorance of conditions which exist or may hereafter exist will be accepted as a reason for failure to complete the contract or as a basis for a claim for additional compensation or extension of time.

Please note:

- Submissions sent by post will not be accepted.
- Faxed Tenders will not be accepted.
- Electronically submitted Submissions will not be accepted.
- Oral Submission will not be accepted.
- Submissions not correctly sealed, endorsed or signed may not be considered.
- Late Submission will not be accepted.

The Employer or its representative(s) or agents will not be held responsible for any misunderstanding and or misinterpretations of the directions for the collections or submissions of tenders.

Tenders must only be submitted on the tender documentation that is issued. The retyping of the tender document is not permitted.

2) ENQUIRIES

- All communication to directed to the procurement department at the College.
- Enquiries in relation to this tender will not be entertained after 16h00, 10 (Ten) days prior to the closing date of this tender.
- Ekurhuleni East TVET College may respond to any enquiry in its absolute discretion and the bidders acknowledge that they will have no claim against Ekurhuleni East TVET College on the basis that the bid was disadvantaged by the lack of information, or inability to resolve ambiguities.
- Enquires must be addressed to **Mxolisi Chonco at mxolisc@eec.edu.za**

3) TENDER VALIDITY PERIOD

Responses to this tender will be valid for a period of **120 days** from the closing date of the tender.

4) INSTRUCTIONS ON SUBMISSION OF TENDER RESPONSES

- All tenders are to be deposited in the tender box situated at
Ekurhuleni East TVET College Central Offices, Sam Ngema Road, Kwa- Thema, Springs.
No later than 11h00, on Monday, 26th September 2022

5) PREPERATION AND TENDER RESPONSE

- All the documentation submitted in response to this bid must be in English.
- The bidder is responsible for all the cost that they shall incur related to the preparation and submission of the bid document.
- Bids submitted by Companies must be signed by person(s) duly authorised thereto by a resolution of a Board of Directors, a copy of which Resolution, duly certified must be submitted with the Bid.
- The bidder should check the numbers of the pages to satisfy themselves that none are missing or duplicated. No liability will be accepted by Ekurhuleni East TVET College in regard to anything arising from the fact that pages are missing or duplicated.
- A valid tax clearance certificate or tax clearance pin of endorsement by SARS in this regard must be included in the bid response.

6) EKURHULENI EAST TVET COLLEGE'S RIGHTS

- Ekurhuleni East TVET College is entitled at its sole discretion to amend any bid conditions, validity period, specifications, or extend the closing date of bid before the closing date. All bidders, to whom the bid documents have been issued and where the Ekurhuleni East TVET College have record of such bidders, may be advised in writing of such amendments in good time.

- Ekurhuleni East TVET College reserves the right not to accept the lowest bid or any bid in part or in whole. Ekurhuleni East TVET College shall have the sole discretion but not obliged to award the contract to the bidder who proves to be fully capable of handling the contract and whose bid is technically acceptable and/or financially advantageous to the Ekurhuleni East TVET College.
- Ekurhuleni East TVET College reserves the right to give preference to an empowerment company and may elect at its sole discretion to award this bid on condition that a joint venture with an empowerment company is formed. The implications of such arrangement will be subject to negotiations between Ekurhuleni East TVET College and the successful bidder.
- Ekurhuleni East TVET College reserves the right to award this bid as a whole or in part without furnishing reasons.
- Ekurhuleni East TVET College the right to conduct site visits at bidder's corporate offices and or at the bidder's Employer sites if so required.

7) UNDERTAKINGS OF THE TENDERER

- The bidder hereby offers to render all or any of the service described in the attached documents to Ekurhuleni East TVET College on the terms and conditions specified and in accordance with the specifications stipulated in this Bid documents. The bidder hereby offers to render all or any of the services described in the attached documents to Ekurhuleni East TVET College on the terms and conditions specified and in accordance with the specifications stipulated in this Bid documents.
- The bidder furthermore confirm that he/she has satisfied himself/herself as to the Correctness and validity of his/her Bid response that the price(s) and ate(s) quoted cover all the work/item(s) specified in the Bid response documents and that the price(s) and rate(s) cover all his/her obligations under a resulting contract and that he/she accept that any mistakes regarding price(s) and calculations will be at his/her risk.
- The bidder hereby accepts full responsibility for the proper execution and fulfilment of all obligations and conditions devolving on him/her under this agreement as the Principal(s) liable for the due fulfilment of this contract.

T1.1.4: Supplementary Bid Information and Instructions

1.0 SCOPE OF WORKS

- In general terms the works entail the construction of a new Media Centre, approximately 4 017 m² in area.
- The building design consists of a double storey building, with raft foundations and a structural concrete super structure with metal roof and side cladding. The external facades are plaster and paint with large aluminium windows. The entire Media Centre will be mechanically ventilated with the relevant electrical, mechanical and fire protection services.
- The Media Centre will incorporate a double volume 300-seater acoustic rated auditorium. Other areas and functions with the Media centre include e learning areas, open discussion areas, a media and computer centre, conference rooms.
- Tenderers are advised to review the tender drawings for additional details on the scope of works.

2.0 LOCATION OF SITE

Sam Ngema Road Kwa-Thema, Springs.

3.0 APPLICABLE LAW

The laws of the Republic of South Africa shall be applicable to this contract

4.0 APPLICABLE STANDARDS AND PARTICULAR SPECIFICATIONS

Although not bound in nor issued with this document, the following standardised specifications shall form part of the Contract document:

- JBCC Series 2000 Edition 6.2(May 2018)
- Occupational Health and Safety Act No 85 of 1993
- Applicable SABS / SANS
- Eskom & Telkom Specifications
- Applicable COVID protocols

5.0 DRAWINGS

The drawings and specifications (Refer Part C5: Annexure A-E) shall be issued together with this Specification and are deemed to form part of the tender documents.

The Tenderer must study the specifications and completely familiarise himself with them before pricing this document.

Should any part or parts of the specification not be clear to the Tenderer, or should there be any doubt or obscurity as to the meaning or intentions of the specifications or should the Tenderer require additional information, the Tenderer must before submitting his tender, inform the EEC Representative at once in order to obtain from the EEC Representative the necessary clarification of information.

It will be assumed that, when tendering for this Contract the Tenderer is fully acquainted with the specifications and with the scope, nature and requirements of the work to be done and no claims for extras in this connection will be entertained.

6.0 EXAMINATION OF SITE AND DRAWINGS

The Tenderer is advised to examine the drawings and visit the site prior to submitting his tender and acquaint himself with local conditions, access, the extent and nature of the operations, supply of and conditions affecting labour and the execution of the Contract generally, as no claim on the grounds of want of knowledge in such respects will be entertained.

Failure by a Tenderer to visit site will not absolve the Tenderer from any lack of knowledge of site conditions.

The Site shall not be used by the Contractor for any purpose other than that of carrying out the Contract works.

Tenderers are to return with their tenders, the completed Site Briefing and Inspection Certificate certifying their visit to site.

7.0 ACQUAINTANCE WITH TENDER DOCUMENTS

By submission of a Tender, the Tenderer will be deemed to have acquainted himself fully with the Tender Documents, local requirements and laws and all aspects of the work envisaged in the document prior to pricing and submission of his Tender.

8.0 PROVISIONAL BILLS OF QUANTITIES

The Tenderer is advised to check the number of pages in this document and should any be found to be missing or in duplicate or the writing of the figures indistinct or there be any obvious error herein or if any doubt exists as to the full intent or meaning of any description, the Tenderer must notify the Principal Agent at once and have the same rectified. No liability whatsoever will be admitted in respect of errors in Tenders due to the foregoing if they have not previously been notified to the Principal Agent in writing.

No alterations, erasures, omissions or additions are to be made to the text of the document. Should any such alteration, erasure, omission or addition be made it will not be recognised and the reading of the document as prepared by the Principal Agent will be adhered to.

Tenderers are required to submit their priced Provisional Bills of Quantities in its entirety as well as any other additional information requested elsewhere in this document.

In the event of failure on the part of the Tenderer to furnish information such as called for in this enquiry or from subsequent formal requests by the Principal Agent, then such failure may render the offer liable to disqualification.

9.0 VALUE ADDED TAX

Value Added Tax shall not be included with the rates but shall be shown separately on the / Offer and. Acceptance document (Section D).

10.0 ESCALATION

It is a condition of this contract that **no escalation** will be payable, and the tendered price will therefore be fixed for the duration of the project.

11.0 QUANTITIES

The Principal Agent and the Employer shall be entitled to require the Contractor to execute as part of the works such numbers or quantities of the said or similar items, classes and kinds of work as may appear expedient from time to time and the Contractor shall **not** be entitled to any alterations in the rates or prices set out in these Bills of Quantities by reason of any increase or decrease in any such number of quantity or any reason of the fact that they are omitted entirely.

12.0 REJECTION OF TENDERS

A tender may be rejected if: -

- It is received after the closing time and date stipulated.
- It contains any omission, erasure, alteration, text addition or irregularity.
- It is considered unbalanced or does not include the required information requested elsewhere or necessary for proper comparison and evaluation.

The Employer may accept or reject any variation, deviation, tender offer, or alternative tender offer, and may cancel the tender process and reject all tender offers at any time before the formation of a contract. The Employer shall not accept or incur any liability to a tenderer for such cancellation and rejection.

The Employer is not bound to accept the lowest, or any tender, nor is it required to provide reasons for selecting one tender in favour of another.

13.0 FAILURE TO SUPPLY INFORMATION

In the event of failure on the part of the Tenderer to furnish information such as called for in this enquiry or from subsequent formal requests by the Principal Agent, then such failure may render the offer liable to disqualification.

14.0 EXTENT OF SUPPLY BY THE CONTRACTOR

- The final extent of supply shall be the provision of all labour, plant, equipment and tools, required for the project.
- Temporary offices, workshops and stores as necessary must be provided.
- Report daily as required in accordance with the specification and as may be instructed by the Principal Agent.
- Risk Assessments for all tasks required for the successful completion of the works.

15.0 RIGHT TO COMPETITIVE NEGOTIATION

The employer reserves the right to invite all responsive tenderers, but not less than three responsive tenderers that are highest ranked in terms of the evaluation method, into competitive negotiations, based on the principle of equal treatment and keeping confidential the proposed solutions and associated information.

16.0 SAVINGS IN COST AND ALTERNATIVE PROPOSALS

The Tenderer must price the Works in accordance with the method indicated in these Enquiry Documents. He is, however, invited to submit alternative proposals in addition to a bona fide tender submitted in accordance with the enquiry conditions, as follows: -

Specific variations or qualifications to the Conditions of Contract provided, such proposed variations or qualifications are clearly set out and do not constitute a total substitution of the said Conditions by other Conditions of Contract.

Technically or financially superior proposals offering advantages to the Employer; such proposals are to clearly describe alternatives offered and indicate the advantages over that required in terms of the enquiry.

Such alternatives are to be clearly stated – Alternative Tender. Alternative proposals will not be considered if not submitted in accordance with the above. The Employer reserves the right to accept or reject such alternative proposals.

17.0 PRE-ORDERING

The Tenderer is hereby informed that the Employer will accept no financial liability whatsoever should the Tenderer commit or execute any work or place an order on their suppliers and/or sub-contractors prior to receiving the official written Employer Order or Telefax of Intent.

18.0 MEDICAL EXAMINATIONS/SECURITY CLEARANCE

The Contractor shall bear all costs of the medical examinations, site specific inductions, health and safety induction training and security clearance as requested.

19.0 QUALITY ASSURANCE PLAN

The Contractor shall be required to submit a detailed Quality Assurance Plan which will cover material procurement, shop fabrication and site erection and will include suitable hold and/or witness points for internal inspections, inspections by the Inspection Authority and inspections by the Principal Agent in charge of the Building Works. The Employer reserves the right to alter, reduce and/or add to the Quality Assurance Plan before approval is given.

20.0 MATERIALS

All materials used shall be as shown on drawings and detailed in this Specification, any discrepancy should be brought to the attention of the Principal Agent. No substitution of materials with different sizes or properties other than specified will be permitted unless approval has been obtained from the Principal Agent. All materials utilised shall be new and of the best quality - clean stock, free from surface lamination or other physical imperfection.

21.0 PROJECT PLAN

The contractor shall return with their tender a project plan (MS Project or similar) of their proposed program of the work to be executed, sufficiently detailed to substantiate their ability to meet or improve on the various completion times reflected, also indicating clearly the resources to be provided for each section of the contract.

The contractor will be required to submit a weekly progress and summary report based on their project program. The total man-hours worked for the week must also be indicated. Any changes to the team must also be communicated here.

22.0 FEATURES REQUIRING SPECIAL ATTENTION

Existing services

Before commencing work, the Contractor shall arrange with the Principal Agent for the Employer to point out any underground or overhead services which may be affected by construction activities. Repair of these services damaged by the Contractor shall be to their account. The Contractor shall be solely responsible throughout the contract period for the safety and protection of services.

Contractor's constructional plant

During the course of the contract the Principal Agent considers that any item or items of the constructional plant are in any way inefficient, inadequate or unsafe for use and/or to complete the works within the contract period they shall have the right to call on the Contractor to either:

- Put the constructional plant in order, or;
- Remove such constructional plant and replace it with other efficient plant, or;
- Provide additional similar plant or plant of greater capacity.

No additional payment shall be made to the Contractor for expenses incurred in complying with any or all of the above, the cost being deemed to be included in the Contractor's rates.

All equipment and tools will be subject to inspection by The Employer.

Labour and plant returns

The Contractor shall provide the Principal Agent with daily returns showing the number and grade of employees employed and the number and type of constructional plant on site, and whether said constructional plant is working, idle or broken down. In addition, the Contractor shall provide for statistical purposes monthly labour returns to the employer in the format required.

Site meetings

The Principal Agent will conduct regular site meetings, prepare and circulate minutes. The Contractor shall attend and shall ensure that, when necessary all sub-contractors are represented. The approved minutes shall become part of the contract documents.

Maintenance and operating plan/manual

The Contractor will be required to supply maintenance plan and operating manual for equipment.

23.0 SAFETY, HEALTH AND ENVIRONMENT

The contractor shall comply fully with the OHS Act.

No contractor will be allowed on site if the contracting company including all sub-contracting companies and their people did not hand in;

- Certificate of good standing with the compensation commissioner
- Legal appointment as per the MHSA in terms of legal responsibility for the contracted job to be performed (sect 37.2 appointment as per OHS Act)
- Legal appointment from the CEO/Director/Member of that company for the project supervisor on site

24.0 ELECTRONIC ENQUIRY DOCUMENTS

The information contained in this tender document is available on computer software and will be supplied on computer disc(s) however; it is the responsibility of the Tenderer to ensure that the information received via these media is correct and consistent with the actual printed documents or addendum(s) issued to each Tenderer. In the event of any differences between the printed tender documents or faxed addendum(s) issued to Tenderer and similar information provided by computer disc(s) the former will always be regarded as correct

PART T1.2: TENDER DATA

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The Conditions of Tender are the Standard Conditions of Tender as contained in Annex F of the CIDB Standard for Uniformity in Construction Procurement as per Board Notice 136 of 2015 in Government Gazette 38960 of 10 July 2015 as amended from time to time. (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 applies.

Clause Number	Clause Heading	Data / Wording
F.1.1	The Employer	Ekurhuleni East TVET College Sam Ngema Road Kwa-Thema Springs
F.1.2	The Tender	<p>PART T1.1: TENDERING PROCEDURES</p> <p>T1.1.1 Invitation to Bid</p> <p>T1.1.2 Terms and Conditions for Bidding</p> <p>T1.1.3 Notes to Tenderers</p> <p>T1.1.4 Supplementary Bid Information and Instructions</p> <p>T1.2 Tender Data</p> <p>T1.3 Standard Conditions of Tender</p> <p>PART T2 : RETURNABLE DOCUMENTS</p> <p>T2.1 Mandatory Returnable Documents</p> <p>T2.2 Returnable Schedules for Functionality Evaluation</p>
	The Contract	<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 Construction Guarantee</p> <p>C1.4 Occupational Health and Safety Agreement</p> <p>C1.5 Agreement in terms of Section 37 (2) of the Occupational Health and Safety Act No 85 of 1993</p> <p>PART C2: PRICING DATA</p> <p>C2.1 Pricing Instructions</p> <p>C2.2 Bill of Quantities</p> <p>PART C3: WORKS INFORMATION</p> <p>PART C4: SITE INFORMATION</p> <p>PART C5: ANNEXURES – Additional Information</p> <p>PART A - Architectural Drawings and Schedules</p> <p>PART B - Civil and Structural Drawings and Schedules</p> <p>PART C - Electrical and ICT Drawings and Schedules</p> <p>PART D - Mechanical Drawings and Schedules</p> <p>PART E - OHS requirements</p>

F.1.4	Principal Agent	<p>Name: Enyuka Construction Consultants Address: Block C 151 on 5th Cnr 5th and Parklane Sandown Johannesburg</p> <p>All communication and attempts to solicit information of any kind relative to this tender done via the Procurement Department of the College.</p>
F.2.1	Eligibility	<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, 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 GB General Building class of construction work; and 3. the combined contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a contractor grading designation determined in accordance with the sum tendered for a 8GB/7GB PE class of construction work.
F.2.7	Clarification Meeting	6 September 2022
F.2.12	Alternative tender offers	No alternative tender offers will be considered
F.2.13.3	Number of copies of tender offers to be submitted to the Employer	Submit the Original Tender Document +1 electronic copy on a USB drive.
F.2.13.5 F.2.15.1	Sealing and Delivery of tender offers	<p>The tender submission shall be enclosed in One Sealed Envelope.</p> <p>The Employer's address for delivery of tender offers is Ekurhuleni East TVET College, Central Office- Sam Ngema Road, Kwa – Thema, Springs</p>
F.2.13.9	Telephonic	Telephonic, telegraphic, telex, facsimile or e-mailed tender offers will not be accepted.
F.2.15	Closing time of tender offers	Monday, 26 September 2022 @ 11h00
F.2.16	Tender offer validity	The tender offer validity period 120 days.
F.2.17		Sub-clause F.2.17 does not preclude the negotiation of the final terms of the contract with the preferred bidder, following a competitive selection process, should the Employer elect to do so and provided that the competitive position of the preferred bidder is not affected.
F.2.23	Certificates	The tenderer is required to submit with his tender Documents and Schedules listed in Part T2.

F.3.4.2	Opening of tender submissions	Tender will not be opened immediately after the closing time for tenders.			
F3.8		A responsive bid is one that conforms to all the terms, conditions, and specifications of the bid documents without material deviation or qualification. A material deviation or qualification is one which, in the Employer's opinion, would: a) detrimentally affect the scope, quality, or performance of the Works, services or supply identified in the Scope of Work or b) significantly change the Employers or the Bidders risks and responsibilities under the contract, or c) affect the competitive position of other Bidders presenting responsive tenders, if it were to be rectified. The Employer shall at its sole discretion reject a non-responsive tender offer, and not allow it to be subsequently made responsive by correction or withdrawal of the non- conforming deviation or reservation.			
F3.11.1	Evaluation of Price	Method 2, Functionality, Price, Preference {F.3.11.3}			
F3.11.3	Scoring Functionality	No	Form	Item	Max Points
		1.	Form 17	Construction Programme	20
		2.	Form 18	Contract Management Structure	20
		3.	Form 19	Methodology	20
		4.	Form 20	Letter of Undertaking - Security	20
		5.	Form 21	Schedule of Experience	20
		TOTAL			100
		<u>Key for Scoring</u>			
		1.	Excellent	20	
		2.	Good	15	
		3.	Acceptable	10	
		4.	Unsatisfactory	5	
		5.	No Submission	0	
F3.11.7	Scoring Price	Bid offers will be scored using the following formula: (Option 1) Where $N_{fo} = W_1 \left(1 - \left(\frac{P - P_m}{P_m} \right) \right)$ N _{fo} = Number of tender evaluation points awarded for the financial offer. W ₁ = The percentage score given for financial offer as in T.1.1 Bid Notice and Invitation to Bid P _m = The comparative offer of the most favourable tender offer. P = The comparative offer of tender offer under consideration. $A = \left(1 - \left(\frac{P - P_m}{P_m} \right) \right)$ and where Option 1 is: Up to 100 minus W1 tender evaluation points will be awarded to bidders who complete the preferencing schedule and who are found to be eligible for the preference claimed.			

F3.13	Tender offers	<p>Tender Offers will only be accepted if:</p> <p>a) All documents and schedules listed in Part T2.1: Mandatory Returnable Documents are completed and submitted.</p> <p>b) 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:</p> <p>c) The tenderer has not:</p> <p>i) abused the Employer’s Supply Chain Management System; or</p> <p>ii) failed to perform on any previous contract and has been given a written notice to this effect.</p> <p>d) The employer is reasonably satisfied that the tenderer has in terms of the Construction Regulations, 2014, issued in terms of the Occupational Health and Safety Act, 1993, the necessary competencies and resources to carry out the work safely.</p> <p>Providing the form of offer and acceptance does not contain any qualifying statements, it will constitute the formation of a contract between the employer and the successful bidder as described in the form of offer and acceptance.</p>									
F.3.17	Number of Paper Copies	The number of paper copies of the signed contract to be provided by the employer is 1 (one).									
Additional Clause 1	Key Dates	<table><tr><td>I.</td><td>Issue of tender</td><td>06 September 2022</td></tr><tr><td>II.</td><td>Compulsory Briefing & Inspection</td><td>06 September 2022</td></tr><tr><td>III.</td><td>Tender Closing</td><td>26 September 2022</td></tr></table>	I.	Issue of tender	06 September 2022	II.	Compulsory Briefing & Inspection	06 September 2022	III.	Tender Closing	26 September 2022
I.	Issue of tender	06 September 2022									
II.	Compulsory Briefing & Inspection	06 September 2022									
III.	Tender Closing	26 September 2022									
Additional Clause 2	Construction Period	The Construction Period is 15 Months from date of the site hand-over.									

PART T1.3: STANDARD CONDITIONS OF TENDER

Note: Where this document refers to tenderer or tender it shall be read as bidder or bid.

F.1 General

F.1.1 Actions

F.1.1.1 The employer and each tenderer submitting a tender offer shall comply with these conditions of tender. In their dealings with each other, they shall discharge their duties and obligations as set out in F.2 and F.3, timeously and with integrity, and behave equitably, honestly and transparently and comply with all legal obligations and not engage in anticompetitive practices.

F.1.1.2 The employer and the tenderer and all their agents and employees involved in the tender process shall avoid conflicts of interest and where a conflict of interest is perceived or known, declare any such conflict of interest, indicating the nature of such conflict. Tenderer's shall declare any potential conflict of interest in their tender submissions. Employees, agents and advisors of the employer shall declare any conflict of interest to whoever is responsible for overseeing the procurement process or as soon as they become aware of such conflict, and abstain from any decisions where such conflict exists or recuse themselves from the procurement process, as appropriate.

- Note:
- 1) A conflict of interest may arise due to a conflict of roles which might provide an incentive for improper acts in some circumstances. A conflict of interest can create an appearance of impropriety that can undermine confidence in the ability of that person to act properly in his or her position even if no improper acts result.
 - 2) Conflicts of interest in respect of those engaged in the procurement process include direct, indirect or family interests in the tender or outcome of the procurement process and any personal bias, inclination, obligation, allegiance or loyalty which would in any way affect any decisions taken.

F.1.1.3 The employer shall not seek and the tenderer shall not submit a tender without having a firm intention and the capacity to proceed with the contract.

F.1.2 Tender Documents

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

F.1.3 Interpretation

F.1.3.1 The **tender data** and additional requirements contained in the tender schedules that are included in the returnable documents are deemed to be part of these conditions of tender.

F.1.3.2 These conditions of tender, the **tender data** and tender schedules which are only required for tender evaluation purposes, shall not form part of any contract arising from the invitation to tender.

F.1.3.3 For the purposes of these conditions of tender, the following definitions apply:

- a) **conflict of interest** means any situation in which:
 - i) someone in a position of trust has competing professional or personal interests which make it difficult to fulfil his or her duties impartially;
 - ii) an individual or organisation is in a position to exploit a professional or official capacity in some way for their personal or corporate benefit; or
 - iii) incompatibility or contradictory interest exist between an employee and the organisation which employs that employee.
- b) **comparative offer** means the price after the factors of a non-firm price and all unconditional discounts it can be utilised to have been taken into consideration;

- c) **corrupt practice** means the offering, giving, receiving or soliciting of anything of value to influence the action of the employer or his staff or agents in the tender process; and
- d) **fraudulent practice** means the misrepresentation of the facts in order to influence the tender process or the award of a contract arising from a tender offer to the detriment of the employer, including collusive practices intended to establish prices at artificial levels.
- e) **organization** means a company, firm, enterprise, association or other legal entity, whether incorporated or not, or a public body.
- f) **Functionality (quality)** means the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs.

F.1.4 Communication and employer's agent

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

F.1.5 Cancellation and Re-Invitation of Tenders

F.1.5.1 The Employer may, prior to the award of the tender, cancel a tender if-

- a) due to changed circumstances, there is no longer a need for the services, works or goods requested; or
- b) funds are no longer available to cover the total envisaged expenditure; or
- c) no acceptable tenders are received.

F.1.5.2 The decision to cancel a tender must be published in the colleges website and in the media in which the original tender invitation was advertised.

F.1.6 Procurement procedures

F.1.6.1 General

A Contract will be awarded as per colleges procurement Policies & Procedures

F.1.6.2 Competitive negotiation procedure

F.1.6.2.1

Where the **tender data** requires that the competitive negotiation procedure is to be followed, tenderers shall submit tender offers in response to the proposed contract in the first round of submissions. Notwithstanding the requirements of F.3.4, the employer shall announce only the names of the tenderer's who make a submission. The requirements of F.3.8 relating to the material deviations or qualifications which affect the competitive position of tenderer's shall not apply.

F.1.6.2.2

All responsive tenderer's, or not less than three responsive tenderer's that are highest ranked in terms of the evaluation criteria stated in the **tender data**, shall be invited in each round to enter into competitive negotiations, based on the principle of equal treatment and keeping confidential the proposed solutions and associated information. Notwithstanding the provisions of F.2.17, the employer may request that tenders be clarified, specified and fine-tuned in order to improve a tenderer's competitive position provided that such clarification, specification, fine-tuning or additional information does not alter any fundamental aspects of the offers or impose substantial new requirements which restrict or distort competition or have a discriminatory effect.

F.1.6.2.3

At the conclusion of each round of negotiations, tenderer's shall be invited by the employer to make a fresh tender offer, based on the same evaluation criteria, with or without adjusted weightings. Tenderer's shall be advised when they are to submit their best and final offer.

F.1.6.2.4

The contract shall be awarded in accordance with the provisions of F.3.11 and F.3.13 after tenderer's have been requested to submit their best and final offer.

F.2 Tenderer's obligations

F.2.1 Eligibility

F.2.1.1 Submit a tender offer only if the tenderer satisfies the criteria stated in the **tender data** and the tenderer, or any of his principals, is not under any restriction to do business with employer.

F.2.1.2 Notify the employer of any proposed material change in the capabilities or formation of the tendering entity (or both) or any other criteria which formed part of the qualifying requirements used by the employer as the basis in a prior process to invite the tenderer to submit a tender offer and obtain the employer's written approval to do so prior to the closing time for tenders.

F.2.2 Cost of tendering

F.2.2.1 Accept that, unless otherwise stated in the **tender data**, the employer will not compensate the tenderer for any costs incurred in the preparation and submission of a tender offer, including the costs of any testing necessary to demonstrate that aspects of the offer complies with requirements.

F.2.3 Check documents

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

F.2.4 Confidentiality and copyright of documents

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

F.2.5 Reference documents

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

F.2.6 Acknowledge addenda

Acknowledge receipt of addenda to the tender documents, which the employer may issue, and if necessary apply for an extension to the closing time stated in the **tender data**, in order to take the addenda into account.

F.2.7 Clarification meeting

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

F.2.8 Seek clarification

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

F.2.9 Insurance

Be aware that insurance for this project is the responsibility of the tenderer/ contractor. The employer will not provide any insurance.

F.2.10 Pricing the tender offer

F.2.10.1 Include in the rates, prices, and the tendered total of the prices (if any) all duties, taxes (except Value Added Tax (VAT)), and other levies payable by the successful tenderer, such duties, taxes and levies being those applicable 14 days before the closing time stated in the **tender data**.

F.2.10.2 Show VAT payable by the employer separately as an addition to the tendered total of the prices.

F.2.10.3 Provide rates and prices that are fixed for the duration of the contract and not subject to adjustment except as provided for in the conditions of contract identified in the **contract data**.

F.2.10.4 State the rates and prices in Rand unless instructed otherwise in the **tender data**. The conditions of contract identified in the contract data may provide for part payment in other currencies.

F.2.11 Alterations to documents

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

F.2.12 Alternative tender offers

F.2.12.1 Unless otherwise stated in the **tender data**, submit alternative tender offers only if a main tender offer, strictly in accordance with all the requirements of the tender documents, is also submitted as well as a schedule that compares the requirements of the tender documents with the alternative requirements that are proposed.

F.2.12.2 Accept that an alternative tender offer may be based only on the criteria stated in the **tender data** or criteria otherwise acceptable to the employer.

F.2.13 Submitting a tender offer

- F.2.13.1 Submit one tender offer only, either as single tendering entity or as a member in a joint venture to provide the whole of the works, services or supply identified in the **contract data** and described in the **scope of works**, unless stated otherwise in the **tender data**.
- F.2.13.2 Return all returnable documents to the employer after completing them in their entirety, either electronically (if they were issued in electronic format) or by writing legibly in non-erasable ink.
- F.2.13.3 Submit the parts of the tender offer communicated on paper as an original plus the number of copies stated in the **tender data**, with an English translation of any documentation in a language other than English, and the parts communicated electronically in the same format as they were issued by the employer.
- F.2.13.4 Sign the original and all copies of the tender offer where required in terms of the **tender data**. The employer will hold all authorized signatories liable on behalf of the tenderer. Signatories for tenderer's proposing to contract as joint ventures shall state which of the signatories is the lead partner whom the employer shall hold liable for the purpose of the tender offer.
- F.2.13.5 Seal the original and THE Electronic copy of the tender offer in One package marking the packages as "ORIGINAL" and "ELECTRONIC COPY". The package shall state on the outside the employer's address and identification details stated in the **tender data**, as well as the tenderer's name and contact address.
- F.2.13.6 Where a two-envelope system is not required in terms of the **tender data**, place and seal the returnable documents listed in the tender data in an envelope marked "financial proposal" and place the remaining returnable documents in an envelope marked "technical proposal". Each envelope shall state on the outside the employer's address and identification details stated in the **tender data**, as well as the tenderer's name and contact address.
- F.2.13.7 Seal the original tender offer and copy packages together in an outer package that states on the outside only the employer's address and identification details as stated in the **tender data**.
- F.2.13.8 Accept that the employer will not assume any responsibility for the misplacement or premature opening of the tender offer if the outer package is not sealed and marked as stated.
- F.2.13.9 Accept that tender offers submitted by facsimile or e-mail will be rejected by the employer, unless stated otherwise in the **tender data**.

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

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

F.2.15 Closing time

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

F.2.16

Tender offer validity

- F.2.16.1** Hold the tender offer(s) valid for acceptance by the employer at any time during the validity period stated in the **tender data** after the closing time stated in the **tender data**.
- F.2.16.2** If requested by the employer, consider extending the validity period stated in the **tender data** for an agreed additional period with or without any conditions attached to such extension.
- F.2.16.3** Accept that a tender submission that has been submitted to the employer may only be withdrawn or substituted by giving the employer's agent written notice before the closing time for tenders that a tender is to be withdrawn or substituted.
- F.2.16.4** Where a tender submission is to be substituted, submit a substitute tender in accordance with the requirements of F.2.13 with the packages clearly marked as "SUBSTITUTE".

F.2.17 Clarification of tender offer after submission

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

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

F.2.18 Provide other material

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

F.2.19 Inspections, tests and analysis

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

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

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

F.2.21 Check final draft

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

F.2.22 Return of other tender documents

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

F.2.23 Certificates

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

F.3 The employer's undertakings

F.3.1 Respond to request from the tenderer

F.3.1.1 Unless otherwise stated in the **tender data**, respond to a request for clarification received up to five working days before the tender closing time stated in the **tender data** and notify all tenderer's who drew procurement documents.

F.3.1.2 Consider any request to make a material change in the capabilities or formation of the tendering entity (or both) or any other criteria which formed part of the qualifying requirements used to prequalify a tenderer to submit a tender offer in terms of a previous procurement process and deny any such request if as a consequence:

- a) an individual firm, or a joint venture as a whole, or any individual member of the joint venture fails to meet any of the collective or individual qualifying requirements;
- b) the new partners to a joint venture were not prequalified in the first instance, either as individual firms or as another joint venture; or
- c) in the opinion of the Employer, acceptance of the material change would compromise the outcome of the prequalification process.

F.3.2 Issue Addenda

If necessary, issue addenda that may amend or amplify the tender documents to each tenderer during the period from the date that tender documents are available until three days before the tender closing time stated in the **tender data**. If, as a result a tenderer applies for an extension to the closing time stated in the **tender data**, the Employer may grant such extension and, shall then notify all tenderer's who drew documents.

F.3.3 Return late tender offers

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

F.3.4 Opening of tender submissions

F.3.4.1 Unless the two-envelope system is to be followed, open valid tender submissions in the presence of tenderer's' agents who choose to attend at the time and place stated in the **tender data**. Tender submissions for which acceptable reasons for withdrawal have been submitted will not be opened.

F.3.4.2 Announce at the opening held immediately after the opening of tender submissions, at a venue indicated in the **tender data**, the name of each tenderer whose tender offer is opened and, where applicable, the total of his prices.

F.3.4.3 Make available the record outlined in F.3.4.2 to all interested persons upon request.

F.3.5 Two-envelope system

F.3.5.1 Where stated in the tender data that a two-envelope system is to be followed, open only the technical proposal of valid tenders in the presence of tenderer's' agents who choose to attend at the time and place stated in the **tender data** and announce the name of each tenderer whose technical proposal is opened.

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

F.3.6 Non-disclosure

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

F.3.7 Grounds for rejection and disqualification

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

F.3.8 Test for responsiveness

F.3.8.1 A responsive tender is one that conforms to all the terms, conditions, and specifications of the tender documents without material deviation or qualification. A material deviation or qualification is one which, in the Employer's opinion, would:

- a) detrimentally affect the scope, quality, or performance of the works, services or supply identified in the Scope of Work,
- b) significantly change the Employer's or the tenderer's risks and responsibilities under the contract, or
- c) affect the competitive position of other tenderer's presenting responsive tenders, if it were to be rectified.

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

F.3.9 Arithmetical errors, omissions and discrepancies

F.3.9.1 Check the highest ranked tender or tenderer with the highest number of tender evaluation points after the evaluation of tender offers in accordance with F.3.11 for:

- a) the gross misplacement of the decimal point in any unit rate;
- b) omissions made in completing the pricing schedule or bills of quantities; or
- c) arithmetic errors in:
 - i) line items totals resulting from the product of a unit rate and a quantity in bills of quantities or schedules of prices; or
 - ii) the summation of the prices.

F.3.9.2 The employer must correct the arithmetical errors in the following manner:

- a) Where there is a discrepancy between the amounts in words and amounts in figures, the amount in words shall govern.
- b) If bills of quantities or pricing schedules apply and there is an error in the line item total resulting from the product of the unit rate and the quantity, the line item total shall govern and the rate shall be corrected. Where there is an obviously gross misplacement of the decimal point in the unit rate, the line item total as quoted shall govern, and the unit rate shall be corrected.

- c) Where there is an error in the total of the prices either as a result of other corrections required by this checking process or in the tenderer's addition of prices, the total of the prices shall govern and the tenderer will be asked to revise selected item prices (and their rates if bills of quantities apply) to achieve the tendered total of the prices.

Consider the rejection of a tender offer if the tenderer does not correct or accept the correction of the arithmetical error in the manner described above.

F.3.10 Clarification of a tender offer

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

F.3.11 Evaluation of tender offers

F3.11.1 General

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

F.3.11.2 Method 1: Price and Preference

In the case of a price and preference:

- 1) Score tender evaluation points for price
- 2) Score points for BBBEE contribution
- 3) Add the points scored for price and BBBEE.

F.3.11.3 Method 2: Functionality, Price and Preference

In the case of a functionality, price and preference:

- 1) Score functionality, rejecting all tender offers that fail to achieve the minimum number of points for functionality as stated in the Tender Data.
- 2) No tender must be regarded as an acceptable tender if it fails to achieve the minimum qualifying score for functionality as indicated in the tender invitation.
- 3) Tenders that have achieved the minimum qualification score for functionality must be evaluated further in terms of the preference points system prescribed in paragraphs 4 and 5 below.

80/20 preference point system for acquisition of goods or services for Rand value equal to or above R30 000 and up to R50 million.

- 4) (a)(i) The following formula must be used to calculate the points out of 80 for price in respect of a tender with a Rand value equal to or above R30 000 and up to a Rand value of R50 million, inclusive of all applicable taxes:

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

where:

P_s = Points scored for comparative price of tender or offer under consideration;

P_t = Comparative price of tender or offer under consideration; and

P_{min} = Comparative price of lowest acceptable tender or offer.

(4)(a)(ii) An employer of state may apply the formula in paragraph (i) for price quotations with a value less than R30 000, if and when appropriate:

(4)(b) Subject to subparagraph(4)(c), points must be awarded to a tender for attaining the B-BBEE status level of contributor in accordance with the table below:

B-BBEE status level of contributor	Number of points
1	20
2	18
3	16
4	12
5	8
6	6
7	4
8	2
Non-compliant contributor	0

(4)(c) A maximum of 20 points may be allocated in accordance with subparagraph (4)(b)

(4)(d) The points scored by tender in respect of B-BBEE contribution contemplated in subparagraph (4) (b) must be added to the points scored for price as calculated in accordance with subparagraph (4)(a).

(4)(e) Subject to paragraph 4.3.8 the contract must be awarded to the tender who scores the highest total number of points.

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The 90/ 10 preference points system for acquisition of services, works or goods with a Rand value above R 50 million:

(5)(a) The following formula must be used to calculate the points for price in respect of tenders with a Rand value above R50 000 000 (all applicable taxes included):

$$P_s = 90 \left(1 - \frac{P_t - P_{min}}{P_{min}} \right)$$

where:

P_s = Points scored for comparative price of tender or offer under consideration;

P_t = Comparative price of tender or offer under consideration; and

P_{min} = Comparative price of lowest acceptable tender or offer.

(5)(b) Subject to subparagraph(5)(c), points must be awarded to a tender for attaining the B- BBEE status level of contributor in accordance with the table below:

B-BBEE status level of contributor	Number of points
1	10
2	9
3	8
4	5
5	4
6	3
7	2
8	1
Non-compliant contributor	0

(5)(c) A maximum of 10 points may be allocated in accordance with subparagraph (5)(b).

(5)(d) The points scored by tender in respect of B-BBEE contribution contemplated in subparagraph (5) (b) must be added to the points scored for price as calculated in accordance with subparagraph (5)(a).

(5)(e) Subject to paragraph 4.3.8 the contract must be awarded to the tender who scores the highest total number of points.

F.3.11.6 Decimal places

Score price, preference and functionality, as relevant, to two decimal places.

F.3.11.7 Scoring Price

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

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

where:

N_{FO} = the number of tender evaluation points awarded for price.

W_1 = the maximum possible number of tender evaluation points awarded for price as stated in the **tender data**.

A = a number calculated using either formulas and option described in Table F.1 as stated in the **tender data**.

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

Formula	Comparison aimed at achieving	Option 1 ^a	Option 2 ^a
1	Highest price or discount	$A = \left(1 + \frac{(P - P_m)}{P_m}\right)$	$A = \frac{P}{P_m}$
2	Lowest price or percentage commission / fee	$A = \left(1 - \frac{(P - P_m)}{P_m}\right)$	$A = \frac{P_m}{P}$
^a P_m is the comparative offer of the most favourable comparative offer. P is the comparative offer of the tender offer under consideration.			

F.3.12 Insurance provided by the employer

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

F.3.13 Acceptance of tender offer

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

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

F.3.14 Prepare contract documents

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

- addenda issued during the tender period,
- inclusion of some of the returnable documents, and

c) other revisions agreed between the employer and the successful tenderer.

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

F.3.15 Complete adjudicator's contract

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

F.3.16 Notice to unsuccessful tenderer's

F.3.16.1 Notify the successful tenderer of the employer's acceptance of his tender offer by completing and returning one copy of the form of offer and acceptance before the expiry of the validity period stated in the **tender data**, or agreed additional period.

F.3.16.2 After the successful tenderer has been notified of the employer's acceptance of the tender, notify other tenderer's that their tender offers have not been accepted.

F.3.17 Provide copies of the contracts

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

F.3.18 Provide written reasons for actions taken

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

PART T2: RETURNABLE DOCUMENTS

T2.1 Mandatory Returnable Schedules

Form 1	Tax Compliance Status pin issued by the SARS
Form 2	The Company Registration Documents and Shareholding Certificates
Form 3	CIDB Grading Certificate
Form 4	Letter of Good Standing from COIDA
Form 5	Letter Confirming Insurances
Form 6	Proof of Banking Details
Form 7	Company Profile
Form 8	Registration on the Central Suppliers Data Base
Form 9	SBD 4 – Declaration of Interests
Form 10	SDB 8 – Declaration of Bidders Past Supply Chain Management Practices
Form 11	SBD 9 – Certificate of Independent Bid Determination
Form 12	Board Resolution Confirming Authority to Sign this Bid
Form 13	Authority to Sign for Joint Ventures (if applicable)
Form 14	Audited Financial Statements
Form 15	Schedule of Proposed Sub-Contractors (If Applicable)

T2.2 Returnable Schedules for Functionality Evaluation

Form 16	BBBEE Certificate
Form 17	Construction Programme
Form 18	Contract Management Structure
Form 19	Methodology
Form 20	Letter of Undertaking to Provide Surety
Form 21	Schedule of Experience and Verifiable References
Form 22	Certificate of Compulsory Site Briefing and Inspection

•



FORM 1

ATTACH – TAX COMPLIANCE STATUS AND PIN ISSUED BY SARS



FORM 2

ATTACH – COMPANY REGISTRATION DOCUMENTS AND SHARE HOLDING CERTIFICATES



FORM 3

ATTACH – CIDB GRADING CERTIFICATE



FORM 4

ATTACH – LETTER OF GOOD STANDING FROM COIDA



FORM 5

ATTACH – LETTER OF INTENT FROM AN INSURANCE COMPANY CONFIRMING THE FOLLOWING INSURANCES

1. Public Liability
2. Works Risk
3. SASRIA
4. Lateral Support



FORM 6

ATTACH – PROOF OF BANKING DETAILS



FORM 7

ATTACH – COMPANY PROFILE



FORM 8

REGISTRATION ON THE CENTRAL SUPPLIERS' DATA BASE

Provide a Registration Report from the National Treasury Central Supply Data Base not earlier than Two Weeks prior to the Tender Closing date.



