



REPUBLIC OF KENYA



**PROPOSED COMPLETION OF MULTIMEDIA UNIVERSITY OF  
KENYA LIBRARY – NAIROBI COUNTY**

**TENDER NO. MMU/OT/LIB/02/2025-2026**

**WP ITEM NO: D1065/NB/NB/2501 JOB NO: 11612A**

**VOLUME 1/3 (Builders Works, Plumbing & Drainage Works, and Air  
Conditioning & Mechanical Ventilation Installation Works)**

**PROJECT MANAGER**

Works Secretary  
Ministry of L, PW, H&UD  
State Department for Public Works,  
P.O. BOX 30743 – 00100

**NAIROBI**

**ARCHITECT**

Chief Architect,  
Ministry of L, PW, H&UD  
State Department for Public Works,  
P.O. Box 30743-00100,

**NAIROBI**

**QUANTITY SURVEYOR**

Chief Quantity Surveyor,  
Ministry of L, PW, H&UD  
State Department for Public Works,  
P.O. Box 30743-00100,

**NAIROBI**

**ELECTRICAL ENGINEER**

Chief Engineer (Electrical)  
Ministry of L, PW, H&UD.  
State Department for Public Works,  
P.O. Box 30743-00100,

**NAIROBI**

**MECHANICAL ENGINEER**

Chief Engineer (Mechanical-BS)  
Ministry of L, PW, H&UD,  
State Department for Public Works,  
P.O. Box 30743-00100,

**NAIROBI**

**STRUCTURAL ENGINEER**

Chief Engineer (Structural),  
Ministry of L, PW, H&UD  
State Department for Public Works,  
P.O. Box 30743-00100

**NAIROBI**

**INTERIOR DESIGNER**

Chief Designer,  
Ministry of L, PW, H&UD  
State Department for Public Works,  
P.O. Box 30743-00100

**NAIROBI**

**MARCH 2026**

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**Prepared by: -**

Quantities and Contracts Department,  
State Department for Public Works,  
P.O Box 30743-00100  
NAIROBI

The contract for the above-mentioned works entered into this ..... day of ..... **2026** by the undersigned refers to these Bills of Quantities and the Ministry of Works General Specification dated March, 1976 (together with any amendments issued thereto) shall be read and construed as part of the said contract.

.....  
CONTRACTOR

.....  
MULTIMEDIA UNIVERSITY  
P.O. BOX 15653-00503,, NAIROBI

Date.....

Date.....

**SPECIAL NOTES**

- 1) The Contractor is required to check the numbers of the pages of these Bills of Quantities and should he find any missing or in duplicate or figures indistinct he must inform the, State Department for Public Works, Ngong Road, Nairobi at once and have the same rectified.
- 2) Should the Contractor be in doubt about the precise meaning of any item or figure for any reason whatsoever, he must inform the, Stated Department for Public Works, Ngong Road, Head Office in order that the correct meaning may be decided before the date for submission of tenders.
- 3) No liability will be admitted nor claim allowed in respect of errors in the Contractor's Tender due to mistakes in the Specifications, which should have been rectified in the manner, described above.

**SIGNATURE PAGE AND NOTES**



**NAME: PROPOSED PARTIAL COMPLETION OF MULTIMEDIA UNIVERSITY OF KENYA LIBRARY - NAIROBI COUNTY.**

**IDENTIFICATION OF TENDER:** WP ITEM NO: D1065/NB/NB/2501 JOB NO: 11612A

**TENDER DOCUMENTS FOR PROCUREMENT OF WORKS (BUILDING AND ASSOCIATED CIVIL ENGINEERING WORKS)**

**1) NAME AND CONTACT ADDRESSES OF PROCURING ENTITY**

Name: MULTIMEDIA UNIVERSITY OF KENYA

Address: P.O. BOX 15653-00503,, NAIROBI

Email: vc@mmu.ac.ke

**2) Invitation to Tender (ITT) No:**

**3) Tender Name: PROPOSED PARTIAL COMPLETION OF MULTIMEDIA UNIVERSITY OF KENYA LIBRARY - NAIROBI COUNTY.**

## **INVITATION TO TENDER**

### **PROCURING ENTITY:**

MULTIMEDIA UNIVERSITY

P.O. BOX 15653-00503,, NAIROBI

**CONTRACT NAME AND DESCRIPTION:** *PROPOSED PARTIAL COMPLETION OF MULTIMEDIA UNIVERSITY OF KENYA LIBRARY - NAIROBI COUNTY.*

1. The MULTIMEDIA UNIVERSITY OF KENYA- invites sealed tenders for the PROPOSED PARTIAL COMPLETION OF MULTIMEDIA UNIVERSITY OF KENYA LIBRARY - NAIROBI COUNTY.
2. Tendering will be conducted under open competitive method National using a standardized tender document. Tendering is open to all qualified and interested Tenderers.
3. Qualified and interested tenderers may obtain further information and inspect the Tender Documents during office hours **0800 to 1700 hours** at the address given below.
4. A complete set of tender documents may be purchased or obtained by interested tenders upon payment of a non- refundable fees of **Kshs.1,000** in cash or Banker's Cheque and payable to the address given below. Tender documents may be obtained electronically. Tender documents obtained electronically will be free of charge.
5. Tender documents may be viewed and downloaded for free from the websites <http://www.mmu.ac.ke/> Tenderers who download the tender document must forward their particulars form immediately to [procurement@mmu.ac.ke](mailto:procurement@mmu.ac.ke) facilitate any further clarification or addendum.
6. Tenders shall be quoted be in Kenya Shillings and shall include all taxes. Tenders shall remain valid for 126 days from the date of opening of tenders.
7. All Tenders must be accompanied by a tender Security inform of Cash, banker's cheque from a reputable bank or a Bank guarantee from a bank approved by Central Bank of Kenya or a guarantee by Insurance company registered and licensed by the Insurance Regulatory Authority of **Kshs 1,100,000.00**
8. The Tenderer shall chronologically serialize all pages of the tender documents submitted.
9. Completed tenders must be delivered to the address below on or before **as per the advert and deposited in the tender box located at the entrance of the Administration block, Multimedia University.**
10. Electronic Tenders **will not** be permitted.
11. Tenders will be opened immediately after the deadline date and time specified above or any dead line date and times specified later. Tenders will be publicly opened in the presence of the Tenderers' designated representatives who choose to attend at the address below. This will be done at the **Administration Hall.**
12. Late tenders will be rejected.
13. **Pre tender site visit** will be on **24/03/2026 at 10:00am** at the New Library Building
14. The addresses referred to above are:

## A. Address for Obtaining Further Information and for Purchasing Tender Documents

**(1) Name of Procuring Entity:**

Multimedia University of Kenya

**(2) Physical Address for Hand Delivery:**

Administration Block, Ground Floor

Multimedia University of Kenya

Off Magadi Road, Nairobi

(Tender Box at the Entrance)

**(3) Postal Address:**

P.O. Box 15653 – 00503

Nairobi, Kenya

**(4) Contact Person:**

Head of Procurement

Tel:+254 20 7252000

Email: procurement@mmu.ac.ke

## B. Address for Submission of Tenders

**(1) Name of Procuring Entity:**

Multimedia University of Kenya

**(2) Postal Address (include designation):**

The Vice Chancellor

Multimedia University of Kenya

P.O. Box 15653 – 00503

Nairobi, Kenya

**(3) Physical Address for Hand Courier Delivery:**

Administration Block, Ground Floor

Multimedia University of Kenya

Off Magadi Road, Nairobi

(Tender Box at the Main Entrance)

## C. Address for Opening of Tenders

**(1) Name of Procuring Entity:**

Multimedia University of Kenya

**(2) Physical Address for Hand Courier Delivery:**

Administration Block, Ground Floor

Multimedia University of Kenya

Off Magadi Road, Nairobi

(Tender Box at the Main Entrance)

**[Authorized Official (name, designation, Signature and date)]**

Name \_\_\_\_\_

*(Official of the Procuring Entity issuing the invitation)*

Designation SUPPLY CHAIN MANAGER

Signature \_\_\_\_\_

Date \_\_\_\_\_

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# **PART1:TENDERING PROCEDURES**

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## SECTION I - INSTRUCTIONS TO TENDERERS

### A GENERAL PROVISIONS

#### 1.0 Scope of tender

1.1 The Procuring Entity as defined in the Appendix to Conditions of Contract invites tenders for Works Contract as described in the tender documents. The name, identification, and number of lots (contracts) of this Tender Document are specified in the TDS.

1.2 Throughout this tendering document:

- a) The term “inwriting” means communicated in written form (e.g. by mail, e-mail, fax, including if specified in the TDS, distributed or received through the electronic-procurement system used by the Procuring Entity) with proof of receipt;
- b) if the context so requires, “singular” means “plural” and vice versa;
- c) “Day” means calendar day, unless otherwise specified as “Business Day”. A Business Day is any day that is an official working day of the Procuring Entity. It excludes official public holidays.

#### 2.0 Fraud and corruption

2.1 The Procuring Entity requires compliance with the provisions of the Public Procurement and Asset Disposal Act, 2015, Section 62 “Declaration not to engage in corruption”. The tender submitted by a person shall include a declaration that the person shall not engage in any corrupt or fraudulent practice and a declaration that the person or his or her sub-contractors are not debarred from participating in public procurement proceedings.

2.2 The Procuring Entity requires compliance with the provisions of the Competition Act 2010, regarding collusive practices in contracting. Any tenderer found to have engaged in collusive conduct shall be disqualified and criminal and/or civil sanctions may be imposed. To this effect, Tenders shall be required to complete and sign the “Certificate of Independent Tender Determination” annexed to the Form of Tender.

2.3 Tenderers shall permit and shall cause their agents (whether declared or not), subcontractors, sub-consultants, service providers, suppliers, and their personnel, to permit the Procuring Entity to inspect all accounts, records and other documents relating to any initial selection process, pre-qualification process, tender submission, proposal submission, and contract performance (in the case of award), and to have them audited by auditors appointed by the Procuring Entity.

2.4 Unfair Competitive Advantage - Fairness and transparency in the tender process require that the firms or their Affiliates competing for a specific assignment do not derive a competitive advantage from having provided consulting services related to this tender. To that end, the Procuring Entity shall indicate in the **Data Sheet** and make available to all the firms together with this tender document all information that would in that respect give such firm any unfair competitive advantage over competing firms.

#### 3.0 Eligible tenderers

3.1 A Tenderer may be a firm that is a private entity, a state-owned enterprise or institution subject to ITT 3.8, or an individual or any combination of such entities in the form of a joint venture (JV) under an existing agreement with the intent to enter into such an agreement supported by a letter of intent. In the case of a joint venture, all members shall be jointly and severally liable for the execution of the entire Contract in accordance with the Contract terms. The JV shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the members of the JV during the tendering process and, in the event the JV is awarded the Contract, during contract execution. Members of a joint venture may not also make an individual tender, be a subcontractor in a separate tender or be part of another joint venture for the purposes of the same Tender. The maximum number of JV members shall be specified in the **TDS**.

- 32** Public Officers of the Procuring Entity, their Spouses, Child, Parent, Brothers or Sister. Child, Parent, Brother or Sister of a Spouse, their business associates or agents and firms/organizations in which they have a substantial or controlling interest shall not be eligible to tender or be awarded a contract. Public Officers are also not allowed to participate in any procurement proceedings.
- 33** A Tenderer shall not have a conflict of interest. Any tenderer found to have a conflict of interest shall be disqualified. A tenderer may be considered to have a conflict of interest for the purpose of this tendering process, if the tenderer:
- a) Directly or indirectly controls, is controlled by or is under common control with an other tenderer;
  - b) Receives or has received any director indirect subsidy from another tenderer;
  - c) Has the same legal representative as an other tenderer;
  - d) Has a relationship with an other tenderer, directly or through common third parties, that puts it in a position to influence the tender of an other tenderer, or influence the decisions of the Procuring Entity regarding this tendering process;
  - e) Any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the goods or works that are the subject of the tender;
  - f) Any of its affiliates has been hired (or is proposed to be hired) by the Procuring Entity as a consultant for Contract implementation;
  - g) Would be providing goods, works, or non-consulting services resulting from or directly related to consulting services for the preparation or implementation of the contract specified in this Tender Document;
  - h) Has a close business or personal relationship with senior management or professional staff of the Procuring Entity who has the ability to influence the bidding process and:
    - i) Are directly or indirectly involved in the preparation of the Tender document or specifications of the Contract, and/or the Tender evaluation process of such contract; or
    - ii) May be involved in the implementation or supervision of such Contract unless the conflicts stemming from such relationship has been resolved in a manner acceptable to the Procuring Entity throughout the tendering process and execution of the Contract.
- 34** A tenderer shall not be involved in corrupt, coercive, obstructive or fraudulent practice. A tenderer that is proven to have been involved in any of these practices shall be automatically disqualified
- 35** A Tenderer (either individually or as a JV member) shall not participate in more than one Tender, except for permitted alternative tenders. This includes participation as a subcontractor in other Tenders. Such participation shall result in the disqualification of all Tenders in which the firm is involved. Members of a joint venture may not also make an individual tender, be a sub-contractor in a separate tender or be part of another joint venture for the purposes of the same Tender. A firm that is not a tenderer or a JV member may participate as a subcontractor in more than one tender.
- 36** A Tenderer may have the nationality of any country, subject to the restrictions pursuant to ITT3.9. A Tenderer shall be deemed to have the nationality of a country if the Tenderer is constituted, incorporated or registered in and operates in conformity with the provisions of the laws of that country, as evidenced by its articles of incorporation (or equivalent documents of constitution or association) and its registration documents, as the case may be. This criterion also shall apply to the determination of the nationality of proposed sub-contractors or sub-consultants for any part of the Contract including related Services.
- 37** A Tenderer that has been debarred from participating in public procurement shall be ineligible to tender or be awarded a contract. The list of debarred firms and individuals is available from the website of PPRA [www.ppra.go.ke](http://www.ppra.go.ke).

**3.8** A Tenderer that is a state-owned enterprise or a public institution in Kenya may be eligible to tender and be awarded Contract(s) only if it is determined by the Procuring Entity to meet the following conditions, i.e. if it is:

- i) A legal public entity of Government and/or public administration,
- ii) financially autonomous and not receiving any significant subsidies or budget support from any public entity or Government, and;
- (iii) operating under commercial law and vested with legal rights and liabilities similar to any commercial enterprise to enable it compete with firms in the private sector on an equal basis.

**3.9** Firms and individuals shall be ineligible if their countries of origin are:

- (a) As a matter of law or official regulations, Kenya prohibits commercial relations with that country;
- (b) by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, Kenya prohibits any import of goods or contracting of works or services from that country, or any payments to any country, person, or entity in that country.

A tenderer shall provide such documentary evidence of eligibility satisfactory to the Procuring Entity, as the Procuring Entity shall reasonably request.

**3.10** Foreign tenderers are required to source at least forty (40%) percent of their contract inputs (in supplies, local sub-contracts and labor) from citizen suppliers and contractors. To this end, a foreign tenderer shall provide in its tender documentary evidence that this requirement is met. Foreign tenderers not meeting this criterion will be automatically disqualified. Information required to enable the Procuring Entity determine if this condition is met shall be provided for this purpose in *“SECTION II - EVALUATION AND QUALIFICATION CRITERIA, Item 9”*.

**3.11** Pursuant to the eligibility requirements of ITT 3.10, a tender is considered a foreign tenderer, if it is registered in Kenya and has less than 51 percent ownership by nationals of Kenya and if it does not subcontract to foreign firms or individuals more than 10 percent of the contract price, excluding provisional sums. JVs are considered as foreign tenderers if the individual member firms registered in Kenya have less 51 percent ownership by nationals of Kenya. The JV shall not subcontract to foreign firms more than 10 percent of the contract price, excluding provisional sums.

**3.12** The National Construction Authority Act of Kenya requires that all local and foreign contractors be registered with the National Construction Authority and be issued with a Registration Certificate before they can undertake any construction works in Kenya. Registration shall not be a condition for tender, but it shall be a condition of contract award and signature. A selected tenderer shall be given opportunity to register before such award and signature of contract. Application for registration with National Construction Authority may be accessed from the website [www.nca.go.ke](http://www.nca.go.ke).

**3.13** The Competition Act of Kenya requires that firms wishing to tender as Joint Venture undertakings which may prevent, distort or lessen competition in provision of services are prohibited unless they are exempt in accordance with the provisions of Section 25 of the Competition Act, 2010. JVs will be required to seek for exemption from the Competition Authority. Exemption shall not be a condition for tender, but it shall be a condition of contract award and signature. A JV tenderer shall be given opportunity to seek such exemption as a condition of award and signature of contract. Application for exemption from the Competition Authority of Kenya may be accessed from the website [www.cak.go.ke](http://www.cak.go.ke).

4.14 A Kenyan tenderer shall be eligible to tender if it provides evidence of having fulfilled his/her tax obligations by producing valid tax compliance certificate or tax exemption certificate issued by the Kenya Revenue Authority.

**4.0 Eligible goods, equipment, and services**

- 4.1** Goods, equipment and services to be supplied under the Contract may have their origin in any country that is not ineligible under ITT 3.9. At the Procuring Entity's request, Tenderers may be required to provide evidence of the origin of Goods, equipment and services.
- 4.2** Any goods, works and production processes with characteristics that have been declared by the relevant national environmental protection agency or by other competent authority as harmful to human beings and to the environment shall not be eligible for procurement.
- 5.0 Tenderer's responsibilities**
- 5.1** The tenderer shall bear all costs associated with the preparation and submission of his/her tender, and the Procuring Entity will in no case be responsible or liable for those costs.
- 5.2** The tenderer, at the tenderer's own responsibility and risk, is encouraged to visit and examine and inspect the Site of the Works and its surroundings and obtain all information that may be necessary for preparing the tender and entering into a contract for construction of the Works. The costs of visiting the Site shall be the tenderer's own expense.
- 5.3** The Tenderer and any of its personnel or agents will be granted permission by the Procuring Entity to enter upon its premises and lands for the purpose of such visit. The Tenderer shall indemnify the Procuring Entity against all liability arising from death or personal injury, loss of or damage to property, and any other losses and expenses incurred as a result of the examination and inspection.
- 5.4** The tenderer shall provide in the Form of Tender and Qualification Information, a preliminary description of the proposed work method and schedule, including charts, as necessary or required.

## **B. CONTENTS OF TENDER DOCUMENTS**

### **6.0 Sections of Tender Document**

- 6.1** The tender document consists of Parts 1, 2, and 3, which includes all the sections specified below, and which should be read in conjunction with any Addenda issued in accordance with ITT 10.

#### **PART 1: Tendering Procedures**

Section I – Instructions to Tenderers

Section II – Tender Data Sheet (TDS)

Section III- Evaluation and Qualification

Criteria Section IV – Tendering Forms

#### **PART 2: Works'**

**Requirements** Section V -

Bills of Quantities Section VI

- Specifications Section VII -

Drawings

#### **PART 3: Conditions of Contract and Contract Forms**

**Section VIII - General Conditions (GCC)**

Section IX - Special Conditions of Contract

Section X- Contract Forms

- 6.2** The Invitation to Tender Notice issued by the Procuring Entity is not part of the Contract documents. Unless obtained directly from the Procuring Entity, the Procuring Entity is not responsible for the completeness of the Tender document, responses to requests for clarification, the minutes of a pre-arranged site visit and those of the pre-Tender meeting (if any), or Addenda to the Tender document in accordance with ITT 10. In case of any contradiction, documents obtained directly from the Procuring Entity shall prevail.

**63** The Tenderer is expected to examine all instructions, forms, terms, and specifications in the Tender Document and to furnish with its Tender all information and documentation as is required by the Tender document.

## **70 Clarification of Tender Document, Site Visit, Pre-tender Meeting**

**71** A Tenderer requiring any clarification of the Tender Document shall contact the Procuring Entity in writing at the Procuring Entity's address specified in the **TDS** or raise its enquiries during the pre-Tender meeting if provided for in accordance with ITT 7.2. The Procuring Entity will respond in writing to any request for clarification, provided that such request is received no later than the period specified in the **TDS** prior to the deadline for submission of tenders. The Procuring Entity shall forward copies of its response to all tenderers who have acquired the Tender documents in accordance with ITT 7.4, including a description of the inquiry but without identifying its source. If so specified in the **TDS**, the Procuring Entity shall also promptly publish its response at the web page identified in the **TDS**. Should the clarification result in changes to the essential elements of the Tender Documents, the Procuring Entity shall amend the Tender Documents following the procedure under ITT 8 and ITT 22.2.

**72** The Tenderer, at the Tenderer's own responsibility and risk, is encouraged to visit and examine and inspect the site(s) of the required contracts and obtain all information that may be necessary for preparing a tender. The costs of visiting the Site shall be at the Tenderer's own expense. The Procuring Entity shall specify in the **TDS** if a pre-arranged Site visit and or a pre-tender meeting will be held, when and where. The Tenderer's designated representative is invited to attend a pre-arranged site visit and a pre-tender meeting, as the case may be. The purpose of the site visit and the pre-tender meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.

**73** The Tenderer is requested to submit any questions in writing, to reach the Procuring Entity not later than the period specified in the **TDS** before the meeting.

**74** Minutes of a pre-arranged site visit and those of the pre-tender meeting, if applicable, including the text of the questions asked by Tenderers and the responses given, together with any responses prepared after the meeting, will be transmitted promptly to all Tenderers who have acquired the Tender Documents. Minutes shall not identify the source of the questions asked.

**75** The Procuring Entity shall also promptly publish anonymized (*no names*) Minutes of the pre-arranged site visit and those of the pre-tender meeting at the web page identified in the **TDS**. Any modification to the Tender Documents that may become necessary as a result of the pre-arranged site visit and those of the pre-tender meeting shall be made by the Procuring Entity exclusively through the issue of an Addendum pursuant to ITT 8 and not through the minutes of the pre-Tender meeting. Non-attendance at the pre-arranged site visit and the pre-tender meeting will not be a cause for disqualification of a Tenderer.

## **80 Amendment of Tender Documents**

**81** At any time prior to the deadline for submission of Tenders, the Procuring Entity may amend the Tender Documents by issuing addenda.

**82** Any addendum issued shall be part of the Tender Documents and shall be communicated in writing to all who have obtained the Tender Documents from the Procuring Entity. The Procuring Entity shall also promptly publish the addendum on the Procuring Entity's website in accordance with ITT 7.5.

**83** To give Tenderers reasonable time in which to take an addendum into account in preparing their

Tenders, the Procuring Entity should extend the dead line for the submission of Tenders, pursuant to ITT 22.2.

## **C. PREPARATION OF TENDERS**

### **9. Cost of Tendering**

The Tenderer shall bear all costs associated with the preparation and submission of its Tender, and the Procuring Entity shall not be responsible or liable for those costs, regardless of the conduct or outcome of the tendering process.

### **10.0 Language of Tender**

The Tender, as well as all correspondence and documents relating to the tender exchanged by the tenderer and the Procuring Entity, shall be written in the English Language. Supporting documents and printed literature that are part of the Tender may be in another language provided they are accompanied by an accurate and notarized translation of the relevant passages into the English Language, in which case, for purposes of interpretation of the Tender, such translation shall govern.

### **11.0 Documents Comprising the Tender**

**11.1** The Tender shall comprise the following:

- a) Form of Tender prepared in accordance with ITT 12;
- b) Schedules including priced Bill of Quantities, completed in accordance with ITT 12 and ITT 14;
- c) Tender Security or Tender-Securing Declaration, in accordance with ITT 19.1;
- d) Alternative Tender, if permissible, in accordance with ITT 13;
- e) **Authorization**: written confirmation authorizing the signatory of the Tender to commit the Tenderer, in accordance with ITT 20.3;
- f) **Qualifications**: documentary evidence in accordance with ITT 17 establishing the Tenderer's qualifications to perform the Contract if its Tender is accepted;
- g) **Conformity**: a technical proposal in accordance with ITT 16;
- h) Any other document required in the **TDS**.

**11.2** In addition to the requirements under ITT 11.1, Tenders submitted by a JV shall include a copy of the Joint Venture Agreement entered into by all members. Alternatively, a letter of intent to execute a Joint Venture Agreement in the event of a successful Tender shall be signed by all members and submitted with the Tender, together with a copy of the proposed JV Agreement. Change of membership and conditions of the JV prior to contract signature will render the tender liable for disqualification.

### **12.0 Form of Tender and Schedules**

**12.1** The Form of Tender and Schedules, including the Bill of Quantities, shall be prepared using the relevant forms furnished in Section IV, Tendering Forms. The forms must be completed without any alterations to the text, and no substitutes shall be accepted except as provided under ITT 20.3. All blank spaces shall be filled in with the information requested. The Tenderer shall chronologically serialize all pages of the tender documents submitted.

**12.2** The Tenderer shall furnish in the Form of Tender information on commissions and gratuities, if any, paid or to be paid to agents or any other party relating to this Tender.

### **13. Alternative Tenders**

**13.1** Unless otherwise specified in the TDS, alternative Tenders shall not be considered.

- 132 When alternative times for completion are explicitly invited, a statement to that effect will be included in the **TDS**, and the method of evaluating different alternative times for completion will be described in Section III, Evaluation and Qualification Criteria.
- 133 Except as provided under ITT 13.4 below, Tenderers wishing to offer technical alternatives to the requirements of the Tender Documents must first price the Procuring Entity's design as described in the Tender Documents and shall further provide all information necessary for a complete evaluation of the alternative by the Procuring Entity, including drawings, design calculations, technical specifications, breakdown of prices, and proposed construction methodology and other relevant details. Only the technical alternatives, if any, of the Tenderer with the Winning Tender conforming to the basic technical requirements shall be considered by the Procuring Entity.
- 134 When specified in the **TDS**, Tenderers are permitted to submit alternative technical solutions for specified parts of the Works, and such parts will be identified in the **TDS**, as will the method for their evaluating, and described in Section VII, Works' Requirements.

#### **14.0 Tender Prices and Discounts**

- 141** The prices and discounts (including any price reduction) quoted by the Tenderer in the Form of Tender and in the Bill of Quantities shall conform to the requirements specified below.
- 142** The Tenderer shall fill in rates and prices for all items of the Works described in the Bill of Quantities. Items against which no rate or price is entered by the Tenderer shall be deemed covered by the rates for other items in the Bill of Quantities and will not be paid for separately by the Procuring Entity. An item not listed in the priced Bill of Quantities shall be assumed to be not included in the Tender, and provided that the Tender is determined substantially responsive notwithstanding this omission, the average price of the item quoted by substantially responsive Tenderers will be added to the Tender price and the equivalent total cost of the Tender so determined will be used for price comparison.
- 143** The price to be quoted in the Form of Tender, in accordance with ITT 12.1, shall be the total price of the Tender, including any discounts offered.
- 144** The Tenderer shall quote any discounts and the methodology for their application in the Form of Tender, in accordance with ITT 12.1.
- 145** It will be specified in the **TDS** if the rates and prices quoted by the Tenderer are or are not subject to adjustment during the performance of the Contract in accordance with the provisions of the Conditions of Contract, except in cases where the contract is subject to fluctuations and adjustments, not fixed price. In such a case, the Tenderer shall furnish the indices and weightings for the price adjustment formulae in the Schedule of Adjustment Data and the Procuring Entity may require the Tenderer to justify its proposed indices and weightings.
- 146** Where tenders are being invited for individual lots (contracts) or for any combination of lots (packages), tenderers wishing to offer discounts for the award of more than one Contract shall specify in their Tender the price reductions applicable to each package, or alternatively, to individual Contracts within the package. Discounts shall be submitted in accordance with ITT 14.4, provided the Tenders for all lots (contracts) are opened at the same time.
- 147** All duties, taxes, and other levies payable by the Contractor under the Contract, or for any other cause, as of the date 30 days prior to the deadline for submission of Tenders, shall be included in the rates and prices and the total Tender Price submitted by the Tenderer.

#### **15.0 Currencies of Tender and Payment**

- 151** The currency(ies) of the Tender and the currency(ies) of payments shall be the same.

- 152** Tenderers shall quote entirely in Kenya Shillings. The unit rates and the prices shall be quoted by the Tenderer in the Bill of Quantities, entirely in Kenya shillings.
- a) A Tenderer expecting to incur expenditures in other currencies for inputs to the Works supplied from outside Kenya (referred to as “the foreign currency requirements”) shall (if so allowed in the **TDS**) indicate in the Appendix to Tender the percentage(s) of the Tender Price (excluding Provisional Sums), needed by the Tenderer for the payment of such foreign currency requirements, limited to no more than two foreign currencies.
  - b) The rates of exchange to be used by the Tenderer in arriving at the local currency equivalent and the percentage(s) mentioned in (a) above shall be specified by the Tenderer in the Appendix to Tender and shall be based on the exchange rate provided by the Central Bank of Kenya on the date 30 days prior to the actual date of tender opening. Such exchange rate shall apply for all foreign payments under the Contract.
- 153** Tenderers may be required by the Procuring Entity to justify, to the Procuring Entity's satisfaction, their local and foreign currency requirements, and to substantiate that the amounts included in the unit rates and prices and shown in the Schedule of Adjustment Data in the Appendix to Tender are reasonable, in which case a detailed break down of the foreign currency requirements shall be provided by Tenderers.

## **16.0 Documents Comprising the Technical Proposal**

The Tenderer shall furnish a technical proposal including a statement of work methods, equipment, personnel, schedule and any other information as stipulated in Section IV, Tender Forms, insufficient detail to demonstrate the adequacy of the Tenderer's proposal to meet the work's requirements and the completion time.

### **17.0 Documents Establishing the Eligibility and Qualifications of the Tenderer**

- 171** Tenderers shall complete the Form of Tender, included in Section IV, Tender Forms, to establish Tenderer's eligibility in accordance with ITT 4.
- 172** In accordance with Section III, Evaluation and Qualification Criteria, to establish its qualifications to perform the Contract the Tenderer shall provide the information requested in the corresponding information sheets included in Section IV, Tender Forms.
- 173** If a margin of preference applies as specified in accordance with ITT 33.1, national tenderers, individually or in joint ventures, applying for eligibility for national preference shall supply all information required to satisfy the criteria for eligibility specified in accordance with ITT 33.1.
- 174** Tenderers shall be asked to provide, as part of the data for qualification, such information, including details of ownership, as shall be required to determine whether, according to the classification established by the Procuring Entity, a particular contractor or group of contractors qualifies for a margin of preference. Further the information will enable the Procuring Entity identify any actual or potential conflict of interest in relation to the procurement and/or contract management processes, or a possibility of collusion between tenderers, and thereby help to prevent any corrupt influence in relation to the procurement process or contract management.
- 175** The purpose of the information described in ITT 17.4 above overrides any claims to confidentiality which a tenderer may have. There can be no circumstances in which it would be justified for a tenderer to keep information relating to its ownership and control confidential where it is tendering to undertake public sector work and receive public sector funds. Thus, confidentiality will not be accepted by the Procuring Entity as a justification for a Tenderer's failure to disclose, or failure to provide required information on its ownership and control.
- 176** The Tenderer shall provide further documentary proof, information or authorizations that the Procuring Entity may request in relation to ownership and control which information on any changes to the information which was provided by the tenderer under ITT 6.4. The obligations to require this information shall continue for the duration of the procurement process and contract performance and after completion of the contract, if any change to the information previously provided may reveal a conflict of interest in relation to the award or management of the contract.

- 17.7** All information provided by the tenderer pursuant to these requirements must be complete, current and accurate as at the date of provision to the Procuring Entity. In submitting the information required pursuant to these requirements, the Tenderer shall warrant that the information submitted is complete, current and accurate as at the date of submission to the Procuring Entity.
- 17.8** If a tenderer fails to submit the information required by these requirements, its tender will be rejected. Similarly, if the Procuring Entity is unable, after taking reasonable steps, to verify to a reasonable degree the information submitted by a tenderer pursuant to these requirements, then the tender will be rejected.
- 17.9** If information submitted by a tenderer pursuant to these requirements, or obtained by the Procuring Entity (whether through its own enquiries, through notification by the public or otherwise), shows any conflict of interest which could materially and improperly benefit the tenderer in relation to the procurement or contract management process, then:
- i) If the procurement process is still ongoing, the tenderer will be disqualified from the procurement process,
  - ii) if the contract has been awarded to that tenderer, the contract award will be set aside depending on the outcome of (iii),
  - iii) the tenderer will be referred to the relevant law enforcement authorities for investigation of whether the tenderer or any other person has committed any criminal offence.
- 17.10** If a tenderer submits information pursuant to these requirements that is incomplete, inaccurate or out-of-date, or attempts to obstruct the verification process, then the consequences of ITT 17.8 will ensue unless the tenderer can show to the reasonable satisfaction of the Procuring Entity that any such act was not material, or was due to genuine error which was not attributable to the intentional act, negligence or recklessness of the tenderer.

## **18.0 Period of Validity of Tenders**

- 18.1.** Tenders shall remain valid for the Tender Validity period specified in the **TDS**. The Tender Validity period starts from the date fixed for the Tender submission deadline (as prescribed by the Procuring Entity in accordance with ITT 22). A tender valid for a shorter period shall be rejected by the Procuring Entity as non-responsive.
- 18.2** In exceptional circumstances, prior to the expiration of the Tender validity period, the Procuring Entity may request Tenderers to extend the period of validity of their Tenders. The request and the responses shall be made in writing. If a Tender Security is requested in accordance with ITT 19, it shall also be extended for thirty (30) days beyond the deadline of the extended validity period. A Tenderer may refuse the request without forfeiting its Tender security. A Tenderer granting the request shall not be required or permitted to modify its Tender.

## **19.0 Tender Security**

- 19.1** The Tenderer shall furnish as part of its Tender, either a Tender-Securing Declaration or a Tender Security as specified in the **TDS**, in original form and, in the case of a Tender Security, in the amount and currency **specified** in the **TDS**. A Tender-Securing Declaration shall use the form included in Section IV, Tender Forms.
- 19.2** If a Tender Security is specified pursuant to ITT 19.1, the Tender Security shall be a demand guarantee in any of the following forms at the Tenderer's option:
- i) cash;
  - ii) a bank guarantee;
  - iii) a guarantee by an insurance company registered and licensed by the Insurance Regulatory

Authority listed by the Authority;

- (iv) a guarantee issued by a financial institution approved and licensed by the Central Bank of Kenya, from a reputable source, and an eligible country.

**193** If an unconditional bank guarantee is issued by a bank located outside Kenya, the issuing bank shall have a correspondent bank located in Kenya to make it enforceable. The Tender Security shall be valid for thirty (30) days beyond the original validity period of the Tender, or beyond any period of extension if requested under ITT 18.2.

**194** If a Tender Security or Tender-Securing Declaration is specified pursuant to ITT 19.1, any Tender not accompanied by a substantially responsive Tender Security or Tender-Securing Declaration shall be rejected by the Procuring Entity as non-responsive.

**195** If a Tender Security is specified pursuant to ITT 19.1, the Tender Security of unsuccessful Tenderers shall be returned as promptly as possible upon the successful Tenderer's signing the Contract and furnishing the Performance Security and any other documents required in the TDS. The Procuring Entity shall also promptly return the tender security to the tenderers where the procurement proceedings are terminated, all tenders were determined non-responsive or a bidder declines to extend tender validity period.

**196** The Tender Security of the successful Tenderer shall be returned as promptly as possible once the successful Tenderer has signed the Contract and furnished the required Performance Security, and any other documents required in the TDS.

**197** The Tender Security may be forfeited or the Tender-Securing Declaration executed:

- a) if a Tenderer withdraws its Tender during the period of Tender validity specified by the Tenderer on the Form of Tender, or any extension there to provided by the Tenderer; or
- b) if the successful Tenderer fails to:
  - i) sign the Contract in accordance with ITT 47; or
  - ii) furnish a Performance Security and if required in the TDS, and any other documents required in the TDS.

**198** Where tender securing declaration is executed, the Procuring Entity shall recommend to the PPRA to debar the Tenderer from participating in public procurement as provided in the law.

**199** The Tender Security or the Tender-Securing Declaration of a JV shall be in the name of the JV that submits the Tender. If the JV has not been legally constituted into a legally enforceable JV at the time of tendering, the Tender Security or the Tender-Securing Declaration shall be in the names of all future members as named in the letter of intent referred to in ITT 4.1 and ITT 11.2.

**19.10** A tenderer shall not issue a tender security to guarantee itself.

## **20.0 Format and Signing of Tender**

**20.1** The Tenderer shall prepare one original of the documents comprising the Tender as described in ITT 11 and clearly mark it "ORIGINAL." Alternative Tenders, if permitted in accordance with ITT 13, shall be clearly marked "ALTERNATIVE." In addition, the Tenderer shall submit copies of the Tender, in the number specified in the TDS and clearly mark them "COPY." In the event of any discrepancy between the original and the copies, the original shall prevail.

**20.2** Tenderers shall mark as "CONFIDENTIAL" all information in their Tenders which is confidential to their business. This may include proprietary information, trade secrets, or commercial or financially sensitive information.

**20.3** The original and all copies of the Tender shall be typed or written in indelible ink and shall be signed by a person duly authorized to sign on behalf of the Tenderer. This authorization shall consist of a

written confirmation as specified in the **TDS** and shall be attached to the Tender. The name and position held by each person signing the authorization must be typed or printed below the signature. All pages of the Tender where entries or amendments have been made shall be signed or initialed by the person signing the Tender.

**204** In case the Tenderer is a JV, the Tender shall be signed by an authorized representative of the JV on behalf of the JV, and so as to be legally binding on all the members as evidenced by a power of attorney signed by their legally authorized representatives.

**205** Any inter-lineation, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the Tender.

#### **D. SUBMISSION AND OPENING OF TENDERS**

##### **21.0 Sealing and Marking of Tenders**

**21.1** The Tenderer shall deliver the Tender in a single sealed envelope, or in a single sealed package, or in a single sealed container bearing the name and Reference number of the Tender, addressed to the Procuring Entity and a warning not to open before the time and date for Tender opening date. Within the single envelope, package or container, the Tenderer shall place the following separate, sealed envelopes:

- a) in an envelope or package or container marked "ORIGINAL", all documents comprising the Tender, as described in ITT 11; and
- b) in an envelope or package or container marked "COPIES", all required copies of the Tender; and
- c) if alternative Tenders are permitted in accordance with ITT 13, and if relevant:
  - i) in an envelope or package or container marked "ORIGINAL –ALTERNATIVE TENDER", the alternative Tender; and
  - ii) in the envelope or package or container marked "COPIES- ALTERNATIVE TENDER", all required copies of the alternative Tender.

The inner envelopes or packages or containers shall:

- a) bear the name and address of the Procuring Entity,
- b) bear the name and address of the Tenderer; and
- c) bear the name and Reference number of the Tender.

**21.2** If an envelope or package or container is not sealed and marked as required, the *Procuring Entity* will assume no responsibility for the misplacement or premature opening of the Tender. Tenders misplaced or opened prematurely will not be accepted.

##### **22.0 Deadline for Submission of Tenders**

**22.1** Tenders must be received by the Procuring Entity at the address specified in the **TDS** and no later than the date and time also specified in the **TDS**. When so specified in the **TDS**, tenderers shall have the option of submitting their Tenders electronically. Tenderers submitting Tenders electronically shall follow the electronic Tender submission procedures specified in the **TDS**.

**22.2** The Procuring Entity may, at its discretion, extend the deadline for the submission of Tenders by amending the Tender Documents in accordance with ITT 8, in which case all rights and obligations of the Procuring Entity and Tenderers previously subject to the deadline shall thereafter be subject to the deadline as extended.

##### **23.0 Late Tenders**

The Procuring Entity shall not consider any Tender that arrives after the deadline for submission of tenders, in accordance with ITT 22. Any Tender received by the Procuring Entity after the deadline for submission of Tenders shall be declared late, rejected, and returned unopened to the Tenderer.

## **24.0 Withdrawal, Substitution, and Modification of Tenders**

- 24.1** A Tenderer may withdraw, substitute, or modify its Tender after it has been submitted by sending a written notice, duly signed by an authorized representative, and shall include a copy of the authorization in accordance with ITT 20.3, (except that withdrawal notices do not require copies). The corresponding substitution or modification of the Tender must accompany the respective written notice. All notices must be:
- a) prepared and submitted in accordance with ITT 20 and ITT 21 (except that withdrawal notices do not require copies), and in addition, the respective envelopes shall be clearly marked "WITHDRAWAL," "SUBSTITUTION," "MODIFICATION;" and
  - b) received by the Procuring Entity prior to the deadline prescribed for submission of Tenders, in accordance with ITT 22.
- 24.2** Tenders requested to be withdrawn in accordance with ITT 24.1 shall be returned unopened to the Tenderers.
- 24.3** No Tender may be withdrawn, substituted, or modified in the interval between the deadline for submission of Tenders and the expiration of the period of Tender validity specified by the Tenderer on the Form of Tender or any extension thereof.

## **25. Tender Opening**

- 25.1** Except in the cases specified in ITT 23 and ITT 24.2, the Procuring Entity shall publicly open and read out all Tenders received by the deadline, at the date, time and place specified **in the TDS**, in the presence of Tenderers' designated representatives who chooses to attend. Any specific electronic Tender opening procedures required if electronic Tendering is permitted in accordance with ITT 22.1, shall be as specified in the **TDS**.
- 25.2** First, envelopes marked "WITHDRAWAL" shall be opened and read out and the envelopes with the corresponding Tender shall not be opened but returned to the Tenderer. No Tender withdrawal shall be permitted unless the corresponding withdrawal notice contains a valid authorization to request the withdrawal and is read out at Tender opening.
- 25.3** Next, envelopes marked "SUBSTITUTION" shall be opened and read out and exchanged with the corresponding Tender being substituted, and the substituted Tender shall not be opened, but returned to the Tenderer. No Tender substitution shall be permitted unless the corresponding substitution notice contains a valid authorization to request the substitution and is read out at Tender opening.
- 25.4** Next, envelopes marked "MODIFICATION" shall be opened and read out with the corresponding Tender. No Tender modification shall be permitted unless the corresponding modification notice contains a valid authorization to request the modification and is read out at Tender opening.
- 25.5** Next, all remaining envelopes shall be opened one at a time, reading out: the name of the Tenderer and whether there is a modification; the total Tender Price, per lot (contract) if applicable, including any discounts and alternative Tenders; the presence or absence of a Tender Security or Tender-Securing Declaration, if required; and any other details as the Procuring Entity may consider appropriate.
- 25.6** Only Tenders, alternative Tenders and discounts that are opened and read out at Tender opening shall be considered further for evaluation. The Form of Tender and pages of the Bill of Quantities (to be decided on by the tender opening committee) are to be initialed by the members of the tender opening committee attending the opening.
- 25.7** At the Tender Opening, the Procuring Entity shall neither discuss the merits of any Tender nor reject any Tender (except for late Tenders, in accordance with ITT 23.1).

- 258 The Procuring Entity shall prepare minutes of the Tender Opening that shall include, as a minimum: -
- a) the name of the Tenderer and whether there is a withdrawal, substitution, or modification;
  - b) the Tender Price, per lot (contract) if applicable, including any discounts;
  - c) any alternative Tenders;
  - d) the presence or absence of a Tender Security, if new as required;
  - e) number of pages of each tender document submitted.
- 259 The Tenderers' representatives who are present shall be requested to sign the minutes. The omission of a Tenderer's signature on the minutes shall not invalidate the contents and effect of the minutes. A copy of the tender opening register shall be distributed to all Tenderers.

## **E. EVALUATION AND COMPARISON OF TENDERS**

### **26. Confidentiality**

- 261 Information relating to the evaluation of Tenders and recommendation of contract award shall not be disclosed to Tenderers or any other persons not officially concerned with the Tender process until information on Intention to Award the Contract is transmitted to all Tenderers in accordance with ITT 43.
- 262 Any effort by a Tenderer to influence the Procuring Entity in the evaluation of the Tenders or Contract award decisions may result in the rejection of its tender.
- 263 Notwithstanding ITT 26.2, from the time of tender opening to the time of contract award, if a tenderer wishes to contact the Procuring Entity on any matter related to the tendering process, it shall do so in writing.

### **27.0 Clarification of Tenders**

- 27.1 To assist in the examination, evaluation, and comparison of the tenders, and qualification of the tenderers, the Procuring Entity may, at its discretion, ask any tenderer for a clarification of its tender, given a reasonable time for a response. Any clarification submitted by a tenderer that is not in response to a request by the Procuring Entity shall not be considered. The Procuring Entity's request for clarification and the response shall be in writing. No change, including any voluntary increase or decrease, in the prices or substance of the tender shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered by the Procuring Entity in the evaluation of the tenders, in accordance with ITT 31.
- 27.2 If a tenderer does not provide clarifications of its tender by the date and time set in the Procuring Entity's request for clarification, its Tender may be rejected.

### **28.0 Deviations, Reservations, and Omissions**

- 28.1 During the evaluation of tenders, the following definitions apply: -
- a) "*Deviation*" is a departure from the requirements specified in the tender document;
  - b) "*Reservation*" is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the tender document; and
  - c) "*Omission*" is the failure to submit part or all of the information or documentation required in the Tender document.

### **29.0 Determination of Responsiveness**

- 29.1 The Procuring Entity's determination of a Tender's responsiveness is to be based on the contents of the tender itself, as defined in ITT 11.
- 29.2 A substantially responsive Tender is one that meets the requirements of the Tender document

without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that, if accepted, would:

- a) Affect in any substantial way the scope, quality, or performance of the Works specified in the Contract;
- b) limit in any substantial way, inconsistent with the tender document, the Procuring Entity's rights or the tenderer's obligations under the proposed contract;
- c) if rectified, would unfairly affect the competitive position of other tenderers presenting substantially responsive tenders.

**29.3** The Procuring Entity shall examine the technical aspects of the tender submitted in accordance with ITT 16, to confirm that all requirements of Section VII, Works' Requirements have been met without any material deviation, reservation or omission.

**29.4** If a tender is not substantially responsive to the requirements of the tender document, it shall be rejected by the Procuring Entity and may not subsequently be made responsive by correction of the material deviation, reservation, or omission.

### **30.0 Non-material Non-conformities**

**30.1** Provided that a tender is substantially responsive, the Procuring Entity may waive any non-conformities in the tender.

**30.2** Provided that a Tender is substantially responsive, the Procuring Entity may request that the tenderer submit the necessary information or documentation, within a reasonable period of time, to rectify non-material non-conformities in the tender related to documentation requirements. Requesting information or documentation on such non-conformities shall not be related to any aspect of the price of the tender. Failure of the tenderer to comply with the request may result in the rejection of its tender.

**30.3** Provided that a tender is substantially responsive, the Procuring Entity shall rectify quantifiable non-material non-conformities related to the Tender Price. To this effect, the Tender Price shall be adjusted, for comparison purposes only, to reflect the price of a missing or non-conforming item or component in the manner specified **in the TDS**.

### **31.0 Arithmetical Errors**

**31.1** The tender sum as submitted and read out during the tender opening shall be absolute and final and shall not be the subject of correction, adjustment or amendment in any way by any person or entity.

**31.2** Provided that the Tender is substantially responsive, the Procuring Entity shall handle errors on the following basis: -

- a) Any error detected if considered a major deviation that affects the substance of the tender, shall lead to disqualification of the tender as non-responsive.
- b) Any errors in the submitted tender arising from a miscalculation of unit price, quantity, subtotal and total bid price shall be considered as a major deviation that affects the substance of the tender and shall lead to disqualification of the tender as non-responsive. and
- c) if there is a discrepancy between words and figures, the amount in words shall prevail

**31.3** Tenderers shall be notified of any error detected in their bid during the notification of award.

### **32.0 Conversion to Single Currency**

For evaluation and comparison purposes, the currency(ies) of the Tender shall be converted in to a single currency as specified in the **TDS**.

### **33.0 Margin of Preference and Reservations**

- 33.1** A margin of preference may be allowed only when the contract is open to international competitive tendering where foreign contractors are expected to participate in the tendering process and where the contract exceeds the value/threshold specified in the Regulations.
- 33.2** A margin of preference shall not be allowed unless it is specified so in the **TDS**.
- 33.3** Contracts procured on basis of international competitive tendering shall not be subject to reservations exclusive to specific groups as provided in ITT 33.4.
- 33.4** Where it is intended to reserve a contract to a specific group of businesses (these groups are Small and Medium Enterprises, Women Enterprises, Youth Enterprises and Enterprises of persons living with disability, as the case may be), and who are appropriately registered as such by the authority to be specified in the **TDS**, a procuring entity shall ensure that the invitation to tender specifically indicates that only businesses or firms belonging to the specified group are eligible to tender. No tender shall be reserved to more than one group. If not so stated in the Invitation to Tender and in the Tender documents, the invitation to tender will be open to all interested tenderers.

### **34.0 Nominated Subcontractors**

- 34.1** Unless otherwise stated in the **TDS**, the Procuring Entity does not intend to execute any specific elements of the Works by subcontractors selected/nominated by the Procuring Entity. In case the Procuring Entity nominates a subcontractor, the subcontract agreement shall be signed by the Subcontractor and the Procuring Entity. The main contract shall specify the working arrangements between the main contractor and the nominated subcontractor.
- 34.2** Tenderers may propose sub-contracting up to the percentage of total value of contracts or the volume of works as specified in the **TDS**. Subcontractors proposed by the Tenderer shall be fully qualified for their parts of the Works.
- 34.3** Domestic subcontractor's qualifications shall not be used by the Tenderer to qualify for the Works unless their specialized parts of the Works were previously designated so by the Procuring Entity in the **TDS** as can be met by subcontractors referred to hereafter as 'Specialized Subcontractors', in which case, the qualifications of the Specialized Subcontractors proposed by the Tenderer may be added to the qualifications of the Tenderer.

### **35. Evaluation of Tenders**

- 35.1** The Procuring Entity shall use the criteria and methodologies listed in this ITT and Section III, Evaluation and Qualification Criteria. No other evaluation criteria or methodologies shall be permitted. By applying the criteria and methodologies the Procuring Entity shall determine the Lowest Evaluated Tender in accordance with ITT 40.
- 35.2** To evaluate a Tender, the Procuring Entity shall consider the following:
- a) price adjustment in accordance with ITT 31.1 (iii); excluding provisional sums and contingencies, if any, but including Daywork items, where priced competitively;
  - b) price adjustment due to discounts offered in accordance with ITT 14.4;
  - c) converting the amount resulting from applying (a) and (b) above, if relevant, to a single currency in accordance with ITT 32;
  - d) price adjustment due to quantifiable non-material non-conformities in accordance with ITT 30.3; and
  - e) any additional evaluation factors specified in the **TDS** and Section III, Evaluation and Qualification Criteria.
- 35.3** The estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be considered in Tender evaluation.

35.4 Where the tender involves multiple lots or contracts, the tenderer will be allowed to tender for one or more lots (contracts). Each lot or contract will be evaluated in accordance with ITT 35.2. The methodology to determine the lowest evaluated tenderer or tenderers base done lot (contract) or based on a combination of lots (contracts), will be specified in Section III, Evaluation and Qualification Criteria. In the case of multiple lots or contracts, tenderer will be will be required to prepare the Eligibility and Qualification Criteria Form for each Lot.

## **36.0 Comparison of tenders**

The Procuring Entity shall compare the evaluated costs of all substantially responsive Tenders established in accordance with ITT 35.2 to determine the Tender that has the lowest evaluated cost.

## **37.0 Abnormally low tenders and abnormally high tenders**

### **Abnormally LowTenders**

**37.1** An Abnormally Low Tender is one where the Tender price, in combination with other elements of the Tender, appears so low that it raises material concerns as to the capability of the Tenderer in regards to the Tenderer's ability to perform the Contract for the offered Tender Price or that genuine competition between Tenderers is compromised.

**37.2** In the event of identification of a potentially Abnormally Low Tender, the Procuring Entity shall seek written clarifications from the Tenderer, including detailed price analyses of its Tender price in relation to the subject matter of the contract, scope, proposed methodology, schedule, allocation of risks and responsibilities and any other requirements of the Tender document.

**37.3** After evaluation of the price analyses, in the event that the Procuring Entity determines that the Tenderer has failed to demonstrate its capability to perform the Contract for the offered Tender Price, the Procuring Entity shall reject the Tender.

### **Abnormally high tenders**

**37.4** An abnormally high tender price is one where the tender price, in combination with other constituent elements of the Tender, appears unreasonably too high to the extent that the Procuring Entity is concerned that it (the Procuring Entity) may not be getting value for money or it may be paying too high a price for the contract compared with market prices or that genuine competition between Tenderers is compromised.

**37.5** In case of an abnormally high price, the Procuring Entity shall make a survey of the market prices, check if the estimated cost of the contract is correct and review the Tender Documents to check if the specifications, scope of work and conditions of contract are contributory to the abnormally high tenders. The Procuring Entity may also seek written clarification from the tenderer on the reason for the high tender price. The Procuring Entity shall proceed as follows:

- i) If the tender price is abnormally high based on wrong estimated cost of the contract, the Procuring Entity may accept or not accept the tender depending on the Procuring Entity's budget considerations.
- ii) If specifications, scope of work and/or conditions of contract are contributory to the abnormally high tender prices, the Procuring Entity shall reject all tenders and may retender for the contract based on revised estimates, specifications, scope of work and conditions of contract, as the case may be.

**37.6** If the Procuring Entity determines that the Tender Price is abnormally too high because genuine competition between tenderers is compromised (*often due to collusion, corruption or other*

*manipulations*), the Procuring Entity shall reject all Tenders and shall institute or cause competent Government Agencies to institute an investigation on the cause of the compromise, before retendering.

### **38.0 Unbalanced and/ or front-loaded tenders**

**38.1** If in the Procuring Entity's opinion, the Tender that is evaluated as the lowest evaluated price is seriously unbalanced and/or frontloaded, the Procuring Entity may require the Tenderer to provide written clarifications. Clarifications may include detailed price analyses to demonstrate the consistency of the tender prices with the scope of works, proposed methodology, schedule and any other requirements of the Tender document.

**38.2** After the evaluation of the information and detailed price analyses presented by the Tenderer, the Procuring Entity may as appropriate:

- a) accept the Tender;
- b) require that the total amount of the Performance Security be increased at the expense of the Tenderer to a level not exceeding a 30% of the Contract Price;
- c) agree on a payment mode that eliminates the inherent risk of the Procuring Entity paying too much for undelivered works;
- d) reject the Tender,

### **39.0 Qualifications of the tenderer**

**39.1** The Procuring Entity shall determine to its satisfaction whether the eligible Tenderer that is selected as having submitted the lowest evaluated cost and substantially responsive Tender, meets the qualifying criteria specified in Section III, Evaluation and Qualification Criteria.

**39.2** The determination shall be based upon an examination of the documentary evidence of the Tenderer's qualifications submitted by the Tenderer, pursuant to ITT 17. The determination shall not take into consideration the qualifications of other firms such as the Tenderer's subsidiaries, parent entities, affiliates, subcontractors (other than Specialized Sub-contractors if permitted in the Tender document), or any other firm(s) different from the Tenderer.

**39.3** An affirmative determination shall be a prerequisite for award of the Contract to the Tenderer. A negative determination shall result in disqualification of the Tender, in which event the Procuring Entity shall proceed to the Tenderer who offers a substantially responsive Tender with the next lowest evaluated price to make a similar determination of that Tenderer's qualifications to perform satisfactorily.

### **40.0 Lowest evaluated tender**

Having compared the evaluated prices of Tenders, the Procuring Entity shall determine the Lowest Evaluated Tender. The Lowest Evaluated Tender is the Tender of the Tenderer that meets the Qualification Criteria and whose Tender has been determined to be:

- a) Most responsive to the Tender document; and
- b) the lowest evaluated price.

### **41.0 Procuring entity's right to accept any tender, and to reject any or all tenders.**

The Procuring Entity reserves the right to accept or reject any Tender and to annul the Tender process and reject all Tenders at any time prior to Contract Award, without there by incurring any liability to Tenderers. In case of annulment, all Tenders submitted and specifically, Tender securities, shall be promptly returned to the Tenderers.

## **F. AWARD OF CONTRACT**

## **42.0 Award criteria**

The Procuring Entity shall award the Contract to the successful tenderer whose tender has been determined to be the Lowest Evaluated Tender.

## **43.0 Notice of Intention to Enter into a Contract/Notification of Award**

Upon award of the contract and Prior to the expiry of the Tender Validity Period the Procuring Entity shall issue a Notification of Intention to Enter into a Contract/Notification of award to all tenderers which shall contain, at a minimum, the following information:

- a) the name and address of the Tenderer submitting the successful tender;
- b) the Contract price of the successful tender;
- c) a statement of the reason(s) the tender of the unsuccessful tenderer to whom the letter is addressed was unsuccessful, unless the price information in (c) above already reveals the reason;
- d) the expiry date of the Standstill Period; and
- e) instruction on how to request a debriefing and/ or submit a complaint during the stand still period;

## **44.0 Stand still Period**

**44.1** The Contract shall not be signed earlier than the expiry of a Standstill Period of 14 days to allow any dissatisfied tender to launch a complaint. Where only one Tender is submitted, the Standstill Period shall not apply.

**44.2** Where a Standstill Period applies, it shall commence when the Procuring Entity has transmitted to each Tenderer the Notification of Intention to Enter into a Contract with the successful Tenderer.

## **45.0 Debriefing by The Procuring Entity**

**45.1** On receipt of the Procuring Entity's Notification of Intention to Enter into a Contract referred to in ITT 43, an unsuccessful tenderer may make a written request to the Procuring Entity for a debriefing on specific issues or concerns regarding their tender. The Procuring Entity shall provide the debriefing within five days of receipt of the request.

**45.2** Debriefings of unsuccessful Tenderers may be done in writing or verbally. The Tenderer shall bear its own costs of attending such a debriefing meeting.

## **46.0 Letter of Award**

Prior to the expiry of the Tender Validity Period and upon expiry of the Standstill Period specified in ITT 42.1, upon addressing a complaint that has been filed with in the Standstill Period, the Procuring Entity shall transmit the Letter of Award to the successful Tenderer. The letter of award shall request the successful tenderer to furnish the Performance Security within 21 days of the date of the letter.

## **47.0 Signing of Contract**

**47.1** Upon the expiry of the fourteen days of the Notification of Intention to enter in to contract and upon the parties meeting their respective statutory requirements, the Procuring Entity shall send the successful Tenderer the Contract Agreement.

**47.2** Within fourteen (14) days of receipt of the Contract Agreement, the successful Tenderer shall

sign, date, and return to the Procuring Entity.

**47.3** The written contract shall be entered into within the period specified in the notification of award and before expiry of the tender validity period.

#### **48.0 Performance Security**

**48.1** Within twenty-one (21) days of the receipt of the Letter of Award from the Procuring Entity, the successful Tenderer shall furnish the Performance Security and, any other documents required in the **TDS**, in accordance with the General Conditions of Contract, subject to ITT 38.2 (b), using the Performance Security and other Forms included in Section X, Contract Forms, or another form acceptable to the Procuring Entity. A foreign institution providing a bank guarantee shall have a correspondent financial institution located in Kenya, unless the Procuring Entity has agreed in writing that a correspondent bank is not required.

**48.2** Failure of the successful Tenderer to submit the above-mentioned Performance Security and other documents required in the **TDS** or sign the Contract shall constitute sufficient grounds for the annulment of the award and forfeiture of the Tender Security. In that event the Procuring Entity may award the Contract to the Tenderer offering the next Best Evaluated Tender.

**48.3** Performance security shall not be required for contracts estimated to cost less than the amount specified in the Regulations.

#### **49.0 Publication of Procurement Contract**

Within fourteen days after signing the contract, the Procuring Entity shall publish the awarded contract at its notice boards and websites; and on the Website of the Authority. At the minimum, the notice shall contain the following information:

- a) name and address of the Procuring Entity;
- b) name and reference number of the contract being awarded, a summary of its scope and the selection method used;
- c) the name of the successful Tenderer, the final total contract price, the contract duration;
- d) dates of signature, commencement and completion of contract;
- e) names of all Tenderers that submitted Tenders, and their Tender prices as readout at Tender opening.

#### **50.0 Procurement related Complaints and Administrative Review**

50.1 The procedures for making Procurement-related Complaints are as specified in the **TDS**.

50.2 A request for administrative review shall be made in the form provided under contract forms.

## Section II - Tender Data Sheet (TDS)

The following specific data shall complement, supplement, or amend the provisions in the Instructions to Tenderers (ITT). Whenever there is a conflict, the provisions herein shall prevail over those in ITT.

Reference to ITC Clause	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
<b>A. General</b>	
ITT 1.1	The name of the contract is: <b>PROPOSED COMPLETION OF MULTIMEDIA UNIVERSITY ULTRA-MODERN LIBRARY - NAIROBI COUNTY.</b> The reference number of the Contract is: <b>TENDER NO. MMU/OT/LIB/02/2025-2026</b>  The Procuring Entity is: <b>MULTIMEDIA UNIVERSITY</b> The number and identification of lots (contracts) comprising this Invitation for Tender is: <b>N/A</b>
ITT 2.4	The Information made available on competing firms is as follows: <b>N/A</b>
ITT 2.4	The firms that provided consulting services for the contract being tendered for are: <b>State Department for Public Works, P.O.BOX 30743-00100, NAIROBI</b> ; The roles are defined as follows: <b>Project Manager: Works Secretary</b> <b>Architect: Chief Architect</b> <b>Quantity Surveyor: Chief Quantity Surveyor Electrical</b> <b>Engineer: Chief Engineer Electrical Structural Engineer:</b> <b>Chief Engineer Structural Mechanical Engineer: Chief</b> <b>Engineer Mechanical (BS)</b> <b>Interior Designer: Chief Designer</b>
ITT 3.1	Maximum number of members in the Joint Venture (JV) shall be: open
<b>B. Contents of Tender Document</b>	
ITT 7.1	(i) The Tenderer will submit any request for clarifications in writing at the Address (ii) to reach the Procuring Entity not later than <b>7 days before the closure of the tendering period</b> (iii) The Procuring Entity shall publish its response via <a href="http://www.mmu.ac.ke/">http://www.mmu.ac.ke/</a>
ITT 7.2	(A) A pre-arranged pre-tender site visit [insert "shall" take place at the following date, time and place: <b>as per the advert</b>
ITT 7.3	The Tenderer will submit any questions in writing, to reach the Procuring Entity not later than <b>7 days before the closure of the tendering period</b>
ITT 7.5	The Procuring Entity's website where Minutes of the pre-Tender meeting and the pre-arranged pretender will be published is <a href="http://www.mmu.ac.ke/">http://www.mmu.ac.ke/</a>

Reference to ITC Clause	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
<b>C. Preparation of Tenders</b>	
ITT 11.1 (h)	The Tenderer shall submit the following additional documents in its Tender: <b>A complete copy of the tender document as issued by the Procuring entity.</b>
ITT 13.1	Alternative Tenders <b>shall not</b> be considered.
ITT 13.2	Alternative times for completion <b>shall not</b> be permitted.
ITT 13.4	Alternative technical solutions shall be permitted for the following parts of the Works: <b>shall not</b> be permitted.
ITT 14.5	The prices quoted by the Tenderer <b>shall</b> be subject to adjustment .
ITT 15.2 (a)	Foreign currency requirements not allowed.
ITT 18.1	The Tender validity period shall be <b>126 days</b> .
ITT 18.2	(a) The Number of days beyond the expiry of the initial tender validity period will be 30 days.  (b) The Tender price shall be adjusted by the following percentages of the tender price: N/A  (i) By 0 % of the local currency portion of the Contract price adjusted to reflect local inflation during the period of extension, and  (ii) By 0% the foreign currency portion of the Contract price adjusted to reflect the international inflation during the period of extension. N/A
ITT 19.1	A Tender Security <b>shall</b> be required.  A Tender-Securing Declaration <b>shall not</b> be required.  If a Tender Security shall be required, the amount and currency of the Tender Security shall be inform of Cash, banker's cheque from a reputable bank or a Bank guarantee from a bank approved by Central Bank of Kenya or a guarantee by Insurance company registered and licensed by the Insurance Regulatory Authority of <b>Ksh 1,100,000.00</b> valid for <b>156 days</b> from tender opening date, The tender security shall be as per the prescribed forms.
ITT 19.5	Other documents required are <b>as indicated in the Evaluation criteria below</b>
ITT 20.1	In addition to the original of the Tender, the number of copies is: <b><u>ONE (1)</u></b>
ITT 20.3	The written confirmation of authorization to sign on behalf of the Tenderer shall consist of: <b>Written power of attorney/Authorization letter where applicable</b>
Reference to ITC Clause	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
<b>D. Submission and Opening of Tenders</b>	

ITT 22.1	<p>(A) For <u>Tender submission purposes</u> only, the Procuring Entity's address is:</p> <ol style="list-style-type: none"> <li>1. <b>Name of Procuring Entity:</b> Multimedia University of Kenya</li> <li>2. <b>Postal Address (include name of Officer to be attentional):</b> The Vice Chancellor Multimedia University of Kenya P.O. Box 15653 – 00503 Nairobi, Kenya</li> <li>3. <b>Physical Address for Hand/Courier Delivery:</b> Administration Block, Ground Floor Multimedia University of Kenya Off Magadi Road, Nairobi <i>(Tender Box at the Main Entrance)</i></li> <li>4. <b>Date and Time for Submission of Tenders:</b>  Date: <b>As per the Advert</b> Time: <b>As per the Advert</b></li> </ol> <p>1. Tenderers <b>shall</b> submit Tenders electronically.</p>
ITT 25.1	<p>The Tender opening shall take place at the time and the address for Opening of Tenders provided below:</p> <ol style="list-style-type: none"> <li>1. <b>Name of Procuring Entity:</b> Multimedia University of Kenya</li> <li>2. <b>Postal Address (include name of Officer to be attentional):</b> The Vice Chancellor Multimedia University of Kenya P.O. Box 15653 – 00503 Nairobi, Kenya</li> <li>3. <b>Physical Address for Hand/Courier Delivery:</b> Administration Block, Ground Floor Multimedia University of Kenya Off Magadi Road, Nairobi <i>(Tender Box at the Main Entrance)</i></li> <li>4. <b>Date and Time for Submission of Tenders:</b>  Date: <b>As per the Advert</b> Time: <b>As per the Advert</b></li> </ol>
<b>E. Evaluation, and Comparison of Tenders</b>	
ITT 30.3	<p>The adjustment shall be based on the average price of the item or component as quoted in other substantially responsive Tenders. If the price of the item or component cannot be derived from the price of other substantially responsive Tenders, the Procuring Entity shall use its best estimate.</p>
ITT 31.2	<p>The error shall be considered a major deviation that leads to disqualification of the tender if the percentage of the error (error over the tender price quoted) is: <b>more than _____10____%</b></p>
<b>Reference to ITC Clause</b>	<b>PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS</b>

	or less than <u>10</u> %.
ITT 32.1	The currency that shall be used for Tender evaluation and comparison purposes to convert at the selling exchange rate all Tender prices expressed in various currencies into a single currency is: Kenya shillings The source of exchange rate shall be: <b>The Central bank of Kenya</b>  The date for the exchange rate shall be: <b>the deadline date for Submission of the Tenders.</b>
ITT 33.2	A margin of preference “shall not” apply.
ITT 33.4	The invitation to tender is extended to the following group that qualify for Reservations: <b>Open to all</b>
ITT 34.1	At this time, the Procuring Entity “intends” to execute certain specific parts of the Works by subcontractors selected in advance. <b>N/A</b>
ITT 34.2	Contractor’s may propose subcontracting: Maximum percentage of subcontracting permitted is: 0% of the total contract amount. Tenderers planning to subcontract more than 0% of total volume of work shall specify, in the Form of Tender, the activity (ies) or parts of the Works to be subcontracted along with complete details of the subcontractors and their qualification and experience.
ITT 34.3	The parts of the Works for which the Procuring Entity permits Tenderers to propose Specialized Subcontractors are designated as following: <b>NONE</b> For the above-designated parts of the Works that may require Specialized Subcontractors, the relevant qualifications of the proposed Specialized Subcontractors will be added to the qualifications of the Tenderer for the purpose of evaluation.
ITT 35.2 (e)	Additional requirements apply. These are detailed in the evaluation criteria in Section III, Evaluation and Qualification Criteria.
<b>F. Award of Contract</b>	
ITT 41.1	The maximum percentage by which quantities may be increased is: <b>N/A</b> The maximum percentage by which quantities may be decreased is: <b>Not Applicable.</b>
ITT 41.1	The Procuring Entity shall increase or decrease the quantity of Goods and Related Services by an amount not exceed ---N/A-% and without any change in the unit prices or other terms and conditions of the Tender and the tendering document. <b>Not Applicable.</b>
ITT 47.3	Performance security if so required shall be 5% of the tender sum from a Reputable Bank or Insurance Company valid and renewable after one (1) year.
ITT 50.1	The procedures for submitting a Procurement-related Complaint are available from the PPRA website or via email at <b>info@ppra.go.ke</b> or <b>complaints@ppra.go.ke</b> .  A Tenderer who wishes to make a Procurement-related Complaint should submit it <b>in writing</b> , following the PPRA procedures, using the quickest means available—either <b>hand delivery</b> or <b>email</b> —to the contact below:  <b>For the attention of:</b> Vice Chancellor <b>Title/Position:</b> Vice Chancellor
<b>Reference to ITC Clause</b>	<b>PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS</b>

	<p><b>Procuring Entity:</b> MULTIMEDIA UNIVERSITY <b>Postal Address:</b> P.O. Box 15653-00503, Nairobi, Kenya <b>Physical Address:</b> Multimedia University Off Magadi Road, Nairobi <b>Email Address:</b> <a href="mailto:vc@mmu.ac.ke">vc@mmu.ac.ke</a></p> <p><b>Scope of Procurement-related Complaints:</b> A Procurement-related Complaint may challenge any of the following:</p> <ul style="list-style-type: none"><li>(i) The <b>terms of the Tender Documents.</b></li><li>(ii) The <b>Procuring Entity’s decision to award the contract.</b></li></ul>
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## **SECTION III - EVALUATION AND QUALIFICATION CRITERIA**

The evaluation of tenders and the subsequent award of the contract shall be conducted in the following stages:

### **1.1 Preliminary Evaluation**

This stage involves checking the **mandatory requirements** and eligibility of the tenderers.

#### **a) Main Contractor**

- Compliance with all statutory and administrative requirements.
- Tenderers must meet all the requirements in the Qualification Form (Mandatory Requirements). Failure to meet any of the Mandatory Requirements will lead to automatic disqualification of the bidder.
- For each of the Mandatory Requirements to qualify, the bidder must meet all the sub-requirements for each of these mandatory requirements.
- For copies of original documents to be accepted as valid, a commissioner for oaths MUST certify them. The Candidate MUST attach a valid practicing certificate and the active email address of the commissioner of oaths he/she has used to certify the documents.
- All documents provided may be verified for authenticity. Any document found not to be authentic will lead to automatic disqualification of the Bidder.
- Tenderers must fill all the tendering forms in the format provided in this tender document

#### **b) Sub-Contractors**

### **1.2 Technical Evaluation**

This stage assesses the **technical capacity** and ability of the tenderer to execute the project.

#### **a) Main Contractor**

- Qualifications and experience of key personnel.
- Methodology and work programme.
- Equipment availability and adequacy.
- Relevant project experience.

#### **b) Sub-Contractors**

- Qualifications, experience, and relevant past performance, if applicable.

### **1.3 Financial Evaluation**

- Arithmetic Error Check
- Comparison of Rates for the Bidder
- Consistency of Rates for the Bidder

### **1.4 Recommendation for Award**

- The tender evaluation committee shall prepare a **report recommending the award** to the most responsive and qualified tenderer, based on the combined results of preliminary, technical, and financial evaluations.

(1) **Stage 1 MANDATORY REQUIREMENTS**

<b>MR</b>	<b>PRELIMINARY EVALUATION CRITERIA / MANDATORY REQUIREMENTS FOR MAIN CONTRACTOR</b>
<b>MR1</b>	The “original” and “copy” of tender documents should be properly tape bound, paginated on all printed pages using Numerals, i.e. <b>1,2,3,4,5,6,7,8,9,10...</b> n (n being the last numerical page of the tender document), in the format issued by the procuring entity
<b>MR2</b>	Dully filled, signed and stamped form of tender prepared in accordance with ITT 12
<b>MR3</b>	Tender Security in accordance with ITT 19.1; inform of Cash, banker’s cheque from a reputable bank or a Bank guarantee from a bank approved by Central Bank of Kenya or a guarantee by Insurance company registered and licensed by the Insurance Regulatory Authority of <b>Ksh 1,100,000.00</b> valid for <b>156 days</b> from tender opening date, The tender security shall be as per the prescribed forms.
<b>MR4</b>	Valid Copy of Certificate of Incorporation/ Registration.
<b>MR5</b>	Attach a valid CR12 form showing the current list of directors and shareholding (issued within the last six months), and attach copies of the directors’ national ID cards.
<b>MR6</b>	Provide proof of registration with the National Construction Authority <b>NCA category 1 to 5 only</b> under <b>Builders works</b> category with current annual contractors practicing license.
<b>MR 7</b>	Provide proof of power of attorney (of tender signatory if not director of the company/ partner, signed and stamped by Commissioner for Oaths
<b>MR 8</b>	Bidders shall provide valid tax compliance and PIN certificates
<b>MR9</b>	Letter of authority from The Contractor to client granting permission to seek references from the Tenderer’s bankers.
<b>MR10</b>	Valid Copy of Current Single Business permit ( <b>for the year 2026</b> ) from any County
<b>MR11</b>	The bidder Must duly fill, sign and stamp Confidential Business Questionnaire in the format provided, clearly indicating Contact address: Physical, Postal, Telephone and Email address of the Firm
<b>MR12</b>	Must duly fill, sign and stamp Certificate of Independent Tender Determination in the format provided
<b>MR13</b>	Must duly fill, sign and stamp the Self-declaration form that the person/tenderer is not debarred in the matter of the Public Procurement and Asset Disposal Act 2015 in the format provided - Form SD1.
<b>MR14</b>	Must duly fill, sign and stamp the Self-declaration that the person/tenderer will not engage in any corrupt or fraudulent practice in the format provided- Form SD2
<b>MR15</b>	Must duly fill, sign and stamp Declaration and Commitment to The Code of Ethics in the format provided
<b>MR16</b>	Must duly fill, sign and stamp [Form Fin–3.1] [Form Fin – 3.2]
<b>MR17</b>	Domestic Contractor’s Agreement- <b>A duly signed, stamped and Certified by a Commissioner for Oaths</b> Agreement dated within the period of tender for this works between the Main contractor and the a) Mechanical Works b) Electrical Works (Not necessary if the main contractor is registered for specialist work)
<b>NB</b>	a) Any bidder who does not meet the above requirements will not be evaluated further and including its subcontractors b) The criteria for the subcontract bids shall be referred from the Electrical Works and Mechanical works folios respectively and should include the following in addition <ul style="list-style-type: none"> <li>• Subcontractors are required to fill code of ethics and certificate of independent determination</li> </ul> Order of evaluation of works will be as follows: <ol style="list-style-type: none"> <li>i) Preliminary evaluation of Main Works</li> <li>ii) Preliminary Evaluation of Mechanical Installation Works</li> <li>iii) Technical Evaluation of Main Works (Qualification Form)</li> <li>iv) Technical Evaluation of Mechanical Works and Financial Evaluation</li> </ol> Financial Evaluation -Arithmetic error check, consistency of rates

**STAGE 2. QUALIFICATION FORM / TECHNICAL EVALUATION**

<b>Item No.</b>	<b>Qualification Subject</b>	<b>Qualification Requirement</b>	<b>Document To be Completed by Tenderer</b>
1.	Nationality	Nationality in accordance with ITT 3.6	Forms ELI – 1.1 and 1.2, with attachments
2.	Tax Obligations for Kenyan Tenderers	Has produced a current tax clearance certificate or tax Exemption certificate issued by Kenya Revenue Authority in accordance with ITT 3.14.	Attachment
3.	Conflict of Interest	No conflicts of interest in accordance with ITT 3.3	Form of Tender
4.	PPRA Eligibility	Not having been declared ineligible by the PPRA as described in ITT 3.7	Form of Tender
5.	History of Non-Performing Contracts	Non-performance of a contract did not occur as a result of contractor default since 1 <sup>st</sup> January 2015	Form CON-2
6.	Suspension Based on Execution of Tender /Proposal Securing Declaration by the Procuring Entity	Not under suspension based on-execution of a Tender/Proposal Securing Declaration pursuant to ITT 16.6	Form of Tender
7.	Pending Litigation	Tender’s financial position and prospective long-term profitability still sound according to criteria established in 3.1 and assuming that all pending litigation will NOT be resolved against the Tenderer.	Form CON–2
8.	Litigation History	No consistent history of court/arbitral award decisions against the Tenderer since 1 <sup>st</sup> January [2017].	Form CON–2
9.	Financial Capabilities	<p>(i) The Tenderer shall demonstrate that it has access to, or has available, liquid assets, unencumbered real assets, lines of credit, and other financial means (independent of any contractual advance payment) sufficient to meet the construction cash flow requirements estimated as Kenya Shillings <b>22,500,000 equivalent</b> for the subject contract(s) net of the Tenderer’s other commitments.</p> <p>(ii) The Tenderers shall also demonstrate, to the satisfaction of the Procuring Entity, that it has adequate sources of finance to meet the cash flow requirements on works currently in progress and for future contract commitments.</p> <p>The audited balance sheets or, if not required by the laws of the Tenderer’s country, other financial statements acceptable to the Procuring Entity, for the last [3] years shall be submitted and must demonstrate the current soundness of the Tenderer’s financial position and indicate its prospective</p>	Form FIN – 3.1, with attachments

Item No.	Qualification Subject	Qualification Requirement	Document Completed To be by Tenderer
		long- term profitability. <i>Attach evidence in form of letter from bank, overdraft facility, current bank statements for the last 6 months)</i>	
10.	Average Construction Turnover	Minimum average annual construction turnover of <i>at least two and a half (2.5) times the Tender Sum</i> , equivalent calculated as total certified payments received for contracts in progress and/or completed within the last <b>Three</b> years, divided by <b>Three</b> years	Form FIN – 3.2
11.	General Construction Experience	Experience under construction contracts in the role of prime contractor, JV member, sub-contractor, or management contractor starting <b>1<sup>st</sup> January 2017</b> . A minimum number of 1 contract Provide Completion certificates/ Recommendation letter	Form EXP – 4.1
12.	Specific Construction Contract Management Experience	<p>Tenderers must demonstrate experience in executing <b>similar contracts</b>. The following criteria apply:</p> <ol style="list-style-type: none"> <li>1. <b>Minimum Number of Contracts:</b> <ul style="list-style-type: none"> <li>○ A minimum of <b>3 similar contracts</b> must have been <b>satisfactorily and substantially completed</b> between <b>1<sup>st</sup> January 2018</b> and the tender submission deadline.</li> <li>○ Each contract must have been executed as a <b>prime contractor, joint venture member, management contractor, or sub-contractor</b>.</li> <li>○ The <b>value of each contract</b> must be <b>not less than 80% of the Tender Sum</b>.</li> </ul> </li> <li>2. <b>Documentation Required:</b> Tenderers shall attach copies of the following for each contract: <ol style="list-style-type: none"> <li>a) <b>Letter of Award</b></li> <li>b) <b>Signed Contract</b></li> <li>c) <b>Completion Certificate</b> for the respective project</li> </ol> <p><b>In addition</b></p> <ol style="list-style-type: none"> <li>d) For completed projects, a <b>Recommendation Letter</b> from the client or consultant indicating satisfactory completion.</li> </ol> </li> </ol>	Form EXP 4.2(a)

Item No.	Qualification Subject	Qualification Requirement			Document To be Completed by Tenderer
13.	Contractors Equipment <span style="float: right;">Key</span>	No.	Equipment Description	Quantity	Form EQU: Equipment
	1	Pick-ups	1		
	2	Scaffoldings	At least 5 sets		
<p><b>Notes:</b></p> <p><b>Owned Equipment:</b> Tenderers must provide <b>clear copies of logbooks or other proof of ownership</b> for all owned equipment.</p> <p><b>1. Hired/Leased Equipment:</b></p> <ul style="list-style-type: none"> <li>○ Provide a <b>commitment letter</b> from the lessor addressed to: <b>MULTIMEDIA UNIVERSITY, P.O. Box 15653-00503, Nairobi</b>, indicating that the equipment shall be available upon award of the tender.</li> <li>○ Submit a copy of the <b>written lease agreement</b> between lessee and lessor, specifying the list of equipment and corresponding proof of ownership or logbooks by the lessor.</li> </ul> <p><b>2. All equipment listed <b>must be available on site when required</b> during the execution of the project.</b></p>					

Item No.	Qualification Subject	Qualification Requirement	Document Completed To be by Tenderer
14.	Contractor's Representative and Key Personnel	<p><b>a) Project Manager (1 No.)</b>  <b>Minimum Qualifications and Technical Experience:</b></p> <ul style="list-style-type: none"> <li>• Bachelor's degree in <b>Architecture, Quantity Surveying, Construction Management, or Civil/Structural Engineering.</b></li> <li>• <b>Registered Professional</b> with the respective registration bodies: Engineers Board of Kenya (EBK) or Board of Registration of Architects and Quantity Surveyors (BORAQS), with a <b>valid practicing license – Mandatory.</b></li> <li>• <b>General Experience:</b> Minimum of 10 years.</li> <li>• <b>Specific Experience:</b> Minimum of 8 years in the construction of building works.</li> </ul> <p><b>b) Site Agent (1 No.)</b>  <b>Minimum Qualifications and Technical Experience:</b></p> <ul style="list-style-type: none"> <li>• Higher Diploma in <b>Building Construction</b> or equivalent.</li> <li>• <b>Specific Experience:</b> Minimum of 5 years in the construction of building works.</li> </ul> <p><b>c) Foreman (1 No.)</b>  <b>Minimum Qualifications and Technical Experience:</b></p> <ul style="list-style-type: none"> <li>• Certificate in <b>Building Construction, Electrical, or Mechanical.</b></li> <li>• <b>Experience:</b> Minimum of 4 years.</li> </ul> <p><b>d) Artisans (2 Nos.)</b>  <b>Minimum Qualifications and Technical Experience:</b></p> <ul style="list-style-type: none"> <li>• Trade Test Certificate in relevant field.</li> <li>• <b>Experience:</b> Minimum of 5 years.</li> <li>• <b>Registration:</b> Must be <b>registered with NCA</b> or accredited by <b>NITA.</b></li> </ul> <p><b>e) Occupational Health and Safety Personnel (1 No.)</b>  <b>Qualifications and Technical Experience:</b></p> <ul style="list-style-type: none"> <li>• Certificate in <b>Occupational Safety and Health.</b></li> </ul>	<p>Form PER -1 G</p> <p>Form PER -2</p>

Item No.	Qualification Subject	Qualification Requirement	Document To be Completed by Tenderer
		<ul style="list-style-type: none"> <li>• <b>Experience:</b> Minimum of 5 years.</li> </ul>	
15.	Work Methodology and Work Programme	<ol style="list-style-type: none"> <li>1. <b>Detailed Work Methodology:</b> <ul style="list-style-type: none"> <li>• Provide a comprehensive procedure for executing all activities as outlined in the Bill of Quantities (BoQs).</li> </ul> </li> <li>2. <b>Work Programme:</b> <ul style="list-style-type: none"> <li>• Submit a detailed work programme using <b>Microsoft Project</b>, showing the sequence and duration of all activities, milestones, and key deliverables.</li> </ul> </li> <li>3. <b>Cashflow Projections:</b> <ul style="list-style-type: none"> <li>• Provide a detailed <b>cash flow projection</b> for the entire duration of the project, indicating timing of costs and anticipated cash requirements.</li> </ul> </li> </ol>	

*Responsive firms are those who meet the requirements indicated the above form*

## STAGE 3 - FINANCIAL EVALUATION

**Upon completion of the Technical Evaluation, a detailed Financial Evaluation of the bidder shall follow.**

The Financial Evaluation shall proceed in accordance with the provisions of the *Public Procurement and Asset Disposal Act (PPADA) 2015 (Revised Edition 2022)* and the *Public Procurement and Disposal Regulations 2022*.

**The Financial Evaluation shall be conducted in three stages:**

- a) **Arithmetic Error Check**
- b) **Comparison of Rates for the Bidder**
- c) **Consistency of Rates for the Bidder**

### **A) Correction, Revision, Adjustment and Amendment of Tender**

The tender sum will be corrected by the Procuring Entity in accordance with Clause 82(i) of the PPADA 2015 (Revised Edition 2022) and Clause 31(a) of the Standard Tender Document for the Procurement of Small Works.

#### **1. Form of Tender vs. BOQ Discrepancy**

In the event of a discrepancy between the tender amount stated in the Form of Tender and the corrected tender figure in the Main Summary of the Bills of Quantities, **the amount stated in the Form of Tender shall prevail.**

#### **2. Tender Sum is Absolute and Final**

Pursuant to Section 82 of the PPADA 2015 (Revised Edition 2022), **the tender sum as submitted and read out during tender opening shall be absolute and final and shall not be subject to correction, adjustment, or amendment in any way by any person or entity.**

#### **3. Arithmetic Errors**

Tenders with arithmetic errors shall be **disqualified** in accordance with Clause 33.2(b) of the Standard Tender Document.

Any errors arising from miscalculation of unit prices, quantities, subtotals, or the total bid price shall be treated as **major deviations affecting the substance of the tender**, resulting in the tender being declared **non-responsive**.

### **B) Comparison of Rates for the Bidder**

The Evaluation Committee will compare the bidder's rates across all major components of the works and make appropriate notes on any observations.

### **C) Consistency of Rates**

The Evaluation Committee will assess the **consistency of rates for similar items** within the Bills of Quantities and document any inconsistencies identified.

## STAGE 4: DUE DILIGENCE

Post-qualification will be undertaken where applicable.

The Evaluation Committee may inspect the bidder's premises and conduct due diligence to seek clarification or confirmation, where necessary, to verify the authenticity and compliance of any tender conditions or bidder qualifications in accordance with Section 83(1) of the PPADA 2015 (Revised Edition 2022).

## STAGE 5: RECOMMENDATION FOR AWARD

### **Award Criteria:**

The firm achieving the **lowest evaluated price** shall be recommended for award in accordance with Section 86(1) of the *Public Procurement and Asset Disposal Act, 2015 (Revised Edition 2022)*

**SECTION IV - TENDERING FORMS**

**QUALIFICATION FORMS**

**1. FOREIGN TENDERERS 40%RULE**

Pursuant to ITT 3.9, a foreign tenderer must complete this form to demonstrate that the tender fulfils this condition.

ITEM	Description of Work Item	Describe location of Source	COST in K. shillings	Comments, if any
A	Local Labor			
1				
2				
3				
4				
5				
B	Sub contracts from Local sources			
1				
2				
3				
4				
5				
C	Local materials			
1				
2				
3				
4				
5				
D	Use of Local Plant and Equipment			
1				
2				
3				
4				
5				
E	Add any other items			
1				
2				
3				
4				
5				
6				
	TOTAL COST LOCAL CONTENT		XXXXX	
	PERCENTAGE OF CONTRACT PRICE			

**2. FORMEQU: EQUIPMENT**

The Tenderer shall provide adequate information to demonstrate clearly that it has the capability to meet the requirements for the key equipment listed in Section III, Evaluation and Qualification Criteria. A separate Form shall be prepared for each item of equipment listed, or for alternative equipment proposed by the Tenderer.

Item of equipment		
Equipment information	Name of manufacturer	Model and power rating
	Capacity	Year of manufacture
Current status	Current location	
	Details of current commitments	
Source	Indicate source of the equipment <input type="checkbox"/> Owned <input type="checkbox"/> Rented <input type="checkbox"/> Leased <input type="checkbox"/> Specially manufactured	

Omit the following information for equipment owned by the Tenderer.

Owner	Name of owner	
	Address of owner	
	Telephone	Contact name and title
	Fax	Telex
Agreements	Details of rental / lease / manufacture agreements specific to the project	

### 3. FORM PER -1

#### Contractor's Representative and Key Personnel Schedule

Tenderers should provide the names and details of the suitably qualified Contractor's Representative and Key Personnel to perform the Contract. The data on their experience should be supplied using the Form PER-2 below for each candidate.

#### Contractor' Representative and Key Personnel

1.	Title of position: Contractor's Representative	
	Name of candidate:	
	Duration of appointment:	
	Time commitment: for this position:	
	Expected time schedule for this position:	
2.	Title of position:	
	Name of candidate:	
	Duration of appointment:	
	Time commitment: for this position:	
	Expected time schedule for this position:	
3.	Title of position:	
	Name of candidate:	
	Duration of appointment:	
	Time commitment: for this position:	
	Expected time schedule for this position:	
4.	Title of position:	
	Name of candidate:	
	Duration of appointment:	
	Time commitment: for this position:	
	Expected time schedule for this position:	
5.	Title of position:	
	Name of candidate:	
	Duration of appointment:	
	Time commitment: for this position:	
	Expected time schedule for this position:	

**4. FORM PER - 2:**

Resume and Declaration - Contractor's Representative and Key Personnel.

Name of Tenderer
------------------

Position [#1]: <i>[title of position from Form PER-1]</i>	
Personnel information	Name: <span style="float: right;">Date of birth:</span>
	Address: <span style="float: right;">E-mail:</span>
	Professional qualifications:
	Academic qualifications:
	Language proficiency: <i>[language and levels of speaking, reading and writing skills]</i>
Details	Address of Procuring Entity:
	Telephone: <span style="float: right;">Contact (manager / personnel officer):</span>
	Fax:
	Job title: <span style="float: right;">Years with present Procuring Entity:</span>

Summarize professional experience in reverse chronological order. Indicate particular technical and managerial experience relevant to the project.

Project	Role	Duration of involvement	Relevant experience
<i>[main project details]</i>	<i>[role and responsibilities on the project]</i>	<i>[time in role]</i>	<i>[describe the experience relevant to this position]</i>

**Declaration**

I, the undersigned [*insert either "Contractor's Representative" or "Key Personnel" as applicable*], certify that to the best of my knowledge and belief, the information contained in this Form PER-2 correctly describes myself, my qualifications and my experience.

I confirm that I am available as certified in the following table and throughout the expected time schedule for this position as provided in the Tender:

<b>Commitment</b>	<b>Details</b>
Commitment to duration of contract:	
Time commitment:	

I understand that any misrepresentation or omission in this Form may:

- (a) be taken into consideration during Tender evaluation;
- (b) result in my disqualification from participating in the Tender;
- (c) result in my dismissal from the contract.

Name of Contractor's Representative or Key Personnel: [*insert name*]

Signature: \_\_\_\_\_

Date: (day month year): \_\_\_\_\_

Countersignature of authorized representative of the Tenderer:

Signature: \_\_\_\_\_

Date: (day month year): \_\_\_\_\_

## 5. TENDERERS QUALIFICATION WITHOUT PREQUALIFICATION

To establish its qualifications to perform the contract in accordance with Section III, Evaluation and Qualification Criteria the Tenderer shall provide the information requested in the corresponding Information Sheets included hereunder.

### 5.1 FORM ELI -1.1

**Tenderer**

**InformationForm**

Date: \_\_\_\_\_

ITT No. and title: \_\_\_\_\_

Tenderer's name
In case of Joint Venture (JV), name of each member:
Tenderer's actual or intended country of registration: <i>[indicate country of Constitution]</i>
Tenderer's actual or intended year of incorporation:
Tenderer's legal address [in country of registration]:
Tenderer's authorized representative information Name: _____ Address: _____ Telephone/Fax numbers: _____ E-mail address: _____
1. Attached are copies of original documents of <input type="checkbox"/> Articles of Incorporation (or equivalent documents of constitution or association), and/or documents of registration of the legal entity named above, in accordance with ITT 3.6 <input type="checkbox"/> In case of JV, letter of intent to form JV or JV agreement, in accordance with ITT 3.5 <input type="checkbox"/> In case of state-owned enterprise or institution, in accordance with ITT 3.8, documents establishing: <ul style="list-style-type: none"><li>• Legal and financial autonomy</li><li>• Operation under commercial law</li></ul> <ol style="list-style-type: none"><li>1. Establishing that the Tenderer is not under the supervision of the Procuring Entity</li><li>2. Included are the organizational chart and a list of Board of Directors</li></ol>

**Tenderer's JV Information Form  
(to be completed for each member of Tenderer's JV)**

Date: \_\_\_\_\_

ITT No. and title: \_\_\_\_\_

Tenderer's JV name:
JV member's name:
JV member's country of registration:
JV member's year of constitution:
JV member's legal address in country of constitution:
JV member's authorized representative information Name: _____ Address: _____ Telephone/Fax numbers: _____ E-mail address: _____
<p>1. Attached are copies of original documents of</p> <p><input type="checkbox"/> Articles of Incorporation (or equivalent documents of constitution or association), and/or registration documents of the legal entity named above, in accordance with ITT 3.6.</p> <p><input type="checkbox"/> In case of a state-owned enterprise or institution, documents establishing legal and financial autonomy, operation in accordance with commercial law, and that they are not under the supervision of the Procuring Entity, in accordance with ITT 3.5.</p> <p>2. Included are the organizational chart and a list of Board of Directors.</p>

**Historical Contract Non-Performance, Pending Litigation and Litigation History**

Tenderer's Name: \_\_\_\_\_

Date: \_\_\_\_\_

JV Member's Name \_\_\_\_\_

ITT No. and title: \_\_\_\_\_

**Non-Performed Contracts in accordance with Section III, Evaluation and Qualification Criteria**

- Contract non-performance did not occur since 1<sup>st</sup> January *[insert year]* specified in Section III, Evaluation and Qualification Criteria, Sub-Factor 2.1.
- Contract(s) not performed since 1<sup>st</sup> January *[insert year]* specified in Section III, Evaluation and Qualification Criteria, requirement 2.1
- Contract(s) withdrawn since 1<sup>st</sup> January *[insert year]* specified in Section III, Evaluation and Qualification Criteria, requirement 2.1

<b>Year</b>	<b>Non-performed portion of contract</b>	<b>Contract Identification</b>	<b>Total Contract Amount (current value, currency, exchange rate and Kenya Shilling equivalent)</b>
<i>[insert year]</i>	<i>[insert amount and percentage]</i>	Contract Identification: <i>[indicate complete contract name/ number, and any other identification]</i> Name of Procuring Entity: <i>[insert full name]</i> Address of Procuring Entity: <i>[insert street/city/country]</i> Reason(s) for nonperformance: <i>[indicate main reason(s)]</i>	<i>[insert amount]</i>

**Pending Litigation, in accordance with Section III, Evaluation and Qualification Criteria**

- No pending litigation in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.3.
- Pending litigation in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.3 as indicated below.

<b>Year of dispute</b>	<b>Amount in dispute (currency)</b>	<b>Contract Identification</b>	<b>Total Contract Amount (currency), Kenya Shilling Equivalent (exchange rate)</b>
		Contract Identification: _____ Name of Procuring Entity: _____ Address of Procuring Entity: _____ Matter in dispute: _____ Party who initiated the dispute: _____ Status of dispute: _____	

Year of dispute	Amount in dispute (currency)	Contract Identification	Total Contract Amount (currency), Kenya Shilling Equivalent (exchange rate)
		Contract Identification: Name of Procuring Entity: Address of Procuring Entity: Matter in dispute: Party who initiated the dispute: Status of dispute:	
Litigation History in accordance with Section III, Evaluation and Qualification Criteria			
<input type="checkbox"/> No Litigation History in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.4. <input type="checkbox"/> Litigation History in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.4 as indicated below.			
<i>[insert year]</i>	<i>[insert percentage]</i>	Contract Identification: <i>[indicate complete contract name, number, and any other identification]</i> Name of Procuring Entity: <i>[insert full name]</i> Address of Procuring Entity: <i>[insert street/city/country]</i> Matter in dispute: <i>[indicate main issues in dispute]</i> Party who initiated the dispute: <i>[indicate "Procuring Entity" or "Contractor"]</i> Reason(s) for Litigation and award decision <i>[indicate main reason(s)]</i>	<i>[insert amount]</i>

Include details relating to potential bid-rigging practices such as previous occasions where tenders were withdrawn, joint bids with competitors, subcontracting work to unsuccessful tenderers, etc.

**5.4 FORM FIN – 3.1:**

**Financial Situation and Performance**

Tenderer’s Name: \_\_\_\_\_

Date: \_\_\_\_\_

JV Member’s Name \_\_\_\_\_

ITT No. and title: \_\_\_\_\_

**5.4.1. Financial Data**

Type of Financial information in _____ (currency)	Historic information for previous _____ years, _____ (amount in currency, currency, exchange rate*, USD equivalent)				
	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Statement of Financial Position (Information from Balance Sheet)</b>					
Total Assets (TA)					
Total Liabilities (TL)					
Total Equity/Net Worth (NW)					
Current Assets (CA)					
Current Liabilities (CL)					
Working Capital (WC)					
<b>Information from Income Statement</b>					
Total Revenue (TR)					
Profits Before Taxes (PBT)					
<b>Cash Flow Information</b>					
Cash Flow from Operating Activities					

\*Refer to ITT 15 for the exchange rate

### 5.4.2 Sources of Finance

Specify sources of finance to meet the cash flow requirements on works currently in progress and for future contract commitments.

No.	Source of finance	Amount (Kenya Shilling equivalent)
1		
2		
3		

### 5.4.3 Financial documents

The Tenderer and its parties shall provide copies of financial statements for \_\_\_\_\_ years pursuant Section III, Evaluation and Qualifications Criteria, Sub-factor 3.1. The financial statements shall:

- (a) reflect the financial situation of the Tenderer or in case of JV member, and not an affiliated entity (such as parent company or group member).
  - (b) be independently audited or certified in accordance with local legislation.
  - (c) be complete, including all notes to the financial statements.
  - (d) correspond to accounting periods already completed and audited.
- Attached are copies of financial statements<sup>1</sup> for the \_\_\_\_\_ years required above; and complying with the requirements

---

<sup>1</sup> If the most recent set of financial statements is for a period earlier than 12 months from the date of Tender, the reason for this should be justified.

**5.5 FORM FIN – 3.2:**

**Average Annual Construction Turnover**

Tenderer's Name: \_\_\_\_\_

Date: \_\_\_\_\_

JV Member's Name \_\_\_\_\_

ITT No. and title: \_\_\_\_\_

<b>Annual turnover data (construction only)</b>			
<b>Year</b>	<b>Amount Currency</b>	<b>Exchange rate</b>	<b>Kenya Shilling equivalent</b>
<i>[indicate year]</i>			
Average Annual Construction Turnover *			

\* See Section III, Evaluation and Qualification Criteria, Sub-Factor 3.2.

**5.6 FORM FIN – 3.3:**

**Financial Resources**

Specify proposed sources of financing, such as liquid assets, unencumbered real assets, lines of credit, and other financial means, net of current commitments, available to meet the total construction cash flow demands of the subject contract or contracts as specified in Section III, Evaluation and Qualification Criteria

<b>Financial Resources</b>		
<b>No.</b>	<b>Source of financing</b>	<b>Amount (Kenya Shilling equivalent)</b>
1		
2		
3		

**5.7 FORM FIN – 3.4:**

**Current Contract Commitments / Works in Progress**

Tenderers and each member to a JV should provide information on their current commitments on all contracts that have been awarded, or for which a letter of intent or acceptance has been received, or for contracts approaching completion, but for which an unqualified, full completion certificate has yet to be issued.

<b>Current Contract Commitments</b>					
<b>No.</b>	<b>Name of Contract</b>	<b>Procuring Entity's Contact Address, Tel,</b>	<b>Value of Outstanding Work [Current Kenya Shilling /month Equivalent]</b>	<b>Estimated Completion Date</b>	<b>Average Monthly Invoicing Over Last Six Months [Kenya Shilling /month]</b>
1					
2					
3					
4					
5					

**5.8 FORM EXP - 4.1**

**General Construction Experience**

Tenderer's Name: \_\_\_\_\_

Date: \_\_\_\_\_

JV Member's Name \_\_\_\_\_

ITT No. and title: \_\_\_\_\_

Page \_\_\_\_\_ of \_\_\_\_\_ pages

Starting Year	Ending Year	Contract Identification	Role of Tenderer
		Contract name: _____ Brief Description of the Works performed by the Tenderer: _____ Amount of contract: _____ Name of Procuring Entity: _____ Address: _____	
		Contract name: _____ Brief Description of the Works performed by the Tenderer: _____ Amount of contract: _____ Name of Procuring Entity: _____ Address: _____	
		Contract name: _____ Brief Description of the Works performed by the Tenderer: _____ Amount of contract: _____ Name of Procuring Entity: _____ Address: _____	

**5.9 FORM EXP - 4.2(a)**

**Specific Construction and Contract Management Experience**

Tenderer's Name: \_\_\_\_\_

Date: \_\_\_\_\_

JV Member's Name \_\_\_\_\_

ITT No. and title: \_\_\_\_\_

Similar Contract No.	Information			
Contract Identification				
Award date				
Completion date				
Role in Contract	Prime Contractor <input type="checkbox"/>	Member in JV <input type="checkbox"/>	Management Contractor <input type="checkbox"/>	Sub-contractor <input type="checkbox"/>
Total Contract Amount	<b>Kenya Shilling</b>			
If member in a JV or sub-contractor, specify participation in total Contract amount				
Procuring Entity's Name:				
Address:				
Telephone/fax number				
E-mail:				

**5.9 FORM EXP - 4.2(a)**

**Specific Construction and Contract Management Experience**

Tenderer's Name: \_\_\_\_\_

Date: \_\_\_\_\_

JV Member's Name \_\_\_\_\_

ITT No. and title: \_\_\_\_\_

Similar Contract No.	Information			
Contract Identification				
Award date				
Completion date				
Role in Contract	Prime Contractor <input type="checkbox"/>	Member in JV <input type="checkbox"/>	Management Contractor <input type="checkbox"/>	Sub-contractor <input type="checkbox"/>
Total Contract Amount	<b>Kenya Shilling</b>			
If member in a JV or sub-contractor, specify participation in total Contract amount				
Procuring Entity's Name:				
Address:				
Telephone/fax number				

E-mail: \_\_\_\_\_

**5.9 FORM EXP - 4.2 (a) (cont.)**

**Specific Construction and Contract Management Experience (cont.)**

<b>Similar Contract No.</b>	<b>Information</b>
Description of the similarity in accordance with Sub-Factor 4.2(a) of Section III:	
1. Amount	
2. Physical size of required works items	
3. Complexity	
4. Methods/Technology	
5. Construction rate for key activities	
6. Other Characteristics	

**5.10 FORM EXP - 4.2(b)**

**Construction Experience in Key Activities**

Tenderer's Name: \_\_\_\_\_

Date: \_\_\_\_\_

Tenderer's JV Member Name: \_\_\_\_\_

Sub-contractor's Name<sup>2</sup> (as per ITT 34): \_\_\_\_\_

ITT No. and title: \_\_\_\_\_

All Sub-contractors for key activities must complete the information in this form as per ITT 34 and Section III, Evaluation and Qualification Criteria, Sub-Factor 4.2.