FORM 9

SBD 4 – DECLARATION OF INTERESTS

Complete the attached SBD- 4 Declaration of Interests template.

SBD 4

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 **YES / NO**
the appropriate authority to undertake remunerative
work outside employment in the public sector?

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

(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 / **YES / NO**
trustees / shareholders / members or their spouses conduct
business with the state in the previous twelve months?

2.8.1 If so, furnish particulars:

.....

.....

.....

2.9 Do you, or any person connected with the bidder, have **YES / NO**
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?

2.9.1 If so, furnish particulars.

.....

.....

.....

2.10 Are you, or any person connected with the bidder, **YES/NO**

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?

2.10.1 If so, furnish particulars.

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

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

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



FORM 10

SBD 8 – DECLARATION OF BIDDER’S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

Complete the attached SBD- 8 - Declaration of Bidder’s Past Supply Chain Management Practices template.

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	Question	Yes	No
4.1	<p>Is the bidder or any of its directors listed on the National Treasury's Database of Restricted Suppliers as companies or persons prohibited from doing business with the public sector?</p> <p>(Companies or persons who are listed on this Database were informed in writing of this restriction by the Accounting Officer/Authority of the institution that imposed the restriction after the <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> <input type="checkbox"/>	<p>No</p> <input type="checkbox"/>
4.1.1	If so, furnish particulars:		

4.2	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)? The Register for Tender Defaulters can be accessed on the National Treasury's website (www.treasury.gov.za) by clicking on its link at the bottom of the home page.	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.2.1	If so, furnish particulars:		
4.3	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?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
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



FORM 11

SBD 9 – CERTIFICATE OF INDEPENDENT BID DETERMINATION

Complete the attached SBD- 9 – Certificate of Independent Bid Determination template.

CERTIFICATE OF INDEPENDENT BID DETERMINATION

I, the undersigned, in submitting the accompanying bid:

(Bid Number and Description)

in response to the invitation for the bid made by:

(Name of Institution)

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

I certify, on behalf of: _____ that:

(Name of Bidder)

1. I have read and I understand the contents of this Certificate;
2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;
3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;
4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign the bid, on behalf of the bidder;
5. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:
 - (a) has been requested to submit a bid in response to this bid invitation;
 - (b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and
 - (c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder.

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

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.

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

Js914w 2



FORM 12

COMPLETE – BOARD RESOLUTIONS CONFIRMING AUTHORITY TO SIGN THIS TENDER

RESOLUTION TO SIGN ON BEHALF OF COMPANY

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

..... (legally correct full name
and registration number, if applicable, of the Enterprise) held at: (place)
on.....(date)

RESOLVED that:

1. The Enterprise submits a Tender to Ekurhuleni East TVET College in respect of the following:

..... Tender Reference Number:

(project description as per Tender Document)

2. *Mr/Mrs/Ms in *his/her capacity as:

.....(position)

And who will sign as follows: (Signature)

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

	Name	Capacity	Signature
1			
2			
3			
4			

Note:

1. *Delete which is not applicable
2. NB: This resolution must be signed by all the Directors / Members / Partners of the Tendering Enterprise.
3. Should the number of Directors / Members / Partners exceed the space available above, additional names and signatures must be supplied on a separate page.

Company Stamp

FORM 13

CERTIFICATE OF AUTHORITY FOR JOINT VENTURES (if applicable)

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	PERCENTAGE PARTICIPATION	ADDRESS	DULY AUTHORISED SIGNATORY
Lead Partner			Signature:
			Name:
CIDB registration no:			Designation:
Partner			Signature:
			Name:
CIDB registration no:			Designation:
Partner			Signature:
			Name:
CIDB registration no:			Designation:

FORM 14

**ATTACH – COPIES OF THE COMPANIES AUDITED FINANCIAL STATEMENTS FOR THE
LAST 3 YEARS FROM A REGISTERED AUDITING COMPANY**

FORM 15

COMPLETE – SCHEDULE OF PROPOSED SUB- CONTRACTORS (IF APPLICABLE)

Kindly indicate all sub-contractors to be engaged on the project.

I/We hereby notify you that it is my/our intention to employ the following Sub-Contractors for work in this contract.

	Name of Sub Contractor	Trade	BBBEE Level
1		Bulk Earthworks	
2		Electrical	
3		Airconditioning	
4		Fire Protection	
5		Lift Installations	
6		Structural Steel	
7		Roof Cladding	
8		Plumbing	
9		Aluminum Works	
10		Shopfitting / Joinery	

PART T2: RETURNABLE DOCUMENTS

T2.2 Returnable Schedules for Functionality Evaluation

Form 16	BBBEE Certificate
Form 17	Construction Programme
Form 18	Contract Management Structure
Form 19	Methodology
Form 20	Letter of Undertaking to Provide Surety
Form 21	Schedule of Experience and Verifiable References
Form 22	Certificate of Compulsory Site Briefing and Inspection



FORM 16

ATTACH – CERTIFIED COPY OF BBBEE CERTIFICATE

FORM 17

ATTACH – CONSTRUCTION PROGRAMME

The tenders is required to submit his construction programme in the form of a bar chart with suitably sub divided into sections / areas and activities of the works. The following key indicators must be shown.

- I. All milestone dates must be shown.
- II. All trades must be shown.
- III. Early Start and Early finish Dates must be shown
- IV. Last Start and Late finish dates must be show.
- V. The critical path must be shown.

FORM 18

CONTRACT MANAGEMENT STRUCTURE

Proposed Key Personnel

The Tenderer shall list below the key personnel whom he proposes to employ on the contract should his offer be accepted, both at his headquarters and on the site, together with their qualifications, experience and positions held.

LOCATION	DESIGNATION	NAME AND NATIONALITY OF PROPOSED CANDIDATE	SUMMARY OF QUALIFICATIONS & EXPERIENCE
HEAD OFFICE	Partner/director		
	Project manager		
	Other key staff (give designation)		
SITE OFFICE	Site Agent		
	Site Engineer		
	Construction Supervisor (Give Designation)		
	Other Key Staff (Give Designation)		
OTHER PROPOSED KEY PERSONEL	DESIGNATION	NAME	KEY QUALIFICATIONS & EXPERIENCE

OTHER PROPOSED KEY PERSONEL (continue)	DESIGNATION	NAME	KEY QUALIFICATIONS & EXPERIENCE

NOTE: Detailed Curriculum Vitae of proposed candidates are to be separately provided

FORM 19

METHOD STATEMENTS

The tenderer shall provide, detailed Method Statements for the execution of the complete scope of work. This must be based on a risk Assessment and must be in accordance with the SHE Plan.

Every item on the programme shall be accompanied by a Method Statement and every revision shall have a revised Method Statement.

The Tenderer is to provide a methodology statement, which is to include, but should not be limited to:

- Site establishment
- Health and Safety on Site
- Security of the Contractor's workforce
- Deliver and off-loading machinery
- Obtaining and storing of free issue materials
- Concrete, reinforcement & formwork
- Structural steel & steelwork
- Pre-mix / Rossond grout requirements
- Water, Electricity and compressed air requirements
- Environmental issues during site establishment, operations and decommissioning
- Site dis-establishment
- Other

Acceptance of the tender does not signify acceptance of such methods of construction and does not in any way relieve the Tenderer of any of his responsibilities for Providing the Works, and it shall not be used as a basis for claiming compensation where the proposed methods of construction do not comply with the requirements of construction and are not approved or subsequent to the award of the contract. The Contractor is to submit Method Statements for the complete construction of the building.

FORM 20

LETTER OF UNDERTAKING TO PROVIDE SURETY

The tenderer is required to submit with his application a letter of intent from either an insurance company duly registered in terms of the Short-Term Insurance Act of 1998 (Act 35 of 1998) or by a bank duly registered in terms of the Banks Act of 1990 (Act 94 of 1990) undertaking to provide the Surety in terms of Clause 11 of the JBCC (6.2) Contract Agreement. Refer to Pages 86-89, Clause C1.3 for a template for the Construction Guarantee.



FORM 21

SCHEDULE OF EXPERIENCE AND VERIFIABLE REFERENCES

Attach a schedule with the following information for 5 (Five) project in excess of R 40 million. Projects must be completed within the last 7 (Seven) years.

Project Name	Value of Project	Year Complete	Name of Client	Telephone	Email

FORM 22

CERTIFICATE OF ATTENDANCE OF SITE BRIEFING AND INSPECTION

We acknowledge that the purpose of the meeting was to acquaint ourselves with the site of the works and / or matters incidental to doing the work specified in the tender documents in order for us to take account of everything necessary when compiling our rates and prices included in the tender.

This is to certify that I/We, the undersigned, have examined the Site of the Works and have made myself/ourselves familiar with all the local conditions likely to influence the work and the cost thereof.

I/We further certify that I/We are satisfied with the description of the Works and understand the work to be done, as specified and implied, for the execution of the Contract.

COMPANY NAME OF CONTRACTOR _____

CONTRACTOR NAME & SURNAME _____

EMAIL ADDRESS _____

CONTACT NUMBER _____

Particulars of person(s) attending the meeting:

1) Name..... Signature.....

Capacity.....

Attendance of the above persons at the meeting is confirmed by the employer's representative/
engineer, namely:

Name..... Signature.....

Capacity..... Date & Time.....



PART C - CONTRACT

PART C1: AGREEMENT AND CONTRACT DATA

C1.1 Form of Offer and Acceptance

Offer

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

Enquiry No: EEC/T13/2022: THE CONSTRUCTION OF THE MEDIA CENTRE

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

By the representative of the Tenderer, deemed to be duly 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 OFFERED TOTAL OF THE PRICES INCLUSIVE OF VALUE ADDED TAX IS:

.....

.....Rand (in words);

R.....

.....(in figures)

This Offer may be accepted by the Employer by signing the Acceptance part of this Form of Offer and Acceptance and returning one copy of this document 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.

FOR AND ON BEHALF OF THE TENDERER:

NAME:

(in BLOCK letters)

CAPACITY:

(of authorized agent)

SIGNATURE:

(of authorized agent)

SIGNED

at

on

this

day

of

WITNESSES:

(Full name in BLOCK letters and
signature)

1. _____

2. _____

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 Agreement)
Part C2	Pricing Data
Part C3	Works Information
Part C4	Site Information
Part C5	Annexures

and drawings and documents (or parts thereof), which may be incorporated by reference into the above listed Parts 1 to 5 above.

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 Agreement. No amendments to or deviations from said documents are valid unless contained in this Schedule, which must be duly signed by the authorised representative(s) of both parties.

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

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

FOR AND ON BEHALF OF THE EMPLOYER:

NAME:

(in BLOCK letters)

CAPACITY:

(of authorized agent)

SIGNATURE:

(of authorized agent)

SIGNED at _____ on this _____ day of _____

WITNESSES:

(Full name in BLOCK letters and signature)

1. _____

2. _____

Schedule of Deviations

Notes:

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

1. Subject	.....
Details	.....

2 Subject	.....
Details	.....

3 Subject	.....
Details	.....

4 Subject	.....
Details	.....

5 Subject	.....
Details	.....

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

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

FOR AND ON BEHALF OF THE TENDERER:

NAME:

(in BLOCK letters)

CAPACITY:

(of authorized agent)

SIGNATURE:

(of authorized agent)

SIGNED at _____ on this _____ day of _____

WITNESSES:

(Full name in BLOCK letters and
signature)

1. _____
2. _____

FOR AND ON BEHALF OF THE EMPLOYER:

NAME:

(in BLOCK letters)

CAPACITY:

(of authorized agent)

SIGNATURE:

(of authorized agent)

SIGNED at _____ on this _____ day of _____

WITNESSES:

(Full name in BLOCK letters and
signature)

1. _____
2. _____

CONFIRMATION OF RECEIPT

The Tenderer, (now Contractor), identified in the Offer part of this Agreement hereby confirms receipt from the Employer, identified in the Acceptance part of this Agreement, of one fully completed original copy of this Agreement, including the Schedule of Deviations (if any) today:

FOR AND ON BEHALF OF THE TENDERER:

NAME:

(in BLOCK letters)

CAPACITY:

(of authorized agent)

SIGNATURE:

(of authorized agent)

SIGNED at

on this

day of

WITNESSES:

(Full name in BLOCK letters and
signature)

1.

2.

C.1.1.2 CONTRACT DATA

PART 1: DATA PROVIDED BY THE EMPLOYER

PART C1: AGREEMENT AND CONTRACT DATA

C1.3 Construction Guarantee

GUARANTOR DETAILS AND DEFINITIONS

Guarantor means	<hr/>		
Physical address	<hr/>		
Guarantor's signatory 1	<hr/>	Capacity	<hr/>
Guarantor's signatory 2	<hr/>	Capacity	<hr/>
Employer means	<hr/>		
Contractor means	<hr/>		
Principal Agent means	<hr/>		
Works means	<hr/>		
Site means	<hr/>		
Agreement means	The JBCC Series 2000 Principal Building Agreement		
Contract Sum means	the accepted amount inclusive of tax of	<div style="border: 1px solid black; width: 200px; height: 20px;"></div>	
Amount in words	<hr/>		
Guaranteed Sum means	the maximum aggregate amount of	<div style="border: 1px solid black; width: 200px; height: 20px;"></div>	
Amount in words	<hr/>		
Construction Guarantee	(Insert Variable or Fixed)	<div style="border: 1px solid black; width: 80px; height: 20px;"></div>	(Insert expiry date) <div style="border: 1px solid black; width: 100px; height: 20px;"></div>

AGREEMENT DETAILS

Sections: Total sections (No or n/a) Last section (No / Identification or n/a)

Principal Agent issues: Interim payment certificates, Final payment certificate, Practical completion certificate/s and Final completion certificate/s

1. VARIABLE CONSTRUCTION GUARANTEE

1.1 Where a variable Construction Guarantee in terms of the Agreement has been selected this 1.0 with 3.0 to 13.0 shall apply. The Guarantor's liability shall be limited to the diminishing amounts of the Guaranteed Sum as follows:

GUARANTOR'S LIABILITY

1.1.1 Maximum Guaranteed Sum (not exceeding 10% of the contract sum) in the amount of:

Amount in words:

PERIOD OF LIABILITY

From and including the date of issue of this Construction Guarantee and up to and including the date of the interim payment certificate certifying in excess of 50% of the contract sum

1.1.2 Reducing to the Guaranteed Sum (not exceeding 5% of the contract sum) in the amount of:

Amounts in words: _____

From and including the day after the date of the aforesaid interim payment certificate and up to and including the date of the only practical completion certificate or last practical completion certificate where there are sections.

1.1.3 Reducing to the Guaranteed Sum (not exceeding 4.0% of the contract sum) in the amount of:

Amounts in words: _____

From and including the day after the date of the applicable practical completion certificate and up to and including the date of the only final completion certificate or last final completion certificate where there are sections.

1.1.4 Reducing to the Guaranteed Sum (not exceeding 2.0% of the contract sum) in the amount of:

Amounts in words: _____

From and including the day after the date of the applicable final completion certificate and up to and including the date of the final payment certificate where payment is due to the Contractor, whereupon this Construction Guarantee shall expire. Where the final payment certificate reflects payment due to the Employer, this Construction Guarantee shall expire upon payment of the full amount certified.

1.2 For avoidance of doubt the Guarantor's liability limits set out in 1.1.1 to 1.1.4 shall apply in respect of any claim received by the Guarantor during the period in question.

2. FIXED CONSTRUCTION GUARANTEE

2.1 Where a fixed Construction Guarantee in terms of the Agreement has been selected this 2.0 with 3.0 to 13.0 shall apply. The Guarantor's liability shall be limited to the amount of the Guaranteed Sum as follows:

GUARANTOR'S LIABILITY

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

Amounts in words: _____

PERIOD OF LIABILITY

From and including the date of issue of this Construction Guarantee and up to and including the date of the only practical completion certificate or the last practical completion certificate where there are sections, upon which this Construction Guarantee shall expire.

3. The Guarantor hereby acknowledges that:

3.1 Any reference in this Guarantee to the Agreement is made for the purpose of convenience and shall not be construed as any intention whatsoever to create an accessory obligation or any intention whatsoever to create a suretyship.

3.2 Its obligation under this Guarantee is restricted to the payment of money.

4. Subject to the Guarantor's maximum liability referred to in 1.0 or 2.0, the Guarantor hereby undertakes to pay the Employer the sum certified upon receipt of the documents identified in 4.1 to 4.3:

4.1 A copy of a first written demand issued by the Employer to the Contractor stating that payment of a sum certified by the Principal Agent in an interim or final payment certificate has not been made in terms of the Agreement and failing

such payment within seven (7) calendar days, the Employer intends to call upon the Guarantor to make payment in terms of 4.2.

- 4.2 A first written demand issued by the Employer to the Guarantor at the Guarantor's physical address with a copy to the Contractor stating that a period of seven (7) calendar days has elapsed since the first written demand in terms of 4.1 and that the sum certified has still not been paid therefore the Employer calls up this Construction Guarantee and demands payment of the sum certified from the Guarantor.
- 4.3 A copy of the said payment certificate which entitles the Employer to receive payment in terms of the Agreement of the sum certified in 4.0.
5. Subject to the Guarantor's maximum liability referred to in 1.0 or 2.0, the Guarantor undertakes to pay the Employer the Guaranteed Sum or the full outstanding balance upon receipt of a first written demand from the Employer to the Guarantor at the Guarantor's physical address calling up this Construction Guarantee stating that:
 - 5.1 The Agreement has been cancelled due to the Contractor's default and that the Construction Guarantee is called up in terms of 5.0. The demand shall enclose a copy of the notice of cancellation; or
 - 5.2 A provisional sequestration or liquidation court order has been granted against the Contractor and that the Construction Guarantee is called up in terms of 5.0. The demand shall enclose a copy of the court order.
6. It is recorded that the aggregate amount of payments required to be made by the Guarantor in terms of 4.0 and 5.0 shall not exceed the Guarantor's maximum liability in terms of 1.0 or 2.0.
7. Where the Guarantor is a registered insurer and has made payment in terms of 5.0, the Employer shall upon the date of issue of the final payment certificate submit an expense account to the Guarantor showing how all monies received in terms of the Construction Guarantee have been expended and shall refund to the Guarantor any resulting surplus. All monies refunded to the Guarantor in terms of this Construction Guarantee shall bear interest at the prime overdraft rate of the Employer's bank compounded monthly and calculated from the date payment was made by the Guarantor to the Employer until the date of refund.
8. Payment by the Guarantor in terms of 4.0 or 5.0 shall be made within seven (7) calendar days upon receipt of the first written demand to the Guarantor.
9. The Employer shall have the absolute right to arrange his affairs with the Contractor in any manner which the Employer deems fit and the Guarantor shall not have the right to claim his release from this Construction Guarantee on account of any conduct alleged to the prejudicial to the Guarantor.
10. The Guarantor chooses the physical address as stated above for all purposes in connection herewith.
11. This Construction Guarantee is neither negotiable nor transferable and shall expire in terms of either 1.1.4 or 2.1, or payment in full of the Guaranteed Sum or on the Guarantee expiry date, whichever is the earlier, where after no claims will be considered by the Guarantor. The original of this Construction Guarantee shall be returned to the Guarantor after it has expired.
12. This Construction Guarantee, with the required demand notices in terms of 4.0 or 5.0, shall be regarded as a liquid document for the purpose of obtaining a court order.
13. Where this Construction Guarantee is issued in the Republic of South Africa the Guarantor hereby consents in terms of Section 45 of the Magistrate's Courts Act No 32 of 1944, as amended, to the jurisdiction of the Magistrate's Court of any district having jurisdiction in terms of Section 28 of the said Act, notwithstanding that the amount of the claim may exceed the jurisdiction of the Magistrate's Court.



Signed at _____

Date _____

Guarantor's
Signatory 1 _____

Guarantor's
Signatory 2 _____

Witness _____

Witness _____

Guarantor's seal or stamp

PART C1: AGREEMENT AND CONTRACT DATA

C1.4 Occupational Health and Safety Agreement

THIS AGREEMENT between Ekurhuleni East TVET College (EEC) (hereinafter called "the Employer") on the one part, herein represented by:in his/her capacity as.....
and..... (hereinafter called "the Contractor") of the other part herein represented by
.....in his/her capacity as

WHEREAS the Employer is desirous that certain works be constructed, being **Enquiry No: EEC/T13/2022 - THE CONSTRUCTION OF THE WELLNESS CENTRE** and has accepted a tender by the Contractor for the construction, completion and maintenance of such works and whereas the Employer and the Contractor have agreed to certain arrangements and procedures to be followed in order to ensure compliance by the Contractor with the provisions of the Occupational Health and Safety Act 1993 (Act 85 of 1993).

NOW THEREFORE THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. The Contractor shall execute the work in accordance with the contract documents pertaining to this contract.
2. This Agreement shall hold good for the duration of construction, commencing from the handover of the site up to the end of the defects liability period.
3. Should the contract be terminated for any reason, this agreement shall lapse upon the date of termination.
4. The Contractor declares himself to be conversant with the following:
 - (a) All the requirements, regulations and standards of the Occupational Health and Safety Act (Act 85 of 1993), hereinafter referred to as "the Act", together with its amendments thereto.
 - (b) All the requirements of the Construction Regulations hereinafter referred to as the "Regulations", together with any amendments thereto.
 - (c) The Health and Safety Specification of the Employer as pertaining to the Contractor and to all his subcontractors.
5. In addition to the requirements of the contract, the Contractor agrees to execute all the works forming part of this contract and to operate and utilise all machinery, plant and equipment in accordance with the Act and the Regulations.
6. The Contractor is responsible for the compliance with the Act and the Regulations by all his subcontractors, whether or not selected or nominated and/or approved by the Employer.
7. The Contractor warrants that all his and his subcontractors' workmen are covered in terms of the Compensation for Occupational Injuries and Diseases Act 1993 which cover shall remain in force whilst any

such workmen are present on site. A letter of good standing from the Compensation Commissioner to this effect must be produced to the Employer upon signature of the agreement.
8. The Contractor undertakes to ensure that he and/or his subcontractors and/or their respective employees will at all times comply with the following conditions:
 - (a) The Contractor undertakes to comply with all provisions of the Act and its Regulations.

- (b) The Contractor will be obliged to report to the Employer on a regular basis regarding compliance by the Contractor with the Act and its Regulations.
- (c) All incidents referred to in the Occupational Health and Safety Act shall be reported by the Contractor to the Department of Labour as well as to the Employer. The Employer will further be provided with copies of all written documentation relating to any incident.
- (d) The Employer hereby records an interest in the issue of any formal enquiry conducted in terms of Section 32 of the Occupational Health and Safety Act into any incident involving the Contractor and/or his employees and/or his subcontractors.

In witness thereof the parties hereto have set their signatures hereon in the presence of the subscribing witnesses:

for and on behalf of the Contractor who warrants to be duly authorised to do so

Name: _____

Designation: _____

As witnesses:

1. _____

for and on behalf of the Employer who warrants to be duly authorised to do so

Name: _____

Designation: _____

As witnesses:

1. _____

PART C1: AGREEMENT AND CONTRACT DATA

C1.5 AGREEMENT IN TERMS OF SECTION 37(2) OF THE OCCUPATIONAL HEALTH AND SAFETY ACT NO. 85 OF 1993

THIS AGREEMENT is made between the Ekurhuleni East TVET College (EEC) represented by the(hereinafter called the EMPLOYER of the one part, herein represented by:

in his/her capacity as:

and:

(hereinafter called the CONTRACTOR) of the other part, herein represented by.....

in his/her capacity as:

duly authorised to sign on behalf of the Contractor.

WHEREAS the CONTRACTOR is the Mandatory of the EMPLOYER in consequence of an agreement between the CONTRACTOR and the EMPLOYER in respect of

Enquiry No: EEC/T13/2022: THE CONSTRUCTION OF THE MEDIA CENTRE

AND WHEREAS the EMPLOYER and the CONTRACTOR have agreed to enter into an agreement in terms of the provisions of Section 37(2) of the Occupational Health and Safety Act No 85 of 1993, as amended by OHSA Amendment Act No 181/1993 (hereinafter referred to as the ACT);

NOW THEREFORE the parties agree as follows:

1. The CONTRACTOR undertakes to acquaint the appropriate officials and employees of the CONTRACTOR with all relevant provisions of the ACT and the regulations promulgated in terms thereof.
2. The CONTRACTOR undertakes to fully comply with all relevant duties, obligations and prohibitions imposed in terms of the ACT and Regulations: Provided that should the EMPLOYER have prescribed certain arrangements and procedures that same shall be observed and adhered to by the CONTRACTOR, his officials and employees. The CONTRACTOR shall bear the onus of acquainting himself/herself/itself with such arrangements and procedures.
3. The CONTRACTOR hereby accepts sole liability for such due compliance with the relevant duties, obligations, prohibitions, arrangements and procedures, if any, imposed by the ACT and Regulations, and the CONTRACTOR expressly absolves the EMPLOYER and the Employer's CONSULTING ENGINEERS from being obliged to comply with any of the aforesaid duties, obligations, prohibitions, arrangements and procedures in respect of the work included in the contract.
4. The CONTRACTOR agrees that any duly authorised officials of the EMPLOYER shall be entitled, although not obliged, to take such steps as may be necessary to ensure that the CONTRACTOR has complied with his undertakings as more fully set out in paragraphs 1 and 2 above, which steps may include, but shall not be limited to, the right to inspect any appropriate site or premises occupied by the CONTRACTOR, or to take such steps it may deem necessary to remedy the default of the CONTRACTOR at the cost of the CONTRACTOR.
5. The CONTRACTOR shall be obliged to report forthwith to the EMPLOYER any investigation, complaint or criminal charge which may arise as a consequence of the provisions of the ACT and Regulations, pursuant to work performed in terms of this agreement, and shall, on written demand, provide full details in writing of such investigation, complaint or criminal charge.

Thus signed at for and on behalf of the **CONTRACTOR**

on this the day of 20.....

SIGNATURE: _____

NAME AND SURNAME: _____

CAPACITY: _____

WITNESS: _____

Thus signed at for and on behalf of the **EMPLOYER** on this

the day of 20.....

SIGNATURE: _____

NAME AND SURNAME: _____

CAPACITY: _____

WITNESS: _____

PART C2: PRICING DATA

C2.1 Pricing Instructions

1. The Bills of Quantities have been drawn up in accordance with the Standard System of Measuring Building Work (as amended) published and issued by the Association of South African Quantity Surveyors (Sixth Edition (Revised)), 1999. Where applicable the:
 - a) civil engineering work has been drawn up in accordance with the provisions of the latest edition of SABS 1200 Standardised Specifications for Civil Engineering Works.
 - b) mechanical work has been drawn up in accordance with the provisions of the Model Bills of Quantities for Refrigeration, Air-Conditioning and Ventilation Installations, published by the South African Association of Quantity Surveyors, July 1990).
 - c) electrical work has been drawn up in accordance with the provisions of the Model Bills of Quantities for Electrical Work, published by the South African Association of Quantity Surveyors, (July, 2005).
2. The agreement is based on the JBCC Series 2000 Principal Building Agreement, prepared by the Joint Building Contracts Committee, May 2018, Edition 6.2. The additions, deletions and alterations to the JBCC Principal Building Agreement are stated in the Preliminaries section of the Bills of Quantities as well as the contract specific variables are as stated in the Contract Data.
3. The ASAQS Preliminaries compiled by the Association of South African Quantity Surveyors, August 2010, are forming part of the overall Preliminaries Bill of Quantities and the preliminaries specific variables are stated within the Preliminaries Bills of Quantities.
4. Descriptions in the Bills of Quantities are abbreviated and comply generally with those in the "Model Preambles for Trades 2008".
5. Unless otherwise stated, items are measured net in accordance with the drawings and no allowance is made for waste.
6. The prices and rates to be inserted in the Bills of Quantities are to be the full inclusive for the work described under the several items. Such prices and rates shall cover all costs and expenses that may be required in and for the execution of the work described, and shall cover the cost of all general risks, liabilities and obligations set forth or implied in the documents on which the tender is based, as well as overhead charges and profit. Reasonable prices shall be inserted as these will be used as a basis for assessment of payment for additional work that may have to be carried out.
7. A price or rate is to be entered against each item in the Bills of Quantities, whether the quantities are stated or not. An item against which no price is entered will be considered to be covered by the other prices or rates in the Bills of Quantities.
8. Except where rates only are required, insert all amounts to be included in the total tendered price in the "amount" column and show the corresponding total tendered price.
9. It will be assumed that prices included in the Bills of Quantities are based on Acts, Ordinances, Regulations, By laws, International Standards and National Standards that were published 28 days before the closing date for tenders. (Refer to www.stanza.org.za or www.iso.org for information on standards).
10. The drawings listed in the Scope of Works used for the setting up these Bills of Quantities are kept by the quantity surveyor and can be viewed at any time during office hours up until the completion of the works.

11. Reference to any particular trademark, name, patent, design, type, specific origin or producer is purely to establish a standard for requirements. Products or articles of an equivalent standard may be substituted, subject to the Principal Agent's approval.
12. Where any item is not relevant to this specific contract, such item is marked N/A (signifying "not applicable")
13. The Contract Data and the standard form of contract referenced therein must be studied for the full extent and meaning of each and every clause set out in Section 1 (Preliminary and General) of the Bills of Quantities
14. The Bills of Quantities is not intended for the ordering of materials. Any ordering of materials, based on the Bills of Quantities, is at the Contractor's risk.
15. The amount of the Preliminary and General Section to be included in each monthly payment certificate shall be assessed as an amount prorated to the value of the work duly executed in the same ratio as the preliminaries bears to the total of prices excluding any contingency sum, the amount for the Preliminary and General Section and any amount in respect of contract price adjustment provided for in the contract.
16. Where the initial contract period is extended, the monthly charge shall be calculated on the basis as set out in 15 but taking into account the revised period for completing the works.
17. The amount or items of the Preliminary and General Section shall be adjusted to take account of the theoretical financial effect which changes in time or value (or both) have on this section. Such adjustments shall be based on adjustments in the following categories as recorded in the Bills of Quantities:
 - a) an amount which is not to be varied, namely Fixed (F)
 - b) an amount which is to be varied in proportion to the contract value, namely Value Related (V); and
 - c) an amount which is to be varied in proportion to the contract period as compared to the initial construction period excluding revisions to the construction period for which no adjustment to the contractor is not entitled to in terms of the contract, namely Time Related (T).
18. Where no provision is made in the Bills of Quantities to indicate which of the three categories in 17 apply or where no selection is made, the adjustments shall be based on the following breakdown:
 - a) 10 percent is Fixed;
 - b) 15 percent is Value Related
 - c) 75 percent is Time Related.
19. The adjustment of the Preliminary and General Section shall apply notwithstanding the actual employment of resources in the execution of the works. The contract value used for the adjustment of the Preliminary and General Section shall exclude any contingency sum, the amount for the Preliminary and General Section and any amount in respect of contract price adjustment provided for in the contract. Adjustments in respect of any staged or sectional completion shall be prorated to the value of each section.
20. The quantities of work as measured and accepted and certified for payment in accordance with the conditions of contract, and not the quantities stated in the Bill of Quantities, will be used to determine payments to the Contractor. The validity of the Contract shall in no way be affected by difference between the quantities in the Bill of Quantities and the quantities certified for payment. The Ordering of materials is not to be based on the Bill of Quantities, but only on information issued for construction purposes.
21. For the purposes of this Bill of Quantities, the following words shall have the meanings hereby assigned to them:
22. the

Unit	: The unit of measurement for each item of work as defined in the Standardized, Project or Particular Specifications
Quantity	: The number of units of work for each item
Rate	: The payment per unit of work at each which the Tenderer tenders to do the work
Amount	: The quantity of an item multiplied by the tendered rate of the (same) item

Sum : An amount tendered for an item, the extent of which is described in the Bill of Quantities, the Specifications or elsewhere, but of which the quantity of work is not measured in units

23. The units of measurements indicated in the bill of Quantities are metric units. The following abbreviations may appear in the Bill of Quantities:

mm	=	millimetre
m	=	metre
km	=	kilometre
km-pass	=	kilometre-pass
m ²	=	square metre
m ² -pass	=	square metre-pass
ha	=	hectare
m ³	=	cubic metre
m ³ -km	=	cubic metre-kilometre
kW	=	kilowatt
kN	=	kilonewton
kg	=	kilogram
t	=	ton (1 000 kg)
%	=	per cent
MN	=	meganewton
MN-m	=	meganewton-metre
PC Sum	=	Prime Cost Sum (Cost of material supplied excluding vat, profit and labour, but including transport and delivery costs)
Prov Sum	=	Provisional Sum

24. Occupational Health and Safety Act and Construction Regulations

A payment item in the Bill of Quantities has been made to allow the tenderers to price for compliance with OHSA and the Construction Regulations. This payment item, must also include for the erection of Visitors Indemnity Signs and for ensuring that visitors receive instructions and sign an indemnity declaration.

PART C2: PRICING DATA

C2.2 Bill of Quantities

PART C3: WORKS INFORMATION

1.1 Description of the Works

- 1.1.1 Employer's objectives
- 1.1.2 Overview of the works
- 1.1.3 Location of the works
- 1.1.4 Temporary works

1.2 Engineering

- 1.2.1 Design services and activity matrix
- 1.2.2 Employer's design
- 1.2.3 Design brief
- 1.2.4 Drawings
- 1.2.5 Design procedures

1.3 Procurement

- 1.3.1 Requirements
- 1.3.2 Subcontracting

1.4 Construction

- 1.4.1 Works specifications - General
- 1.4.2 Project Specific Information (PS1 – PS18)

1.5 Management

- 1.5.1 Management of the works

PART C3: WORKS INFORMATION

1.1 Description of the Works

1.1.1 Employer's objectives

The Ekurhuleni East TVET College requires the construction of a new Media Centre on the Springs campus.

1.1.2 Overview of the works

Refer to the tender data.

1.1.3 Location of the Works

Refer to the tender data.

1.1.4 Temporary Works

The contractor is to design, supply, construct, demolish and spoil at his own cost any temporary works required in order to carry out the construction works as required.

As the Works are to be constructed within a built up urban area, the Contractor will be required to carry out all temporary works that will be necessary to maintain the flow of traffic and to ensure that pedestrian and vehicular access is maintained to local residential buildings and businesses.

1.2 Engineering

1.2.1 Design Services & Activity Matrix

The following parties are responsible for the various design stages of the project.

DESCRIPTION	RESPONSIBLE
Concept, feasibility and overall process	Employers Agents / Professional Team
Basic Principal Agent and Preliminary Design	Employers Agents / Professional Team
Final design to approval for construction stage	Employers Agents / Professional Team
Temporary Works	Contractor
Preparation of as built drawings	Employers Agents / Professional Team / Contractor

1.2.2 Employers Design

All permanent works required for construction shall be designed by the employer and his appointed agents / professional team.

1.2.3 Design Brief

The Employer has briefed the consultants as to the design requirements.

1.2.4 Drawings

The drawings pertinent to this Project will be distributed electronically and are as per the drawing register appearing in the document. Contractors are to ensure that all drawings are as per the drawing register. The drawings included with the tender document are for information and tender purposes only. Detail construction drawings will be issued to the contractor at site handover and revisions thereto during the construction stage of the project.

The Contractor will be supplied with three (3) copies of each of the construction drawings. These copies will be issued free of charge and the contractor shall make any additional prints he may require at his own cost.

Only figured dimensions shall be used and drawings are not be scaled unless so instructed by the principal agent. The principal agent will supply any figured dimensions, which may have been omitted from the drawings.

All drawings and documents are to be considered the sole property of the Employer and are to be returned to them on completion of the Works. The drawings, etc., are to be used by the Contractor for the purpose of this Contract only. All drawings must be properly cared for, protected and kept in good condition.

Should any part or parts of the Drawings, Specifications or Bills of Quantities not be clearly intelligible to the Contractor, or the material or articles to be used in the execution of the Works be considered insufficiently described or the manner in which the work is to be carried out not be clear, the Contractor must obtain from the Principal Agent the necessary information to clarify such Drawings, Specification, Bills of Quantities or instructions which request shall be in writing.

The Contractor shall be held solely responsible for and shall, at his own expense, rectify any errors arising out of incorrect interpretation of the Drawings, Specifications, Bills of Quantities or instructions.

Upon receipt of detail drawings for any work, the Contractor shall, before putting that work in hand, ascertain that the dimensions given on the detail drawings correspond with the dimensions of any work already built and which governs the sizes of any work for which details are now issued.

In the event of the detail drawings not agreeing with the works already built, the discrepancy shall be brought to the Principal Agent's attention timeously and the detail drawings shall be returned at once for alterations.

All dimensions will be figured on the drawings or may be calculated from figured dimensions and are always to be followed. No dimensions shall be obtained by scaling.

1.2.5 Design Procedures

Where the Contractor is required to design any sub-contract or specialist works, the relevant professional indemnity must be taken out at the contractor's costs. All shop drawings must be issued timeously for approval by the Principal Agent. A late issue of shop drawings by the Contractor will not constitute a valid claim for extension of time.

1.3 Procurement

1.3.1 Requirements

The contractor shall be required to adopt labour-based techniques through the full spectrum of the works with the proviso that the Employer's specific objectives regarding TIME & QUALITY are in no way compromised. **Maximisation of employment shall be of the essence on this contract.**

Together with their tenders, all Tenderers are required to submit a comprehensive **implementation plan** clearly stating the labour content & number of jobs that shall be created.

The employment of labour shall be reflected in a programme in sufficient detail to enable the Project Manager to monitor & compare it with the implementation plan.

The Contractor shall be required to submit employment data on a monthly basis to the **Principal Agent**.

Tenderers are to also note that it is an explicit condition of this tender that all unskilled labourers on the project are to be employed from the local community. The Contractor shall in general, maximise the involvement of the local community.

1.4 Construction

1.4.1 Works specifications

GENERAL

Permission to Proceed	:	The <i>Contractor</i> shall not start or carry out any Site establishment or work of a temporary nature without having first obtained confirmation from the <i>Principal Agent</i> that they may proceed. All subsequent work must likewise be approved prior to commencing.
Co-ordination with the <i>Employer</i>	:	<p>The <i>Contractor</i> must take into account in the overall and detailed planning, the requirement for co-ordination with the <i>Employer</i>.</p> <p>No delays will be considered as a result of the <i>Contractor</i> not having sufficient resources at the workplace. Detailed information is required with the tender submission of how the <i>Contractor</i> proposes to mitigate any material supply and access problems.</p>
On Site Procedures	:	This document is included by reference only. Copies can be made available to the tenderers on request.
Accommodation	:	The <i>Contractor</i> shall be responsible for providing transport to and from the site and living accommodation for the <i>Contractor's</i> Monthly and Daily Paid personnel as this will not be provided by the <i>Employer</i> and the <i>Contractor</i> must include in his rates a rate for accommodation for all personnel. The <i>Contractor's</i> accommodation must comply with the local municipal requirements, and the <i>Contractor</i> shall indicate where the accommodation is situated. No housing provided by the <i>Contractor</i> will be permitted by the <i>Employer</i> if such housing is separated on racial grounds. If the <i>Employer</i> in any circumstance does provide accommodation for the <i>Contractor's</i> employees and or <i>Subcontractors</i> and or their employees, it will be charged to the <i>Contractor</i> at a rate agreed between the <i>Employer</i> and the <i>Contractor</i> prior to such action.
Safety Officer	:	The <i>Contractor</i> shall make available a Safety Officer (approved by the <i>Employer</i>) for 100% (One Hundred percent) of his time for the duration of the contract.
Medical Examination / Induction Course	:	The <i>Contractor</i> shall bear all costs of the medical examinations.
Recruitment of Labour	:	The tenderers are advised that under no circumstances will recruitment of any labour on or adjacent to the <i>Employer's</i> property be allowed.

Labour Disputes	: All labour disputes arising from the employment of labour by the <i>Contractor</i> or his Subcontractors will be the <i>Contractor's</i> responsibility. Any additional costs or time incurred as a result of such disputes will be for the <i>Contractor's</i> account and responsibility. The Contractor waives all rights and indemnifies the Employer from any claims arising out of such actions.
Existing Works and Protection thereof	: During the execution of the contract, the <i>Contractor</i> shall take due care, not to damage any existing structures, pipelines, services and Plant. Any damage to such shall be rectified to the original condition at the expense of the <i>Contractor</i> . When such existing structures, pipelines, services, Plant, etc. are likely to impede the <i>Contractor's</i> progress, relocation of the like may only be carried out under the express directions of the <i>Principal Agent</i> or his representative. Such likely delays are to be brought to the <i>Principal Agent's</i> notice as soon as it becomes evident. The <i>Contractor</i> warrants that the rates submitted, cover all costs relating to the protection of existing <i>works</i> as far as it pertains to the tie-in and blasting near these facilities.
Ownership and Risk	: The work supplied pursuant to the contract, shall become the property of the <i>Employer</i> when the work is incorporated into the <i>works</i> or delivered to the <i>Employer's</i> store. Notwithstanding the date on which any payment is made to the <i>Contractor</i> , the work shall become the property of the <i>Employer</i> , the risk of loss of or damage to such work shall remain with the <i>Contractor</i> until the <i>works</i> are taken over by the <i>Principal Agent</i> . In the event that the <i>Employer</i> provides free issue work to the <i>Contractor</i> for incorporation into the work, risk in such work shall be and remain with the <i>Contractor</i> until such times as the work is delivered to the point stated in the contract and accepted by the <i>Principal Agent</i> .

1.4.2 Project Specific Information

In the event of any discrepancy between a part or parts of the Standardized or Particular Specifications and the Project Specification, the Project Specification shall take precedence. In the event of a discrepancy between the Specifications, (including the Project Specifications) and the drawings and / or the Bill of Quantities, the discrepancy shall be resolved by the Principal Agent before the execution of the work under the relevant item.

PS 1 **GENERAL DESCRIPTION**

Ekurhuleni East TVET College, Sam Ngema Road, Kwa-Thema, Springs

PS 2 **LIST OF DRAWINGS**

A list of drawings applicable to this tender is included in this document, and a copy of each drawing is issued together with this document. (See Works Information - Drawing Register)

Tenderers are to note that these drawings are issued as a guide only and are for general information to give an indication of construction and assessment of the scale of work required. No guarantee is given or implied that the extent of and the types of construction details will be adhered to.

A set of construction drawings will be issued at the start of the contract or such later date as indicated on the construction programme.

PS 3 **DESCRIPTION OF SITE AND ACCESS**

The site is situated within the Ekurhuleni East TVET College Kwa-Thema Campus

PS 4 **NATURE OF GROUND AND SUBSOIL CONDITIONS**

A geotechnical report for this Site will be made available upon request.

PS 5 **PROGRAMME OF CONSTRUCTION**

PS 5.1 **Start/Completion Dates**

The tenderer's attention is drawn to the Contract Data, as included in this document.

On award of the contract, these dates together with any accepted alterations by the tenderer will become the Contract Programme and any subsequent construction programmes agreed during the post tender clarification phase are to be detailed within the Contract Programme.

The tenderer shall submit with his tender a programme sufficiently detailed to indicate the tenderer's ability to complete the *works* within the completion time requested herein. The programme shall be accompanied by detailed information, which reflects the placing of resources upon which his tender is based. Such information shall include details of specific items of plant and equipment and specific crews for individual disciplines.

For each section/area of the *works* this programme shall indicate the following:

1. Receipt of construction drawings. (This information must be clearly stated, in order to indicate lead times for all items)
2. Procurement of Plant and Materials. (This information must be clearly stated, in order to indicate lead times for all items)

3. Start and finish dates of construction for each of the disciplines of work within this contract
4. Access dates for other contractors where applicable

On completion and to the approval of the *Principal Agent* and in accordance with the *Employer's* procedure for handover of the *works*, the tenderer is to make provision for the *Employer* to take-up beneficial occupation at the earliest opportunity by making safe, clearing debris and moving out equipment.

Tenderers must allow for co-ordination with other contractors on site. Tenderers must take these factors into account in their overall and detailed planning.

PS 5.2 **Programmes Required**

5.2.1 Construction Programme

The Contractor shall submit to the Principal Agent for his approval, his detailed Level 3 construction programme (based on the project execution programme submitted with tender) suitably sub-divided into sections/areas and activities within each section/area of the works, within two (2) weeks after award of the Contract.

The Contractor shall submit to the Principal Agent for his approval, his detailed Level 4 construction programme (based on the Programme submitted with the tender) suitably sub-divided into sections/areas and activities within each section/areas of the works, within four (4) weeks after award of the Contract. This programme shall show all activities within the phases of engineering and design, material procurement, manufacturing and delivery, construction and commissioning, indicating all processes to be carried out in his own works, and by approved Subcontractors/Suppliers. The detailed programme shall be in the form of a logic network diagram with its resultant barchart. On approval by the Principal Agent this will become the Contractual Programme. During execution of the work, minor revisions (those not affecting key dates) to the contract programme may be carried out from time to time subject to mutual agreement. Major revisions (those affecting key dates) may only be carried out following an approved variation order.

Handover dates for all stages of the works must be clearly shown on the abovementioned programmes, as other disciplines will require access to the same sections/areas.

When construction drawings for sections/areas of the works are not available at commencement, the Contractor shall submit his programme for that section/area within one (1) week of the date of issue of working drawings for that section/area of the works.

DRAWINGS WILL BE ISSUED BY THE PRINCIPAL AGENT FROM THE SITE OFFICES AND NO OTHER SYSTEM WILL BE USED

- 5.2.2 The *Contractor* must have available on Site a suitably qualified planner for the duration of the contract once he has established site.
- 5.2.3 A PC with a recognised planning software package must be utilised by the tenderer for planning, updating and forecasting.

Recognised planning software to be used by the Contractor will be Microsoft Project 2000 format.
- 5.2.4 The Contractor's construction programme must include start and end dates for each section/area of the works and within these start and end dates reflect sufficient details as described in PS 5.
- 5.2.5 The Contractor must update his construction programme every four weeks and submit at the Site Construction Progress Meeting. The updated construction programme must indicate time allowed for training of new and transferred labour.

The Contractor's planner must agree the actual on site progress with the Contractor's Site

Construction Manager, or the person appointed by him to oversee the works, one day prior to the weekly project progress meeting. Data shall be transferred to the Principal Agent using Electronic Data Interchange (Email and/or CD) The Contractor shall also provide three (3) legible copies of all planning and progress documentation on a weekly basis. Maximum acceptable size of pages to be A3.

5.2.6 The construction programme and updates must conform to the following:

5.2.6.1 Information to be indicated on the plan:

- The plan, actuals and the forecasts must be indicated
- The time now must be shown
- Early Start and Early Finish Dates
- Late Start and Late Finish Dates
- Original Duration
- Percentage Progress (indicated as a figure e.g. 25% and as a progress bar)
- Remaining Duration
- Total Float
- Actual Finish Date (once the activity is complete)

5.2.6.2 The construction programme must be signed by the *Contractor's* contracts manager.

5.2.6.3 The key dates must be shown.

5.2.6.4 Any revisions or changes to the contract programme or the detailed programmes must be formally approved by the *Principal Agent* in writing.

5.2.7 It remains the *Contractor's* responsibility to complete the *works* according to the contractual completion dates and to improve, modify or extend the information contained in the programme when requested by the *Principal Agent*.

PS 5.3 **Drawing Issue and Approval Lead Times**

The *Employer* undertakes, in normal circumstances and unless otherwise agreed upon in writing to issue drawings within the times indicated below, with the understanding that the lead times as stated shall be applicable to individual elements/activities indicated in the programme referred to PS 5.2.1 above, and with the drawings to be issued to the *Contractor* within the stated times before the programmed commencement date applicable to the activity or element of the *works*.

Drawings will be issued to the *Contractor* within **1 (one) week** before programmed commencement date of activity or element of work.

PS 6 **SITE FACILITIES AVAILABLE**

PS 6.1 **Potable Water and Water for the Works**

PS 6.1.1 **Potable Water and Water for the Works**

No potable water will be made available from the Employer. The Contractor shall make his own arrangements for all water provisions and reticulation as might be required in order to have adequate and approved supply.

PS 6.2 **Electric Power and Compressed Air for the Works**

PS 6.2.1 **General**

The Contractor shall be responsible for all temporary connections and reticulations including the observance of the Employer's and Municipal safety regulations.

The Contractor shall bear all costs in connection therewith including removal and making good in all trades on completion of the Works.

PS 6.2.2 **Electric Power**

No electric power will be available from the Employer. The Contractor shall make his own arrangements for all electrical provisions and reticulation as might be required in order to have adequate and approved power supplies.

PS 6.2.3 **Compressed Air**

Compressed air for the Works will not be supplied by the Employer and the Contractor shall make his own arrangements for such requirements.

PS 6.3 **Laydown Areas**

PS 6.3.1 **Laydown Areas**

Areas for the *Contractor's* site establishment and laydown areas will be provided free of charge in positions to be agreed with the *Contractor*. The tenderer must take cognisance of the fact that other *Contractors* may also establish themselves in the same area at a later stage in the contract.

The successful *Contractor* will be required to submit a detailed plan indicating the Laydown Area and facilities provided (ablution facilities, stores, waste disposal, green areas, parking, etc.).

PS 6.4 **Cranage**

No cranage is available on Site from the Employer.

PS 6.5 **Location of Camp and Depot**

PS 6.5.1 **Construction Camp**

The Contractor shall not be permitted to erect a temporary construction camp for the housing of his labour adjacent to or on the Site of the Works and no camps are to be built on the Employers property. No form of accommodation whatsoever will be provided by the Employer for any of the Contractor's personnel. This will be the responsibility of the Contractor and must comply with the local authority regulations.

The Contractor must make provision for the transportation of labour to and from the Works by means of a bus, or similar approved vehicle, fitted with seatbelts for all passengers.

PS 6.6 **Temporary Offices, Sheds Etc.**

PS 6.6.1 **Office for the Use of the Principal Agent**

The Contractor shall provide, erect, maintain and remove on completion of the Contract, temporary offices which are required to be insulated, ventilated and have suitable electrical connections. These offices need to be suitable to accommodate and include 4No. workstations for the sole use of the Principal Agent's personnel.

PS 6.6.2 **Contractor's Offices, Sheds Etc.**

The Contractor shall provide, erect, maintain and remove on completion of the Contract, ample temporary offices and sheds for the proper storage of perishable materials and for the use of his personnel. The offices shall include a room of sufficient size for accommodating site meetings which shall have plan hanging facilities and a desk suitable for laying out A0 drawings.

PS 6.6.3 **Barricading of Works**

The Contractor will supply, erect and maintain sufficient temporary barricading and / or fencing as prescribed by the Principal Agent in order to comply with the Employer's safety standards and requirements.

PS 6.7 **Laboratory Facilities**

The Contractor shall make his own arrangements and provide all facilities for all testing required in accordance with the requirements of SANS 1200.

PS 6.8 **Sanitary Facilities**

The Contractor shall provide adequate and approved temporary ablution and latrine facilities for the specific use of the Principal Agent or his personnel and remove on completion of this Contract.

The Contractor shall provide adequate and approved temporary ablution and latrine facilities for his personnel on Site and remove on completion of this Contract.

No sewerage connection or reticulation will be available and the Contractor to provide, maintain and remove on completion all required temporary reticulation and sewerage storage for all facilities provided for own use and/or use by the Principal Agent as the case might be.

The Contractor to provide sufficient change house facilities for all personnel. Should these facilities not be situated on Site the Contractor must clearly indicate this during his Tender submission with details of where these facilities will be provided. Should the Contractor not state this clearly during his Tender submission it will be deemed that these facilities will be provided on Site.

PS 6.9 **Telephone Facilities**

No telephones for the specific use of the Principal Agent or his personnel are required. The Contractor shall make his own arrangements to obtain a telephone for his own use as well as the use of his personnel, Subcontractors, etc. on Site, pay all charges in connection therewith and remove on completion.

PS 6.10 **Housing for the Principal Agent and his Personnel**

No housing is required.

PS 6.11 **Parking Facilities for the Principal Agent and his Personnel**

No parking needs be provided.

PS 6.12 **Protective Clothing**

The Contractor shall comply with the Employer's Safety Regulations with regard to protective clothing. All male construction personnel will be required to wear one-piece overalls with

reflector stripes. Women construction personnel are permitted to wear two piece overalls.

The Contractor shall provide, keep on site and maintain protective clothing including hard hats, boots, waterproof overalls, gloves and harness safety belts for the specific use of his personnel, the Principal Agent, the Principal Agent's Representative and Professional team member.

PS 6.13 **Copy of SANS 1200 Series Standardized Specifications**

The Contractor shall provide the Principal Agent with a copy of the latest SANS 1200 Series Standardized Specification and O120 Code of Practice which will become the property of the Employer on completion of the Contract.

PS 7 **FEATURES REQUIRING SPECIAL ATTENTION**

PS 7.1 **Security**

PS 7.1.1 All security regulations set forth by the Employer shall be strictly adhered to and the Contractor shall make himself fully acquainted with all and any security conditions particularly with regard to personnel, material and equipment entering or leaving the property.

PS 7.1.2 The Contractor shall, if so required by the Employer at any time during the currency of the Contract, remove from the Works any employee engaged by him on the Works and shall provide suitable replacements.

Should the Employer disclose the reason for requesting such removal, all costs involved in such removal and replacement shall be borne by the Contractor.

Should the Employer not disclose the reason for requesting such removal, all costs involved in such removal shall be for the Employer's account.

Should an employee or employees employed by the Contractor be required to leave the site, the Contractor's obligations in terms of the Contract will in no way be altered.

PS 7.2 **Explosives for Blasting**

The Contractor shall supply all explosives necessary for the execution of the Works. The onus is on the Contractor to obtain a full inventory of the types of explosives, detonators, relays, etc. and the necessary regulations pertaining to their use together with sufficient notice to the Employer for application for exemption as which might be required.

The Contractor shall make the appropriate arrangements for all explosives to be stored at their own explosive magazine and only brought to site when required. The Contractor shall be responsible for the loading, transportation, off-loading and safe keeping of the explosives until used. The Contractor to acquaint himself fully of all the Employer's requirements applicable to loading transportation, off-loading and storage facilities as which might be applicable.

The Contractor shall provide the Principal Agent with a detailed blasting design and method statement before any blasting occurs.

PS 7.3 **Inspection of Contractor's Equipment**

All Contractor's Equipment shall be subject to the operational and safety regulations of the Employer and thereby subject to inspection and acceptance by the Employer's officials at all times.

PS 7.4 **Maintenance of Plant and Equipment**

The Contractor will only be allowed to do basic maintenance of Constructional Contractor's Equipment on Site subject to approval by the Employer. The Contractor will not be allowed to do major component changes to Contractor's Equipment. All maintenance must be done such that ISO 14001 requirements are met.

PS 7.5 **Existing Services and Structures**

Any damage caused by the Contractor to existing structures, roads, services, etc. shall be repaired to the satisfaction of the Principal Agent at the Contractor's expense. In this respect the Contractor shall immediately carry out essential repairs to any bridges, roads, fences, buildings and other structures damaged by him during the execution of the Works and shall maintain them until such time as final reinstatement and repairs are completed.

PS 7.5.1 **Care, Damage and Protection**

The Contractor shall establish the position of existing services and shall comply with the terms of Clause 5.4 of SANS 1200A.

Where necessary the position and existence of services shall be determined and exposed by hand.

PS 7.6 **Other Contractors and Right of Access to the Site**

It is anticipated that other Works will be carried out under separate Contracts on or adjacent to the Site. The Contractor shall allow in his rates and prices for giving access to the Site to such other Contractor/s and to provide such facilities that may be required, and to liaise with such other Contractor/s to avoid delays wherever possible.

The Employer's operating installations will remain in a state of continuous operation, and therefore services and access ways shall be maintained at all times by the Contractor. Cost incurred by the Employer due to non-compliance with the provisions of this Sub-Clause by the Contractor shall be for the account of and payable by the Contractor.

All Works causing an interruption of activities of the Employer's operating installations and/or the Works of other Contractors shall only be carried out by the Contractor following agreement with the Principal Agent as to the sequence and timing of such Works which activities shall be incorporated in the Programme. The onus is on the Contractor to highlight such events to the Employer giving the Employer sufficient time to make the necessary arrangements.

The Principal Agent and the Employer do not accept liability and will not entertain claims for disruption of access or for the working of abnormal hours which could reasonably have been foreseen.

PS 7.7 **Flood, Seepage, Stormwater and Free Water**

The Contractor shall accept all risks for water as affecting the Works during the construction period, whatever the source or cause may be including but not limited to rain, and shall properly deal with and dispose of all water to ensure the Works being kept sufficiently dry at all times for their proper execution. For this purpose he shall provide, operate and maintain in sufficient quantity such pumping equipment, well points, pipes and other equipment as may be necessary and shall also provide any sumps, furrows or other temporary works as may be necessary to adequately drain or keep dry the works for construction purposes, as well as to minimise damage, inconvenience, consequence or interference.

No claims of any nature whatsoever for delays or additional costs due to wet conditions will be

entertained.

PS 7.8 **Survey Beacons**

The Employer's Surveyor will hand over a bench mark to the Contractor who will then be responsible for all survey requirements to complete the Works.

PS 7.9 **Compliant with Legislation**

PS 7.9.1 Contractors shall be monitored against the following:

- 7.9.1.1 Compliance with all health, safety and labour legislation or such exemptions that may have been granted.
- 7.9.1.2 Their registration in terms of the Unemployment Insurance Act 30 of 1966 (the UIA Act).
- 7.9.1.3 Their registration in terms of the Compensation for Occupational Injuries and Diseases Act 130 of 1993 (COIDA) and/or the Occupational Diseases in Mines and Works Act 78 of 1973 (ODMWA).
- 7.9.1.4 Provision of proof that they are paying the required assessments and levies in terms of the COIDA and/or the ODMWA.
- 7.9.1.5 Compliance with the Occupational Health and Safety Act No. 85 of 1993 or as amended.
- 7.9.1.6 Proof that all personnel (permanent, contract, casual or any other as might be applicable) are covered in the case of death, have access to medical cover and receive retirement benefits or receive remuneration which enables them to make their own arrangements in this regard.

PS 7.10 **Samples and Certification of Materials**

Samples of Materials to be used upon the *works* shall, when required, be submitted at the *Contractor's* expense to the *Principal Agent* for approval before use. Such samples, once approved by the *Principal Agent*, shall be the governing standard for quality of all Materials.

Certificates of quality are to be supplied by the *Contractor* to the *Principal Agent* for all Materials used on the *works*. Any Material brought onto the *works* which, in the opinion of the *Principal Agent*, does not meet the standard of the sample so submitted or is considered by him in any way unsuitable for its designed purpose, shall be removed immediately once an instruction to that effect has been given.

PS 7.11 **Testing Authority and Quality Assurance**

An independent testing authority will be appointed by the *Principal Agent*. The opinion of the testing authority shall be final.

The cost of any testing authority specifically requested by the *Employer* shall be for the *Employer's* account except for any work found not to be up to standard or specification; these costs and the costs of all re-testing shall be for the *Contractor's* account.

PS 7.12 **Non-Payment of Plant or Materials not Fixed**

No payments will be certified for any Plant or Materials supplied by the *Contractor* or *Subcontractors* which are not completely installed.

PS 7.13 **Site Supervision**

During the execution of the contract *works* on the Site and until completion thereof, the *Contractor* shall keep on the Site as a minimum one competent senior representative (approved in writing, by the *Principal Agent*, which approval may be withdrawn at any time) who shall supervise the work, receive on behalf of the *Contractor* instructions from the *Principal Agent* and be responsible for the behaviour of the *Contractor's* employees.

The *Contractor's* representative shall keep and submit on a daily basis to the *Principal Agent's* representative daily diaries reflecting information such as manpower resources, Equipment, Plant and Materials on site, access matters, work performance for the day, any problems relating to the contract work and/or extra work.

Late submission of daily diaries to the *Principal Agent's* representative will not be tolerated, unless prior arrangements are made and agreed by him.

The submission of daily diaries and any problems related thereto are to be fully resolved with the *Principal Agent's* representative prior to the weekly construction progress meetings and fully reported on at those meetings.

The *Contractor* shall have on Site, as necessary, competent agents and foremen in charge of the work in progress. The *Principal Agent* will require details of past experience of agents and senior foremen to be submitted to him for approval before they take up position on the Site.

The *Contractor* shall carry out and maintain the contract *works* in strict accordance with the contract to the satisfaction of the *Principal Agent* and shall comply with and adhere strictly to the *Principal Agent's* instructions on any matter within the scope of the contract (whether mentioned in the contract or not) who may, in his absolute discretion and from time to time, issue further drawings, details and/or written instructions and/or directions and/or written acceptance.

PS 7.14 **Key Personnel**

The *Contractor* shall furnish the *Principal Agent* with a list of addresses and telephone numbers of key personnel in the *Contractor's* organisation who may be contacted in an emergency both during and outside office hours.

PS 7.15 **Nominated Suppliers - Take Delivery**

The words "take delivery" in the *bill of quantities* unless otherwise stated shall mean and include the taking delivery by the *Contractor* of the articles or goods, loading, unloading, taking into storage, hoisting (including all craneage), unpacking, examining to verify that the articles or goods are complete and undamaged, storing, the reporting thereon to those concerned and the giving of receipt of such articles or goods, uplifting, transporting on site and hoisting into position.

PS 7.16 **Site Meetings**

The *Principal Agent* or his appointed representative shall hold fortnightly, possibly weekly, construction progress meetings and keep and circulate minutes. The minutes of the meetings will be distributed to all the attendees. The minutes are for recording purposes only, and any action that is required to be taken by any of the attendees on matters arising at the meetings is to be expedited immediately and not after the minutes are published. Late receipt of minutes will not be accepted as a reason for non-action on behalf of all parties concerned. All *Contractors* will be required to sign acceptance of the weekly construction progress meeting minutes.

PS 7.17 **Certificates and Payments**

Measurement of completed work will be made monthly as a joint effort between *Contractor*, *Principal Agent's* representatives and the Quantity Surveyor, so that the certificate presented to the *Principal Agent* is the certificate agreed by such representative and Quantity Surveyor for that month.

The *Contractor* shall provide any reasonable assistance required by the *Principal Agent*, the *Employer* and other consultants as and when required by them including during the period of guarantees and/or warranty for any purpose in connection with the *works*.

PS 7.18 **Prices**

All Prices or rates inserted in these enquiry documents shall, unless otherwise stated, include for materials, duty, taxes, (excluding V.A.T. which shall be given as a single sum on the Final Summary page), making conveyance and delivery, unloading, storing, unpacking, hoisting, labour, setting, fittings and fixing in position, cutting and waste, patterns, models and templates, plant, temporary *works*, return of packings, establishment charges, profit and all other obligations arising from the *conditions of contract* and shall be quoted in Rand.

PS 7.19 **Guarantees**

The *Contractor* shall obtain written guarantees where called for, addressed to the *Employer*, from the firms supplying the materials or doing the work and deliver such guarantees to the *Principal Agent*.

The guarantees shall state that workmanship, materials and installation are guaranteed for the specified period reckoned from the date of practical completion of the *works* and that any defects in the workmanship, materials and installation that may arise during that period shall be made good at the expense of the firm doing the work upon written notice from the *Principal Agent* or the *Employer* to do so.

PS 7.20 **Claims for Injury or Damage**

The *Contractor* shall notify the *Principal Agent* immediately of the receipt by him of any claim for compensation in respect of any damage arising out of his execution of the contract and if, at the expiry of 90 days from the date of receipt of such claim the *Contractor* cannot satisfy the *Principal Agent* that the matter has been settled, the *Employer* reserves the right to have the claim investigated and adjudicated by the *Principal Agent* and to settle the claim where considered necessary, any costs incurred by the *Employer* thereby to be recovered from the *Contractor* by deduction from any monies due to the *Contractor*.

PS 7.21 **Use of Hazardous Materials**

The use of hazardous materials on site will only be allowed subject to the approval of the *Principal Agent* who shall be notified by the *Contractor* in writing of the proposed use of any such material, together with a method statement outlining the precautions to be taken in the storage, handling and use of the material.

PS 7.22 **Hospitalisation**

In the event of any of the *Contractor's* employees becoming ill or being injured on the *Employer's* property through any cause whatsoever, including assault, the *Employer* reserves the right to arrange for such medical, surgical and hospital services as he considers necessary, and the *Contractor* undertakes and agrees to pay all expenses thereby incurred.

Should any person in the *Contractor's* employ contract any illness or disease during the course of the contract, the *Contractor* is required to notify the *Employer* immediately and the *Employer* shall have the right to detain such person in hospital at the *Contractor's* expense.

PS 7.23 **Contract Staff Discipline**

The *Contractor* is totally responsible for the behaviour of his staff. Strict discipline is to be maintained at all times.

PS 7.24 **Safety Induction Course**

Each employee of the *Contractor* will be required to attend a Safety and Health Induction Course or courses, at a cost borne by the *Contractor*. All courses shall be by approval of the *Principal Agent*.

PS 7.25 **Medical Fitness**

All *Contractor's* employees will be required to attend an entry and exit medical examination by the *Employer's* approved medical practitioner prior to starting work on Site and an exit medical examination by an approved *Employer's* medical practitioner upon leaving. Failure to pass such examination may result in the removal of such person(s) from Site. The cost of such examinations shall be borne by the *Contractor*.

The *Contractor* shall ensure that all employees are contractually bound to undergo an exit medical on completion of their employment on the contract. Failure to provide the exit medicals may result in the withholding of the *Contractor's* final release of retention.

PS 7.26 **Environmental Guidelines**

The *Contractor* shall take all practical precautions to ensure that neither the *Contractor*, its agents or employees, nor the implementation, operation and maintenance of the contract, results in or is the cause of any harm to the immediate and surrounding environment or damage to property or harm to human health and wellbeing in and around the contract area

The *Contractor* shall report all environmental conditions and information to the responsible person as is required by law, and furthermore undertakes to keep all environmental conditions and information obtained by the *Contractor* or by any person employed by the *Contractor* in connection with the project confidential and shall not use or disclose any environmental conditions or environmental information without written consent.

PS 7.27 **Daily Diaries/Dayworks**

The *Contractor* shall furnish the *Principal Agent* with Daily Diaries and Dayworks.

PS 7.28 **Local Labour, Spend and Sub-contract procurement**

It is mandatory that the *Contractor* shall interact with the community via proactive project liaison and project participation by its leaders and constituted organisations and forums, as well as through the employment of its people, and these activities shall constitute essential facets of the project.

Tenderers are to also note that it is an explicit condition of this tender that all unskilled labourers on the project are to be employed from the local community. The *Contractor* shall in general, maximise the involvement of the local community.

The Contractor shall appoint a Community Liaison Officer (C.L.O.) (which shall be remunerated under the contract) who shall be in full time employ of the contract. The duties of the C.L.O. shall consist inter alia of the following:

- To be available on site daily between the hour of 07:00 and 16:00 and at other times as the need arises. His normal working day will extend from 07:00 in the morning until 16:00 in the afternoon.
- To communicate daily with regard to number and skills availability.
- To facilitate in labour disputes and to assist in their resolution.
- To attend all meetings in which the community and/or labour are present or are required to be represented.
- To attend all Site meetings to report on labour.
- To assist in the identification and screening of labourers from the community in accordance with the contractor's requirements.
- To advise and inform temporary labourers of their conditions of employment and to inform temporary labourers as early as possible when their period of employment will be terminated.
- To attend disciplinary proceedings to ensure that hearings are fair and reasonable.
- To keep a daily written record of his interviews and community liaison, labour force etc.
- To attend monthly site meetings and report in writing on labour and contract matters.
- Keeping a data base of available labour.
- All such other duties as agreed upon between all parties concerned.
- Compile a list of available skills in the area (skills audit).
- The contractor shall be responsible for checking the location of all existing services with the relevant authorities concerned to ensure that no services are damaged during construction. All damages of these services will be for the cost of the contractor.

PS 8 **PUBLICATIONS, ADVERTISING AND PHOTOGRAPHS**

The Contractor shall neither publish nor cause to be published any papers, articles or information regarding the Works nor permit any advertising mentioning the subject of this Contract and he shall not display or allow his Subcontractors to display any advertisements on the Site or elsewhere in connection with the Works without prior permission in writing of the Employer. The taking of photographs of the Works or any portion thereof is expressly forbidden except for progress photographs which may be taken with the written permission of the Principal Agent. The Contractor shall be responsible for the observance of this Clause by his employees and by the personnel of his Subcontractors.

PS 9 **TESTING AUTHORITY**

No testing authority will be appointed by the Employer but if in the opinion of the Principal Agent circumstances warrant it the Employer reserves the right to appoint a testing authority.

The costs of any testing authority specifically requested by the Employer shall be for the Employer's account except for any work found to be not up to standard or specification when these costs and the costs of all re-testing shall be for the Contractor's account.

PS 10 **LIQUID FUELS AND LUBRICANTS**

The Contractor shall supply all required liquid fuels and lubricants. Licensed fuels and lubricants will be stored by the Contractor in accordance with the Employer's rules and regulations and shall be ISO 14001 compliant. The onus is on the Contractor to familiarise himself with the storage requirements.

PS 11 **PUBLIC OR PRIVATE ROAD CROSSINGS**

The Contractor shall be responsible for the erection, placing and removal of all protective measures which may be necessary, and for ascertaining and complying with the requirements of the Employer or relevant authority.

PS 12 **ORDER AND INDENTS**

The Contractor shall ascertain if all Materials to be supplied by him can be obtained in South Africa and if not he shall take steps to import same so that the Works are not delayed. Delay in the Works owing to non-delivery of materials will not be considered a cause for delay in completing the Works.

PS 13 **RECORDS OF CONTRACTOR'S PERSONNEL AND EQUIPMENT**

The Contractor shall deliver to the Principal Agent, weekly in a format approved by the Principal Agent until the Time for Completion reports showing a minimum of the items listed below and/or other information as which might be requested by the Principal Agent:-

Records in respect of Contractor's Personnel

- a) Date of report.
- b) Days elapsed from the Commencement Date.
- c) Days left to the Time for Completion and/or Section as specified.
- d) Percentage of work completed.
- e) The number and class of Contractor's Personnel.
- f) Delays and information required.
- g) Signature of Contractor's Representative.

Records in respect of Contractor's Equipment

- a) Date of report.
- b) Days elapsed from the Commencement Date.
- c) Days left to the Time for Completion and/or Section as specified.
- d) Percentage of work completed.
- e) The type and number of all Contractor's Equipment.
- f) Bar chart of period of time on Site for all major items of Contractor's Equipment.
- g) Signature of Contractor's Representative.

PS 14 SECRECY

- PS 14.1 Technical information and other information whether written or oral which is communicated to the Contractor and that part of the documentation which is submitted by the Contractor and, at the time of submission, notified to the Principal Agent that such is not for publication, shall be treated as restricted information.
- PS 14.2 The Contractor shall not, without the previous written consent of the Employer, use, publish, or disclose to any person, nor cause nor permit any of his Subcontractors, servants or agents to use, publish, or disclose any restricted information as defined in PS 14.1 hereof, otherwise than for the performance of the Contract. The Contractor shall ensure that his Subcontractors, servants or agents comply with the provisions of this clause.
- PS 14.3 The Employer shall not, without the written consent of the Contractor, publish any restricted information, as defined in PS 14.1 hereof, received from the Contractor.
- PS 14.4 The rights and obligations in PS 14.2 and 14.3 hereof shall survive the termination of the Contract and shall continue in full force and effect for a period of ten years from the date on which the Works are taken over by the Employer.
- PS 14.5 Information which is already known to the recipient thereof and in respect of which the recipient has a free right of disposal at the date of receipt, or which is already public knowledge at the date of receipt by the recipient, or which becomes public knowledge thereafter otherwise than through default on the part of the recipient, his directors, officers or personnel, or thereto and free right of disposal thereof, shall not be regarded as restricted information and shall be excluded from the provisions of this Clause.
- PS 14.6 The Contractor, Contractor's Representatives and Personnel shall enter into a Confidentiality Agreement if called upon by the Employer to do so.

PS 15 WRITTEN METHODOLOGY

Contractor to supply a written methodology including appropriate sketches as part of documentation required. The methodology with sketches must indicate in long sections of the shaft, in different stages how the work is carried out.

PS 16 INCLEMENT WEATHER

Exceptionally inclement weather, shall only relate to weather with a degree of inclemency which is materially greater than or is, materially beyond the average inclemency recorded in the past five years and/or recorded in terms of available records or otherwise for the site or, for the area in which the site is situated for the period/s in question. Any revision of the date of projected completion, which may in terms of this clause be allowed for exceptionally inclement weather, shall be related only to those periods of exceptionally inclement weather by which the average period of time, during which exceptionally inclement weather is experienced

and/or recorded in the area in which the site is situated, is exceeded. The contractor is therefore to make allowances for normal vagaries of the weather.

It is the Contractor's responsibility to prove to the Employer that the Works was actually influenced by inclement weather when he submits any cost (labour and/or Contractor's Equipment) due to inclement weather. No extension of the Time for Completion of the Works will be considered for any consequential impact due to rain.

PS 17 **DOCUMENTATION AND TECHNICAL INFORMATION**

PS 17.1 **Documentation**

PS 17.1.1 **Documentation for Approval by the Principal Agent**

Documentation which is stipulated in the Contract as requiring the approval of the Principal Agent shall be submitted to the Principal Agent prior to the commencement. Within a reasonable time of receipt of such Documentation, the Principal Agent shall signify his approval thereof or the modifications required thereto. Such modifications shall be incorporated in the relevant Documentation by the Contractor and re-submitted to the Principal Agent without delay. Approval by the Principal Agent shall not relieve the Contractor from any responsibilities in terms of the Contract.

PS 17.1.2 **Documentation to be supplied to the Principal Agent prior to Taking-over of the Works**

Prior to the Taking-over of the Works, the Contractor shall supply to the Principal Agent documentation as required in terms of the Contract. Such documentation shall comprise but may not be limited to operating and maintenance instructions, certificates of compliance, maintenance and operations manuals and any other documentation as required in terms of PS 17.1.1 hereof.

PS 17.1.3 **Updating of "As-Built" Drawings and other Contractor's Documentation by Design Consultant**

The Contractor shall use the final revision of construction drawings to redline the deviations and submit these drawings to the Principal Agent for review. A final project drawing register must accompany the submission stating which drawings require back drafting. Once approved, the Contractor shall submit via the Principal Agent, the approved "redlined" drawings to the Design Consultant prior to the signing of the Taking-Over Certificate, who shall update and/or revise the construction drawings and relevant Documentation. In cases of no deviation, the final revision of the construction drawing shall remain.

PS 17.1.4 **Additional Documentation required by the Principal Agent**

Documentation submitted to the Principal Agent by the Contractor in terms of PS 17.1.1, 17.1.2 and PS17.1.3 hereof shall not be limited to the documentation stipulated in the Contract and the Principal Agent may from time to time during the progress of the Works, or prior to the completion of the Works, instruct the Contractor to submit for approval such additional Documentation as the Principal Agent may require.

PS 17.1.5 **Method of Presentation of Documentation**

The documentation referred to in PS 17.1.1, 17.1.2, 17.1.3 and PS 17.1.4 hereof shall be presented to the Principal Agent by the Contractor in the form and manner

required by the Principal Agent.

The documentation shall be submitted (on CD ROM) in the following formats (where applicable):-

17.1.5.1 Microsoft Word.

17.1.5.2 Microsoft Excel.

17.1.5.3 The Contractor shall consult with the Principal Agent for the approval to use either Primavera P6 or Microsoft Project for his programme.

17.1.5.4 Auto CAD 14.

PS 17.1.6 **Schedule of Documentation**

The Contractor shall maintain an up-to-date schedule of all documentation referred to in PS 17.1.1, 17.1.2, 17.1.3, and 17.1.4 hereof showing the status of all such documentation, which schedule shall be supplied to the Principal Agent by the Contractor at intervals stipulated by the Principal Agent in consultation with the Contractor.

PS 17.1.7 **Inspection of Documentation**

The Principal Agent shall have the right at all reasonable times to inspect the documentation at the premises of the Contractor or any Subcontractor.

PS 17.1.8 **Documentation to be the Property of the Employer**

All documentation shall become and remain the property of the Employer. Title to all intellectual property rights already owned by the Contractor and disclosed under the Contract shall remain vested in the Contractor. Title to all intellectual property developed specifically in the execution of the Contract shall pass to the Employer.

PS 17.1.9 **Errors in Documentation**

The Contractor shall be responsible for all discrepancies, errors, or omissions including faulty design and/or detailing in any of the documentation whether or not such documentation has been approved by the Principal Agent, provided that such discrepancies, errors, or omissions including faulty design and/or detailing are not due to discrepancies, errors or omissions in the Technical Information.

PS 17.1.10 **Retention on Documentation**

An additional retention amount, as stated in the Appendix to Tender, will be held until all the required documentation, redlined drawings, any certificates of compliance, maintenance and operational manuals, exit medicals and any further documentation as required by the Principal Agent, have been lodged.

PS 17.2 **Technical Information**

PS 17.2.1 **Provision and Ownership of Technical Information**

The Employer shall provide the Contractor with the technical information necessary to enable the Contractor to complete the Works. All technical information shall be and remains the property of the Employer and shall be handed over to the Principal Agent on demand. The provisions of PS 16 (Secrecy) hereof shall apply to the

technical information.

PS 17.2.2 **Errors or Discrepancies in Technical Information**

In the event of any omission or discrepancy occurring between the various parts of the technical information, the Contractor shall apply to the Principal Agent for a ruling, immediately such omission or discrepancy is apparent and shall be bound by such ruling.

PS 18 **APPLICABLE STANDARDIZED AND PARTICULAR SPECIFICATIONS**

PS 18.1 For the purpose of this Contract the Standardized Specifications and Code of Practice for Civil Engineering Construction as approved by the Council of the South African Bureau of Standards shall apply with the exception of SANS 1200 HC (Corrosion Protection of Structural Steelwork).

PS 18.2 In addition, the relevant sections of the Model Preambles for Trades (2008 Edition) as issued by the Association of South African Quantity Surveyors shall apply where specified in the Schedules of Quantities.

PS 18.3 In addition the following Particular Specifications shall apply:

PA - QAP 100 Issue 14 Quality requirements for critical and major products.

PS 18.4 For the purposes of this Contract the following Standardised Specifications shall apply:

CIVIL INFRASTRUCTURE PACKAGE

- 1200A - 1986 : General
- 1200C - 1982 : Site Clearance
- 1200D - 1990 : Earthworks
- 1200DB - 1989 : Earthworks (Pipe Trenches)
- 1200DM - 1981 : Earthworks (Roads, Subgrade)
- 1200L - 1983 : Medium - Pressure Pipelines
- 1200LB - 1983 : Bedding (Pipes)
- 1200LD - 1982 : Sewers
- 1200LE - 1982 : Stormwater Drainage
- 1200LF - 1983 : ERF Connections (Water)
- 1200ME - 1981 : Subbase
- 1200MF - 1981 : Base
- 1200MJ - 1984 : Segmented Paving
- 1200MK - 1983 : Kerbing and Channelling
- 1200MM - 1984 : Ancillary Roadworks

ELECTRICAL INSTALLATION

Standards		
Document No	Title	Year
SANS 10142-1	The wiring of premises Part 1: Low-voltage installations	2012
SANS IEC 61439-1	Low voltage switchgear and control gear assemblies - General rules	2012
SANS IEC 61439-2	Low voltage switchgear and control gear assemblies – Power switchgear and control gear assemblies	2011
SANS IEC 61439-3	Low-voltage switchgear and control gear assemblies - Part 3: Distribution boards intended to be operated by ordinary persons (DBO)	2012
SANS IEC 61439-4	Low-voltage switchgear and control gear assemblies - Part 4: Particular requirements for assemblies for construction sites (ACS)	2012
SANS IEC 61439-5	Low-voltage switchgear and control gear assemblies - Part 5: Assemblies for power distribution in public networks	2010
SANS 1507-1	Electric cables with extruded solid dielectric insulation for fixed installations (300/500 V to 1 900/3 300 V) Part 1: General	2007
SANS 1507-2	Electric cables with extruded solid dielectric insulation for fixed installations (300/500 V to 1 900/3 300 V) Part 2: Wiring cables	2015
SANS 10292	Earthing of low voltage distribution systems	2013
SANS 10313	Protection against lightning - Physical damage to structures and life hazard	2012
SANS IEC 62305-1	Protection against lightning - General principles	2011
SANS IEC 62305-2	Protection against lightning - Risk management	2011
SANS IEC 62305-3	Protection against lightning - Physical damage to structures and life hazard	2011
SANS IEC 62305-4	Protection against lightning - Electrical and electronic systems within structures	2011

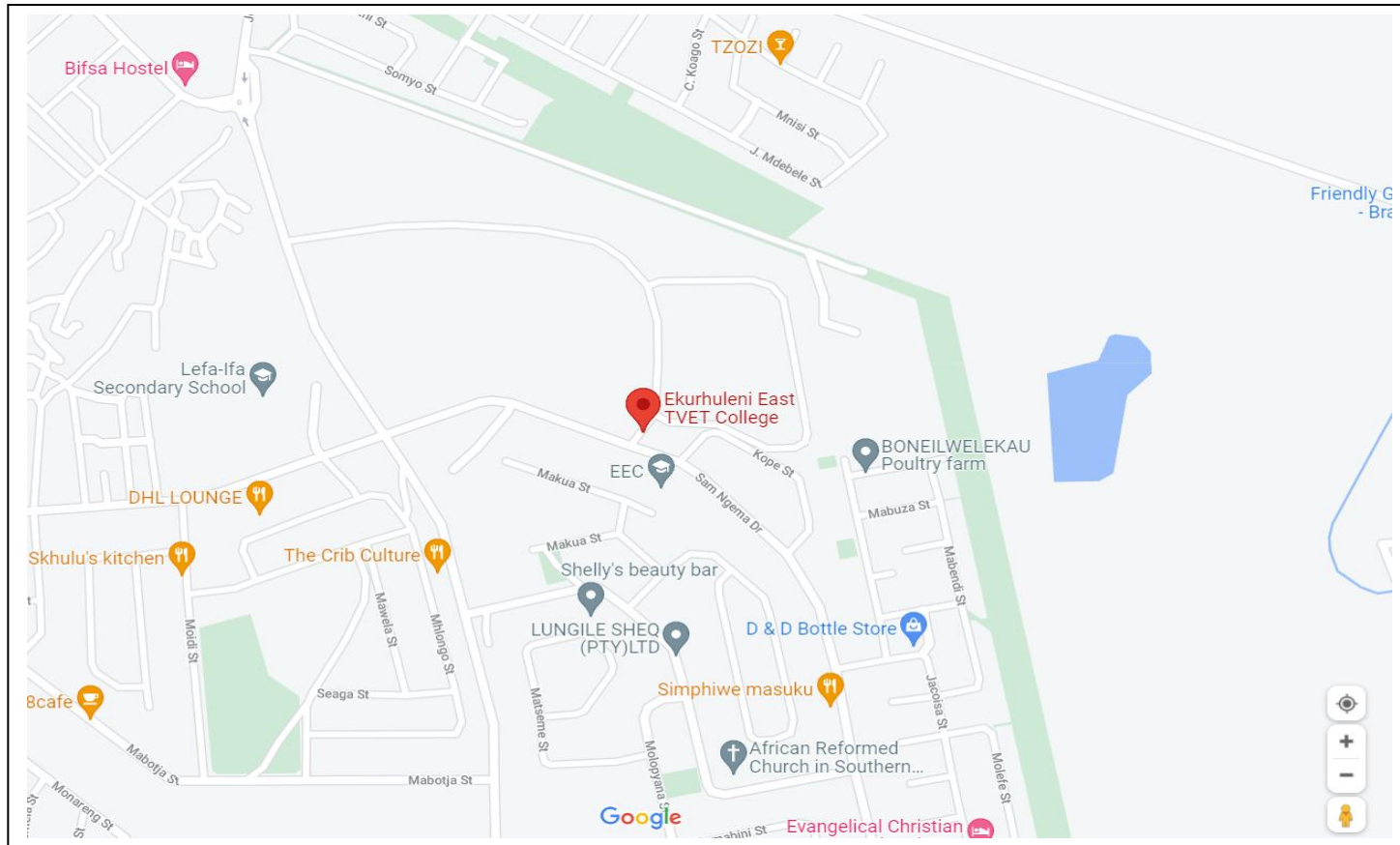
1.5 Management

1.5.1 Management of the Works

The Contractor is to provide suitably qualified and experienced personnel to manage the works. The Contractor will be expected to provide CV's of his proposed site management personnel for the Principal Agents review and approval.