1. Key Activity No One: \_

Information				
Contract Identification				
Award date				
Completion date				
Role in Contract	Prime Contractor <input type="checkbox"/>	Member in JV <input type="checkbox"/>	Management Contractor <input type="checkbox"/>	Sub-contractor <input type="checkbox"/>
Total Contract Amount	Kenya Shilling			
Quantity (Volume, number or rate of production, as applicable) performed under the contract per year or part of the year	Total quantity in the contract (i)	Percentage participation (ii)		Actual Quantity Performed (i) x (ii)
Year 1				
Year 2				
Year 3				
Year 4				
Procuring Entity's Name:				
Address: Telephone/fax number E-mail:				

<sup>2</sup> If applicable

	<b>Information</b>
Description of the key activities in accordance with Sub-Factor 4.2(b) of Section III:	

**OTHER FORMS**

**6. FORM OF TENDER**

**(Amended and issued pursuant to PPRA CIRCULAR No. 02/2022)**

**INSTRUCTIONS TO TENDERERS**

- i) All italicized text is to help the Tenderer in preparing this form.*
- ii) The Tenderer must prepare this Form of Tender on stationery with its letterhead clearly showing the Tenderer's complete name and business address. Tenderers are reminded that this is a mandatory requirement.*
- iii) Tenderer must complete and sign CERTIFICATE OF INDEPENDENT TENDER DETERMINATION and the SELF DECLARATION FORMS OF THE TENDERER as listed under (xxii) below.*

**Date of this Tender submission:**.....*[insert date (as day, month and year) of Tender submission]*

**Tender Name and Identification:**.....*[insert identification]*

**Alternative No.:**.....*[insert identification No if this is a Tender for an alternative]*

To: ..... *[Insert complete name of Procuring Entity]*

**Date of this Tender submission:** *[insert date (as day, month and year) of Tender submission]* **Request**

**for Tender No.:** *[insert identification]* **Name and description of Tender** *[Insert as per ITT]* **Alternative**

**No.:** *[insert identification No if this is a Tender for an alternative]*

**To:** *[insert complete name of Procuring Entity]*

Dear Sirs,

1. In accordance with the Conditions of Contract, Specifications, Drawings and Bills of Quantities for the execution of the above named Works, we, the undersigned offer to construct and complete the Works and remedy any defects therein for the sum<sup>3</sup> of Kenya Shillings *[[Amount in figures]*

\_\_\_\_\_ Kenya Shillings *[amount in words]* \_\_\_\_\_

The above amount includes foreign currency<sup>4</sup> amount (s) of *[state figure or a percentage and currency]* *[figures]* \_\_\_\_\_ *[words]* \_\_\_\_\_

2. We undertake, if our tender is accepted, to commence the Works as soon as is reasonably possible after the receipt of the Architect notice to commence, and to complete the whole of the Works comprised in the Contract within the time stated in the Special Conditions of Contract.
3. We agree to adhere by this tender until \_\_\_\_\_ *[Insert date]*, and it shall remain binding upon us and may be accepted at any time before that date.

<sup>3</sup> *This sum should be carried forward from the Summary of the Bills of Quantities.*

<sup>4</sup> *The percentage quoted above should not include provisional sums, and not more than two foreign currencies are allowed.*

4. We understand that you are not bound to accept the lowest or any tender you may receive.
5. We, the under signed, further declare that:
  - i) No reservations: We have examined and have no reservations to the tender document, including Addenda issued in accordance with ITT 28;
  - ii) Eligibility: We meet the eligibility requirements and have no conflict of interest in accordance with ITT 3 and 4;
  - iii) Tender - Securing Declaration: We have not been suspended nor declared ineligible by the Procuring Entity based on execution of a Tender-Securing or Proposal-Securing Declaration in the Procuring Entity's Country in accordance with ITT 19.8;
  - iv) Conformity: We offer to execute in conformity with the tendering documents and in accordance with the implementation and completion specified in the construction schedule, the following Works: *[insert a brief description of the Works]*;
  - v) Tender Price: The total price of our Tender, excluding any discounts offered in item 1 above is: *[Insert one of the options below as appropriate]*
  - vi) Option 1, in case of one lot: Total price is: *[insert the total price of the Tender in words and figures, indicating the various amounts and the respective currencies]*; or  
Option 2, in case of multiple lots:
    - (a) Total price of each lot *[insert the total price of each lot in words and figures, indicating the various amounts and the respective currencies]*; and
    - (b) Total price of all lots (sum of all lots) *[insert the total price of all lots in words and figures, indicating the various amounts and the respective currencies]*;
  - vii) Discounts: The discounts offered and the methodology for their application are:
    - viii) The discounts offered are: *[Specify in detail each discount offered.]*
    - ix) The exact method of calculations to determine the net price after application of discounts is shown below: *[Specify in detail the method that shall be used to apply the discounts]*;
    - x) Tender Validity Period: Our Tender shall be valid for the period specified in TDS 18.1 (as amended, if applicable) from the date fixed for the Tender submission deadline specified in TDS 22.1 (as amended, if applicable), and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
    - xi) Performance Security: If our Tender is accepted, we commit to obtain a Performance Security in accordance with the Tendering document;
    - xii) One Tender Per Tender: We are not submitting any other Tender(s) as an individual Tender, and we are not participating in any other Tender(s) as a Joint Venture member or as a sub-contractor, and meet the requirements of ITT 3.4, other than alternative Tenders submitted in accordance with ITT 13.3;
    - xiii) Suspension and Debarment: We, along with any of our subcontractors, suppliers, Engineer, manufacturers, or service providers for any part of the contract, are not subject to, and not controlled by any entity or individual that is subject to, a temporary suspension or a debarment imposed by the Public Procurement Regulatory Authority or any other entity of the Government of Kenya, or any international organization.

- xiv) State-owned enterprise or institution: [select the appropriate option and delete the other] [We are not a state-owned enterprise or institution]/[We are a state-owned enterprise or institution but meet the requirements of ITT3.8];
- xv) Commissions, gratuities, fees: We have paid, or will pay the following commissions, gratuities, or fees with respect to the tender process or execution of the Contract: [insert complete name of each Recipient, its full address, the reason for which each commission or gratuity was paid and the amount and currency of each such commission or gratuity].

Name of Recipient	Address	Reason	Amount

(If none has been paid or is to be paid, indicate "none.")

- xvi) Binding Contract: We understand that this Tender, together with your written acceptance there of included in your Letter of Acceptance, shall constitute a binding contract between us, until a formal contract is prepared and executed;
- xvii) Not Bound to Accept: We understand that you are not bound to accept the lowest evaluated cost Tender, the Most Advantageous Tender or any other Tender that you may receive;
- xviii) Fraud and Corruption: We here by certify that we have taken steps to ensure that no personacting for us or on our behalf engages in any type of Fraud and Corruption; and
- xix) Collusive practices: We hereby certify and confirm that the tender is genuine, non-collusive and made with the intention of accepting the contract if awarded. To this effect we have signed the "Certificate of Independent Tender Determination" attached below.
- xx) We undertake to adhere by the Code of Ethics for Persons Participating in Public Procurement and Asset Disposal, copy available from\_\_\_\_(specify website) during the procurement process and the execution of any resulting contract.
- xxi) **Beneficial Ownership Information**: We commit to provide to the procuring entity the Beneficial Ownership Information in conformity with the Beneficial Ownership Disclosure Form upon receipt of notification of intention to enter into a contract in the event we are the successful tenderer in this subject procurement proceeding.
- xxii) We, the Tenderer, have duly completed, signed and stamped the following Forms as part of our Tender:
  - a) Tenderer's Eligibility; Confidential Business Questionnaire - to establish we are no tin any conflict to interest.
  - (b) Certificate of Independent Tender Determination - to declare that we completed the tender without colluding with other tenderers.
  - (a) Self-Declarationo f the Tenderer - to declare that we will, if awarded a contract, not engage in any form of fraud and corruption.
  - (d) Declaration and commitment to the Code of Ethics for Persons Participating in Public Procurement and Asset Disposal.

Further, we confirm that we have read and understood the full content and scope of fraud and

corruption as informed in “**Appendix 1 - Fraud and Corruption**” attached to the Form of Tender.

**Name of the Tenderer:** *\*[insert complete name of person signing the Tender]*

**Name of the person duly authorized to sign the Tender on behalf of the Tenderer:** *\*\*[insert complete name of person duly authorized to sign the Tender]*

**Title of the person signing the Tender:** *[insert complete title of the person signing the Tender]*

**Signature of the person named above:** *[insert signature of person whose name and capacity are shown above]*

**Date signed** *[insert date of signing]* day of *[insert month]*, *[insert year]*

Datesigned\_\_\_\_\_dayof\_\_\_\_\_,\_\_\_\_\_

Notes

*\* In the case of the Tender submitted by joint venture specify the name of the Joint Venture as Tenderer.*

*\*\*Person signing the Tender shall have the power of attorney given by the Tenderer to be attached with the Tender.*

**(a) TENDERER'S ELIGIBILITY-CONFIDENTIAL BUSINESS QUESTIONNAIRE**

**Instruction to Tenderer**

Tender is instructed to complete the particulars required in this Form, *one form for each entity if Tender is a JV*. Tenderer is further reminded that it is an offence to give false information on this Form.

**(a) Tenderer's details**

	ITEM	DESCRIPTION
1	Name of the Procuring Entity	
2	Reference Number of the Tender	
3	Date and Time of Tender Opening	
4	Name of the Tenderer	
5	Full Address and Contact Details of the Tenderer.	1. Country 2. City 3. Location 4. Building 5. Floor 6. Postal Address 7. Name and email of contact person.
6	Current Trade License Registration Number and Expiring date	
7	Name, country and full address ( <i>postal and physical addresses, email, and telephone number</i> ) of Registering Body/Agency	
8	Description of Nature of Business	
9	Maximum value of business which the Tenderer handles.	
10	State if Tenders Company is listed in stock exchange, give name and full address ( <i>postal and physical addresses, email, and telephone number</i> ) of state which stock exchange	

**General and Specific Details**

**(b) Sole Proprietor**, provide the following details.

Name in full \_\_\_\_\_ Age \_\_\_\_\_  
 Nationality \_\_\_\_\_ Country of Origin \_\_\_\_\_  
 Citizenship \_\_\_\_\_

**(c) Partnership**, provide the following details.

	Names of Partners	Nationality	Citizenship	% Shares owned
--	-------------------	-------------	-------------	----------------

1				
2				
3				

(d) **Registered Company**, provide the following details.

- I) Private or public Company \_\_\_\_\_  
 ii) State the nominal and issued capital of the Company \_\_\_\_\_

Nominal Kenya Shillings (Equivalent).....  
 Issued Kenya Shillings (Equivalent).....

iii) Give details of Directors as follows.

	Names of Director	Nationality	Citizenship	% Shares owned
1				
2				
3				

(e) **DISCLOSURE OF INTEREST - Interest of the Firm in the Procuring Entity.**

- i) Are there any person/persons in..... (Name of Procuring Entity) who has/have an interest or relationship in this firm? Yes/No.....If yes, provide details as follows.

	Names of Person	Designation in the Procuring Entity	Interest or Relationship with Tenderer
1			
2			
3			

(i) **Conflict of interest disclosure**

	Type of Conflict	Disclosure YES OR NO	If YES provide details of the relationship with Tenderer
1	Tenderer is directly or indirectly controls, is controlled by or is under common control with another tenderer.		
2	Tenderer receives or has received any direct or indirect subsidy from another tenderer.		
3	Tenderer has the same legal representative as another tenderer		
4	Tender has a relationship with another tenderer, directly or through common third parties, that puts it in a position to influence the tender of another tenderer, or influence the decisions of the Procuring Entity regarding this tendering process.		
5	Any of the Tenderer's affiliates participated as a consultant in the		

	Type of Conflict	Disclosure YES OR NO	If YES provide details of the relationship with Tenderer
	preparation of the design or technical specifications of the works that are the subject of the tender.		
6	Tenderer would be providing goods, works, non-consulting services or consulting services during implementation of the contract specified in this Tender Document.		
7	Tenderer has a close business or family relationship with a professional staff of the Procuring Entity who are directly or indirectly involved in the preparation of the Tender document or specifications of the Contract, and/or the Tender evaluation process of such contract.		
8	Tenderer has a close business or family relationship with a professional staff of the Procuring Entity who would be involved in the implementation or supervision of the such Contract.		
9	Has the conflict stemming from such relationship stated in item 7 and 8 above been resolved in a manner acceptable to the Procuring Entity throughout the tendering process and execution of the Contract.		

**Certification**

On behalf of the Tenderer, I certify that the information given above is complete, current and accurate as at the date of submission.

Full Name \_\_\_\_\_

Title or Designation \_\_\_\_\_

\_\_\_\_\_

*(Signature)*

\_\_\_\_\_

*(Date)*

**b) CERTIFICATE OF INDEPENDENT TENDER DETERMINATION**

I, the undersigned, in submitting the accompanying Letter of Tender to the \_\_\_\_\_  
\_\_\_\_\_ [Name of Procuring Entity] for:  
\_\_\_\_\_ [Name and number of tender] in

response to the request for tenders made by: \_\_\_\_\_ [Name of Tenderer] do

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

I certify, on behalf of \_\_\_\_\_ [Name of Tenderer] that:

1. I have read and I understand the contents of this Certificate;
2. I understand that the Tender will be disqualified if this Certificate is found not to be true and complete in every respect;
3. I am the authorized representative of the Tenderer with authority to sign this Certificate, and to submit the Tender on behalf of the Tenderer;
4. For the purposes of this Certificate and the Tender, I understand that the word "competitor" shall include any individual or organization, other than the Tenderer, whether or not affiliated with the Tenderer, who:
  - a) Has been requested to submit a Tender in response to this request for tenders;
  - b) could potentially submit a tender in response to this request for tenders, based on their qualifications, abilities or experience;
5. The Tenderer discloses that [check one of the following, as applicable]:
  - a) The Tenderer has arrived at the Tender independently from, and without consultation, communication, agreement or arrangement with, any competitor;
  - b) the Tenderer has entered into consultations, communications, agreements or arrangements with one or more competitors regarding this request for tenders, and the Tenderer discloses, in the attached document(s), complete details thereof, including the names of the competitors and the nature of, and reasons for, such consultations, communications, agreements or arrangements;
6. In particular, without limiting the generality of paragraphs (5)(a) or (5)(b) above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
  - a) prices;
  - b) methods, factors or formulas used to calculate prices;
  - c) the intention or decision to submit, or not to submit, a tender; or
  - d) the submission of a tender which does not meet the specifications of the request for Tenders; except as specifically disclosed pursuant to paragraph (5)(b) above;
7. In addition, there has been no consultation, communication, agreement or arrangement with any competitor regarding the quality, quantity, specifications or delivery particulars of the works or services to which this request for tenders relates, except as specifically authorized by the procuring authority or as specifically disclosed pursuant to paragraph (5)(b) above;
8. The terms of the Tender have not been, and will not be, knowingly disclosed by the Tenderer, directly or indirectly, to any competitor, prior to the date and time of the official tender opening, or of the awarding of the Contract, whichever comes first, unless otherwise required by law or as specifically disclosed pursuant to paragraph (5)(b) above.

Name \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

*[Name, title and signature of authorized agent of Tenderer and Date]*

(c) SELF- DECLARATION FORMS

FORM SD1

**SELF DECLARATION THAT THE PERSON/TENDERER IS NOT DEBARRED IN THE MATTER OF THE PUBLIC PROCUREMENT AND ASSET DISPOSAL ACT 2015.**

I, ....., of Post Office Box ..... being a resident of..... in the Republic of ..... do hereby make a statement as follows: -

1. THAT I am the Company Secretary/ Chief Executive/Managing Director/Senior Principal Officer/Direct or of ..... *(insert name of the Company)* who is a Bidder in respect of **Tender No.** ..... for ..... *(insert tender title/description)* for ..... *(insert name of the Procuring entity)* and duly authorized and competent to make this statement.
2. THAT the aforesaid Bidder, its Directors and subcontractors have not been debarred from participating in procurement proceeding under Part IV of the Act.
3. THAT what is deponed to here in above is true to the best of my knowledge, information and belief.

.....  
(Title)

.....  
(Signature)

.....  
(Date)

Bidder Official Stamp

FORM SD2

**SELF DECLARATION THAT THE PERSON/TENDERER WILL NOT ENGAGE IN ANY CORRUPT OR FRAUDULENT PRACTICE.**

I, .....of P.O. Box ..... being a resident of  
..... in the Republic of ..... do hereby make a statement as follows: -

1. THAT I am the Chief Executive/Managing Director/Senior Principal Officer/Director of ..... (insert name of the Company) who is a Bidder in respect of **Tender No.**..... for ..... (insert tender title/description) for ..... (insert name of the Procuring entity) and duly authorized and competent to make this statement.
2. THAT theafore said Bidder, its servants and/oragents/subcontractorswillnotengageinanycorruptorfraudulent practice and has not been requested to pay any inducement to any member of the Board, Management, Staff and/or employees and/or agents of ..... (insert name of the Procuring entity) which is the procuring entity.
3. THAT the aforesaid Bidder, its servants and/or agents /subcontractors have not offered any inducement to any member of the Board, Management, Staff and/or employees and/or agents of ..... (name of the procuring entity).
4. THAT the aforesaid Bidder will not engage /has not engaged in any corrosive practice with other bidders participating in the subject tender
5. THAT what is deponed to here in above is true to the best of my knowledge information and belief.

.....  
(Title)

.....  
(Signature)

.....  
(Date)

Bidder's Official Stamp

**DECLARATION AND COMMITMENT TO THE CODE OF ETHICS**

I ..... (person) on behalf of **(Name of the Business/ Company/Firm)** .....  
..... declare that I have read and fully understood the contents of the  
Public Procurement & Asset Disposal Act, 2015, Regulations and the Code of Ethics for persons  
participating in Public Procurement and Asset Disposal and my responsibilities under the Code.

I do here by commit to abide by the provisions of the Code of Ethics for persons participating in Public  
Procurement and Asset Disposal.

Name of Authorized  
signatory.....

Sign.....

Position.....

Office address.....

Telephone..... E-

mail.....

Name of the Firm/Company.....

Date.....

**(Company Seal/ Rubber Stamp where applicable)**

Witness

Name.....

Sign.....

Date.....

**(d) APPENDIX 1 - FRAUD AND CORRUPTION**

*(Appendix 1 shall not be modified)*

**1. Purpose**

1.1 The Government of Kenya's Anti-Corruption and Economic Crime laws and their sanction's policies and procedures, Public Procurement and Asset Disposal Act (*no. 33 of 2015*) and its Regulation, and any other Kenya's Acts or Regulations related to Fraud and Corruption, and similar offences, shall apply with respect to Public Procurement Processes and Contracts that are governed by the laws of Kenya.

**2. Requirements**

2.1 The Government of Kenya requires that all parties including Procuring Entities, Tenderers, (applicants/proposers), Consultants, Contractors and Suppliers; any Sub-contractors, Sub-consultants, Service providers or Suppliers; any Agents (whether declared or not); and any of their Personnel, involved and engaged in procurement under Kenya's Laws and Regulation, observe the highest standard of ethics during the procurement process, selection and contract execution of all contracts, and refrain from Fraud and Corruption and fully comply with Kenya's laws and Regulations as per paragraphs 1.1 above.

2.2 Kenya's public procurement and asset disposal act (*no. 33 of 2015*) under Section 66 describes rules to be followed and actions to be taken in dealing with Corrupt, Coercive, Obstructive, Collusive or Fraudulent practices, and Conflicts of Interest in procurement including consequences for offences committed. A few of the provisions noted below highlight Kenya's policy of no tolerance for such practices and behavior:

- 1) A person to whom this Act applies shall not be involved in any corrupt, coercive, obstructive, collusive or fraudulent practice; or conflicts of interest in any procurement or as set disposal proceeding;
- 2) A person referred to under subsection (1) who contravenes the provisions of that sub-section commits an offence;
- 3) Without limiting the generality of the subsection (1) and (2), the person shall be: -
  - a) disqualified from entering into a contract for a procurement or asset disposal proceeding; or
  - b) if a contract has already been entered into with the person, the contract shall be voidable;
- 4) The voiding of a contract by the procuring entity under subsection (7) does not limit any legal remedy the procuring entity may have;
- 5) An employee or agent of the procuring entity or a member of the Board or committee of the procuring entity who has a conflict of interest with respect to a procurement: -
  - a) Shall not take part in the procurement proceedings;
  - b) shall not, after a procurement contract has been entered in to, take part in any decision relating to the procurement or contract; and
  - c) shall not be a subcontractor or for the tender to whom was awarded contract, or a member of the group of tenderers to whom the contract was awarded, but the subcontractor appointed shall meet all the requirements of this Act.
- 6) An employee, agent or member described in subsection (1) who refrains from doing anything

prohibited under that subsection, but for that subsection, would have been within his or her duties shall disclose the conflict of interest to the procuring entity;

- 7) If a person contravenes subsection (1) with respect to a conflict of interest described in subsection (5)(a) and the contract is awarded to the person or his relative or to another person in whom one of them had a direct or indirect pecuniary interest, the contract shall be terminated and all costs incurred by the public entity shall be made good by the awarding officer. Etc.
3. In compliance with Kenya's laws, regulations and policies mentioned above, the Procuring Entity:

- a) Defines broadly, for the purposes of the above provisions, the terms set forth below as follows:
- i) "corrupt practice" is the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;
  - ii) "fraudulent practice" is any act or omission, including misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain financial or other benefit or to avoid an obligation;
  - iii) "collusive practice" is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party; "coercive practice" is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;
  - iv) "obstructive practice" is:
    - Deliberately destroying, falsifying, altering, or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede investigation by Public Procurement Regulatory Authority (PPRA) or any other appropriate authority appointed by Government of Kenya into allegations of a corrupt, fraudulent, coercive, or collusive practice; and/or threatening, harassing, or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or
    - acts intended to materially impede the exercise of the PPRA's or the appointed authority's inspection and audit rights provided for under paragraph 2.3 e. below.

- b) Defines more specifically, in accordance with the above procurement Act provisions set forth for fraudulent and collusive practices as follows:

"fraudulent practice" includes a misrepresentation of fact in order to influence a procurement or disposal process or the exercise of a contract to the detriment of the procuring entity or the tenderer or the contractor, and includes collusive practices amongst tenderers prior to or after tender submission designed to establish tender prices at artificial non-competitive levels and to deprive the procuring entity of the benefits of free and open competition.

- c) Rejects a proposal for award<sup>1</sup> of a contract if PPRA determines that the firm or individual recommended for award, any of its personnel, or its agents, or its sub-consultants, sub-contractors, service providers, suppliers and/ or their employees, has, directly or indirectly, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for the contract in question;
- d) Pursuant to the Kenya's above stated Acts and Regulations, may recommend to appropriate authority(ies) for sanctioning and debarment of a firm or individual, as applicable under the Acts and Regulations;
- e) Requires that a clause be included in Tender documents and Request for Proposal documents requiring (i) Tenderers (applicants/proposers), Consultants, Contractors, and Suppliers, and their Sub-contractors, Sub-consultants, Service providers, Suppliers, Agents personnel, permit the PPRA or any other appropriate authority appointed by Government of Kenya to inspect<sup>2</sup> all accounts, records and other documents relating to the procurement process, selection and/or contract execution, and to have them audited by auditors appointed by the PPRA or any other appropriate authority appointed by Government of Kenya; and
- f) Pursuant to Section 62 of the above Act, requires Applicants/Tenderers to submit along with their Applications/Tenders/Proposals a "Self-Declaration Form" as included in the procurement

document declaring that they and all parties involved in the procurement process and contract execution have not engaged/will not engage in any corrupt or fraudulent practices.

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<sup>1</sup>*For the avoidance of doubt, a party's in eligibility to be awarded a contract shall includee, without limitation, (i) applying for pre-qualification, expressing interest in a consultancy, and tendering, either directly or as a nominated sub-contractor, nominated consultant, nominated manufacturer or supplier, or nominated service provider, in respect of such contract, and (ii) entering into an addendum or amendment introducing a material modification to any existing contract.*

<sup>2</sup>*Inspections in this context usually are investigative (i.e., forensic) in nature. They involve fact-finding activities undertaken by the Investigating Authority or persons appointed by the Procuring Entity to address specific matters related to investigations/audits, such as evaluating the veracity of an allegation of possible Fraud and Corruption, through the appropriate mechanisms. Such activity includes but is not limited to: accessing and examining a firm's or individual's financial records and information, and making copies thereof as relevant; accessing and examining any other documents, data and information (whether in hard copy or electronic format) deemed relevant for the investigation/audit, and making copies thereof as relevant; interviewing staff and other relevant individuals; performing physical inspections and site visits; and obtaining third party verification of information.*

**FORM OF TENDER SECURITY-[Option 1–Demand Bank Guarantee]**

**Beneficiary:**\_\_\_\_\_

**Request forTenders No:**

\_\_\_\_\_  
**Date:**\_\_\_\_\_

**TENDER GUARANTEE No.:**\_\_\_\_\_

**Guarantor:** \_\_\_\_\_

1. We have been informed that \_\_\_\_\_(here inafter called "the Applicant") has submitted or will submit to the Beneficiary its Tender (here inafter called" the Tender") for the execution of \_\_\_\_\_ under Request for Tenders No. ("the ITT").
2. Furthermore, we understand that, according to the Beneficiary's conditions, Tenders must be supported by a Tender guarantee.
3. At the request of the Applicant, we, as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of \_\_\_\_\_(\_\_\_\_) upon receipt by us of the Beneficiary's complying demand, supported by the Beneficiary's statement, whether in the demand itself or a separate signed document accompanying or identifying the demand, stating that either the Applicant:
  - (a) has withdrawn its Tender during the period of Tender validity set forth in the Applicant's Letter of Tender ("the Tender Validity Period"), or any extension thereto provided by the Applicant; or
  - b) having been notified of the acceptance of its Tender by the Beneficiary during the Tender Validity Period or any extension there to provided by the Applicant, (i) has failed to execute the contract agreement, or (ii) has failed to furnish the Performance.
4. This guarantee will expire: (a) if the Applicant is the successful Tenderer, upon our receipt of copies of the contract agreement signed by the Applicant and the Performance Security and, or (b) if the Applicant is not the successful Tenderer, upon the earlier of (i) our receipt of a copy of the Beneficiary's notification to the Applicant of the results of the Tendering process; or (ii) thirty days after the end of the Tender Validity Period.
5. Consequently, any demand for payment under this guarantee must be received by us at the office indicated above onor before that date.

\_\_\_\_\_  
*[signature(s)]*

***Note: All italicized text is for use in preparing this form and shall be deleted from the final product.***

**FORMAT OF TENDER SECURITY [Option 2–Insurance Guarantee]**

**TENDER GUARANTEE No.:** \_\_\_\_\_

1. Whereas ..... [*Name of the tenderer*] (hereinafter called “the tenderer”) has submitted its tender dated ..... [*Date of submission of tender*] for the ..... [*Name and/or description of the tender*] (hereinafter called “the Tender”) for the execution of \_\_\_ under Request for Tenders No. \_\_\_ (“the ITT”).
2. KNOW ALL PEOPLE by these presents that WE ..... of ..... [**Name of Insurance Company**] having our registered office at ..... (hereinafter called “the Guarantor”), are bound unto ..... [*Name of Procuring Entity*] (hereinafter called “the Procuring Entity”) in the sum of ..... (Currency and guarantee amount) for which payment well and truly to be made to the said Procuring Entity, the Guarantor binds itself, its successors and assigns, jointly and severally, firmly by these presents.

Sealed with the Common Seal of the said Guarantor this \_\_\_ day of \_\_\_\_\_ 20 \_\_\_.

3. NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if the Applicant:
  - a) has withdrawn its Tender during the period of Tender validity set forth in the Principal's Letter of Tender (“the Tender Validity Period”), or any extension thereto provided by the Principal; or
  - b) having been notified of the acceptance of its Tender by the Procuring Entity during the Tender Validity Period or any extension thereto provided by the Principal; (i) failed to execute the Contract agreement; or (ii) has failed to furnish the Performance Security, in accordance with the Instructions to tenderers (“ITT”) of the Procuring Entity's Tendering document.

then the guarantee undertakes to immediately pay to the Procuring Entity up to the above amount upon receipt of the Procuring Entity's first written demand, without the Procuring Entity having to substantiate its demand, provided that in its demand the Procuring Entity shall state that the demand arises from the occurrence of any of the above events, specifying which event(s) has occurred.

4. This guarantee will expire: (a) if the Applicant is the successful Tenderer, upon our receipt of copies of the contract agreement signed by the Applicant and the Performance Security and, (b) if the Applicant is not the successful Tenderer, upon the earlier of (i) our receipt of a copy of the Beneficiary's notification to the Applicant of the results of the Tendering process; or (ii) twenty-eight days after the end of the Tender Validity Period.
5. Consequently, any demand for payment under this guarantee must be received by us at the office indicated above on or before that date.

\_\_\_\_\_  
*[Date]*

\_\_\_\_\_  
*[Signature of the Guarantor]*

\_\_\_\_\_  
*[Witness]*

\_\_\_\_\_  
*[Seal]*

***Note: All italicized text is for use in preparing this form and shall be deleted from the final product.***

**FORM OF TENDER - SECURING DECLARATION**

*[The Bidder shall complete this Form in accordance with the instructions indicated]*

Date: ..... *[insert date (as day, month and year) of Tender Submission]*

Tender No.: ..... *[insert number of tendering process]*

To: ..... *[insert complete name of Purchaser]* I/We, the undersigned,

declare that:

1. I/We understand that, according to your conditions, bids must be supported by a Tender-Securing Declaration.
2. I/We accept that I/we will automatically be suspended from being eligible for tendering in any contract with the Purchaser for the period of time of [insert number of months or years] starting on [insert date], if we are in breach of our obligation(s) under the bid conditions, because we—(a) have withdrawn our tender during the period of tender validity specified by us in the Tendering Data Sheet; or (b) having been notified of the acceptance of our Bid by the Purchaser during the period of bid validity, (i) fail or refuse to execute the Contract, if required, or (ii) fail or refuse to furnish the Performance Security, in accordance with the instructions to tenders.
3. I/We understand that this Tender Securing Declaration shall expire if we are not the successful Tenderer(s), upon the earlier of:
  - a) Our receipt of a copy of your notification of the name of the successful Tenderer; or
  - b) thirty days after the expiration of our Tender.
4. I/We understand that if I am /we are/ in a Joint Venture, the Tender Securing Declaration must be in the name of the Joint Venture that submits the bid, and the Joint Venture has not been legally constituted at the time of bidding, the Tender Securing Declaration shall be in the names of all future partners as named in the letter of intent.

Signed:..... Capacity/title (director or partner or sole proprietor, etc.) ..... Name:.....

Duly authorized to sign the bid for and on behalf of: *[insert complete name of Tenderer]*

Dated on ..... day of ....., ..... *[Insert date of signing]* Seal or stamp

**Appendix to Tender**

**Schedule of Currency requirements**

Summary of currencies of the Tender for \_\_\_\_\_ *[insert name of Section of the Works]*

<i>Name of currency</i>	<i>Amounts payable</i>
Local currency: _____	
Foreign currency #1: _____	
Foreign currency #2: _____	
Foreign currency #3: _____	
Provisional sums expressed in local currency _____	<i>[To be entered by the Procuring Entity]</i>

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## **PART II - WORKS REQUIREMENTS**

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**SECTION V - BILLS OF QUANTITIES**

Attached

**SECTION VI - SPECIFICATIONS**

As per the Bills of Quantities

## SECTION VII - DRAWINGS

Attached

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**PART III - THE CONDITIONS OF CONTRACT AND CONTRACT**

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## SECTION VIII - GENERAL CONDITIONS OF CONTRACT (GCC)

[Name of Procuring Entity]

[Name of Contract]

[Architect Name and Address]

### General Conditions of Contract

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#### 1 GENERAL PROVISIONS

##### 1.1 Definitions

In this Contract, except where context otherwise requires, the following terms shall be interpreted as indicated below. Words indicating persons or parties include corporations and other legal entities, except where the context requires otherwise.

**“Accepted Contract Amount”** means the amount accepted in the Letter of Acceptance for the execution and completion of the Works and the remedying of any defects.

**“Base Date”** means a date 30 day prior to the submission of tenders.

**“Bill of Quantities”** means the priced and completed Bill of Quantities forming part of the tender. **“Completion Date”** means the date of completion of the Works ascertified by the Engineer.

**“Contract Price”** means the price defined in the contract and there after as adjusted in accordance with the provisions of the Contract.

**“Contract”** means the agreement entered into between the Procuring Entity and the Contractor as recorded in the Agreement Form and signed by the parties including all attachments and appendices thereto and all documents incorporated by reference therein to execute, complete, and maintain the Works.

**“Contractor's Documents”** means the calculations, computer programs and other software, progress reports, drawings, manuals, models and other documents of a technical nature (if any) supplied by the Contractor under the Contract.

**“Contractor's Equipment”** means all apparatus, machinery, vehicles and other things required for the execution and completion of the Works and the remedying of any defects. However, Contractor's Equipment excludes Temporary Works, Procuring Entity's Equipment (if any), Plant, Materials and any other things intended to form or forming part of the Permanent Works.

**“Contractor's Personnel”** means the Contractor's Representative and all personnel whom the Contractor utilizes on Site, who may include the staff, labor and other employees of the Contractor and of each Subcontractor; and any other personnel assisting the Contractor in the execution of the Works.

**“Contractor's Representative”** means the person named by the Contractor in the Contractor appointed from time to time by the Contractor who acts on behalf of the Contractor.

**“Contractor”** means the person(s) named as contractor in the Form of Tender accepted by the Procuring Entity.

**“Cost”** means expenditure reasonably incurred (or to be incurred) by the Contractor, whether on or off the Site, including overhead and similar charges, but does not include profit.

**“Day”** means a calendar day and **“year”** means 365 days.

**“Dayworks”** means Work inputs subject to payment on a time basis for labour and the associated materials and plant

**“Defect”** means any part of the Works not completed in accordance with the Contract.

**“Defects Liability Certificate”** means the certificate issued by Architect upon correction of defects by the Contractor.

**“Defects Liability Period”** means the period named in the Special Conditions of Contract and calculated from the Completion Date, within which the contractor is liable for any defects that may develop in the handed over works.

**“Defects Notification Period”** means the period for notifying defects in the Works or a Section (as the case may be) under Sub-Clause 11.1 [Completion of Outstanding Work and Remedying Defects], which extends over the days stated in the Special Conditions of Contract.

**“Drawings”** means the drawings of the Works, as included in the Contract, and any additional and modified drawings issued by (or on behalf of) the Procuring Entity in accordance with the Contract.

**“Final Payment Certificate”** means the payment certificate issued under Sub-Clause 14.13 [Issue of Final Payment Certificate].

**“Final Statement”** means the statement defined in Sub-Clause 14.11

[Application for Final Payment Certificate]. **“Force Majeure”** is defined in Clause 19 [Force Majeure].

**“Foreign Currency”** means a currency of another country (not Kenya) in which part (or all) of the Contract Price is payable, but not the Local Currency.

**“Goods”** means Contractor's Equipment, Materials, Plant and Temporary Works, or any of them as appropriate.

**“Interim Payment Certificate”** means a payment certificate issued under Clause 14 [Contract Price and Payment], other than the Final Payment Certificate.

**“Laws”** means all national legislation, statutes, ordinances, and regulations and by-laws of any legally constituted public authority.

**“Letter of Acceptance”** means the letter of formal acceptance of a tender, signed by Procuring Entity, including any annexed memoranda comprising agreements between and signed by both Parties.

**“Local Currency”** means the currency of Kenya.

**“Materials”** means things of all kinds (other than Plant) intended to form or forming part of the Permanent Works, including the supply-only materials (if any) to be supplied by the Contractor under the Contract.

**“Notice of Dissatisfaction”** means the notice given by either Party to the other under Sub-Clause 20.3 indicating its dissatisfaction and intention to commence arbitration.

**“Special Conditions of Contract”** means the pages completed by the Procuring Entity entitled Special Conditions of Contract which constitute Part A of the Special Conditions.

**“Party”** means the Procuring Entity or the Contractor, as the context requires.

**“Payment Certificate”** means a payment certificate issued under Clause 14 [Contract Price and Payment].

**“Performance Certificate”** means the certificate issued under Sub-Clause 11.9 [Performance Certificate].

**“Performance Security”** means the security (or securities, if any) under Sub-Clause 4.2 [Performance Security]. **“Permanent Works”** means the permanent works to be executed by the Contractor under the Contract.

**“Plant”** means the apparatus, machinery and other equipment intended to form or forming part of the Permanent Works, including vehicles purchased for the Procuring Entity and relating to the construction or operation of the Works.

**“Procuring Entity's Equipment”** means the apparatus, machinery and vehicles (if any) made available by the Procuring Entity for the use of the Contract or in the execution of the Works, as stated in the Specification; but does not include Plant which has not been taken over by the Procuring Entity.

**“Procuring Entity's Personnel”** means the Engineer, the Engineer, the assistants and all other staff, labor and other employees of the Architect and of the Procuring Entity; and any other personnel notified to the Contractor, by the Procuring Entity or the Engineer, as Procuring Entity's Personnel.

**“Procuring Entity”** means the Entity named in the Special Conditions of Contract.

**“Engineer”** is the person named in the Appendix to Conditions of Contract (or any other competent person appointed by the Procuring Entity and notified to the Contractor, to act in replacement of the Engineer) who is responsible for supervising the execution of the Works and administering the Contract and shall be an “Architect” or a “Quantity Surveyor” registered under the Architects and Quantity Surveyors Act Cap 525 or an “Engineer” registered under Engineers Registration Act Cap 530.

**“Engineer”** means the person appointed by the Procuring Entity to act as the Architect for the purposes of the Contract and named in the Special Conditions of Contract, or other person appointed from time to time by the Procuring Entity and notified to the Contractor

**“Provisional Sum”** means a sum (if any) which is specified in the Contract as a provisional sum, for the execution of any part of the Works or for the supply of Plant, Materials or services under Sub-Clause 13.5 [Provisional Sums].

**“Retention Money”** means the accumulated retention moneys which the Procuring Entity retains under Sub-Clause 14.3 [Application for Interim Payment Certificates] and pays under Sub-Clause 14.9 [Payment of Retention Money].

**“Schedules”** means the document(s) entitled schedules, completed by the Contractor and submitted with the Form of Tender, as included in the Contract.

**“Section”** means a part of the Works specified in the Special Conditions of Contract as a Section (if any)

**“Site Investigation Reports”** are those reports that may be included in the tendering documents which a ref actual and interpretative about the surface and sub-surface condition sat the Site.

**“Site”** means the places where the Permanent Works are to be executed, including storage and working areas, and to which Plant and Materials are to be delivered, and any other places as may be specified in the Contract as forming part of the Site.

**“Specification”** means the document entitled specification, as included in the Contract, and any additions and modifications to the specification in accordance with the Contract. Such document specifies the Works.

**“Start Date” or “Commencement Date”** is the latest date when the Contractor shall commence execution of the Works. It does not necessarily coincide with the Site possession date(s).

**“Statement”** means a statement submitted by the Contractor as part of an application, under Clause 14 [Contract Price and Payment], for a payment certificate.

**“Subcontractor”** means any person named in the Contract as a subcontractor, or any person appointed as a subcontractor, for a part of the Works.

**“Taking-Over Certificate”** means a certificate issued under Clause 10 [Procuring Entity's Taking Over].

**“Temporary Works”** means all temporary works of every kind (other than Contractor's Equipment) required on Site for the execution and completion of the Permanent Works and the remedying of any defects.

**“Temporary works”** means works designed, constructed, installed, and removed by the Contractor which are needed for construction or installation of the Works.

**“Tender”** means the Form of Tender and all other documents which the Contractor submitted with the Form of Tender, as included in the Contract.

**“Tests after Completion”** means the tests (if any) which are specified in the Contract and which are carried out in accordance with the Specification after the Works or a Section (as the case may be) are taken over by the Procuring Entity.

**“Testson Completion”** means the tests which are specified in the Contractor agreed by both Parties or instructed as a Variation, and which are carried out under Clause 9 [Tests on Completion] before the Works or a Section (as the case may be) are taken over by the Procuring Entity.

**“Time for Completion”** means the time for completing the Works or a Section (as the case may be) as stated in the Special Conditions of Contract (with any extension calculated from the Commencement Date.

**“Unforeseeable”** means not reasonably foreseeable by an experienced contractor by the Base Date.

**“Variation”** means any change to the Works, which is instructed or approved as a variation under Clause 13 [Variations and Adjustments].

**“Works”** means the items the Procuring Entity requires the Contractor to undertake as defined in the Appendix to Conditions of Contract. **“Works” may** also mean the Permanent Works and the Temporary Works, or either of them as appropriate.

## 1.2 Interpretation

In the Contract, except where the context requires otherwise:

- a) Words indicating one gender include all genders;
- b) words indicating the singular also include the plural and words indicating the plural also include the singular;
- c) provisions including the word “agree”, “agreed” or “agreement” require the agreement to be recorded in writing;
- d) “written” or “in writing” means hand-written, type-written, printed or electronically made, and resulting in a permanent record; and

The marginal words and other headings shall not be taken into consideration in the interpretation of these Conditions.

## 1.3 Communications

- 1.3.1 Wherever these Conditions provide for the giving or issuing of approvals, certificates, consents, determinations, notices, requests and discharges, these communications shall be:

- a) In writing and delivered by hand (against receipt), sent by mail or courier, or transmitted using any of the agreed systems of electronic transmission as stated in the Special Conditions of Contract; and
- b) delivered, sent or transmitted to the address for or the recipient's communications as stated in the Special Conditions of Contract. However:
  - i) if the recipient gives notice of another address, communications shall thereafter be delivered accordingly; and
  - ii) if the recipient has not stated otherwise when requesting an approval or consent, it may be sent to the address from which the request was issued.

1.32 Approvals, certificates, consents and determinations shall not be unreasonably withheld or delayed. When a certificate is issued to a Party, the certifier shall send a copy to the other Party. When a notice is issued to a Party, by the other Party or the Engineer, a copy shall be sent to the Architect or the other Party, as the case may be.

#### **1.4 Law and Language**

**1.4.1** The Contract shall be governed by the laws of **Kenya**.

**1.4.2** The ruling language of the Contract shall be **English**.

#### **1.5 Priority of Documents**

- a) The documents forming the Contract are to be taken as mutually explanatory of one another. For the purposes of interpretation, the priority of the documents shall be in accordance with the following sequence: The Contract Agreement,
- b) The Letter of Acceptance,
- c) The Special Conditions – Part A,
- d) the Special Conditions – Part B
- e) the General Conditions of Contract
- f) the Form of Tender,
- g) the Specifications and Bills of Quantities
- h) the Drawings, and
- i) the Schedules and any other documents forming part of the Contract.

If an ambiguity or discrepancy is found in the documents, the Architect shall issue any necessary clarification or instruction.

#### **1.6 Contract Agreement**

The Parties shall enter into a Contract Agreement within 14 days after the Contractor receives the Contract Agreement, unless the Special Conditions establish otherwise. The Contract Agreement shall be based upon the form annexed to the Special Conditions. The costs of stamp duties and similar charges (if any) imposed by law in connection with entry into the Contract Agreement shall be borne by the Procuring Entity.

#### **1.7 Assignment**

The Contractor shall not assign the whole or any part of the Contract or any benefit or interest in or under the Contract. However, the contractor:

- a) May assign the whole or any part with the prior consent of the Procuring Entity, and
- b) may, as security in favor of a bank or financial institution, assign its right to moneys due, or to become due, under the Contract.

#### **1.8 Care and Supply of Documents**

1.8.1 The Specifications and Drawings shall be in the custody and care of the Procuring Entity. Unless

otherwise stated in the Contract, two copies of the Contract and of each subsequent Drawings and Bills of Quantities shall be supplied to the Contractor, who may make or request further copies at the cost of the Contractor.

- 1.82 Each of the Contractor's Documents shall be in the custody and care of the Contractor, unless and until taken over by the Procuring Entity. Unless otherwise stated in the Contract, the Contractor shall supply to the Architect two copies of each of the Contractor's Documents.
- 1.83 The Contractor shall keep, on the Site, a copy of the Contract, publications named in the Specification, the Contractor's Documents (if any), the Drawings and Variations and other communications given under the Contract. The Procuring Entity's Personnel shall have the right of access to all these documents at all reasonable times.
- 1.84 If a Party becomes aware of an error or defect in a document which was prepared for use in executing the Works, the Party shall promptly give notice to the other Party of such error or defect.

### **1.9 Timely provision of Drawings or Instructions**

- 1.91 The Contractor shall give notice to the Architect whenever the Works are likely to be delayed or disrupted if any necessary drawing or instruction is not issued to the Contractor within a particular time, which shall be reasonable. The notice shall include details of the necessary drawing or instruction, details of why and by when it should be issued, and the nature and amount of the delay or disruption likely to be suffered if it is late.
- 1.92 If the Contractor suffers delay and/or incurs Cost as a result of a failure of the Architect to issue the notified drawing or instruction within a time which is reasonable and is specified in the notice with supporting details, the Contractor shall give a further notice to the Architect and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:
- a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and
  - b) payment of any other associated costs accrued, which shall be included in the Contract Price.
- 1.93 After receiving this further notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.
- 1.94 However, if and to the extent that the Architect failure was caused by any error or delay by the Contractor, including an error in, or delay in the submission of, any of the Contractor's Documents, the Contractor shall not be entitled to such extension of time, or costs accrued.

### **1.10 Procuring Entity's Use of Contractor's Documents**

- 1.101 As agreed between the Parties, the Contractor shall retain the copyright and other intellectual property rights in the Contractor's Documents and other design documents made by (or on behalf of) the Contractor.
- 1.102 The Contractor shall be deemed (by signing the Contract) to give to the Procuring Entity a non-terminable transferable non-exclusive royalty-free license to copy, use and communicate the Contractor's Documents, including making and using modifications of them. This license shall:
- a) apply throughout the actual or intended working life (whichever is longer) of the relevant parts of the Works,
  - b) entitle any person in proper possession of the relevant part of the Works to copy, use and communicate the Contractor's Documents for the purposes of completing, operating, maintaining, altering, adjusting, repairing and demolishing the Works, and
  - c) in the case of Contractor's Documents which are in the form of computer programs and other

software, permit their use on any computer on the Site and other places as envisaged by the Contract, including replacements of any computers supplied by the Contractor.

- 1.103 The Contractor's Documents and other design documents made by (or on behalf of) the Contractor shall not, without the Contractor's consent, be used, copied or communicated to a third party by (or on behalf of) the Procuring Entity for purposes other than those permitted under Sub-Clause 1.10.2.

#### **1.11 Contractor's Use of Procuring Entity's Documents**

As agreed between the Parties, the Procuring Entity shall retain the copyright and other intellectual property rights in the Specification, the Drawings and other documents made by (or on behalf of) the Procuring Entity. The Contractor may, at his cost, copy, use, and obtain communication of these documents for the purposes of the Contract. They shall not, without the Procuring Entity's consent, be copied, used or communicated to a third party by the Contractor, except as necessary for the purposes of the Contract.

#### **1.12 Confidential Details**

- 1.121 The Contractor's and the Procuring Entity's Personnel shall ensure confidentiality at all times. The confidentiality shall survive termination or completion of the contract. They shall disclose all such confidential and other information as may be reasonably required in order to verify compliance with the Contract and allow its proper implementation.

- 1.122 The Contractor's and the Procuring Entity's Personnel shall also treat the details of the Contract as private and confidential, except to the extent necessary to carry out their respective obligations under the Contract or to comply with applicable Laws. Each of them shall not publish or disclose any particulars of the Works prepared by the other Party without the previous agreement of the other Party. However, the Contractor shall be permitted to disclose any publicly available information, or information otherwise required to establish his qualifications to compete for other projects.

#### **1.13 Compliance with Laws**

The Contractor shall, in performing the Contract, comply with applicable Laws. Unless otherwise stated in the Special Conditions of Contract:

- a) The Procuring Entity shall have obtained (or shall obtain) the planning, zoning, building permit or similar permission for the Permanent Works, and any other permissions described in the Specifications as having been (or to be) obtained by the Procuring Entity; and the Procuring Entity shall indemnify and hold the Contractor harmless against and from the consequences of any failure to do so; and

- b) the Contractor shall give all notices, pay all taxes, duties and fees, and obtain all permits, licenses and approvals, as required by the Laws in relation to the execution and completion of the Works and the remedying of any defects; and the Contractor shall indemnify and hold the Procuring Entity harmless against and from the consequences of any failure to do so, unless the Contractor is impeded to accomplish these actions and shows evidence of its diligence.

#### **1.14 Joint and Several Liability**

If the Contractor constitutes (under applicable Laws) a joint venture, consortium or other unincorporated grouping of two or more persons:

- a) These persons shall be deemed to be jointly and severally liable to the Procuring Entity for the performance of the Contract;
- b) these persons shall notify the Procuring Entity of their leader who shall have authority to bind the Contractor and each of these persons; and
- c) the Contractor shall not alter its composition or legal status without the prior consent of the Procuring Entity.

#### **1.15 Inspections and Audit by the Procuring Entity**

Pursuant to paragraph 2.2(e). of Appendix B to the General Conditions, the Contractor shall permit and shall cause its subcontractors and sub-consultants to permit, the Public Procurement Regulatory Authority, Procuring Entity and/or persons appointed or designated by the Government of Kenya to inspect the Site and/or the accounts and records relating to the procurement process, selection and/or contract execution, and to have such accounts and records audited by auditors appointed by the Procuring Entity if requested by the Procuring Entity. The Contractor's and its Subcontractors' and sub-consultants' attention is drawn to Sub-Clause 15.6 (Fraud and Corruption) which provides, inter alia, that acts intended to materially impede the exercise of the Procuring Entity's inspection and audit rights constitute a prohibited practice subject to contract termination (as well as to a determination of ineligibility pursuant to the Procuring Entity's prevailing sanctions procedures).

## **2 THE PROCURING ENTITY**

### **2.1 Right of Access to the Site**

- 2.1.1 The Procuring Entity shall give the Contractor right of access to, and possession of, all parts of the Site within the time (or times) stated in the **Special Conditions of Contract**. The right and possession may not be exclusive to the Contractor. If, under the Contract, the Procuring Entity is required to give (to the Contractor) possession of any foundation, structure, plant or means of access, the Procuring Entity shall do so in the time and manner stated in the Specification. However, the Procuring Entity may withhold any such right or possession until the Performance Security has been received.
- 2.1.2 If no such time is stated in the Special Conditions of Contract, the Procuring Entity shall give the Contractor right of access to, and possession of, the Site within such times as required to enable the Contractor to proceed without disruption in accordance with the programme submitted under Sub-Clause 8.3 [Programme].
- 2.1.3 If the Contractor suffers delay and/or incurs Cost as a result of a failure by the Procuring Entity to give any such right or possession within such time, the Contractor shall give notice to the Architect and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:
  - a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and

b) payment of any such Cost-plus profit, which shall be included in the Contract Price.

2.14 After receiving this notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.

2.15 However, if and to the extent that the Procuring Entity's failure was caused by any error or delay by the Contractor, including an error in, or delay in the submission of, any of the Contractor's Documents, the Contractor shall not be entitled to such extension of time, Cost or profit.

## **2.2 Permits, Licenses or Approvals**

2.21 The Procuring Entity shall provide, at the request of the Contractor, such reasonable assistance as to allow the Contractor to obtain properly:

- a) Copies of the Laws of Kenya which are relevant to the Contract but are not readily available, and
- b) any permits, licenses or approvals required by the Laws of Kenya:
  - i) which the Contractor is required to obtain under Sub-Clause 1.13 [Compliance with Laws],
  - ii) for the delivery of Goods, including clearance through customs, and
  - iii) for the export of Contractor's Equipment when it is removed from the Site.