Should the Principal Agent believe that the proposed site personnel not be sufficiently qualified and/or experienced to do the works, be this at CV review, or later into the contract, then the Contractor will be expected to replace this person/s, or provide additional persons to manage the works, and that this will be done at the Contractors own expense.

Should the Contractor fail to follow this instruction, then the Principal Agent will be entitled to place the Contractor on notice to rectify the situation in terms of the contract.



<p style="text-align: right;">Brought Forward</p> <p><u>PREAMBLES FOR TRADES</u></p> <p>The General Preambles for Trades 2017 published by the Association of South African Quantity Surveyors shall be deemed to be incorporated in these bills of quantities and no claims arising from brevity of description of items fully described in the said General Preambles will be entertained</p> <p>Supplementary preambles and/or specifications are incorporated in these bills of quantities to satisfy the requirements of this project. Such supplementary preambles and/or specifications shall take precedence over the provisions of the General Preambles</p> <p>The contractor's prices for all items throughout these bills of quantities shall take account of and include where applicable for all of the obligations, requirements and specifications given in the General Preambles and in any supplementary preambles and/or specifications</p> <p><u>STRUCTURE OF THIS PRELIMINARIES BILL</u></p> <p>Section A : A recital of the headings of the individual clauses in the aforementioned JBCC Principal Building Agreement</p> <p>Section B : A recital of the headings of the individual clauses in the aforementioned JBCC General Preliminaries</p> <p>Section C : Any special clauses to meet the particular circumstances of the project</p> <p><u>PRICING OF PRELIMINARIES</u></p> <p>Should the contractor select Option A in the contract data for the adjustment of preliminaries, the amounts entered against the relevant items in these preliminaries are to be divided into one or more of the three categories provided namely fixed (F), value related (V) and time related (T)</p> <p style="text-align: right;">Carried Forward</p> <p>Section No. 1 Bill No. 1 Preliminaries BILL OF QUANTITIES</p>	<p style="text-align: center;">R</p> <hr/> <p style="text-align: center;">R</p>
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	Brought Forward			R
	<u>SECTION A: PRINCIPAL BUILDING AGREEMENT</u>			
	<u>Interpretation (A1-A7)</u>			
1	<p>Clause 1.0 - Definitions and interpretation</p> <p>Pricing of bills of quantities</p> <p>The contractor is to allow opposite each item for all costs in connection therewith. All prices to include, unless otherwise stated, for all materials, fabrication, conveyance and delivery, unloading, storing, unpacking, hoisting, labour, setting, fitting and fixing in position, cutting and waste (except where to be measured in accordance with the standard system of measurement), patterns, models and templates, plant, temporary works, returning of packaging, duties, taxes (other than Value Added Tax), imposts, establishment charges, overheads, profit and all other obligations arising out of this agreement. Value Added Tax (VAT) is to be separately stated on the summary page of these bills of quantities</p> <p>Items left unpriced will be deemed to be covered in prices against other items throughout these bills of quantities and no claim for any extras arising out of the contractor's omission to price any item will be entertained</p> <p>Prices for all construction equipment, temporary works, services and other items shall include for the supply, maintenance, operating cost and subsequent removal and making good as necessary</p> <p>Abbreviated descriptions</p>			
2	<p>The items in these bills of quantities utilise abbreviated descriptions. It is the intention that the abbreviated descriptions be fully described when read with the applicable measuring system and the relevant preambles and/or specifications.</p>			
	Carried Forward			R
	<p>Section No. 1 Bill No. 1 Preliminaries BILL OF QUANTITIES</p>			

	Brought Forward		R	
	<p>However, should the full intent and meaning of any description not be clear, the contractor shall, before submission of his tender, call for a written directive from the principal agent, failing which it shall be assumed that the contractor has allowed in his pricing for materials and workmanship in terms of international best practice</p> <p>Legal status of contractor</p> <p>If the contractor constitutes a joint venture, consortium or other unincorporated grouping of two or more persons then:</p> <ol style="list-style-type: none"> 1. These persons are deemed to be jointly and severally liable to the employer for the performance of this agreement 2. These persons shall notify the employer of their leader who has assigned authority to bind the contractor and each of these persons 3. The contractor shall not alter its composition or legal status without the prior written consent of the employer <p>F:..... V:..... T:.....</p>			
3	<p>Clause 2.0 - Law, regulations and notices</p> <p>F:..... V:..... T:.....</p>	Item		
4	<p>Clause 3.0 - Offer and acceptance</p> <p>F:..... V:..... T:.....</p>	Item		
5	<p>Clause 4.0 - Cession and assignment</p> <p>F:..... V:..... T:.....</p>	Item		
	Carried Forward		R	
	<p>Section No. 1 Bill No. 1 Preliminaries BILL OF QUANTITIES</p>			

	Brought Forward		R	
6	<p>Clause 5.0 - Documents</p> <p>Value Added Tax</p> <p>Provision is made in the summary page of these bills of quantities for the inclusion of Value Added Tax (VAT)</p> <p>Electronic issue of drawings</p> <p>All drawings for this project will be issued electronically and the contractor shall be deemed to have received such drawings on the date that such drawings have been dispatched electronically [5.6]</p> <p>F:..... V:..... T:.....</p>	Item		
7	<p>Clause 6.0 - Employer's agents</p> <p>Delegated authority</p> <p>The authority of the principal agent to issue contract instructions [17.1] and perform duties for specific aspects of the works is delegated to agents as follows [6.2]. This does not preclude the principal agent from issuing such contract instructions:</p> <p>1. <u>Architect</u></p> <p>1.1 Duties [6.2] :</p> <p>The architect is responsible for the architectural design, functional design and quality inspection of the works</p> <p>1.2 Contract instructions [6.2; 17.1] :</p> <p>1.2.1 Rectification of discrepancies, errors in description or quantity or omission of items in the agreement other than in the JBCC Principal Building Agreement</p> <p>1.2.2 Alteration to design, standards or quantity of the works provided that such contract instructions shall not substantially change the scope of the works</p>			
	Carried Forward		R	
	<p>Section No. 1 Bill No. 1 Preliminaries BILL OF QUANTITIES</p>			

Brought Forward		R	
1.2.3	The site [13.0]		
1.2.4	Compliance with the law , regulations and bylaws [2.1]		
1.2.5	Provision and testing of samples of materials and goods and/or of finishes and assemblies of elements of the works		
1.2.6	Opening up of work for inspection, removal or re-execution [23.2.4; 26.4.2]		
1.2.7	Removal or re-execution of work		
1.2.8	Removal or substitution of any materials and goods		
1.2.9	Protection of the works		
1.2.10	Making good physical loss and repairing damage to the works [23.2.2]		
1.2.11	Rectification of defects [21.2]		
1.2.12	A list for practical completion specifying outstanding or defective work to be rectified to achieve practical completion , a list for completion and a list for final completion specifying outstanding or defective work to be rectified to achieve final completion		
1.2.13	Expenditure of budgetary allowances, prime cost amounts and provisional sums		
1.2.14	Appointment of a subcontractor [14.0; 15.0]		
1.2.15	Work by direct contractors [16.0]		
1.2.16	On suspension or termination, protection of the works , removal of construction equipment and surplus materials and goods [29.0]		
Carried Forward		R	
Section No. 1 Bill No. 1 Preliminaries BILL OF QUANTITIES			

Brought Forward	R
<p>2. <u>Quantity surveyor</u></p> <p>2.1 Duties [6.2] :</p> <p>The quantity surveyor is responsible for all measurements, valuations, financial assessments and all other quantity surveying and cost control functions of the works</p> <p>2.2 Contract instructions [6.2; 17.1] :</p> <p>2.2.1 No contract instructions delegated to the quantity surveyor</p> <p>3. <u>Civil and structural engineer</u></p> <p>3.1 Duties [6.2] :</p> <p>The civil and structural engineer is responsible for all aspects of civil and structural engineering design and quality inspection of the works</p> <p>3.2 Contract instructions [6.2; 17.1] :</p> <p>3.2.1 Rectification of discrepancies, errors in description or quantity or omission of items in the agreement other than in the JBCC Principal Building Agreement</p> <p>3.2.2 Alteration to design, standards or quantity of the works provided that such contract instructions shall not substantially change the scope of the works</p> <p>3.2.3 The site [13.0]</p> <p>3.2.4 Compliance with the law, regulations and bylaws [2.1]</p> <p>3.2.5 Provision and testing of samples of materials and goods and/or of finishes and assemblies of elements of the works</p> <p>3.2.6 Opening up of work for inspection, removal or re-execution [23.2.4; 26.4.2]</p>	
Carried Forward	R
<p>Section No. 1</p> <p>Bill No. 1</p> <p>Preliminaries</p> <p>BILL OF QUANTITIES</p>	

Brought Forward	R	
3.2.7 Removal or re-execution of work		
3.2.8 Removal or substitution of any materials and goods		
3.2.9 Protection of the works		
3.2.10 Making good physical loss and repairing damage to the works [23.2.2]		
3.2.11 Rectification of defects [21.2]		
3.2.12 A list for practical completion specifying outstanding or defective work to be rectified to achieve practical completion , a list for completion and a list for final completion specifying outstanding or defective work to be rectified to achieve final completion		
3.2.13 Expenditure of budgetary allowances, prime cost amounts and provisional sums		
4. <u>Mechanical engineer</u>		
4.1 Duties [6.2] :		
The mechanical engineer is responsible for all aspects of mechanical engineering design and quality inspection of the works and, where appointed by the employer for quantity surveying services in respect of the mechanical installations, for all measurements, valuations, financial assessments and all other quantity surveying and cost control functions		
4.2 Contract instructions [6.2; 17.1] :		
4.2.1 Rectification of discrepancies, errors in description or quantity or omission of items in the agreement other than in the JBCC Principal Building Agreement		
4.2.2 Alteration to design, standards or quantity of the works provided that such contract instructions shall not substantially change the scope of the works		
Carried Forward	R	
Section No. 1 Bill No. 1 Preliminaries BILL OF QUANTITIES		

<p style="text-align: right;">Brought Forward</p> <p>4.2.3 Compliance with the law, regulations and bylaws [2.1]</p> <p>4.2.4 Provision and testing of samples of materials and goods and/or of finishes and assemblies of elements of the works</p> <p>4.2.5 Opening up of work for inspection, removal or re-execution [23.2.4; 26.4.2]</p> <p>4.2.6 Removal or re-execution of work</p> <p>4.2.7 Removal or substitution of any materials and goods</p> <p>4.2.8 Protection of the works</p> <p>4.2.9 Making good physical loss and repairing damage to the works [23.2.2]</p> <p>4.2.10 Rectification of defects [21.2]</p> <p>4.2.11 A list for practical completion specifying outstanding or defective work to be rectified to achieve practical completion, a list for completion and a list for final completion specifying outstanding or defective work to be rectified to achieve final completion</p> <p>4.2.12 Expenditure of budgetary allowances, prime cost amounts and provisional sums</p> <p>5. <u>Electrical engineer</u></p> <p>5.1 Duties [6.2] :</p> <p>The electrical engineer is responsible for all aspects of electrical engineering design and quality inspection of the works and, where appointed by the employer for quantity surveying services in respect of the electrical installations, for all measurements, valuations, financial assessments and all other quantity surveying and cost control functions</p> <p style="text-align: right;">Carried Forward</p> <p>Section No. 1 Bill No. 1 Preliminaries BILL OF QUANTITIES</p>	<p style="text-align: center;">R</p> <hr/> <p style="text-align: center;">R</p>
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<p style="text-align: right;">Brought Forward</p> <p>5.2 Contract instructions [6.2; 17.1] :</p> <p>5.2.1 Rectification of discrepancies, errors in description or quantity or omission of items in the agreement other than in the JBCC Principal Building Agreement</p> <p>5.2.2 Alteration to design, standards or quantity of the works provided that such contract instructions shall not substantially change the scope of the works</p> <p>5.2.3 Compliance with the law, regulations and bylaws [2.1]</p> <p>5.2.4 Provision and testing of samples of materials and goods and/or of finishes and assemblies of elements of the works</p> <p>5.2.5 Opening up of work for inspection, removal or re-execution [23.2.4; 26.4.2]</p> <p>5.2.6 Removal or re-execution of work</p> <p>5.2.7 Removal or substitution of any materials and goods</p> <p>5.2.8 Protection of the works</p> <p>5.2.9 Making good physical loss and repairing damage to the works [23.2.2]</p> <p>5.2.10 Rectification of defects [21.2]</p> <p>5.2.11 A list for practical completion specifying outstanding or defective work to be rectified to achieve practical completion, a list for completion and a list for final completion specifying outstanding or defective work to be rectified to achieve final completion</p> <p>5.2.12 Expenditure of budgetary allowances, prime cost amounts and provisional sums</p> <p style="text-align: right;">Carried Forward</p> <p>Section No. 1 Bill No. 1 Preliminaries BILL OF QUANTITIES</p>	<p style="text-align: center;">R</p> <hr/> <p style="text-align: center;">R</p>
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	<p>6. <u>Health and safety consultant</u></p> <p>6.1 Duties [6.2] :</p> <p>The health and safety consultant is responsible for all aspects of health and safety of the works. Without derogating from the generality thereof, the health and safety consultant will perform the following specific functions and duties in respect of the health and safety aspects of the works. He shall:</p> <p>6.1.1 Act as the employer's agent in terms of the Construction Regulations issued in terms of the Occupational Health and Safety Act, 1993 as amended</p> <p>6.1.2 Prepare and update the health and safety specification for the works</p> <p>6.1.3 Agree with the contractor the health and safety plan for the works</p> <p>6.1.4 Carry out regular audits to ensure adherence to the safety plan and compliance with the act and regulations</p> <p>6.1.5 Stop the execution of the works where the agreed specification or plan is not adhered to</p> <p>F:..... V:..... T:.....</p>				
8	<p>Clause 7.0 - Design responsibility</p> <p>F:..... V:..... T:.....</p> <p><u>Insurances and securities (A8-A11)</u></p>				
9	<p>Clause 8.0 - Works risk</p> <p>F:..... V:..... T:.....</p>				
	Carried Forward			R	
	<p>Section No. 1 Bill No. 1 Preliminaries BILL OF QUANTITIES</p>				

	Brought Forward			R	
10	<p>Clause 9.0 - Indemnities</p> <p>F:..... V:..... T:.....</p>	Item			
11	<p>Clause 10.0 - Insurances</p> <p>F:..... V:..... T:.....</p>	Item			
12	<p>Clause 11.0 - Securities</p> <p>Guarantee for payment</p> <p>The employer will not provide a guarantee for payment in to the contractor [11.5.1]. The contractor shall consequently not waive his lien or right of continuing possession of the works [11.10]</p> <p>F:..... V:..... T:.....</p> <p><u>Execution (A12 - A17)</u></p>	Item			
13	<p>Clause 12.0 - Obligations of the parties</p> <p>Office accommodation</p> <p>The contractor shall provide, maintain and remove on practical completion air conditioned office accommodation with suitable tables and chairs for meetings to be held on the site. Such offices shall be kept clean and fit for use at all times [12.2.18]</p> <p>Notice board</p> <p>The contractor shall erect in a position approved by the principal agent, maintain and remove on practical completion a notice board recommended by the South African Institute of Architects and as approved by the principal agent listing the names and logos of the employer, the contractor and the professional consultants. No subcontractor or supplier notice boards may be erected unless permission is granted by the principal agent for such notice boards to be erected [12.2.18]</p>				
	Carried Forward			R	
	<p>Section No. 1 Bill No. 1 Preliminaries BILL OF QUANTITIES</p>				

	Brought Forward		R	
	<p>Statutory and other notices</p> <p>The contractor shall submit and/or comply with all statutory and other notices that may be required by any local or other authority in order not to cause any delay to the commencement of the works by the contractor. The contractor shall pay all deposits or fees in this regard</p> <p>It is, however, specifically recorded that the employer shall be responsible for the timeous approval of building plans by any local or other authorities and the payment of any fees or charges related thereto</p> <p>F:..... V:..... T:.....</p>			
14	<p>Clause 13.0 - Setting out</p> <p>F:..... V:..... T:.....</p>	Item		
15	<p>Clause 14.0 - Nominated subcontractors</p> <p>F:..... V:..... T:.....</p>	Item		
16	<p>Clause 15.0 - Selected subcontractors</p> <p>F:..... V:..... T:.....</p>	Item		
17	<p>Clause 16.0 - Direct contractors</p> <p>Attendance on direct contractors</p> <p>In respect of direct contractors the contractor shall:</p> <ol style="list-style-type: none"> 1. Designate an area for the direct contractor to establish a temporary office and workshop and storage of equipment and materials 2. Allow the use of personnel welfare facilities, where provided 			
	Carried Forward		R	
	<p>Section No. 1 Bill No. 1 Preliminaries BILL OF QUANTITIES</p>			

	Brought Forward		R	
	<p>3. Provide water, lighting and single phase electric power to a position within 50m of the place where the direct contract work is to be carried out, other than fuel or power for commissioning of any installation</p> <p>4. Permit the direct contractor to use erected scaffolding, hoisting facilities, etc provided by the contractor, in common with others having the like right, while it remains erected on the site [16.1]</p> <p>F:..... V:..... T:.....</p>	Item		
18	<p>Clause 17.0 - Contract instructions</p> <p>Site instructions</p> <p>Instructions issued on site are to be recorded in a site instruction book which is to be supplied and maintained on site by the contractor</p> <p>F:..... V:..... T:.....</p> <p><u>Completion (A18 - A24)</u></p>	Item		
19	Clause 18.0 - Interim completion	N/A		
20	<p>Clause 19.0 - Practical completion</p> <p>F:..... V:..... T:.....</p>	Item		
21	<p>Clause 20.0 - Completion in sections</p> <p>F:..... V:..... T:.....</p>	Item		
22	<p>Clause 21.0 - Defects liability period and final completion</p> <p>F:..... V:..... T:.....</p>	Item		
	Carried Forward		R	
	<p>Section No. 1 Bill No. 1 Preliminaries BILL OF QUANTITIES</p>			

**CONSTRUCTION OF THE MEDIA CENTRE
FOR EEC TVET COLLEGE**

	Brought Forward		R	
23	<p>Clause 22.0 - Latent defects liability period</p> <p>F:..... V:..... T:.....</p>	Item		
24	<p>Clause 23.0 - Revision of the date for practical completion</p> <p>Substitution of materials and goods</p> <p>The removal or substitution of any materials and goods which do not conform to the specification or the contract drawings shall not constitute grounds for the extension of the construction period nor for the adjustment of the contract value [17.1.8; 23.1 & 2]</p> <p>F:..... V:..... T:.....</p>	Item		
25	<p>Clause 24.0 - Penalty for late or non-completion</p> <p>Intended date of practical completion and the penalty per calender day for the works as a whole: TBA and R2 760.00 (Two Thousand, Seven Hundred and Sixty Rand) per calendar day</p> <p>Contract duration: 15 months</p> <p>F:..... V:..... T:.....</p> <p><u>Payment (A25 - A27)</u></p>	Item		
26	<p>Clause 25.0 - Payment</p>			
	Carried Forward		R	
	<p>Section No. 1 Bill No. 1 Preliminaries BILL OF QUANTITIES</p>			

	Brought Forward		R	
	<p>Prices submitted</p> <p>Where prices are submitted by the contractor or subcontractor during the progress of the works in respect of contract instructions or in regard to a claim under the terms of this agreement and notwithstanding the fact that such prices may be used in an interim payment certificate, there is to be no presumption of acceptance. Should the principal agent wish to accept any such prices prior to the issue of the certificate of final completion, it shall be in writing</p>			
27	<p>The employer shall pay the contractor the amount certified in an interim payment certificate within thirty (30) calendar days of the date for issue of the payment certificate.</p> <p>F:..... V:..... T:.....</p>	Item		
28	<p>Clause 26.0 - Adjustment of the contract value and final account</p> <p>Fluctuations in costs</p> <p>All fluctuations in costs, with the exception of fluctuations in the rate of Value Added Tax, shall be for the account of the contractor [26.9.5]</p> <p>Tenant installation/user requirements delayed</p> <p>There is a possibility that certain works related to tenant installation/user requirements may have to be delayed and may consequently not be executed prior to practical completion</p> <p>Should the contractor be instructed to do so he shall execute this work under the conditions pertaining to this agreement on the basis that a separate amount for preliminaries appurtenant to this work (if applicable) is agreed to between the contractor and the principal agent and on condition that instruction to proceed with such work is given to him within a period of three (3) calendar months after the date of practical completion of the works</p>			
	Carried Forward		R	
	<p>Section No. 1 Bill No. 1 Preliminaries BILL OF QUANTITIES</p>			

[illegible]

Brought Forward		R
32	<p><u>Dispute resolution (A30)</u></p> <p>Clause 30.0 - Dispute resolution</p> <p>F:..... V:..... T:.....</p>	Item
33	<p><u>Agreement</u></p> <p>The required information of the parties and the amount of the contract sum shall be inserted in the agreement for signature of the agreement by the parties</p> <p>F:..... V:..... T:.....</p>	Item
34	<p><u>Contract data</u></p> <p>Tenderer's selections</p> <p>Before submission of his tender the contractor is to complete the tenderer's selections in the contract data</p> <p>F:..... V:..... T:.....</p>	Item
Carried Forward		R
<p>Section No. 1 Bill No. 1 Preliminaries BILL OF QUANTITIES</p>		

	Brought Forward			R	
	<u>SECTION B: GENERAL PRELIMINARIES</u>				
	<u>Definitions and interpretation (B1)</u>				
35	Clause 1.1 - Definitions F:..... V:..... T:.....	Item			
36	Clause 1.2 - Interpretation F:..... V:..... T:.....	Item			
	<u>Documents (B2)</u>				
37	Clause 2.1 - Checking of documents F:..... V:..... T:.....	Item			
38	Clause 2.2 - Provisional bills of quantities Multiple procurement These bills of quantities are in multiple procurement format ie the "wet trades" - earthworks, concrete, formwork and reinforcement, precast concrete, masonry, waterproofing, sub-surface drainage, plastering, tiling, plumbing and drainage, paintwork - are provisionally measured and the subsequent trades are budgetary allowances and/or provisional sums F:..... V:..... T:.....	Item			
39	Clause 2.3 - Availability of construction information F:..... V:..... T:.....	Item			
40	Clause 2.4 - Ordering of materials and goods F:..... V:..... T:.....	Item			
	Carried Forward			R	
	Section No. 1 Bill No. 1 Preliminaries BILL OF QUANTITIES				

Brought Forward			R
<u>Previous work and adjoining properties (B3)</u>			
41	Clause 3.1 - Previous work - dimensional accuracy F:..... V:..... T:.....	Item	
42	Clause 3.2 - Previous work - defects F:..... V:..... T:.....	Item	
43	Clause 3.3 - Inspection of adjoining properties F:..... V:..... T:.....	Item	
<u>The site (B4)</u>			
44	Clause 4.1 - Handover of site in stages F:..... V:..... T:.....	Item	
45	Clause 4.2 - Enclosure of the works Special hoarding for protecting students, staff and public from works on the site F:..... V:..... T:.....	Item	
46	Clause 4.3 - Geotechnical and other investigations F:..... V:..... T:.....	Item	
47	Clause 4.4 - Encroachments F:..... V:..... T:.....	Item	
Carried Forward			R
Section No. 1 Bill No. 1 Preliminaries BILL OF QUANTITIES			

**CONSTRUCTION OF THE MEDIA CENTRE
FOR EEC TVET COLLEGE**

	Brought Forward			R	
48	<p>Clause 4.5 - Existing premises occupied</p> <p>The site is within an occupied college campus where teaching and learning will not be interrupted during the execution of works</p> <p>F:..... V:..... T:.....</p>	Item			
49	<p>Clause 4.6 - Services - known</p> <p>F:..... V:..... T:.....</p> <p><u>Management of contract (B5)</u></p>	Item			
50	<p>Clause 5.1 - Management of the works</p> <p>F:..... V:..... T:.....</p>	Item			
51	<p>Clause 5.2 - Progress meetings</p> <p>F:..... V:..... T:.....</p>	Item			
52	<p>Clause 5.3 - Technical meetings</p> <p>F:..... V:..... T:.....</p> <p><u>Samples, shop drawings and manufacturer's instructions (B6)</u></p>	Item			
53	<p>Clause 6.1 - Samples of materials</p> <p>F:..... V:..... T:.....</p>	Item			
54	<p>Clause 6.2 - Workmanship samples</p> <p>F:..... V:..... T:.....</p>	Item			
	Carried Forward			R	
	<p>Section No. 1 Bill No. 1 Preliminaries BILL OF QUANTITIES</p>				

**CONSTRUCTION OF THE MEDIA CENTRE
FOR EEC TVET COLLEGE**

	Brought Forward		R	
55	Clause 6.3 - Shop drawings F:..... V:..... T:.....	Item		
56	Clause 6.4 - Compliance with manufacturer's instructions F:..... V:..... T:.....	Item		
	<u>Deposits and fees (B7)</u>			
57	Clause 7.1 - Deposits and fees F:..... V:..... T:.....	Item		
	<u>Temporary services (B8)</u>			
58	Clause 8.1 - Water F:..... V:..... T:.....	Item		
59	Clause 8.2 - Electricity F:..... V:..... T:.....	Item		
60	Clause 8.3 - Ablution and welfare facilities F:..... V:..... T:.....	Item		
61	Clause 8.4 - Communication facilities F:..... V:..... T:.....	Item		
	<u>Prime cost amounts (B9)</u>			
62	Clause 9.1 - Responsibility for prime cost amounts F:..... V:..... T:.....	Item		
	Carried Forward		R	
	Section No. 1 Bill No. 1 Preliminaries BILL OF QUANTITIES			

	Brought Forward	R
	<u>Attendance on subcontractors (B10)</u>	
63	Clause 10.1 - General attendance F:..... V:..... T:.....	Item
64	Clause 10.2 - Special attendance F:..... V:..... T:.....	Item
	<u>General (B11)</u>	
65	Clause 11.1 - Protection of the works F:..... V:..... T:.....	Item
66	Clause 11.2 - Protection/isolation of existing works and works occupied in sections F:..... V:..... T:.....	Item
67	Clause 11.3 - Security of the works F:..... V:..... T:.....	Item
68	Clause 11.4 - Notice before covering work F:..... V:..... T:.....	Item
	Carried Forward	R
	Section No. 1 Bill No. 1 Preliminaries BILL OF QUANTITIES	

	Brought Forward		R	
69	<p>Clause 11.5 - Disturbance</p> <p>Disturbance</p> <p>All work is to be carried out in such a manner as to cause no unacceptable or unreasonable dust, noise, vibrations, nuisance, inconvenience, annoyance and the like to the operations of the college, public, others, other properties and traffic in so far as they exceed the permissible limitations set by government legislation or by the local authority. Any delays, stoppages and the like arising from or in order to comply with the above will not constitute grounds for an adjustment to the construction period or contract value whatsoever</p> <p>F:..... V:.....T:.....</p>	Item		
70	<p>Clause 11.6 - Environmental disturbance</p> <p>Controlling all forms of pollution</p> <p>The contractor shall be responsible for and take all precautions in controlling by whatever means necessary all forms of pollution emanating from the site during the construction period due inter alia to noise, artificial light, wind-blown sand, dust, deposits of mud, etc</p> <p>The contractor is to ensure that all roads which border the site and are used by the contractor during the execution of the works are kept clean and free of any dirt or debris caused by the execution of the works</p> <p>F:..... V:.....T:.....</p>	Item		
71	<p>Clause 11.7 - Works cleaning and clearing</p> <p>F:..... V:..... T:.....</p>	Item		
72	<p>Clause 11.8 - Vermin</p> <p>F:..... V:..... T:.....</p>	Item		
	Carried Forward		R	
	<p>Section No. 1 Bill No. 1 Preliminaries BILL OF QUANTITIES</p>			

CONSTRUCTION OF THE MEDIA CENTRE FOR EEC TVET COLLEGE

Brought Forward			R
73	Clause 11.9 - Overhand work F:..... V:..... T:.....	Item	
74	Clause 11.10 - Tenant installations F:..... V:..... T:.....	Item	
75	Clause 11.11 - Advertising F:..... V:..... T:.....	Item	
Carried Forward			R
Section No. 1 Bill No. 1 Preliminaries BILL OF QUANTITIES			

Brought Forward		R	
SECTION C: SPECIFIC PRELIMINARIES			
76	<p>Warranties for materials and workmanship</p> <p>Where warranties for materials and/or workmanship are called for, the contractor shall obtain a written warranty, addressed to the employer, from the entity supplying the materials and/or executing the work and shall deliver same to the principal agent on final completion of the contract</p> <p>The warranty shall state that workmanship, materials and installation are warranted for a specific period from the date of practical completion and that any defects that may arise during the specified period shall be made good at the expense of the entity supplying the materials and/or doing the work, upon written notice to do so</p> <p>The warranty will not be enforced if the work is damaged by defects in the execution of the works, in which case the responsibility for replacement shall rest entirely with the contractor</p> <p>F:..... V:..... T:.....</p>	Item	
77	<p>Overtime</p> <p>Should overtime be required to be worked for any reason whatsoever, the cost of such overtime is to be borne by the contractor unless the principal agent has specifically authorised, prior to execution thereof, that costs for such overtime are to be borne by the employer</p> <p>F:..... V:.....T:.....</p>	Item	
Carried Forward		R	
<p>Section No. 1 Bill No. 1 Preliminaries BILL OF QUANTITIES</p>			

	Brought Forward		R	
78	<p>Cooperation of the contractor for cost management</p> <p>It is specifically agreed that the contractor accepts the obligation of assisting the principal agent in implementing proper cost management. The contractor will be advised by the principal agent of all cost management procedures which will be implemented to ensure that the contract value does not exceed the budget</p> <p>F:..... V:.....T:.....</p>	Item		
79	<p>Overloading</p> <p>The contractor shall take all necessary steps to ensure that no damage occurs due to overloading of any portion of the works or temporary works eg scaffolding, etc. The contractor shall submit details of his proposed loading, storage, plant erection, etc to the principal agent for approval prior to proceeding with such loading, storing or erecting and shall comply with and pay for the principal agent's requirements in connection with the provision of temporary support work, etc. Any damage caused to the works by overloading shall be made good by the contractor at his sole expense</p> <p>F:..... V:.....T:.....</p>	Item		
80	<p>Propping of floors below</p> <p>The contractor is advised that propping of floors below may be required if he wishes to use any areas of completed suspended reinforced concrete slabs for vehicle access, storage of materials and goods and location of plant, scaffolding, etc. The location of these areas and any necessary propping shall be approved by the principal agent and the cost thereof shall be borne by the contractor</p> <p>F:..... V:.....T:.....</p>	Item		
	Carried Forward		R	
	<p>Section No. 1 Bill No. 1 Preliminaries BILL OF QUANTITIES</p>			

	Brought Forward		R
81	<p>Testing of flat roof waterproofing for watertightness</p> <p>Flat roof waterproof areas shall be flooded and kept "ponded" for at least forty eight (48) hours as a test to ensure the watertightness of the waterproofing and before any further construction work is carried out above the waterproofing</p> <p>F:..... V:..... T:.....</p> <p>Health and safety</p> <p>Without limiting the generality of the provisions of clause 2.0, the contractor's attention is drawn to the provisions of the Construction Regulations issued in terms of the Occupational Health and Safety Act, 1993 as amended. It is specifically stated that the employer shall prepare a documented health and safety specification for the works (refer to Section G, Part E for a copy of the relevant specification) and that the employer shall ensure that the contractor has made provision for the cost of health and safety measures during the execution of the works. The contractor shall price opposite this item for compliance with the act and the regulations and the provisions of the aforementioned health and safety specification [2.1]</p> <p>The contractor shall:</p> <ol style="list-style-type: none"> 1. Comply with the health and safety specification for the works 2. Prepare and agree with the health and safety consultant the health and safety plan for the works 3. Cooperate with the health and safety consultant in all respects 4. Manage the compliance of all subcontractors with the regulations and with the health and safety plan and specification 5. Conform to the conditions contained in the employer's health and safety specification <p>F:..... V:..... T:.....</p>	Item	
		Item	
	Carried Forward		R
	<p>Section No. 1 Bill No. 1 Preliminaries BILL OF QUANTITIES</p>		

	Brought Forward		R	
82	<p>Advertising rights</p> <p>The employer may elect to contract with advertising agencies for the erection of advertising hoardings, banners, wraps or the like for the duration of the contract. The contractor shall not prevent such an arrangement and will assist in the facilitation of same. The position and type of advertising structure to be agreed with the principal agent so as not to hinder the contractor in meeting his obligations under this agreement</p> <p>F:..... V:..... T:.....</p>	Item		
83	<p>Confidentiality</p> <p>The contractor undertakes to maintain in confidence any and all information regarding this project and shall obtain appropriate similar undertakings from all subcontractors and suppliers. Such information shall not be used in any way except in connection with the execution of the works</p> <p>No information regarding this project shall be published or disclosed without the prior written consent of the employer</p> <p>F:..... V:..... T:.....</p>	Item		
84	<p>Media releases</p> <p>All rights of publication of articles in the media, together with any advertising relating thereto or in any way connected with this project, shall vest with the employer</p> <p>The contractor together with his subcontractors shall not, without the prior written consent of the employer, cause any statement or advertisement connected with this project to be printed, screened or aired by the media</p> <p>F:..... V:..... T:.....</p>	Item		
	Carried Forward		R	
	<p>Section No. 1 Bill No. 1 Preliminaries BILL OF QUANTITIES</p>			

CONSTRUCTION OF THE MEDIA CENTRE FOR EEC TVET COLLEGE

	Brought Forward		R	
85	Community liaison officer Allow an amount of R180 000.00 (One Hundred and Eighty Thousand) for a CLO F:..... V:..... T:..... SUMMARY OF CATEGORIES Category : Fixed R..... Category : Value R..... Category : Time R.....	Item		
	Carried to Final Summary		R	
	Section No. 1 Bill No. 1 Preliminaries BILL OF QUANTITIES			

**CONSTRUCTION OF THE MEDIA CENTRE
FOR EEC TVET COLLEGE**

Item No		Quantity	Rate	Amount
	<u>SECTION No. 2</u>			
	<u>BILL No. 1</u>			
	<u>EARTHWORKS</u>			
	<u>PREAMBLES</u>			
	NOTE : Tenderers are advised to study the Association of South African Quantity Surveyors "General Preambles for Trades 2017" before pricing this bill.			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Nature of ground</u>			
	The nature of the ground is assumed to be gravel, therefore "earth", but possibly interspersed with "soft rock" or "hard rock"			
	<u>General earthworks and bulk excavation</u>			
	1. All construction, testing, tolerances and materials to be as per the SANS 1200 Series of Specifications			
	2. Degree of accuracy 2 shall apply to all earthworks dimensions, levels and setting out points			
	3. The principal agent shall be notified if the excavation or subgrade is in rock			
	4. All unsuitable materials ie roots, concrete pipes, old foundations, building rubble, etc shall be disposed of to a suitable dumping site to be located by the contractor			
	5. Suitable and approved materials shall be stockpiled separately as required for the works and later be reused as specified by the engineer			
	Carried Forward		R	
	Section No. 2 Bill No. 1 Earthworks BILL OF QUANTITIES			

<p style="text-align: center;">Brought Forward</p> <p>6. The contractor is to use only approved fill material, where appropriate, as specified by the engineer</p> <p>7. The contractor is to identify and expose, where relevant, all underground services on site and he is to liaise with all relevant authorities for the location and protection of these services</p> <p>8. All backfilling is to be in 150mm layers to 93%-95% at a moisture content at or in excess of the Mod AASHTO optimum to required levels</p> <p>9. Setting out points shall be established by a registered land surveyor employed by the contractor</p> <p>10. The contractor is to confirm positions of boundary pegs with the land surveyor employed by the employer, before excavation commences</p> <p>11. In the case where the benchmark or any other beacon is disturbed by the contractor it shall be replaced by a registered land surveyor at the cost of the contractor</p> <p>12. The contractor shall timeously submit field and laboratory test results of relative compaction densities, CBR indicator tests or any other test results, as required, to the principal agent. The contractor shall employ a commercial laboratory to perform all required tests at frequencies to be specified by the principal agent</p> <p><u>Carting away of excavated material</u></p> <p>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</p> <p style="text-align: center;">Carried Forward</p> <p>Section No. 2 Bill No. 1 Earthworks BILL OF QUANTITIES</p>	<p style="text-align: center;">R</p> <hr/> <p style="text-align: center;">R</p>
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**CONSTRUCTION OF THE MEDIA CENTRE
FOR EEC TVET COLLEGE**

Brought Forward				R
<u>Filling</u>				
Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 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				
<u>Testing</u>				
Prices for filling are to include for all necessary density tests in accordance with SABS 1200D				
<u>Classification of excavated material</u>				
Filling over site shall be spread, levelled, watered and consolidated in layers not exceeding 300mm				
Filling under floors and backfilling to excavations shall be suitable inert material, free from clay, vegetable matter, large stones, etc., having a maximum plasticity index of 10, spread, levelled and compacted to a density of 93% Mod. AASHTO				
<u>GENERAL NOTES TO TENDERERS</u>				
General notes, described in Bill No.1, shall equally apply to this Bill.				
<u>EXCAVATION OTHER THAN BULK, ETC</u>				
<u>Excavation in earth not exceeding 2m deep</u>				
1	Bulk excavations, to create platforms	m3	323	
2	Trenches	m3	68	
3	Holes	m3	5	
4	Lift pit	m3	11	
Carried Forward				R
Section No. 2				
Bill No. 1				
Earthworks				
BILL OF QUANTITIES				

**CONSTRUCTION OF THE MEDIA CENTRE
FOR EEC TVET COLLEGE**

Brought Forward			R
	<u>Back excavation of vertical sides of excavation in earth for working space including backfilling compacted to 93% Mod AASHTO density</u>		
5	Exceeding 500mm and not exceeding 1.5m deep for placing and removing formwork to walls etc 500mm away from excavated face	m2	63
	<u>Extra over trench and hole excavations in earth for excavation in</u>		
6	Soft rock	m3	15
7	Hard rock	m3	8
	<u>Extra over back excavation in earth for working space for excavation in soft rock</u>		
8	Exceeding 500mm deep but not exceeding 1.5m deep for placing and removing formwork to walls etc 500mm away from excavated face	m2	6
	<u>Extra over back excavation in earth for working space for excavation in hard rock</u>		
9	Exceeding 500mm but not exceeding 1.5m deep for placing and removing formwork to walls etc 500mm away from excavated face	m2	3
	<u>Earth filling obtained from the excavations (not compacted)</u>		
10	In prescribed stock piles on site	m3	16
	<u>Extra over all excavations for carting away</u>		
11	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	407
	<u>Risk of collapse of excavations</u>		
12	Sides of trench excavations not exceeding 1,5m deep	m2	472
	<u>Keeping excavations free of water</u>		
13	Keeping excavations free of water	Item	
Carried Forward			R
Section No. 2 Bill No. 1 Earthworks BILL OF QUANTITIES			

Brought Forward			R
<u>EARTH FILLING</u>			
<u>Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density</u>			
14	Under floors, steps, pavings, etc	m2	3 603
<u>SOIL POISONING, ETC</u>			
<u>Soil insecticide</u>			
15	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	3 242
16	To bottoms and sides of trenches etc	m2	854
Carried Forward to Summary of Section No. 2			R
Section No. 2 Bill No. 1 Earthworks BILL OF QUANTITIES			

**CONSTRUCTION OF THE MEDIA CENTRE
FOR EEC TVET COLLEGE**

Item No		Quantity	Rate	Amount
	<u>SECTION No. 2</u>			
	<u>BILL No. 2</u>			
	<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>			
	<u>PREAMBLES</u>			
	NOTE : Tenderers are advised to study the Association of South African Quantity Surveyors "General Preambles for Trades 2017" before pricing this bill.			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Cost of tests</u>			
	The costs of making, storing and testing of concrete test cubes as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the principal agent. The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the principal agent. (Test cubes are measured separately)			
	<u>Formwork</u>			
	Descriptions of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re- use			
	The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself			
	Carried Forward			
	Section No. 2 Bill No. 2 Concrete, Formwork & Reinforcement BILL OF QUANTITIES		R	

**CONSTRUCTION OF THE MEDIA CENTRE
FOR EEC TVET COLLEGE**

Brought Forward			R	
Formwork to soffits of solid slabs etc shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described				
Formwork to soffits of slabs, beams, etc shall be deemed to be propped up exceeding 3,5m and not exceeding 4,5m high unless otherwise described				
Formwork to sides of 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, provision for which is made in "Earthworks"				
<u>GENERAL NOTES TO TENDERERS</u>				
General notes, described in Bill No.1, shall equally apply to this Bill.				
<u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>				
<u>10MPa/19mm concrete</u>				
1	Surface blinding under bases	m3	4	
<u>25MPa/19mm concrete</u>				
2	Aprons, to falls	m3	65	
<u>30MPa/19mm concrete</u>				
3	Surface beds	m3	516	
<u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>				
<u>25MPa/19mm concrete</u>				
4	Ground beams	m3	68	
Carried Forward			R	
Section No. 2 Bill No. 2 Concrete, Formwork & Reinforcement BILL OF QUANTITIES				

**CONSTRUCTION OF THE MEDIA CENTRE
FOR EEC TVET COLLEGE**

Brought Forward			R
<u>REINFORCED CONCRETE CAST IN/ON FORMWORK</u>			
<u>30MPa/19mm concrete</u>			
5	Slabs including beams and inverted beams	m3	790
6	Columns	m3	38
7	Upstand beams	m3	27
8	Walls	m3	30
9	Staircases and landings	m3	26
<u>TEST BLOCKS</u>			
10	Making and testing 150 x 150 x 150mm concrete strength test cube	No	820
<u>CONCRETE SUNDRIES</u>			
<u>Finishing top surfaces of concrete smooth with power float</u>			
11	Surface beds, slabs, etc	m2	5 378
<u>SMOOTH FORMWORK (DEGREE OF ACCURACY II)</u>			
<u>Smooth formwork to sides</u>			
12	Inner face of shaft wall, shaft size 2500 x 2500mm on plan, not exceeding 5m high	m2	54
13	Ditto, exceeding 5m but not exceeding 10m high	m2	54
14	Ditto, exceeding 10m but not exceeding 15m high	m2	11
15	Walls in foundations, not exceeding 3.5m above bearing height	m2	47
16	Walls, exceeding 3.5m but not exceeding 5m high above bearing height	m2	376
Carried Forward			R
Section No. 2 Bill No. 2 Concrete, Formwork & Reinforcement BILL OF QUANTITIES			

CONSTRUCTION OF THE MEDIA CENTRE FOR EEC TVET COLLEGE

Brought Forward			R
17	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	806
18	Edges, risers, ends and reveals not exceeding 300mm high or wide, circular on plan, exceeding 1m radius	m	26
19	Edges, risers, ends and reveals exceeding 300mm high or wide	m2	67
20	Sides of beams	m2	238
<u>Smooth formwork to soffits</u>			
21	Solid slabs exceeding 250mm but not exceeding 500mm thick, propped exceeding 3.5m but not exceeding 5m high from bearing level	m2	1 440
<u>Smooth formwork to sloping soffits</u>			
22	Solid slabs exceeding 250mm but not exceeding 500mm thick (auditorium)	m2	462
23	Staircases and landings	m2	105
<u>Smooth formwork to columns</u>			
24	Rectangular, not exceeding 3.5m above bearing height	m2	29
25	Ditto, but exceeding 3.5m but not exceeding 5m high above bearing height	m2	511
26	Circular, 230mm diameter and 3.65m high	No	4
<u>EXPANSION JOINTS</u>			
<u>Similar Approved</u>			
<u>Expansion joints with 10mm polystyrene between vertical concrete surfaces</u>			
27	Not exceeding 300mm high to edges of slabs	m	626
Carried Forward			R
Section No. 2 Bill No. 2 Concrete, Formwork & Reinforcement BILL OF QUANTITIES			

**CONSTRUCTION OF THE MEDIA CENTRE
FOR EEC TVET COLLEGE**

Brought Forward			R
<u>MOVEMENT JOINTS ETC</u>			
<u>Similar Approved</u>			
<u>"Jointex" or similar approved isolation joints with 10mm closed cell expanded polyethylene between vertical concrete and brick surfaces</u>			
28	Not exceeding 300mm high to edges of surface beds	m	279
<u>Saw cut joints</u>			
29	3 x 40mm Saw cut joints in top of concrete	m	628
<u>Vertical joggle construction joints through concrete including thick cement slurry to one face</u>			
30	Surface beds not exceeding 300mm thick	m	26
<u>REINFORCEMENT</u>			
<u>High tensile steel reinforcement</u>			
31	All diameter bars	t	137.74
<u>Fabric reinforcement</u>			
32	Type 193 mesh reinforcement in concrete surface beds, slabs, etc	m2	2 579
Carried Forward to Summary of Section No. 2			R
Section No. 2			
Bill No. 2			
Concrete, Formwork & Reinforcement			
BILL OF QUANTITIES			

[illegible]

**CONSTRUCTION OF THE MEDIA CENTRE
FOR EEC TVET COLLEGE**

Brought Forward			R
<u>Pointing</u> Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc			
<u>GENERAL NOTES TO TENDERERS</u>			
General notes, described in Bill No.1, shall equally apply to this Bill.			
<u>BRICKWORK IN FOUNDATION</u>			
<u>Brickwork of NFX bricks (14MPa nominal compressive strength) in class I mortar</u>			
1	230mm brick wall	m2	34
<u>SUPERSTRUCTURE</u>			
<u>Brickwork of NFP bricks in class II mortar</u>			
2	115mm brick wall	m2	940
3	230mm brick wall	m2	3 917
4	230mm brick wall, circular on plan	m2	24
5	300mm brick wall	m2	111
<u>FACE BRICKWORK</u>			
Bricks shall be ordered timeously to obtain uniformity in size and colour			
<u>"Corobrick" face bricks (Colour: TBC) with PC sum amount of R 4 500.00 per thousand bricks delivered to site (excluding VAT) manufactured in accordance with SANS 227-2007, bedded and jointed in Class II mortar and pointed with recessed 6mm joints in both directions</u>			
6	Extra over brickwork for face brickwork in superstructure	m2	147
Carried Forward			R
Section No. 2 Bill No. 4 Masonry BILL OF QUANTITIES			

**CONSTRUCTION OF THE MEDIA CENTRE
FOR EEC TVET COLLEGE**

	Brought Forward			R
7	Extra over brickwork for face brickwork in superstructure in 20mm cut linings against concrete	m2	9	
8	Extra over brickwork for face brickwork in brick-on-edge header course lintel	m	6	
9	Extra over brickwork for face brickwork in brick-on-edge header course sills, bedded in mortar and set slightly sloped	m	6	
	<u>BRICKWORK SUNDRIES</u>			
	<u>2,5mm Brickwork reinforcement</u>			
10	75mm Wide reinforcement built in horizontally	m	2 765	
11	150mm Wide reinforcement built in horizontally	m	11 587	
12	225mm Wide reinforcement built in horizontally	m	325	
	<u>Prestressed fabricated concrete lintels including necessary temporary supports</u>			
13	110 x 75mm Lintels in lengths not exceeding 3m	m	309	
14	Ditto, but exceeding 3m but not exceeding 4.5m	m	103	
15	Ditto, but exceeding 4.5m but not exceeding 6m	m	153	
16	Ditto, but exceeding 6m but not exceeding 7.5m	m	81	
17	Ditto, but exceeding 9m but not exceeding 10.5m	m	40	
18	Ditto, but exceeding 10.5m but not exceeding 12m	m	33	
19	Ditto, but exceeding 13.5m but not exceeding 15m	m	30	
	<u>Turning pieces</u>			
20	110mm Wide turning piece to flat brick lintels	m	6	
	Carried Forward			R
	Section No. 2			
	Bill No. 4			
	Masonry			
	BILL OF QUANTITIES			

Brought Forward				R
<u>Galvanised hoop iron cramps, ties, etc</u>				
21	30 x 1.6mm wall tie 500mm long with one end shot pinned to/cast in concrete and other end built into brickwork	No	370	
Carried Forward to Summary of Section No. 2				R
Section No. 2				
Bill No. 4				
Masonry				
BILL OF QUANTITIES				

Item No	Quantity	Rate	Amount
<u>SECTION No. 2</u>			
<u>BILL No. 5</u>			
<u>WATERPROOFING</u>			
<u>PREAMBLES</u>			
NOTE : Tenderers are advised to study the Association of South African Quantity Surveyors "General Preambles for Trades 2017" before pricing this bill.			
<u>SUPPLEMENTARY PREAMBLES</u>			
Supplementary preamble items described in Bill No.1, shall equally apply to this Bill.			
<u>GENERAL NOTES TO TENDERERS</u>			
General notes, described in Bill No.1, shall equally apply to this Bill.			
<u>DAMP PROOFING OF WALLS AND FLOORS</u>			
<u>Similar Approved</u>			
<u>One layer of 375 micron damp proof course to SABS 952-1985 type B with embossed surfaces, laid with minimum 150mm overlaps at end joints, angles and intermediate junctions</u>			
1	In walls, cills, etc.	m2	56
<u>One layer of 250 micron "Gundle API Gunplas USB Green" polyethylene damp-proof membrane sealed at laps with "Gunplas Pressure Sensitive Tape"</u>			
2	Under floors	m2	2 588
3	Under ground beams	m2	775
4	Under aprons	m2	712
Carried Forward			R
Section No. 2 Bill No. 5 Waterproofing BILL OF QUANTITIES			

	Brought Forward			R
	<u>WATERPROOFING TO ROOFS, BASEMENTS, ETC</u>			
	<u>Similar Approved</u>			
	<u>4mm "Derbigum SP" waterproofing covered with type 40 bituminous fibreglass felt loose laid protection layer with coarse building sand blinding</u>			
5	On walls	m2	63	
	<u>TRAFFICABLE WATERPROOFING TO ROOFS</u>			
	<u>Similar Approved</u>			
	<u>Waterproofing membrane</u>			
6	One layer a.b.e. 4mm "unigum" dual reinforced waterproofing membrane, fully bonded by means of 'torch fusion', with 75mm side laps and 100mm end laps, installed as per manufacturer's specification	m2	697	
7	One layer a.b.e. 4mm "unigum" dual reinforced waterproofing membrane, fully bonded by means of 'torch fusion', installed around full bore outlets, installed as per manufacturer's specification	No	13	
	<u>Bituminous paint</u>			
8	One coat of a.b.e "silvakote" bituminous aluminium protective coating, applied as per manufacturer's specifications	m2	697	
	<u>Liquid waterproofing</u>			
9	150mm girth flashing strip of a.b.e "super lacryl" at turn-ups	m	198	
	<u>Clean crushed stone dressing free of pyrite or other contaminants, of 19-22mm stone evenly spread with larger stones around outlets, dressed according to waterproofing manufacturer's specification</u>			
10	50mm thick on waterproofing/drainage layer to exposed concrete roof	m2	697	
	Carried Forward to Summary of Section No. 2			R
	Section No. 2			
	Bill No. 5			
	Waterproofing			
	BILL OF QUANTITIES			

Item No	Quantity	Rate	Amount
<u>SECTION No. 2</u>			
<u>BILL NO. 6</u>			
<u>ROOF COVERINGS</u>			
<u>PREAMBLES</u>			
NOTE : Tenderers are advised to study the Association of South African Quantity Surveyors "General Preambles for Trades 2017" before pricing this bill.			
<u>SUPPLEMENTARY PREAMBLES</u>			
Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.			
<u>GENERAL NOTES TO TENDERERS</u>			
General notes, described in Bill No. 1, shall equally apply to this Bill.			
<u>ROOF SHEETING</u>			
<u>Similar Approved</u>			
<u>0.55mm Safintra "Saflok 700 - Colourplus AZ150" interlocking roof sheeting (Colour: TBC), fixed to purlins at centres using "Saflok 700" clips, which must be screw fixed to existing purlins with Safintra "Fixtite" or Safintra approved wafer head self-taping screws, all according to the manufacturer's recommendations</u>			
1	Roof sheeting pitch not exceeding 25 degrees	m2	2 038
Carried Forward			R
Section No. 2 Bill No. 6 Roof Coverings BILL OF QUANTITIES			

Brought Forward			R
<u>SIDE CLADDING</u>			
<u>Similar Approved</u>			
<u>0.55mm Safintra "Saflok 700 - Colourplus AZ150" side cladding (Colour: TBC) to be installed according to manufacturer's specifications on structural steel roof structure and/or cold-formed steel girts (structural steel roof structure and cold-formed steel girts measured elsewhere)</u>			
2	Side cladding, fixed to steel as per manufacturer's recommendations	m2	1 270
<u>SHEET METAL FLASHINGS, LININGS, COPINGS, ETC</u>			
<u>0.55mm thick continuous aluminium flashing, as per roofing specialist</u>			
3	550mm girth ridge capping, notched on site to suit roof profile, with factory finish to match roof colour, installed with and including broad flute closers and polyclosers	m	27
4	550mm girth head-wall flashing, notched on site to suit roof profile, with factory finish to match roof colour, installed with and including broad flute closers and polyclosers	m	50
5	550mm girth barge flashing, notched on site to suit roof profile, with factory finish to match roof colour, installed with and including 25 x 35mm "Poly-strip"	m	151
6	500mm girth cover flashing, notched on site to suit roof profile, with factory finish to match roof colour.	m	45
7	500mm girth internal corner flashing, notched on site to suit roof profile, with factory finish to match roof colour.	m	45
8	500mm girth external corner flashing, notched on site to suit roof profile, with factory finish to match roof colour.	m	133
9	700mm girth drip flashing, notched on site to suit roof profile, with factory finish to match roof colour.	m	41
Carried Forward			R
Section No. 2 Bill No. 6 Roof Coverings BILL OF QUANTITIES			

CONSTRUCTION OF THE MEDIA CENTRE FOR EEC TVET COLLEGE

Brought Forward			R
10	150mm girth counter flashing, 3 times bent, with factory finish to match roof colour, installed with and including broad flute closers and polyclosers	m	50
<u>ROOF INSULATION</u>			
<u>Similar Approved</u>			
<u>Sisalation "FR430" heavy duty, fire retardant insulation</u>			
11	Reflective foil laminate insulation insert between purlins, as per Engineer's specification	m2	3 308
<p>Carried Forward to Summary of Section No. 2</p> <p>Section No. 2 Bill No. 6 Roof Coverings BILL OF QUANTITIES</p>			R

Brought Forward			R
<u>Joinery</u>			
Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, granite counter tops, etc.			
Descriptions of hardwood joinery shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.			
<u>Fixing</u>			
Items described as nailed shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete			
<u>Decorative laminate finish</u>			
Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish			
<u>GENERAL NOTES TO TENDERERS</u>			
General notes, described in Bill No. 1, shall equally apply to this Bill.			
<u>DOORS ETC</u>			
All framed and ledged batten doors and combination doors, where battens are utilised, shall only be of construction acceptable to the Architect. Refer to the Architect's schedule for detail.			
Note: All doors should be read in conjunction with door schedules, and door construction should be as per Architect's specification.			
<u>40mm thick solid core doors, hung to steel frames (frames measured elsewhere)</u>			
3	Single door, size 813 x 2032mm high	No	5
Carried Forward			R
Section No. 2 Bill No. 7 Carpentry and Joinery BILL OF QUANTITIES			

**CONSTRUCTION OF THE MEDIA CENTRE
FOR EEC TVET COLLEGE**

Brought Forward			R
<u>40mm thick semi-solid core door, hung to steel frames (frames measured elsewhere)</u>			
4	Single door, size 1020 x 2060mm high, with slatted panels on both sides and counseled edges to suit opening	No	3
5	Single door, size 820 x 2060mm high, with slatted panels on both sides and counseled edges to suit opening	No	40
6	Double door, size 1200 x 2105mm high, with Formica cladding, with impact edging to all edges and impact edging to match Formica colour (Colour: TBC)	No	8
7	Double door, size 1420 x 2105mm high, with slatted panels on both sides and counseled edges to suit opening	No	8
<u>SKIRTINGS</u>			
<u>Wrought Meranti</u>			
8	19 x 76mm meranti skirting board with 19mm rounded quarter round, plugged to wall	m	272
<u>TIMBER SLAT CEILINGS</u>			
<u>Wrought meranti</u>			
9	Timber slatted panel ceiling, formed of 32 x 100mm timber, plugged to concrete soffits, all according to Architect's specification	m2	403
<u>TIMBER SLAT SUB-FRAME FOR ACOUSTIC PANELS</u>			
<u>Timber slats plugged into brickwork</u>			
10	16 x 160mm square-edged timber slats with 3mm groove and diameter of 10mm with minimum 25% perforation (Colour: TBC), including acoustic backing of 40mm 47.5kg/m2 glass wool insulation, covered with black fabric, installed in strict adherence Architect's drawings and specifications	m2	35
Carried Forward to Summary of Section No. 2			R
Section No. 2			
Bill No. 7			
Carpentry and Joinery			
BILL OF QUANTITIES			

**CONSTRUCTION OF THE MEDIA CENTRE
FOR EEC TVET COLLEGE**

	Brought Forward			R
	<u>Belgotex "Fortitude" 1516.9 x 228.6mm x 2.5mm thick vinyl tiles (Colour: as per Architect's specification), installed on self-levelling screed (measured elsewhere), installed as per manufacturer's specification</u>			
3	On floors	m2	1 243	
4	200mm high skirting, complete with vinyl capping strip, size 6 x 35mm high (Colour: to match floor), fixed with solvent based contact adhesive, spread with a brush onto both material and working surface, all in accordance with manufacturer's specifications	m	715	
	<u>2.5mm thick fully flexible vinyl sheeting (Colour: as per Architect's specification) and (PC allowance of R 320.00/m2 excludes V.A.T. but includes delivery to site), installed on self-levelling screed (measured elsewhere), fixed with adhesive as per manufacturer specifications</u>			
5	On floors	m2	13	
6	150mm vinyl upturn with 10mm aluminium coping	m	15	
	<u>CARPET</u>			
	<u>Similar Approved</u>			
	<u>Belgotex "Contrasting Grafica-Crates" 500 x 500mm x 6mm thick carpet tiles, laid in accordance with manufacturer's specification</u>			
7	On floors (Colour: as per Architect's specification)	m2	849	
8	On floors (Colour: Red)	m2	40	
9	On floors (Colour: Green)	m2	37	
10	On floors (Colour: Blue)	m2	33	
	<u>Belgotex "Baltimore" 10mm thick heavy commercial broadloom carpet, installed as per manufacturer's specification</u>			
11	On floors	m2	767	
	Carried Forward			R
	Section No. 2 Bill No. 8 Floor Coverings, wall linings, etc. BILL OF QUANTITIES			

**CONSTRUCTION OF THE MEDIA CENTRE
FOR EEC TVET COLLEGE**

Brought Forward			R
<u>ARTIFICIAL GRASS</u>			
<u>Similar Approved</u>			
<u>Belgotex "Pitch Summer Green" 11mm knitted polyethylene artificial grass, laid according to manufacturer's specification</u>			
12	On floors	m2	35
13	E.O. artificial grass for shock pad underlay	m2	35
<u>POLISH, SEALERS, ETC.</u>			
<u>Two coats of strip and seal as recommended by the manufacturer of the vinyl flooring</u>			
14	On vinyl tiles	m2	1 561
<u>SUNDRIES</u>			
15	25 x 3mm brass dividing strip, cast into screed and flush with floor finish	m	102
<u>ATTIC STOCK</u>			
16	Belgotex "Altas SD" anti-static 608 x 608mm vinyl tiles (Colour: as per Architect's specification)	m2	30
17	Belgotex "Fortitude" 1516.9 x 228.6mm x 2.5mm thick vinyl tiles (Colour: as per Architect's specification)	m2	124
18	2.5mm thick fully flexible vinyl sheeting (PC allowance of R 320.00/m2 excludes V.A.T. but includes delivery to site)	m2	1
19	Belgotex "Contrasting Grafica-Crates" 500 x 500mm x 6mm thick carpet tiles (Colour: TBC)	m2	85
20	Belgotex "Contrasting Grafica-Crates" 500 x 500mm x 6mm thick carpet tiles (Colour: Red)	m2	4
21	Belgotex "Contrasting Grafica-Crates" 500 x 500mm x 6mm thick carpet tiles (Colour: Green)	m2	4
Carried Forward			R
Section No. 2 Bill No. 8 Floor Coverings, wall linings, etc. BILL OF QUANTITIES			

CONSTRUCTION OF THE MEDIA CENTRE
FOR EEC TVET COLLEGE

	Brought Forward			R	
22	Belgotex "Contrasting Grafica-Crates" 500 x 500mm x 6mm thick carpet tiles (Colour: Blue)	m2	3		
23	Belgotex "Baltimore" 10mm thick heavy commercial broadloom carpet	m2	76		
Carried Forward to Summary of Section No. 2				R	
Section No. 2					
Bill No. 8					
Floor Coverings, wall linings, etc.					
BILL OF QUANTITIES					

**CONSTRUCTION OF THE MEDIA CENTRE
FOR EEC TVET COLLEGE**

Brought Forward			R
<u>GENERAL NOTES TO TENDERERS</u>			
General notes, described in Bill No. 1, shall equally apply to this Bill.			
<u>DOOR FURNITURE</u>			
<u>HINGES, BOLTS, ETC</u>			
<u>Similar Approved</u>			
1	150mm ST/C flush bolt (Code: 169166)	No	12
2	300mm ST/C flush bolt (Code: 169170)	No	12
3	Thumb turn and lock TT001SS (Code: 169195)	No	26
<u>LOCKS</u>			
<u>Similar Approved</u>			
4	35mm S/S Narrow style Euro cylinder sash lock with drawback latch (Code: 169267)	No	32
5	63mm N/PL 5-Pin NP double cylinder 3K (Code: 169440)	No	60
6	N/PL 5-Pin NP single cylinder 3K (Code: 169448)	No	4
7	76mm S/S Euro profile cylinder sash lock (Code: 169237)	No	8
8	76mm S/S Euro profile cylinder deadlock (Code: 169249)	No	15
9	S/SS Prof cylinder escutcheon (Code: 168972)	Pairs	17.0
10	S/S Narrow style cylinder escutcheons (Code: 168955)	Pairs	1.0
11	35mm S/S Narrow style Euro cylinder dead lock B/S (Code: 169272)	No	1
12	76mm S/S Euro profile cylinder dead lock (Code: 169249)	No	4
Carried Forward			R
Section No. 2 Bill No. 9 Ironmongery BILL OF QUANTITIES			

**CONSTRUCTION OF THE MEDIA CENTRE
FOR EEC TVET COLLEGE**

Brought Forward				R
13	Exidor NP cylinder for Exidor 302 - OAD (Code: 169850)	No	7	
14	Rebate conversion set for 700 Series lock (Code: 169175)	No	12	
15	S/S mortice indicator bathroom WC set, complete (Code: 169196)	No	3	
16	Brass adjustable roller latch (Code: 169277)	No	24	
<u>HANDLES</u>				
<u>Similar Approved</u>				
17	300 x 285mm S/S back to back square pull handles (Code: 169033)	Pairs	19.0	
18	300 x 216mm S/S back to back pull handle (Code: 180016)	Pairs	2.0	
19	Tokyo lever on Narrow style backplate with cylinder cutout S/A (Code: 169962)	Pairs	32.0	
20	Tokyo lever handle on B/PL cylinder cutout SA (Code: 182094)	Pairs	8.0	
21	S/S pull handle 305 centre to centre flange fixing (Code: 180909)	No	6	
22	BR/SC 65 x 50mm flush pull ring (Code: 168979)	No	24	
<u>PUSH PLATES AND KICK PLATES</u>				
<u>Similar Approved</u>				
23	900 x 300mm S/S kick plate (Code: 169132)	No	44	
<u>SIGNAGE</u>				
<u>Similar Approved</u>				
24	160 x 160 x 1.2mm S/S "FIRE HOSE REEL" sign (Code: 169115)	No	16	
Carried Forward				R
Section No. 2 Bill No. 9 Ironmongery BILL OF QUANTITIES				

**CONSTRUCTION OF THE MEDIA CENTRE
FOR EEC TVET COLLEGE**

Brought Forward			R
25	160 x 160 x 1.2mm S/S "ELECTRICAL" sign (Code: 169111)	No	8
26	160 x 160 x 1.2mm S/S "MALE/FEMALE" sign (Code: 169118)	No	2
27	160 x 160 x 1.2mm S/S "MALE" sign (Code: 169117)	No	3
28	160 x 160 x 1.2mm S/S "FEMALE" sign (Code: 169112)	No	4
29	160 x 160 x 1.2mm S/S "TEA CUP" sign (Code: 169121)	No	2
30	160 x 160 x 1.2mm S/S "PARAPLEGIC" sign (Code: 169119)	No	3
<u>DOOR CLOSERS, ETC</u>			
<u>Similar Approved</u>			
31	TS2000G door closer with guide rail SR, complete (Code: 169895)	No	11
32	TS3000 door closer C/W ISM guide rail, complete (Code: 169901)	No	9
33	TS3000 door closer with guide rail SR, complete (Code: 169898)	No	3
34	TS4000G double action door closer with guide rail (Code: 169909)	No	3
35	Patent fix screws M5 for door closers (Code: 169481)	No	75
<u>PANIC/EMERGENCY FITTINGS</u>			
<u>Similar Approved</u>			
36	Single panic bolt complete with shoots for door 2400mm (H) (Code: 169308)	No	3
37	Exidor "Slimline" double panic bolt set (Code: 169998)	No	4
38	Exidor outside access device lever W/O cylinder (Code: 169316)	No	3
Carried Forward			R
Section No. 2 Bill No. 9 Ironmongery BILL OF QUANTITIES			

**CONSTRUCTION OF THE MEDIA CENTRE
FOR EEC TVET COLLEGE**

	Brought Forward			R
39	Lever operated outside access device (Code: N/A)	No	4	
	<u>SUNDRIES</u>			
	<u>Similar Approved</u>			
40	S/S floor mounted door stop, plugged (Code: 169179)	No	86	
41	N/P dust excluding keep for flush bolt, plugged (Code: 169638)	No	30	
42	S/S hat and coat hook with rubber buffer (Code: 169191)	No	26	
Carried Forward to Summary of Section No. 2				R
Section No. 2				
Bill No. 9				
Ironmongery				
BILL OF QUANTITIES				

Brought Forward			R
<u>GENERAL NOTES TO TENDERERS</u>			
General notes, described in Bill No. 1, shall equally apply to this Bill.			
<u>STEEL TRUSSES, ETC</u>			
<u>The following in welded roof trusses of angle section rails, struts, braces, cleats, etc and flat section bearer, gusset and connection plates bolted to steel/concrete</u>			
1	2x 100 x 85 x 6mm x 10.6kg/m top and bottom chords	t	23.68
2	80 x 80 x 6mm x 7.34kg/m vertical	t	4.65
3	70 x 70 x 6mm x 6.38kg/m diagonal	t	8.36
<u>Bolts to trusses etc</u>			
4	150mm x M20 high tensile bolts	t	0.40
5	100mm x M16 high tensile bolts	t	0.44
6	100mm x M10 high tensile bolts	t	0.50
<u>STEEL COLUMNS AND BEAMS</u>			
<u>Bolts to columns, beams, etc</u>			
7	150mm x M20 high tensile bolts	t	0.12
8	100mm x M16 high tensile bolts	t	0.08
9	100mm x M10 high tensile bolts	t	0.02
<u>CONCRETE COLUMNS</u>			
<u>Bolts to columns, etc</u>			
10	190mm x M16 anchor rod	No	65
Carried Forward			R
Section No. 2 Bill No. 10 Structural Steelwork BILL OF QUANTITIES			

[illegible]

Brought Forward			R
<p>Where electrical light fittings, diffusers, panels etc are units of the same dimensions as the suspension grid described and allowance must be made in the rates accordingly for their support inclusive of any flexibility in setting out that may be required (ceiling panels have not been deducted and pricing is to take cognisance thereof)</p> <p><u>Suspension systems</u></p> <p>Where suspensions of ceilings require a sub-grid, the tenderer should include in his rates for the sub-grid. The design of the sub-grid support is not specified, the tenderer is to obtain the necessary requirements and recommendations for a safe installation from the board and suspension system manufacturer to the satisfaction of the structural engineer.</p> <p><u>GENERAL NOTES TO TENDERERS</u></p> <p>General notes, described in Bill No. 1, shall equally apply to this Bill.</p> <p><u>NAILED UP CEILINGS</u></p> <p><u>Similar Approved</u></p> <p><u>12mm Everest "Fibre Cement Boards" ceiling boards fixed to and including Pelican aluminium ceiling grid, with all joints finished as a uniform gap/groove or flush finish using Pelican "Duroseal Jointing Compound" and Pleican "JUMBO Fibre Tape, all installed strictly in accordance with the manufacturer's recommendations</u></p>			
1	Horizontal ceilings	m2	759
<p><u>9.5mm Gyproc "Rhinoboard" ceiling boards, fixed to and including aluminium Donn "QRC" ceiling grid, with joints staggered and finished off with Gyproc "RhinoTape" and full ceiling finished off with Gyproc "RhinoLite", with perimeter suspension suitably fixed to structural members of the building, all installed strictly in accordance with the manufacturer's recommendations</u></p>			
2	Horizontal ceilings	m2	468
Carried Forward			R
<p>Section No. 2 Bill No. 11 Ceilings, Partitioning and Access Flooring BILL OF QUANTITIES</p>			

**CONSTRUCTION OF THE MEDIA CENTRE
FOR EEC TVET COLLEGE**

	Brought Forward			R
3	Vertical ceilings	m2	308	
4	Circular cutting	m	30	
5	Extra over ceilings for openings for light fittings	No	25	
	<u>1200 x 600 x 15mm thick OWAcoustic "Brillianto A Premium" mineral wool ceiling tiles with fleece finish (Colour: TBC), fixed to and including aluminium ceiling grid, installed strictly in accordance with the manufacturer's recommendations</u>			
6	Horizontal ceilings	m2	163	
7	Vertical ceilings	m2	45	
	<u>SUSPENDED CEILINGS</u>			
	<u>Similar Approved</u>			
	<u>1200 x 600 x 9mm thick Pelican "Econotile" gypsum ceiling tiles with white vinyl face finish and aluminium foil backing (Colour: Shell White), laid on and including Pelican "Econogrid" pre-painted white exposed tee grid system including fire safety punch outs, installed strictly in accordance with the manufacturer's specifications and recommendations</u>			
8	Suspended not exceeding 1m below suspension level	m2	1 210	
	<u>Gyptone profiled sound absorptive ceiling</u>			
9	6.5mm thick "BIG Curve line 6" plasterboard ceiling panel (Colour: TBC), in continuous lengths or jointed as per Acoustic Engineer's specification, curved as per Acoustic Engineer's specification, screw mounted to and including a GK/CD system, with 100mm thick glass wool insulation laid above ceiling panel, all installed in strict accordance to the manufacturer's recommendations and design approval of the Acoustic Engineer	m2	650	
	Carried Forward			R
	Section No. 2 Bill No. 11 Ceilings, Partitioning and Access Flooring BILL OF QUANTITIES			

**CONSTRUCTION OF THE MEDIA CENTRE
FOR EEC TVET COLLEGE**

Brought Forward				R
<u>CORNICES</u>				
<u>Similar Approved</u>				
10	Pelican "Econogrid Shadowline Trim, plugged into brickwork at 300mm centres according to manufacturer's specification, with allowances for compensation joints at all expansion joints	m	1 880	
11	Donn 9.5mm "Shadowline Plaster Trim", plugged into brickwork at 300mm centres according to manufacturer's specification, with allowances for compensation joints at all expansion joints	m	771	
Carried Forward to Summary of Section No. 2				R
Section No. 2				
Bill No. 11				
Ceilings, Partitioning and Access Flooring				
BILL OF QUANTITIES				

Item No	Quantity	Rate	Amount
<u>SECTION No. 2</u>			
<u>BILL No. 12</u>			
<u>METALWORK</u>			
<u>PREAMBLES</u>			
NOTE : Tenderers are advised to study the Association of South African Quantity Surveyors "General Preambles for Trades 2017" before pricing this bill.			
<u>SUPPLEMENTARY PREAMBLES</u>			
Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.			
<u>GENERAL NOTES TO TENDERERS</u>			
General notes, described in Bill No. 1, shall equally apply to this Bill.			
<u>SPECIFICATIONS</u>			
<u>Scaffolding</u>			
All scaffolding should be provided by the contractor and no claims/ qualifications will be accepted.			
<u>Installation</u>			
All measurements to be checked on site prior to ordering and manufacturing.			
<u>Deflection of structure:</u>			
The contractor is advised to make adequate provision for the design deflection of the structure.			
Carried Forward			R
Section No. 2 Bill No. 12 Metalwork BILL OF QUANTITIES			

<p style="text-align: right;">Brought Forward</p> <p><u>Tolerances:</u></p> <p>Sizes are approximate only and measurements on site must be taken before fabrication. Due allowance must be made for tolerances in accordance with the Architect's details.</p> <p><u>Protection:</u></p> <p>The contractor will be required to protect his work during the course of construction, which protection shall be adequate for the purpose and to the full approval of the Architect.</p> <p>Such protection shall only be removed after a written instruction from the Architect.</p> <p><u>Glazing:</u></p> <p>All glazing to comply with SANS 204 Fenestration Conductance and Solar Heat Gain Requirements.</p> <p>Approved glazing, as advised by a specialist, must be installed. The thickness of panes of glass shall be determined by a competent person (glazing) in accordance with the requirements of the SANS 10137 and based on wind loads determined in accordance with the requirements of SANS 10400-B.</p> <p>Windows in bathrooms to have frosted glazing in accordance with the latest edition of AAAMSA and SANS 10400-N regulations.</p> <p><u>Finishes to aluminium:</u></p> <p>Where finishes to aluminium are lacking, such discrepancies are to be raised with the Architect immediately and before any manufacturing is conducted.</p>		R	
<p style="text-align: right;">Carried Forward</p> <p>Section No. 2 Bill No. 12 Metalwork BILL OF QUANTITIES</p>		R	

Brought Forward			R
<u>STEEL DOOR FRAMES</u>			
<u>1.6mm pressed steel single rebated door frame to suit door size, to suit one brick wall, with three heavy duty 100mm flanged brass hinge with nylon washers per door leaf.</u>			
1	Frame for single door, size 813 x 2032mm high	No	5
<u>ALUMINIUM DOOR FRAMES</u>			
<u>Purpose made natural aluminium door frame (Colour: TBC)</u>			
2	Purpose made door frame, suitable for timber door size 1020 x 2060mm high, complete with suitable 3x hinges as per supplier's specification	No	2
3	Purpose made door frame, suitable for timber door size 820 x 2060mm high, complete with suitable 3x hinges as per supplier's specification	No	10
4	Purpose made door frame, suitable for timber double door size 1120 x 2105mm high, complete with suitable 3x hinges per leaf as per supplier's specification	No	8
5	Purpose made door frame, suitable for timber double door size 1420 x 2105mm high, complete with suitable 3x hinges per leaf as per supplier's specification	No	8
6	Purpose made door frame, suitable for timber door size 1020 x 2060mm high, complete with suitable 3x hinges as per supplier's specification	No	1
7	Purpose made door frame, suitable for timber door size 820 x 2060mm high, complete with suitable 3x hinges as per supplier's specification	No	30
Carried Forward			R
Section No. 2 Bill No. 12 Metalwork BILL OF QUANTITIES			

Brought Forward			R
<u>ALUMINIUM WINDOWS</u>			
<u>Purpose made powder coated aluminium windows (Colour: Charcoal) with 6.38mm low E tinted safety glazing (glazing to a later specification), plugged to brickwork or concrete and perimeter of window sealed airtight with silicone, window supplied with all building-in lugs, approved aluminium handles, approved projection hinges and approved locking mechanism to all opening sections, with all approvals to be done by Architect, and installation done according to manufacturer's specifications</u>			
8	Window size 1800 x 3000mm high (W01)	No	8
9	Window size 3400 x 3600mm high (W02)	No	2
10	Widow size 2000 x 3000mm high (W03)	No	8
11	Window size 3200 x 3200mm high (W04), supplied with 400mm dark grey solar film band across glazing at top of window	No	2
12	Window size 3200 x 3200mm high (W05), supplied with 400mm dark grey solar film band across glazing at top of window	No	2
13	Window size 2800 x 3000mm high (W06), supplied with 400mm dark grey solar film band across glazing at top of window	No	4
14	Window size 2800 x 450mm high (W07)	No	2
15	Window size 1200 x 450mm high (W08)	No	10
16	Window size 6000 x 3000mm high (W09), supplied with 400mm dark grey solar film band across glazing at top of window	No	2
17	Window size 5000 x 3000mm high (W10), supplied with 400mm dark grey solar film band across glazing at top of window	No	2
18	Window size 4000 x 3000mm high (W11), supplied with 400mm dark grey solar film band across glazing at top of window	No	4
Carried Forward			R
Section No. 2 Bill No. 12 Metalwork BILL OF QUANTITIES			

CONSTRUCTION OF THE MEDIA CENTRE FOR EEC TVET COLLEGE

[illegible]

**CONSTRUCTION OF THE MEDIA CENTRE
FOR EEC TVET COLLEGE**

Brought Forward			R
<u>SHOPFRONT DOORS</u>			
<u>Purpose made natural aluminium door to suit wall and opening (Colour: Charcoal Grey), glazed with clear safety glazing to AAAMSA approved specifications to suit door design, supplied with 3x hinges per leaf, and installed as per manufacturer's specification (rest of ironmongery measured elsewhere)</u>			
27	Shopfront door size 5690 x 2145mm high overall (SHF-01), with silicone seal joints as specified by Architect	No	5
28	Shopfront door size 7035 x 2145mm high overall (SHF-01), with silicone seal joints as specified by Architect	No	2
29	Shopfront door size 5720 x 2145mm high overall (SHF-02), with silicone seal joints as specified by Architect	No	1
30	Shopfront door size 5720 x 2145mm high overall (SHF-03), with silicone seal joints as specified by Architect	No	2
31	Shopfront door size 4905 x 2145mm high overall (SHF-04)	No	3
32	Shopfront door size 9735 x 2145mm high overall (SHF-05), with silicone seal joints as specified by Architect	No	2
33	Shopfront door size 6000 x 2145mm high overall (SHF-06), with silicone seal joints as specified by Architect	No	2
34	Shopfront door size 11755 x 2145mm high overall (SHF-07), with silicone seal joints as specified by Architect	No	1
35	Shopfront door size 2915 x 2145mm high overall (SHF-08), with silicone seal joints as specified by Architect	No	7
36	Shopfront door size 2915 x 2145mm high overall (SHF-09), with silicone seal joints as specified by Architect	No	4
37	Shopfront door size 2410 x 2145mm high overall (SHF-10)	No	1
38	Shopfront door size 7340 x 2145mm high overall (SHF-11), with silicone seal joints as specified by Architect	No	1
Carried Forward			R
Section No. 2 Bill No. 12 Metalwork BILL OF QUANTITIES			

**CONSTRUCTION OF THE MEDIA CENTRE
FOR EEC TVET COLLEGE**

	Brought Forward			R
39	Shopfront door size 2970 x 2145mm high overall (SHF-12)	No	2	
	<u>ALUMINIUM DOORS</u>			
	<u>Purpose made Class "B" 2 hour fire rated natural aluminium door (Colour: Charcoal Grey),to suit wall and opening, glazed with safety glazing to AAAMSA approved specifications to suit door design, supplied with 3x hinges per leaf, and installed as per manufacturer's specification (rest of ironmongery measured elsewhere)</u>			
40	Double door, size 1500 x 2145mm high suitable for 230mm brick wall	No	14	
41	Single door, size 1500 x 2145mm high	No	3	
	<u>STRONG ROOM DOORS</u>			
	<u>Category 2 strong room door, with 2x 7 lever security locks and 2x double sided vents, all as per manufacturer's specification</u>			
42	Single door, size 950 x 2145mm high suitable for 220mm brick wall	No	1	
43	Double door, size 1900 x 2145mm high suitable for 220mm brick wall	No	2	
	<u>ROLL-UP DOORS</u>			
	<u>Similar Approved</u>			
	<u>"Wispeco Deluxe Roll-A-Door" standard Roller shutter door with Chromadeck finish, fixed to brickwork or concrete, complete with fittings as per manufacturer's recommendations</u>			
44	Roll-up garage door to suit opening 3290mm wide x maximum 2250mm high, installed in and including rollershutter frame, both with "Colourcoat HPS200 - Van Dyk Brown SC" finish, manually operated, including centre lift lock, weather strips, handles, Roll-A-Guides, hinges, fixing bolts, track etc.	No	1	
	Carried Forward			R
	Section No. 2 Bill No. 12 Metalwork BILL OF QUANTITIES			

Brought Forward			R
<u>HANDRAILS</u>			
<u>1000mm high welded mild steel handrail, as per Architect's specification</u>			
45	Handrail, horizontal	m	25
46	Handrail, raking	m	20
<u>BALUSTRADE</u>			
<u>1000mm stainless steel glass balustrade, as per Architect's detail</u>			
47	Balustrade, horizontal	m	120
48	Balustrade, horizontal and circular on plan	m	17
49	Balustrade, raking	m	36
<u>G.M.S. SCREENS</u>			
<u>Mild steel screens as per Architect's and Engineer's specification</u>			
50	Supply and install mild steel screens as per Architect's specification	t	22.76
<u>SUNDRY METALWORK</u>			
51	25 x 25 x 2mm angle corner protectors, plugged into brickwork/concrete	m	56
Carried Forward to Summary of Section No. 2			R
Section No. 2			
Bill No. 12			
Metalwork			
BILL OF QUANTITIES			

Brought Forward			R
<u>INTERNAL PLASTER</u>			
<u>One coat 1:5 cement plaster on brickwork, steel trowelled</u>			
3	To walls, steel trowelled	m2	7 466
4	To walls, wood trowelled	m2	17
5	To narrow widths, steel trowelled	m2	883
<u>One coat 1:3 cement plaster on concrete, steel trowelled, including keying and/or hacking</u>			
6	On soffits of slabs	m2	697
<u>EXTERNAL PLASTER</u>			
<u>One coat 1: 6 cement plaster on brickwork, wood trowelled</u>			
7	To brick walls	m2	1 488
8	To concrete walls, columns etc.	m2	277
Carried Forward to Summary of Section No. 2			R
Section No. 2			
Bill No. 13			
Plastering			
BILL OF QUANTITIES			

**CONSTRUCTION OF THE MEDIA CENTRE
FOR EEC TVET COLLEGE**

Item No		Quantity	Rate	Amount
	<u>SECTION No. 2</u>			
	<u>BILL No. 14</u>			
	<u>TILING</u>			
	<u>PREAMBLES</u>			
	NOTE : Tenderers are advised to study the Association of South African Quantity Surveyors "General Preambles for Trades 2017" before pricing this bill.			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.			
	<u>Pricing</u>			
	Prices are to included for the following: Material, cutting, handling, labour, adhesive etc.			
	<u>Fixing</u>			
	Tiling described as "fixed with adhesive on power floated concrete" shall be deemed to include for approved tiling key-coat.			
	Ceramic, porcelain, marble and granite tiles are to be fixed, grouted and pointed with suitable adhesives and grouts, as recommended by the Architect. Costs are hereby deemed to include the cost of this requirement.			
	Payment for work that is deemed measurable, in respect of the conditions of contract, and which comprises cutting, leaving, or forming, rectangular holes and notches through tiling is hereby deemed to apply only to holes and notches that do not exceed 600mm girth. Those exceeding 600mm in girth are hereby deemed to be "square cutting", which is hereby deemed to be part of the work description for that type of tiling and is not measurable as a separate item of work.			
	Carried Forward			
	Section No. 2 Bill No. 14 Tiling BILL OF QUANTITIES		R	