## **2.3 Procuring Entity's Personnel**

The Procuring Entity shall be responsible for ensuring that the Procuring Entity's Personnel and the Procuring Entity's other contractor son the Site:

- a) co-operate with the Contractor's efforts under Sub-Clause 4.6 [Co-operation], and
- b) take action ssimilar to those which the Contractor is required to take under sub-paragraphs (a), (b) and (c) of Sub-Clause 4.8 [Safety Procedures] and under Sub-Clause 4.18 [Protection of the Environment].

## **2.4 Procuring Entity's Financial Arrangements**

The Procuring Entity shall make and maintain all necessary financial arrangements which will enable the Procuring Entity to pay the Contract Price punctually (as estimated at that time) in accordance with Clause 14 [Contract Price and Payment].

# **3 THE ENGINEER**

## **3.1 Architect Duties and Authority**

**3.1.1** The Procuring Entity shall appoint the Architect who shall carry out the duties as signed to him in the Contract. The Architect staff shall include suitably qualified Assistants and other professionals who are competent to carry out these duties. The Architect Name and Address shall be provided in the **Special Conditions of Contract**.

3.1.2 The Architect shall have no authority to amend the Contract.

3.1.3 The Architect May exercise the authority attributable to the Architect as specified in or necessarily to be implied from the Contract. If the Architect is required to obtain the approval of the Procuring Entity before exercising a specified authority, the requirements shall be as stated in the **Special Conditions of Contract**. The Procuring Entity shall promptly inform the Contractor of any change to the authority attributed to the Engineer.

3.1.4 However, whenever the Architect exercises a specified authority for which the Procuring Entity's approval is required, then (for the purposes of the Contract) the contractor shall require the

Architect to provide evidence of such approval before complying with the instruction.

3.15 Except as otherwise stated in these Conditions:

- a) Whenever carrying out duties or exercising authority, specified in or implied by the Contract, the Architect shall be deemed to act for the Procuring Entity;
- b) the Architect has no authority to relieve either Party of any duties, obligations or responsibilities under the Contract;
- c) any approval, check, certificate, consent, examination, inspection, instruction, notice, proposal, request, test, or similar act by the Architect (including absence of disapproval) shall not relieve the Contractor from any responsibility he has under the Contract, including responsibility for errors, omissions, discrepancies and non-compliances; and
- d) any act by the Architect in response to a Contractor's request shall be notified in writing to the Contractor

3.16 The following provisions shall apply:

The Architect shall obtain the specific approval of the Procuring Entity before taking action under the following Sub-Clauses of these Conditions:

- a) Sub-Clause 4.12: agreeing or determining an extension of time and/or additional cost.
- b) Sub-Clause 13.1: instructing a Variation, except;
  - i) In an emergency situation as determined by the Engineer, or
  - ii) If such a Variation would increase the Accepted Contract Amount by less than the percentage specified in the **Special Conditions of Contract**.
- c) Sub-Clause 13.3: Approving a proposal for Variation submitted by the Contractor in accordance with Sub Clause 13.1 or 13.2.
- d) Sub-Clause 13.4: Specifying the amount payable in each of the applicable three currencies.

3.17 Notwithstanding the obligation, as set out above, to obtain approval, if, in the opinion of the Engineer, an emergency occurs affecting the safety of life or of the Works or of adjoining property, he may, without relieving the Contractor of any of his duties and responsibility under the Contract, instruct the Contractor to execute all such work or to do all such things as may, in the opinion of the Engineer, be necessary to abate or reduce the risk. The Contractor shall forth with comply, despite the absence of approval of the Procuring Entity, with any such instruction of the Engineer. The Architect shall determine an addition to the Contract Price, in respect of such instruction, in accordance with Clause 13 and shall notify the Contractor accordingly, with a copy to the Procuring Entity.

## **3.2 Delegation by the Engineer**

3.21 The Architect may from time to time assign duties and delegate authority to assistants and may also revoke such assignment or delegation. These assistants may include a resident Engineer, and/or independent inspectors appointed to inspect and/ or test items of Plant and/or Materials. The assignment, delegation or revocation shall be in writing and shall not take effect until copies have been received by both Parties. However, unless otherwise agreed by both Parties, the Architect shall not delegate the authority to determine any matter in accordance with Sub-Clause 3.5 [Determinations].

3.22 Each assistant, to whom duties have been assigned or authority has been delegated, shall only be authorized to issue instructions to the Contractor to the extent defined by the delegation. Any approval, check, certificate, consent, examination, inspection, instruction, notice, proposal, request, test, or similar act by an assistant, in accordance with the delegation, shall have the same effect as though the act had been an act of the Engineer. However:

- a) Any failure to disapprove any work, Plant or Materials shall not constitute approval, and shall therefore not prejudice the right of the Architect to reject the work, Plant or Materials;
- b) If the Contractor questions any determination or instruction of an assistant, the Contractor may refer the matter to the Engineer, who shall promptly confirm, reverse or vary the determination or instruction.

### **33 Instructions of the Engineer**

33.1 The Architect may issue to the Contractor (at anytime) instructions and additional or modified Drawings which may be necessary for the execution of the Works and the remedying of any defects, all in accordance with the Contract. The Contractor shall only take instructions from the Engineer, or from an assistant to whom the appropriate authority has been delegated under Clause 3.2.1.

33.2 The Contractor shall comply with the instructions given by the Architect or delegated assistant, on any matter related to the Contract. Whenever practicable, their instructions shall be given in writing. If the Architect or a delegated assistant:

- a) Gives an oral instruction,
- b) receives a written confirmation of the instruction, from (or on behalf of) the Contractor, within two working days after giving the instruction, and
- c) does not reply by issuing a written rejection and/or instruction within two working days after receiving the confirmation,

Then the confirmation shall constitute the written instruction of the Architect or delegated assistant (as the case may be).

### **34 Replacement of the Engineer**

If the Procuring Entity intends to replace the Engineer, the Procuring Entity shall, in not less than 21 days before the intended date of replacement, give notice to the Contractor of the name, address and relevant experience of the intended person to replace the Engineer.

### **35 Determinations**

35.1 Whenever these Conditions provide that the Architect shall proceed in accordance with this Sub-Clause 3.5 to agree or determine any matter, the Architect shall consult with each Party in an endeavor to reach agreement. If agreement is not achieved, the Architect shall make a fair determination in accordance with the Contract, taking due regard of all relevant circumstances.

3.5.1 The Architect shall give notice to both Parties of each agreement or determination, with supporting particulars, within 30 days from the receipt of the corresponding claim or request except when otherwise specified. Each Party shall give effect to each agreement or determination unless and until revised under Clause 20 [Claims, Disputes and Arbitration].

## **4 THE CONTRACTOR**

### **4.1 Contractor's General Obligations**

4.1.1 The Contractor shall design (to the extent specified in the Contract), execute and complete the Works in accordance with the Contract and with the Architect instructions, and shall remedy any defects in the Works.

4.1.2 The Contractor shall provide the Plant and Contractor's Documents specified in the Contract, and all Contractor's Personnel, Goods, consumables and other things and services, whether of a temporary or permanent nature, required in and for this design, execution, completion and remedying of defects.

4.1.3 All equipment, material, and services to be incorporated in or required for the Works shall have

their origin in any eligible source country.

- 4.14 The Contractor shall be responsible for the adequacy, stability and safety of all Site operations and of all methods of construction. Except to the extent specified in the Contract, the Contractor (i) shall be responsible for all Contractor's Documents, Temporary Works, and such design of each item of Plant and Materials as is required for the item to be in accordance with the Contract, and (ii) shall not otherwise be responsible for the design specification of the Permanent Works.
- 4.15 The Contractor shall, whenever required by the Engineer, submit details of the arrangements and methods which the Contractor proposes to adopt for the execution of the Works. No significant alteration to these arrangements and methods shall be made without this having previously been notified to the Engineer.
- 4.16 If the Contract specifies that the Contractor shall design any part of the Permanent Works, then unless otherwise stated in the Special Conditions:
- a) The Contractor shall submit to the Architect the Contractor's Documents for this part in accordance with the procedures specified in the Contract;
  - b) these Contractor's Documents shall be in accordance with the Specification and Drawings, shall be written in the language for communications defined in Sub-Clause 1.4 [Law and Language], and shall include additional information required by the Architect to add to the Drawings for co-ordination of each Party's designs;
  - c) the Contractor shall be responsible for this part and it shall, when the Works are completed, befit for such purposes for which the part is intended as are specified in the Contract; and
  - d) prior to the commencement of the Tests on Completion, the Contractor shall submit to the Architect the "as-built" documents and, if applicable, operation and maintenance manuals in accordance with the Specification and in sufficient detail for the Procuring Entity to operate, maintain, dismantle, reassemble, adjust and repair this part of the Works. Such part shall not be considered to be completed for the purposes of taking-over under Sub-Clause 10.1 [Taking Over of the Works and Sections] until these documents and manuals have been submitted to the Engineer.

## **4.2 Performance Security**

- 4.21 The Contractor shall obtain (at his cost) a Performance Security for proper performance, in the amount stated in the **Special Conditions of Contract** and denominated in the currency (ies) of the Contract or in a freely convertible currency acceptable to the Procuring Entity. If an amount is not stated in the Special Conditions of Contract, this Sub-Clause shall not apply.
- 4.22 The Contractor shall deliver the Performance Security to the Procuring Entity within 30 days after receiving the Notification of Award and shall send a copy to the Engineer. The Performance Security shall be issued by a reputable bank selected by the Contractor and shall be in the form annexed to the Special Conditions, as stipulated by the Procuring Entity in the Special Conditions of Contract, or in another form approved by the Procuring Entity.
- 4.23 The Contractor shall ensure that the Performance Security is valid and enforceable until the Contractor has executed and completed the Works and remedied any defects. If the terms of the Performance Security specify its expiry date, and the Contractor has not become entitled to receive the Performance Certificate by the date 30 days prior to the expiry date, the Contractor shall extend the validity of the Performance Security until the Works have been completed and any defects have been remedied.
- 4.24 The Procuring Entity shall not make a claim under the Performance Security, except for amounts to which the Procuring Entity is entitled under the Contract.
- 4.25 The Procuring Entity shall indemnify and hold the Contractor harmless against and from all damages, losses and expenses (including legal fees and expenses) resulting from a claim under the Performance Security to the extent to which the Procuring Entity was not entitled to make the

claim.

- 4.26 The Procuring Entity shall return the Performance Security to the Contractor within 14 days after receiving a copy of the Taking-Over Certificate.
- 4.27 Without limitation to the provisions of the rest of this Sub-Clause, whenever the Architect determines an addition or a reduction to the Contract Price as a result of a change in cost and/ or legislation, or as a result of a Variation, amounting to more than 25 percent of the portion of the Contract Price payable in a specific currency, the Contractor shall at the Architect request promptly increase, or may decrease, as the case may be, the value of the Performance Security in that currency by an equal percentage.

### **4.3 Contractor's Representative**

- 4.31 The Contractor shall appoint the Contractor's Representative and shall give him all authority necessary to act on the Contractor's behalf under the Contract. The Contractor's Representative's Name and Address shall be provided in the **Special Conditions of Contract**.
- 4.32 Unless the Contractor's Representative **is named in the Contract**, the Contractor shall, prior to the Commencement Date, submit to the Architect for consent the name and particulars of the person the Contractor proposes to appoint as Contractor's Representative. If consent is withheld or subsequently revoked in terms of Sub-Clause 6.9 [Contractor's Personnel], or if the appointed person fails to act as Contractor's Representative, the Contractor shall similarly submit the name and particulars of another suitable person for such appointment.
- 4.33 The Contractor shall not, without the prior consent of the Engineer, revoke the appointment of the Contractor's Representative or appoint a replacement.
- 4.34 The whole time of the Contractor's Representative shall be given to directing the Contractor's performance of the Contract. If the Contractor's Representative is to be temporarily absent from the Site during the execution of the Works, a suitable replacement person shall be appointed, subject to the Architect's prior consent, and the Architect shall be notified accordingly.
- 4.35 The Contractor's Representative shall, on behalf of the Contractor, receive instructions under Sub-Clause 3.3 [Instructions of the Engineer].
- 4.36 The Contractor's Representative may delegate any powers, functions and authority to any competent person, and may at any time revoke the delegation. Any delegation or revocation shall not take effect until the Architect has received prior notice signed by the Contractor's Representative, naming the person and specifying the powers, functions and authority being delegated or revoked.
- 4.37 The Contractor's Representative shall be fluent in the language for communications defined in Sub-Clause 1.4 [Law and Language]. If the Contractor's Representative's delegates are not fluent in the said language, the Contractor shall make a competent interpreter available during all working hours in a number deemed sufficient by the Engineer.

### **4.4 Sub-contractors**

- 4.41 The Contractor shall not subcontract the whole of the Works. The contractor may however subcontract the works as provided in Clause 34.2.
- 4.42 The Contractor shall be responsible for the acts or defaults of any Subcontractor, his agents or employees, as if they were acts or defaults of the Contractor. Unless otherwise stated in the Special Conditions:
- a) The Contractor shall not be required to obtain consent to suppliers solely of Materials, or to a subcontract for which the Subcontractor is named in the Contract;
  - b) The prior consent of the Procuring Entity shall be obtained to other proposed Subcontractors;

- c) the Contractor shall give the Procuring Entity not less than 14 days' notice of the intended date of the commencement of each Subcontractor's work, and of the commencement of such work on the Site; and
- d) each subcontract shall include provisions which would entitle the Procuring Entity to require the subcontract to be assigned to the Procuring Entity under Sub-Clause 4.5 [Assignment of Benefit of Subcontract] (if or when applicable) or in the event of termination under Sub-Clause 15.2 [Termination by Procuring Entity].

4.4.3 The Contractor shall ensure that the requirements imposed on the Contractor by Sub-Clause 1.12 [Confidential Details] apply equally to each Subcontractor.

4.4.4 Where practicable, the Contractor shall give fair and reasonable opportunity for contractors from Kenya to be appointed as Subcontractors.

#### **4.5 Assignment of Benefit of Subcontract**

If a Subcontractor's obligations extend beyond the expiry date of the relevant Defects Notification Period and the Engineer, prior to this date, instructs the Contractor to assign the benefit of such obligations to the Procuring Entity, then the Contractor shall do so. Unless otherwise stated in the assignment, the Contractor shall have no liability to the Procuring Entity for the work carried out by the Subcontractor after the assignment takes effect.

#### **4.6 Co-operation**

4.6.1 The Contractor shall, as specified in the Contract or as instructed by the Engineer, allow appropriate opportunities for carrying out work to:

- a) The Procuring Entity's Personnel,
- b) Any other contractors employed by the Procuring Entity, and
- c) The personnel of any legally constituted public authorities, who may be employed in the execution on or near the Site of any work not included in the Contract.

4.6.2 Any such instruction shall constitute a Variation if and to the extent that it causes the Contractor to suffer delays and/or incur Unforeseeable Cost. Services for these personnel and other contractors may include the use of Contractor's Equipment, Temporary Works or access arrangements which are the responsibility of the Contractor.

4.6.3 If, under the Contract, the Procuring Entity is required to give to the Contractor possession of any foundation, structure, plant or means of access in accordance with Contractor's Documents, the Contractor shall submit such documents to the Architect in the time and manner stated in the Specification.

#### **4.7 Setting Out of the Works**

4.7.1 The Contractor shall set out the Works in relation to original points, lines and levels of reference specified in the Contract notified by the Engineer. The Contractor shall be responsible for the correct positioning of all parts of the Works, and shall rectify any error in the positions, levels, dimensions or alignment of the Works.

4.7.2 The Procuring Entity shall be responsible for any errors in these specified or notified items of reference, but the Contractor shall use reasonable efforts to verify their accuracy before they are used.

4.7.3 If the Contractor suffers delay and/or incurs Cost from executing work which was necessitated by an error in these items of reference, and an experienced contractor could not reasonably have discovered such error and avoided this delay and/or Cost, the Contractor shall give notice to the Architect and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:

- a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and
- b) payment of any such costs accrued, which shall be included in the Contract Price.

4.7.4 After receiving this notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine (i) whether and (if so) to what extent the error could not reasonably have been discovered, and (ii) the matters described in sub-paragraphs (a) and (b) above related to this.

## **48 Safety Procedures**

The Contractor shall:

- a) Comply with all applicable safety regulations,
- b) Take care for the safety of all persons entitled to be on the Site,
- c) Use reasonable efforts to keep the Site and Works clear of unnecessary obstruction so as to avoid danger to these persons,
- d) provide fencing, lighting, guarding and watching of the Works until completion and taking over under Clause 10 [Procuring Entity's Taking Over], and
- e) provide any Temporary Works (including roadways, footways, guards and fences) which may be necessary, because of the execution of the Works, for the use and protection of the public and of owners and occupiers of adjacent land.

## **49 Quality Assurance**

4.9.1 The Contractor shall institute a quality assurance system to demonstrate compliance with the requirements of the Contract. The system shall be in accordance with the details stated in the Contract. The Architect shall be entitled to audit any aspect of the system.

4.9.2 Details of all procedures and compliance documents shall be submitted to the Architect or information before each design and execution stage is commenced. When any document of a technical nature is issued to the Engineer, evidence of the prior approval by the Contractor itself shall be apparent on the document itself.

Compliance with the quality assurance system shall not relieve the Contractor of any of his duties, obligations or responsibilities under the Contract.

### **4.10 Site Data**

4.10.1 The Procuring Entity shall have made available to the Contractor for his information, prior to the Base Date, all relevant data in the Procuring Entity's possession on sub-surface and hydrological conditions at the Site, including environmental aspects. The Procuring Entity shall similarly make available to the Contractor all such data which come into the Procuring Entity's possession after the Base Date. The Contractor shall be responsible for interpreting all such data.

4.10.2 To the extent which was practicable (taking account of cost and time), the Contractor shall be deemed to have obtained all necessary information as to risks, contingencies and other circumstances which may influence or affect the Tender or Works. To the same extent, the Contractor shall be deemed to have inspected and examined the Site, its surroundings, the above data and other available information, and to have been satisfied before submitting the Tender as to all relevant matters, including (without limitation):

- a) The form and nature of the Site, including sub-surface conditions,
- b) the hydrological and climatic conditions,
- c) the extent and nature of the work and Goods necessary for the execution and completion of the Works and the remedying of any defects,
- d) the Laws, procedures and labour practices of Kenya, and

- e) the Contractor's requirements for access, accommodation, facilities, personnel, power, transport, water and other services.

#### **4.11 Sufficiency of the Accepted Contract Amount**

4.11.1 The Contractor shall be deemed to:

- a) Have satisfied itself as to the correctness and sufficiency of the Accepted Contract Amount, and
- b) have based the Accepted Contract Amount on the data, interpretations, necessary information, inspections, examinations and satisfaction as to all relevant matters referred to in Sub-Clause 4.10 [Site Data].

4.11.2 Unless otherwise stated in the Contract, the Accepted Contract Amount covers all the Contractor's obligations under the Contract (including those under Provisional Sums, if any) and all things necessary for the proper execution and completion of the Works and the remedying of any defects.

#### **4.12 Unforeseeable Physical Conditions**

4.12.1 In this Sub-Clause, "physical conditions" means natural physical conditions and man-made and other physical obstructions and pollutants, which the Contractor encounters at the Site when executing the Works, including sub-surface and hydrological conditions but excluding climatic conditions.

4.12.2 If the Contractor encounters adverse physical conditions which he considers to have been Unforeseeable, the Contractor shall give notice to the Architect as soon as practicable.

4.12.3 This notice shall describe the physical conditions, so that they can be inspected by the Architect and shall set out the reasons why the Contractor considers them to be Unforeseeable. The Contractor shall continue executing the Works, using such proper and reasonable measures as are appropriate for the physical conditions, and shall comply with any instructions which the Architect may give. If an instruction constitutes a Variation, Clause 13 [Variations and Adjustments] shall apply.

4.12.4 If and to the extent that the Contractor encounters physical conditions which are Unforeseeable, gives such a notice, and suffers delay and/or incurs Cost due to these conditions, the Contractor shall be entitled subject to notice under Sub-Clause 20.1 [Contractor's Claims] to:

- a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and
- b) payment of any such Cost, which shall be included in the Contract Price.

4.12.5 Upon receiving such notice and inspecting and/or investigating these physical conditions, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine (i) whether and (if so) to what extent these physical conditions were Unforeseeable, and (ii) the matters described in sub-paragraphs (a) and (b) above related to this extent.

4.12.6 However, before additional Cost is finally agreed or determined under sub-paragraph (ii), the Architect may also review whether other physical conditions in similar parts of the Works (if any) were more favorable than could reasonably have been foreseen when the Contractor submitted the Tender. If and to the extent that these more favorable conditions were encountered, the Architect may proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine the reductions in Cost which were due to these conditions, which may be included (as deductions) in the Contract Price and Payment Certificates. However, the net effect of all adjustments under

sub-paragraph (b) and all these reductions, for all the physical conditions encountered in similar parts of the Works, shall not result in a net reduction in the Contract Price.

- 4.127 The Architect shall take account of any evidence of the physical conditions foreseen by the Contractor when submitting the Tender, which shall be made available by the Contractor, but shall not be bound by the Contractor's interpretation of any such evidence.

#### **4.13 Rights of Way and Facilities**

Unless otherwise specified in the Contract the Procuring Entity shall provide effective access to and possession of the Site including special and/or temporary rights-of-way which are necessary for the Works. The Contractor shall obtain, at his risk and cost, any additional rights of way or facilities outside the Site which he may require for the purposes of the Works.

#### **4.14 Avoidance of Interference**

- 4.14.1 The Contractor shall not interfere unnecessarily or improperly with:

- a) The convenience of the public, or
- b) The access to and use and occupation of all roads and foot paths, irrespective of whether they are public or in the possession of the Procuring Entity or of others.

- 4.14.2 The Contractor shall indemnify and hold the Procuring Entity harmless against and from all damages, losses and expenses (including legal fees and expenses) resulting from any such unnecessary or improper interference.

#### **4.15 Access Route**

- 4.15.1 The Contractor shall be deemed to have been satisfied as to the suitability and availability of access routes to the Site at Base Date. The Contractor shall use reasonable efforts to prevent any road or bridge from being damaged by the Contractor's traffic or by the Contractor's Personnel. These efforts shall include the proper use of appropriate vehicles and routes.

- 4.15.2 Except as otherwise stated in these Conditions:

- a) The Contractor shall (as between the Parties) be responsible for any maintenance which may be required for his use of access routes;
- b) the Contractor shall provide all necessary signs or directions along access routes, and shall obtain any permission which may be required from the relevant authorities for his use of routes, signs and directions;
- c) the Procuring Entity shall not be responsible for any claims which may arise from the use or otherwise of any access route;
- d) the Procuring Entity does not guarantee the suitability or availability of particular access routes; and
- e) Costs due to non-suitability or non-availability, for the use required by the Contractor, of access routes shall be borne by the Contractor.

#### **4.16 Transport of Goods**

Unless otherwise stated in the Special Conditions:

- a) the Contractor shall give the Architect not less than 21 days' notice of the date on which any Plant or a major item of other Goods will be delivered to the Site;
- b) the Contractor shall be responsible for packing, loading, transporting, receiving, unloading, storing and protecting all Goods and other things required for the Works; and
- c) the Contractor shall indemnify and hold the Procuring Entity harmless against and from all damages, losses and expenses (including legal fees and expenses) resulting from the transport

of Goods and shall negotiate and pay all claims arising from their transport.

#### **4.17 Contractor's Equipment**

The Contractor shall be responsible for all Contractor's Equipment. When brought on to the Site, Contractor's Equipment shall be deemed to be exclusively intended for the execution of the Works. The Contractor shall not remove from the Site any major items of Contractor's Equipment without the consent of the Engineer. However, consent shall not be required for vehicles transporting Goods or Contractor's Personnel off Site.

#### **4.18 Protection of the Environment**

- 4.18.1 The contractor shall comply with the applicable environmental laws, regulations and policies.
- 4.18.2 The Contractor shall take all reasonable steps to protect the environment (both on and off the Site) and to limit damage and nuisance to people and property resulting from pollution, noise and other results of his operations.
- 4.18.3 The Contractors shall ensure that emissions, surfaced is charges and effluent from the Contractor's activities shall not exceed the values stated in the Specification or prescribed by applicable Laws.

#### **4.19 Electricity, Water and Gas**

- 4.19.1 The Contractor shall, except as stated below, be responsible for the provision of all power, water and other services he may require for his construction activities and to the extent defined in the Specifications, for the tests.
- 4.19.2 The Contractor shall be entitled to use for the purposes of the Works such supplies of electricity, water, gas and other services as may be available on the Site and of which details and prices are given in the Specifications. The Contractor shall, at his risk and cost, provide any apparatus necessary for his use of these services and for measuring the quantities consumed.
- 4.19.3 The quantities consumed and the amounts due (at these prices) for such services shall be agreed or determined by the Architect in accordance with Sub-Clause 2.5 [Procuring Entity's Claims] and Sub-Clause 3.5 [Determinations]. The Contractor shall pay these amounts to the Procuring Entity.

#### **4.20 Procuring Entity's Equipment and Free-Issue Materials**

- 4.20.1 The Procuring Entity shall make the Procuring Entity's Equipment (if any) available for the use of the Contractor in the execution of the Works in accordance with the details, arrangements and prices stated in the Specification. Unless otherwise stated in the Specification:
- a) The Procuring Entity shall be responsible for the Procuring Entity's Equipment, except that
  - b) the Contractor shall be responsible for each item of Procuring Entity's Equipment whilst any of the Contractor's Personnel is operating it, driving it, directing it or in possession or control of it.
- 4.20.1 The appropriate quantities and the amounts due (at such stated prices) for the use of Procuring Entity's Equipment shall be agreed or determined by the Architect in accordance with Sub-Clause 2.5 [Procuring Entity's Claims] and Sub-Clause 3.5 [Determinations]. The Contractor shall pay these amounts to the Procuring Entity.
- 4.20.2 The Procuring Entity shall supply, free of charge, the "free-issue materials" (if any) in accordance with the details stated in the Specification. The Procuring Entity shall, at his risk and cost, provide these materials at the time and place specified in the Contract. The Contractor shall then visually inspect them and shall promptly give notice to the Architect of any shortage, defect or default in

these materials. Unless otherwise agreed by both Parties, the Procuring Entity shall immediately rectify the notified shortage, defector default.

4.20.3 After this visual inspection, the free-issue materials shall come under the care, custody and control of the Contractor. The Contractor's obligations of inspection, care, custody and control shall not relieve the Procuring Entity of liability for any shortage, defect or default not apparent from a visual inspection.

#### **4.21 Progress Reports**

4.21.1 Unless otherwise stated in the Special Conditions, monthly progress reports shall be prepared by the Contractor and submitted to the Architect in six copies. The first report shall cover the period up to the end of the first calendar month following the Commencement Date. Reports shall be submitted monthly thereafter, each within 7 days after the last day of the period to which it relates.

4.21.2 Reporting shall continue until the Contractor has completed all work which is known to be outstanding at the completion date stated in the Taking-Over Certificate for the Works. Each report shall include:

- a) charts and detailed descriptions of progress, including each stage of design (if any), Contractor's Documents, procurement, manufacture, delivery to Site, construction, erection and testing; and including these stages for work by each nominated Subcontractor (as defined in Clause 5 [NominatedSubcontractors]),
- b) photographs showing the status of manufacture and of progress on the Site;
- c) for the manufacture of each main item of Plant and Materials, the name of the manufacturer, manufacture location, percentage progress, and the actual or expected dates of:
  - i) commencement of manufacture,
  - ii) Contractor's inspections,
  - iii) tests, and
  - iv) shipment and arrival at the Site;
- d) the details described in Sub-Clause 6.10 [Records of Contractor's Personnel and Equipment];
- e) copies of quality assurance documents, test results and certificates of Materials;
- f) list of notices given under Sub-Clause 2.5 [Procuring Entity's Claims] and notices given under Sub-Clause 20.1 [Contractor's Claims];
- g) safety statistics, including details of any hazardous incidents and activities relating to environmental aspects and public relations; and
- h) comparison so factual and planned progress, with details of any events or circumstances which may jeopardize the completion in accordance with the Contract, and the measures being (or to be) adopted to overcome delays.

#### **4.22 Security of the Site**

Unless otherwise stated in the Special Conditions:

- a) The Contractor shall be responsible for keeping unauthorized persons off the Site, and
- b) authorized persons shall be limited to the Contractor's Personnel and the Procuring Entity's Personnel; and to any other personnel notified to the Contractor, by the Procuring Entity or the Engineer, as authorized personnel of the Procuring Entity's other contractors on the Site.

#### **4.23 Contractor's Operations on Site**

- 4.23.1 The Contractor shall confine his operations to the Site, and to any additional areas which may be obtained by the Contractor and agreed by the Architect as additional working areas. The Contractor shall take all necessary precautions to keep Contractor's Equipment and Contractor's Personnel within the Site and these additional areas, and to keep them off adjacent land.
- 4.23.2 During the execution of the Works, the Contractor shall keep the Site free from all unnecessary obstruction and shall store or dispose of any Contractor's Equipment or surplus materials. The Contractor shall clear away and remove from the Site any wreckage, rubbish and Temporary Works which are no longer required.
- 4.23.3 Upon the issue of a Taking-Over Certificate, the Contractor shall clear away and remove, from that part of the Site and Works to which the Taking-Over Certificate refers, all Contractor's Equipment, surplus material, wreckage, rubbish and Temporary Works. The Contractor shall leave that part of the Site and the Works in a clean and safe condition. However, the Contractor may retain on Site, during the Defects Notification Period, such Goods as are required for the Contractor to fulfil obligations under the Contract.

#### **4.24 Fossils**

- 4.24.1 All fossils, coins, articles of value or antiquity, and structures and other remains or items of geological or archaeological interest found on the Site shall be placed under the care and authority of the Procuring Entity. The Contractor shall take reasonable precautions to prevent Contractor's Personnel or other persons from removing or damaging any of these findings.
- 4.24.2 The Contractor shall, upon discovery of any such finding, promptly give notice to the Engineer, who shall issue instructions for dealing with it. If the Contractor suffers delay and/or incurs Cost from complying with the instructions, the Contractor shall give a further notice to the Architect and shall be entitled subject to Sub- Clause 20.1 [Contractor's Claims] to:
- a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and
  - b) payment of any such Cost, which shall be included in the Contract Price.
- After receiving this further notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.

### **5 NOMINATED SUBCONTRACTORS**

#### **5.1 Definition of "nominated Subcontractor"**

In this Contract, "nominated Subcontractor" means a Subcontractor:

- a) Who is nominated by the Procuring Entity, or
- b) Contractor has nominated as a Subcontractor subject to Sub-Clause 5.2 [Objection to Notification].

#### **5.2 Objection to Nomination**

The Contractor shall not be under any obligation to employ a nominated Subcontractor against whom the Contractor raises reasonable objection by notice to the Procuring Entity as soon as practicable, with supporting particulars. An objection shall be deemed reasonable if it arises from (among other things) any of the following matters, unless the Procuring Entity agrees in writing to indemnify the Contractor against and from the consequences of the matter:

- a) there are reasons to believe that the Subcontractor does not have sufficient competence, resources or financial strength;
- b) the nominated Subcontractor does not accept to indemnify the Contractor against and from any negligence or misuse of Goods by the nominated Subcontractor, his agents and employees; or

- c) the nominated Subcontractor does not accept to enter into a subcontract which specifies that, for the subcontracted work (including design, if any), the nominated Subcontractor shall:
  - i) undertake to the Contractor such obligations and liabilities as will enable the Contractor to discharge his obligations and liabilities under the Contract;
  - ii) indemnify the Contractor against and from all obligations and liabilities arising under or in connection with the Contract and from the consequences of any failure by the Subcontractor to perform these obligations or to fulfil these liabilities, and
  - iii) be paid only if and when the Contractor has received from the Procuring Entity payments for sums due under the Subcontract referred to under Sub-Clause 5.3 [Payment to nominated Subcontractors].

### **5.3 Payments to nominated Subcontractors**

The Contractor shall pay to the nominated Subcontractor the amounts shown on the nominated Subcontractor's invoices approved by the Contractor which the Architect certifies to be due in accordance with the subcontract. These amounts plus other charges shall be included in the Contract Price in accordance with sub-paragraph (b) of Sub-Clause 13.5 [Provisional Sums], except as stated in Sub-Clause 5.4 [Evidence of Payments].

### **5.4 Evidence of Payments**

5.4.1 Before issuing a Payment Certificate which includes an amount payable to a nominated Subcontractor, the Architect may request the Contractor to supply reasonable evidence that the nominated Subcontractor has received all amounts due in accordance with previous Payment Certificates, less applicable deductions for retention or otherwise. Unless the Contractor:

- (a) Submits this reasonable evidence to the Engineer, or
- (b)
  - i) Satisfies the Architect in writing that the Contractor is reasonably entitled to withhold or refuse to pay these amounts, and
  - ii) Submits to the Architect reasonable evidence that the nominated Subcontractor has been notified of the Contractor's entitlement, then the Procuring Entity may (at his sole discretion) pay, directly to the nominated Subcontractor, part or all of such amounts previously certified (less applicable deductions) as are due to the nominated Subcontractor and for which the Contractor has failed to submit the evidence described in sub-paragraphs (a) or (b) above. The Contractor shall then repay, to the Procuring Entity, the amount which the nominated Subcontractor was directly paid by the Procuring Entity.

## **6 STAFF AND LABOR**

### **6.1 Engagement of Staff and Labor**

Except as otherwise stated in the Specification, the Contractor shall make arrangements for the engagement of all staff and labor, local or otherwise, and for their payment, feeding, transport, and, when appropriate, housing. The Contractor is encouraged, to the extent practicable and reasonable, to employ staff and labor with appropriate qualifications and experience from sources within Kenya.

### **6.2 Rates of Wages and Conditions of Labor**

6.2.1 The Contractor shall pay rates of wages, and observe conditions of labor, which are not lower than those established for the trade or industry where the work is carried out. If no established rates or conditions are applicable, the Contractor shall pay rates of wages and observe conditions which are not lower than the general level of wages and conditions observed locally by Procuring Entity's whose trade or industry is similar to that of the Contractor.

6.2.2 The Contractor shall inform the Contractor's Personnel about their liability to pay personal income taxes in Kenya in respect of such of their salaries, wages, allowances and any benefits as are subject to tax under the Laws of Kenya for the time being in force, and the Contractor shall perform such duties in regard to such deductions there of as may be imposed on him by such Laws.

### **6.3 Persons in the Service of Procuring Entity**

The Contractor shall not recruit, or attempt to recruit, staff and labour from amongst the Procuring Entity's Personnel.

### **6.4 Lab or Laws**

The Contractor shall comply with all the relevant labour Laws applicable to the Contractor's Personnel, including Laws relating to their employment, employment of children, health, safety, welfare, immigration and emigration, and shall allow them all their legal rights. The Contractor shall require his employees to obey all applicable Laws, including those concerning safety at work.

### **6.5 Working Hours**

Nowork shall be carried out on the Site on locally recognized days of rest, or outside the normal working hours stated in the **Special Conditions of Contract**, unless:

- a) Otherwise stated in the Contract,
- b) The Architect gives consent, or
- c) The work is unavoidable, or necessary for the protection of life or property or for the safety of the Works, in which case the Contractor shall immediately advise the Engineer, provided that work done outside the normal working hours shall be considered and paid for as overtime.

### **6.6 Facilities for Staff and Labor**

Except as otherwise stated in the Specification, the Contractor shall provide and maintain all necessary accommodation and welfare facilities on site for the Contractor's Personnel. The Contractor shall also provide facilities for the Procuring Entity's Personnel as stated in the Specifications. The Contractor shall not permit any of the Contractor's Personnel to maintain any temporary or permanent living quarters within the structures forming part of the Permanent Works.

### **6.7 Health and Safety**

6.7.1 The Contractor shall at all times take all reasonable precautions to maintain the health and safety of the Contractor's Personnel. In collaboration with local health authorities, the Contractor shall ensure that medical staff, first aid facilities, sick bay and ambulance service are available at all times at the Site and at any accommodation for Contractor's and Procuring Entity's Personnel, and that suitable arrangements are made for all necessary welfare and hygiene requirements and for the prevention of epidemics.

6.7.2 The Contractor shall appoint an accident prevention officer at the Site, responsible for maintaining safety and protection against accidents. This person shall be qualified for this responsibility and shall have the authority to issue instructions and take protective measures to prevent accidents. Throughout the execution of the Works, the Contractor shall provide what ever is required by this person to exercise this responsibility and authority.

6.7.3 The Contractor shall send, to the Engineer, details of any accident as soon as practicable after its occurrence. The Contractor shall maintain records and make reports concerning health, safety and welfare of persons, and damage to property, as the Architect may reasonably require.

6.7.4 The Contractor shall conduct an awareness programme on HIV and other sexually transmitted diseases via an approved service provider and shall undertake such other measures taken to reduce the risk of the transfer of these diseases between and among the Contractor's Personnel and the

local community, to promote early diagnosis and to assist affected individuals.

## **6.8 Contractor's Superintendence**

6.8.1 Throughout the execution of the Works, and as long thereafter as is necessary to fulfil the Contractor's obligations, the Contractor shall provide all necessary super intendence to plan, arrange, direct, manage, inspect and test the work.

6.8.2 Superintendence shall be given by a sufficient number of persons having adequate knowledge of the language for communications (defined in Sub-Clause 1.4 [Law and Language]) and of the operations to be carried out (including the methods and techniques required, the hazards likely to be encountered and methods of preventing accidents), for the satisfactory and safe execution of the Works.

## **6.9 Contractor's Personnel**

6.9.1 The Contractor's Personnel shall be appropriately qualified, skilled and experienced in their respective trades or occupations. The Contractors Key personnel shall be named in the Special Conditions of Contract. The Architect may require the Contractor to remove (or cause to be removed) any person employed on the Site or Works, including the Contractor's Representative if applicable, who:

- a) Persists in any misconduct or lack of care,
- b) Carries out duties in competently or negligently,
- c) fails to conform with any provisions of the Contract,
- d) persists in any conduct which is prejudicial to safety, health, or the protection of the environment, or
- e) based on reasonable evidence, is determined to have engaged in Fraud and Corruption during the execution ofthe Works.

6.9.2 If appropriate, the Contractor shall then appoint (or cause to be appointed) a suitable replacement person.

## **6.10 Records of Contractor's Personnel and Equipment**

The Contractor shall submit, to the Engineer, details showing the number of each class of Contractor's Personnel and of each type of Contractor's Equipment on the Site. Details shall be submitted each calendar month, in a form approved by the Engineer, until the Contractor has completed all work which is known to be outstanding at the completion date stated in the Taking-Over Certificate for the Works.

## **6.11 Disorderly Conduct**

The Contractor shall at all times take all reasonable precautions to prevent any unlawful, riotous or disorderly conduct by or amongst the Contractor's Personnel, and to preserve peace and protection of persons and property on and near the Site.

## **6.12 Foreign Personnel**

6.12.1 The Contractor shall not employ foreign personnel unless the contractor demonstrates that there are no Kenyans with the required skills.

6.12.2 The Contractor shall be responsible for the return of any foreign personnel to the place where they were recruited or to their domicile. In the event of the death in Kenya of any of these personnel or members of their families, the Contractor shall similarly be responsible for making the appropriate arrangements for their return or burial.

## **6.13 Supply of Water**

The Contractor shall, having regard to local conditions, provide on the Site an adequate supply of drinking and other water for the use of the Contractor's Personnel.

#### **6.14 Measures against Insect and Pest Nuisance**

The Contractor shall at all times take the necessary precautions to protect the Contractor's Personnel employed on the Site from insect and pest nuisance, and to reduce the danger to their health. The Contractor shall comply with all the regulations of the local health authorities, including use of appropriate insecticide.

#### **6.15 Alcoholic Liquor or Drugs**

The Contractor shall not, otherwise than in accordance with the Laws of Kenya, onsite, import, sell, give, barter or otherwise dispose of any alcoholic liquor or drugs, or permit or allow importation, sale, gift, barter or disposal thereof by Contractor's Personnel.

#### **6.16 Prohibition of Forced or Compulsory Labour**

The Contractor shall not employ forced labor, which consists of any work or service, not voluntarily performed, that is exacted from an individual under threat of force or penalty, and includes any kind of involuntary or compulsory labor, such as indentured labor, bonded labor or similar labor-contracting arrangements.

#### **6.17 Prohibition of Harmful Child Labor**

The Contractor shall not employ children in a manner that is economically exploitative, or is likely to be hazardous, or to interfere with, the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral, or social development. Where the relevant labour laws of Kenya have provisions for employment of minors, the Contractor shall follow those laws applicable to the Contractor. Children below the age of 18 years shall not be employed in dangerous work.

#### **6.18 Employment Records of Workers**

The Contractor shall keep complete and accurate records of the employment of labour at the Site. The records shall include the names, ages, genders, hours worked and wages paid to all workers. These records shall be summarized on a monthly basis and submitted to the Engineer. These records shall be included in the details to be submitted by the Contractor under Sub-Clause 6.10 [Records of Contractor's Personnel and Equipment].

#### **6.19 Workers' Organizations**

The Contractor shall comply with the relevant labor laws that recognize workers' rights to form and to join workers' organizations of their choosing without interference.

#### **6.20 Non-Discrimination and Equal Opportunity**

The Contractor shall base the labour employment on the principle of equal opportunity and fair treatment and shall not discriminate with respect to aspects of the employment relationship, including recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, access to training, promotion, termination of employment or retirement, and discipline.

### **7. PLANT, MATERIALS AND WORKMANSHIP**

#### **7.1 Manner of Execution**

The Contractor shall carry out the manufacture/assemble of plant, the production and manufacture of Materials, and all other execution of the Works:

- a) In the manner (if any) specified in the Contract,
- b) in a proper workman like and careful manner, in accordance with recognized good practice, and
- c) with properly equipped facilities and non-hazardous Materials, except as otherwise specified in the Contract.

## **7.2 Samples**

The Contractor shall submit the following samples of Materials, and relevant information, to the Architect for consent prior to using the Material in or for the Works:

- a) manufacturer's standard samples of Materials and samples specified in the Contract, all at the Contractor's cost, and
- b) additional samples instructed by the Architect as a Variation.

Each sample shall be labeled as to origin and intended use in the Works.

## **7.3 Inspection**

7.3.1 The Procuring Entity's Personnel shall at all reasonable times:

- a) Have full access to all parts of the Site and to all places from which natural Materials are being obtained, and
- b) during production, manufacture and construction (at the Site and elsewhere), be entitled to examine, inspect, measure and test the materials and workmanship, and to check the progress of manufacture of Plant and production and manufacture of Materials.

7.3.2 The Contractor shall give the Procuring Entity's Personnel full opportunity to carry out these activities, including providing access, facilities, permissions and safety equipment. No such activity shall relieve the Contractor from any obligation or responsibility.

7.3.3 The Contractor shall give notice to the Architect whenever any work is ready and before it is covered up, put out of sight, or packaged for storage or transport. The Architect shall then either carry out the examination, inspection, measurement or testing without unreasonable delay, or promptly give notice to the Contractor that the Architect does not require to do so. If the Contractor fails to give the notice, he shall, if and when required by the Engineer, uncover the work and there after reinstate and make good, all at the Contractor's cost.

## **7.4 Testing**

7.4.1 This Sub-Clause shall apply to all tests specified in the Contract.

7.4.2 Except as otherwise specified in the Contract, the Contractor shall provide all apparatus, assistance, documents and other information, electricity, equipment, fuel, consumables, instruments, labor, materials, and suitably qualified and experienced staff, as are necessary to carry out the specified tests efficiently. The Contractor shall agree, with the Engineer, the time and place for the specified testing of any Plant, Materials and other parts of the Works.

7.4.3 The Architect may, under Clause 13 [Variations and Adjustments], vary the location or details of specified tests, or instruct the Contractor to carry out additional tests. If these varied or additional tests show that the tested Plant, Materials or workmanship is not in accordance with the Contract, the cost of carrying out this Variation shall be borne by the Contractor, notwithstanding other provisions of the Contract.

7.4.4 The Architect shall give the Contractor not less than 24 hours' notice of the Architect intention to attend the tests. If the Architect does not attend at the time and place agreed, the Contractor may proceed with the tests, unless otherwise instructed by the Engineer, and the tests shall then be

deemed to have been made in the Architect presence.

- 7.4.5 If the Contractor suffers delay and/ or incurs Cost from complying with these instructions or as a result of a delay for which the Procuring Entity is responsible, the Contractor shall give notice to the Architect and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:
- a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and
  - b) payment of any such Cost-plus profit, which shall be included in the Contract Price.
- 7.4.6 After receiving this notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.
- 7.4.7 The Contractor shall promptly forward to the Architect duly certified reports of the tests. When the specified tests have been passed, the Architect shall endorse the Contractor's test certificate, or issue a certificate to him, to that effect. If the Architect has not attended the tests, he shall be deemed to have accepted the readings as accurate.

## **7.5 Rejection**

- 7.5.1 If, as a result of an examination, inspection, measurement or testing, any Plant, Materials or workmanship is found to be defective or otherwise not in accordance with the Contract, the Architect may reject the Plant, Materials or workmanship by giving notice to the Contractor, with reasons. The Contractor shall then promptly make good the defect and ensure that the rejected item complies with the Contract.
- 7.5.2 If the Architect requires this Plant, Materials or workmanship to be retested, the tests shall be repeated under the same terms and conditions. If the rejection and retesting cause the Procuring Entity to incur additional costs, the Contractor shall subject to Sub-Clause 2.5 [Procuring Entity's Claims] pay these costs to the Procuring Entity.

## **7.6 Remedial Work**

- 7.6.1 Notwithstanding any previous test or certification, the Architect may instruct the Contractor to:
- a) Remove from the Site and replace any Plant or Materials which is not in accordance with the Contract,
  - b) remove and re-execute any other work which is not in accordance with the Contract, and
  - c) execute any work which is urgently required for the safety of the Works, whether because of an accident, unforeseen event or otherwise.
- 7.6.2 The Contractor shall comply with the instruction within a reasonable time, which shall be the time (if any) specified in the instruction, or immediately if urgency is specified under sub-paragraph (c).
- 7.6.3 If the Contractor fails to comply with the instruction, the Procuring Entity shall be entitled to employ and pay other persons to carry out the work. Except to the extent that the Contractor would have been entitled to payment for the work, the Contractor shall subject to Sub-Clause 2.5 [Procuring Entity's Claims] pay to the Procuring Entity all costs arising from this failure.
- 7.6.4 If the contractor repeatedly delivers defective work, the Procuring Entity may consider termination in accordance with Clause 15.

## **7.7 Ownership of Plant and Materials**

Except as otherwise provided in the Contract, each item of Plant and Materials shall become the property of the Procuring Entity at whichever is the earlier of the following times, free from liens and other encumbrances:

- a) When it is incorporated in the Works;
- b) when the Contractor is paid the corresponding value of the Plant and Materials under Sub-

## **7.8 Royalties**

Unless otherwise stated in the Specification, the Contractor shall pay all royalties, rents and other payments for:

- a) Natural materials obtained from outside the Site, and
- b) the disposal of material from demolitions and excavations and of other surplus material (whether natural or man-made), except to the extent that disposal are as within the Site are specified in the Contract.

## **8 COMMENCEMENT, DELAYS AND SUSPENSION**

### **8.1 Commencement of Works**

8.1.1 Except as otherwise specified in the Special Conditions of Contract, the Commencement Date shall be the date at which the following precedent condition shall have all been fulfilled and the Architect notification recording the agreement of both Parties on such fulfilment and instructing to commence the Work is received by the Contractor:

- a) Signature of the Contract Agreement by both Parties, and if required, approval of the Contract by relevant authorities of Kenya;
- b) except if otherwise specified in the Special Conditions of Contract, effective access to and possession of the Site given to the Contractor together with such permission(s) under (a) of Sub-Clause 1.13 [Compliance with Laws] as required for the commencement of the Works.
- c) Receipt by the Contractor of the Advance Payment under Sub-Clause 14.2 [Advance Payment] provided that the corresponding bank guarantee has been delivered by the Contractor.

8.1.2 If the said Architect instruction is not received by the Contractor within 180 days from his receipt of the Letter of Acceptance, the Contractor shall be entitled to terminate the Contract under Sub-Clause 6.2 [Termination by Contractor].

8.1.3 The Contractor shall commence the execution of the Works as soon as is reasonably practicable after the Commencement Date and shall then proceed with the Works with due expedition and without delay.

### **8.2 Time for Completion**

The Contractor shall complete the whole of the Works, and each Section (if any), within the Time for Completion for the Works or Section (as the case may be), including:

- a) Achieving the passing of the Test on Completion, and
- b) completing all work which is stated in the Contract as being required for the Works or Section to be considered to be completed for the purposes of taking-over under Sub-Clause 10.1 [Taking Over of the Works and Sections].

### **8.3 Programme**

8.3.1 The Contractor shall submit a detailed time programme to the Architect within 4 days after receiving the notice under Sub-Clause 8.1 [Commencement of Works]. The Contractor shall also submit a revised programme whenever the previous programme is inconsistent with actual progress or with the Contractor's obligations. Each programme shall include:

- a) The order in which the Contractor intends to carry out the Works, including the anticipated timing of each stage of design (if any), Contractor's Documents, procurement, manufacture of Plant, delivery to Site, construction, erection and testing,
- b) each of these stages for work by each nominated Subcontractor (as defined in Clause 5

[Nominated Subcontractors]),

- c) the sequence and timing of inspections and tests specified in the Contract, and
- d) a supporting report which includes:
  - i) a general description of the methods which the Contractor intends to adopt, and of the major stages, in the execution of the Works, and
  - ii) details showing the Contractor's reasonable estimate of the number of each class of Contractor's Personnel and of each type of Contractor's Equipment, required on the Site for each major stage.

- 832 Unless the Engineer, within 14 days after receiving a programme, gives notice to the Contractor stating the extent to which it does not comply with the Contract, the Contractor shall proceed in accordance with the programme, subject to his other obligations under the Contract. The Procuring Entity's Personnel shall be entitled to rely upon the programme when planning their activities.
- 833 The Contractor shall promptly give notice to the Architect of specific probable future events or circumstances which may adversely affect the work, increase the Contract Price or delay the execution of the Works.
- 834 If, at anytime, the Architect gives notice to the Contractor that a programme fails (to the extent stated) to comply with the Contractor to be consistent with actual progress and the Contractor's stated intentions, the Contractor shall submit a revised programme to the Architect in accordance with this Sub-Clause.

#### **8.4 Extension of Time for Completion**

- 841 The Contractor shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to an extension of the Time for Completion if and to the extent that completion for the purposes of Sub-Clause 10.1 [Taking Over of the Works and Sections] is or will be delayed by any of the following causes:
- a) a Variation (unless an adjustment to the Time for Completion has been agreed under Sub-Clause 13.3 [Variation Procedure]) or other substantial change in the quantity of an item of work included in the Contract,
  - b) a cause of delay giving an entitlement to extension of time under a Sub-Clause of these Conditions,
  - c) exceptionally adverse climatic conditions,
  - d) Unforeseeable shortages in the availability of personnel or Goods caused by epidemic or governmental actions, or
  - e) any delay, impediment or prevention caused by or attributable to the Procuring Entity, the Procuring Entity's Personnel, or the Procuring Entity's other contractors.
- 842 If the Contractor considers itself to be entitled to an extension of the Time for Completion, the Contractor shall give notice to the Architect in accordance with Sub-Clause 20.1 [Contractor's Claims]. When determining each extension of time under Sub-Clause 20.1, the Architect shall review previous determinations and may increase, but shall not decrease, the total extension of time.