Brought Forward				R
<u>Wastage</u>				
Tile wastage in excess of 10% will be for the tenderer's account.				
<u>GENERAL NOTES TO TENDERERS</u>				
General notes, described in Bill No. 1, shall equally apply to this Bill.				
<u>Note</u>				
All scaffolding should be provided by the contractor and no claims/qualifications will be accepted.				
<u>WALL TILING</u>				
<u>Similar Approved</u>				
<u>200 x 200mm glazed ceramic wall tile (Colour: Gloss White) (P.C allowance of R 200.00/m2 excludes V.A.T. but includes delivery to site), includes waste, laying, supply and fixing with approved tile adhesive mixed with bonding liquid in lieu of water to plaster (plaster measured elsewhere) and tile grout (Colour: TBC) in 3mm joints continuous in both directions, with joints flush pointed, with minimum 5mm expansion joints at perimeter, all structural expansion and construction joints at maximum 5m centres internally and at 3m centres externally, in both directions.</u>				
1	On 600 x 200mm high splashback, with edge trim all around (edge trim measured elsewhere)	m2	17	
Carried Forward				R
Section No. 2 Bill No. 14 Tiling BILL OF QUANTITIES				

Brought Forward			R
<u>FLOOR TILING</u>			
<u>Similar Approved</u>			
<u>300 x 300mm porcelain glazed floor tiles (Colour: TBC), (P.C allowance of R 300.00/m2 excludes V.A.T. but includes delivery to site), includes waste, laying, supply and fixing with 6mm Tal "Goldstar 6" rapid setting tile adhesive to surface beds using a notched trowel or 6mm Tal "Goldstar 6" rapid setting tile adhesive mixed with Tal "Bond" applied to suspended slabs using a notched trowel, grouted with Tal "Industrial Fine Epoxy Grout" with minimum 3mm joints (Colour: as per Architect's specification). Movement joints to be provided in both directions at maximum 5m centres for surface beds and maximum 3m centres for suspended slabs as indicated on Architect's layouts and expansion joints as per Engineers layouts. Movement joints to be located around the perimeter of all floors and around fixtures. Joints to be 5mm wide and extend through the adhesive and tile layer. Joints to be filled with Tal "Sealmaster Cord" and sealed with Tal "Goldstar Sealmaster"</u>			
2	On floors and landings	m2	219
3	100mm skirting, to match floor tile	m	337
<u>ATTIC STOCK</u>			
4	200 x 200mm glazed ceramic wall tile (Colour: Gloss White) (P.C allowance of R 200.00/m2 excludes V.A.T. but includes delivery to site)	m2	2
5	300 x 300mm porcelain glazed floor tiles (Colour: TBC), (P.C allowance of R 300.00/m2 excludes V.A.T. but includes delivery to site)	m2	22
Carried Forward to Summary of Section No. 2			R
Section No. 2			
Bill No. 14			
Tiling			
BILL OF QUANTITIES			

Item No		Quantity	Rate	Amount
	<u>SECTION No. 2</u>			
	<u>BILL No. 15</u>			
	<u>PLUMBING AND DRAINAGE</u>			
	<u>PREAMBLES</u>			
	NOTE : Tenderers are advised to study the Association of South African Quantity Surveyors "General Preambles for Trades 2017" before pricing this bill.			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.			
	<u>GENERAL NOTES TO TENDERERS</u>			
	General notes, described in Bill No. 1, shall equally apply to this Bill.			
	<u>Note:</u>			
	All glazed ceramic sanitaryware to comply with SABS 497			
	All stainless steelware for medical institutions to comply with SABS 497			
	Stainless steel sinks to comply with SABS 907			
	Stainless steel washtroughs to comply with SABS 906			
	Cisterns to comply with SABS 821 and fitments to SABS 1509			
	All taps to comply to SABS 226			
	Carried Forward		R	
	Section No. 2 Bill No. 15 Plumbing and Drainage BILL OF QUANTITIES			

Brought Forward			R
<u>FULL BORE OUTLETS</u>			
<u>Galvanised full bore outlets to trafficable concrete roofs</u>			
1	395mm diameter full bore outlet, cast into concrete, supplied with adaptor for 160mm rainwater downpipe	No	13
<u>RAINWATER GOODS</u>			
<u>Similar Approved</u>			
<u>Concealed industrial grade aluminium box gutter, with factory finish to match roof, fixed with and including brackets to fascias (fascias measured elsewhere), thickness as per Architect's specification</u>			
2	125 x 85mm roof gutter	m	77
3	Extra over gutter for stopped end, matched to gutter colour	No	6
4	Extra over gutter for outlet, suitable for 75 x 100mm downpipe, matched to gutter colour	No	6
<u>Aluminium rainwater downpipes, fixed adequately at max. 800mm c/c and including holderbats to walls</u>			
5	75 x 100mm rainwater downpipes	m	21
6	Extra over rainwater downpipe for offset	No	6
7	Extra over rainwater downpipe for bend	No	6
8	Extra over rainwater downpipe for shoe	No	6
<u>uPVC rainwater downpipes in continuous lengths, fixed to full bore outlets and fixed sufficiently to brickwork or concrete or steel, as per Architect's specification</u>			
9	160mm diameter rainwater downpipe	m	117
10	Extra over rainwater downpipe for offset	No	26
Carried Forward			R
Section No. 2 Bill No. 15 Plumbing and Drainage BILL OF QUANTITIES			

**CONSTRUCTION OF THE MEDIA CENTRE
FOR EEC TVET COLLEGE**

	Brought Forward			R
11	Extra over rainwater downpipe for bend	No	13	
12	Extra over rainwater downpipe for shoe	No	13	
	<u>SANITARY FITTINGS</u>			
	<u>Similar Approved</u>			
	<u>Wash hand basins</u>			
13	Vaal 'Tuscany' rounded wash hand basin (Code: VAA-700603WH) (Colour: White), size 560 x 415 x 210mm, with three semi-punched tapholes, with integrated overflow and chain stay through the centre semi-punched taphole, hung on wall	No	24	
14	Vaal 'Hibiscus' rounded wash hand basin (Code: VAA-702303WH) (Colour: White), size 510 x 405 x 210mm, with three semi-punched tapholes, with integrated overflow and chain stay through the centre semi-punched taphole	No	3	
15	Vaal vitreous china classic basin full pedestal (Code: VAA-715000WH) (Colour: White), size 190 x 163 x 685mm	No	24	
16	Vaal vitreous china basin half pedestal (Code: VAA-715222WH) (Colour: White), size 245 x 260 x 440mm	No	3	
	<u>Fixing screws</u>			
17	Cobra basin fixing (set of 2) C.P. (Code: COB-8448Z000), size 80 x 50 x 50mm	No	49	
18	Cobra 'Hygia' fixing mir/head screw (set of 2) (Code: COB-8513Z000), size 100 x 10 x 10mm	No	29	
	<u>Water Closet</u>			
19	Vaal 'Pearl Paraplegic' semi close-coupled toilet suite (Code: VAA-730103WH) (Colour: White), size 795 x 533 x 493mm, with purpose made C.P. side flush lever (left or right), with purpose made urea seat, with F14C cranked rail and with F16C cistern rail	No	3	
	Carried Forward			R
	Section No. 2 Bill No. 15 Plumbing and Drainage BILL OF QUANTITIES			

CONSTRUCTION OF THE MEDIA CENTRE FOR EEC TVET COLLEGE

Brought Forward			R
20	Vaal 'Afsan' low level toilet pan (Code: VAA-750600WH) (Colour: White), size 460 x 360 x 3900mm, with 90° wash down outlet	No	26
21	Vaal 'Hibiscus Eco Jazz' toilet seat (Code: VAA-8512Z000) (Colour: White), size 500 x 400 x 50mm, fixed to Vaal 'Afsan' water closet (water closet measured elsewhere)	No	26
<u>Sink</u>			
22	1160 x 460 x 140mm single end bowl drop-in sink complete with PVC plug with handle	No	2
<u>Urinal</u>			
23	Vaal 'Flatback' vitreous china wall hung urinal (Code: 705326), size 415 x 315 x 275mm, with 38mm C.P. domical grating (Code: 8787Z0), with C.P. top inlet spreader (Code: 8543Z0), two hanger brackets (Code: 8127Z0), all installed according to the manufacturer's specification	No	8
24	Cobra urinal divider (Code: COB-705228WH), complete with fixing screw and hanger bracket, fixed to wall	No	8
<u>WASTE UNIONS, ETC</u>			
<u>Similar Approved</u>			
<u>Waste outlets</u>			
25	Cobra C.P. slotted basin waste (Code: COB-303), size 225 x 175 x 146mm, with 62mm diameter flange, with 77mm long shank with polymer back nut, with 1 1/4" BSP male outlet connection and with plug	No	24
Carried Forward			R
Section No. 2 Bill No. 15 Plumbing and Drainage BILL OF QUANTITIES			

**CONSTRUCTION OF THE MEDIA CENTRE
FOR EEC TVET COLLEGE**

Brought Forward				R
<u>TRAPS ETC</u>				
<u>Similar Approved</u>				
<u>Waste traps</u>				
26	Cobra 32mm C.P. bottle trap (Code: COB-340), size 225 x 175 x 146mm, with 75mm deep re-seal and adjustable telescopic pipe, with 1 1/4" female inlet and with 1 1/4" male outlet	No	24	
27	Cobra 40mm C.P. bottle trap (Code: COB-360), size 225 x 175 x 146mm, with 75mm deep re-seal and adjustable telescopic pipe, with 1 1/4" female inlet and with 1 1/4" male outlet	No	8	
<u>TAPS, VALVES, ETC</u>				
<u>Similar Approved</u>				
<u>Taps</u>				
28	Cobra water-saving low-flow 6L/min aerator insert (Code: COB-P-WS/6-NOLIME), size 120 x 120mm, with 'rub clean' feature, DIY fit to Cobra taps and mixers (taps and mixers measured elsewhere)	No	50	
29	Cobra C.P. metering pillar tap (Code: COB-KM2-100), size 125 x 76 x 178mm, with self-closing, non-hold-open, flow controller with flow cycle of 1-20 seconds, with 1/2" male inlet, with back nut and washer, and with streamlined outlet	No	48	
30	Cobra C.P. medical pillar tap (Code: COB-NM-502-21R), size 210 x 230 x 62mm, with 1/4" turn elbow-action, with a dry spout design, 1/2" BSP male inlet and with a red indice	No	3	
31	Cobra C.P. medical pillar tap (Code: COB-NM-502-21B), size 210 x 230 x 62mm, with 1/4" turn elbow-action, with a dry spout design, 1/2" BSP male inlet and with a blue indice	No	3	
Carried Forward				R
Section No. 2 Bill No. 15 Plumbing and Drainage BILL OF QUANTITIES				

**CONSTRUCTION OF THE MEDIA CENTRE
FOR EEC TVET COLLEGE**

Brought Forward			R
<u>Mixer Taps</u>			
32	Cobra 'Noka' C.P. single lever sink mixer (Code: COB-NA-970), with aerated swivel outlet, with mounting kit, and with 1/2" female iron 400mm long flexible inlets	No 2	
<u>Angle valves</u>			
33	Cobra C.P. angle stop valve (Code: COB-P-832/350F), size 357 x 177 x 91mm, with 350mm braided flexi hose	No 57	
34	Cobra C.P. 82mm angle stop valve (Code: COB-832-10), with sliding wall flange, with 1/2" BSP male inlet and with 1/2" BSP male outlet	No 4	
<u>Flushing valves</u>			
35	Cobra 'Junior Flushmaster' C.P. exposed flush valve (Code: COB-FJ6-000), size 130 x 60 x 113mm, connected to urinal flush pipe	No 8	
36	Cobra 'Junior Flushmaster' C.P. exposed flush valve (Code: COB-FJ2-100), size 668 x 67 x 200mm, with back entry, with flush pipe, with rubber pan connector, with wwall flange, with rubber seat buffer, with integral vacuum breaker, and with non-hold open feature	No 26	
37	Cobra brass parallel nipple (Code: COB-796-20X100), size 20 x 100mm	No 34	
<u>Flushing devices</u>			
38	Cobra C.P. offset urinal flush pipe (Code: FJT5-5), size 215mm long x 15mm outlet with 27mm offset, and with inlet adaptor for urinal flush valves	No 8	
Carried Forward to Summary of Section No. 2			R
Section No. 2			
Bill No. 15			
Plumbing and Drainage			
BILL OF QUANTITIES			

**CONSTRUCTION OF THE MEDIA CENTRE
FOR EEC TVET COLLEGE**

Item No		Quantity	Rate	Amount
	<u>SECTION No. 2</u>			
	<u>BILL No. 16</u>			
	<u>GLAZING</u>			
	<u>PREAMBLES</u>			
	NOTE : Tenderers are advised to study the Association of South African Quantity Surveyors "General Preambles for Trades 2017" before pricing this bill.			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.			
	<u>GENERAL NOTES TO TENDERERS</u>			
	General notes, described in Bill No. 1, shall equally apply to this Bill.			
	<u>Note:</u>			
	All glazing to comply with SABS 1263 Part 3:1998. Light and ventilation to comply with Part O if NBR 0400			
	<u>MIRROR, ETC</u>			
1	6mm thick clear float glass silver-backed mirror, size 1200 x 1200mm high, with polished bevelled edges 4x holed for and fixed with C.P. dome-headed mirror screws to walls	No	27	
	<u>SKYLIGHTS</u>			
	<u>Design, supply and install purpose made aluminium frame, square pyramid roof skylights (Frame finish and Glazing tint colour: TBC), fixed to RC upstand beams, including safety glazing in accordance with AAAMSA recommendations, seals, waterproofing, all work by specialist</u>			
2	5845 x 2500mm x 626mm high skylight	No	1	
	Carried Forward			
	Section No. 2 Bill No. 16 Glazing BILL OF QUANTITIES		R	

CONSTRUCTION OF THE MEDIA CENTRE
FOR EEC TVET COLLEGE

	Brought Forward			R
3	5220 x 4795mm x 626mm high skylight	No	1	
4	3972 x 5050mm x 626mm high skylight	No	1	
5	3580 x 5050mm x 626mm high skylight	No	1	
Carried Forward to Summary of Section No. 2				R
Section No. 2				
Bill No. 16				
Glazing				
BILL OF QUANTITIES				

CONSTRUCTION OF THE MEDIA CENTRE FOR EEC TVET COLLEGE

Item No	Quantity	Rate	Amount
<u>SECTION No. 2</u>			
<u>BILL No. 17</u>			
<u>PAINTWORK</u>			
<u>PREAMBLES</u>			
NOTE : Tenderers are advised to study the Association of South African Quantity Surveyors "General Preambles for Trades 2017" before pricing this bill.			
<u>SUPPLEMENTARY PREAMBLES</u>			
Supplementary preamble items described in Bill No. 1, shall equally apply to this Bill.			
<u>GENERAL NOTES TO TENDERERS</u>			
General notes, described in Bill No. 1, shall equally apply to this Bill.			
<u>PAINTWORK TO NEW WORK</u>			
<u>ON FLOATED PLASTER</u>			
<u>Similar Approved</u>			
<u>One coat Plascon "Plaster Primer" (Code: UC56) and two coats Plascon "Wall & All" (Code: WAA1), (Colour: as per Architect's specification)</u>			
1	On external walls	m2	1 488
2	On internal walls	m2	8 349
Carried Forward			R
Section No. 2 Bill No. 17 Paintwork BILL OF QUANTITIES			

**CONSTRUCTION OF THE MEDIA CENTRE
FOR EEC TVET COLLEGE**

	Brought Forward			R
	<u>ON CONCRETE</u>			
	<u>Similar Approved</u>			
	<u>One coat Plascon "Plaster Primer" (Code: UC56) and two coats Plascon "Wall & All" (Code: WAA1), (Colour: as per Architect's specification)</u>			
3	On concrete columns and beams	m2	405	
4	On soffits of concrete slabs	m2	1 100	
5	On precast concrete coping	m2	77	
	<u>ON GYPSUM BOARD</u>			
	<u>Similar Approved</u>			
	<u>Prepare and apply one coat Plascon 'Professional Plaster Primer' diluted at 5:1 with Plascon 'Mineral Turpentine', one coat Plascon 'Universal Undercoat' and two coats Plascon 'Wall and All', (Colour: as per Architect's specification)</u>			
6	On ceilings	m2	1 986	
	<u>ON FIBRE-CEMENT</u>			
	<u>Similar Approved</u>			
	<u>One coat Plascon 'Professional Plaster Primer', and two coats Plascon 'Wall and All', (Colour: as per Architect's specification)</u>			
7	On ceilings	m2	759	
	<u>ON METAL SURFACES</u>			
	<u>One coat Plascon "Glatex 8 Metal Primer" (Code: PL3) and two coats Plascon "Glatex 8" (Code: PL), (Colour: as per Architect's specification)</u>			
8	On structural steel	m2	2 614	
9	On door frames	m2	17	
	Carried Forward			R
	Section No. 2			
	Bill No. 17			
	Paintwork			
	BILL OF QUANTITIES			

**CONSTRUCTION OF THE MEDIA CENTRE
FOR EEC TVET COLLEGE**

	Brought Forward			R
	<u>One coat Plascon "Upox Primer" mixed with hardener, two/three heavy coats of Plascon "Upox Enamel" mixed with hardener at a volume ratio of 3:1, and finish gloss application of Plascon "Upox Clear" mixed with hardener at a volume ratio of 3:1 applied by brush or spray, (Colour: as per Architect's specification)</u>			
10	On exposed steelwork/entrance canopy	m	21	
	<u>ON WOOD</u>			
	<u>Prepare and apply one coat Plascon "Professional Wood Primer" and two coats Plascon "Velvagio Satin", (Colour: as per Architect's specification)</u>			
11	On doors	m2	266	
12	On skirting	m	272	
	<u>3 coats clear vanish</u>			
13	On timber ceilings	m2	403	
Carried Forward to Summary of Section No. 2				R
Section No. 2				
Bill No. 17				
Paintwork				
BILL OF QUANTITIES				

R

Section No. 2
Bill No. 18
Provisional Sums
BILL OF QUANTITIES

Brought Forward	R	
<p><u>Cash discount</u></p> <p>The following provisional sums and prime cost amounts are NET and represent the NET COST of the work described. The contractor shall not be entitled to any discount, percentage or allowance whatsoever on the value of any provisional sum or prime cost amount other than the priced value for profit and attendance as provided for. The provisional sums and prime cost amounts may be deducted in whole or in part from the contract and are subject to adjustment upon completion</p> <p><u>Profit</u></p> <p>Where stated, the contractor may allow for profit if required</p> <p><u>General attendance on nominated/selected subcontractors</u></p> <p>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:</p> <p><u>Builder's work</u></p> <p>Builder's work in connection with specialist services is given elsewhere in these bills of quantities</p> <p><u>ATTENDANCE</u></p> <p>The amounts allowed for "attendance" must provide for all services rendered, attendance of making good of all trades after "specialists", also for the use of any scaffolding and equipment.</p> <p><u>Note</u></p> <p>The items described hereunder cover work which is not fully defined at tender date and which is intended to be executed by the contractor and/or his subcontractors. The amounts shown shall be used as directed by the principal agent and shall be deducted in all or in part if not required.</p>		
Carried Forward	R	
<p>Section No. 2 Bill No. 18 Provisional Sums BILL OF QUANTITIES</p>		

**CONSTRUCTION OF THE MEDIA CENTRE
FOR EEC TVET COLLEGE**

Brought Forward		R	
<u>SOUND-REFLECTIVE CEILING PANELS</u>			
1	Allow an amount of R900 000.00 (Nine Hundred Thousand) for the design, supply and installation of 3x purpose-made sound reflective panels (Colour: TBC), made from hard laminated gypsum or plywood or PG Bison "Supawood", each in continuous lengths for 19200mm, non-perforated non-air permeable, curved and positioned in auditorium as per Architect's specification, suspended using HTS cables fixed to ceiling or steel roof structure, all supplied and installed in strict accordance to design approval of the Acoustic Engineer and Architect	Item	900 000.00
2	Profit	%	
3	Attendance	%	
<u>ACOUSTIC WALL PANELLING</u>			
4	Allow an amount of R700 000.00 (Seven Hundred Thousand) for the design, supply and installation of sound-absorptive acoustic wall panels (Colour: TBC), sized 600 x 600mm, 1200 x 600mm and 2400 x 1200mm, arranged to cover minimum 256m ² of brick walls, each panel constructed of open weave fabric stretched over 40mm 47,5kg/m ³ fibre glass fixed to framed 3mm perforated peg board as backing, hung on and including 38 x 38mm brandering plugged to walls to form 3D surface as per Architect's drawing, hung with and including French cleats as per the Architect's detail	Item	700 000.00
5	Profit	%	
6	Attendance	%	
Carried Forward to Summary of Section No. 2		R	
Section No. 2			
Bill No. 18			
Provisional Sums			
BILL OF QUANTITIES			

**CONSTRUCTION OF THE MEDIA CENTRE
FOR EEC TVET COLLEGE**

Brought Forward		R	
<u>BUILDER'S WORK</u>			
<u>Minor builders' work</u>			
2	Provide the sum of R35 000.00 for concrete steps, ramps, etc	Item	35 000.00
3	Provide the sum of R175 000.00 for builders work related to electrical and mechanical installation	Item	175 000.00
<u>LOCAL AUTHORITY FEES</u>			
<u>Local authority fees for connections</u>			
4	Provide the sum of R80 000.00 for sewer, water, fire and stormwater connections, etc to the local authority	Item	80 000.00
5	Add for profit	%	
6	Add for attendance	%	
<u>VINYL TINTING GRAPHICS</u>			
<u>Vinyl tinting graphics to shopfronts</u>			
7	Provide the sum of R160 000.00 for the supply and installation of vinyl tinting graphics to shopfronts, as per Architect's specification and design	Item	160 000.00
8	Add for profit	%	
9	Add for attendance	%	
<u>TRAINING</u>			
<u>Training of local community and/or students</u>			
10	Provide the sum of R400 000.00 for the training of the local community and/or students	Item	400 000.00
11	Add for profit	%	
12	Add for attendance	%	
Carried Forward		R	
Section No. 2 Bill No. 19 Budgetary allowances BILL OF QUANTITIES			

Brought Forward		R	
<u>DIRECT CONTRACTORS</u>			
<u>Direct contractors</u>			
13	<p>Tenderers must take note that the following work will be performed by direct contractors as defined in clause 16 of the principal building agreement and will not form part of this contract. Tenderers however must make provision for these installations in their program and must provide all the necessary assistance including access, etc to the direct contracts:</p> <p>a) Gym Equipment b) Furniture, fixtures and equipment</p>	Item	
Carried Forward to Summary of Section No. 2		R	
Section No. 2			
Bill No. 19			
Budgetary allowances			
BILL OF QUANTITIES			

CONSTRUCTION OF THE MEDIA CENTRE FOR EEC TVET COLLEGE

Bill No	SECTION SUMMARY - Builders Work	Page No	Amount	
1	Earthworks	35		
2	Concrete, Formwork & Reinforcement	40		
3	Precast Concrete	41		
4	Masonry	45		
5	Waterproofing	47		
6	Roof Coverings	50		
7	Carpentry and Joinery	53		
8	Floor Coverings, wall linings, etc.	57		
9	Ironmongery	62		
10	Structural Steelwork	65		
11	Ceilings, Partitioning and Access Flooring	69		
12	Metalwork	77		
13	Plastering	79		
14	Tiling	82		
15	Plumbing and Drainage	88		
16	Glazing	90		
17	Paintwork	93		
18	Provisional Sums	96		
19	Budgetary allowances	99		
	Sub Total		R	
	Carried to Final Summary		R	
	Section No. 2 BILL OF QUANTITIES			

PART B
CIVIL WORKS

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ITEM No	PAYMENT REFERS	SHORT DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		SECTION 3: WATER RETICULATION				
3.1	SANS 1200DB	EARTHWORKS (PIPE TRENCHES)				
	8.3.2(a)	Excavation & Backfill. Excavate up to 1.5 m deep in all materials, form and compact the bedding layer and blanket using selected material from excavations in 150 mm layers to 90% Mod AASHTO density to 300 mm above the top of the pipe backfill the balance of the trench using selected material from excavations compacted to 90% Mod AASHTO density and dispose of surplus and unsuitable material off site. Allow freehaul distance of 5km. (NO OVERHAUL WILL BE PAID)				
3.1.1		Single 110mm ø pipe trench	m	430		
	8.3.3.1	Extra over items 3.1.1 to 3.1.3 for the provision of backfill material for fill above the selected fill blanket complying with SANS 1200 DB				
3.1.2		Commercial or off site sources by the Contractor	m³	105		
3.1.3	8.3.3.3	Extra over items 3.1.1 to 3.1.3 for compaction of backfill to 93% Mod AASHTO in road reserves	m³	105		
3.2	SANS 1200LB	BEDDING (PIPES)				
		Bedding Materials: Provision of bedding materials by importation where ordered by the Engineer from				
3.2.1	8.2.2.3	Selected granular bedding material from commercial sources	m³	129		
3.2.2	8.2.2.3	Selected granular fill blanket material from commercial sources	m³	86		
3.3	SANS 1200L	MEDIUM PRESSURE PIPELINES				
	8.2.1	Pipeline. Supply, handle, lay, joint, bed (flexible pipe bedding) and test HDPE PE100 pressure pipes Butt welded, in accordance with SANS 10268-1				
3.3.1		110mm ø Class 16	m	430		
	8.2.2	Fittings. Extra over items 3.3.1 to 3.3.3 for supply lay joint bed Class 16 specials and fittings:				
		Equal Tees				
3.3.2		110mm x 110mm ø	No	3		
		Reducers				
3.3.3		110mm x 75mm ø	No	4		
		Hydrant Tees Drilled Table 10 SANS 1123				
3.3.4		110mm ø	No	4		
		Bends (Long Radius)				
3.3.5		110mm ø x 11¼°	No	1		
3.3.6		110mm ø x 22½°	No	3		
3.3.7		110mm ø x 45°	No	2		
3.3.8		110mm ø x 90°	No	5		
		End Caps				
3.3.9		110mm ø	No	0		
3.3.10	8.2.1	Fire Hydrants. Extra over items 3.3.1 - 3.3.5 for supply and install 65mm pillar hydrants with outlet 1.0 m above ground including flange to Table 1 000 SANS 1123 stand pipe painted yellow and hydrant head painted red ex factory.	No	4		
	8.2.3	Valves: Extra over item 3.3.1 and 3.3.2 supply lay joint complete with concrete supports Class 16 valves to SANS 664				
		Socket Ended Isolation Valves for PVCU pipes				
3.3.11		110mm ø	No	5		
		Ancillaries				
3.3.12	8.2.11 a)	Anchor / Thrust Blocks Class 15/19 Concrete	m³	2		
	8.2.13	Valve Chambers: Supply and install valve chamber, up to 1.m deep, complete for:				
3.3.13		110 mm ø Valves	No	5		
3.3.14		Standpipe complete as per detail drawing (to underside of concrete block) including excavation, backfill, concrete, angle, pipework, clamp and tap.	No	3		
		TOTAL FOR SECTION 3: CARRY FORWARD TO SUMMARY				

ITEM No	PAYMENT REFERS	SHORT DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		SECTION 4: SEWERAGE RETICULATION				
4.1	SANS 1200DB	EARTHWORKS (PIPE TRENCHES)				
	8.3.2(a)	Excavation & Backfill. Excavate in all materials, form and compact the bedding cradle and blanket in 150 mm layers to 90% mod AASHTO to 300 mm above the top of the pipe and backfill the balance compacted to 90% mod AASHTO and dispose of surplus material off site at a location identified by the Contractor. Allow freehaul distance of 5km: (NO OVERHAUL WILL BE PAID)				
		Side allowance on each side, 300mm				
		For 160mm diam pipe				
		over up to				
4.1.1		0,5m 1,0 m	m	1		Rate Only
4.1.2		1,0m 1,5 m	m	132		
4.1.3		1,5 m 2,0 m	m	80		
4.1.4		2,0 m 2,5 m	m	25		
4.1.5		2,5 m 3,0 m	m	15		
		Extra over items 4.1.1 to 4.1.4 for excavation in the following materials: (Provisional Item)				
4.1.6	8.3.2(b)	Hard	m³	1		Rate Only
4.1.7	8.3.2(b)	Intermediate	m³	20		
4.1.8	8.3.2(c)	Excavate unsuitable material from trench bottom and dispose thereof (Provisional item)	m³	25		
	8.3.3.1	Extra over items 4.1.1 to 4.1.4 for the provision of backfill material for fill above the selected fill blanket complying with SANS 1200 DB				
4.1.9		Commercial or off site sources by the Contractor	m³	237		
		Extra over items 4.1.1 to 4.1.4 for compaction of backfill in 150 mm layers to the following densities:				
4.1.10		93% Mod AASHTO	m³	20		
4.2	SANS 1200LB	BEDDING (PIPES)				
	8.2.2.3	Provision of bedding from commercial sources only where ordered by Engineer:				
4.2.1	8.2.2.3 a)	Selected granular material	m³	83		
4.2.2	8.2.2.3 b)	Selected fill material	m³	47		
4.3	SABS 1200LD	SEWERS				
	8.2.1	Pipework. Supply, handle, lay, joint, bed HDPE PE100 PN 10 SDR 17 Butt-fusion, electro-fusion or hot gas extrusion welds, in accordance with SANS 10268-1. the following sewer pipe diameters:				
4.3.1		160 mm ø	m	252		
	8.2.3	Manholes. Precast concrete manholes to SANS 1294 including excavation and backfill, complete with benching, channelling, cover and frame, spacer, adaptor slabs, step irons, for:				
		1000 mm ID Chamber for 160 mm ø pipes				
		over up to				
4.3.2		0,5 m 1,0 m	No.	1		Rate Only
4.3.3		1,0 m 1,5 m	No.	4		
4.3.4		1,5 m 2,0 m	No.	1		Rate Only
4.3.5		2,0 m 2,5 m	No.	1		
4.3.6		2,5 m 3,0 m	No.	1		Rate Only
		Sundries				
4.3.7	8.2.7	Concrete encasing to pipes in grade 20 MPa concrete including cost of excavation shuttering etc (Provisional Item)	m³	1		
4.3.8		Rodding eye with cast iron cover complete with pipework and fittings as per the details provided	No.	2		
		TOTAL FOR SECTION 4: CARRY FORWARD TO SUMMARY				

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SUMMARY OF SCHEDULES OF QUANTITIES MEDIA CENTRE

SECTION	DESCRIPTION	AMOUNT
1	PROVISIONAL SUMS	R _____
2	SITE CLEARANCE AND FENCING	R _____
3	WATER RETICULATION	R _____
4	SEWERAGE RETICULATION	R _____
5	PAVED ROADS AND PARKING LOTS	R _____
6	STORMWATER DRAINAGE	R _____
7	BULK EARTHWORKS	R _____
	 SUB TOTAL	 R _____
	EXCL. P&G, CONTINGENCY & VAT	

PART C
ELECTRICAL INSTALLATION

BILL OF QUANTITIES

MEDIA CENTRE - ELECTRICAL

EKURHULENI EAST TVET COLLEGE - MEDIA CENTRE

SUBJECT : BILL OF QUANTITIES

BILL No.1 - PRELIMINARIES

Item no.		UNIT	QTY	TENDER VALUE	
				RATE	AMOUNT
1.1	Preliminaries and General Compling with insurance's, statutory contributions, etc. All preliminaries shall be catered for by the main contract in the main bill of quantities	Item	0	N/A	N/A
TOTAL BILL 1 CARRIED FORWARD TO TENDER SUMMARY					0,00

EKURHULENI EAST TVET COLLEGE - MEDIA CENTRE
SUBJECT : BILL OF QUANTITIES
BILL No.3 - LOW VOLTAGE DISTRIBUTION

ITEM	DESCRIPTION	UNIT	QTY	TENDER VALUE	
				RATE	AMOUNT
3	<u>Supply, deliver, install and terminate Cu PVC SWA PVC 600/1000V Cable, in trenches, sleeves or on cable trays</u>				
3.1.1	120mm ² x 4 core [From Minisub to DB-M(Main DB)]				
3.1.1.1	Supply and delivery	Meter	250		
3.1.1.2	Installation	Meter	250		
3.1.1.3	Termination, c/w glands, shrouds, lugs and connection	No	8		
3.1.1.4	Supply and install 120mm ² BCEW	Meter	250		
3.1.2	35mm ² x 4 core (from MAIN DB to DB-M1)				
3.1.2.1	Supply and delivery	Meter	30		
3.1.2.2	Installation	Meter	30		
3.1.2.3	Termination, c/w glands, shrouds, lugs and connection	No	4		
3.1.2.4	Supply and install 25mm ² BCEW	Meter	15		
3.1.3	10mm ² x 2 core (from MAIN DB to DB-M2)				
3.1.3.1	Supply and delivery	Meter	30		
3.1.3.2	Installation	Meter	30		
3.1.3.3	Termination, c/w glands, shrouds, lugs and connection	No	4		
3.1.3.4	Supply and install 10mm ² BCEW	Meter	30		
3.1.4	10mm ² x 2 core (from MAIN DB to DB-M3)				
3.1.4.1	Supply and delivery	Meter	25		
3.1.4.2	Installation	Meter	25		
3.1.4.3	Termination, c/w glands, shrouds, lugs and connection	No	4		
3.1.4.4	Supply and install 10mm ² BCEW	Meter	25		
3.1.5	35mm ² x 4 core (from MAIN DB to DB-M4)				
3.1.5.1	Supply and delivery	Meter	30		
3.1.5.2	Installation	Meter	30		
3.1.5.3	Termination, c/w glands, shrouds, lugs and connection	No	4		
3.1.5.4	Supply and install 10mm ² BCEW	Meter	30		
3.1.6	25mm ² x 4 core (from MAIN DB to HVAC DB1)				
3.1.6.1	Supply and delivery	Meter	50		
3.1.6.2	Installation	Meter	50		
3.1.6.3	Termination, c/w glands, shrouds, lugs and connection	No	4		
3.1.6.4	Supply and install 16mm ² BCEW	Meter	50		
3.1.7	10mm ² x 4 core (from MAIN DB to HVAC DB2)				
3.1.7.1	Supply and delivery	Meter	35		
3.1.7.2	Installation	Meter	35		
3.1.7.3	Termination, c/w glands, shrouds, lugs and connection	No	4		
3.1.7.4	Supply and install 6mm ² BCEW	Meter	35		
3.1.8	50mm ² x 4 core (from MAIN DB to HVAC DB3)				
3.1.8.1	Supply and delivery	Meter	80		
3.1.8.2	Installation	Meter	80		
3.1.8.3	Termination, c/w glands, shrouds, lugs and connection	No	4		
3.1.8.4	Supply and install 25mm ² BCEW	Meter	80		
SUB-TOTAL FOR THIS PAGE CARRIED FORWARD					

BILL No.3 - LOW VOLTAGE DISTRIBUTION		UNIT	QTY	TENDER VALUE	
ITEM	DESCRIPTION			RATE	AMOUNT
SUB-TOTAL FROM PREVIOUS PAGE					
3.1.9 3.1.9.1	10mm² x 4 core (from MAIN DB to HVAC DB4) Supply and delivery	Meter	65		
3.1.9.2	Installation	Meter	65		
3.1.9.3 3.1.9.4	Termination, c/w glands, shrouds, lugs and connection Supply and install 6mm² BCEW	No Meter	4 65		
3.1.10 3.1.10.1	10mm² x 2 core (from MAIN DB to HVAC DB5) Supply and delivery	Meter	45		
3.1.10.2	Installation	Meter	45		
3.1.10.3 3.1.10.4	Termination, c/w glands, shrouds, lugs and connection Supply and install 6mm² BCEW	No Meter	4 45		
3.1.11 3.1.11.1 3.1.11.2 3.1.11.3 3.1.11.4	10mm² x 4 core (from MAIN DB to HVAC DB6) Supply and delivery Installation Termination, c/w glands, shrouds, lugs and connection Supply and install 6mm² BCEW	Meter Meter No Meter	25 25 4 25		
TOTAL BILL 3 CARRIED FORWARD TO TENDER SUMMARY					

EKURHULENI EAST TVET COLLEGE - MEDIA CENTRE
SUBJECT : BILL OF QUANTITIES
BILL No.4 - EXTERNAL LIGHTING INSTALLATION

ITEM	DESCRIPTION	UNIT	QTY	TENDER VALUE	
				RATE	AMOUNT
4	<u>Supply, deliver, install, connect, test and commissioning the following external light fittings</u>				
4.1	TYPE W1 - Wall mounted bulkhead LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp	Sum	20		
4.2	55W LED Traditional Post Top Luminaire including 3m mounting pole	No	15		
4.3	TYPE B3 - 30W LED bollard with clear diffuser, Buried mount complete with lamp. Powder coated Black	No	10		
4.4	TYPE P3 - Double sided LED accent lighting fitting with aluminium body fitted with 2x17W LEDs per side IP65 rated	No	20		
	WIRING AND TERMINALS				
4.3	<u>Supply, delivery and installation of Cu Conductors:</u>				
4.3.1	2,5mm² PVC insulated conductor				
4.3.1.1	Supply and delivery	Meter	350		
4.3.1.2	Installation	Meter	350		
4.3.2	1,5mm² bare copper earth wire				
4.3.2.1	Supply and delivery	Meter	175		
4.3.2.2	Installation	Meter	175		
4.4	<u>Day Light switch</u>				
4.4.1	Supply and installation	Sum	2		
TOTAL BILL 4 CARRIED FORWARD TO TENDER SUMMARY					

EKURHULENI EAST TVET COLLEGE - MEDIA CENTRE
SUBJECT : BILL OF QUANTITIES
BILL No.5 - LIGHTING INSTALLATION

ITEM	DESCRIPTION	UNIT	QTY	TENDER VALUE	
				RATE	AMOUNT
	WIREWAYS				
5,1	<u>Supply and Install Trunking</u>				
5.1.1	Supply and install P8000 trunking suspended from slab and trusses in ceiling void.				
5.1.1.1	Supply and delivery	Meter	450		
5.1.1.2	Installation	Meter	450		
5,2	<u>Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and fixed to walls or cast-in or built into walls, including all fixing materials, bends, terminations, draw boxes, etc.</u>				
5.2.1	20mm diameter				
5.2.1.1	Supply and delivery	Meter	4200		
5.2.1.2	Installation	Meter	4200		
5,3	<u>Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built into brick or cast into concrete or surface mounted</u>				
5.3.1	100 x 50 x 50 mm, c/w applicable cover				
5.3.1.1	Supply and delivery	No	60		
5.3.1.2	Installation	No	60		
5.3.2	65mm round box, c/w cover				
5.3.2.1	Supply and delivery	No	220		
5.3.2.2	Installation	No	220		
	ACCESSORIES				
5,4	<u>Supply, deliver and install accessories to boxes</u>				
5.4.1	5A, 3-pin socket outlets to trunking	No	50		
	WIRING AND TERMINALS				
5,5	<u>Supply, delivery and installation of Cu Conductors:</u>				
5.5.1	2,5mm² PVC insulated conductor				
5.5.1.1	Supply and delivery	Meter	4100		
5.5.1.2	Installation	Meter	4100		
5.5.2	1,5mm² bare copper earth wire				
5.5.2.1	Supply and delivery	Meter	2050		
5.5.2.2	Installation	Meter	2050		
SUB-TOTAL FOR THIS PAGE CARRIED FORWARD					

BILL No.5 - LIGHTING INSTALLATION		UNIT	QTY	TENDER VALUE	
ITEM	DESCRIPTION			RATE	AMOUNT
SUB-TOTAL FROM PREVIOUS PAGE					
5.6	LIGHT FITTINGS <u>Supply, deliver, install, connect, test and commission the following light fittings: including all drivers, end caps, screws and all other accessories necessary for full functionality of light fittings</u>				
5.6.1	TYPE C1 - 83mm diameter LED downlight ceiling recessed Die-cast aluminium body with acrylic lens(8w cool white)	No	112		
5.6.2	TYPE D1 -127mm diameter ceiling recessed, Die cast aluminium body light fitting with white acrylic lens installed with 21W LED lamps, warm white.	No	5		
5.6.3	TYPE F01 - 1200mm, 20W surface mounted LED batten light fitting with rolled mild steel body and a white epoxy powder coated finish	No	12		
5.6.4	TYPE F12 -1200X600mm 50W, recessed LED panel light fitting with metal body	No	128		
5.6.5	TYPE F20 -600X600mm 40W, recessed LED panel light fitting with metal body	No	102		
5.6.6	TYPE P1 -1200mm diameter, 48W, 8544 lumens, Suspended Pendant Light fitting, with UV Stabilised acrylic diffuser	No	2		
5.6.7	TYPE P2 - 1200mm diameter, 38W, 6052 lumens, Suspended Pendant Light fitting, with UV Stabilised acrylic diffuser	No	2		
5.6.8	TYPE P3 - 800mm diameter, 25W, 4094 lumens, Suspended Pendant Light fitting, with UV Stabilised acrylic diffuser	No	2		
5.6.9	5W, 12V LED strip light rated at IP65	m	250		
5.6.10	TYPE A1 - 600x600mm, 34W recessed LED light fitting, rolled with mild steel body with a matt white epoxy powder coated finish	No	19		
5.6.11	TYPE A2 - Same as A1 but with emergency power	No	8		
5.6.12	TYPE B1 - 280mm, 17W recessed LED floor light fitting installed in auditorium walkways	No	20		
5.6.13	TYPE B2 - Same as B1 but with emergency power	No	20		
5.6.14	TYPE S1 -158W Suspended LED Profile Light Fitting, suspended in between acoustic ceiling sections	No	12		
5.6.15	TYPE S2 -48W Suspended LED Profile Light Fitting, suspended in between acoustic ceiling sections	No	3		
5.6.16	TYPE W2 - 25W double sided LED light fitting with aluminium body fitted with LEDs per side IP65 rated	No	8		
5.6.17	Continuous Linear LED Lighting				
5.6.17.1	14W, 12V, cool white LED strip light rated at IP20	m	300		
5.6.17.2	Aluminium Profile/Extrusion of Width:33.7mm Height:17mm	m	300		
SUB-TOTAL FOR THIS PAGE CARRIED FORWARD					

BILL No.5 - LIGHTING INSTALLATION		UNIT	QTY	TENDER VALUE	
ITEM	DESCRIPTION			RATE	AMOUNT
SUB-TOTAL FROM PREVIOUS PAGE					
5.7	Supply, deliver, install, connect, test and commissioning of <u>Sensors</u> Supply, deliver, install, connect, test and commissioning occupancy sensors				
5.7.1	WSD PDT	No	0		
5.7.2	CMR 10	No	42		
5.7.4	Adaptors 5 Amp 2 Way	No	30		
5.7.5	Adaptors 5 Amp 4 Way	No	12		
5.7.6	Adaptors 5 Amp 6 Way	No	0		
TOTAL BILL 5 CARRIED FORWARD TO TENDER SUMMARY					

EKURHULENI EAST TVET COLLEGE - MEDIA CENTRE
SUBJECT : BILL OF QUANTITIES
BILL No.6: SMALL POWER INSTALLATION

ITEM	DESCRIPTION	UNIT	QTY	TENDER VALUE	
				RATE	AMOUNT
	WIREWAYS				
6,1	<u>Supply and Install Trunking</u>				
6.1.1	Supply and install P8000 trunking suspended from slab and trusses in ceiling void.				
6.1.1.1	Supply and delivery	Meter	450		
6.1.1.2	Installation	Meter	450		
6,2	<u>Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and fixed to walls or cast-in or built into walls, including all fixing materials, bends, terminations, draw boxes, etc.</u>				
6.2.1	20mm diameter				
6.2.1.1	Supply and delivery	Meter	2000		
6.2.1.2	Installation	Meter	2000		
6,3	<u>Supply and install conduit droppers chased or built into wall, consisting of 3 x 25mm dia & 2 x 20mm dia from wire basket & trunking in ceiling void to power skirting c/w 1.6mm draw wires</u>	No	90		
6,4	<u>Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built into brick or cast into concrete or surface mounted, c/w applicable cover</u>				
6.3.1	100 x 100 x 50 mm				
6.3.1.1	Supply and delivery	No	74		
6.3.1.2	Installation	No	74		
6,4	<u>Supply, deliver and installation of the 2 compartment, two cover Midland power skirting complete with all accessories including internal/external bends, end caps etc.</u>				
6.4.1	as per first and ground floor drawings	Meter	80		
6,5	<u>Supply and Install Trunking</u>				
	Supply and install 5A 3 pin power trunking suspended from slab and trusses in ceiling void.				
6.5.1	Supply and delivery	No'	60		
6.5.2	Installation	No'	60		
6,6	Supply, delivery and installation of socket outlets				
6.6.1	16 A, 3-pin standard white SSO + 16 A, 3-pin Euro Socket (SANS 164-2)				
6.6.1.1	Flush Mounted	No	25		
6.6.1.2	Mounted in floorbox	No	0		
6.6.1.3	Power skirting mounted	No	25		
6.6.2	16 A, 3-pin double white SSO				
6.6.2.1	Flush Mounted	No	10		
6.6.2.2	Surface mounted	No	0		
6.6.3	16 A, 3-pin dedicated red SSO + 16A, 3-pin dedicated red Euro type socket outlet (SANS 164-2)				
6.6.3.1	Flush Mounted in 100 X 100 (HVAC)	No	0		
6.6.3.2	Power skirting mounted, 45 degree (including plug top)	No	25		
6.6.4	3pole isolator installed in a waterproof box	No	2		
6.6.5	Supply, delivery and installation of Floor Pedastel including cover plates, conduit boxes and socket outlets				
6.6.5.1	Normal white SSO, Dedicated red SSO & Data Point combination	No	58		
SUB-TOTAL FOR THIS PAGE CARRIED FORWARD					

BILL No.6: SMALL POWER INSTALLATION

ITEM		DESCRIPTION	UNIT	QTY		
SUB-TOTAL FROM PREVIOUS PAGE						
6.6.6	Power logic workstation outlet, c/w 1x 16A Normal Power white SSO, 1x 16A red dedicated power socket outlet, 1x data point & 1x USB Charging point		No	254		
6.7	<u>Supply and installation of power skirting accessories</u>					
6.7.1	Blank cover plate suitable for RJ 11 telephone outlet		No	25		
6.7.2	Blank cover plate suitable for RJ 49 data outlet		No	25		
WIRING AND TERMINALS						
6.8	Supply, Deliver and installation of Cu Conductors:					
6.8.1	4mm² PVC insulated conductor					
6.8.1.1	Supply and delivery		Meter	1800		
6.8.1.2	Installation		Meter	1800		
6.8.2	4mm² 4 core Surfex (For HVAC)					
6.8.2.1	Supply and delivery		Meter	100		
6.8.2.2	Installation		Meter	100		
6.8.3	6mm² 4 core Surfex (For HVAC)					
6.8.3.1	Supply and delivery		Meter	150		
6.8.3.2	Installation		Meter	150		
6.8.4	2.5mm² bare copper earth wire					
6.8.4.1	Supply and delivery		Meter	900		
6.8.4.2	Installation		Meter	900		
TOTAL FOR BILL 6 CARRIED FORWARD TO TENDER SUMMARY						

EKURHULENI EAST TVET COLLEGE - MEDIA CENTRE**SUBJECT : BILL OF QUANTITIES****BILL No.7: CCTV**

ITEM	DESCRIPTION	UNIT	QTY	TENDER VALUE	
				RATE	AMOUNT
7.1	<u>Supply, delivery and installation of CCTV</u>				
7.1.1	Hikvision 16 Channel NVR - 2 SATA	No	1		
7.1.2	6TB Hard Drive	No	2		
7.1.3	2MP Dome Camera	No	10		
7.1.4	CAT6 UTP Cable 100M Roll	No	10		
7.1.5	9U Wall Mount Cabinet	No	1		
TOTAL FOR BILL 7 CARRIED FORWARD TO TENDER SUMMARY					

SUBJECT : BILL OF QUANTITIES

ITEM	DESCRIPTION	UNIT	QTY	TENDER VALUE	
				RATE	AMOUNT
8.1	Supply, delivery and installation Uninterruptable Power Supply Unit	No	1		
8.1.1	15kVA UPS with runtime of at least 30 minutes				
TOTAL FOR BILL 8 CARRIED FORWARD TO TENDER SUMMARY					

EKURHULENI EAST TVET COLLEGE - MEDIA CENTRE
SUBJECT : BILL OF QUANTITIES
BILL No.9 - PROVISIONAL SUMS

ITEM	DESCRIPTION	UNIT	QTY	TENDER VALUE	
				RATE	AMOUNT
	Provisional Sums exclude the cost of Overheads, Preliminaries and Profit				
	<u>Provisional Sums:</u>				
9.1	Lightning protection				
9.1.1	Supply, installation, testing and commissioning of lightning protection by lightning specialist approved by the Engineer	Sum	1		
9.1.2	Issuing of Lightning Protection COC	Sum	1		
9.2	Access Control				
9.2.1	Supply, Deliver install and commission Access Control c/w system softwares and accessories at the main entrance of building	Sum	1		
TOTAL FOR BILL 11 CARRIED FORWARD TO TENDER SUMMARY					

EKURHULENI EAST TVET COLLEGE - MEDIA CENTRE**SUBJECT : ELECTRICAL INSTALLATION****SUMMARY OF SCHEDULE OF QUANTITIES**

DESCRIPTION		TENDER AMOUNT
1	BILL No.1 - PRELIMINARIES	N/A
2	BILL No.2 - DISTRIBUTION BOARDS	
3	BILL No.3 - LOW VOLTAGE DISTRIBUTION	
4	BILL No.4 - EXTERNAL LIGHTING INSTALLATION	
5	BILL No.5 - LIGHTING INSTALLATION	
6	BILL No.6: SMALL POWER INSTALLATION	
7	BILL No.7: CCTV	
8	BILL No.8: UNINTERRUPTABLE POWER SUPPLIES	
9	BILL No.9 - PROVISIONAL SUMS	
10	TOTAL CARRIED TO ELECTRICAL AND ICT INSTALLATION SUMMARY	

BILL OF QUANTITIES

MEDIA CENTER - ICT

SUBJECT : BILL OF QUANTITIES

Item no.		UNIT	QTY	TENDER VALUE	
				RATE	AMOUNT
1.1	Supply, Installation & Configuration of Server Infrastructure				
1.1.1	Host Server	No	2		
1.1.2	Windows Server 2016	No	4		
1.1.3	VMware	No	1		
TOTAL BILL 1 CARRIED FORWARD TO TENDER SUMMARY					

EKURHULENI EAST TVET COLLEGE - MEDIA CENTER

SUBJECT : BILL OF QUANTITIES

BILL No.2 - NETWORK INFRASTRUCTURE

ITEM	DESCRIPTION	UNIT	QTY	TENDER VALUE	
				RATE	AMOUNT
	LAN INFRASTRUCTURE				
2,1	Media Centre				
2.1.1	Network Switch: Stackable 48x1G PoE+ ports; 4x 10G fixed uplinks ports;	No	7		
2.1.2	3M Type 3 Stacking Cable - for C2900L-48P-4G	No	12		
2.1.3	10 GBASE-SR SFP Module	No	8		
2.1.4	Access Point: Dual-band, controller-based 802.11a/g/n/ac, configurable Indoor environments, with internal antennas	No	20		
TOTAL FOR BILL 2 CARRIED FORWARD TO TENDER SUMMARY					

EKURHULENI EAST TVET COLLEGE - MEDIA CENTER
SUBJECT : BILL OF QUANTITIES
BILL No.3 - ICT NETWORK CABLING

ITEM	DESCRIPTION	UNIT	QTY	TENDER VALUE	
				RATE	AMOUNT
3.1	Supply, Installation & Configuration of ICT Network Infrastructure (LAN)				
	Media Center - Ground Floor				
3.1.1	HIGHWIRE GOLD C6 SOLID GREY (REEL)	m	7000		
3.1.2	PATCH PANEL 48PORT C6 (1U/PCB)	No	3		
3.1.3	OUTLET C6 SMK1 KM8 IVORY COMPLETE WALL BOXES	No	88		
3.1.4	HW PATCH RJ45 C6 GREY 1M0 MOULDED *GS*	No	88		
3.1.5	HW PATCH RJ45 C6 GREY 3M0 MOULDED *GS*	No	88		
3.1.6	BRUSH PANEL SHORT BLACK (METAL)	No	4		
3.1.7	4core multimode	m	50		
3.1.8	multimode ST midcouplers	No	8		
3.1.9	ST-multimode un jucketed pigtails	No	8		
3.1.10	ST-fiber tray black	No	1		
3.1.11	splice cassette	No	2		
3.1.12	Wire mash/cable tray	m	60		
3.1.13	Manhole	No	3		
3.1.14	100mm treanching pipe	m	50		
3.1.15	43u Cabinet	No	1		
3.1.16	Double compartment	m	55		
3.2	Media Center - First Floor				
3.2.1	HIGHWIRE GOLD C6 SOLID GREY (REEL)	m	7000		
3.2.2	PATCH PANEL 48PORT C6 (1U/PCB)	No	3		
3.2.3	OUTLET C6 SMK1 KM8 IVORY COMPLETE WALL BOXES	No	99		
3.2.4	HW PATCH RJ45 C6 GREY 1M0 MOULDED *GS*	No	99		
3.2.5	HW PATCH RJ45 C6 GREY 3M0 MOULDED *GS*	No	99		
3.2.6	BRUSH PANEL SHORT BLACK (METAL)	No	4		
3.2.7	4core multimode	m	50		
3.2.8	multimode ST midcouplers	No	8		
3.2.9	ST-multimode un jucketed pigtails	No	8		
3.2.10	ST-fiber tray black	No	1		
3.2.11	splice cassette	No	2		
3.2.12	Wire mash/cable tray	m	60		
3.2.13	15 u Cabinet	No	1		
3.2.14	Double compartment	No	60		
TOTAL BILL 3 CARRIED FORWARD TO TENDER SUMMARY					

EKURHULENI EAST TVET COLLEGE - MEDIA CENTER**SUBJECT : BILL OF QUANTITIES****BILL No.4 - MIGRATION OF SERVER ROOM**

ITEM	DESCRIPTION	UNIT	QTY	TENDER VALUE	
				RATE	AMOUNT
4,1	Migration of all ICT equipment from old Server room to New server room	No	8		
TOTAL BILL 4 CARRIED FORWARD TO TENDER SUMMARY					

EKURHULENI EAST TVET COLLEGE - MEDIA CENTER**SUBJECT : ICT INSTALLATION****SUMMARY OF SCHEDULE OF QUANTITIES**

DESCRIPTION		TENDER AMOUNT
1	BILL No.1 - SERVER INFRASTRUCTURE	
2	BILL No.2 - NETWORK INFRASTRUCTURE	
3	BILL No.3 - ICT NETWORK CABLING	
4	BILL No.4 - MIGRATION OF SERVER ROOM	
5	TOTAL CARRIED TO ELECTRICAL AND ICT INSTALLATION SUMMARY	

EKURHULENI EAST TVET COLLEGE - MEDIA CENTRE**SUBJECT : ELECTRICAL AND ICT INSTALLATION SUMMARY****SUMMARY OF SCHEDULE OF QUANTITIES**

DESCRIPTION		TENDER AMOUNT
1	BILL No.1 - ELECTRICAL INSTALLATION	
2	BILL No.2 - ICT INSTALLATION	
3	TOTAL CARRIED TO FINAL SUMMARY	

PART D
MECHANICAL INSTALLATION

PROJECT : EKURHULENI TVET COLLEGE MEDIA CENTRE

BILLS OF QUANTITIES - HVAC

HVAC TENDER BILL OF QUANTITIES
<p>All DUCTING and duct fittings rates to include all necessary bends, spigots, fittings, duct supports, joints, fixings, vanes, hangers, access doors and accessories, complete as shown on drawings and as per the project specific and HDM's standard specifications</p>
<p>All DUCT INSULATION rates to include all necessary joints, adhesives, tapes, straps, etc. Complete in accordance with the project specific and HDM's Standard Technical Specifications</p>
<p>All DIFFUSERS AND GRILLES must include flexible ducts and all necessary fittings, spigots, clamps, insulated plenum box, spigots, dampers, bends, supports, joints, fixing, paint and accessories complete as shown on drawings and as per project specific and HDM's general technical specifications</p>
<p>VAV type Supply Air Diffusers and Dampers must include in duct temperature sensors and reverse change-over control for central system heating/cooling mode, master and slave controls, power packs, wall mounted controllers, isolators, wiring and sensors complete as shown on drawings and as per project specific and HDM's general technical specifications.</p>
<p>All DIFFUSER RE-HEAT power supplies to be interlocked with a diffuser built in airflow switch or duct airflow switch to trip power to heater on loss of airflow.</p>
<p>All Motor Control Panels (MCP) must include all necessary overload protection, timers, VSD enclosures, MCU's for VAV diffusers, PLC's and all necessary brackets, supports, connections, field wiring, relay's, switches, fittings and accessories as shown on drawings and project specific and HDM's general technical specifications.</p>
<p>All Rooftop Package, VRF and DX Units to include connection to drain point indicated, all necessary refrigerant, fittings, supports, joints, fixings and accessories, control and electrical wiring, filters, sensors and controllers complete as shown on drawings and project specific and HDM's general technical specifications.</p>
<p>All FANS to include all necessary wiring, motor protection, connections, anti-vibration mounts, sound attenuators, flexible connections, motor, bases, inlet cone, fittings, supports, paint, joints, Vibration Isolation Pads, fixings and accessories, special requirements per ECD, complete with all Accessories as shown on drawings and as per the project specific and HDM General Technical Specifications</p>
<p>All WIRING of Motorized Fire Dampers and Motorized OBD's from HVAC MCP's by AC Contractor</p>
<p>All MOTORIZED FIRE DAMPERS to be spring fail safe type with fusible link. Refer to technical specification and drawings for spring closed or spring open requirements.</p>
<p>DUCTING square meters and PIPING left blank to be measured and filled in by tenderer</p>
<p>All DOWNBLOW AND CLOSE CONTROL AIR HANDLING UNITS to include all necessary specified filters, fittings, supports, leak detection sensors, solenoids & valves, condensate and electrical trays, joints, fixings, Vibration Isolation Pads, connections, anti-vibration mountings as required, accessories, access panels, doors, painting, humidification / de-humidification, complete as shown on drawings and as per AHU Schedule and HVAC specifications.</p>
<p>All HIDE AWAY UNITS to include filters, plenum (if required), insulated drip tray , condensate drain set, fixings and all necessary fittings, supports, joints, accessories, duct-flex, insulation, complete as shown on drawings and as per specifications and Equipment Schedule.</p>
<p>AUTOMATED CONTROLS to be in accordance with the project and general technical specification, schedules, diagrams, drawings, to include all equipment related to the controls points lists, inclusive of all related costs, to include as a minimum all licences, front end devices, software, all types of sensors, switches, solenoids, outstations, ethernet, modules, pockets, power supplies etc)</p>
<p>All PIPE CLADDING to include all necessary clips, glue, sealant, fittings, fixings and accessories, complete as shown on drawings and as per specifications.</p>

AUTOMATED CONTROLS to be in accordance with the project and general technical specification, schedules, diagrams, drawings, to include all equipment related to the controls points lists, inclusive of all related costs, to include as a minimum all licences, front end devices, software, all types of **sensors, switches, solenoids**, outstations, ethernet, modules, pockets, power supplies etc)

CONTROL WIRING & CONDUITS to be in accordance with project and general technical specification, schedules, diagrams, drawings, points lists, inclusive of all related costs, to include supply and installation all related ancillaries

TESTING & COMMISSIONING to be in accordance with project and general technical specification, schedules, diagrams, drawings, points lists, inclusive of all related costs.

ALL KITCHEN CANOPY EXTRACT DUCTING to be 100% air & liquid tight, minimum 1mm steel ducting, flanged or welded joints, fittings & seals, including all necessary bends, spigots, fittings, painted duct supports, joints, fixings, vanes, hangers, airtight access doors and accessories to fully comply with the latest edition of SANS 1850 and as shown on drawings and as per the specifications.

All DAMPERS c/w temp sensors and control & power wiring where applicable (unless listed separately) including all necessary fittings, supports, joints, fixings, connections, sensors (unless listed separately), wiring, conduit, actuators, as required and accessories, complete as shown on drawings and as per specifications.

All SENSORS to include all necessary hardware and wiring as per controls points list under Automated Controls portion (if applicable), drawings and technical specifications.

Lifting equipment for installation such as scaffolding, cherry picker etc-HVAC Contractor to allow for it as it wont be provided by the main contractor

All diffusers for all areas except for the Lecture Hall and Double Volume Staircase are to be Brian Rickard 595 x 595 constant air volume type or similar approved.

All return air grilles to be 595 X 595 Europair anodized aluminium Type RA or similar approved c/w a plenum box painted black on the inside and an opposing blade damper.

All supply air grilles to be Europair anodized aluminium Type DD or similar approved c/w a plenum box painted black on the inside.

All door grilles to be Europair Type DG or similar approved.

All Disk Valves to be Europair Type DVS or similar approved.

All Weather Louvres to be Europair Type WL or similar approved, c/w wall box and wire mesh.

PROJECT : EKURHULENI TVET COLLEGE MEDIA CENTRE
BILLS OF QUANTITIES - AIR HANDLING UNITS

HVAC TENDER BILL OF QUANTITIES				
Item Description	Unit	Qty.	Supply & Install Rate	Total Amount
Drawing: 1082 - M - 100, 101, 102, 103 AND 104				
MEDIA CENTRE - AHU				
Air Handling Unit including all necessary specified filters, instrumentation, fittings, supports, electrical trays, joints, fixings,Vibration Isolation Pads, connections, control panel, anti-vibration mounts as required and accessories, insect screen, access panels, doors, painting, complete as shown on drawings and as per the AHU Schedule and HVAC specifications.				
AHU-A-1	No.	1	R	R
Full set of spare filters:				
AHU-A-1	No.	1	R	R
Hard wired temperature controller including wiring to the unit.	No.	1	R	R
Averaging tempreature sensors including wiring to the unit.	No.	2	R	R
Ø40 galvasised steel condensate drain pipe c/w tees, elbows and supports.	m	8	R	R
Disribution Boards including isolators and all necessary fittings, fire relays, busbars, supports, joints, wiring, fixings, rating certificates, weather protection casings & seals, accessories, frames, paint, complete as shown on drawings and as per HVAC specifications and schedules and control diagrams, PM820 meters, complete to ensure correct operation of equipment to local authority standards and by laws. NOTE THAT THE HVAC CONTRACTOR MUST ALLOW A SUITABLE SIZE DB TO ACCOMODATE ALL THE EQUIPMENT POWER REQUIREMENTS LISTED IN THE MCD/DB SCHEDULE.				
DB-01-Including all Wiring to unit and fan.	No.	1	R	R
Certificate Of Compliance for DB-01	No.	1	R	R
DB-02-Including all Wiring.	No.	1	R	R
Certificate Of Compliance for DB-02	No.	1	R	R
DB-04-Including all Wiring.	No.	1	R	R
Certificate Of Compliance for DB-04	No.	1	R	R
Commisioning & Testing of the entire HVAC system to CIBSE Code	Sum	-	-	R
12 Month maintenance guarantee from the date of handover on all the HVAC				
Generally Lumpsum	Sum	-	-	R
TOTAL MEDIA CENTRE AIR HANDLING UNITS CARRIED FORWARD TO SUMMARY				R

PROJECT : EKURHULENI TVET COLLEGE MEDIA CENTRE
BILLS OF QUANTITIES - VRV/VRF SYSTEM

HVAC TENDER BILL OF QUANTITIES				
Item Description	Unit	Qty.	Supply & Install Rate	Total Amount
Drawing: 1082 - M - 100, 101, 102, 103 AND 104				
VRV Units including all necessary specified filters, fittings, supports, condensate and electrical trays, joints, fixings, Vibration Isolation Pads, connections, control panels, anti-vibration mounts as required and accessories, insect screen, access panels, doors, painting, complete as shown on drawings and as per AHU ECD and HVAC specifications.				
OUTDOOR UNIT				
212,8 kW air-cooled, heat pump, variable refrigerant flow/volume condensing unit complete with oil traps, equipment support consisting of hot dipped galvanised IPE 200 I-beams and anti-vibration pads.	No.	1	R	R
Electrical Board (DB-03) c/w circuit-breakers to suit, fire interlock, a power surge protector, a Bacnet gateway for connecting to the BMS.	No.	1	R	R
Certificate of Compliance for DB-03.	Sum	-	-	R
Complete communication line between indoor units and outdoor unit.	Sum	-	-	R
Cabling for the indoor units from the supply DB to the indoor units complete with cable tray support.	Sum	-	-	R
First Floor				
Electrical Board (DB-05) c/w circuit-breakers to suit, fire interlock, a power surge protector, a Bacnet gateway for connecting to the BMS.	No.	1	R	R
Certificate of Compliance for DB-05.	Sum	-	-	R
Cabling for the indoor units from the supply DB to the indoor units complete with cable tray support.	Sum	-	-	R
Isolators for the indoor units.	No.	14	R	R
Units to include all accessories such as grilles, panels and drain pans.				
AC-1.01	No.	1	R	R
AC-1.02	No.	1	R	R
AC-1.03	No.	1	R	R

AC-1.04	No.	1	R	R
AC-1.05	No.	1	R	R
AC-1.06	No.	1	R	R
AC-1.07	No.	1	R	R
AC-1.08	No.	1	R	R
AC-1.09	No.	1	R	R
AC-1.10	No.	1	R	R
AC-1.11	No.	1	R	R
AC-1.12	No.	1	R	R
AC-1.13	No.	1	R	R
AC-1.14	No.	1	R	R
Ground Floor				
Electrical Board (DB-06) c/w circuit-breakers to suit, fire interlock, a power surge protector, a Bacnet gateway for connecting to the BMS.				
	No.	1	R	R
Certificate of Compliance for DB-06.				
	Sum	-	R	R
Cabling for the indoor units from the supply DB to the indoor units complete with cable tray support.				
	m	440	R	R
Isolators for the indoor units.				
	No.	21	R	R
Units to include all accessories such as grilles, panels drain pans and canvas collars for connecting to ducting.				
AC-01	No.	1	R	R
AC-02	No.	1	R	R
AC-03	No.	1	R	R
AC-04	No.	1	R	R
AC-05	No.	1	R	R
AC-06	No.	1	R	R
AC-07	No.	1	R	R
AC-08	No.	1	R	R
AC-09	No.	1	R	R

AC-010	No.	1	R	R
AC-011	No.	1	R	R
AC-012	No.	1	R	R
AC-013	No.	1	R	R
AC-014	No.	1	R	R
AC-015	No.	1	R	R
AC-016	No.	1	R	R
AC-017	No.	1	R	R
AC-018	No.	1	R	R
AC-019	No.	1	R	R
AC-020	No.	1	R	R
AC-021	No.	1	R	R
Hard wired standard white temperature controller c/w cabling for the units.	No.	36	R	R
Refrigerant Gas Piping, including approved Insulation similar or equal to amourflex.				
6,35 mm Diameter	m	107	R	R
9,52 mm Diameter	m	174	R	R
12,7 mm Diameter	m	204	R	R
15,88 mm Diameter	m	128	R	R
19,05 mm Diameter	m	68	R	R
22,2 mm Diameter	m	102	R	R
25,4 mm Diameter	m	44	R	R
31,8 mm Diameter	m	25	R	R
41,3 mm Diameter	m	24	R	R
53,98 mm Diameter	m	11	R	R
Refrigerant Gas Pipe 90° insulated bends, including approved Insulation similar or equal to armourflex				
6,35 mm Diameter	No.	51	R	R
9,52 mm Diameter	No.	54	R	R

12,7 mm Diameter	No.	51	R	R
15,88 mm Diameter	No.	48	R	R
19,05 mm Diameter	No.	3	R	R
22,2 mm Diameter	No.	3	R	R
25,4 mm Diameter	No.	4	R	R
31,8 mm Diameter	No.	6	R	R
41,3 mm Diameter	No.	3	R	R
53,98 mm Diameter	No.	4	R	R
Stopper Valves				
6,35 mm Diameter	No.	18	R	R
9,52 mm Diameter	No.	19	R	R
12,7 mm Diameter	No.	18	R	R
15,88 mm Diameter	No.	17	R	R
19,05 mm Diameter	No.	2	R	R
22,2 mm Diameter	No.	4	R	R
41,3 mm Diameter	No.	3	R	R
Insulated Refrigerant Gas Pipe Header Branches				
Ø28.58 mm x Ø28.58 mm x Ø28.58 mm complete with 1 off Ø34.9 to Ø31.8 mm, Ø28.58 mm to Ø19.05 mm and Ø22.2 to Ø19.05 reducers.	No.	2	R	R
Ø19.05 mm x Ø9.52 mm x Ø15.88 mm complete with 1 off Ø19.05 to Ø22.2 mm, 2 off Ø19.05 mm to Ø15.88 mm and 1 off Ø12.7 to Ø9.52 reducers.	No.	2	R	R
Ø28.58 mm x Ø28.58 mm x Ø28.58 mm complete with 1 off Ø53.98 to Ø41.3 mm, Ø41.3 mm to Ø34.9 mm and 2 off Ø34.9 to Ø22.2 reducers.	No.	2	R	R
Ø22.2 mm x Ø19.05 mm x Ø12.7 mm complete with 1 off Ø28.58 mm to Ø22.2 mm, Ø19.05 mm to Ø22.2 mm, Ø19.05 mm to Ø15.88 mm, Ø19,05 mm to Ø12.7 mm reducers.	No.	2	R	R
Ø41.3 mm x Ø34.9 mm x Ø28.58 mm complete with 1 off Ø53.98 to Ø41.3 mm, Ø44.5 mm to Ø34.9 mm and Ø34.9 to Ø22.2 reducers.	No.	2	R	R
Ø22.2 mm x Ø19.05 mm x Ø12.7 mm complete with 1 off Ø31.8 mm to Ø22.2 mm, Ø28.58 mm to Ø19.05 mm and				

Ø19.05 to Ø15.88 mm reducers.	No.	2	R	R
Insulated Refrigerant Gas Pipe Y Branches/Refnet Joints				
To include insulation.				
Ø15.88 mm x Ø15.88 mm x Ø15.88 mm complete with 1 off Ø19.05 mm to Ø15.88 mm reducer.	No.	6	R	R
Ø6.35 mm x Ø6.35 mm x Ø6.35 mm complete with 1 off Ø12.7 mm to Ø9.52 mm reducer.	No.	6	R	R
Ø25.4 mm x Ø12.7 mm x Ø12.7 mm complete with 1 off Ø28.58 mm to Ø19.05, Ø25.4 to Ø19.05 mm and Ø22.2 to Ø19.05 mm reducers.	No.	19	R	R
Ø12.7 mm x Ø6.35 mm x Ø6.35 mm reducer.	No.	19	R	R
Ø31.8 mm x Ø15.88 mm x Ø15.88 mm complete with 1 off Ø34.9 to Ø31.8 mm, Ø31.8 mm to Ø22.2 mm and Ø28.58 to Ø19.05 reducers.	No.	6	R	R
Ø12,7 mm x Ø12,7 mm x Ø12,7 mm complete with 1 off Ø12.7 mm to Ø6.35 mm diameter and Ø12.7 mm to Ø9.52 mm reducers.	No.	6	R	R
Ø34.9 mm x Ø28.58 mm x Ø22.2 mm complete with 1 off Ø41.3 mm to Ø38.1 mm, Ø41.3 mm to Ø34.9 mm, Ø22.2 mm to Ø15.88 mm, Ø15.88 mm to Ø12.7 mm and Ø28.58 to Ø19.05 reducers.	No.	6	R	R
Ø15,88 mm x Ø15,88 mm x Ø15,88 mm complete with 1 off Ø22.2 mm to Ø19.05 mm, Ø15.88 mm to Ø9.52 mm and Ø12.7 mm to Ø6.35 mm reducers.	No.	6	R	R
Ø53.98 mm x Ø38.1 mm x Ø38.1 mm complete with 2 off Ø53.98 mm to Ø44.48 mm and Ø38.1 mm to Ø28.58 mm, 1 off Ø28.58 mm to Ø22.2 mm, Ø22.2 mm to Ø15.88 mm and Ø15.88mm to Ø12.7mm reducers.	No.	2	R	R
Ø25.4 mm x Ø19.05 mm x Ø19.05 mm complete with 1 off Ø19.5 mm to Ø12.7 mm and Ø12.7 mm to Ø6.35 mm reducers.	No.	2	R	R
ADPLN22220				
Pipe Supports				
4mm Diameter wire, 300mm wide welded wire mesh cable tray complete with bends and hangers for refrigerant piping.	m	440	R	R
PM-9000 trunking with cover, including fittings.	m	440	R	R
Additional gas.	kg	52	R	R
Commissioning of the VRF/VRV installation	Item	1	R	R

Condensate Drain Piping, including approved Supports				
Ø25 mm HDPE pipe.	m	65	R	R
Ø25 mm HDPE 90° elbow.	No.	144	R	R
Ø25 mm 25-25-25 Tees	No.	12	R	R
TOTAL MEDIA CENTRE VRV/VRF SYSTEM CARRIED FORWARD TO SUMMARY				R

PROJECT : EKURHULENI TVET COLLEGE MEDIA CENTRE**BILLS OF QUANTITIES - FANS**

HVAC TENDER BILL OF QUANTITIES				
Item Description	Unit	Qty.	Supply & Install Rate	Total Amount
Drawing: 1082 - M - 100, 101, 102, 103 AND 104				
Fan complete with 2 x Sound Attenuators, wiring, steel supports anti-vibration mountings, electrical trays, vibration Isolation Pads, controller, control cables and timers, complete as shown on drawings and as per FAN ECD and HVAC specifications.				
EAF-01	No.	1	R	R
EAF-02	No.	1	R	R
EAF-03	No.	1	R	R
EAF-04	No.	1	R	R
EAF-05	No.	1	R	R
FAF-01 complete with a 600 x 600 pleated filter in a 650 x 650 x 650 filter box with access to filters..	No.	1	R	R
FAF-02 complete with 2 off 600 x 600 pleated filters in a 1250 x 1250 x 1250 filter box with access to filters..	No.	1	R	R
TEF 01	No.	1	R	R
TEF 02	No.	1	R	R
TEF 03	No.	1	R	R
FPEF 01	No.	1	R	R
SEF 01	No.	1	R	R
Full set of spare filters:				
FAF-01	No.	1	R	R
FAF-02	No.	1	R	R

Cyclone Type Weather Cowls				
Ø630	No.	1	R	R
Ø500	No.	1	R	R
Ø400	No.	1	R	R
Ø300	No.	1	R	R
TOTAL MEDIA CENTRE FANS CARRIED FORWARD TO SUMMARY				R

PROJECT : EKURHULENI TVET COLLEGE MEDIA CENTRE
BILLS OF QUANTITIES - AIR TERMINALS

HVAC TENDER BILL OF QUANTITIES				
Item Description	Unit	Qty.	Supply & Install Rate	Total Amount
Drawing: 1082 - M - 100, 101, 102, 103 AND 104				
FIRST FLOOR				
HIGH TECH LAB				
Ø350 supply air diffuser.	No.	6	R	R
Ø300 return air grille.	No.	4	R	R
PUBLIC ABLUTIONS				
Ø200 extract disk valve.	No.	13	R	R
550 x 150 door grille.	No.	1	R	R
550 x 500 door grille.	No.	2	R	R
RESEARCH CENTRE				
Ø350 supply air diffuser.	No.	6	R	R
Ø300 return air grille.	No.	6	R	R
DEDICATED CONFERENCE ROOM				
Ø300 supply air diffuser.	No.	4	R	R
Ø300 return air grille.	No.	3	R	R
KITCHENETTE				
350 x 300 door grille.	No.	2	R	R
LOUNGE				
Ø300 supply air diffuser.	No.	2	R	R
Ø350 return air grille.	No.	1	R	R
STAFF DEVELOPMENT				
Ø250 supply air diffuser.	No.	2	R	R

Ø300 return air grille.	No.	1	R	R
STAFF LOUNGE				
Ø300 supply air diffuser.	No.	3	R	R
Ø300 return air grille.	No.	2	R	R
OFFICE				
200 x 100 supply air grille.	No.	1	R	R
STAFF ABLUTIONS				
Ø200 extract disk valve.	No.	4	R	R
550 x 350 door grille.	No.	1	R	R
350 x 300 weather louvre c/w wall box.	No.	1	R	R
OFFICE				
200 x 100 supply air grille.	No.	1	R	R
OFFICE				
200 x 100 supply air grille.	No.	1	R	R
DOUBLE VOLUME				
Ø630 Trox type VDL-FX supply air diffuser.	No.	4	R	R
Ø350 return air grille.	No.	3	R	R
CONTROL ROOM				
Ø250 supply air diffuser.	No.	1	R	R
450 x 350 door grille.	No.	1	R	R
ENTRANCE LOBBY				
Ø200 supply air diffuser.	No.	4	R	R
LECTURE HALL				
Ø630 Trox type VDL supply air diffuser c/w plenum box for horizontal connection.	No.	25	R	R
Ø250 return air grille.	No.	1	R	R
Ø350 return air grille.	No.	10	R	R

FIRE ESCAPES				
1540 x 1000 weather louvre c/w wall box.	No.	3	R	R
GROUND FLOOR				
INTERACTIVE TUTORIAL/SATELITE E-LEARNING ROOM				
Ø300 supply air diffuser.	No.	4	R	R
Ø250 return air grille.	No.	3	R	R
COMPUTER LAB				
Ø250 supply air diffuser.	No.	2	R	R
Ø300 return air grille.	No.	1	R	R
PUBLIC ABLUTIONS				
Ø200 extract disk valve.	No.	12	R	R
550 x 150 door grille.	No.	1	R	R
550 x 500 door grille.	No.	2	R	R
IT ROOM				
200 x 100 supply air grille.	No.	1	R	R
FOOD PREP AREA				
350 x 350 return air grille.	No.	1	R	R
350 x 350 weather louvre c/w wall box.	No.	1	R	R
FEMALE ABLUTIONS				
Ø200 extract disk valve.	No.	5	R	R
550 x 500 door grille.	No.	1	R	R
COFFEE BAR				
200 x 100 return air grille.	No.	1	R	R
MALE ABLUTIONS				
Ø200 extract disk valve.	No.	7	R	R
550 x 500 door grille.	No.	1	R	R
550 x 200 door grille.	No.	1	R	R

ENTRANCE PASSAGE AND LOBBY				
Ø250 supply air diffuser.	No.	4	R	R
Ø250 return air grille.	No.	2	R	R
FIRE ESCAPES				
1540 x 1000 weather louvre c/w wall box.	No.	3	R	R
READING LOUNGE				
Ø250 supply air diffuser.	No.	6	R	R
Ø350 return air grille.	No.	2	R	R
OPEN COMPUTER AREA				
Ø250 supply air diffuser.	No.	2	R	R
250 x 150 - Ø250 supply air grille.	No.	2	R	R
Ø300 return air grille.	No.	2	R	R
GROUP STUDY				
Ø250 supply air diffuser.	No.	2	R	R
Ø250 return air grille.	No.	1	R	R
OFFICES				
200 x 100 - Ø200 supply air grille.	No.	1	R	R
200 x 100 - Ø150 supply air grille.	No.	1	R	R
200 x 100 - Ø100 supply air grille.	No.	7	R	R
TOTAL MEDIA CENTRE AIR TERMINALS CARRIED FORWARD TO SUMMARY				R

PROJECT : EKURHULENI TVET COLLEGE MEDIA CENTRE
BILLS OF QUANTITIES - DAMPERS

HVAC TENDER BILL OF QUANTITIES				
Item Description	Unit	Qty.	Supply & Install Rate	Total Amount
Drawing: 1082 - M - 100, 101, 102, 103 AND 104				
VOLUME CONTROL DAMPERS				
All volume control dampers to be manufactured from 1,6mm galvanised mild steel and assembled with galvanised bolts, nuts and washers. The gears should be tough abrasion resistant polyamide.				
FIRST FLOOR				
Ø350	No.	1	R	R
Ø300	No.	3	R	R
Ø250	No.	3	R	R
Ø200	No.	6	R	R
Ø100	No.	3	R	R
850 x 400	No.	1	R	R
850 x 350	No.	1	R	R
650 x 300	No.	1	R	R
600 x 350	No.	2	R	R
450 x 300	No.	1	R	R
350 x 250	No.	1	R	R
250 x 250	No.	1	R	R
GROUND FLOOR				
Ø350	No.	1	R	R
Ø300	No.	2	R	R
Ø250	No.	5	R	R
Ø200	No.	4	R	R

Ø150	No.	1	R	R
Ø100	No.	10	R	R
350 x 300	No.	1	R	R
200 x 250	No.	1	R	R
FUSIBLE LINK FIRE DAMPERS				
FIRST FLOOR				
500 x 600	No.	1	R	R
GROUND FLOOR				
All fusible link fire dampers are to include a wall box of the same size.				
650 x 400	No.	1	R	R
350 x 300	No.	1	R	R
300 x 450	No.	1	R	R
300 x 300	No.	1	R	R
MOTORISED FIRE DAMPERS				
1500 x 900	No.	1	R	R
650 x 1200	No.	1	R	R
SPLITTER TYPE SOUND ATTENUATORS				
1300 X 1200 X 2000 long.	No.	1	R	R
900 X 600 X 1200 long.	No.	1	R	R
600 X 500 X 1200 long.	No.	1	R	R
600 X 400 X 1200 long.	No.	1	R	R
NON-RETURN DAMPERS				
250 x 150	No.	1	R	R
250 x 100	No.	2	R	R
150 x 100	No.	1	R	R
TOTAL MEDIA CENTRE DAMPERS CARRIED FORWARD TO SUMMARY				R

**PROJECT : EKURHULENI TVET COLLEGE MEDIA
CENTRE
BILLS OF QUANTITIES - DUCTING**

HVAC TENDER BILL OF QUANTITIES				
Item Description	Unit	Qty.	Supply & Install Rate	Total Amount
Drawing: 1082 - M - 100, 101, 102, 103 AND 104				
All DUCTING and duct fittings rates to include all necessary fittings, duct supports, joints, fixings, vanes, hangers, access doors, accessories and fabricated as per SMACNA & SANS 1238:2004 standard and pressure tested as shown on drawings and as per the project specific and standard specifications.				
ROOF				
Insulated and Cladded Rectangular Ducting				
1500 x 900	m	15	R	R
1100 x 550	m	10	R	R
650 x 1200	m	24	R	R
350 x 400	m	8	R	R
Insulated and Cladded Round Ducting				
Ø1000	m	1	R	R
Ø560	m	1.5	R	R
Insulated and Rectangular Ducting				
600 x 400	m	1.5	R	R
300 x 350	m	7.5	R	R
300 x 300	m	2.5	R	R
Uninsulated Round Ducting				
Ø630	m	5	R	R
Ø500	m	7.5	R	R
Ø400	m	4	R	R
Insulated and Cladded 90° Bend				
1500 x 900	No.	2	R	R

1100 x 550	No.	1	R	R
650 x 1200	No.	2	R	R
350 x 400	No.	1	R	R
Uninsulated 90° Bend				
600 x 400	No.	2	R	R
300 x 350	No.	2	R	R
300 x 300	No.	1	R	R
Ø630	No.	2	R	R
Ø400	No.	1	R	R
Insulated Transformation Piece 400mm				
1500 x 900 - 1600 x 1200	No.	1	R	R
1600 x 1200 to suit unit SA opening.	No.	1	R	R
1100 x 550 - Ø1000	No.	1	R	R
650 x 1200 to suit unit RA opening.	No.	1	R	R
Uninsulated Transformation Piece 400mm				
600 x 400 - Ø630	No.	1	R	R
300 x 300 - Ø400	No.	1	R	R
300 x 350 to Ø500	No.	1	R	R
300 x 300 - Ø400	No.	1	R	R
Insulated Round Spigot				
Ø1000	No.	1	R	R
Ø560	No.	1	R	R
VERTICAL DUCTING IN SHAFTS				
Insulated Rectangular Ducting				
650 x 1100	m	2.5	R	R
450 x 300	m	6	R	R
400 x 650	m	6	R	R
400 x 350	m	7.5	R	R