#### **8.5 Delays Caused by Authorities**

If the following conditions apply, namely:

- a) The Contractor has diligently followed the procedures laid down by the relevant legally constituted public authorities in Kenya,
- b) These authorities delay or disrupt the Contractor's work, and
- c) the delay or disruption was Unforeseeable, then this delay or disruption will be considered as a cause of delay under sub-paragraph (b) of Sub-Clause 8.4 [Extension of Time for Completion].

## 8.6 Rate of Progress

8.61 If, at anytime:

- a) Actual progress is too slow to complete within the Time for Completion, and/or
- b) Progress has fallen (or will fall) behind the current programme under Sub-Clause 8.3 [Programme], other than as a result of a cause listed in Sub-Clause 8.4 [Extension of Time for Completion], then the Architect may instruct the Contractor to submit, under Sub-Clause 8.3 [Programme], a revised programme and supporting report describing the revised methods which the Contractor proposes to adopt in order to expedite progress and complete within the Time for Completion.

8.62 Unless the Architect notifies otherwise, the Contractor shall adopt these revised methods, which may require increases in the working hours and/or in the numbers of Contractor's Personnel and/or Goods, at the risk and cost of the Contractor. If these revised methods cause the Procuring Entity to incur additional costs, the Contractor shall subject to notice under Sub-Clause 2.5 [Procuring Entity's Claims] pay these costs to the Procuring Entity, in addition to delay damages (if any) under Sub-Clause 8.7 below.

8.63 Additional costs of revised methods including acceleration measures, instructed by the Architect to reduce delays resulting from causes listed under Sub-Clause 8.4 [Extension of Time for Completion] shall be paid by the Procuring Entity, without generating, however, any other additional payment benefit to the Contractor.

## 8.7 Delay Damages

8.71 If the Contractor fails to comply with Sub-Clause 8.2 [Time for Completion], the Contractor shall subject to notice under Sub-Clause 2.5 [Procuring Entity's Claims] pay delay damages to the Procuring Entity for this default. These delay damages shall be the sum stated in the **Special Conditions of Contract**, which shall be paid for everyday which shall elapse between the relevant Time for Completion and the date stated in the taking-Over Certificate. However, the total amount due under this Sub-Clause shall not exceed the maximum amount of delay damages (if any) stated in the Special Conditions of Contract.

8.72 These delay damages shall be the only damages due from the Contractor for such default, other than in the event of termination under Sub-Clause 15.2 [Termination by Procuring Entity] prior to completion of the Works. These damages shall not relieve the Contractor from his obligation to complete the Works, or from any other duties, obligations or responsibilities which he may have under the Contract.

## 8.8 Suspension of Work

8.81 The Architect may at anytime instruct the Contractor to suspend progress of part or all of the Works. During such suspension, the Contractor shall protect, store and secure such part or the Works against any deterioration, loss or damage.

8.82 The Architect may also notify the cause for the suspension. If and to the extent that the cause is notified and is the responsibility of the Contractor, the following Sub-Clauses 8.9, 8.10 and 8.11 shall not apply.

## 8.9 Consequences of Suspension

8.91 If the Contractor suffers delay and/or incurs Cost from complying with the Architect instructions under Sub-Clause 8.8 [Suspension of Work] and/or from resuming the work, the Contractor shall give notice to the Architect and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:

- a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and
- b) Payment of any such Cost, which shall be included in the Contract Price.

892 After receiving this notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.

893 The Contractor shall not be entitled to an extension of time for, or to payment of the Cost incurred in, making good the consequences of the Contractor's faulty design, workmanship or materials, or of the Contractor's failure to protect, store or secure in accordance with Sub-Clause 8.8 [Suspension of Work].

#### **8.10 Payment for Plant and Materials in Event of Suspension**

The Contractor shall be entitled to payment of the value (as at the date of suspension) of Plant and/ or Materials which have not been delivered to Site, if:

- a) The work on Plant or delivery of Plant and/ or Materials has been suspended for more than 30 days, and
- b) the Contractor has marked the Plant and/or Materials as the Procuring Entity's property in accordance with the Architect instructions.

#### **8.11 Prolonged Suspension**

If the suspension under Sub-Clause 8.8 [Suspension of Work] has continued for more than 84 days, the Contractor may request the Architect permission to proceed. If the Architect does not give permission within 30 days after being requested to do so, the Contractor may, by giving notice to the Engineer, treat the suspension as an omission under Clause 13 [Variations and Adjustments] of the affected part of the Works. If the suspension affects the whole of the Works, the Contractor may give notice of termination under Sub-Clause 16.2 [Termination by Contractor].

#### **8.12 Resumption of Work**

After the permission or instruction to proceed is given, the Contractor and the Architect shall jointly examine the Works and the Plant and Materials affected by the suspension. The Contractor shall make good any deterioration or defect in or loss of the Works or Plant or Materials, which has occurred during the suspension after receiving from the Architect an instruction to this effect under Clause 13 [Variations and Adjustments].

### **9 TESTS ON COMPLETION**

#### **9.1 Contractor's Obligations**

9.1.1 The Contractor shall carry out the Tests on Completion in accordance with this Clause and Sub-Clause 7.4 [Testing], after providing the documents in accordance with sub-paragraph (d) of Sub-Clause 4.1 [Contractor's General Obligations].

9.1.2 The Contractor shall give to the Architect not less than 21 days' notice of the date after which the Contractor will be ready to carry out each of the Tests on Completion. Unless otherwise agreed, Tests on Completion shall be carried out within 14 days after this date, on such day or days as the Architect shall instruct.

9.1.3 In considering the results of the Tests on Completion, the Architect shall make allowances for the effect of any use of the Works by the Procuring Entity on the performance or other characteristics of the Works. As soon as the Works, or a Section, have passed any Tests on Completion, the Contractor shall submit a certified report of the results of these Tests to the Engineer.

## **92 Delayed Tests**

- 921 If the Tests on Completion are being unduly delayed by the Procuring Entity, Sub-Clause 7.4 [Testing] (fifth paragraph) and/ or Sub-Clause 10.3 [Interference with Tests on Completion] shall be applicable.
- 922 If the Tests on Completion are being unduly delayed by the Contractor, the Architect may by notice require the Contractor to carry out the Tests within 21 days after receiving the notice. The Contractor shall carry out the Tests on such day or days within that period as the Contractor may fix and of which he shall give notice to the Engineer.
- 923 If the Contractor fails to carry out the Tests on Completion within the period of 21 days, the Procuring Entity's Personnel may proceed with the Tests at the risk and cost of the Contractor. The Tests on Completion shall then be deemed to have been carried out in the presence of the Contractor and the results of the Tests shall be accepted as accurate.

## **93 Retesting of related works**

If the Works, or a Section, fail to pass the Tests on Completion, Sub-Clause 7.5 [Rejection] shall apply, and the Architect or the Contractor may require the failed Tests, and Tests on Completion on any related work, to be repeated under the same terms and conditions.

## **94 Failure to Pass Tests on Completion**

- 94.1 If the Works, or a Section, fail to pass the Tests on Completion repeated under Sub-Clause 9.3 [Retesting], the Architect shall be entitled to:
- a) Order further repetition of Tests on Completion under Sub-Clause 9.3; or
  - b) if the failure deprives the Procuring Entity of substantially the whole benefit of the Works or Section, reject the Works or Section (as the case may be), in which event the Procuring Entity shall have the same remedies as are provided in sub-paragraph (c) of Sub-Clause 1.4 [Failure to Remedy Defects].

## **10. PROCURING ENTITY'S TAKING OVER**

### **10.1 Taking Over of the Works and Sections**

- 10.1.1 Except as stated in Sub-Clause 9.4 [Failure to Pass Tests on Completion], the Works shall be taken over by the Procuring Entity when (i) the Works have been completed in accordance with the Contract, including the matters described in Sub-Clause 8.2 [Time for Completion] and except as allowed in sub-paragraph (a) below, and (ii) a Taking-Over Certificate for the Works has been issued, or is deemed to have been issued in accordance with this Sub-Clause.
- 10.1.2 The Contractor may apply by notice to the Architect for a Taking-Over Certificate not earlier than 14 days before the Works will, in the Contractor's opinion, be complete and ready for taking over. If the Works are divided into Sections, the Contractor may similarly apply for a Taking-Over Certificate for each Section.
- 10.1.3 The Architect shall, within 30 days after receiving the Contractor's application:
- a) Issue the Taking-Over Certificate to the Contractor, stating the date on which the Works or Section were completed in accordance with the Contract, except for any minor outstanding work and defects which will not substantially affect the use of the Works or Section for their intended purpose (either until or whilst this work is completed and these defects are remedied); or
  - b) reject the application, giving reasons and specifying the work required to be done by the Contractor to enable the Taking-Over Certificate to be issued. The Contractor shall then complete this work before issuing a further notice under this Sub-Clause.

10.14 If the Architect fails either to issue the Taking-Over Certificate or to reject the Contractor's application within the period of 30 days, and if the Works or Section (as the case may be) are substantially in accordance with the Contract, the Taking-Over Certificate shall be deemed to have been issued on the last day of that period.

## **10.2 Taking Over of Parts of the Works**

10.2.1 The Architect may, at the sole discretion of the Procuring Entity, issue a Taking-Over Certificate for any part of the Permanent Works.

10.2.2 The Procuring Entity shall not use any part of the Works (other than as a temporary measure which is either specified in the Contract or agreed by both Parties) unless and until the Architect has issued a Taking-Over Certificate for this part. However, if the Procuring Entity does use any part of the Works before the Taking-Over Certificate is issued:

- a) The part which is used shall be deemed to have been taken over as from the date on which it is used,
- b) the Contractor shall cease to be liable for the care of such part as from this date, when responsibility shall pass to the Procuring Entity, and
- c) if requested by the Contractor, the Architect shall issue a Taking-Over Certificate for this part.

10.2.3 After the Architect has issued a Taking-Over Certificate for a part of the Works, the Contractor shall be given the earliest opportunity to take such steps as may be necessary to carry out any outstanding Tests on Completion. The Contractor shall carry out these Tests on Completion as soon as practicable before the expiry date of the relevant Defects Notification Period.

10.2.4 If the Contractor incurs Cost as a result of the Procuring Entity taking over and/or using a part of the Works, other than such use as is specified in the Contract agreed by the Contractor, the Contractor shall (i) give notice to the Architect and (ii) be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to payment of any such accrued costs, which shall be included in the Contract Price. After receiving this notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine this accrued cost.

10.2.5 If a Taking-Over Certificate has been issued for a part of the Works (other than a Section), the delay damages there after for completion of the remainder of the Works shall be reduced. Similarly, the delay damages for the remainder of the Section (if any) in which this part is included shall also be reduced. For any period of delay after the date stated in this Taking-Over Certificate, the proportional reduction in these delay damages shall be calculated as the proportion which the value of the part so certified bears to the value of the Works or Section (as the case may be) as a whole. The Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these proportions. The provisions of this paragraph shall only apply to the daily rate of delay damages under Sub-Clause 8.7 [Delay Damages] and shall not affect the maximum amount of these damages.

## **10.3 Interference with Tests on Completion**

10.3.1 If the Contractor is prevented, for more than 14 days, from carrying out the Tests on Completion by a cause for which the Procuring Entity is responsible, the Procuring Entity shall be deemed to have taken over the Works or Section (as the case may be) on the date when the Tests on Completion would otherwise have been completed.

10.3.2 The Architect shall then issue a Taking-Over Certificate accordingly, and the Contractor shall carry out the Tests on Completion as soon as practicable, before the expiry date of the Defects Notification Period. The Architect shall require the Tests on Completion to be carried out by giving 14 days' notice and in accordance with the relevant provisions of the Contract.

10.3.3 If the Contractor suffers delay and/or incurs Cost as a result of this delay in carrying out the Tests

on Completion, the Contractor shall give notice to the Architect and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:

- a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and
- b) payment of any such accrued costs, which shall be included in the Contract Price.

10.3.4 After receiving this notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.

#### **10.4 Surfaces Requiring Reinstatement**

Except as otherwise stated in a Taking-Over Certificate, a certificate for a Section or part of the Works shall not be deemed to certify completion of any ground or other surfaces requiring reinstatement.

### **11. DEFECTS LIABILITY**

#### **11.1 Completion of Outstanding Work and Remedying Defects**

11.1.1 In order that the Works and Contractor's Documents, and each Section, shall be in the condition required by the Contract (fairwear and tear excepted) by the expiry date of the relevant Defects Notification Period or as soon as practicable there after, the Contractor shall:

- a) complete any work which is outstanding on the date stated in a Taking-Over Certificate, within such reasonable time as is instructed by the Engineer, and
- b) execute all work required to remedy defects or damage, as may be notified by (or on behalf of) the Procuring Entity on or before the expiry date of the Defects Notification Period for the Works or Section (as the case may be).

11.1.2 If a defect appears or damage occurs, the Contractor shall be notified accordingly by the Engineer.

#### **11.2 Cost of Remedying Defects**

11.2.1 All work referred to in sub-paragraph (b) of Sub-Clause 11.1 [Completion of Outstanding Work and Remedying Defects] shall be executed at the risk and cost of the Contractor, if and to the extent that the work is attributable to:

- a) Any design for which the Contractor is responsible,
- b) Plant, Materials or workmanship not being in accordance with the Contract, or
- c) Failure by the Contractor to comply with any other obligation.

11.2.2 If and to the extent that such work is attributable to any other cause, the Contractor shall be notified promptly by (or on behalf of) the Procuring Entity, and Sub-Clause 13.3 [Variation Procedure] shall apply.

#### **11.3 Extension of Defects Notification Period**

11.3.1 The Procuring Entity shall be entitled subject to Sub-Clause 2.5 [Procuring Entity's Claims] to an extension of the Defects Notification Period for the Works or a Section if and to the extent that the Works, Section or a major item of Plant (as the case may be, and after taking over) cannot be used for the purposes for which they are intended by reason of a defect or by reason of damage attributable to the Contractor. However, a Defects Notification Period shall not be extended by more than two years.

11.3.2 If delivery and/ or erection of Plant and/ or Materials was suspended under Sub-Clause 8.8 [Suspension of Work] or Sub-Clause 16.1 [Contractor's Entitlement to Suspend Work], the Contractor's obligations under this Clause shall not apply to any defect or damage occurring more than two years after the Defects Notification Period for the Plant and/ or Materials would

otherwise have expired.

#### **11.4 Failure to Remedy Defects**

- 11.4.1 If the Contractor fails to remedy any defect or damage within a reasonable time, a date may be fixed by the Engineer, on or by which the defect or damage is to be remedied. The Contractor shall be given reasonable notice of this date.
- 11.4.2 If the Contractor fails to remedy the defect or damage by this notified date and this remedial work was to be executed at the cost of the Contractor under Sub-Clause 11.2 [Cost of Remedying Defects], the Procuring Entity may (at his option):
- (a) Carry out the work itself or by others, in a reasonable manner and at the Contractor's cost, but the Contractor shall have no responsibility for this work; and the Contractor shall subject to Sub-Clause 2.5 [Procuring Entity's Claims] pay to the Procuring Entity the costs reasonably incurred by the Procuring Entity in remedying the defect or damage;
  - (b) Require the Architect to agree or determine a reasonable reduction in the Contract Price in accordance with Sub-Clause 3.5 [Determinations]; or
  - (c) if the defect or damage deprives the Procuring Entity of substantially the whole benefit of the Works or any major part of the Works, terminate the Contract as a whole, or in respect of such major part which cannot be put to the intended use. Without prejudice to any other rights, under the Contract otherwise, the Procuring Entity shall then be entitled to recover all sums paid for the Works or for such part (as the case may be), plus financing costs and the cost of dismantling the same, clearing the Site and returning Plant and Materials to the Contractor.

#### **11.5 Removal of Defective Work**

If the defect or damage cannot be remedied expeditiously on the Site and the Procuring Entity gives consent, the Contractor may remove from the Site for the purposes of repair such items of Plant as are defective or damaged. This consent may require the Contractor to increase the amount of the Performance Security by the full replacement cost of these items, or to provide other appropriate security.

#### **11.6 Further Tests**

- 11.6.1 If the work of remedying of any defect or damage may affect the performance of the Works, the Architect may require the repetition of any of the tests described in the Contract. The requirement shall be made by notice within 14 days after the defect or damage is remedied.
- 11.6.2 These tests shall be carried out in accordance with the terms applicable to the previous tests, except that they shall be carried out at the risk and cost of the Party liable, under Sub-Clause 11.2 [Cost of Remedying Defects], for the cost of the remedial work.

#### **11.7 Right of Access**

Until the Completion Certificate has been issued, the Contractor shall have such right of access to the Works as is reasonably required in order to comply with this Clause, except as may be inconsistent with the Procuring Entity's reasonable security restrictions.

#### **11.8 Contractor to Search**

The Contractor shall, if required by the Engineer, search for the cause of any defect on parts of the works that have already accepted, under the direction of the Engineer. Unless the defect is to be remedied at the cost of the Contractor under Sub-Clause 11.2 [Cost of Remedying Defects], the Cost of the search plus profit shall be agreed or determined by the Architect in accordance with Sub-Clause 3.5 [Determinations] and shall be included in the Contract Price.

#### **11.9 Completion Certificate**

- 11.9.1 Performance of the Contractor's obligations shall not be considered to have been completed until the Architect has issued the Completion Certificate to the Contractor, stating the date on which the Contractor completed his obligations under the Contract.
- 11.9.2 The Architect shall issue the Completion Certificate within 30 days after the latest of the expiry dates of the Defects Liability Period, or as soon thereafter as the Contractor has supplied all the Contractor's Documents and completed and tested all the Works, including remedying any defects. A copy of the Completion Certificate shall be issued to the Procuring Entity.
- 11.9.3 Only the Completion Certificate shall be deemed to constitute acceptance of the Works.

#### **11.10 Unfulfilled Obligations**

After the Completion Certificate has been issued, each Party shall remain liable for the fulfilment of any obligation which remains unperformed at that time. For the purposes of determining the nature and extent of unperformed obligations, the Contract shall be deemed to remain in force.

#### **11.11 Clearance of Site**

- 11.11.1 Upon receiving the Completion Certificate, the Contractor shall remove any remaining Contractor's Equipment, surplus material, wreckage, rubbish and Temporary Works from the Site.
- 11.11.2 If all these items have not been removed within 30 days after receipt by the Contractor of the Completion Certificate, the Procuring Entity may sell or otherwise dispose of any remaining items. The Procuring Entity shall be entitled to be paid the costs incurred in connection with, or attributable to, such sale or disposal and restoring the Site.
- 11.11.3 Any balance of the moneys from the sale shall be paid to the Contractor. If these moneys are less than the Procuring Entity's costs, the Contractor shall pay the outstanding balance to the Procuring Entity.

### **12 MEASUREMENT AND DEVALUATION**

#### **12.1 Works to be Measured**

- 12.1.1 The Works shall be measured, and valued for payment, in accordance with this Clause. The Contractor shall show in each application under Sub-Clauses 14.3 [Application for Interim Payment Certificates], 14.10 [Statement on Completion] and 14.11 [Application for Final Payment Certificate] the quantities and other particulars detailing the amounts which he considers to be entitled under the Contract.
- 12.1.2 Whenever the Architect requires any part of the Works to be measured, reasonable notice shall be given to the Contractor's Representative, who shall:
- a) promptly either attend or send another qualified representative to assist the Architect in making the measurement, and
  - b) supply any particulars requested by the Engineer.
- 12.1.3 If the Contractor fails to attend or send a representative, the measurement made by the Architect shall be accepted as accurate.
- 12.1.4 Except as otherwise stated in the Contract, wherever any Permanent Works are to be measured from records, these shall be prepared by the Engineer. The Contractor shall, as and when requested, attend to examine and agree her records with the Engineer, and shall sign the same when agreed. If the Contractor does not attend, the records shall be accepted as accurate.
- 12.1.5 If the Contractor examines and disagrees the records, and/ or does not sign them as agreed, then the Contractor shall give notice to the Architect of the respects in which the records are asserted

to be inaccurate. After receiving this notice, the Architect shall review the records and either confirm or vary them and certify the payment of the undisputed part. If the Contractor does not so give notice to the Architect within 14 days after being requested to examine the records, they shall be accepted as accurate.

## **12.2 Method of Measurement**

Except as otherwise stated in the Contract:

- a) Measurement shall be made of the net actual quantity of each item of the Permanent Works, and
- b) the method of measurement shall be in accordance with the Bill of Quantities or other applicable Schedules.

## **12.3 Evaluation**

12.3.1 Except as otherwise stated in the Contract, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine the value of work one by evaluating each item of work, applying the measurement agreed or determined in accordance with the above Sub-Clauses 12.1 and 12.2 and the appropriate rate or price for the item.

12.3.2 For each item of work, the appropriate rate or price for the item shall be the rate or price specified for such item in the Contractor, if there is no such item, specified for similar work.

12.3.3 Any item of work included in the Bill of Quantities for which no rate or price was specified shall be considered as included in other rates and prices in the Bill of Quantities and will not be paid for separately.

12.3.4 However, for a new item of work, a new rate or price shall be appropriate for such item of work if:

- a) The work is instructed under Clause 13 [Variations and Adjustments],
- b) no rate or price is specified in the Contract for this item, and
- c) no specified rate or price is appropriate because the item of work is not of similar character, or is not executed under similar conditions, as any item in the Contract.

12.3.5 Each new rate or price shall be derived from any relevant rates or prices in the Contract. If no rates or prices are relevant for the new item of work, it shall be derived from the reasonable Cost of executing such work, prevailing market rates, together with profit, taking account of any other relevant matters.

12.3.6 Until such time as an appropriate rate or price is agreed or determined, the Architect shall determine a provisional rate or price for the purposes of Interim Payment Certificates as soon as the concerned work commences.

12.3.7 Where the contract price is different from the corrected tender price, in order to ensure the contractor is not paid less or more relative to the contract price (*which would be the tender price*), payment valuation certificates and variation orders on omissions and additions valued based on rates in the Bill of Quantities or schedule of rates in the Tender, will be adjusted by a plus or minus percentage. The percentage already worked out during tender evaluation is worked out as follows:  $(\text{corrected tender price} - \text{tender price}) / \text{tender price} \times 100$ .

## **12.4 Omissions**

Whenever the omission of any work forms part (or all) of a Variation, the value of which has not been agreed, if:

- a) The Contractor will incur (or has incurred) cost which, if the work had not been omitted, would have been deemed to be covered by a sum forming part of the Accepted Contract Amount;
- b) The omission of the work will result (or has resulted) in this sum not forming part of the Contract Price; and

- c) this cost is not deemed to be included in the evaluation of any substituted work; then the Contractor shall give notice to the Architect accordingly, with supporting particulars. Upon receiving this notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine this cost, which shall be included in the Contract Price.

## **13 VARIATIONS AND ADJUSTMENTS**

### **13.1 Right to Vary**

13.1.1 Variations may be initiated by the Architect at any time prior to issuing the Taking-Over Certificate for the Works, either by an instruction or by a request for the Contractor to submit a proposal. No Variation instructed by the Architect under this Clause shall in any way vitiate or invalidate the Contract.

13.1.2 The Contractor shall execute and be bound by each Variation, unless the Contractor promptly gives notice to the Architect stating (with supporting particulars) that (i) the Contractor cannot readily obtain the Goods required for the Variation, or (ii) such Variation triggers a substantial change in the sequence or progress of the Works. Upon receiving this notice, the Architect shall cancel, confirm or vary the instruction.

13.1.3 Each Variation may include:

- a) changes to the quantities of any item of work included in the Contract (however, such changes do not necessarily constitute a Variation),
- b) changes to the quality and other characteristics of any item of work,
- c) changes to the levels, positions and/ or dimensions of any part of the Works,
- d) omission of any work unless it is to be carried out by others,
- e) any additional work, Plant, Materials or services necessary for the Permanent Works, including any associated Tests on Completion, boreholes and other testing and exploratory work, or
- f) changes to the sequence or timing of the execution of the Works.

13.1.4 The Contractor shall not make any alteration and/or modification of the Permanent Works, unless and until the Architect instructs after obtaining approval of the Procuring Entity.

### **13.2 Variation Order Procedure**

13.2.1 Prior to any Variation Order under Sub-Clause 13.1.4 the Architect shall notify the Contractor of the nature and form of such variation. As soon as possible after having received such notice, the Contractor shall submit to the Engineer:

- a) A description of work, if any, to be performed and a programme for its execution, and
- b) the Contractor's proposals for any necessary modifications to the Programme according to Sub-Clause 8.3 or to any of the Contractor's obligations under the Contract, and
- c) the Contractor's proposals for adjustment to the Contract Price.

Following the receipt of the Contractor's submission the Architect shall, after due consultation with the Employer and the Contractor, decide as soon as possible whether or not the variation shall be carried out. If the Architect decides that the variation shall be carried out, he shall issue a Variation Order clearly identified as such in accordance with the Contractor's submission or as modified by agreement.

If the Architect and the Contractor are unable to agree the adjustment of the Contract Price, the provisions of Sub-Clause 13.2.2 shall apply.

### **13.2.2 Disagreement on Adjustment of the Contract Price**

If the Contractor and the Architecture unable to agree on the adjustment of the Contract Price, the

adjustment shall be determined in accordance with the rates specified in the Bills of Quantities or Schedule of Daywork Prices. If the rates contained in the Bills of Quantities or Dayworks Prices are not directly applicable to the specific work in question, suitable rates shall be established by the Architect reflecting the level of pricing in the Dayworks Prices. Where rates are not contained in the said Prices, the amount shall be such as is in all the circumstances reasonable, reflecting a market price. Due account shall be taken of any over-or under-recovery of overheads by the Contractor in consequence of the variation. The Contractor shall also be entitled to be paid:

- a) The cost of any partial execution of the Work rendered useless by any such variation,
- b) The cost of making necessary alterations to Plant already manufactured or in the course of manufacture or of any work done that has to be altered in consequence of such a variation,
- c) any additional costs incurred by the Contractor by the disruption of the progress of the Works as detailed in the Programme, and
- d) the net effect of the Contractor's financial costs, including interest, caused by the variation.

The Architect shall on this basis determine the rates or prices to enable on-account payment to be included in certificates of payment.

### **13.2.3 Contractor to Proceed**

On receipt of a Variation Order, the Contractor shall forthwith proceed to carry out the variation and be bound to these Conditions in so doing as if such variation was stated in the Contract. The work shall not be delayed pending the granting of an extension of the Time for Completion or an adjustment to the Contract Price under Sub-Clause 13.3.

### **13.3 Value Engineering**

- 13.3.1 The Contractor may, at anytime, submit to the Architect written proposal which (in the Contractor's opinion) will, if adopted, (i) accelerate completion, (ii) reduce the cost to the Procuring Entity of executing, maintaining or operating the Works, (iii) improve the efficiency or value to the Procuring Entity of the completed Works, or (iv) otherwise be of benefit to the Procuring Entity.
- 13.3.2 The proposal shall be prepared at the cost of the Contractor and shall include the items listed in Sub-Clause 13.3 [Variation Procedure].
- 13.3.3 If a proposal, which is approved by the Engineer, includes a change in the design of part of the Permanent Works, then unless otherwise agreed by both Parties:
- a) The Contractor shall design this part,
  - b) sub-paragraphs (a) to (d) of Sub-Clause 4.1 [Contractor's General Obligations] shall apply, and
  - c) if this change results in a reduction in the contract value of this part, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine a fee, which shall be included in the Contract Price. This fee shall be 50% of the difference between the following amounts:
    - i) such reduction in contract value, resulting from the change, excluding adjustments under Sub-Clause 13.8 [Adjustments for Changes in Legislation] and Sub-Clause 13.8 [Adjustments for Changes in Cost], and
    - ii) the reduction (if any) in the value to the Procuring Entity of the varied works, taking account of any improvement in quality, anticipated life or operational efficiencies.
- 13.3.4 However, if the amount established in item 13.3.3 (c) (i) is less than amount established in item 13.3.3 (c) (ii), there shall not be a fee. However, if the amount established in item 13.3.3 (c) (i) is more than amount established in item 13.3.3 (c) (ii), it shall result in a price variation to the Procuring Entity.

### **13.4 Variation Procedure for Value Engineering proposal**

- 13.4.1 If the Architect requests a proposal, prior to instructing a Variation, the Contractor shall respond in writing as soon as practicable, either by giving reasons why he cannot comply (if this is the case) or by submitting:
- a) A description of the proposed work to be performed and a programme for its execution,
  - b) the Contractor's proposal for any necessary modifications to the programme according to Sub-Clause 8.3 [Programme] and to the Time for Completion, and
  - c) the Contractor's proposal for evaluation of the Variation.
- 13.4.2 The Architect shall, as soon as practicable after receiving such proposal (under Sub-Clause 13.2 [Value Project Engineering] or otherwise), respond with approval, disapproval or comments. The Contractor shall not delay any work whilst waiting a response.
- 13.4.3 Each instruction to execute a Variation, with any requirements for the recording of Costs, shall be issued by the Architect to the Contractor, who shall acknowledge receipt.
- 13.4.4 Each Variation shall be evaluated in accordance with Clause 12 [Measurement and Evaluation], unless the Architect instructs or approves otherwise in accordance with this Clause.

### **13.5 Payment in Applicable Currencies**

If the Contract provides for payment of the Contract Price in more than one currency, then whenever an adjustment is agreed, approved or determined as stated above, the amount payable in each of the applicable currencies shall be specified. For this purpose, reference shall be made to the actual or expected currency proportions of the Cost of the varied work, and to the proportions of various currencies specified for payment of the Contract Price.

### **13.6 Provisional Sums**

- 13.6.1 Each Provisional Sum shall only be used, in whole or in part, in accordance with the Architect instructions, and the Contract Price shall be adjusted accordingly. The total sum paid to the Contractor shall include only such amounts, for the work, supplies or services to which the Provisional Sum relates, as the Architect shall have instructed. For each Provisional Sum, the Architect may instruct:
- a) Work to be executed (including Plant, Materials or services to be supplied) by the Contractor and valued under Sub-Clause 13.3 [Variation Procedure]; and/or
  - b) Plant, Materials or services to be purchased by the Contractor, from a nominated Subcontractor (as defined in Clause 5 [Nominated Subcontractors]) or otherwise; and for which there shall be included in the Contract Price:
    - i) The actual amounts paid (or due to be paid) by the Contractor, and
    - ii) a sum for overhead charges and profit, calculated as a percentage of these actual amounts by applying the relevant percentage rate (if any) stated in the appropriate Schedule. If there is no such rate, the percentage rate stated in **the Special Conditions of Contract** shall be applied.
- 13.6.2 The Contractor shall, when required by the Engineer, produce quotations, invoices, vouchers and accounts or receipts in substantiation.

### **13.4 Dayworks**

- 13.4.1 For work of a minor or incidental nature, the Architect may instruct that a Variation shall be executed on a daywork basis. The work shall then be valued in accordance with the Daywork Schedule included in the Contract, and the following procedure shall apply. If a Daywork Schedule is not included in the Contract, this Sub-Clause shall not apply.
- 13.4.2 Before ordering Goods for the work, the Contractor shall submit quotations to the Engineer. When

applying for payment, the Contractor shall submit invoices, vouchers and accounts or receipts for any Goods.

- 1343 Except for any items for which the Daywork Schedule specifies that payment is not due, the Contractor shall deliver each day to the Architect accurate statements induplicate which shall include the following details of the resources used in executing the previous day's work:
- a) The names, occupations and time of Contractor's Personnel,
  - b) the identification, type and time of Contractor's Equipment and Temporary Works, and
  - c) the quantities and types of Plant and Materials used.

- 1344 One copy of each statement will, if correct, or when agreed, be signed by the Architect and returned to the Contractor. The Contractor shall then submit priced statements of these resources to the Engineer, prior to their inclusion in the next Statement under Sub-Clause 14.3 [Application for Interim Payment Certificates].

### **135 Adjustments for Changes in Legislation**

- 135.1 The Contract Price shall be adjusted to take account of any increase or decrease in Cost resulting from a change in the Laws of Kenya (including the introduction of new Laws and the repeal or modification of existing Laws) or in the judicial or official governmental interpretation of such Laws, made after the Base Date, which affect the Contractor in the performance of obligations under the Contract.

- 135.2 If the Contractor suffers (or will suffer) delay and/or incurs (or will incur) additional Cost as a result of these changes in the Laws or in such interpretations, made after the Base Date, the Contractor shall give notice to the Architect and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:

- a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and
- b) payment of any such Cost, which shall be included in the Contract Price.

- 135.3 After receiving this notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.

- 135.4 Notwithstanding the foregoing, the Contractor shall not be entitled to an extension of time if the relevant delay has already been taken into account in the determination of a previous extension of time and such Cost shall not be separately paid if the same shall already have been taken into account in the indexing of any inputs to the table of adjustment data in accordance with the provisions of Sub-Clause 13.8 [Adjustments for Changes in Cost].

### **136 Adjustments for Changes in Cost**

- 136.1 In this Sub-Clause, "table of adjustment data" means the completed table of adjustment data for local and foreign currencies included in the Schedules. If there is no such table of adjustment data, this Sub-Clause shall not apply.

- 136.2 If this Sub-Clause applies, the amounts payable to the Contractor shall be adjusted for rises or falls in the cost of labor, Goods and other inputs to the Works, by the addition or deduction of the amounts determined by the formulae prescribed in this Sub-Clause. To the extent that full compensation for any rise or fall in Costs is not covered by the provisions of this or other Clauses, the Accepted Contract Amount shall be deemed to have included a mounts to cover the contingency of other rises and falls in costs.

- 136.3 The adjustment to be applied to the amount otherwise payable to the Contractor, as valued in accordance with the appropriate Schedule and certified in Payment Certificates, shall be determined from formulae for each of the currencies in which the Contract Price is payable. No adjustment is to be applied to work valued on the basis of Cost or current prices. The formulae

## Price Adjustment Formula

Prices shall be adjusted for fluctuations in the cost of inputs only if **provided for in the SCC**. If so provided, the amounts certified in each payment certificate, before deducting for Advance Payment, shall be adjusted by applying the respective price adjustment factor to the payment amounts due in each currency. A separate formula of the type specified below applies:

$$P = A + B I_m/I_o$$

where:

**P** is the adjustment factor for the portion of the Contract Price payable.

**A** and **B** are coefficients **specified in the SCC**, representing then on adjustable and adjustable portions, respectively, of the Contract Price payable and

**I<sub>m</sub>** is the index prevailing at the end of the month being invoiced and **I<sub>o</sub>** is the index prevailing 30 days before Bid opening for inputs payable.

**NOTE:** The sum of the two coefficients A and B should be 1 (one) in the formula for each currency. Normally, both coefficients shall be the same in the formulae for all currencies, since coefficient A, for the non adjustable portion of the payments, is a very approximate figure (usually 0.15) to take account of fixed cost elements or other nonadjustable components. The sum of the adjustments for each currency are added to the Contract Price.

- 13.64 The cost indices or reference prices stated in the table of adjustment data shall be used. If their source is in doubt, it shall be determined by the Engineer. Forth is purpose, reference shall be made to the values of the indices at stated dates (quoted in the fourth and fifth columns respectively of the table) for the purposes of clarification of the source; although these dates (and thus these values) may not correspond to the base cost indices.
- 13.65 In cases where the “currency of index” is not the relevant currency of payment, each index shall be converted into the relevant currency of payment at the selling rate, established by the Central Bank of Kenya, of this relevant currency on the above date for which the index is required to be applicable.
- 13.66 Until such time as each current cost index is available, the Architect shall determine a provisional index for the issue of Interim Payment Certificates. When a current cost index is available, the adjustment shall be recalculated accordingly.
- 13.67 If the Contractor fails to complete the Works within the Time for Completion, adjustment of prices there after shall be made using either (i) each index or price applicable on the date 49 days prior to the expiry of the Time for Completion of the Works, or (ii) the current index or price, whichever is more favorable to the Procuring Entity.
- 13.68 The weightings (coefficients) for each of the factors of cost stated in the table(s) of adjustment data shall only be adjusted if they have been rendered unreasonable, unbalanced or in applicable, as a result of Variations.

## 14 CONTRACT PRICE AND PAYMENT

### 14.1 The Contract Price

14.1.1 Unless otherwise stated in the Special Conditions:

- a) The value of the payment certificate shall be agreed or determined under Sub-Clause 12.3 [Evaluation] and be subject to adjustments in accordance with the Contract;
- b) the Contractor shall pay all taxes, duties and fees required to be paid by him under the Contract, and the Contract Price shall not be adjusted for any of these costs except as stated

in Sub-Clause 13.7 [Adjustments for Changes in Legislation];

- c) any quantities which may be set out in the Bill of Quantities or other Schedule are estimated quantities and are not to be taken as the actual and correct quantities:
  - i) of the Works which the Contractor is required to execute, or
  - ii) for the purposes of Clause 12 [Measurement and Evaluation]; and
- d) the Contractor shall submit to the Engineer, within 30 days after the Commencement Date, a proposed breakdown of each lump sum price in the Schedules. The Architect may take account of the break down when preparing Payment Certificates but shall not be bound by it.

14.12 Notwithstanding the provisions of subparagraph (b), Contractor's Equipment, including essential spare parts there for, imported by the Contractor for the sole purpose of executing the Contract shall not be exempt from the payment of import duties and taxes upon importation.

## **14.2 Advance Payment**

**14.21** The Procuring Entity shall make an advance payment, as an interest-free loan for mobilization and cashflow support, when the Contractor submits a guarantee in accordance with this Clause. The total advance payment, the number and timing of instalments (if more than one), and the applicable currencies and proportions, shall be as stated in the **Special Conditions of Contract**.

14.22 Unless and until the Procuring Entity receives this guarantee, or if the total advance payment is not stated in the Special Conditions of Contract, this Sub-Clause shall not apply.

14.23 The Architect shall deliver to the Procuring Entity and to the Contractor an Interim Payment Certificate for the advance payment or its first instalment after receiving a Statement (under Sub-Clause 14.3 [Application for Interim Payment Certificates]) and after the Procuring Entity receives (i) the Performance Security in accordance with Sub-Clause 4.2 [Performance Security] and (ii) a guarantee in amounts and currencies equal to the advance payment. This guarantee shall be issued by a reputable bank or financial institutions elected by the Contractor and shall be in the form annexed to the Special Conditions or in another form approved by the Procuring Entity.

14.24 The Contractor shall ensure that the guarantee is valid and enforceable until the advance payment has been repaid, but its amount shall be progressively reduced by the amount repaid by the Contractor as indicated in the Payment Certificates. If the terms of the guarantee specify its expiry date, and the advance payment has not been repaid by the date 30 days prior to the expiry date, the Contractor shall extend the validity of the guarantee until the advance payment has been repaid.

14.25 Unless stated otherwise in **the Special Conditions of Contract**, the advance payment shall be repaid through percentage deductions from the interim payments determined by the Architect in accordance with Sub-Clause 14.6 [Issue of Interim Payment Certificates], as follows:

- a) Deductions shall commence in the next interim Payment Certificate following that in which the total of all certified interim payments (excluding the advance payment and deductions and repayments of retention) exceeds 30 percent (30%) of the Accepted Contract Amount less Provisional Sums; and
- b) deductions shall be made at the amortization rate stated in the **Special Conditions of Contract** of the amount of each Interim Payment Certificate (excluding the advance payment and deductions for its repayments as well as deductions for retention money) in the currencies and proportions of the advance payment until such time as the advance payment has been repaid; provided that the advance payment shall be completely repaid prior to the time when 90 percent (90%) of the Accepted Contract Amount less Provisional Sums has been certified for payment.

14.2.6 If the advance payment has not been repaid prior to the issue of the Taking-Over Certificate for the Works or prior to termination under Clause 15 [Termination by Procuring Entity], Clause 16 [Suspension and Termination by Contractor] or Clause 19 [Force Majeure] (as the case may be), the whole of the balance then outstanding shall immediately become due and in case of termination under Clause 15 [Termination by Procuring Entity], except for Sub-Clause 14.2.7 [Procuring Entity's Entitlement to Termination for Convenience], payable by the Contractor to the Procuring Entity.

### 14.3 Application for Interim Payment Certificates

14.3.1 The Contractor shall submit a Statement (in number of copies indicated in the **Special Conditions of Contract**) to the Architect after the end of each month, in a form approved by the Engineer, showing in detail the amounts to which the Contractor considers itself to be entitled, together with supporting documents which shall include there portion the progress during this month in accordance with Sub-Clause 4.21 [Progress Reports].

14.3.2 The Statement shall include the following items, as applicable, which shall be expressed in the various currencies in which the Contract Price is payable, in the sequence listed:

- a) the estimated contract value of the Works executed and the Contractor's Documents produced up to the end of the month (including Variations but excluding items described in sub-paragraphs (b) to (g) below);
- b) any amounts to be added and deducted for changes in legislation and changes in cost, in accordance with Sub-Clause 13.7 [Adjustments for Changes in Legislation] and Sub-Clause 13.8 [Adjustments for Changes in Cost];
- c) any amount to be deducted for retention, calculated by applying the percentage of retention stated in **the Special Conditions of Contract** to the total of the above amounts, until the amount so retained by the Procuring Entity reaches the limit of Retention Money (if any) stated in **the Special Conditions of Contract**;
- d) any amounts to be added for the advance payment and (if more than one instalment) and to be deducted for its repayments in accordance with Sub-Clause 14.2 [Advance Payment];
- e) any amounts to be added and deducted for Plant and Materials in accordance with Sub-Clause 14.5 [Plant and Materials intended for the Works];
- f) any other additions or deductions which may have become due under the Contractor otherwise, including those under Clause 20 [Claims, Disputes and Arbitration]; and
- g) the deduction of amounts certified in all previous Payment Certificates.

### 14.4 Schedule of Payments

14.4.1 If the Contract includes a schedule of payments specifying the instalments in which the Contract Price will be paid, then unless otherwise stated in this schedule:

- a) The instalments quoted in this schedule of payments shall be the estimated contract values for the purposes of sub-paragraph (a) of Sub-Clause 14.3 [Application for Interim Payment Certificates];
- b) Sub-Clause 14.5 [Plant and Materials intended for the Works] shall not apply; and
- c) If these instalments are not defined by reference to the actual progress achieved in executing the Works, and if actual progress is found to be less or more than that on which this schedule of payments was based, then the Architect may proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine revised instalments, which shall take account of the extent to which progress is less or more than that on which the instalments were previously based.

14.4.2 If the Contract does not include a schedule of payments, the Contractor shall submit non-binding estimates of the payments which he expects to become due during each quarterly period. The first estimate shall be submitted within 42 days after the Commencement Date. Revised estimates shall be submitted at quarterly intervals, until the Taking-Over Certificate has been issued for the Works.

## **14.5 Plant and Materials intended for the Works**

- 14.5.1 If this Sub-Clause applies, Interim Payment Certificates shall include, under sub-paragraph (e) of Sub-Clause 14.3, (i) an amount for Plant and Materials which have been sent to the Site for incorporation in the Permanent Works, and (ii) a reduction when the contract value of such Plant and Materials is included as part of the Permanent Works under sub-paragraph (a) of Sub-Clause 14.3 [Application for Interim Payment Certificates].
- 14.5.2 If the lists referred to in sub-paragraphs (b)(i) or (c)(i) below are not included in the Schedules, this Sub-Clause shall not apply.
- 14.5.3 The Architect shall determine and certify each addition if the following conditions are satisfied:
- a) The Contractor has:
    - i) kept satisfactory records (including the orders, receipts, Costs and use of Plant and Materials) which are available for inspection, and
    - ii) submitted statement of the Cost of acquiring and delivering the Plant and Materials to the Site, supported by satisfactory evidence;and either:
  - b) the relevant Plant and Materials:
    - i) are those listed in the Schedules for payment when shipped,
    - ii) have been shipped to Kenya, enroute to the Site, in accordance with the Contract; and
    - iii) are described in a clean shipped bill of lading or other evidence of shipment, which has been submitted to the Architect together with evidence of payment of freight and insurance, any other documents reasonably required, and a bank guarantee in a form and issued by an entity approved by the Procuring Entity in amounts and currencies equal to the amount due under this Sub-Clause: this guarantee may be in a similar form to the form referred to in Sub-Clause 14.2 [Advance Payment] and shall be valid until the Plant and Materials are properly stored on Site and protected against loss, damage or deterioration; or
  - c) the relevant Plant and Materials:
    - i) are those listed in the Schedules for payment when delivered to the Site, and
    - ii) have been delivered to and are properly stored on the Site, are protected against loss, damage or deterioration and appear to be in accordance with the Contract.
- 14.5.4 The additional amount to be certified shall be the equivalent of eighty percent (80%) of the Architect determination of the cost of the Plant and Materials (including delivery to Site), taking account of the documents mentioned in this Sub-Clause and of the contract value of the Plant and Materials.
- 14.5.5 The currencies for this additional amount shall be the same as those in which payment will become due when the contract value is included under sub-paragraph (a) of Sub-Clause 14.3 [Application for Interim Payment Certificates]. At that time, the Payment Certificate shall include the applicable reduction which shall be equivalent to, and in the same currencies and proportions as, this additional amount for the relevant Plant and Materials.

## **14.6 Issue of Interim Payment Certificates**

- 14.6.1 No amount will be certified or paid until the Procuring Entity has received and approved the Performance Security. Thereafter, the Architect shall, within 30 days after receiving a Statement and supporting documents, deliver to the Procuring Entity and to the Contractor an Interim Payment Certificate which shall state the amount which the Architect fairly determines to be due, with all supporting particulars for any reduction or withholding made by the Architect on the Statement if any.

14.6.2 However, prior to issuing the Taking-Over Certificate for the Works, the Architect shall not be bound to issue an Interim Payment Certificate in an amount which would (after retention and other deductions) be less than the minimum amount of Interim Payment Certificates (if any) stated **in the Special Conditions of Contract**. In this event, the Architect shall give notice to the Contractor accordingly.

14.6.3 An Interim Payment Certificate shall not be withheld for any other reason, although:

- a) if anything supplied or work done by the Contractor is not in accordance with the Contract, the cost of rectification or replacement may be withheld until rectification or replacement has been completed; and/or
- b) if the Contractor was or is failing to perform any work or obligation in accordance with the Contract, and had been so notified by the Engineer, the value of this work or obligation may be withheld until the work or obligation has been performed.

4.6.4 The Architect may in any Payment Certificate make any correction or modification that should properly be made to any previous Payment Certificate. A Payment Certificate shall not be deemed to indicate the Architect acceptance, approval, consent or satisfaction.

## **14.7 Payment**

14.7.1 The Procuring Entity shall pay to the Contractor:

- a) The advance payment shall be paid within 60 days after signing of the contract by both parties or within 60 days after receiving the documents in accordance with Sub-Clause 4.2 [Performance Security] and Sub- Clause 14.2 [Advance Payment], which ever is later;
- b) The amount certified in each Interim Payment Certificate within 60 days after the Architect Issues Interim Payment Certificate; and
- c) the amount certified in the Final Payment Certificate within 60 days after the Procuring Entity Issues Interim Payment Certificate; or after determination of any disputed amount shown in the Final Statement in accordance with Sub-Clause 16.2 [Termination by Contractor].

14.7.2 Payment of the amount due in each currency shall be made into the bank account, nominated by the Contractor, in the payment country (forth is currency) specified in the Contract.

## **14.8 Delayed Payment**

14.8.1 If the Contractor does not receive payment in accordance with Sub-Clause 14.7 [Payment], the Contractor shall be entitled to receive financing charges (simple interest) monthly on the amount unpaid during the period of delay. This period shall be deemed to commence on the date for payment specified in Sub-Clause 14.7 [Payment], irrespective (in the case of its sub-paragraph (b) of the date on which any Interim Payment Certificate is issued.

14.8.2 These financing charges shall be calculated at the annual rate of three percentage points above the mean rate of the Central Bank in Kenya of the currency of payment, or if not available, the inter bank offered rate, and shall be paid in such currency.

14.8.3 The Contractor shall be entitled to this payment without formal notice and certification, and without prejudice to any other right or remedy.

## **14.9 Payment of Retention Money**

14.9.1 When the Taking-Over Certificate has been issued for the Works, the first half of the Retention Money shall be certified by the Architect for payment to the Contractor. If a Taking-Over Certificate is issued for a Section or part of the Works, a proportion of the Retention Money shall be certified and paid. This proportion shall be half (50%) of the proportion calculated by dividing the estimated contract value of the Section or part, by the estimated final Contract Price.

- 14.9.2 Promptly after the latest of the expiry dates of the Defects Liability Periods, the outstanding balance of the Retention Money shall be certified by the Architect for payment to the Contractor. If a Taking-Over Certificate was issued for a Section, a proportion of the second half of the Retention Money shall be certified and paid promptly after the expiry date of the Defects Notification Period for the Section. This proportion shall be half (50%) of the proportion calculated by dividing the estimated contract value of the Section by the estimated final Contract Price.
- 14.9.3 However, if any work remains to be executed under Clause 11 [Defects Liability], the Architects shall be entitled to withhold certification of the estimated cost of this work until it has been executed.
- 14.9.4 When calculating these proportions, no account shall be taken of any adjustments under Sub-Clause 13.7 [Adjustments for Changes in Legislation] and Sub-Clause 13.8 [Adjustments for Changes in Cost].
- 14.9.5 Unless otherwise stated in the Special Conditions, when the Taking-Over Certificate has been issued for the Works and the first half of the Retention Money has been certified for payment by the Engineer, the Contractor shall be entitled to substitute a Retention Money Security guarantee, in the form annexed to the Special Conditions or in another form approved by the Procuring Entity and issued by a reputable bank or financial institution selected by the Contractor, for the second half of the Retention Money.
- 14.9.6 The Procuring Entity shall return the Retention Money Security guarantee to the Contractor within 14 days after receiving a copy of the Completion Certificate.

#### **14.10 Statement at Completion**

- 14.10.1 Within 84 days after receiving the Taking-Over Certificate for the Works, the Contractor shall submit to the Architect three copies of a Statement at completion with supporting documents, in accordance with Sub-Clause 14.3 [Application for Interim Payment Certificates], showing:
- a) the value of all work done in accordance with the Contract up to the date stated in the Taking-Over Certificate for the Works,
  - b) any further sums which the Contractor considers to be due, and
  - c) an estimate of any other amounts which the Contractor considers will become due to him under the Contract. Estimated amounts shall be shown separately in this Statement at completion.
- 14.10.2 The Architect shall then certify in accordance with Sub-Clause 14.6 [Issue of Interim Payment Certificates].

#### **14.11 Application for Final Payment Certificate**

- 14.11.1 Within 60 days after receiving the Completion Certificate, the Contractor shall submit, to the Engineer, six copies of a draft final statement with supporting documents showing in detail in a form approved by the Engineer:
- a) The value of all work done in accordance with the Contract, and
  - b) Any further sums which the Contractor considers to be due to him under the Contract otherwise.
- 14.11.2 If the Architect disagrees with or cannot verify any part of the draft final statement, the Contractor shall submit such further information as the Architect may reasonably require within 30 days from receipt of said draft and shall make such changes in the draft as may be agreed between them. The Contractor shall then prepare and submit to the Architect the final statement as agreed. This agreed statement is referred to in these Conditions as the "Final Statement".
- 14.11.3 However, if, following discussions between the Architect and the Contractor and any changes to

the draft final statement which are agreed, it becomes evident that a dispute exists, the Architect shall deliver to the Procuring Entity (with a copy to the Contractor) an Interim Payment Certificate for the agreed parts of the draft final statement. Thereafter, if the dispute is finally resolved under Sub-Clause 20.4 [Obtaining Dispute Board's Decision] or Sub-Clause 20.5 [Amicable Settlement], the Contractor shall then prepare and submit to the Procuring Entity (with a copy to the Engineer) a Final Statement.

#### **14.12 Discharge**

When submitting the Final Statement, the Contractor shall submit a discharge which confirms that the total of the Final Statement represents full and final settlement of all moneys due to the Contractor under or in connection with the Contract. This discharge may state that it becomes effective when the Contractor has received the Performance Security and the outstanding balance of this total, in which event the discharge shall be effective on such date.

#### **14.13 Issue of Final Payment Certificate**

14.13.1 Within 30 days after receiving the Final Statement and discharge in accordance with Sub-Clause 14.11 [Application for Final Payment Certificate] and Sub-Clause 14.12 [Discharge], the Architect shall deliver, to the Procuring Entity and to the Contractor, the Final Payment Certificate which shall state:

- a) The amount which he fairly determines is finally due, and
- b) After giving credit to the Procuring Entity for all amounts previously paid by the Procuring Entity and for all sums to which the Procuring Entity is entitled, the balance (if any) due from the Procuring Entity to the Contractor or from the Contractor to the Procuring Entity, as the case may be.

14.13.2 If the Contractor has not applied for a Final Payment Certificate in accordance with Sub-Clause 14.11 [Application for Final Payment Certificate] and Sub-Clause 14.12 [Discharge], the Architect shall request the Contractor to do so. If the Contractor fails to submit an application within a period of 30 days, the Architect shall issue the Final Payment Certificate for such amount as he fairly determines to be due.

#### **14.14 Cessation of Procuring Entity's Liability**

14.14.1 The Procuring Entity shall not be liable to the Contractor for any matter or thing under or in connection with the Contract or execution of the Works, except to the extent that the Contractor shall have included an amount expressly for it:

- a) in the Final Statement and also,
- b) (except for matters or things arising after the issue of the Taking-Over Certificate for the Works) in the Statement at completion described in Sub-Clause 14.10 [Statement at Completion].

14.14.2 However, this Sub-Clause shall not limit the Procuring Entity's liability under his indemnification obligations, or the Procuring Entity's liability in any case of fraud, deliberate default or reckless misconduct by the Procuring Entity.

#### **14.15 Currencies of Payment**

The Contract Price shall be paid in the currency or currencies named in the Schedule of Payment Currencies. If more than one currency is so named, payments shall be made as follows:

- a) If the Accepted Contract Amount was expressed in Local Currency only:
  - i) the proportions or amounts of the Local and Foreign Currencies, and the fixed rates of exchange to be used for calculating the payments, shall be as stated in the Schedule of

- Payment Currencies, except as otherwise agreed by both Parties;
- ii) payments and deductions under Sub-Clause 13.5 [Provisional Sums] and Sub-Clause 13.7 [Adjustments for Changes in Legislation] shall be made in the applicable currencies and proportions; and
- iii) other payments and deductions under sub-paragraphs (a) to (d) of Sub-Clause 14.3 [Application for Interim Payment Certificates] shall be made in the currencies and proportions specified in sub-paragraph (a) (i) above;
- b) payment of the damages specified in the Special Conditions of Contract, shall be made in the currencies and proportions specified in the Schedule of Payment Currencies;
- c) other payments to the Procuring Entity by the Contractor shall be made in the currency in which the sum was expended by the Procuring Entity, or in such currency as may be agreed by both Parties;
- d) if any amount payable by the Contractor to the Procuring Entity in a particular currency exceeds the sum payable by the Procuring Entity to the Contractor in that currency, the Procuring Entity may recover the balance of this amount from the sums otherwise payable to the Contractor in other currencies; and
- e) if no rates of exchange are stated in the Schedule of Payment Currencies, they shall be those prevailing on the Base Date and determined by the Central Bank of Kenya.

## **15. TERMINATION BY PROCURING ENTITY**

### **15.1 Notice to correct any defects or failures**

If the Contractor fails to carry out any obligation under the Contract, the Architect may by notice require the Contractor to make good the failure and to remedy it within 30 days.

### **15.2 Termination by Procuring Entity**

- 15.2.1 The Procuring Entity shall be entitled to terminate the Contract if the Contractor breaches the contract based on following circumstances which shall include but not limited to:
- a) fails to comply with Sub-Clause 4.2 [Performance Security] or with a notice under Sub-Clause 15.1 [Notice to Correct],
  - b) abandons the Works or otherwise plainly demonstrates the intention not to continue performance of his obligations under the Contract,
  - c) without reasonable excuse fails:
    - i) to proceed with the Works in accordance with Clause 8 [Commencement, Delays and Suspension], or
    - ii) to comply with a notice issued under Sub-Clause 7.5 [Rejection] or Sub-Clause 7.6 [Remedial Work], within 30 days after receiving it,
  - d) subcontracts the major part or whole of the Works or assigns the Contract without the consent of the Procuring Entity,
  - e) becomes bankrupt or insolvent, goes into liquidation, has a receiving or administration order made against him, compounds with his creditors, or carries on business under a receiver, trustee or manager for the benefit of his creditors, or if any act is done or event occurs which (under applicable Laws) has a similar effect to any of these acts or events, or
  - f) gives or offers to give (directly or indirectly) to any person any bribe, gift, gratuity, commission or other thing of value, as an induce mentor reward:
    - i) for doing or for bearing to do any action in relation to the Contract, or
    - ii) for showing or for bearing to show favor or disfavor to any person in relation to the Contract, or
    - iii) if any of the Contractor's Personnel, agents or Subcontractors gives or offers to give (directly or indirectly) to any person any such induce mentor reward as is described in this sub-paragraph (f). However, lawful inducements and rewards to Contractor's Personnel shall not entitle termination, or

- g) If the contract or repeatedly fails to remedy delivers defective work,
- h) based on reasonable evidence, has engaged in Fraud and Corruption as defined in paragraph 2.2 of the Appendix B to these General Conditions, incompetently for or in executing the Contract.

15.22 In any of these events or circumstances, the Procuring Entity may, upon giving 14 days' notice to the Contractor, terminate the Contract and expel the Contractor from the Site. However, in the case of sub-paragraph (e) or (f) or (g) or (h), the Procuring Entity may by notice terminate the Contract immediately.

15.23 The Procuring Entity's election to terminate the Contract shall not prejudice any other rights of the Procuring Entity, under the Contract otherwise.

15.24 The Contractor shall then leave the Site and deliver any required Goods, all Contractor's Documents, and other design documents made by or for him, to the Engineer. However, the Contractor shall use his best efforts to comply immediately with any reasonable instructions included in the notice (i) for the assignment of any subcontract, and (ii) for the protection of life or property or for the safety of the Works.

15.25 After termination, the Procuring Entity may complete the Works and/ or arrange for any other entities to do so. The Procuring Entity and these entities may then use any Goods, Contractor's Documents and other design documents made by or on behalf of the Contractor.

15.26 The Procuring Entity shall then give notice that the Contractor's Equipment and Temporary Works will be released to the Contractor at or near the Site. The Contractor shall promptly arrange their removal, at the risk and cost of the Contractor. However, if by this time the Contractor has failed to make a payment due to the Procuring Entity, these items may be sold by the Procuring Entity in order to recover this payment. Any balance of the proceeds shall then be paid to the Contractor.

### **15.3 Valuation at Date of Termination**

As soon as practicable after a notice of termination under Sub-Clause 15.2 [Termination by Procuring Entity] has taken effect, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine the value of the Works, Goods and Contractor's Documents, and any other sums due to the Contractor for work executed in accordance with the Contract.

### **15.4 Payment after Termination**

After a notice of termination under Sub-Clause 15.2 [Termination by Procuring Entity] has taken effect, the Procuring Entity may:

- a) Proceed in accordance with Sub-Clause 2.5 [Procuring Entity's Claims],
- b) withhold further payments to the Contractor until the costs of execution, completion and remedying of any defects, damages for delay in completion (if any), and all other costs incurred by the Procuring Entity, have been established, and/ or
- c) recover from the Contractor any losses and damages incurred by the Procuring Entity and any extra costs of completing the Works, after allowing for any sum due to the Contractor under Sub-Clause 15.3 [Valuation at Date of Termination]. After recovering any such losses, damages and extra costs, the Procuring Entity shall pay any balance to the Contractor.

### **15.5 Procuring Entity's Entitlement to Termination for Convenience**

The Procuring Entity shall be entitled to terminate the Contract, at any time at the Procuring Entity's convenience, by giving notice of such termination to the Contractor. The termination shall take effect 30 days after the later of the dates on which the Contractor receives this notice or the Procuring Entity returns the Performance Security. The Procuring Entity shall not terminate the

Contract under this Sub-Clause in order to execute the Works itself or to arrange for the Works to be executed by another contractor or to avoid a termination of the Contract by the Contractor under Clause 16.2 [Termination by Contractor]. After this termination, the Contractor shall proceed in accordance with Sub-Clause 16.3 [Cessation of Work and Removal of Contractor's Equipment] and shall be paid in accordance with Sub-Clause 16.4 [Payment on Termination].

## **15.6 Fraud and Corruption**

The Contractor shall ensure compliance with the Kenya Government's Anti-Corruption Laws and its prevailing sanctions.

## **15.7 Corrupt gifts and payments of commission**

15.7.1 The Contractor shall not;

- a) Offer or give or agree to give to any person in the service of the Procuring Entity any gift or consideration of any kind as an inducement or reward for doing or for bearing to do or for having done or for borne to do any act in relation to the obtaining or execution of this or any other Contract for the Procuring Entity or for showing or for bearing to show favor or disfavor to any person in relation to this or any other contract for the Procuring Entity.
- b) Enter into this or any other contract with the Procuring Entity in connection with which commission has been paid or agreed to be paid by him or on his behalf or to his knowledge, unless before the Contract is made particulars of any such commission and of the terms and conditions of any agreement for the payment thereof have been disclosed in writing to the Procuring Entity.

15.7.2 Any breach of this Condition by the Contractor or by anyone employed by him or acting on his behalf (whether with or without the knowledge of the Contractor) shall be an offence under the provisions of the Public Procurement and Asset Disposal Act (2015) and the Anti-Corruption and Economic Crimes Act (2003) of the Laws of Kenya.

## **16 SUSPENSION AND TERMINATION BY CONTRACTOR**

### **16.1 Contractor's Entitlement to Suspend Work**

16.1.1 If the Architect fails to certify in accordance with Sub-Clause 14.6 [Issue of Interim Payment Certificates] or Sub-Clause 14.7 [Payment], or not receiving instructions that would enable the contractor to proceed with the works in accordance with the program, the Contractor may, after giving not less than 30 days' notice to the Procuring Entity, suspend work (or reduce the rate of work) unless and until the Contractor has received the Payment Certificate, reasonable evidence or payment, as the case may be and as described in the notice.

16.1.2 The Contractor's action shall not prejudice his entitlements to financing charges under Sub-Clause 14.8 [Delayed Payment] and to termination under Sub-Clause 16.2 [Termination by Contractor].

16.1.3 If the Contractor subsequently receives such Payment Certificate, evidence or payment (as described in the relevant Sub-Clause and in the above notice) before giving a notice of termination, the Contractor shall resume normal working as soon as is reasonably practicable.

16.1.4 If the Contractor suffers delay and/or incurs Cost as a result of suspending work (or reducing the rate of work) in accordance with this Sub-Clause, the Contractor shall give notice to the Architect and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:

- a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and

b) payment of any such Cost-plus profit, which shall be included in the Contract Price.

**16.2** After receiving this notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.

### **16.3 Termination by Contractor**

16.3.1 The Contractor shall be entitled to terminate the Contract if:

- a) the Architect fails, within 60 days after receiving a Statement and supporting documents, to issue the relevant Payment Certificate,
- b) the Contractor does not receive the amount due under an Interim Payment Certificate within 90 days after the expiry of the time stated in Sub-Clause 4.7 [Payment] within which payment is to be made (except for deductions in accordance with Sub-Clause 2.5 [Procuring Entity's Claims]),
- c) the Procuring Entity substantially fails to perform his obligations under the Contract in such manner as to materially and adversely affect the economic balance of the Contract and/or the ability of the Contractor to perform the Contract,
- d) a prolonged suspension affects the whole of the Works as described in Sub-Clause 8.11 [Prolonged Suspension], or
- e) the Procuring Entity becomes bankrupt or insolvent, goes into liquidation, has a receiving or administration order made against him, compounds with his creditors, or carries on business under a receiver, trustee or manager for the benefit of his creditors, or if any act is done or event occurs which (under applicable Laws) has a similar effect to any of these acts or events.
- f) the Contractor does not receive the Architect instruction recording the agreement of both Parties on the fulfilment of the conditions for the Commencement of Works under Sub-Clause 8.1 [Commencement of Works].

16.3.2 In any of these events or circumstances, the Contractor may, upon giving 14 days' notice to the Procuring Entity, terminate the Contract. However, in the case of sub-paragraph (f) or (g), the Contractor may by notice terminate the Contract immediately.

16.3.3 The Contractor's election to terminate the Contract shall not prejudice any other rights of the Contractor, under the Contract otherwise.

### **16.4 Cessation of Work and Removal of Contractor's Equipment**

After a notice of termination under Sub-Clause 15.5 [Procuring Entity's Entitlement to Termination for Convenience], Sub-Clause 16.2 [Termination by Contractor] or Sub-Clause 19.6 [Optional Termination, Payment and Release] has taken effect, the Contractor shall promptly:

- a) cease all further work, except for such work as may have been instructed by the Architect for the protection of life or property or for the safety of the Works,
- b) hand over Contractor's Documents, Plant, Materials and other work, for which the Contractor has received payment, and
- c) remove all other Goods from the Site, except as necessary for safety, and leave the Site.

### **16.5 Payment on Termination**

After a notice of termination under Sub-Clause 16.2 [Termination by Contractor] has taken effect, the Procuring Entity shall promptly:

- a) Return the Performance Security to the Contractor,
- b) pay the Contractor in accordance with Sub-Clause 19.6 [Optional Termination, Payment and Release], and
- c) pay to the Contractor the amount of any loss or damage sustained by the Contractor as a result of this termination.

## **17. RISK AND RESPONSIBILITY**

### **17.1 Indemnities**

17.1.1 The Contractor shall indemnify and hold harmless the Procuring Entity, the Procuring Entity's Personnel, and their respective agents, against and from all claims, damages, losses and expenses (including legal fees and expenses) in respect of:

- a) Bodily injury, sickness, disease or death, of any person whatsoever arising out of or in the course of or by reason of the Contractor's design (if any), the execution and completion of the Works and the remedying of any defects, unless attributable to any negligence, willful act or breach of the Contract by the Procuring Entity, the Procuring Entity's Personnel, or any of their respective agents, and
- b) damage to or loss of any property, real or personal (other than the Works), to the extent that such damage or loss arises out of or in the course of or by reason of the Contractor's design (if any), the execution and completion of the Works and the remedying of any defects, unless and to the extent that any such damage or loss is attributable to any negligence, willful act or breach of the Contract by the Procuring Entity, the Procuring Entity's Personnel, their respective agents, or anyone directly or indirectly employed by any of them.

17.1.2 The Procuring Entity shall indemnify and hold harmless the Contractor, the Contractor's Personnel, and their respective agents, against and from all claims, damages, losses and expenses (including legal fees and expenses) in respect of (1) bodily injury, sickness, disease or death, which is attributable to any negligence, willful act or breach of the Contract by the Procuring Entity, the Procuring Entity's Personnel, or any of their respective agents, and (2) the matters for which liability may be excluded from insurance cover, as described in sub-paragraphs (d)(i), (ii) and (iii) of Sub-Clause 18.3 [Insurance Against Injury to Persons and Damage to Property], unless and to the extent that any such damage or loss is attributable to any negligence, willful act or breach of the Contract by the contractor, the contractor's Personnel, their respective agents, or anyone directly or indirectly employed by any of them.

### **17.2 Contractor's Care of the Works**

17.2.1 The Contractor shall take full responsibility for the care of the Works and Goods from the Commencement Date until the Taking-Over Certificate is issued (or is deemed to be issued under Sub-Clause 10.1 [Taking Over of the Works and Sections]) for the Works, when responsibility for the care of the Works shall pass to the Procuring Entity. If a Taking-Over Certificate is issued (or is so deemed to be issued) for any Section or part of the Works, responsibility for the care of the Section or part shall then pass to the Procuring Entity.

17.2.2 After responsibility has accordingly passed to the Procuring Entity, the Contractor shall take responsibility for the care of any work which is outstanding on the date stated in a Taking-Over Certificate, until this outstanding work has been completed.

17.2.3 If any loss or damage happens to the Works, Goods or Contractor's Documents during the period when the Contractor is responsible for their care, from any cause not listed in Sub-Clause 17.3 [Procuring Entity's Risks], the Contractor shall rectify the loss or damage at the Contractor's risk and cost, so that the Works, Goods and Contractor's Documents conform with the Contract.

17.2.4 The Contractor shall be liable for any loss or damage caused by any actions performed by the Contractor after a Taking-Over Certificate has been issued. The Contractor shall also be liable for any loss or damage which occurs after a Taking-Over Certificate has been issued and which arose from a previous event for which the Contractor was liable.

### **17.3 Procuring Entity's Risks**

The risks referred to in Sub-Clause 17.4 [Consequences of Procuring Entity's Risks] below, in so far as they directly affect the execution of the Works in Kenya, are:

- a) War hostilities (whether war be declared or not),
- b) rebellion, riot, commotion or disorder, terrorism, sabotage by persons other than the Contractor's Personnel,
- c) explosive materials, ionizing gradiation or contamination by radio-activity, except as may be attributable to the Contractor's use of such explosives, radiation or radio-activity,
- d) pressure waves caused by aircraft or other aerial devices traveling at sonic or supersonic speeds,
- e) use or occupation by the Procuring Entity of any part of the Permanent Works, except as may be specified in the Contract,
- f) design of any part of the Works by the Procuring Entity's Personnel or by others for whom the Procuring Entity is responsible, and
- g) any operation of the forces of nature which is Unforeseeable or against which an experienced contractor could not reasonably have been expected to have taken adequate preventive precautions.

#### **17.4 Consequences of Procuring Entity's Risks**

17.4.1 If and to the extent that any of the risks listed in Sub-Clause 17.3 above results in loss or damage to the Works, Goods or Contractor's Documents, the Contractor shall promptly give notice to the Architect and shall rectify this loss or damage to the extent required by the Engineer.

17.4.2 If the Contractor suffers delay and/ or incurs Cost from rectifying this loss or damage, the Contractor shall give a further notice to the Architect and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:

- (a) An extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of TimeforCompletion], and
- (b) paymentofany such Cost, which shall be included in the Contract Price. In the case of sub-paragraphs (e)and (g) of Sub-Clause 17.3 [Procuring Entity's Risks], Accrued Costs shall be payable.

17.4.3 After receiving this further notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.

#### **17.5 Intellectual and Industrial Property Rights**

17.5.1 In this Sub-Clause, "infringement" shall refer to an infringement (or alleged infringement) of any patent, registered design, copyright, trade mark, trade name, trade secret or other intellectual or industrial property right relating to the Works; and "claim" shall refer to a claim (or proceedings pursuing a claim) alleging an infringement.

17.5.2 Whenever a Party does not give notice to the other Party of any claim within 30 days of receiving the claim, the first Party shall be deemed to have waived any right to indemnity under this Sub-Clause.

17.5.3 The Procuring Entity shall indemnify and hold the Contractor harmless against and from any claim alleging an infringement which is or was:

- a) An un avoidable result of the Contractor's compliance with the Contract, or
- b) A result of any Works be ingused by the Procuring Entity:
  - i) for a purpose other than that indicated by, or reasonably to be inferred from, the Contract, or
  - ii) in conjunction with anything not supplied by the Contractor, unless such use was disclosed to the Contractor prior to the Base Date or is stated in the Contract.

17.5.4 The Contractor shall indemnify and hold the Procuring Entity harmless again stand from any other claim which arises out of or in relation to (i) the manufacture, use, sale or import of any Goods, or

(ii) any design for which the Contractor is responsible.

1755 If a Party is entitled to be indemnified under this Sub-Clause, the indemnifying Party may (at its cost) conduct negotiations for the settlement of the claim, and any litigation or arbitration which may arise from it. The other Party shall, at the request and cost of the indemnifying Party, assist in contesting the claim. This other Party (and its Personnel) shall not make any admission which might be prejudicial to the indemnifying Party, unless the indemnifying Party failed to take over the conduct of any negotiations, litigation or arbitration upon being requested to do so by such other Party.

1756 For operation and maintenance of any plant or equipment installed, the contractor shall grant a non-exclusive and non-transferable license to the Procuring Entity under the patent, utility models, or other intellectual rights owned by the contractor or a third party from whom the contract or has received the rights to grant sub-licenses and shall also grant to the Procuring Entity a non-exclusive and non-transferable rights (without the rights to sub-license) to use the know how and other technical information disclosed to the contract or under the contract. Nothing contained here-in shall be construed as transferring ownership of any patent, utility model, trademark, design, copy right, know-how or other intellectual rights from the contractor or any other third party to the Procuring Entity.

## **17.6 Limitation of Liability**

1761 Neither Party shall be liable to the other Party for loss of use of any works, loss of profit, loss of any contractor for any indirect consequential loss or damage which may be suffered by the other Party in connection with the Contract, other than as specifically provided in Sub-Clause 8.7 [Delay Damages]; Sub-Clause 11.2 [Cost of Remedying Defects]; Sub-Clause 15.4 [Payment after Termination]; Sub-Clause 16.4 [Payment on Termination]; Sub-Clause 17.1 [Indemnities]; Sub-Clause 17.4(b) [Consequences of Procuring Entity's Risks] and Sub-Clause 17.5 [Intellectual and Industrial Property Rights].

1762 The total liability of the Contractor to the Procuring Entity, under or in connection with the Contract other than under Sub-Clause 4.19 [Electricity, Water and Gas], Sub-Clause 4.20 [Procuring Entity's Equipment and Free-Issue Materials], Sub-Clause 17.1 [Indemnities] and Sub-Clause 17.5 [Intellectual and Industrial Property Rights], shall not exceed the sum resulting from the application of a multiplier (less or greater than one) to the Accepted Contract Amount, as stated in **the Special Conditions of Contract**, or (if such multiplier or other sum is not so stated) the Accepted Contract Amount.

1763 This Sub-Clause shall not limit liability in any case of fraud, deliberate default or reckless misconduct by the defaulting Party.

## **17.7 Use of Procuring Entity's Accommodation/Facilities**

1771 The Contractor shall take full responsibility for the care of the Procuring Entity provided accommodation and facilities, if any, as detailed in the Specification, from the respective dates of hand-over to the Contractor until cessation of occupation (where hand-over or cessation of occupation may take place after the date stated in the Taking-Over Certificate for the Works).

1772 If any loss or damage happens to any of the above items while the Contractor is responsible for their care arising from any cause whatsoever other than those for which the Procuring Entity is liable, the Contractor shall, at his own cost, rectify the loss or damage to the satisfaction of the Engineer.

## **18 INSURANCE**

### **18.1 General Requirements for Insurances**

- 18.1.1 In this Clause, “insuring Party” means, for each type of insurance, the Party responsible for effecting and maintaining the insurance specified in the relevant Sub-Clause.
- 18.1.2 Wherever the Contractor is the insuring Party, each insurance shall be effected with insurers and in terms approved by the Procuring Entity. These terms shall be consistent with any terms agreed by both Parties before the date of the Letter of Acceptance. This agreement of terms shall take precedence over the provisions of this Clause.
- 18.1.3 Wherever the Procuring Entity is the insuring Party, each insurance shall be effected with insurers and in terms acceptable to the Contractor. These terms shall be consistent with any terms agreed by both Parties before the date of the Letter of Acceptance. This agreement of terms shall take precedence over the provisions of this Clause.
- 18.1.4 If a policy is required to indemnify joint insured, the cover shall apply separately to each insured as though a separate policy had been issued for each of the joint insured. If a policy indemnifies additional joint insured, namely in addition to the insured specified in this Clause, (i) the Contractor shall act under the policy on behalf of these additional joint insured except that the Procuring Entity shall act for Procuring Entity's Personnel, (ii) additional joint insured shall not be entitled to receive payments directly from the insurer or to have any other direct dealings with the insurer, and (iii) the insuring Party shall require all additional joint insured to comply with the conditions stipulated in the policy.
- 18.1.5 Each policy insuring against loss or damage shall provide for payments to be made in the currencies required to rectify the loss or damage. Payments received from insurers shall be used for the rectification of the loss or damage.
- 18.1.6 The relevant insuring Party shall, within the respective periods stated in **the Special Conditions of Contract** (calculated from the Commencement Date), submit to the other Party:
- a) Evidence that the insurances described in this Clause have been affected, and
  - b) copies of the policies for the insurances described in Sub-Clause 18.2 [Insurance for Works and Contractor's Equipment] and Sub-Clause 18.3 [Insurance against Injury to Persons and Damage to Property].
- 18.1.7 When each premium is paid, the insuring Party shall submit evidence of payment to the other Party. Whenever evidence or policies are submitted, the insuring Party shall also give notice to the Engineer.
- 18.1.8 Each Party shall comply with the conditions stipulated in each of the insurance policies. The insuring Party shall keep the insurers informed of any relevant changes to the execution of the Works and ensure that insurance is maintained in accordance with this Clause.
- 18.1.9 Neither Party shall make any material alteration to the terms of any insurance without the prior approval of the other Party. If an insurer makes (or attempts to make) any alteration, the Party first notified by the insurer shall promptly give notice to the other Party.
- 18.1.10 If the insuring Party fails to effect and keep in force any of the insurances it is required to effect and maintain under the Contractor fails to provide satisfactory evidence and copies of policies in accordance with this Sub-Clause, the other Party may (at its option and without prejudice to any other right or remedy) effect insurance for the relevant coverage and pay the premiums due. The insuring Party shall pay the amount of these premiums to the other Party, and the Contract Price shall be adjusted accordingly.
- 18.1.11 Nothing in this Clause limits the obligations, liabilities or responsibilities of the Contractor or the Procuring Entity, under the other terms of the Contract otherwise. Any amounts not insured or not recovered from the insurers shall be borne by the Contractor and/or the Procuring Entity.

- 18.1.12 Procuring Entity in accordance with these obligations, liabilities or responsibilities. However, if the insuring Party fails to effect and keep in force an insurance which is available and which it is required to effect and maintain under the Contract, and the other Party neither approves the omission nor effects insurance for the coverage relevant to this default, any moneys which should have been recoverable under this insurance shall be paid by the insuring Party.
- 18.1.13 Payments by one Party to the other Party shall be subject to Sub-Clause 2.5 [Procuring Entity's Claims] or Sub- Clause 20.1 [Contractor's Claims], as applicable.
- 18.1.14 The Contractor shall be entitled to place all insurance relating to the Contract (including, but not limited to the insurance referred to Clause 18) with insurers from any eligible source country.

## **18.2 Insurance for Works and Contractor's Equipment**

- 18.2.1 The insuring Party shall insure the Works, Plant, Material and Contractor's Documents for not less than the full reinstatement cost including the costs of demolition, removal of debris and professional fees and profit. This insurance shall be effective from the date by which the evidence is to be submitted under sub-paragraph (a) of Sub-Clause 18.1 [General Requirements for Insurances], until the date of issue of the Taking-Over Certificate for the Works.
- 18.2.2 The insuring Party shall maintain this insurance to provide cover until the date of issue of the Performance Certificate, for loss or damage for which the Contractor is liable arising from a cause occurring prior to the issue of the Taking-Over Certificate, and for loss or damage caused by the Contractor in the course of any other operations (including those under Clause 11 [Defects Liability]).
- 18.2.3 The insuring Party shall insure the Contractor's Equipment for not less than the full replacement value, including delivery to Site. For each item of Contractor's Equipment, the insurance shall be effective while it is being transported to the Site and until it is no longer required as Contractor's Equipment.
- 18.2.4 Unless otherwise stated in the Special Conditions, insurances under this Sub-Clause:
- a) Shall be effected and maintained by the Contractor as insuring Party,
  - b) shall be in the joint names of the Parties, who shall be jointly entitled to receive payments from the insurers, payments being held or allocated to the Party actually bearing the costs of rectifying the loss or damage,
  - c) shall cover all loss and damage from any cause not listed in Sub-Clause 17.3 [Procuring Entity's Risks],
  - d) shall also cover, to the extent specifically required in the tendering documents of the Contract, loss or damage to a part of the Works which is attributable to the use or occupation by the Procuring Entity of another part of the Works, and loss or damage from the risks listed in sub-paragraphs (c), (g) and (h) of Sub-Clause 17.3 [Procuring Entity's Risks], excluding (in each case) risks which are not insurable at commercially reasonable terms, with deductibles per occurrence of not more than the amount stated **in the Special Conditions** of Contract (if an amount is not so stated, this sub-paragraph (d) shall not apply), and
  - e) may however exclude loss of, damage to, and reinstatement of:
    - i) a part of the Works which is in a defective condition due to a defect in its design, materials or workmanship (but cover shall include any other parts which are lost or damaged as a direct result of this defective condition and not as described in sub-paragraph (ii) below),
    - ii) a part of the Works which is lost or damaged in order to reinstate any other part of the Works if this other part is in a defective condition due to a defect in its design, materials or workmanship,
    - iii) a part of the Works which has been taken over by the Procuring Entity, except to the

extent that the Contractor is liable for the loss or damage, and

- iv) Goods while they are not in Kenya, subject to Sub-Clause 14.5 [Plant and Materials intended for the Works].

1825 If, more than one year after the Base Date, the cover described in sub-paragraph (d) above ceases to be available at commercially reasonable terms, the Contractor shall (as insuring Party) give notice to the Procuring Entity, with supporting particulars. The Procuring Entity shall then (i) be entitled subject to Sub-Clause 2.5 [Procuring Entity's Claims] to payment of an amount equivalent to such commercially reasonable terms as the Contractor should have expected to have paid for such cover, and (ii) be deemed, unless he obtains the cover at commercially reasonable terms, to have approved the omission under Sub-Clause 18.1 [General Requirements for Insurances].

### **183 Insurance against Injury to Persons and Damage to Property**

183.1 The insuring Party shall insure against each Party's liability for any loss, damage, death or bodily injury which may occur to any physical property (except things insured under Sub-Clause 18.2 [Insurance for Works and Contractor's Equipment]) or to any person (except persons insured under Sub-Clause 18.4 [Insurance for Contractor's Personnel]), which may arise out of the Contractor's performance of the Contract and occurring before the issue of the Performance Certificate.

183.2 This insurance shall be for a limit per occurrence of not less than the amount stated in **the Special Conditions of Contract**, with no limit on the number of occurrences. If an amount is not stated in the **Special Conditions of Contract**, this Sub-Clause shall not apply.

183.3 Unless otherwise stated in the Special Conditions, the insurances specified in this Sub-Clause:

- a) Shall be effected and maintained by the Contractor as insuring Party,
- b) shall be in the joint names of the Parties,
- c) shall be extended to cover liability for all loss and damage to the Procuring Entity's property (except things insured under Sub-Clause 18.2) arising out of the Contractor's performance of the Contract, and
- d) may however exclude liability to the extent that it arises from:
  - i) the Procuring Entity's right to have the Permanent Works executed on, over, under, in or
  - ii) through any land, and to occupy this land for the Permanent Works,
  - iii) damage which is an unavoidable result of the Contractor's obligations to execute the
  - iv) Works and remedy any defects, and
  - v) a cause listed in Sub-Clause 17.3 [Procuring Entity's Risks], except to the extent that cover is available at commercially reasonable terms.

### **184 Insurance for Contractor's Personnel**

184.1 The Contractor shall effect and maintain insurance against liability for claims, damages, losses and expenses (including legal fees and expenses) arising from injury, sickness, disease or death of any person employed by the Contractor or any other of the Contractor's Personnel.

184.2 The insurance shall cover the Procuring Entity and the Architect against liability for claims, damages, losses and expenses (including legal fees and expenses) arising from injury, sickness, disease or death of any person employed by the Contractor or any other of the Contractor's Personnel, except that this insurance may exclude losses and claims to the extent that they arise from any act or neglect of the Procuring Entity or of the Procuring Entity's Personnel.

184.3 The insurance shall be maintained in full force and effect during the whole time that these personnel are assisting in the execution of the Works. For a Subcontractor's employees, the insurance may be effected by the Subcontractor, but the Contractor shall be responsible for compliance with this Clause.

## **19. FORCE MAJEURE**

### **19.1 Definition of Force Majeure**

- 19.1.1 In this Clause, "Force Majeure" means an exceptional event or circumstance:
- a) Which is beyond a Party's control,
  - b) Which such Party could not reasonably have provided against before entering into the Contract,
  - c) which, having arisen, such Party could not reasonably have avoided or overcome, and
  - d) which is not substantially attributable to the other Party.
- 19.1.2 Force Majeure may include, but is not limited to, exceptional events or circumstances of the kind listed below, so long as conditions (a) to (d) above are satisfied:
- a) war, hostilities (whether war be declared or not), invasion, act of foreign enemies,
  - b) rebellion, terrorism, sabotage by persons other than the Contractor's Personnel, revolution, insurrection, military or usurped power, or civil war,
  - c) riot, commotion, disorder, strike or lock out by persons other than the Contractor's Personnel,
  - d) munitions of war, explosive materials, ionizing radiation or contamination by radio-activity, except as may be attributable to the Contractor's use of such munitions, explosives, radiation or radio-activity, and
  - e) natural catastrophes such as earthquake, hurricane, typhoon or volcanic activity.

### **19.2 Notice of Force Majeure**

- 19.2.1 If a Party is or will be prevented from performing its substantial obligations under the Contract by Force Majeure, then it shall give notice to the other Party of the event or circumstances constituting the Force Majeure and shall specify the obligations, the performance of which is or will be prevented. The notice shall be given within 14 days after the Party became aware, or should have become aware, of the relevant event or circumstance constituting Force Majeure.
- 19.2.2 The Party shall, having given notice, be excused performance of its obligations for so long as such Force Majeure prevents it from performing them.
- 19.2.3 Notwithstanding any other provision of this Clause, Force Majeure shall not apply to obligations of either Party to make payments to the other Party under the Contract.

### **19.3 Duty to Minimize Delay**

Each Party shall at all times use all reasonable endeavors to minimize any delay in the performance of the Contract as a result of Force Majeure. A Party shall give notice to the other Party when it ceases to be affected by the Force Majeure.

### **19.4 Consequences of Force Majeure**

- 19.4.1 If the Contractor is prevented from performing his substantial obligations under the Contract by Force Majeure of which notice has been given under Sub-Clause 19.2 [Notice of Force Majeure], and suffers delay and/ or incurs Cost by reason of such Force Majeure, the Contractor shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:
- a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and
  - b) if the event or circumstance is of the kind described in sub-paragraphs (i) to (iv) of Sub-Clause 19.1 [Definition of Force Majeure] and, in sub-paragraphs (ii) to (iv), occurs in Kenya, payment of any such Cost, including the costs of rectifying or replacing the Works and/or Goods damaged or destroyed by Force Majeure, to the extent they are not indemnified through the insurance policy referred to in Sub-Clause 18.2 [Insurance for Works and Contractor's Equipment].
- 19.4.2 After receiving this notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.

## **19.5 Force Majeure Affecting Subcontractor**

If any Subcontractor is entitled under any contract or agreement relating to the Works to relief from force majeure on terms additional to or broader than those specified in this Clause, such additional or broader force majeure events or circumstances shall not excuse the Contractor's non-performance or entitle him to relief under this Clause.

## **19.6 Optional Termination, Payment and Release**

19.6.1 If the execution of substantially all the Works in progress is prevented for a continuous period of 84 days by reason of Force Majeure of which notice has been given under Sub-Clause 19.2 [Notice of Force Majeure], or for multiple periods which total more than 140 days due to the same notified Force Majeure, then either Party may give to the other Party a notice of termination of the Contract. In this event, the termination shall take effect 7 days after the notice is given, and the Contractor shall proceed in accordance with Sub-Clause 16.3 [Cessation of Work and Removal of Contractor's Equipment].

19.6.2 Upon such termination, the Architect shall determine the value of the work done and issue a Payment Certificate which shall include:

- a) the amount payable for any work carried out for which a price is stated in the Contract;
- b) the Cost of Plant and Materials ordered for the Works which have been delivered to the Contractor, or of which the Contractor is liable to accept delivery: this Plant and Materials shall become the property of (and be at the risk of) the Procuring Entity when paid for by the Procuring Entity, and the Contractor shall place the same at the Procuring Entity's disposal;
- c) other Cost or liabilities which in the circumstances were reasonably and necessarily incurred by the Contractor in the expectation of completing the Works;
- d) the Cost of removal of Temporary Works and Contractor's Equipment from the Site and the return of these items to the Contractor's works in his country (or to any other destination at no greater cost); and
- e) the Cost of repatriation of the Contractor's staff and lab or employed wholly in connection with the Works at the date of termination.

## **19.7 Release from Performance**

Notwithstanding any other provision of this Clause, if any event or circumstance outside the control of the Parties (including, but not limited to, Force Majeure) arises which makes it impossible or unlawful for either or both Parties to fulfil its or their contractual obligations or which, under the law governing the Contract, entitles the Parties to be released from further performance of the Contract, then upon notice by either Party to the other Party of such event or circumstance:

- a) The Parties shall be discharged from further performance, without prejudice to the rights of either Party in respect of any previous breach of the Contract, and
- b) The sum payable by the Procuring Entity to the Contractor shall be the same as would have been payable under Sub-Clause 19.6 [Optional Termination, Payment and Release] if the Contract had been terminated under Sub-Clause 19.6.

## **20. SETTLEMENT OF CLAIMS AND DISPUTES**

### **20.1 Contractor's Claims**

- 20.1.1 If the Contractor considers itself to be entitled to any extension of the Time for Completion and/or any additional payment, under any Clause of these Conditions or otherwise in connection with the Contract, the Contractor shall give Notice to the Engineer, describing the event or circumstance giving rise to the claim. The notice shall be given as soon as practicable, and not later than 30 days after the Contractor became aware, or should have become aware, of the event or circumstance.
- 20.1.2 If the Contractor fails to give notice of a claim within such period of 30 days, the Time for Completion shall not be extended, the Contractor shall not be entitled to additional payment, and the Procuring Entity shall be discharged from all liability in connection with the claim. Otherwise, the following provisions of this Sub-Clause shall apply.
- 20.1.3 The Contractor shall also submit any other notices which are required by the Contract, and supporting particulars for the claim, all as relevant to such event or circumstance.
- 20.1.4 The Contractor shall keep such contemporary records as may be necessary to substantiate any claim, either on the Site or at an other location acceptable to the Engineer. Without admitting the Procuring Entity's liability, the Architect may, after receiving any notice under this Sub-Clause, monitor the record-keeping and/ or instruct the Contractor to keep further contemporary records. The Contractor shall permit the Architect to inspect all these records and shall (if instructed) submit copies to the Engineer.
- 20.1.5 Within 42 days after the Contractor became aware (or should have become aware) of the event or circumstance giving rise to the claim, or within such other period as may be proposed by the Contractor and approved by the Engineer, the Contractor shall send to the Architect fully detailed claim which includes full supporting particulars of the basis of the claim and of the extension of time and/ or additional payment claimed. If the event or circumstance giving rise to the claim has a continuing effect:
- a) This fully detailed claim shall be considered as interim;
  - b) The Contractor shall send further interim claims at monthly intervals, giving the accumulated delay and/ or amount claimed, and such further particulars as the Architect may reasonably require; and
  - c) The Contractor shall send a final claim within 30 days after the end of the effects resulting from the event or circumstance, or within such other period as may be proposed by the Contractor and approved by the Engineer.
- 20.1.6 Within 42 days after receiving a Notice of a claim or any further particulars supporting a previous claim, or within such other period as may be proposed by the Architect and approved by the Contractor, the Architect shall respond with approval, or with disapproval and detailed comments. He may also request any necessary further particulars but shall nevertheless give his response on the principles of the claim within the above defined time period.
- 20.1.7 Within the above defined period of 42 days, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine (i) the extension (if any) of the Time for Completion (before or after its expiry) in accordance with Sub-Clause 8.4 [Extension of Time for Completion], and/or (ii) the additional payment (if any) to which the Contractor is entitled under the Contract.
- 20.1.8 Each Payment Certificate shall include such additional payment for any claim as has been reasonably substantiated as due under the relevant provision of the Contract. Unless and until the particulars supplied are sufficient to substantiate the whole of the claim, the Contractor shall only be entitled to payment for such part of the claim as he has been able to substantiate.

- 20.19 If the Architect does not respond within the time frame defined in this Clause, either Party may consider that the claim is rejected by the Architect and any of the Parties may refer the dispute for amicable settlement in accordance with Clause 20.3.
- 20.1.10 The requirements of this Sub-Clause are in addition to those of any other Sub-Clause which may apply to a claim. If the Contractor fails to comply with this or another Sub-Clause in relation to any claim, any extension of time and/ or additional payment shall take account of the extent (if any) to which the failure has prevented or prejudiced proper investigation of the claim, unless the claim is excluded under the second paragraph of this Sub-Clause 20.3.

## **20.2 Procuring Entity's Claims**

- 20.2.1 If the Procuring Entity considers itself to be entitled to any payment under any Clause of these Conditions or otherwise in connection with the Contract, and/ or to any extension of the Defects Notification Period, the Procuring Entity or the Architect shall give notice and particulars to the Contractor. However, notice is not required for payments due under Sub-Clause 4.19 [Electricity, Water and Gas], under Sub-Clause 4.20 [Procuring Entity's Equipment and Free-Issue Materials], or for other services requested by the Contractor.
- 20.2.2 The notice shall be given as soon as practicable and no longer than 30 days after the Procuring Entity became aware, or should have become aware, of the event or circumstances giving rise to the claim. A notice relating to any extension of the Defects Notification Period shall be given before the expiry of such period.
- 20.2.3 The particulars shall specify the Clause or other basis of the claim and shall include substantiation of the amount and/ or extension to which the Procuring Entity considers itself to be entitled in connection with the Contract. The Architect shall then proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine (i) the amount (if any) which the Procuring Entity is entitled to be paid by the Contractor, and/ or (ii) the extension (if any) of the Defects Notification Period in accordance with Sub-Clause 11.3 [Extension of Defects Notification Period].
- 20.2.4 This amount may be included as a deduction in the Contract Price and Payment Certificates. The Procuring Entity shall only be entitled to set off against or make any deduction from an amount certified in a Payment Certificate, or to otherwise claim against the Contractor, in accordance with this Sub-Clause.

## **20.3 Amicable Settlement**

Where a notice of a claim has been given, both Parties shall attempt to settle the dispute amicably before the commencement of arbitration. However, unless both Parties agree otherwise, the Party giving a notice of a claim in accordance with Sub-Clause 20.1 above should move to commence arbitration after 60 days from the day on which a notice of a claim was given, even if no attempt at an amicable settlement has been made.

## **20.4 Matters that may be referred to arbitration**

Notwithstanding anything stated herein the following matters may be referred to arbitration before the practical completion of the Works or abandonment of the Works or termination of the Contract by either party:

- a) Whether or not the issue of an instruction by the Architect is empowered by these Conditions.
- b) Whether or not a certificate has been improperly withheld or is not in accordance with these Conditions.
- c) Any dispute arising in respect risks arising from matters referred to in Clause 17.3 and Clause 19.
- e) All other matters shall only be referred to arbitration after the completion or alleged completion of the Works or termination or alleged termination of the Contract, unless the

Procuring Entity and the Contractor agree otherwise in writing.

## **20.5 Arbitration**

- 205.1 Any claim or dispute between the Parties arising out of or in connection with the Contract not settled amicably in accordance with Sub-Clause 20.3 shall be finally settled by arbitration.
- 205.2 No arbitration proceedings shall be commenced on any claim or dispute where notice of a claim or dispute has not been given by the applying party within ninety days of the occurrence or discovery of the matter or issue giving rise to the dispute.
- 205.3 Notwithstanding the issue of a notice as stated above, the arbitration of such a claim or dispute shall not commence unless an attempt has in the first instance been made by the parties to settle such claim or dispute amicably with or without the assistance of third parties. Proof of such attempt shall be required.
- 205.4 The Arbitrator shall, without prejudice to the generality of his powers, have powers to direct such measurements, computations, tests or valuations as may in his opinion be desirable in order to determine the rights of the parties and assess and award any sums which ought to have been the subject of or included in any certificate.
- 205.5 The Arbitrator shall, without prejudice to the generality of his powers, have powers to open up, review and revise any certificate, opinion, decision, requirement or notice and to determine all matters in dispute which shall be submitted to him in the same manner as if no such certificate, opinion, decision require mentor notice had been given.
- 205.6 The arbitrators shall have full power to open up, review and revise any certificate, determination, instruction, opinion or valuation of the Engineer, relevant to the dispute. Nothing shall disqualify representatives of the Parties and the Architect from being called as a witness and giving evidence before the arbitrators on any matter whatsoever relevant to the dispute.
- 205.7 Neither Party shall be limited in the proceedings before the arbitrators to the evidence, or to the reasons for dissatisfaction given in its Notice of Dissatisfaction.
- 205.7 Arbitration may be commenced prior to or after completion of the Works. The obligations of the Parties, and the Architect shall not be altered by reason of any arbitration being conducted during the progress of the Works.
- 205.8 The terms of the remuneration of each or all the members of Arbitration shall be mutually agreed upon by the Parties when agreeing the terms of appointment. Each Party shall be responsible for paying one-half of this remuneration.

## **20.6 Arbitration with National Contractors**

- 206.1 If the Contract is with national contractors, arbitration proceedings will be conducted in accordance with the Arbitration Laws of Kenya. In case of any claim or dispute, such claim or dispute shall be notified in writing by either party to the other with a request to submit it to arbitration and to concur in the appointment of an Arbitrator within thirty days of the notice. The dispute shall be referred to the arbitration and final decision of a person to be agreed between the parties. Failing agreement to concur in the appointment of an Arbitrator, the Arbitrator shall be appointed, on the request of the applying party, by the Chairman or Vice Chairman of any of the following professional institutions;
- i) Architectural Association of Kenya
  - ii) Institute of Quantity Surveyors of Kenya
  - iii) Association of Consulting Engineers of Kenya
  - iv) Chartered Institute of Arbitrators (Kenya Branch)
  - v) Institution of Engineers of Kenya

20.6.2 The institution written to first by the aggrieved party shall take precedence over all other institutions.

## **20.7 Arbitration with Foreign Contractors**

20.7.1 Arbitration with foreign contractors shall be conducted in accordance with the arbitration rules of the United Nations Commission on International Trade Law (UNCITRAL); or with proceedings administered by the International Chamber of Commerce (ICC) and conducted under the ICC Rules of Arbitration; by one or more arbitrators appointed in accordance with said arbitration rules.

20.7.2 The place of arbitration shall be a location specified in the **SCC**; and the arbitration shall be conducted in the language for communications defined in Sub-Clause 1.4 [Law and Language].

## **20.8 Alternative Arbitration Proceedings**

Alternatively, the Parties may refer the matter to the Nairobi Centre for International Arbitration (NCIA) which offers a neutral venue for the conduct of national and international arbitration with commitment to providing institutional support to the arbitral process.

## **20.9 Failure to Comply with Arbitrator's Decision**

20.9.1 The award of such Arbitrator shall be final and binding upon the parties.

20.9.2 In the event that a Party fails to comply with a final and binding Arbitrator's decision, then the other Party may, without prejudice to any other rights it may have, refer the matter to a competent court of law.

## **20.10 Contract operations to continue**

Notwithstanding any reference to arbitration herein,

1.1.1 the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; and

1.1.2 the Procuring Entity shall pay the Contractor any monies due the Contractor.

## Section IX - Special Conditions of Contract

The following Special Conditions shall supplement the GCC. Whenever there is a conflict, the provisions here in shall prevail over those in the GCC.

Conditions	Sub-Clause	Data
<b>Part A - Contract Data</b>		
Procuring Entity's name and address	Heading	<b>MULTIMEDIA UNIVERSITY P.O BOX 15653-00503, NAIROBI</b>
Name and Reference No. of the Contract	Heading and 1.1	<b>PROPOSED COMPLETION OF MULTIMEDIA UNIVERSITY ULTRA-MODERN LIBRARY - NAIROBI COUNTY. WP ITEM NO: D1065/NB/NB/2501 JOB NO: 11612A</b>
Engineers Name and address	Heading and 3.1.1	<b>The Project Manager is: WORKS SECRETARY, STATE DEPARTMENT FOR PUBLIC WORKS, P.O.BOX 30743-00100 NAIROBI</b>
Contractor's Representative's name	4.3.1	<i>[insert the name of the Contractor's Representative agreed by the Procuring Entity prior to Contract signature]</i>
Key Personnel names	16.9.1	<i>[insert the name of each Key Personnel agreed by the Procuring Entity prior to Contract signature]</i>
Time for Completion	1.1.	<b>36 Weeks</b> after commencement
Defects Notification Period	1.1	<b>6 Months</b>
Sections	1.1	<i>If Sections are to be used, refer to Table: Summary of Sections below</i>
Electronic transmission systems	1.3	N/A
Time for the Parties entering into a Contract Agreement	1.6	Within 30days
Commencement Date	8.1.1	The Site Possession Date Shall be as agreed with the Project Manager
Time for access to the Site	2.1.1	No later than the Commencement Date, and not earlier than _____14_____ days before Commencement Date
Architect Duties and Authority	3.1.6 (b) (ii)	Variations resulting in an increase of the Accepted Contract Amount shall require approval of the Procuring Entity.
Performance Security	4.2.1	The performance security will be in the form of a performance bond in the amount(s) of <b>5% (percent)</b> of the accepted contract amount and in the same currency (ies) of the accepted contract amount
Normal working hours	6.5	Normal working hours shall be 8:00 a.m. to 5:00 p.m. on weekdays, including lunch break from 1.00 p.m. p.m. and 8:00 a.m. to 1:00 pm on Saturdays, with Sunday being as a day of rest.
Delay damages for the Works	8.7 & 14.15(b)	<b>0.025% of the contract price per day</b>
Maximum amount of delay damages	8.7.1	<b>5% of the final Contract Price.</b>

Conditions	Sub-Clause	Data
Provisional Sums	13.6. (b)(ii)	<i>[If there are Provisional Sums, insert a percentage for adjustment of Provisional Sums]</i> _____%
Adjustments for Changes in Cost	13.9	As per The Public Procurement and Asset Disposal Act, 2015
Total advance payment	14.2.1	<u>Shall not be granted</u>
Repayment amortization rate of advance payment	14.2.5 (b)	___N/A___%
Percentage of Retention	14.3.2 (c)	___10___%
Limit of Retention Money	14.3.2 (c)	___5___% of the Accepted Contract Amount
Plant and Materials	14.5.3(b)(i)	If Sub-Clause 14.5 applies: Plant and Materials for payment when delivered to the Site
	14.5.3(c)(i)	Plant and Materials for payment when delivered to the Site
Minimum Amount of Interim Payment Certificates	14.6.2	as per workdone and material on site.
Publishing source of commercial interest rates for financial charges in case of delayed payment	14.8	Annual rate of three percentage points above the mean lending rate of the Central Bank in Kenya of the currency of payment
Maximum total liability of the Contractor to the Procuring Entity	17.6.2	<i>As per the policy</i>
Periods for submission of insurance: a. evidence of insurance. b. relevant policies	18.1.6	<i>[Insert period for submission of evidence of insurance and policy. Period may be from 14 days to 30days.]</i> ___14___ days ___14___ days
Maximum number of deductibles for insurance of the Procuring Entity's risks	18.2.4 (d)	<i>As per the policy</i>
Minimum amount of third-party insurance	18.3.2	<i>As per the policy</i>
The place of arbitration	20.7.2	<i>Nairobi, Kenya</i>

## **SECTION X - CONTRACT FORMS**

FORM No. 1 - NOTIFICATION OF INTENTION TO AWARD

FORM NO. 2 – REQUEST FOR REVIEW

FORM No. 3-LETTEROF AWARD

FORM No. 4 - CONTRACT AGREEMENT

FORM No. 5 - PERFORMANCE SECURITY [Option 1 - Unconditional Demand Bank Guarantee]

FORM No. 6- PERFORMANCE SECURITY [Option 2– Performance Bond]

FORM No. 7 - ADVANCE PAYMENT SECURITY

FORM No. 8 - RETENTION MONEY SECURITY

**FORM No 1: NOTIFICATION OF INTENTION TOAWARD OF CONTRACT**

This Notification of Award shall be sent to each Tenderer that submitted a Tender and was not successful. Send this Notification to the Tenderer's Authorized Representative named in the Tender Information Form on the format below.

**FORMAT**

1. For the attention of Tenderer's Authorized Representative

- i) Name: *[insert Authorized Representative's name]*
- ii) Address: *[insert Authorized Representative's Address]*
- iii) Telephone: *[insert Authorized Representative's telephone/fax numbers]*
- iv) Email Address: *[insert Authorized Representative's email address]*

*[IMPORTANT: insert the date that this Notification is transmitted to Tenderers. The Notification must be sent to all Tenderers simultaneously. This means on the same date and as close to the same time as possible.]*

2. Date of transmission: *[email]* on *[date]* (local time)

This Notification is sent by *(Name and designation)* \_\_\_\_\_

3. Notification of Award

- i) Procuring Entity: *[insert the name of the ProcuringEntity]*
- ii) Project: *[insert name ofproject]*
- iii) Contract title: *[insert the name of thecontract]*
- iv) ITT No: *[insert ITT reference number from ProcurementPlan]*

This Notification of Intention to Award (Notification) notifies you of our decision to award the above contract. The transmission of this Notification begins the Standstill Period. During the Standstill Period, you may:

4. Request a debriefing in relation to the evaluation of your tender by submitting a Procurement-related Complaint in relation to the decision to award the contracts.

- a) The successful tenderers
  - i) Name of successful Tender \_\_\_\_\_
  - ii) Address of the successful Tender \_\_\_\_\_  
\_\_\_\_\_
  - iii) Contract price of the successful Tender Kenya Shillings \_\_\_\_\_  
(in words \_\_\_\_\_)
- b) The reasons for your tender being unsuccessful are as follows:
- c) OtherTenderers

Names of all Tenderers that submitted a Tender. If the Tender's price was evaluated include the evaluated price as well as the Tender price as read out.

SNo	Name of Tender	Tender Price as read out	Tender's evaluated price (Note a)	One Reason Why Not Evaluated
1				
2				
3				
4				
5				

(Note a) State NE if not evaluated

#### 5. How to request a debriefing

- a) DEADLINE: The dead line to request a debriefing expires at midnight on *[insert date]* (local time).
- b) You may request a debriefing in relation to the results of the evaluation of your Tender. If you decide to request a debriefing your written request must be made within three (5) Business Days of receipt of this Notification of Intention to Award.
- c) Provide the contract name, reference number, name of the Tenderer, contact details; and address the request for debriefing as follows:
  - i) Attention: *[insert full name of person, if applicable]*
  - ii) Title/position: *[insert title/position]*
  - iii) Agency: *[insert name of Procuring Entity]*
  - iv) Email address: *[insert email address]*
- d) If your request for a debriefing is received within the 3 Days deadline, we will provide the debriefing within five (3) Business Days of receipt of your request. If we are unable to provide the debriefing within this period, the Standstill Period shall be extended by five (3) Days after the date that the debriefing is provided. If this happens, we will notify you and confirm the date that the extended Standstill Period will end.
- e) The debriefing may be in writing, by phone, video conference call or in person. We shall promptly advise you in writing how the debriefing will take place and confirm the date and time.
- f) If the deadline to request a debriefing has expired, you may still request a debriefing. In this case, we will provide the debriefing as soon as practicable, and normally no later than fifteen (15) Days from the date of publication of the Contract Award Notice.

#### 6. How to make a complaint

- a) Period: Procurement-related Complaint challenging the decision to award shall be submitted by midnight, *[insert date]* (local time).
- b) Provide the contract name, reference number, name of the Tenderer, contact details; and address the Procurement-related Complaint as follows:
  - i) Attention: *[insert full name of person, if applicable]*
  - ii) Title/position: *[insert title/ position]*
  - iii) Agency: *[insert name of Procuring Entity]*
  - iv) Email address: *[insert email address]*
- c) At this point in the procurement process, you may submit a Procurement-related Complaint

challenging the decision to award the contract. You do not need to have requested, or received, a debriefing before making this complaint. Your complaint must be submitted within the Standstill Period and received by us before the Standstill Period ends.

- d) Further information: For more information refer to the Public Procurement and Disposals Act 2015 and its Regulations available from the Website [www.ppra.go.ke](http://www.ppra.go.ke).

You should read these documents before preparing and submitting your complaint.

- e) There are four essential requirements:
- i) You must be an 'interested party'. In this case, that means a Tenderer who submitted a Tender in this tendering process and is the recipient of a Notification of Intention to Award.
  - ii) The complaint can only challenge the decision to award the contract.
  - iii) You must submit the complaint within the period stated above.
  - iv) You must include, in your complaint, all of the information required to support your complaint.

## 7. **Standstill Period**

- i) DEADLINE: The Standstill Period is due to end at midnight on *[insert date]* (local time).
- ii) The Standstill Period lasts ten (14) Days after the date of transmission of this Notification of Intention to Award.
- iii) The Standstill Period may be extended as stated in paragraph Section 5(d) above.

If you have any questions regarding this Notification please do not hesitate to contact us. On behalf of the Procuring Entity:

**Signature:** \_\_\_\_\_

**Name:** \_\_\_\_\_

**Title/position:** \_\_\_\_\_

\_\_\_\_\_  
**Telephone:** \_\_\_\_\_

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**FORM NO. 2- REQUEST FOR REVIEW**

**FORM FOR REVIEW (r.203(1))**

**PUBLIC PROCUREMENT ADMINISTRATIVE REVIEW BOARD**

**APPLICATION NO.....OF.....20.....**

**BETWEEN**

.....**APPLICANT**

**AND**

.....**RESPONDENT (Procuring Entity)**

Request for review of the decision of the..... (Name of the Procuring Entity of .....dated the...day of .....20.....in the matter of Tender No.....of .....20..... for ..... (Tender description).

**REQUEST FOR REVIEW**

I/We.....,the above named Applicant(s), of address: Physical address.....P. O. Box No..... Tel. No.....Email ....., hereby request the Public Procurement Administrative Review Board to review the whole/part of the above mentioned decision on the following grounds , namely:

- 1.
- 2.

By this memorandum, the Applicant requests the Board for an order/orders that:

- 1.
- 2.

SIGNED .....(Applicant) Dated on.....day of ...../...20.....

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FOR OFFICIAL USE ONLY Lodged with the Secretary Public Procurement Administrative Review Board on.....day of .....20.....

**SIGNED**

**Board Secretary**

*letterhead paper of the Procuring Entity]*

*[date]*

To: *[name and address of the Contractor]*

This is to notify you that your Tender dated *[date]* for execution of the *[name of the Contract and identification number, as given in the Contract Data]* for the Accepted Contract Amount *[amount in numbers and words] [name of currency]*, as corrected and modified in accordance with the Instructions to Tenderers, is here by accepted by..... *(name of Procuring Entity)*.

You are requested to furnish the Performance Security within in accordance with the Conditions of Contract, using, for that purpose, one of the Performance Security Forms included in Section VIII, Contract Forms, of the Tender Document.

Authorized Signature: .....

Name and Title of Signatory: .....

Name of Procuring Entity: .....

Attachment: *Contract Agreement*: .....

**FORM NO 4: CONTRACT AGREEMENT**

THIS AGREEMENT made the day of..... 20....., between.....  
.....of..... (hereinafter “the Procuring Entity”), of the one part, and \_\_\_\_\_ of \_\_\_\_\_ (hereinafter “the Contractor”), of the other part:

WHEREAS the Procuring Entity desires that the Worksknownas\_\_\_\_\_ should be executed by the Contractor, and has accepted a Tender by the Contractor for the execution and completion of these Worksand the remedying of any defects there in,

The Procuring Entity and the Contractor agree as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Contract documents referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement. This Agreement shall prevail over all other Contract documents.
  - a) theNotification of Award
  - b) the Form of Tender
  - c) the addenda Nos \_\_\_\_\_(if any)
  - d) the Special Conditions of Contract
  - e) the General Conditions of Contract;
  - f) the Specifications
  - g) the Drawings; and
  - h) the completed Schedules and any other documents forming part of the contract.
3. In consideration of the payments to be made by the Procuring Entity to the Contractor as specified in this Agreement, the Contractor here by covenants with the Procuring Entity to execute the Works and to remedy defects therein in conformity in all respects with the provisions of the Contract.
4. The Procuring Entity here by covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects there in, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

INWITNESS where of the parties here to have caused this Agreement to be executed in accordance with the Laws of Kenya on the day, month and year specified above.

Signed and sealed by \_\_\_\_\_(for the Procuring Entity)

Signed and sealed by \_\_\_\_\_(for the Contractor).

**FORM NO. 5 - PERFORMANCE SECURITY**

**[Option 1 - Unconditional Demand Bank Guarantee]**

*[Guarantor letterhead]*

**Beneficiary:** *[insert name and Address of Procuring Entity]*

**Date:** \_\_\_\_\_ *[Insert date of issue]*

**Guarantor:** *[Insert name and address of place of issue, unless indicated in the letterhead]*

1. We have been informed that \_\_\_\_\_ (hereinafter called "the Contractor") has entered into Contract No. \_\_\_\_\_ dated \_\_\_\_ with (name of Procuring Entity) \_\_\_\_\_ (the Procuring Entity as the Beneficiary), for the execution of \_\_\_\_\_ (hereinafter called "the Contract").
2. Furthermore, we understand that, according to the conditions of the Contract, a performance guarantee is required.
3. At the request of the Contractor, we as Guarantor, here by irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of \_\_ (in words ),<sup>1</sup> such sum being payable in the types and proportions of currencies in which the Contract Price is payable, upon receipt by us of the Beneficiary's complying demand supported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating that the Applicant is in breach of its obligation(s) under the Contract, without the Beneficiary needing to prove or to show grounds for your demand or the sum specified therein.
4. This guarantee shall expire, no later than the.....Day of.....,2.....<sup>2</sup>, and any demand for payment under it must be received by us at the office indicated above on or before that date.
5. The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed *[six months] [one year]*, in response to the Beneficiary's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee."
 

.....

*[Name of Authorized Official, signature(s) and seals/stamps]*

**Note:** *All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.*

<sup>1</sup>*The Guarantor shall insert an amount representing the percentage of the Accepted Contract Amount specified in the Letter of Acceptance, less provisional sums, if any, and denominated either in the currency of the Contract or a freely convertible currency acceptable to the Beneficiary.*

<sup>2</sup>*Insert the date twenty-eight days after the expected completion date as described in GC Clause 11.9. The Procuring Entity should note that in the event of an extension of this date for completion of the Contract, the Procuring Entity would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee.*

**FORM No. 6- PERFORMANCE SECURITY**

**[Option 2– Performance Bond]**

*[Note: Procuring Entities a readvised to use Performance Security – Unconditiona IDemand Bank Guarantee in stead of Performance Bond due to difficulties involved in calling Bond holder to action]  
[Guarantor letterhead or SWIFT identifier code]*

**Beneficiary:**

*[insertnameandAddressofProcuringEntity]*

**Date:** \_\_\_\_\_ *[Insert date of issue]*

**PERFORMANCE BONDNo.:** \_\_\_\_\_

**Guarantor:** *[Insert name and address of place of issue, unless indicated in the letterhead]*

1. By this Bond \_\_\_\_\_ as Senior Principal (hereinafter called “the Contractor”) and \_\_\_\_\_] as Surety (hereinafter called “the Surety”),are held and firmly bound unto \_\_\_\_\_] as Obligee (hereinafter called “the Procuring Entity”) in the amount of\_ for the payment of which sum well and truly to be made in the types and proportions of currencies in which the Contract Price is payable, the Contractor and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.
2. WHEREAS the Contractor has entered into a written Agreement with the Procuring Entity dated the \_\_\_\_\_ day of \_\_\_\_,20 \_\_\_\_\_, for \_\_\_\_\_ in accordance with the documents, plans, specifications, and amendments there to, which to the extent here in provided for, are by reference made part here of and are here in after referred to as the Contract.
3. NOW, THEREFORE, the Condition of this Obligation is such that, if the Contractor shall promptly and faithfully perform the said Contract (including any amendments thereto), then this obligation shall be null and void; otherwise, it shall remain in full force and effect. Whenever the Contractor shall be, and declared by the Procuring Entity to be, in default under the Contract, the Procuring Entity having performed the Procuring Entity's obligations there under, the Surety may promptly remedy the default, or shall promptly:
  - a) Complete the Contract in accordance with its terms and conditions; or
  - b) Obtain a tender or tenders from qualified tenderers for submission to the Procuring Entity for completing the Contract in accordance with its terms and conditions, and upon determination by the Procuring Entity and the Surety of the lowest responsive Tenderers, arrange for a Contract between such Tenderer, and Procuring Entity and make a vailable as work progresses (even though there should be a default or a succession of defaults under the Contract or Contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the Balance of the Contract Price; but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof. The term “Balance of the Contract Price,” as used in this paragraph, shall mean the total amount payable by Procuring Entity to Contractor under the Contract, less the amount properly paid by Procuring Entity to Contractor; or
  - c) Pay the Procuring Entity the amount required by Procuring Entity to complete the Contract in accordance with its terms and conditions upto a total not exceeding the amount of this Bond.
4. The Surety shall not be liable for a greater sum than the specified penalty of this Bond.
5. Any suit under this Bond must be instituted before the expiration of one year from the date of the issuing of the Taking-Over Certificate. No right of action shall accrue on this Bond to or for the use of any person or corporation other than the Procuring Entity named here in or the heirs, executors, administrators, successors, and assigns of the Procuring Entity.

6. In testimony whereof, the Contractor has here unto set his hand and affixed his seal, and the Surety has caused these presents to be sealed with his corporate seal duly at tested by the signature of his legal representative, this day \_\_\_\_\_ of \_\_\_\_\_ 20\_\_\_\_.

SIGNED ON \_\_\_\_\_ on behalf of \_\_\_\_\_

By \_\_\_\_\_ in the capacity of \_\_\_\_\_

In the presence of \_\_\_\_\_

SIGNED ON \_\_\_\_\_ on behalf of \_\_\_\_\_

By \_\_\_\_\_ in the capacity of \_\_\_\_\_

In the presence of \_\_\_\_\_

**FORM NO. 7 - ADVANCE PAYMENT SECURITY**

**[Demand Bank Guarantee]**

*[Guarantor letterhead]*

**Beneficiary:** \_\_\_\_\_ *[Insert name and Address of*

*ProcuringEntity] Date:* \_\_\_\_\_ *[Insert date of issue]*

**ADVANCE PAYMENT GUARANTEE No.:** \_\_\_\_\_ *[Insert guarantee reference number]*

**Guarantor:** *[Insert name and address of place of issue, unless indicated in the letterhead]*

1. We have been informed that \_\_\_\_\_ (hereinafter called "the Contractor") has entered into Contract No. \_\_\_\_\_ dated \_\_\_\_\_ with the Beneficiary, for the execution of \_\_\_\_\_ (hereinafter called "the Contract").
2. Furthermore, we understand that, according to the conditions of the Contract, an advance payment in the sum \_\_\_\_\_ (in words \_\_\_\_\_) is to be made against an advance payment guarantee.
3. At the request of the Contractor, we as Guarantor, here by irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of \_\_\_\_\_ (in words \_\_\_\_\_)<sup>1</sup> upon receipt by us of the Beneficiary's complying demand supported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating either that the Applicant:
  - a) Has used the advance payment for purposes other than the costs of mobilization in respect of the Works; or
  - b) Has failed to repay the advance payment in accordance with the Contract conditions, specifying the amount which the Applicant has failed to repay.
4. A demand under this guarantee may be presented as from the presentation to the Guarantor of a certificate from the Beneficiary's bank stating that the advance payment referred to above has been credited to the Contractor on its account number \_\_\_\_\_ at \_\_\_\_\_.
5. The maximum amount of this guarantee shall be progressively reduced by the amount of the advance payment repaid by the Contractor as specified in copies of interim statements or payment certificates which shall be presented to us. This guarantee shall expire, at the latest, upon our receipt of a copy of the interim payment certificate indicating that ninety (90) percent of the Accepted Contract Amount, less provisional sums, has been certified for payment, or on the \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_<sup>2</sup> whichever is earlier. Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.
6. The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed *[six months]* *[one year]*, in response to the Beneficiary's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee.

*[Name of Authorized Official, signature(s) and seals/stamps]*

**Note:** *All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.*

<sup>1</sup>The Guarantor shall insert an amount representing the amount of the advance payment and denominated either in the currency of the advance payment as specified in the Contract.

<sup>2</sup>Insert the expected expiration date of the Time for Completion. The Procuring Entity should note that in the event of an extension of the time for completion of the Contract, the Procuring Entity would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee

**FORM NO. 8 – RETENTION MONEY SECURITY**

**[Demand Bank Guarantee]**

*[Guarantor letterhead]*

**Beneficiary:** \_\_\_\_\_ *[Insert name and Address of Procuring Entity]*

**Date:** \_\_\_\_\_ *[Insert date of issue]*

**Advance payment guarantee no.** *[Insert guarantee reference number]*

**Guarantor:** *[Insert name and address of place of issue, unless indicated in the letterhead]*

1. We have been informed that \_\_\_\_\_ *[insert name of Contractor, which in the case of a joint venture shall be the name of the joint venture]* (hereinafter called "the Contractor") has entered into Contract No. \_\_\_\_\_ *[insert reference number of the contract]* dated \_\_\_\_\_ with the Beneficiary, for the execution of \_\_\_\_\_ *[insert name of contract and brief description of Works]* (hereinafter called "the Contract").
2. Furthermore, we understand that, according to the conditions of the Contract, the Beneficiary retains moneys upto the limit set forth in the Contract ("the Retention Money"), and that when the Taking-Over Certificate has been issued under the Contract and the first half of the Retention Money has been certified for payment, and payment of *[insert the second half of the Retention Money]* is to be made against a Retention Money guarantee.
3. At the request of the Contractor, we, as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of *[insert amount in figures]* *\_\_\_\_\_* (*[insert amount in words \_\_\_\_\_]*)<sup>1</sup> upon receipt by us of the Beneficiary's complying demands supported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating that the Contractor is in breach of its obligation(s) under the Contract, without your needing to prove or show grounds for your demand or the sum specified there in.
4. A demand under this guarantee may be presented as from the presentation to the Guarantor of a certificate from the Beneficiary's bank stating that the second half of the Retention Money as referred to above has been credited to the Contractor on its account number at \_\_\_\_\_ *[insert name and address of Applicant's bank]*.
5. This guarantee shall expire no later than the ..... Day of .....<sup>2</sup>, and any demand for payment under it must be received by us at the office indicated above on or before that date.
6. The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed *[six months]* *[one year]*, in response to the Beneficiary's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee.

---

*[Name of Authorized Official, signature(s) and seals/stamps]*

**Note:** *All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.*

<sup>1</sup>The Guarantor shall insert an amount representing the amount of the second half of the Retention Money.

<sup>2</sup>Insert a date that is twenty-eight days after the expiry of retention period after the actual completion date of the contract. The Procuring Entity should note that in the event of an extension of this date for completion of the Contract, the Procuring Entity would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee

**FORM NO. 9 BENEFICIAL OWNERSHIP DISCLOSURE FORM**

**(Amended and issued pursuant to PPRA CIRCULAR No. 02/2022)**

**INSTRUCTIONS TO TENDERERS: DELETE THIS BOX ONCE YOU HAVE COMPLETED THE FORM**

*This Beneficial Ownership Disclosure Form (“Form”) is to be completed by the successful tenderer pursuant to Regulation 13 (2A) and 13 (6) of the Companies (Beneficial Ownership Information) Regulations, 2020. In case of joint venture, the tenderer must submit a separate Form for each member. The beneficial ownership information to be submitted in this Form shall be current as of the date of its submission.*

*For the purposes of this Form, a Beneficial Owner of a Tenderer is any natural person who ultimately owns or controls the legal person (tenderer) or arrangements or a natural person on whose behalf a transaction is conducted, and includes those persons who exercise ultimate effective control over a legal person (Tenderer) or arrangement.*

Tender Reference No.: \_\_\_\_\_ [insert identification no]  
 Name of the Tender Title/Description: \_\_\_\_\_ [insert name of the assignment] to: \_\_\_\_\_ [insert complete name of Procuring Entity]

In response to the requirement in your notification of award dated \_\_\_\_\_ [insert date of notification of award] to furnish additional information on beneficial ownership: [select one option as applicable and delete the options that are not applicable]

I) We here by provide the following beneficial ownership information.

**Details of Beneficial ownership**

	<b>Details of all Beneficial Owners</b>	<b>% of shares a person holds in the company Directly or indirectly</b>	<b>% of voting rights a person holds in the company</b>	<b>Whether a person directly or indirectly holds a right to appoint or remove a member of the board of directors of the company or an equivalent governing body of the Tenderer (Yes / No)</b>	<b>Whether a person directly or indirectly exercises significant influence or control over the Company (tenderer) (Yes / No)</b>
<b>1.</b>	Full Name	Directly---- ----- % of shares	Directly..... ....% of voting rights	1. Having the right to appoint a majority of the board of the directors or an equivalent governing body of the Tenderer: Yes - ----No----  2. Is this right held directly or indirectly?:  Direct.....	1. Exercises significant influence or control over the Company body of the Company (tenderer)  Yes ----No----  2. Is this influence or control exercised
	National identity card number or Passport number				
	Personal Identification Number (where applicable)				
	Nationality				
	Date of birth				

Details of all Beneficial Owners		% of shares a person holds in the company Directly or indirectly	% of voting rights a person holds in the company	Whether a person directly or indirectly holds a right to appoint or remove a member of the board of directors of the company or an equivalent governing body of the Tenderer (Yes / No)	Whether a person directly or indirectly exercises significant influence or control over the Company (tenderer) (Yes / No)	
[dd/mm/yyyy]				Indirect.....	directly or indirectly?	
Postal address				..	Direct.....	
Residential address					Indirect.....	
Telephone number						
Email address						
Occupation or profession						
2.	Full Name		Directly---- ----- % of shares	Directly..... ....% of voting rights	1. Having the right to appoint a majority of the board of the directors or an equivalent governing body of the Tenderer: Yes - ----No---- 2. Is this right held directly or indirectly?:  Direct.....  Indirect..... ..	1. Exercises significant influence or control over the Company body of the Company (tenderer) Yes -----No----  2. Is this influence or control exercised directly or indirectly?  Direct.....  Indirect.....
	National identity card number or Passport number		Indirectly-- ----- % of shares	Indirectly----- ---% of voting rights		
	Personal Identification Number (where applicable)					
	Nationality(ies)					
	Date of birth [dd/mm/yyyy]					
	Postal address					
	Residential address					
	Telephone number					
	Email address					
	Occupation or profession					

	<b>Details of all Beneficial Owners</b>	<b>% of shares a person holds in the company Directly or indirectly</b>	<b>% of voting rights a person holds in the company</b>	<b>Whether a person directly or indirectly holds a right to appoint or remove a member of the board of directors of the company or an equivalent governing body of the Tenderer (Yes / No)</b>	<b>Whether a person directly or indirectly exercises significant influence or control over the Company (tenderer) (Yes / No)</b>
<b>3.</b>					
<b>e.</b>					
<b>t.</b>					
<b>c</b>					

II) Am fully aware that beneficial ownership information above shall be reported to the Public Procurement Regulatory Authority together with other details in relation to contract awards and shall be maintained in the Government Portal, published and made publicly available pursuant to Regulation 13(5) of the Companies (Beneficial Ownership Information) Regulations, 2020. (Notwithstanding this paragraph Personally Identifiable Information in line with the Data Protection Act shall not be published or made public). *Note that Personally Identifiable Information (PII) is defined as any information that can be used to distinguish one person from another and can be used to deanonymize previously anonymous data. This information includes National identity card number or Passport number, Personal Identification Number, Date of birth, Residential address, email address and Telephone number.*

III) In determining who meets the threshold of who a beneficial owner is, the Tenderer must consider a natural person who in relation to the company:

- (a) holds at least ten percent of the issued shares in the company either directly or indirectly;
- (b) exercises at least ten percent of the voting rights in the company either directly or indirectly;
- (c) holds a right, directly or indirectly, to appoint or remove a director of the company; or
- (d) exercises significant influence or control, directly or indirectly, over the company.

IV) What is stated to herein above is true to the best of my knowledge, information and belief.

Name of the Tenderer: ..... \*[insert complete name of the Tenderer] \_\_\_\_\_

Name of the person duly authorized to sign the Tender on behalf of the Tenderer: \*\* [insert complete name of person duly authorized to sign the Tender]

Designation of the person signing the Tender: ..... [insert complete title of the person signing the Tender]

*Signature of the person named above: ..... [insert signature of person whose name and capacity are shown above]*

*Date this ..... [insert date of signing] day of..... [Insert month], [insert year]*

Bidder Official Stamp

## **PART IV- BILLS OF QUANTITIES**

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**BILL NO.1**

**PARTICULAR PRELIMINARIES**

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ITEM	DESCRIPTION	AMOUNT
<p><b>A</b></p> <p><b>EMPLOYER</b></p> <p>The Employer is <b>MULTIMEDIA UNIVERSITY OF P.O. BOX 15653-00503, NAIROBI.</b></p> <p>The term "Employer" and "Government" wherever used in the contract document shall be synonymous.</p> <p><b>B</b></p> <p><b>PROJECT MANAGER</b></p> <p>The term "P.M" or "Project Manager" wherever used in these Bills of Quantities shall be deemed to imply the "Engineer" as defined in Condition 1 of the Conditions of Contract or such person or persons as may be duly authorised to represent him on behalf of the Government.</p> <p><b>C</b></p> <p><b>ARCHITECT</b></p> <p>The term "Architect" shall be deemed to mean "the P.M" as defined above whose address, unless otherwise notified, is as defined in Condition 1 of the Conditions of Contract or such person or persons as may be duly authorised to represent him on behalf of the Government.</p> <p><b>D</b></p> <p><b>QUANTITY SURVEYOR</b></p> <p>The term "Quantity Surveyor" shall be deemed to mean "the P.M" as defined above whose address, unless otherwise notified, is the Ministry of Transport, Infrastructure, Housing and Urban Development &amp; Public Works: State Department for Public Works, P.O.Box 30743-00100, NAIROBI</p> <p><b>E</b></p> <p><b>STRUCTURAL ENGINEER</b></p> <p>The term "Structural Engineer" shall be deemed to mean "the P.M" as defined above whose address, unless otherwise notified, is as defined in Condition 1 of the Conditions of Contract or such person or persons as may be duly authorised to represent him on behalf of the Government.</p> <p><b>F</b></p> <p><b>CIVIL ENGINEER</b></p> <p>The term "Civil Engineer" shall be deemed to mean "the P.M" as defined above whose address, unless otherwise notified, is as defined in Condition 1 of the Conditions of Contract or such person or persons as may be duly authorised to represent him on behalf of the Government.</p>		
	<b>Carried to collection</b>	

ITEM	DESCRIPTION	AMOUNT
A	<p><b>ELECTRICAL ENGINEER</b></p> <p>The term "Electrical Engineer" shall be deemed to mean "the P.M" as defined above whose address, unless otherwise notified, is as defined in Condition 1 of the Conditions of Contract or such person or persons as may be duly authorised to represent him on behalf of the Government.</p> <p><b>MECHANICAL ENGINEER</b></p>	
B	<p>The term "Mechanical Engineer" shall be deemed to mean "the P.M" as defined above whose address, unless otherwise notified, is as defined in Condition 1 of the Conditions of Contract or such person or persons as may be duly authorised to represent him on behalf of the Government.</p>	
C	<p><b>DESCRIPTION OF THE WORKS</b></p> <p><b>SCOPE OF CONTRACT</b></p> <p><u>Generally:</u></p> <p>The work comprises of Completion of Library Complex ,associated Civil works, electrical and mechanical engineering services.</p> <p><b>Staircase Finishes</b></p> <p>Screed works to treads, risers, landings, soffits, and edges.</p> <p>Terrazzo paving to landings, treads, risers, and skirtings, machine-polished to approval.</p> <p>Balustrades: mild steel pipe handrails and balusters, complete with painting.</p> <p><b>Ramp Finishes</b></p> <p>Screed and terrazzo finishes to ramp, landings, risers, and skirtings.</p> <p>Plastering to soffits, edges, and sloping surfaces.</p> <p>Painting to plastered soffits and landings.</p> <p>Balustrades to ramps, prepared and painted.</p>	
	<b>Carried to collection</b>	

ITEM	DESCRIPTION	AMOUNT
	<p><b>Windows</b></p> <p>Fixing of mahogany window boards and beading.</p> <p>Painting of metal surfaces.</p> <p>Inspection, repair, and replacement of defective aluminium window parts to leave in perfect working condition.</p> <p><b>Doors</b></p> <p>Supply and installation of mahogany timber frames, architraves, beads, and quadrants.</p> <p>Solid core and semi-solid flush doors in mahogany veneer with ironmongery.</p> <p>Timber louvred duct access doors, complete with frame, ironmongery, and finishing.</p> <p>Painting and polishing of timber surfaces.</p> <p><b>Internal Finishes</b></p> <p>Screeds to receive floor finishes.</p> <p>Supply and laying of ceramic and non-slip floor tiles, skirtings, and wall tiles.</p> <p>Plastering to walls, soffits, and reveals.</p> <p>Gypsum and acoustic ceilings with cornices.</p> <p>Skimming and preparation of surfaces.</p> <p>Painting and decoration to all walls, soffits, and ceilings.</p> <p>Expansion joint treatment with PVC water stops, fibreboard fillers, sealants, and cover plates.</p>	
	<b>Carried to collection</b>	

ITEM	DESCRIPTION	AMOUNT
	<p><b>Joinery, Fittings &amp; Fixtures</b>  Reinforced concrete slabs and formwork.  Blockwork walls and rendering.  Plastering to soffits.  Granite countertops and facias.  Mild steel balustrades with painting.</p> <p><b>Builder's Works in Connection with Specialist Services</b>  Chasing, cutting, and making good walls, floors, and slabs for plumbing and drainage pipes.  Chases and recesses for conduits, switches, sockets, sub-main cables, and distribution boards.  Timber and gypsum boxing to pipes.  Painting to timber surfaces.</p> <p><b>2.7 Mechanical Installation (Plumbing &amp; Drainage)</b>  Water piping to washrooms and hand wash areas.  Installation of WCs, urinals, hand wash basins.  Drainage piping, manholes, and connection to septic tank/soak pit.</p> <p><b>2.9 Completion</b>   Testing and commissioning of all services.  Snagging, cleaning, and handing over.  Provision of as-built drawings and operation manuals</p> <p><b>C <u>FLOOR AREAS</u></b></p> <p><b>Total Areas</b>  Ground floor =<b>1622 SM</b></p> <p><b>Note :</b> The above areas are given as a guide an no warranty is given for their accuracy.</p>	
	<b>Carried to collection</b>	

ITEM	DESCRIPTION	AMOUNT
<p><b>A</b></p>	<p><b>LOCATION OF SITE</b></p> <p>The site of the proposed works is located in <b>Multimedia University of Kenya (MMU) along Magadi Road, Ongata Rongai, in Kajiado County, just outside Nairobi City.</b></p> <p>The Contractor shall be deemed to have visited the site and satisfied himself as to:-</p> <p><b>a)</b> The nature, position, topography and access of the site</p> <p><b>b)</b> The amount of the rubbish or debris to be cleared away before commencement</p> <p><b>c)</b> The nature, current usage, proximity and size of adjoining property and buildings</p> <p><b>d)</b> The availability of land for the erection and positioning of all temporary structures, plant and materials necessary for the execution of the works.</p> <p>The Contractor shall obtain approval from the relevant Local Authority in adherence to site access and erection of temporary structures and must ensure all matters relating to the requirements of these authorities.</p> <p>No claim will be allowed for travelling or other expenses which may be incurred by the Contractor in visiting the site or preparing the tender for the works.</p> <p>The Contractor is advised that the site is within a compound in use and all measures should be taken to avoid nuisance to the existing users.</p> <p>All occupation health and safety requirements must be met as required by law.</p> <p>This includes prevention/ minimizing noise, dust, fumes, providing access to public facilities as required (lifts, washrooms, staircases).</p> <p>Notices should be given prior to disruption of services.</p> <p>Where necessary the Contractor will provide temporary facilities for use as instructed by the Project Manager.</p> <p><b>MEASUREMENTS</b></p> <p><b>B</b> The works are measured in accordance with the Standard Method of Measurement of Building Works 2008 Edition, published by the Architectural Association of Kenya</p> <p>In the event of any discrepancies arising between the Bills of Quantities and the actual works, the site measurements shall generally take precedence. However, such discrepancies between any contract documents shall immediately be referred to the PROJECT MANAGER</p> <p><b>SIGNING OF THE TENDER DOCUMENTS</b></p> <p><b>C</b> The bidder shall append his / her signature and / or company's rubber stamp on each and every page of tender document.</p>	
	<p><b>Carried to collection</b></p>	

ITEM	DESCRIPTION	AMOUNT
<p><b>A</b></p>	<p><b>DEMOLITIONS AND ALTERATIONS</b></p> <p>The Contractor is to allow for all temporary protection required during the works including ordinary and special dust screens, hoardings, barriers, warning signs, etc as directed by the Project Manager and as necessary for the adequate propping and protection of existing property, finishes, workmen employed on the site, employer's agents and the public. Any damage or loss incurred due to the insufficiency of such protection must be made good by the Contractor. All protective devices are to be removed on completion of the works and any necessary making good consequent upon this is to be executed to the satisfaction of the Project Manager. The works shall be propped, strutted and supported as necessary before any alteration or demolition work commences. Prices shall include for all cleaning and preparatory work to structure and finishes and for making good to all finishes on completion whether or not specifically described Unless described as set aside for re-use all arising debris and surplus materials shall be carefully removed from building and carted away from site. The Contractor shall be entirely responsible for any breakage or damage which may occur to materials required for re-use during their removal unless it is certified by the Project Manager that such damage or breakage was inevitable as a result of the condition of the item concerned.</p> <p><b>MATERIALS FROM DEMOLITIONS</b></p> <p><b>B</b> Any materials arising from demolitions and not re-used shall become the property of the Ministry of Public Works. The Contractor shall allow in his rates the cost of transporting the demolished materials to where directed by the Project Manager.,</p> <p><b>CLEARING AWAY</b></p> <p><b>C</b> The Contractor shall remove all temporary works, rubbish, debris and surplus materials from the site as they accumulate and upon completion of the works, remove and clear away all plant, equipment, rubbish, unused materials and stains. The whole of the works shall be delivered up clean, complete and in perfect condition in every respect to the satisfaction of the Project Manager.</p>	
	<p><b>Carried to collection</b></p>	

ITEM	DESCRIPTION	AMOUNT
<p><b>A</b></p> <p><b>B</b></p> <p><b>C</b></p> <p><b>D</b></p> <p><b>E</b></p> <p><b>F</b></p> <p><b>G</b></p>	<p><b>CLAIMS / COMPENSATION EVENTS</b> It shall be a condition of this contract that upon it becoming reasonably apparent to the Contractor that he has incurred losses and / or expenses due to any of the contract conditions, or by any other reason whatsoever, he shall present such a claim or intent to claim notice to the PROJECT MANAGER within the contract period. No claim shall be entertained upon the expiry of the said contract period.</p> <p><b>URGENCY OF THE WORKS</b> The Contractor is notified that these “ works are urgent” and should be completed within the period stated in the Conditions of Contract.  The Contractor shall allow in his rates for any costs he/ she deems that he/she may incur by having to complete these works within the stipulated contract period.</p> <p><b>PREVENTION OF ACCIDENT, DAMAGE OR LOSS</b> The Contractor is notified that these works are to be carried out on a restricted site where the client is going on with other normal activities. The Contractor is thus instructed to take reasonable care in the execution of the works as to prevent accident</p> <p><b>WORKING CONDITIONS</b> The Contractor shall allow in his rates for any interference that he may encounter in the course of the works for the Client may in some cases ask the Contractor not to proceed with the works until some activities within the site are completed.</p> <p><b>SIGNBOARD</b> Allow for providing, erecting, maintaining throughout the course of the Contract and afterwards clearing away a signboard as designed, specified and approved by the Project Manager.</p> <p><b>LABOUR CAMPS</b> The Contractor shall not be allowed to house labour on site. Allow for transporting workers to and from the site during the tenure of the contract.</p> <p><b>PRICING RATES</b> The tenderer shall include for all costs in executing the whole of the works, including transport, replacing damaged items, fixing, all to comply with the said Conditions of Contract.</p>	
	<b>Carried to collection</b>	

ITEM	DESCRIPTION	AMOUNT
<p><b>A</b></p>	<p><b>SECURITY</b> The Contractor shall allow for providing adequate security for the works and the workers in the course of execution of this contract. No claim will be entertained from the Contractor for not maintaining adequate security for both the works and workers.</p> <p><b>EXISTING SERVICES</b> Prior to the commencement of any work, the Contractor is to ascertain from the relevant authority the exact position, depth and level of all existing services in the area and he/she shall make whatever provisions may be required by the authorities concerned</p> <p><b>BID SECURITY</b> The Bidder shall furnish, as part of his bid, a security in accordance with clause 19.1 of Instruction to Tenderers (Section I of the Tender Document) Guarantees issued as surety for <b>the bid shall be valid for a period of One Hundred and Fifty Six (168) days from the date of Tender Opening.</b></p> <p><b>PERFORMANCE SECURITY</b> A bond of 5% of the contract sum will be required in accordance with clause 48.0 of Instruction to Tenderers (Section I of the Tender Document) and Clause 4.2 of the General Conditions of Contract (Section VIII of the Tender Document). Note that no payments on account of works executed will be made to the Contractor until he has submitted the Performance Bond to the Project Manager, duly stamped signed and sealed by an approved bank or insurance company</p>	
	<p><b>Carried to collection</b></p>	

ITEM	DESCRIPTION	AMOUNT
	<p><b>INSURANCE</b></p> <p><b>A</b> The Contractor shall insure as required in Condition No. 18 of the Conditions of Contract. No payment on account of the work executed will be made to the Contractor until he has satisfied the PROJECT MANAGER either by production of an Insurance Policy or Insurance Certificate that the provision of the foregoing Insurance Clauses have been complied with in all respects. Thereafter the PROJECT MANAGER shall from time to time ascertain that premiums are duly paid up by the Contractor who shall, if called upon to do so, produce the receipted premium renewals for the PROJECT MANAGER's inspection.</p> <p><b>TENDER DOCUMENTS</b></p> <p><b>B</b> Tender documents are as listed in Clause 11 of <b>Section I-Instruction to Tenderers</b> of the Tender Document.</p> <p><b>VALUE ADDED TAX</b></p> <p><b>C</b> The Contractor's attention is drawn to V.A.T PUBLIC NOTICE NO. 6 of 5th August, 1993 regarding the Finance Bill 1993 which expanded the V.A.T base to cover construction services amongst other items. The Contractor shall familiarise himself with the said notice and allow in all his Bills of Quantities rates for the net tax. (i.e less input tax where applicable) as required by law.</p> <p>The tenderer is advised that in accordance with Government Public Notice No.35 &amp;36 dated 11th September 2003, operational from 1st October 2003, V.A.T will be deducted against the contract sum at the prevailing rate by the Employer and remitted directly to the Commissioner of V.A.T through all interim certificates. It should however be noted that this is not additional tax but a new mode of payment for V.A.T, any excess payment will be refundable once the Contractor has submitted monthly returns to the Commissioner of V.A.T who will do the refunds when satisfied that the V.A.T regulations have been complied with.</p>	
	<b>Carried to collection</b>	

ITEM	DESCRIPTION	AMOUNT
	<p><b><u>PROJECT MANAGEMENT EXPENSES</u></b></p> <p><u>This sum is to cover expenses related to supervision, site visits, and administrative support during the implementation of the works. Disbursement will be subject to approval by the Project Manager.</u></p> <p><b>A</b> Allow a Provisional Sum of Kenya Shillings <b>Two Million (Kshs.2,000,000.00)</b> only to cover Project Management Supervision Expenses for all disciplines.</p> <p><b>B</b> Allow for taxes, profits and overheads for the Item above (%)</p> <p><b><u>Capacity Building Levy by PPRA</u></b></p> <p><b>C</b> The Contractor's attention is drawn to section 24(5) d and 180 of the PPAD Act, Public Procurement Capacity building levy order, 2023, legal notice No.206 of 6th November, 2023, provides that "a procuring entity is mandated to ensure that there shall be a paid levy by the supplier on all procurement contracts signed between the supplier and the procuring entity at the rate of 0.03% of the value of the signed contract exclusive of applicable taxes."</p> <p><b>D</b> Allow for taxes, profits and overheads for the Item above (%)</p>	<p><b>2,000,000</b></p>
	<b>Carried to collection</b>	



ITEM	DESCRIPTION	AMOUNT
	<b><u>COLLECTION</u></b>	
	Brought forward from page PP/1	
	Brought forward from page PP/2	
	Brought forward from page PP/3	
	Brought forward from page PP/4	
	Brought forward from page PP/5	
	Brought forward from page PP/6	
	Brought forward from page PP/7	
	Brought forward from page PP/8	
	Brought forward from page PP/9	
	Brought forward from page PP/10	
	<b>TOTAL FOR PARTICULAR PRELIMINARIES CARRIED TO GRAND SUMMARY</b>	

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**BILL NO.2**

**GENERAL PRELIMINARIES**

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ITEM	DESCRIPTION	AMOUNT
	<p><b><u>GENERAL PRELIMINARIES</u></b></p> <p><b>A PRICING OF ITEMS OF PRELIMINARIES AND PREAMBLES</b>  Prices will be inserted against items of Preliminaries in the Contractor's priced Bills of Quantities and Specification.  The Contractor shall be deemed to have included in his prices or rates for the various items in the Bills of Quantities or Specification for all costs involved in complying with all the requirements for the proper execution of the whole of the works in the Contract.</p> <p><b>B ABBREVIATIONS</b>  Throughout these Bills, units of measurement and terms are abbreviated and shall be interpreted as follows:-</p> <p><b>C.M.</b>                      Shall mean cubic metre</p> <p><b>S.M.</b>                      Shall mean square metre</p> <p><b>L.M.</b>                      Shall mean linear metre</p> <p><b>MM</b>                        Shall mean Millimetre</p> <p><b>Kg.</b>                        Shall mean Kilogramme</p> <p><b>No.</b>                        Shall mean Number</p> <p><b>Prs.</b>                        Shall mean Pairs</p> <p><b>B.S.</b>                        Shall mean the British Standard Specification  Published by the British Standards Institution, 2 Park Street, London W.I., England.</p> <p><b>Ditto</b> Shall mean the whole of the preceding description except as qualified in the description in which it occurs.</p> <p><b>m.s.</b>                        Shall mean measured separately.</p> <p><b>a.b.d</b>                        Shall mean as before described.</p>	
	<b>Carried to collection</b>	

ITEM	DESCRIPTION	AMOUNT
<p><b>A SUFFICIENCY OF TENDER</b></p> <p>The contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the rates and prices stated in the priced Bills of Quantities. Rates and prices quoted shall cover all his obligations under the contract and all matters and things necessary for the proper completion and maintenance of the works</p> <p><b>B RECORDS</b></p> <p>The Contractor shall ensure proper records are kept and maintained for : Daily Reports on Personnel and Machinery; tracked programme; site photographs in digital camera; weather charts/reports; site instruction book and query book. a digital camera shall be provided for taking progress photos</p> <p><b>C PLANT, TOOLS AND VEHICLES</b></p> <p>Allow for providing all scaffolding, plant, tools and vehicles required for the works except in so far as may be stated otherwise herein and except for such items specifically and only required for the use of nominated Sub-Contractors as described herein. No timber used for scaffolding, formwork or temporary works of any kind shall be used afterwards in the permanent work.</p> <p><b>D TRANSPORT.</b></p> <p>Allow for transport of workmen, materials, etc., to and from the site at such hours and by such routes as may be permitted by the competent authorities.</p>		
	<b>Carried to collection</b>	

ITEM	DESCRIPTION	AMOUNT
A	<p><b>MATERIALS AND WORKMANSHIP.</b></p> <p>All work is to be carried out in accordance with the Ministry of Works General Specifications for Building Works, 1976 Edition together with any amendments thereto.</p> <p>All materials and workmanship used in the execution of the work shall be of the best quality and description unless otherwise stated. The Contractor shall order all materials to be obtained from overseas immediately after the Contract is signed and shall also order materials to be obtained from local sources as early as necessary to ensure that they are onsite when required for use in the works. The Bills of Quantities shall not be used for the purpose of ordering materials.</p> <p><b>B SIGN FOR MATERIALS SUPPLIED.</b></p> <p>The Contractor will be required to sign a receipt for all articles and materials supplied by the CLIENT at the time of taking deliver thereof, as having received them in good order and condition, and will thereafter be responsible for any loss or damage and for replacements of any such loss or damage with articles and/or materials which will be supplied by the CLIENT at the current market prices including Customs Duty and V.A.T., all at the Contractor's own cost and expense, to the satisfaction of the PROJECT MANAGER</p> <p><b>C STORAGE OF MATERIALS</b></p> <p>The Contractor shall provide at his own risk and cost where directed on the site weather proof lock-up sheds and make good damaged or disturbed surfaces upon completion to the satisfaction of the PROJECT MANAGER. Nominated Sub-Contractors are to be made liable for the cost of any storage accommodation provided especially for their use.</p>	
	<b>Carried to collection</b>	

ITEM	DESCRIPTION	AMOUNT
<p><b>A SAMPLES</b></p>	<p>The Contractor shall furnish at his own cost any samples of materials or workmanship including concrete test cubes required for the works that may be called for by the PROJECT MANAGER for his approval until such samples are approved by the PROJECT MANAGER and the PROJECT MANAGER may reject any materials or workmanship not in his opinion to be up to approved samples. The PROJECT MANAGER shall arrange for the testing of such materials as he may at his discretion deem desirable, but the testing shall be made at the expense of the Contractor and not at the expense of the PROJECT MANAGER. The Contractor shall pay for the testing in accordance with the current scale of testing charges laid down by the Ministry of Public Works.</p> <p>The procedure for submitting samples of materials for testing and the method of marking for identification shall be as laid down by the PROJECT MANAGER. The Contractor shall allow in his tender for such samples and tests except those in connection with nominated sub-contractors' work.</p>	
<p><b>B GOVERNMENT ACTS REGARDING WORK PEOPLE ETC.</b></p>	<p>Allow for complying with all Government Acts, Orders and Regulations in connection with the employment of Labour and other matters related to the execution of the works. In particular the Contractor's attention is drawn to the provisions of the Factory Act 1950 and his tender must include for all costs arising or resulting from compliance with any Act, Order or Regulation relating to Insurances, pensions and holidays for workpeople or so the safety, health and welfare of the workpeople. The Contractor must make himself fully acquainted with current Acts and Regulations including Police Regulations regarding the movement, housing, security and control of labour, labour camps , passes for transport, etc. It is most important that the Contractor, before tendering, shall obtain from the relevant Authority the fullest information regarding all such regulations and/or restrictions which may affect the information regarding all such regulations and/or restrictions which may affect the organization of the works, supply and control of labour, etc., and allow accordingly in his tender.</p> <p>No claim in respect of want of knowledge in this connection will be entertained.</p>	
	<p><b>Carried to collection</b></p>	

ITEM	DESCRIPTION	AMOUNT
A	<p><b>PUBLIC AND PRIVATE ROADS.</b></p> <p>The contractor shall maintain as required throughout the execution of the works and make good any damage to public or private roads arising from or consequent upon the execution of the works to the satisfaction of the local and other competent authority and the Project Manager.</p>	
B	<p><b>EXISTING PROPERTY.</b></p> <p>The Contractor shall take every precaution to avoid damage to all existing property including roads, cables, drains and other services and he will be held responsible for and shall make good all such damage arising from the execution of this contract at his own expense to the satisfaction of the Project Manager.</p>	
C	<p><b>OCCUPATIONAL HEALTH AND SAFETY MEASURES</b></p> <p>The Project Manager expects the contractor to adhere to strict safety measures. In this regard the contractor should ensure that all his workers, the consultants and his sub-contractors workmen are wearing Personal Protective Equipment (PPE) before commencement of any work where applicable including overalls with the company name clearly printed on the back each with clearly marked Identification Numbers stitched or imprinted on.</p> <p>The Contractor shall allow for providing all watching, lighting, barriers, signs, covering open trenches and protection of the works, including Sub-Contract works, as may be necessary for the safety of the works and for the protection of the public and his own and Sub-Contractors' employees.</p> <p>He shall also ensure provision of first aid staff, access to ambulance services at all worksites and arrangement to access local hospital/dispensary with qualified medical staff.</p> <p>The Project Manager expects full compliance to this regulation and no excuses will be entertained for non-compliance.</p>	
D	<p><b>OCCUPATIONAL HEALTH AND SAFETY PERSONEL</b></p> <p>The contractor shall allow for Occupational Health and Safety personnel as directed and afford every reasonable facility for the performance of their duties.</p>	
	<b>Carried to collection</b>	

ITEM	DESCRIPTION	AMOUNT
	<p><b>A ACCESS TO SITE AND TEMPORARY ROADS.</b></p> <p>Means of access to the Site shall be agreed with the CLIENT prior to commencement of the work and Contractor must allow for building any necessary temporary access roads for the transport of the materials, plant and workmen as may be required for the complete execution of the works including the provision of temporary culverts, crossings, bridges, or any other means of gaining access to the Site. Upon completion of the works, the Contractor shall remove such temporary access roads; temporary culverts, bridges, etc., and make good and reinstate all works and surfaces disturbed to the satisfaction of the PROJECT MANAGER</p> <p><b>B AREA TO BE OCCUPIED BY THE CONTRACTOR</b></p> <p>The area of the site which may be occupied by the Contractor for use of storage and for the purpose of erecting workshops, etc., shall be defined on site by the PROJECT MANAGER</p> <p><b>C OFFICE FOR THE PROJECT MANAGER</b></p> <p>The contractor shall , if so instructed, supply, maintain, service, clean and light a fully furnished, suitable office, having an approximate floor area of not less than 50 sqm for exclusive use of the project. The office shall have a sample room, a toilet and bathroom, kitchen of suitable dimensions with clean running water and electricity connected to the approval of the Project Manager.</p> <p>The Contractor shall provide, erect and maintain a lock-up type water or bucket closet for the sole use of the PROJECT MANAGER including making temporary connections to the drain where applicable to the satisfaction of Government and Medical Officer of Health and shall provide services of cleaner and pay all conservancy charges and keep both office and closet in a clean and sanitary condition from commencement to the completion of the works and dismantle and make good disturbed surfaces. The office and closet shall be completed before the Contractor is permitted to commence the works. The Contractor shall make available on the Site as and when required by the "PROJECT MANAGER" a modern and accurate level together with levelling staff, ranging rods and 50 metre metallic or linen tape.</p> <p>On completion of the contract, the contents of the office specified above shall revert to the Client. The contractor shall be responsible throughout the contract period for provision of insurance cover, maintenance of the office equipment and furniture, providing all necessary staff and providing security and garbage disposal facilities</p>	
	<b>Carried to collection</b>	

ITEM	DESCRIPTION	AMOUNT
<p><b>A LIGHTING AND POWER</b></p>	<p>The contractor shall provide at his own risk and cost all temporary artificial lighting and power for use on the works including all sub-contractors and specialists requirements and including all temporary connections, wiring, fittings etc. and clearing away on completion. The Contractor shall pay all fees and obtain all permits in connection therewith.</p>	
<p><b>B WATER FOR THE WORKS</b></p>	<p>The Contractor shall provide at his own risk and cost all necessary water required for use in the works. The Contractor must make his own arrangements for connection to the nearest suitable water main and for metering the water used. He must also provide temporary tanks and meters as required at his own cost and clear away when no longer required and make good on completion to the entire satisfaction of the PROJECT MANAGER . The Contractor shall pay all charges in connection herewith. No guarantee is given or implied that sufficient water will be available from mains and the Contractor must make his own arrangements for augmenting this supply at his own cost.</p> <p>The contractor is to provide clean drinking water at the construction site for his workers at all times. All water shall be fresh, clean and pure, free from earthly vegetable or organic matter, acid or alkaline substance in solution or suspension.</p>	
<p><b>C SANITATION OF THE WORKS</b></p>	<p>The Sanitation of the works shall be arranged and maintained by the Contractor to the satisfaction of the Government and/or Local Authorities, Labour Department and the PROJECT MANAGER He may however be allowed use of the existing sanitation facilities but shall be responsible for the proper hygienic maintenance and any damage whatsoever. No guarantees are however given regarding the adequacy of the existing services The Contractor will be required to pay all conservancy charges and shall ensure clean daily maintenance and disinfecting of the latrines, and not less than once per week, the whole area shall be sprayed with disinfectant and insecticides and any temporary drains shall be removed and all works and surfaces disturbed made good and then the whole area disinfected and left clean and free from pollution to the satisfaction of the Architect and local authorities.</p>	
<p><b>Carried to collection</b></p>		

ITEM	DESCRIPTION	AMOUNT
<b>A</b>	<p><b>SUPERVISION AND WORKING HOURS</b></p> <p>The works shall be executed under the direction and to the entire satisfaction in all respects of the PROJECT MANAGER who shall at all times during normal working hours have access to the works and to the yards and workshops of the Contractor and sub-Contractors or other places where work is being prepared for the contract.</p> <p><b>B PROVISIONAL SUMS.</b></p> <p>The term "Provisional Sum" wherever used in these Bills of Quantities shall have the meaning stated in Section A item A7(i) of the Standard Method of Measurement. Such sums are net and no addition shall be made to them for profit.</p> <p><b>C PRIME COST (OR P.C.) SUMS.</b></p> <p>The term "Prime Cost Sum" or "P.C. Sum" wherever used in these Bills of Quantities shall have the meaning stated in Section A item A7 (ii) of the Standard Method of Measurement . Persons or firms nominated by the Project Manager to execute work or to provide and fix materials or goods are described herein as Nominated Sub-Contractors. Persons or firms so nominated to supply goods or materials are described herein as Nominated Suppliers.</p> <p><b>D PROGRESS CHART.</b></p> <p>The Contractor shall provide within two weeks of Possession of Site and in agreement with the PROJECT MANAGER a Progress Chart for the whole of the works including the works of Nominated Sub-Contractors ; one copy to be handed to the PROJECT MANAGER and a further copy to be retained on Site. Progress to be recorded and chart to be amended as necessary as the work proceeds.</p>	
	<b>Carried to collection</b>	

ITEM	DESCRIPTION	AMOUNT
<b>A</b>	<p><b>ADJUSTMENT OF P.C. SUMS.</b></p> <p>In the final account all P.C. Sums shall be deducted and the amount properly expended upon the PROJECT MANAGER'S order in respect of each of them added to the Contract sum. The Contractor shall produce to the PROJECT MANAGER such quotations, invoices or bills, properly receipted, as may be necessary to show the actual details of the sums paid by the Contractor. Items of profit upon P.C. Sums shall be adjusted in the final account pro-rata to the amount paid. Items of "attendance" (as previously described) following P.C. Sums shall be adjusted pro-rata to the physical extent of the work executed (not pro-rata to the amount paid) and this shall apply even though the Contractor's priced Bill shows a percentage in the rate column in respect of them. Should the Contractor be permitted to tender and his tender be accepted of any work for which a P.C. Sum is included in these Bill of Quantities profit and attendance will be allowed at the same rate as it would be if the work were executed by a Nominated Sub-Contractor.</p> <p><b>B ADJUSTMENT OF PROVISIONAL SUMS.</b></p> <p>In the final account all Provisional Sums shall be deducted and the value of the work properly executed in respect of them upon the PROJECT MANAGER's order added to the Contract Sum. Such work shall be valued , but should any part of the work be executed by a Nominated Sub-Contractor or the value of such work or articles for the work to be supplied by a Nominated Supplier, the value of such work or articles shall be treated as a P.C. Sum and profit and attendance comparable to that contained in the priced Bills of Quantities for similar items added.</p> <p><b>C NOMINATED SUB-CONTRACTORS</b></p> <p>When any work is ordered by the PROJECT MANAGER to be executed by nominated sub-contractors, the Contractor shall enter into sub-contracts and shall thereafter be responsible for such sub-contractors in every respect. Unless otherwise described the Contractor is to provide for such Sub-Contractors any or all of the facilities described in these Preliminaries. The Contractor should price for these with the nominated Sub-contract Contractor's work concerned in the P.C. Sums under the description "add for Attendance".</p>	
	<b>Carried to collection</b>	

ITEM	DESCRIPTION	AMOUNT
	<p><b>DIRECT CONTRACTS</b></p> <p><b>A</b> Notwithstanding the foregoing conditions, the Government reserves the right to place a "Direct Contract" for any goods or services required in the works which are covered by a P.C. Sum in the Bills of Quantities and to pay for the same direct. In any such instances, profit relative to the P.C. Sum in the priced Bills of Quantities will be adjusted as described for P.C. Sums and allowed.</p> <p><b>ATTENDANCE UPON OTHER TRADESMEN, ETC.</b></p> <p><b>B</b> The Contractor shall allow for the attendance of trade upon trade and shall afford any tradesmen or other persons employed for the execution of any work not included in this Contract every facility for carrying out their work and also for use of his ordinary scaffolding. The Contractor, however, shall not be required to erect any special scaffolding for them. The Contractor shall perform such cutting away for and making good after the work of such tradesmen or persons as may be ordered by the PROJECT MANAGER and the work will be measured and paid for to the extent executed at rates provided in these Bills.</p> <p><b>PROVISIONAL WORK</b></p> <p><b>C</b> All work described as "Provisional" in these Bills of Quantities is subject to remeasurement in order to ascertain the actual quantity executed for which payment will be made. All "Provisional" and other work liable to adjustment under this Contract shall be left uncovered for a reasonable time to allow all measurements needed for such adjustment to be taken by the PROJECT MANAGER. Immediately the work is ready for measuring, the Contractor shall give notice to the PROJECT MANAGER. If the Contractor makes default in these respects he shall, if the PROJECT MANAGER so directs, uncover the work to enable all measurements to be taken and afterwards reinstate at his own expense.</p>	
	<b>Carried to collection</b>	

ITEM	DESCRIPTION	AMOUNT
	<p><b>ALTERATIONS TO BILLS, PRICING, ETC.</b></p> <p><b>A</b> Any unauthorized alteration or qualification made to the text of the Bills of Quantities may cause the Tender to be disqualified and will in any case be ignored. The Contractor shall be deemed to have made allowance in his prices generally to cover any items against which no price has been inserted in the priced Bills of Quantities. All items of measured work shall be priced in detail and the Tenders containing Lump Sums to cover trades or groups of work must be broken down to show the price of each item before they will be accepted.</p> <p><b>BLASTING OPERATIONS</b></p> <p><b>B</b> Blasting will only be allowed with the express permission of the PROJECT MANAGER in writing. All blasting operations shall be carried out at the Contractor's sole risk and cost in accordance with any Government regulations in force for the time being, and any special regulations laid down by the PROJECT MANAGER governing the use and storage of explosives.</p> <p><b>MATERIALS ARISING FROM EXCAVATIONS</b></p> <p><b>C</b> Materials of any kind obtained from the excavations shall be the property of the Client. Unless the PROJECT MANAGER directs otherwise such materials shall be dealt with as provided in the Contract. Such materials shall only be used in the works, in substitution of materials which the Contractor would otherwise have had to supply with the written permission of the PROJECT MANAGER. Should such permission be given, the Contractor shall make due allowance for the value of the materials so used at a price to be agreed.</p>	
	<b>Carried to collection</b>	

ITEM	DESCRIPTION	AMOUNT
A	<p><b>PROTECTION OF THE WORKS.</b></p> <p>Provide protection of the whole of the works contained in the Bills of Quantities, including casing , casing up, covering or such other means as may be necessary to avoid damage to the satisfaction of the PROJECT MANAGER and remove such protection when no longer required and make good any damage which may nevertheless have been done at completion free of cost to the Client.</p> <p><b>WORKS TO BE DELIVERED UP CLEAN</b></p> <p>Clean and flush all gutters, rainwater and waste pipes, manholes and drains, wash (except where such treatment might cause damage) and clean all floors, sanitary fittings, glass inside and outside and any other parts of the works and remove all marks, blemishes, stains and defects from joinery, fittings and decorated surfaces generally, polish door furniture and bright parts of metalwork and leave the whole of the buildings watertight, clean, perfect and fit for occupation to the approval of the PROJECT MANAGER</p> <p><b>GENERAL SPECIFICATION.</b></p> <p>For the full description of materials and workmanship, method of execution of the work and notes for pricing, the Contractor is referred to the Ministry of Roads and Public Works and Housing General Specification dated 1976 or any subsequent revision thereof which is issued as a separate document, and which shall be allowed in all respects unless it conflicts with the General Preliminaries, Trade Preambles or other items in these Bills of Quantities.</p>	
	<b>Carried to collection</b>	

ITEM	DESCRIPTION	AMOUNT
<p><b>A TRAINING LEVY</b></p> <p>The Contractor's attention is drawn to legal notice No. 237 of October, 1971, which requires payment by the Contractor of a Training Levy at the rate of 1/4 % of the Contract sum on all contracts of more than Kshs. 50,000.00 in value.</p> <p><b>B MATERIALS ON SITE</b></p> <p>All materials for incorporation in the works must be stored on or adjacent to the site before payment is effected unless specifically exempted by the PROJECT MANAGER. This includes the materials of the Main Contractor, Nominated Sub-Contractors and Nominated Suppliers.</p> <p><b>C HOARDING</b></p> <p>The Contractor shall enclose the site or part of the works under construction with a hoarding 2400 mm high consisting of iron sheets on 100 x 50 mm timber posts firmly secured at 1800 mm centers with two 75 x 50 mm timber rails. The Contractor is in addition required to take all precautions necessary for the safe custody of the works, materials, plant, public and Employer's property on the site.</p> <p><b>D CONTRACTOR'S SUPERINTENDENCE/SITE AGENT</b></p> <p>The Contractor shall constantly keep on the works a literate English speaking Agent or Representative, competent and experienced in the kind of work involved who shall give his whole experience in the kind of work involved and shall give his whole time to the superintendence of the works. Such Agent or Representative shall receive on behalf of the Contractor all directions and instructions from the Project Manager and such directions shall be deemed to have been given to the Contractor in accordance with the Conditions of Contract.</p>		
	<p><b>Carried to Collection</b></p>	

ITEM	DESCRIPTION	AMOUNT
	<u>COLLECTION</u>	
	Brought Forward From Page GP/1	
	Brought Forward From Page GP/2	
	Brought Forward From Page GP/3	
	Brought Forward From Page GP/4	
	Brought Forward From Page GP/5	
	Brought Forward From Page GP/6	
	Brought Forward From Page GP/7	
	Brought Forward From Page GP/8	
	Brought Forward From Page GP/9	
	Brought Forward From Page GP/10	
	Brought Forward From Page GP/11	
	Brought Forward From Page GP/12	
	Brought Forward From Page GP/13	
	<b>TOTAL CARRIED TO GRAND SUMMARY</b>	

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**BILL NO.3**  
**BUILDERS' WORKS**

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**GROUND FLOOR**

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ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
A	<p><b>ELEMENT NO. 1:</b></p> <p><b>Ceiling</b></p> <p>Carefully repair damaged sections of the existing acoustic ceiling, including removal of loose or defective panels, replacement with matching panels, reinstatement of suspension system (where required), and finishing to match the existing ceiling.(approximately 200SM)</p>		ITEM		
	<b>Total Amount Carried to Builders Works Summary</b>		<b>Shs</b>		

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**FIRST FLOOR**

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ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
A	Carefully demolish the existing masonry wall to form a staircase access opening, making good all disturbed surfaces, propping where necessary, and carting away all debris from site.(Approximately 12sm)  <b><u>Balustrades</u></b>  <u>Supply and fix 1200 mm high balustrading comprising 50 mm nominal diameter x 2 mm thick (5.03 kg/m) black steel pipe handrail; 2 No. 25 mm x 6 mm (1.207 kg/m) flat middle/bottom rails; 4 No. 25 mm x 25 mm x 2 mm (1.36 kg/m) x 600 mm long inter-baluster uprights with both ends welded; and 50 mm x 25 mm x 2 mm thick (2.15 kg/m) x 1200 mm high balusters fixed at 300 mm centres, one end welded to the handrail and the other built into and including 75 mm average deep mortice in concrete, all complete as specified.</u>		ITEM		
B	Balustrading to Staircase	25	LM		
C	Ditto; Ramp  <u>Touch up primer, prepare and apply one undercoat and two finishing coats first quality gloss oil paint on:</u>	52	LM		
D	General surfaces of metal  <b>Ceiling</b>	77	SM		
E	Carefully repair damaged sections of the existing acoustic ceiling, including removal of loose or defective panels, replacement with matching panels, reinstatement of suspension system (where required), and finishing to match the existing ceiling.  <b><u>Painting &amp; Decoration</u></b>  <u>Skimming</u>		ITEM		
F	Carefully prepare the plastered surface by sanding and skimming with gysum powder to achieve the smooth surface.  <u>Apply three coats of premium quality silk vinyl paint to Plastered:-</u>	236	SM		
G	Walls, beams and columns	236	SM		
	<u>Carried to collection</u>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
A	<p><b><u>WALLING</u></b></p> <p><u>Approved local machine cut natural stone walling; bedded and jointed in cement and sand (1:4) mortar, reinforced with 25 x 20gauge hoop iron at every alternate course as described</u></p> <p>200mm Thick walls</p>	60	SM		
	<u>Carried to collection</u>				
	<p><b><u>COLLECTION</u></b></p> <p>Brought forward from page FF/1</p> <p>Brought forward from above</p>				
	<b>Total Amount Carried to Builders Works Summary</b>		<b>Shs</b>		

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**SECOND, THIRD, FOURTH AND FIFTH  
FLOOR**

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ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<p><b><u>ELEMENT 1</u></b></p> <p><b><u>DEMOLITIONS</u></b></p> <p><b>A</b> Carefully demolish the existing masonry wall to form a staircase access opening, making good all disturbed surfaces, propping where necessary, and carting away all debris from site.(Approximately 12sm)</p>		ITEM		
	<b>Total Carried to Summary</b>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b><u>ELEMENT NO. 2:</u></b>				
	<u>Staircase finishes</u>				
	<u>Cement and sand (1:4) screed as described in:</u>				
<b>A</b>	30mm Thick paving finished to receive terrazzo finish (m.s)	14	SM		
<b>B</b>	30mm Thick ditto but to 300mm wide treads	92	LM		
<b>C</b>	15mm Thick ditto to 150mm High risers	92	LM		
	<u>12mm Thick cement/lime/sand (1:1:6) plaster as described on:</u>				
<b>D</b>	Horizontal concrete soffits of landing	14	SM		
<b>E</b>	Slopping ditto of stairs	23	SM		
<b>F</b>	Sloping open edges of staircase	17	SM		
	<u>Railling</u>				
	<u>Supply and fix 1200 mm high balustrading comprising 50 mm nominal diameter x 2 mm thick (5.03 kg/m) black steel pipe handrail; 2 No. 25 mm x 6 mm (1.207 kg/m) flat middle/bottom rails; 4 No. 25 mm x 25 mm x 2 mm (1.36 kg/m) x 600 mm long inter-baluster uprights with both ends welded; and 50 mm x 25 mm x 2 mm thick (2.15 kg/m) x 1200 mm high balusters fixed at 300 mm centres, one end welded to the handrail and the other built into and including 75 mm average deep mortice in concrete, all complete as specified.</u>				
<b>G</b>	Balustrading to Staircase	25	LM		
	<u>Touch up primer, prepare and apply one undercoat and two finishing coats first quality gloss oil paint as "Crown" or other equal and approved manufacturer on:</u>				
<b>H</b>	General surfaces of metal	25	SM		
	<b><i>Total Amount Carried to Section Summary.</i></b>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b><u>ELEMENT NO. 3:</u></b>				
	<b><u>RAMP FINISHES</u></b>				
	<u>20 mm Thick cement sand screed (1:3) including 20 x 4 mm Thick plastic terrazzo strips to approved pattern to receive terrazzo (m/s) :for</u>				
A	Backing to ramp to receive Terrazzo (m.s)	105	SM		
B	Ditto; landing.	12	SM		
C	20 x 100 mm Skirting	105	LM		
	<u>12mm Thick cement/lime/sand (1:1:6) plaster as described in:</u>				
D	Soffits of landing	12	SM		
E	Ditto sloping exceeding 15° from horizontal	105	SM		
F	Sloping open edges of Ramp	52	SM		
	<b><u>Balustrades</u></b>				
	<u>Supply and fix 1200 mm high balustrading comprising 50 mm nominal diameter x 2 mm thick (5.03 kg/m) black steel pipe handrail; 2 No. 25 mm x 6 mm (1.207 kg/m) flat middle/bottom rails; 4 No. 25 mm x 25 mm x 2 mm (1.36 kg/m) x 600 mm long inter-baluster uprights with both ends welded; and 50 mm x 25 mm x 2 mm thick (2.15 kg/m) x 1200 mm high balusters fixed at 300 mm centres, one end welded to the handrail and the other built into and including 75 mm average deep mortice in concrete, all complete as specified.</u>				
G	Balustrading to Staircase	20	LM		
H	Balustrading to Ramp.	52	LM		
I	Balustrading to Atrium	30	LM		
	<u>Touch up primer, prepare and apply one undercoat and two finishing coats first quality gloss oil paint on:</u>				
J	General surfaces of metal	60	SM		
	<b><i>Total Amount Carried to Section Summary.</i></b>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b><u>ELEMENT NO.4</u></b>				
	<b><u>DOORS</u></b>				
	<b><u>Frames &amp; Finishings</u></b>				
	<b><u>Supply and fix Wrot Mahogany; plugged, screwed and pelleted</u></b>				
<b>A</b>	150 x 50mm frame with three labours : moulded screwed and pelleted.	90	LM		
<b>B</b>	150 x 45mm thick transome with four labours	35	LM		
<b>D</b>	Architrave to detail size, 75 x 25mm	90	LM		
<b>E</b>	Quadrant bead, diameter 25mm	90	LM		
	<b><u>Solid Flush doors</u></b>				
	<b><u>Supply and Fix 45 mm (finished) solid core flush door faced on both sides with 5mm Thick mahogany veneer and 15 mm x 15 mm hardwood beadings pinned and glued to door on both faces to form grids to architect's details and approval: hardwood lipped on all edges to approval:</u></b>				
<b>F</b>	Single leaf door size 800 x 2100mm High.	16	NO		
<b>G</b>	Single leaf door size 700 x 2100mm High. Duct doors	2	NO		
	<b><u>Ironmongery</u></b>				
	<i><u>Supply and fix the following ironmongery including all necessary matching screws.</u></i>				
<b>H</b>	Heavy duty stainless steel hinges with washers	27	PRS		
<b>J</b>	40mm Diameter rubber door stops	18	NO		
<b>K</b>	2-Lever High quality mortice lock complete with pair of brass lever handleas	18	NO		
	<b>CARRIED TO COLLECTION</b>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>Knot, prime, stop prepare and apply one undercoat and two finishing coats of 'Two Pack' polyurethane varnish as crown paints or other equal and approved manufacturer</u>				
<b>A</b>	General surfaces of wood work (m.o.b.s)	130	SM		
<b>B</b>	Frames; over 100mm-200mm girth;	90	LM		
<b>C</b>	Frames not exceeding 100mm girth; internal.	90	LM		
	<u>Prime backs of wood before fixing with aluminium or other approved primer on:</u>				
<b>D</b>	Surfaces exceeding 100- 200 mm girth	90	LM		
<b>CARRIED TO COLLECTION</b>					
<b><u>COLLECTION</u></b>					
Brought forward from page SF/4					
Brought forward from above					
<b>TOTAL CARRIED TO SECTION SUMMARY</b>					

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b><u>ELEMENT NO.5</u></b>				
	<b><u>FINISHES:</u></b>				
	<b><u>INTERNAL FINISHES:</u></b>				
	<b><u>FLOOR FINISHES</u></b>				
	<b><u>Cement and sand (1:3) as described in:</u></b>				
<b>A</b>	30 mm Thick screed to receive ceramic floor tiles(measured separately)	1543	SM		
<b>B</b>	Ditto; to receive non-slip floor tiles finish  <u>Non-slip floor tiles</u>  <u>Supply and fix Non-slip Ceramic floor tiles fixed with approved quality tile adhesive in accordance with manufacturers instructions : bedded on screeds (measured separately) : jointed, pointed and grouted in matching colour cement mortar including all spacers and expansion joints : all in accordance with Architect's detail drawings and approval:</u>	79	SM		
<b>C</b>	300X 600x 10 mm Thick to floor  <u>12 mm (minimum) two-coat plaster; 9 mm first coat of cement and sand (1:6), 3 mm second coat of cement and lime putty (1:10); steel trowelled smooth to:</u>	1622	SM		
<b>D</b>	Wall, beams and columns	3462	SM		
<b>E</b>	Reveals not exceeding 100mm girth	387	LM		
<b>F</b>	Horizontal soffites of concrete slab	1622	SM		
	<b><u>Wall tiles</u></b>				
	<u>Backing; cement and sand 1:3 with approved integral dust proofing additive wood floated</u>				
<b>G</b>	15 mm Thick to receive ceramic tiles(m/s)  <u>300 x 300 x 8 mm Thick coloured Ceramic wall tiles or other equal and approved: jointed and pointed with matching cement mortar as described on:</u>	180	SM		
<b>H</b>	Walls	180	SM		
	<b>TOTAL CARRIED TO SECTION SUMMARY</b>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b><u>ELEMENT NO.6</u></b>				
	<b><u>JOINERY,FITTINGS AND FIXTURES</u></b>				
	<b><u>Vibrated reinforced concrete</u></b>				
A	75mm Thick Suspended slabs.	12	SM		
B	Fabric mesh reinforcement to B.S. 4483 ref: A142 weighing 2.22 kg/sm:	12	SM		
	<b><u>Fair Face formwork: to</u></b>				
C	Soffits of slabs	12	SM		
D	Edges of slabs,etc not exceeding 75mm High	12	LM		
E	Boxing to form pocket,size 500 x 400 x 75mm	11	NO		
	<b><u>Solid concrete block walling in cement mortar</u></b>				
F	100mm Thick Walling	8	SM		
G	18mm Thick Rendering to top of slab finished with a steel trowel.	12	SM		
	<b><u>Plaster: 9mm first coat of cement, lime putty and sand (1:2:9); 4mm second coat of cement lime putty and sand (1:1:6); Steel trowelled</u></b>				
H	Plaster to soffits	12	SM		
	<b><u>Ceramic tiles</u></b>				
J	10mm Thick ceramic tiles in approved colour fixed of Concrete to shape and set in one piece to the approval of architects	12	SM		
K	Ditto;but facia 250mm wide	12	LM		
L	Circular balustrades 1200 mm high (composite): comprising mild steel tubes — 50 mm diameter x 3 mm thick top handrail; welded to 38 mm diameter vertical stanchions at 600 mm centres; with 25 mm diameter horizontal intermediate rails at 150 mm spacing; including all fixing lugs, welding, grinding smooth, and one coat red oxide primer; all complete as per Architect's drawings.	50	LM		
M	Prepare and apply one coat red oxide primer, one undercoat, and two finishing coats gloss oil paint to mild steel balustrades.	75	SM		
	<b>TOTAL CARRIED TO SUMMARY</b>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b><u>ELEMENT NO.7</u></b>				
	<b><u>BUILDER'S WORKS IN CONNECTION WITH SPECIALI ST SERVICES (provisional)</u></b>				
	<b><u>PLUMBING &amp; INTERNAL DRAINAGE</u></b>				
<b>A</b>	Chase and make good wall or floor for small pipes	20	LM		
<b>B</b>	Ditto for large pipes	10	LM		
<b>C</b>	Build large pipe through 200mm wall including sleeve and make good	20	NO		
<b>D</b>	Build small pipe through 150mm wall including sleeve and make good	20	NO		
<b>E</b>	Build large pipe ditto	20	NO		
<b>F</b>	Build small pipe through 100mm wall ditto	30	NO		
<b>G</b>	Ditto large pipe ditto	40	NO		
<b>H</b>	Make or leave hole for large pipe through 150mm thick suspended slab	30	NO		
<b>J</b>	Build large pipe through 150mm floor bed and make good disturbed areas	20	NO		
	<b><u>ELECTRICAL, SECURITY AND SIGNAGE INSTALLATION</u></b>				
<b>K</b>	25 x 25mm deep chase in solid concrete block or stone walling for conduits	100	LM		
<b>L</b>	50 x 50mm deep ditto	100	LM		
<b>M</b>	75 x 75 x 50 mm deep recess in solid concrete block or stone walling for switches, sockets ets	100	NO		
<b>N</b>	300 x 200 x 150mm ditto for submain cables	6	NO		
<b>P</b>	450 x 300 x 100mm ditto for distribution boards	6	NO		
<b>Q</b>	25x25x2mm frame work	50	LM		
	<b><u>12.5mm thick gypsum board in</u></b>				
<b>R</b>	Boxing to pipes	5	SM		
<b>S</b>	Prepare and spray paint three coats of gloss oil paint on: General surfaces of wood	10	SM		
	<i>Total Amount Carried to Section Summary</i>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b><u>SECTION SUMMARY:</u></b>				
	<b><u>Element No:</u></b>	<b><u>Page No</u></b>			
1	DEMOLITIONS	SF/1			
2	STAIRCASE	SF/2	Shs		
3	RAMP FINISHES	SF/3	Shs		
4	DOORS	SF/5	Shs		
5	FINISHES	SF/6	Shs		
6	JOINERY,FITTINGS AND FIXTURES	SF/7	Shs		
7	BUILDER'S WORKS IN CONNECTION WITH SPECIALIS T SERVICES (provisional)	SF/8	Shs		
	<b>SUB TOTAL FOR 1 FLOOR</b>		<b>Shs</b>		
	<b>MULTIPLY BY 4 NO FLOORS (2<sup>ND</sup>, 3<sup>RD</sup>, 4<sup>TH</sup>, &amp; 5<sup>TH</sup>)</b>	<b>X4</b>			
	<b>Total Amount Carried to Builders Works Summary</b>		<b>Shs</b>		

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## **POWER HOUSE**

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ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b><u>ELEMENT 1</u></b>				
	<b><u>SUBSTRUCTURE WORKS</u></b>				
	<b>Excavation and earthwork</b>				
<b>A</b>	Clear site of grass, bushes, shrubs, and small trees not exceeding 300 mm girth, including grubbing up of roots and burning or carting away all arisings.	90	SM		
	<b><u>EXCAVATIONS AND EARTHWORKS:</u></b>				
<b>B</b>	Excavate topsoil to remove vegetable soil to an average depth of 200 mm and deposit as directed.	90	SM		
<b>C</b>	Mass excavation commencing at stripped level to a depth not exceeding 1.5 metres, and cart away excavated material as directed by the Project Manager.	90	CM		
<b>D</b>	Excavate for strip footing foundations from reduced levels to depths not exceeding 1.50 metres.	26	CM		
<b>E</b>	Excavate for column bases from reduced levels to depths not exceeding 1.5 metres.	17	CM		
<b>F</b>	<b><u>Extra over</u></b> all descriptions of excavations for breaking up and removing rock, irrespective of class, and carting away from site as directed.	4	CM		
	<b><u>Disposal</u></b>				
<b>G</b>	Return, fill, and ram with selected and suitable excavated material in and around foundations.	42	CM		
<b>H</b>	Load and cart away surplus excavated materials from site to a dumping site approved by the Local Authority.	96	CM		
<b>J</b>	Allow for keeping excavations free from all water by pumping or otherwise	1	Item		
<b>K</b>	Allow for plunking and strutting sides of excavation trenches	1	Item		
	<b>Carried to collection</b>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>Fillings</u>				
A	Approved hardcore fill; well watered and compacted in 150mm thick layers to approval.	81	CM		
B	Imported murrum backfill beneath hardcore, watered and machine - compacted in layers not exceeding 100mm thick.	72	CM		
C	50mm thick quarry dust blinding on surfaces of hardcore	89	SM		
	<b>Anti-termite treatment</b>				
	<u>Chemical anti-termite treatment applied as per the manufacturer's printed instructions to:</u>				
D	Surface of filling	89	SM		
	<b>Concrete work</b>				
	<u>50mm plain concrete blinding class 10 to:</u>				
E	Foundation trench	32	SM		
F	Column bases	15	SM		
	<u>Vibrated reinforced concrete (class 25/20 mm) in:</u>				
G	Strip foundation bases	6	CM		
H	Columns bases	5	CM		
J	Columns	5	CM		
K	150mm Thick slab	89	SM		
L	Ditto; Access Ramps	24	SM		
	<b>Carried to collection</b>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>Deformed high yield steel ribbed bars reinforcement to KS 2712:2017 for cutting, bending, hoisting and fixing including all necessary tying wires, distance blocks, spacers, templates and stools</u>				
A	8mm Diameter bars	471	KG		
B	10mm Diameter bars	778	KG		
C	12mm Diameter bars	320	KG		
	<u>Double layer Fabric; reference A142 mesh; 200 x 200 mm; weighing 2.22 kg per square metre; B.S. 4483; including 400 mm laps, bends, tying wire and spacer blocks; to:</u>				
D	Floor bed	113	SM		
	<b>Formwork</b>				
	<u>Fair faced finished formwork as marine board or equal and approved :</u>				
E	Sides of strip foundation bases	22.00	SM		
F	Sides of column bases	29	SM		
G	Sides of columns	10	SM		
H	Edges of slab over 75mm but not exceeding 150mm thick	47	LM		
	<u>Polythene sheeting ; 500 gauge; 150 mm laps; laid on:</u>				
J	Surfaces of hardcore filling	113	SM		
	<b>Foundation walling</b>				
	<u>Approved local natural stone walling with a compressive strength of 7.0 N/mm<sup>2</sup> (Class A1); bedded and jointed in cement and sand (1:4) mortar, reinforced with 25mm x 20-gauge hoop iron at very alternate course as described in:</u>				
K	200 mm Thick walls	69	SM		
	<b>Carried to collection</b>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>Cable Reticulation Trenches</u>				
A	500 x 500mm deep (average internally) reinforced concrete class 25 open drain in 200mm bed and 50mm concrete wall, including necessary reinforcements and waterproofing to approval	27	LM		
	<u>Mild steel grating</u>				
B	500mm wide purpose made mild steel grating comprising 50x50x4mm angle framing and 6mm dia. anchor; 4 mm thick chequered plate weld on 50x50x4mm angle painted in three coats gloss oil paint to approval	27	LM		
	<u>Service reticulation Manholes</u>				
C	Manhole internal size 800 x 800mm x 1200m deep, comprising of plain concrete class 15 in 150mm thick base slab, 200mm thick solid concrete block walling, 2mm Thick cement sand rendering to sides and bottoms, including all necessary excavations, formwork and reinforcement.	2	NO		
	<u>Manhole covers</u>				
D	800x800x50mm thick precast concrete manhole cover comprising 50x50x4mm double angle framing painted in three coats gloss oil paint to approval	2	NO		
	<u>12 mm Thick cement and sand (1:3) wood float render on:</u>				
E	Dressed stone wall and concrete surfaces of plinths. <u>Prepare and apply three coats bituminous paint to rendered plinths</u>	15	SM		
F	Rendered plinth surfaces.	15	SM		
	<b>Carried to collection</b>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b><u>SUBSTRUCTURE WORKS</u></b>				
	<b><u>COLLECTION</u></b>				
	Carried from page PH/1				
	Carried from page PH/2				
	Carried from page PH/3				
	Carried from page PH/4				
	<b>Total Element 1 - Substructures Carried to Summary</b>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b><u>ELEMENT 2</u></b> <b><u>FRAME</u></b>				
	<b>Concrete Works</b>				
	<u>Vibrated reinforced concrete (class 25/20 mm) in:</u>				
<b>A</b>	Columns	3	CM		
<b>B</b>	Ring beams	6	CM		
<b>C</b>	Raised platform	5	CM		
	<b>Reinforcement</b>				
	<u>Deformed high yield steel ribbed bars reinforcement to KS</u> <u>573: 2014 for cutting, bending, hoisting and fixing</u> <u>including all necessary tying wires, distance blocks,</u> <u>spacers, templates and stools</u>				
<b>D</b>	10mm Diameter bars	272	KG		
<b>E</b>	12mm Diameter bars	274	KG		
<b>F</b>	16mm Diameter bars	195	KG		
	<b>Formwork</b>				
	<u>Sawn formwork to:-</u>				
<b>G</b>	Sides of columns	27	SM		
<b>H</b>	Sides and soffits of beams	59	SM		
<b>J</b>	Sides of raised platform	4	SM		
	<b>Total Element 2 - Frame</b> <b>Carried to Summary</b>				

ITEM	DESCRIPTION	UNIT	QTY	RATE	COST
	<b>ELEMENT NO. 3</b> <b>CONCRETE WORKS IN POWER HOUSE ROOF</b> <b>SLAB</b> <b><u>Vibrated reinforced concrete (1:2:4)</u></b> <b><u>as described in:</u></b>				
A	Beams	CM	7.5		
B	upstand beam	CM	2		
C	Columns	CM	1		
D	150mm Thick suspended floor slab.	CM	20		
E	Ditto over sinking and making good <b><u>REINFORCEMENT (ALL PROVISIONAL)</u></b> <b><u>- High yield square twisted bars to BS 4461</u></b> <b><u>in:-</u></b>	CM	5		
F	- 8mm Diameter	KG	160		
G	10mm Diameter	KG	1582		
H	16mm Diameter  <b><u>FORMWORK</u></b> <b><u>Sawn formwork as described to:-</u></b>	KG	450		
I	Side and soffits of beams and suspended slabs	SM	24		
J	- Sides of columns	SM	12		
K	Horizontal soffits of suspended slabs	SM	100		
	<b><u>TOTAL CARRIED TO COLLECTION</u></b>			<b>Kshs</b>	

ITEM	DESCRIPTION	UNIT	QTY	RATE	COST
	<b><u>WATER PROOFING</u></b>				
A	APP sheeting laid with 150mm laps (measured net - No allowance made for laps) including 400mm high upstand wall	SM	150		
B	450 x 20 x 3mm thick mild steel hoop iron built one end into concrete columns and the other end into stone walling <b><u>Cement and sand (1:3) render as described in:-</u></b>	ML	50		
C	13mm Thick with wood float finish to vertical surfaces <b><u>Prepare and apply three coats first grade plastic emulsion paint as described on:-</u></b>	SM	20		
D	Vertical rendered surfaces	SM	20		
	<b><u>Precast concrete paving slabs</u></b>				
E	600 x 600 x 50mm Thick precast concrete paving slabs laid on and including 50mm Thick sand bed, jointed and pointed in cement and sand(1:4) mortar	ML	40		
	<b><u>TOTAL CARRIED TO COLLECTION</u></b>			Kshs	

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<p><b><u>COLLECTION</u></b></p> <p>Carried from page PH/7</p> <p>Carried from page PH/8</p>				
	<p><b>Total Element 3 - Roof Carried to Summary</b></p>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b><u>ELEMENT 4</u></b>				
	<b><u>WALLING</u></b>				
	<b>External walling</b>				
	<u>Approved local machine cut natural stone walling; bedded and jointed in cement and sand (1:4) mortar, reinforced with 25 x 20gauge hoop iron at every alternate course as described</u>				
<b>A</b>	200mm Thick walls	165	SM		
	<u>Precast concrete louvered blocks jointed and bedded in cement sand (1:4); including copper wire tray fixed on to the wall block; to approved pattern and colour</u>				
<b>B</b>	200mm Thick walls	75	SM		
	<b>Internal walling</b>				
	<u>Approved local machine cut natural stone walling; bedded and jointed in cement and sand (1:4) mortar, reinforced with 25 x 20gauge hoop iron at every alternate course as described</u>				
<b>C</b>	200mm Thick walls	60	SM		
	<u>Three- ply bituminous felt damp proof course (DPC) bedded in cement ans sand (1:3) mortar (measured net, no allowance for laps):-</u>				
<b>D</b>	200mm Thick wide DPC	80	LM		
	<b>Total Element 4 - Walling Carried to Summary</b>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b><u>ELEMENT 5</u></b>				
	<b><u>DOORS</u></b>				
	<i>Note: All doors as per Architect's door schedule</i>				
	<b><u>Steel casement doors</u></b>				
	<u>Supply, assemble and fix the following purpose made standard section steel Door to comply to B.S.990,obtained from an approved manufacturer, primed with red oxide primer before delivery to site complete with, hinges, handles, catches and building in lugs with the frames fishtailed and grouted to concrete block wall or concrete head;Complete:</u>				
<b>A</b>	Door overall size 2340 x 2970mm High	1	NO		
<b>B</b>	Ditto:2340 x1500 mm High	1	NO		
<b>C</b>	Ditto:2370 x2340 mm High	2	NO		
<b>D</b>	Louvered Door overall size 1000 x2300 mm High	3	NO		
	<u>Prepare , Prime and apply one undercoat and two finishing coats of gloss oil paint on :-</u>				
<b>E</b>	General metal door surfaces (both sides measured)	57	SM		
	<b>Total Element 5 - Doors</b>				
	<b>Carried to Summary of Elements</b>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b><u>ELEMENT 6</u></b>				
	<b><u>FINISHES</u></b>				
	<b>Floor finishes</b>				
A	40 mm Thick powerfloated screed; trowelled smooth and finished with concrete floor red oxide paint as per manufacturer's instructions; to floors	113	SM		
B	Ditto to sides of raised platform	5	SM		
	<b>External wall finishes</b>				
	<u>15mm Thick cement and sand (1:3) render finished smooth with steel trowel to:</u>				
D	Masonry and concrete surfaces; Externally	165	SM		
	<u>Prepare and apply three coats of premium approved quality silk vinyl paint to:-</u>				
E	Rendered surfaces; Externally	165	SM		
	<b>Internal Wall finishes</b>				
	<u>9mm thick first coat cement and sand (1:4) plaster; 3mm thick second coat of cement and lime putty (1:5); steel trowel finish; to</u>				
F	Masonry and concrete surfaces	262	SM		
	<u>Skimming</u>				
G	Carefully prepare the plastered surface by sanding and skimming with gypsum powder to achieve the smooth surface.	262	SM		
	<u>Prepare and apply one universal under coat and two finishing coats of approved 1st quality emulsion paint to</u>				
H	Plastered surfaces	262	SM		
	<b>Total Element 6 - Finishes Carried to Summary</b>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>SUMMARY</u>	<u>PAGE</u>			
1	SUBSTRUCTURE WORKS	PH/5			
2	FRAME	PH/6			
3	ROOFING AND RAINWATER DISPOSAL	PH/9			
4	WALLING	PH/10			
5	DOORS	PH/11			
6	FINISHES	PH/12			
<b>Total Amount Carried to Builders Works Summary</b>					

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**PUMP ROOM**

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ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b><u>ELEMENT NO. 1:</u></b>				
	<b><u>SUBSTRUCTURES</u></b>				
	<b><u>All Provisional</u></b>				
	<b><u>Site Preparation</u></b>				
A	Clear site of grass, bushes, shrubs, and small trees not exceeding 300 mm girth, including grubbing up of roots and burning or carting away all arisings.	8	SM		
	<b><u>EXCAVATIONS AND EARTHWORKS:</u></b>				
B	Excavate topsoil to remove vegetable soil to an average depth of 200 mm and deposit as directed.	8	SM		
C	Mass excavation commencing at stripped level to a depth not exceeding 1.5 metres, and cart away excavated material as directed by the Project Manager.	12	CM		
D	Excavate for strip footing foundations from reduced levels to depths not exceeding 1.50 metres.	2	CM		
E	Excavate for column bases from reduced levels to depths not exceeding 1.5 metres.	2	CM		
F	<b><u>Extra over</u></b> all descriptions of excavations for breaking up and removing rock, irrespective of class, and carting away from site as directed.	1	CM		
G	<b><u>Extra over</u></b> for levelling and compacting the bottoms of excavations to receive concrete.	11	SM		
H	Allow for keeping excavations free from water and mud by pumping, bailing, or other approved methods as necessary.		ITEM		
J	Allow for maintaining and supporting the sides of all excavations and for keeping them free from fallen material.		ITEM		
	<b><u>CARRIED TO COLLECTION</u></b>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>Disposal:</u>				
A	Return, fill, and ram with selected and suitable excavated material in and around foundations.	6	CM		
B	Load and cart away surplus excavated materials from site to a dumping site approved by the Local Authority.	12	CM		
	<u>Filling:</u>				
C	300mm Thick Approved hand-packed hardcore filling to make up levels, compacted in layers not exceeding 150 mm thick, to the satisfaction of the Structural Engineer.	8	SM		
D	Approved imported murrum filling to make up levels, compacted in layers not exceeding 150 mm thick, to the satisfaction of the Structural Engineer.	6	CM		
E	50 mm thick quarry dust blinding to surfaces of hardcore filling, levelled and compacted to the approval of the Structural Engineer.	8	SM		
	<u>Anti-Termite Treatment:</u>				
F	Insecticide treatment on top of blinded hardcore and over foundation walls applied as per <b>manufacturer's instruction with a 10 year guarantee</b> .	8	SM		
	<u>Damp proof mebrane</u>				
G	Single layer of 1000 gauge polythene sheeting laid on blinded hardcore with 150 mm side laps, to receive concrete.	8	SM		
	<b>CARRIED TO COLLECTION</b>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b>CONCRETE WORKS:</b>				
	<u>Plain concrete (1:3:6) in:-</u>				
A	50 mm Thick blinding in column bases.	4	SM		
B	Ditto: strip footing.	7	SM		
	<u>Vibrated Reinforced Concrete Class 25 in:-</u>				
C	Column bases	2	CM		
D	Foundation Columns.	1	CM		
E	Strip footing foundations	2	CM		
F	Entrance steps at ground floor.	1	CM		
G	200 Thick entrance ramps ground floor.	1	SM		
H	150 mm Thick horizontal floor bed	8	SM		
	<u>REINFORCEMENT STEEL (Provisional):</u>				
	<u>Deformed high yield ribbed bars reinforcement to BS 4449: 1997 with a yield strength of 460 N/mm<sup>2</sup>, cut, bent, and fixed as directed. Tenderers to allow in their unit rate for cutting, bending, hoisting, and fixing, including all necessary tying wires, distance blocks, templates, and spacer stools.</u>				
J	8 mm bars.	99	KG		
K	10 mm ditto.	149	KG		
L	12 mm ditto.	50	KG		
M	Assorted bars 16-32mm.	198	KG		
	<b><u>B.R.C. Mesh</u></b>				
N	Mesh fabric reinforcement complying with B. S 1483Ref A142 embedded in floor slab (measured net with no allowance for minimum of 225mm. laps) including tying wire and supporting as required.	8	SM		
P	Ditto ramp ditto.	1	SM		
	<b>CARRIED TO COLLECTION</b>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b>FORMWORK</b>				
	<u>Fair faced finished formwork as marine board or equal and approved :</u>				
A	Sides of column bases.	7	SM		
B	Vertical sides of Foundation Columns.	5	SM		
C	Strip footing foundations	5	SM		
D	Edges of floor bed girth 75 - 150 mm High	11	LM		
E	Edges of risers girth 75 - 150 mm girth for the Entrance steps.	2	LM		
F	Edges of ramp girth 150-225 mm girth.	1	LM		
	<b><u>Foundation Walling</u></b>				
	<u>200mm Thick approved natural stone; local; roughly squared to foundation walling; bedding and jointing in cement sand (1:3) mortar and reinforced with 25mm wide x 20 gauge hoop iron in alternate courses as described in:</u>				
G	200 mm Thick Walling	17	SM		
	<b><u>PLINTH FINISHES</u></b>				
	<u>12 mm Thick cement and sand (1:3) wood float render on:</u>				
H	Dressed stone wall and concrete surfaces of plinths.	6	SM		
	<u>Prepare and apply three coats bituminous paint to rendered plinths</u>				
J	Rendered plinth surfaces.	6	SM		
	<b>CARRIED TO COLLECTION</b>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b><u>COLLECTION</u></b>				
	Brought forward from page PR/1				
	Brought forward from page PR/2				
	Brought forward from page PR/3				
	Brought forward from page PR/4				
	<b><i>Amount carried to summary</i></b>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b><u>ELEMENT NO. 2:</u></b>				
	<b><u>REINFORCED CONCRETE WORK:</u></b>				
	<b><u>CONCRETE WORK:</u></b>				
	<u>Vibrated reinforced concrete Class 25 as described in:</u>				
A	Ring Beams	1	CM		
B	Columns	1	CM		
C	175 mm Thick suspended floor slab	8	SM		
	<u>Deformed high yield ribbed bars reinforcement to BS 4449: 1997 with a yield strength of 460 N/mm<sup>2</sup>, cut, bent, and fixed as directed. Tenderers to allow in their unit rate for cutting, bending, hoisting, and fixing, including all necessary tying wires, distance blocks, templates, and spacer stools.</u>				
D	8 mm diameter bars	47	KG		
E	10 mm diameter bars	47	KG		
F	12 mm ditto	66	KG		
G	16 mm ditto	115	KG		
	<b><u>Formwork</u></b>				
	<b><u>Fair faced finished formwork as marine board or equal and approved :</u></b>				
H	Sides and soffits of Ring beams	13	SM		
J	Sides of columns	10	SM		
K	Soffits of suspended slab	8	SM		
L	Edges of slab over 75mm but not exceeding 150mm wide	11	LM		
	<b><i>Amount carried to summary</i></b>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b><u>ELEMENT NO. 3</u></b>				
	<b><u>WALLING</u></b>				
	<u>Approved Natural local stone of the approved colour; squared ; bush hammered ; in 200mm course heights, bedded and jointed in cement sand mortar (1:3), reinforced with 20 gauge x 25mm wide hoop iron reinforcement and column wall ties in every alternate course</u>				
A	200 mm Thick walling.	18	SM		
	<u>Three- ply bituminous felt damp proof course bedded in cement and sand (1:3) mortar (measured nett allow for 300mm laps):-</u>				
B	200mm wide under walls	11	LM		
	<u>Precast concrete louvered blocks jointed and bedded in cement sand (1:4); including copper wire tray fixed on to the wall block; to approved pattern and colour</u>				
C	200mm Thick walls	4	LM		
<b>Total Amount Carried to Summary</b>					

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b><u>ELEMENT NO.4</u></b>				
	<b><u>ROOF CONSTRUCTION</u></b>				
	<b><u>FLAT ROOF FINISHES</u></b>				
	<b><u>WATER-PROOFING:</u></b>				
	<u>Roofing screed in cement, sand and pumice (1:3:1) finished with 10mm layer of cement and sand (1:4) topping laid on concrete slab and finished to receive APP bituminous membrane (m.s) as decribed:</u>				
<b>A</b>	50mm (Average) screed to sloping roof slab, laid to falls and crossfalls to receive water proofing membrane.	8	SM		
<b>B</b>	50 x 50mm (Extreme) angle fillet to walls : including fillet to columns	11	LM		
<b>C</b>	Extra over screeding for dishing finish around rainwater outlet not exceeding 100 mm diametre.	2	NO		
	<u>APP modified roofing membrane or other equal and approved with surface finish weighing 4kg/sm; laid on primer with torch-on process from an approved manufacturer; finish to horizontal terraces to falls and crossfalls : all executed by a specialist under 10 years guarantee : as described</u>				
<b>D</b>	4mm on smooth screeded roof laid in one layer	8	SM		
<b>E</b>	Dressing and sealing around 200mm diameter roof outlets	1	NO		
<b>F</b>	25 mm Thick screed laid over waterproofing membrane; finished to receive tiles (m.s)	8	SM		
<b>F</b>	100 mm diameter cast iron 'Fulbora' outlet as Key Terrain by Crown Paints Ltd or other equal and approved including joint to downpipe (m.s) and casing into concrete slab	1	NO		
<b>G</b>	100mm diameter downpipe fixed with and including holderbats plugged to walls	1	LM		
	<b>TOTAL CARRIED TO SUMMARY</b>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<p><b><u>ELEMENT NO.5</u></b></p> <p><b><u>DOORS</u></b></p> <p><u>Supply and fix Purpose made steel door comprising 100 x 50 x 3 mm thick RHS external frame fishtailed grouted into concrete/block/masonry walling; with 100 x 50 x 3mmthick SHS internal surround frames; 50 x 50 x 2mm SHS verticals at 600mm centres and horizontals at 638mm centres; infilled with 18 gauge mild steel diamond shape pressed metal plates; bearing type heavy duty pin type hinges; tower bolts, cleats, cleat boxes, pull handles, 300mm long mild steel slide bolt and 4 mm thick steel hasp and staple; all welding, ground to a smooth finish including for priming door with one coat red oxide primer; all necessary approved ironmongery; top 8No. panels infilled with 18 gauge cranked louvres fixed at 45 degrees at 60 mm centres including two undercoat and one gloss finishing enamel paint to metal work all to architect's details and approved sample to approval.</u></p> <p><b>A</b> Overall size 900 x1800mm High</p> <p><b><u>Prepare touch up primer and apply two undercoats and one finishing coat gloss oil paint on metal:</u></b></p> <p><b>B</b> General surfaces :</p>	1	NO		
	<b>TOTAL CARRIED TO SECTION SUMMARY</b>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b><u>ELEMENT NO.6</u></b>				
	<b><u>FINISHES:</u></b>				
	<b><u>INTERNAL FINISHES:</u></b>				
<b>A</b>	40 mm Thick powerfloated screed; trowelled smooth and finished with concrete floor red oxide paint as per manufacturer's instructions; to floors	8	SM		
	<u>12 mm (minimum) two-coat plaster; 9 mm first coat of cement and sand (1:6), 3 mm second coat of cement and lime putty (1:10); steel trowelled smooth to:</u>				
<b>B</b>	Walls	44	SM		
<b>C</b>	Soffites of Slab.	30	SM		
	<b><u>Painting &amp; Decoration</u></b>				
<b>D</b>	Carefully prepare the plastered surface by sanding and skimming with gypsum powder to achieve the smooth surface.	74	SM		
	<u>Apply three coats of premium quality silk vinyl paint to Plastered:-</u>				
<b>E</b>	Walls	44	SM		
<b>F</b>	Soffites of Slab.	30	SM		
<b>G</b>	Horizontal recessed key pointing on masonry walling in 10mm Thick cement sand mortar (1:3).	18	SM		
	<u>Render; 18mm Thick, 1 No. coatwork of cement and sand (1:3); wood floated to concrete or stone work base generally to: -</u>				
<b>H</b>	Beams.	5	SM		
	<u>Textured external wall finish; specialist applied; as "Ruff &amp; Tuff " or equal and approved; pattern and colour as selected by