Uninsulated Rectangular Ducting				
600 x 400	m	2.5	R	R
400 x 400	m	5	R	R
300 x 350	m	10	R	R
300 x 300	m	7.5	R	R
FIRST FLOOR				
HIGH TECH LAB				
Insulated Rectangular Ducting				
900 x 400	m	2.5	R	R
500 x 400	m	1.5	R	R
500 x 350	m	7	R	R
400 x 350	m	6	R	R
300 x 350	m	6	R	R
250 x 350	m	3	R	R
Insulated Round Ducting				
Ø350	m	10	R	R
Ø300	m	11	R	R
Insulated 90° Bend				
500 x 350	No.	1	R	R
Insulated Rectangular Blank End				
300 x 350	No.	1	R	R
250 x 350	No.	1	R	R
Insulated Rectangular Transformation Piece 350mm				
900 x 400 - 500 x 400	No.	1	R	R
500 x 400 - 300 x 400	No.	1	R	R
500 x 350 - 400 x 350	No.	1	R	R

400 x 350 - 250 x 350	No.	1	R	R
Insulated Round Spigot				
Ø350	No.	7	R	R
Ø300	No.	4	R	R
Rectangular Shoe Branch Flanged				
500 x 350 - 500 x 350	No.	1	R	R
Insulated Flexible Ducting				
Ø350	m	13.5	R	R
Ø300	m	7.5	R	R
PUBLIC ABLUTIONS				
Uninsulated Rectangular Ducting				
300 x 300	m	2.5	R	R
300 x 250	m	2	R	R
250 x 350	m	7	R	R
250 x 250	m	2	R	R
150 x 250	m	0.5	R	R
100 x 250	m	3	R	R
Uninsulated Round Ducting				
Ø200	m	15	R	R
Uninsulated 90° Bend				
250 x 350	No.	1	R	R
Uninsulated Rectangular Blank End				
150 x 250	No.	1	R	R
100 x 250	No.	1	R	R
Uninsulated Rectangular Transformation Piece 350mm				
300 x 300 - 300 x 250	No.	1	R	R
300 x 250 - 100 x 250	No.	1	R	R
250 x 350 - 250 x 250	No.	1	R	R

250 x 250 - 150 x 250	No.	1	R	R
Uninsulated Round Spigot				
Ø200	No.	13	R	R
Uninsulated Rectangular Shoe Branch Flanged				
300 x 300 - 300 x 300	No.	1	R	R
250 x 350 - 250 x 350	No.	1	R	R
Uninsulated Flexible Ducting				
Ø200	m	24	R	R
RESEARCH CENTRE				
Insulated Rectangular Ducting				
450 x 350	m	3.5	R	R
300 x 350	m	24	R	R
200 x 350	m	23	R	R
Insulated Round Ducting				
Ø300	m	4.5	R	R
Insulated 90° Bend				
300 x 350	No.	2	R	R
Insulated Rectangular Blank End				
200 x 350	No.	4	R	R
Insulated Rectangular Transformation Piece 350mm				
450 x 350 - 300 x 350	No.	2	R	R
300 x 350 - 200 x 350	No.	4	R	R
Insulated Round Spigot				
Ø300	No.	12	R	R
Ø250	No.	2	R	R
Insulated Rectangular Shoe Branch Flanged				
300 x 350 - 300 x 350	No.	2	R	R

Insulated Flexible Ducting				
Ø300	m	22	R	R
Ø250	m	2.5	R	R
DEDICATED CONFERENCE ROOM				
Insulated Rectangular Ducting				
500 x 350	m	1.2	R	R
300 x 350	m	11.5	R	R
200 x 350	m	6	R	R
Insulated Round Ducting				
Ø300	m	13.5	R	R
Uninsulated 90° Bend				
300 x 350	No.	1	R	R
Rectangular Insulated Blank End				
300 x 350	No.	1	R	R
200 x 350	No.	1	R	R
Rectangular Insulated Transformation Piece 350mm				
500 x 350 - 300 x 350	No.	1	R	R
300 x 350 - 200 x 350	No.	1	R	R
Insulated Round Spigot				
Ø300	No.	8	R	R
Rectangular Shoe Branch Flanged				
300 x 350 - 300 x 350	No.	1	R	R
Insulated Flexible Ducting				
Ø300	m	14.5	R	R
LOUNGE				
Rectangular Insulated Ducting				
300 x 350	m	4	R	R

Insulated Round Ducting				
Ø300	m	4.5	R	R
Insulated Rectangular Blank End				
300 x 350	No.	1	R	R
Insulated Round Spigot				
Ø350	No.	1	R	R
Ø300	No.	2	R	R
Ø200	No.	1	R	R
Insulated Flexible Ducting				
Ø350	m	2.5	R	R
Ø300	m	4	R	R
Ø200	m	1.5	R	R
STAFF DEVELOPMENT				
Insulated Rectangular Ducting				
300 x 300	m	1	R	R
200 x 300	m	6	R	R
Insulated Round Ducting				
Ø250	m	2.5	R	R
Insulated Rectangular Blank End				
200 x 300	No.	1	R	R
Insulated Rectangular Transformation Piece 350mm				
300 x 300 - 200 x 300	No.	1	R	R
Insulated Round Spigot				
Ø300	No.	1	R	R
Ø250	No.	2	R	R
Ø200	No.	1	R	R

Insulated Flexible Ducting				
Ø300	m	2	R	R
Ø250	m	4	R	R
Ø200	m	1.5	R	R
STAFF LOUNGE				
Insulated Rectangular Ducting				
500 x 300	m	2	R	R
350 x 300	m	3.5	R	R
350 x 200	m	5.5	R	R
Insulated Round Ducting				
Ø300	m	14	R	R
Insulated 90° Bend				
Ø300	No.	1	R	R
Insulated Rectangular Blank End				
350 x 200	No.	1	R	R
Insulated Rectangular Transformation Piece 350mm				
500 x 300 - 350 x 300	No.	1	R	R
350 x 300 - 350 x 200	No.	1	R	R
Insulated Round Spigot				
Ø300	No.	5	R	R
Ø250	No.	1	R	R
Insulated Flexible Ducting				
Ø300	m	6	R	R
Ø250	m	1.5	R	R
STAFF ABLUTIONS				

Uninsulated Rectangular Ducting				
350 x 300	m	3	R	R
200 x 250	m	7	R	R
150 x 250	m	0.5	R	R
Uninsulated Round Ducting				
Ø200	m	1.5	R	R
Uninsulated 90° Bend				
200 x 250	No.	2	R	R
Uninsulated Rectangular Blank End				
150 x 250	No.	1	R	R
Uninsulated Rectangular Transformation Piece 350mm				
350 x 300 - Ø400	No.	1	R	R
200 x 250 - 150 x 250	No.	1	R	R
200 x 250 - Ø400	No.	1	R	R
Uninsulated Round Spigot				
Ø200	No.	5	R	R
Uninsulated Flexible Ducting				
Ø200	m	10	R	R
DOUBLE VOLUME				
Insulated Rectangular Ducting				
700 x 350	m	1	R	R
650 x 350	m	4	R	R
Insulated Round Ducting				
Ø650	m	7.5	R	R
Ø630	m	2.5	R	R
Insulated 90° Bend				
Ø630	No.	4	R	R

Insulated Round Blank End				
Ø650	No.	1	R	R
Insulated Rectangular Blank End				
650 x 350	No.	1	R	R
Insulated Round Spigot				
Ø630	No.	4	R	R
Ø350	No.	3	R	R
Ø200	No.	1	R	R
Insulated Flexible Ducting				
Ø350	m	5.5	R	R
Ø200	m	2	R	R
LECTURE HALL/ENTRANCE LOBBY/CONTROL ROOM				
Insulated Rectangular Ducting				
1500 x 900	m	8	R	R
1350 x 900	m	2.5	R	R
1200 x 900	m	6	R	R
1100 x 750	m	6	R	R
1100 x 500	m	6	R	R
850 x 400	m	1	R	R
850 x 350	m	1	R	R
650 x 1200	m	5	R	R
650 x 1150	m	6.5	R	R
650 x 1050	m	8	R	R
650 x 900	m	6	R	R
650 x 750	m	6	R	R
650 x 650	m	10	R	R

650 x 550	m	19	R	R
650 x 500	m	6	R	R
650 x 450	m	10	R	R
650 x 400	m	6	R	R
650 x 350	m	6	R	R
650 x 300	m	3	R	R
600 x 350	m	3	R	R
550 x 400	m	5.5	R	R
500 x 400	m	6	R	R
500 x 350	m	24	R	R
450 x 300	m	11	R	R
400 x 400	m	12	R	R
400 x 350	m	24	R	R
400 x 250	m	10	R	R
350 x 300	m	6	R	R
300 x 350	m	18	R	R
250 x 350	m	5.5	R	R
250 x 250	m	8	R	R
200 x 400	m	6	R	R
200 x 350	m	17	R	R
200 x 200	m	2	R	R
150 x 250	m	12.5	R	R
200 x 200	m	2	R	R
Insulated Round Ducting				
Ø200	m	4	R	R
Ø150	m	2.5	R	R
Insulated 90° Bend				

1500 x 900	No.	2	R	R
650 x 1200	No.	2	R	R
650 x 650	No.	1	R	R
650 x 450	No.	1	R	R
Insulated Rectangular Blank End				
400 x 250	No.	1	R	R
250 x 350	No.	1	R	R
200 x 400	No.	1	R	R
200 x 350	No.	3	R	R
100 x 200	No.	1	R	R
150 x 200	No.	1	R	R
Insulated Rectangular Transformation Piece 500mm				
1500 x 900 - 1350 x 900	No.	1	R	R
1350 x 900 - 1200 x 900	No.	1	R	R
1200 x 900 - 1100 x 750	No.	1	R	R
1100 x 750 - 1100 x 500	No.	1	R	R
1100 x 500 - 650 x 500	No.	1	R	R
850 x 400 - 650 x 400	No.	1	R	R
850 x 350 - 650 x 350	No.	1	R	R
650 x 1200 - 650 x 1150	No.	1	R	R
650 x 1150 - 650 x 1050	No.	1	R	R
650 x 1050 - 650 x 900	No.	1	R	R
650 x 900 - 650 x 750	No.	1	R	R
650 x 750 - 650 x 650	No.	1	R	R
650 x 650 - 650 x 550	No.	1	R	R
650 x 550 - 650 x 450	No.	1	R	R

650 x 450 - 550 x 400	No.	1	R	R
650 x 400 - 500 x 400	No.	1	R	R
650 x 350 - 500 x 350	No.	2	R	R
600 x 350 - 500 x 350	No.	2	R	R
550 x 400 - 400 x 400	No.	1	R	R
500 x 400 - 400 x 400	No.	1	R	R
500 x 350 - 400 x 350	No.	4	R	R
450 x 300 - 350 x 300	No.	1	R	R
Insulated Rectangular Transformation Piece 350mm				
400 x 400 - 400 x 250	No.	1	R	R
400 x 400 - 400 x 200	No.	1	R	R
400 x 350 - 300 x 350	No.	3	R	R
400 x 350 - 250 x 350	No.	1	R	R
350 x 300 - 150 x 250	No.	1	R	R
300 x 350 - 200 x 350	No.	3	R	R
200 x 200 - 150 x 200	No.	1	R	R
Insulated Round Spigot				
Ø350	No.	5	R	R
Ø300	No.	20	R	R
Ø250	No.	1	R	R
Ø200	No.	4	R	R
Rectangular Shoe Branch Flanged				
850 x 400 - 850 x 400	No.	1	R	R
850 x 350 - 850 x 350	No.	1	R	R
650 x 300 - 650 x 300	No.	1	R	R
600 x 350 - 600 x 350	No.	2	R	R
400 x 250 - 400 x 250	No.	1	R	R

200 x 200 - 200 x 200	No.	1	R	R
Insulated Flexible Ducting				
Ø350	m	4	R	R
Ø300	m	14.5	R	R
Ø250	m	2	R	R
Ø200	m	7.5	R	R
Fresh Air Supply				
Insulated Rectangular Ducting				
650 x 400	m	3.5	R	R
650 x 350	m	3.5	R	R
600 x 350	m	2.5	R	R
500 x 600	m	2	R	R
500 x 450	m	16.5	R	R
500 x 350	m	3.5	R	R
450 x 300	m	9.5	R	R
400 x 350	m	5	R	R
350 x 300	m	2	R	R
350 x 250	m	5	R	R
300 x 450	m	8	R	R
300 x 250	m	8	R	R
250 x 350	m	4	R	R
250 x 300	m	35.5	R	R
250 x 250	m	9	R	R
200 x 350	m	10.5	R	R
200 x 250	m	22	R	R
200 x 200	m	14	R	R

150 x 300	m	6.5	R	R
150 x 250	m	30	R	R
150 x 200	m	7	R	R
100 x 250	m	9	R	R
100 x 150	m	18.5	R	R
Insulated Round Ducting				
Ø350	m	1	R	R
Ø300	m	10	R	R
Ø250	m	13.5	R	R
Ø200	m	12.5	R	R
Ø150	m	5	R	R
Ø100	m	17	R	R
Insulated Rectangular Transformation Piece 400mm				
650 x 400 - 650 x 350	No.	1	R	R
650 x 350 - 600 x 350	No.	1	R	R
600 x 350 - 500 x 350	No.	1	R	R
500 x 600 - 500 x 450	No.	1	R	R
500 x 450 - 250 x 350	No.	1	R	R
500 x 350 - 400 x 350	No.	1	R	R
350 x 300 - 250 x 300	No.	1	R	R
350 x 250 - 300 x 250	No.	1	R	R
300 x 450 - 250 x 300	No.	1	R	R
300 x 250 - 150 x 250	No.	1	R	R
250 x 350 - 200 x 350	No.	1	R	R
250 x 300 - 150 x 300	No.	2	R	R
250 x 300 - 150 x 250	No.	1	R	R
250 x 250 - 200 x 250	No.	1	R	R

200 x 250 - 200 x 200	No.	1	R	R
200 x 250 - 150 x 250	No.	1	R	R
200 x 200 - 150 x 200	No.	1	R	R
150 x 300 - 100 x 150	No.	1	R	R
150 x 250 - 100 x 250	No.	1	R	R
150 x 200 - 100 x 150	No.	1	R	R
100 x 250 - 100 x 150	No.	1	R	R
Insulated 90° Bend				
650 x 400	No.	2	R	R
600 x 350	No.	1	R	R
500 x 450	No.	1	R	R
450 x 300	No.	1	R	R
300 x 450	No.	2	R	R
250 x 300	No.	3	R	R
150 x 250	No.	1	R	R
Ø300	No.	3	R	R
Insulated 45° Bend				
Ø250	No.	2	R	R
Insulated Rectangular Blank End				
450 x 300	No.	1	R	R
400 x 350	No.	1	R	R
200 x 350	No.	1	R	R
150 x 300	No.	1	R	R
150 x 250	No.	2	R	R
100 x 150	No.	2	R	R
Rectangular Shoe Branch Flanged				

650 x 400 - 650 x 400	No.	1	R	R
500 x 600 - 500 x 600	No.	1	R	R
450 x 300 - 450 x 300	No.	1	R	R
350 x 300 - 350 x 300	No.	1	R	R
350 x 250 - 350 x 250	No.	1	R	R
300 x 450 - 300 x 450	No.	1	R	R
250 x 300 - 250 x 300	No.	1	R	R
250 x 250 - 250 x 250	No.	1	R	R
200 x 400 - 200 x 400	No.	1	R	R
200 x 250 - 200 x 250	No.	2	R	R
Insulated Round Spigot				
Ø350	No.	2	R	R
Ø300	No.	3	R	R
Ø250	No.	8	R	R
Ø200	No.	10	R	R
Ø100	No.	13	R	R
Insulated Flexible Ducting				
Ø350	m	4	R	R
Ø300	m	2	R	R
Ø250	m	11	R	R
Ø200	m	18	R	R
Ø100	m	24	R	R
GROUND FLOOR				
INTERACTIVE TUTORIAL/E-LEARNING ROOM				
Insulated Rectangular Ducting				
500 x 350	m	2.5	R	R
300 x 350	m	6	R	R

Insulated Round Ducting				
Ø300	m	7.5	R	R
Ø250	m	19.5	R	R
Insulated 90° Bend				
Ø250	No.	2	R	R
Insulated Rectangular Blank End				
300 x 350	No.	1	R	R
Insulated Rectangular Transformation Piece 350mm				
500 x 350 - 300 x 350	No.	1	R	R
Insulated Round Spigot				
Ø300	No.	5	R	R
Ø250	No.	3	R	R
Insulated Flexible Ducting				
Ø300	m	10	R	R
Ø250	m	6	R	R
OPEN COMPUTER LAB				
Insulated Rectangular Ducting				
400 x 250	m	3.5	R	R
400 x 150	m	6.5	R	R
Insulated 90° Bend				
400 x 250	No.	1	R	R
400 x 150	No.	4	R	R
Insulated Rectangular Blank End				
400 x 150	No.	1	R	R

Insulated Rectangular Transformation Piece 350mm				
400 x 250 - 400 x 150	No.	1	R	R
Insulated Round Spigot				
Ø300	No.	1	R	R
Ø250	No.	2	R	R
Ø200	No.	1	R	R
Insulated Flexible Ducting				
Ø300	m	1.5	R	R
Ø250	m	5	R	R
Ø200	m	1.5	R	R
OPEN COMPUTER AREA				
Insulated Rectangular Ducting				
700 x 300	m	4	R	R
600 x 300	m	2	R	R
500 x 300	m	4	R	R
400 x 300	m	2	R	R
300 x 300	m	3.5	R	R
200 x 300	m	6	R	R
Insulated Round Ducting				
Ø250	m	6	R	R
Insulated Rectangular Blank End				
200 x 300	No.	1	R	R
Insulated Rectangular Transformation Piece 350mm				
700 x 300 - 600 x 300	No.	1	R	R
600 x 300 - 500 x 300	No.	1	R	R
500 x 300 - 400 x 300	No.	1	R	R
400 x 300 - 300 x 300	No.	1	R	R

300 x 300 - 200 x 300	No.	1	R	R
Insulated Round Spigot				
Ø350	No.	2	R	R
Ø300	No.	1	R	R
Ø250	No.	6	R	R
Insulated Flexible Ducting				
Ø350	m	2.5	R	R
Ø300	m	1.5	R	R
Ø250	m	11	R	R
GROUP STUDY				
Insulated Rectangular Ducting				
250 x 300	m	2	R	R
150 x 300	m	6	R	R
Insulated Round Ducting				
Ø250	m	2.5	R	R
Insulated Rectangular Blank End				
150 x 300	No.	1	R	R
Insulated Rectangular Transformation Piece 350mm				
250 x 300 - 150 x 300	No.	1	R	R
Insulated Round Spigot				
Ø250	No.	4	R	R
Insulated Flexible Ducting				
Ø250	m	7.5	R	R
OPEN COMPUTER AREA				
Insulated Rectangular Ducting				

300 x 350	m	1	R	R
200 x 350	m	1.5	R	R
150 x 300	m	4	R	R
Insulated Round Ducting				
Ø250	m	2.2	R	R
Insulated Rectangular Blank End				
200 x 350	No.	1	R	R
150 x 300	No.	2	R	R
Rectangular Shoe Branch Flanged				
150 x 300 - 150 x 300	No.	2	R	R
Insulated Rectangular Transformation Piece 350mm				
300 x 350 - 200 x 350	No.	1	R	R
Insulated Round Spigot				
Ø300	No.	2	R	R
Ø250	No.	5	R	R
Insulated Flexible Ducting				
Ø300	No.	4	R	R
Ø250	No.	8.5	R	R
PUBLIC ABLUTIONS				
Uninsulated Rectangular Ducting				
250 x 350	m	9.5	R	R
250 x 250	m	4.5	R	R
150 x 250	m	2	R	R
100 x 250	m	3	R	R
Uninsulated Round Ducting				
Ø200	m	8.5	R	R

Uninsulated 90° Bend				
250 x 350	No.	1	R	R
Uninsulated Rectangular Blank End				
150 x 250	No.	1	R	R
100 x 250	No.	1	R	R
Uninsulated Rectangular Transformation Piece 350mm				
250 x 350 - 250 x 250	No.	2	R	R
250 x 250 - 150 x 250	No.	1	R	R
250 x 250 - 100 x 250	No.	1	R	R
Uninsulated Round Spigot				
Ø200	No.	9	R	R
Uninsulated Rectangular Shoe Branch Flanged				
250 x 350	No.	2	R	R
Uninsulated Flexible Ducting				
Ø200	m	17	R	R
FOOD PREP AREA				
Uninsulated Round Ducting				
Ø300	m	3	R	R
Uninsulated Rectangular Transformation Piece 350mm				
Ø300 - 350 x 350	No.	1	R	R
Uninsulated Flexible Ducting				
Ø300	m	1.5	R	R
FEMALE ABLUTIONS				
Uninsulated Rectangular Ducting				
300 x 250	m	6.5	R	R
200 x 250	m	2.5	R	R

Uninsulated Round Ducting				
Ø200	m	2	R	R
Uninsulated 90° Bend				
300 x 250	No.	2	R	R
Uninsulated Rectangular Blank End				
200 x 250	No.	1	R	R
Uninsulated Rectangular Transformation Piece 350mm				
300 x 250 - 200 x 250	No.	1	R	R
Uninsulated Round Spigot				
Ø200	No.	5	R	R
Ø150	No.	1	R	R
Uninsulated Flexible Ducting				
Ø200	m	3	R	R
Ø150	m	1.5	R	R
MALE ABLUTIONS				
Uninsulated Rectangular Ducting				
350 x 300	m	2.5	R	R
250 x 250	m	3	R	R
150 x 250	m	4.5	R	R
Uninsulated Round Ducting				
Ø200	m	0.5	R	R
Uninsulated 90° Bend				
350 x 300	No.	1	R	R
Uninsulated Rectangular Blank End				
350 x 300	No.	1	R	R
150 x 250	No.	2	R	R

Uninsulated Rectangular Transformation Piece 350mm				
250 x 250 -150 x 250	No.	2	R	R
Uninsulated Rectangular Shoe Branch Flanged				
250 x 250 -250 x 250	No.	2	R	R
Uninsulated Round Spigot				
Ø200	No.	7	R	R
Uninsulated Flexible Ducting				
Ø200	m	8.5	R	R
ENTRANCE PASSAGE				
Insulated Rectangular Ducting				
400 x 350	m	3.5	R	R
250 x 300	m	13	R	R
150 x 300	m	12	R	R
Insulated Round Ducting				
Ø250	m	6	R	R
Insulated Rectangular Blank End				
400 x 350	No.	1	R	R
150 x 300	No.	2	R	R
Insulated Rectangular Transformation Piece 350mm				
250 x 300 - 150 x 300	No.	2	R	R
Insulated Round Spigot				
Ø350	No.	1	R	R
Ø250	No.	6	R	R
Rectangular Shoe Branch Flanged				
250 x 300 - 250 x 300	No.	2	R	R

Insulated Flexible Ducting				
Ø350	m	1.5	R	R
Ø250	m	7.5	R	R
STAFF ABLUTIONS				
Insulated Rectangular Ducting				
350 x 300	m	3	R	R
200 x 250	m	7	R	R
150 x 250	m	0.5	R	R
Uninsulated Round Ducting				
Ø200	m	1.5	R	R
Uninsulated 90° Bend				
200 x 250	No.	2	R	R
Uninsulated Rectangular Blank End				
150 x 250	No.	1	R	R
Uninsulated Rectangular Transformation Piece 350mm				
350 x 300 - Ø400	No.	1	R	R
200 x 250 - 150 x 250	No.	1	R	R
200 x 250 - Ø400	No.	1	R	R
Uninsulated Round Spigot				
Ø200	No.	5	R	R
Uninsulated Flexible Ducting				
Ø200	m	10	R	R
Cleaning & Flushing systems (Costs Related for gas pipes and ducting)	Sum	-	-	R

PROJECT : EKURHULENI TVET COLLEGE MEDIA CENTRE
BILLS OF QUANTITIES - DAMPERS

[illegible]

PART: NOTES

[illegible]

PART: LIFT INSTALLATION

TOTAL LIFT INSTALLATION CARRIED FORWARD TO SUMMARY

PART: SUMMARY

3

PART: NOTES

[illegible]

BILL OF RATES - DRAINAGE SANITATION**PART: DRAINAGE SANITATION**

Item	Description	Unit	Qty.	Supply & Install Rate	Total Amount
Drawing: 1082-SAN-100					
	Supply, erection & commissioning of complete drainage system acc to SANS 10252-2				
1.0	SVP PIPING				
	Complete with all necessary supports and fittings to complete the installation. Above ground drainage: All Bends to be a type fitted with an inspection eye, and inspection chambers to be of steel manufacture.				
	Ø110 mm piping to SANS 791 and SANS 967	m	75	R	R
1.1	SVP FITTINGS				
1.1.1	2- Way Vent Valve				
	Ø110	No.	2	R	R
1.1.2	Stop End Access				
	Ø110	No.	5	R	R
1.1.3	Eccentric Reducer.				
	Ø110 - Ø50	No.	4	R	R
1.1.4	Solvent Weld Socket				
	Ø110	No.	8	R	R
1.1.5	Single Socket				
	Ø110	No.	8	R	R
1.1.6	Socket Double				
	Ø110	No.	5	R	R
1.1.7	Kimberley Socket				
	Ø110	No.	3	R	R
1.1.8	Pan Connector 90° Bend With Inspection Eye				
	Ø110	No.	4	R	R
1.1.9	Straight Pan Collar With Rubber Seal Ring				

	Ø110	No.	33	R	R
1.1.10	Inspection Eye Heel With Bend 95°				
	Ø110	No.	34	R	R
1.1.11	Inspection Eye Heel With Bend Vent Horn				
	Ø110	No.	2	R	R
1.1.12	Plain Bend 135°				
	Ø110	No.	8	R	R
1.1.13	Bend Plain 95°				
	Ø110	No.	5	R	R
1.1.14	Junction 95° Single Reducing Plain 110 x 50				
	Ø110	No.	6	R	R
1.1.15	Inspection Eye Heel Junction Single 95°				
	Ø110 x Ø50	No.	6	R	R
1.1.16	Junction Single 95° With Inspection Eye				
	Ø110 x Ø110	No.	5	R	R
1.1.17	Junction 135° Single Plain				
	Ø110	No.	8	R	R
1.1.18	Junction 135° Single With Inspection Eye.				
	Ø110	No.	2	R	R
1.1.19	Rodding Eye				
	Ø110	No.	3	R	R
1.2	WASTE PIPING				
	Complete with all necessary supports and fittings to complete the installation. Above ground drainage: All Bends to be a type fitted with an inspection eye, and inspection chambers to be of steel manufacture.				
	Ø50 mm piping to SANS 791 and SANS 967	m	29	R	R
	Ø40 mm piping to SANS 791 and SANS 967	m	11	R	R

	Ø32 mm piping to SANS 791 and SANS 967	m	19	R	R
1.3	WASTE FITTINGS				
1.3.1	Waste Stopend				
	Ø40	No.	2	R	R
	Ø32	No.	1	R	R
1.3.2	Waste Reducer				
	50 x 40	No.	6	R	R
	40 x 32	No.	18	R	R
1.3.3	Waste Socket				
	Ø50	No.	12	R	R
	Ø40	No.	8	R	R
	Ø32	No.	18	R	R
1.3.4	Waste Junction 87,5°				
	Ø50	No.	16	R	R
	Ø40	No.	3	R	R
	Ø32	No.	14	R	R
1.3.5	Waste Junction 87,5° With Inspection Eye				
	Ø40	No.	6	R	R
	Ø32	No.	9	R	R
1.3.6	Waste Junction 135° With Inspection Eye				
	Ø50	No.	4	R	R
	Ø40	No.	1	R	R
	Ø32	No.	2	R	R
1.3.7	Waste Bend Plain 135°				
	Ø50	No.	2	R	R
	Ø40	No.	1	R	R
	Ø32	No.	1	R	R

1.3.8	Waste Bend Plain 87,5°				
	Ø50	No.	12	R	R
	Ø40	No.	5	R	R
	Ø32	No.	12	R	R
1.3.9	Waste Bend Plain 87,5° With Inspection Eye				
	Ø50	No.	6	R	R
	Ø40	No.	2	R	R
	Ø32	No.	26	R	R
1.3.10	2-Way Vent Valve				
	Ø50	No.	4	R	R
1.4	General items				
	Concrete gulley complete with gulley trap and grill with reducer 200x100mm	No.	1	R	R
	Type HB 125 V (H) NW 50 Floor Trap.	No.	5	R	R
	Ø32 Bottle traps for urinals and wash hand basins	No.	34	R	R
	Ø40 Double S Traps for sinks	No.	2	R	R
	Sundries	Sum	-	-	R
1.5	HVAC CONDENSATE DRAIN (HDPE)				
1.5.1	CONDENSATE PIPING (HDPE)				
	Ø32	m	50	R	R
	Ø25	m	262	R	R
1.5.2	Bend Plain 90°				
	Ø32	No.	6	R	R
	Ø25	No.	76	R	R
1.5.3	Equal Tees				
	Ø32	No.	5	R	R
	Ø25	No.	18	R	R

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PART: SUMMARY

7

BILL OF RATES - FIRE PROTECTION**PART: FIRE SIGNAGE**

Item	Description	Unit	Qty.	Supply & Install Rate	Total Amount
Drawing: 1082-FS-100 AND 200					
1.1	Supply, delivery and installation of a green Fire Assembly Point sign mounted on a post and located at the position shown on the drawing.	No.	1	R	R
1.2	Supply, delivery and installation of a wall mounted single sided 150mm module Green Photo Luminescent E1 Fire Escape sign with a frame at the positions shown on the drawing.	No.	2	R	R
1.3	Supply, delivery and installation of a wall mounted single sided 150mm module Green Photo Luminescent E2 Fire Escape sign with a frame at the positions shown on the drawing.	No.	4	R	R
1.4	Supply, delivery and installation of a wall mounted single sided 150mm module Green Photo Luminescent E3 Fire Escape sign with a frame at the positions shown on the drawing.	No.	33	R	R
1.5	Supply, delivery and installation of a wall mounted single sided 150mm module Green Photo Luminescent E18 Fire Escape sign with a frame at the positions shown on the drawing.	No.	2	R	R
1.6	Supply, delivery and installation of a wall mounted single sided red Photo Luminescent F4 Fire sign with a frame at the positions shown on the drawing.	No.	6	R	R
1.7	Supply, delivery and installation of a wall mounted single sided red Photo Luminescent F13 Fire sign with a frame at the positions shown on the drawing.	No.	11	R	R
1.8	Supply, delivery and installation of a wall mounted single sided red Photo Luminescent F45 Fire sign with a frame at the positions shown on the drawing.	No.	7	R	R
1.9	Supply, delivery and installation of a single sided ceiling mounted 150mm module Green Photo Luminescent E1 Fire Sign with a frame at the position shown on the drawing.	No.	3	R	R
1.10	Supply, delivery and installation of a single sided ceiling mounted 150mm module Green Photo Luminescent E2 Fire Sign with a frame at the position shown on the drawing.	No.	2	R	R
1.11	Supply, delivery and installation of a single sided ceiling mounted 150mm module Green Photo Luminescent E1/E2 Fire Sign with a frame at the position shown on the drawing.	No.	8	R	R
1.12	Supply, delivery and installation of a single sided ceiling mounted Green Photo Luminescent E6 Fire Sign with a frame at the position shown on the drawing.	No.	1	R	R
TOTAL FIRE SIGNAGE CARRIED FORWARD TO SUMMARY					R

BILL OF RATES - FIRE PROTECTION**PART: FIRE FIGHTING EQUIPMENT**

Item	Description	Unit	Qty.	Supply & Install Rate	Total Amount
Drawing: 1082-FS-100 AND 200					
	PORTABLE FIRE EXTINGUISHERS				
2.1	Supply, delivery and installation of a wall mounted portable fire extinguisher complete with a backing board and mounting bracket.				
	9 kg Dry Chemical Powder	No.	20	R	R
	5 kg CO2	No.	5	R	R
2.2	FIRE HOSE REELS				
	Supply, delivery and installation of an SABS approved 30m PVC Fire Hose Reel complete with a light alloy nozzle with valve, draw off shackle with seal, 1 off union and piping, isolation ball valve and wall mounting bracket.				
		No.	6	R	R
2.3	PIPING				
	Supply and install galvanized piping including supports and painting red.				
	Ø25	m	140	R	R
	Ø32	m	26	R	R
	Ø40	m	18	R	R
2.4	Supply and install galvanized piping to be layed in a trench.				
	Ø25	m	16	R	R
	Ø32	m	70	R	R
	Ø40	m	17	R	R
	Ø50	m	100	R	R
2.5	PIPE FITTINGS				
	Ø50 - Ø40 reducer	No.	2	R	R
	Ø40 - Ø32 reducer	No.	3	R	R
	Ø32 - Ø25 reducer	No.	6	R	R
	Ø32 - Ø25 reducer	No.	5	R	R
	Ø50 - Equal Tee	No.	1	R	R

	Ø40 - Equal Tee	No.	1	R	R
	Ø32 - Equal Tee	No.	1	R	R
	Ø25 - Equal Tee	No.	2	R	R
	Ø40 - 90° bend	No.	2	R	R
	Ø32 - 90° bend	No.	6	R	R
	Ø25 - 90° bend	No.	15	R	R
2.6	OUTDOOR FIRE HYDRANTS				
	All fire hydrants must conform to SANS 1128 - Part I.				
	Hydrant hose couplings, connectors and branch pipe and nozzle connections must conform to SANS 1128 - Part II. Provide hydrant valves with upwards oblique, downwards oblique, right angle or straight through pattern as specified in the Project Specification.				
	Install outdoor hydrants above ground on permanently charged mains as indicated on the project drawings. Fit above ground hydrant valves with sheathed spindles suitable for tamper proof key type handles.				
	Sheathed valves spindles must be of the shielded type with the spindle not protruding beyond the shield.				
	Complete installed fire hydrant	No	2	R	R
2.7	FIRE PUMP ROOM				
	Electric driven fire pump to NFPA/FM standards. Including NFPA electrical control panel. Pressure head of 40 meter and flow rate of 70 m³/h. Patterson Type Fire Pumps sets including including a jockey pump for the fire reticulation				
	Complete installed and commissioned fire pump	No	1	R	R
2.8	Fire Tank				
	150KL Steel Tanks mounted 6m Height, Tank to serve the Wellness Centre as well as the Media Centre. Tanks shall be interconnected with valve points that could be opened in case of emergency.				
	Complete installed fire tank	No	1	R	R
2.9	Expansion tank				
	Expansion tank of 200 liters rated at 600 kPa complete with 25NB Isolation valve. Pressure test certificate required. To be installed according to supplier requirements. Removable and replaceable heavy-duty butyl rubber bladder.				
	Complete installed and commissioned expansion tank	No	1	R	R
2.10	Pressure Switch				
	Pressure switch adjustable from 300kPa to 500 kPa range. Pressure switch shall control the pumps to alternate to the standby pump if the duty pump fails.				

	Complete installed and commissioned pressure switch	No	1	R	R
2.11	Pressure Gauge				
	100mm Diam Glycerine filled pressure gauge 0 to 600 kPa range and working pressure at 400 kPa.				
	Complete installed and commissioned pressure gauge	No	2	R	R
2.12	Booster Connection				
	Duplex full bore booster point with pressure gauge to SANS standard				
	Install complete booster connection	No	1	R	R
2.13	Storz Suction Hydrant Connection				
	110mm Storz suction hydrant connection				
	Install complete suction hydrant connection	No	1	R	R
2.14	HDPE Pipe: (Under ground buried)				
	HDPE pipe to SANS 4427 Part 2 Material grade PE 100 and pressure rating PN 20, Installed complete with cutting, strictly in accordance with the manufacturer's instructions and SANS 4427. Connections underground shall be fusion or butt welded only. Supply pipe in 12 m (minimum) lengths. To ensure water tightness use butt-welded joints (SABS 0268 – Part 1) or electro-fusion welding (SABS 0268 – Part 2) where butt welding is not possible. No compression fittings are allowed except if in watertight manholes. All piping must be pressure tested and witnessed by the Engineer and the Engineer must carry out all inspections before backfilling takes place. Prepare trenches and do backfilling and compacting in accordance with SANS 1200.				
	Underground 110mm main fire networks including all bends, isolation valves, non-return valves, air valves, strainers, reducing Tees to hydrants and fire hose connections as per the fire site layout drawings including trenching and back-filling	m	600	R	R
2.15	HDPE Manholes				
	HDPE manholes: All material for HDPE manholes to conform to HDPE: Type PE 100, SABS, ISO 4427 specifications and all welding to SABS 0268, SABS 0269, SABS method 1269, SABS 0270, SABS 1655 and SABS 1671.				
	Manhole shafts to be structured or solid wall HDPE pipes with 8,0 kN/m ² ring stiffness or alternatively manufactured to same standard. HDPE pipes to be welded to manhole. Manhole to be similar to HDPE sewer manholes (detail TYPE NO DT 04/D) and welding details as per included detail (TYPE NO DT 20/SW). Complete with cover.				
	Install complete manhole and connect to pipes	No	4	R	R

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PART: SUMMARY

6

PROJECT :EKURHULENI TVET COLLEGE - MEDIA CENTRE

BILL OF RATES - WET SERVICES

Item	Description	Unit	Qty.	Supply & Install Rate	Total Amount
Drawing: 1082-WS-100 AND 1082-WS-200					
1	PIPING PP-R (Polypropolyne)				
1.1	PP-R Pipe:				
	Hot and Cold Water Piping. Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 2. Pressure rating SDR 7.4 or Pipe series S 3.2				
1.1.1	Ø15	m	156	R	R
1.1.2	Ø20	m	72	R	R
1.1.3	Ø25	m	144	R	R
1.1.4	Ø32	m	66	R	R
1.1.5	Ø40	m	15	R	R
1.2	Bends 90 deg				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2				
1.2.1	Ø15	No.	192	R	R
1.2.2	Ø20	No.	42	R	R
1.2.3	Ø25	No.	29	R	R
1.2.4	Ø32	No.	20	R	R
1.2.5	Ø40	No.	3	R	R
1.3	Tee equal				
	Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3.				
1.3.1	Ø15	No	12	R	R
1.3.2	Ø20	No	23	R	R
1.3.3	Ø25	No	38	R	R
1.3.4	Ø32	No	20	R	R

1.3.5	Ø40	No	2	R	R
1.4	Reducer concentric				
	Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2				
1.4.1	Ø20 x Ø15	No	87	R	R
1.4.2	Ø25 x Ø20	No	81	R	R
1.4.3	Ø32 x Ø25	No	28	R	R
1.4.4	Ø40 x Ø32	No	4	R	R
1.5	Union screwed				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2				
1.5.1	Ø15	No	12	R	R
1.5.2	Ø20	No	18	R	R
1.5.3	Ø25	No	30	R	R
1.5.4	Ø32	No	9	R	R
1.5.5	Ø40	No	5	R	R
1.6	Socket				
	Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2				
1.6.1	Ø16	No	12	R	R
1.6.2	Ø20	No	18	R	R
1.6.3	Ø25	No	30	R	R
1.6.4	Ø32	No	9	R	R
1.6.4	Ø40	No	5	R	R
1.7	Female adaptor				

	Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2				
1.7.1	Ø15	No	20	R	R
1.7.2	Ø20	No	20	R	R
1.7.3	Ø25	No	15	R	R
1.7.4	Ø32	No	15	R	R
1.7.5	Ø40	No	4	R	R
1.8	Male adaptor				
	Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2				
1.8.1	Ø15	No	20	R	R
1.8.2	Ø20	No	20	R	R
1.8.3	Ø25	No	20	R	R
1.8.4	Ø32	No	15	R	R
1.8.5	Ø40	No	15	R	R
1.9	Angle Valves:				
	Brass, chrome plated c/w eustacheon				
1.9.1	Ø15	No	88	R	R
1.10	Hose Connectors				
	Braided flexi connector.				
1.10.1	Ø15	No	88	R	R
1.11	Isolating Valves:				
	Brass, c/w conex fittings				
1.11.1	Ø20	No.	6	R	R
1.11.2	Ø25	No.	20	R	R
1.11.3	Ø32	No.	7	R	R
1.11.4	Ø40	No	2	R	R
1.12	Flush Valves for Urinals				
	Cobra Junior Flushmaster type FJ6.000 c/w connector and				

	spray rose, ball-o-stop and wall flange. Chrome plated				
	SANS 1240. Wall flange C-FJZ1.3, Piston assembly				
	C-FJ8.11 Pushbutton assembly C-FJ8.21 or similar				
	approved.				
1.12.1	Ø20	No	8	R	R
1.13	Y-Strainers:				
	Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2				
1.13.1	Ø32	No.	3	R	R
1.13.2	Ø40	No.	1	R	R
1.14	Thermaflex Pipe Insulation				
	Thermaflex insulation				
1.14.1	Ø15	m	50	R	R
1.14.2	Ø20	m	36	R	R
1.14.3	Ø25	m	100	R	R
1.14.3	Ø32	m	20	R	R
2	EQUIPMENT				
2.1	Heat Pumps				
	Heat Pumps for Hotwater Generation				
2.1.1	Heat pump complete with kit.	No.	4	R	R
2.2	ELECTRIC WATER HEATERS				
	Supply and Install Electric Water Heaters installed as per SANS 10252 Part 1 Figure F.1.				
2.2.1	100L	No.	1	R	R
2.2.1	150L	No.	3	R	R
2.3	Drip Trays For Electric Water Heaters				
2.3.1	100L	No.	1	R	R
2.3.2	150L	No.	3	R	R
2.3.3	Ø40 uPVC Drain Pipe	m	14	R	R
2.4	Rain Water Harvesting Tanks				

EKURHULENI EAST TVET COLLEGE - MEDIA CENTRE**SUBJECT : MECHANICAL INSTALLATION SUMMARY****SUMMARY OF SCHEDULE OF QUANTITIES**

DESCRIPTION		TENDER AMOUNT
1	BILL No.1 - HVAC INSTALLATION	
2	BILL No.2 - LIFT INSTALLATION	
3	BILL No.3 - DRAINAGE SANITATION	
4	BILL No.4 - FIRE PROTECTION	
5	BILL No.5 - WET SERVICES	
6	TOTAL CARRIED TO FINAL SUMMARY	

CONSTRUCTION OF THE MEDIA CENTRE FOR EEC TVET COLLEGE

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Ms G. Mathews
BSC Chairperson
Date:

Ms HM Sibane
Principal
Date:



**higher education
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Department
Higher Education and Training
REPUBLIC OF SOUTH AFRICA



EKURHULENI EAST TVET COLLEGE

"Committed to Excellence"

**Ms G. Matthews
BSC Chairperson**

Date:

**Ms HM Sibande
Principal**

Date:
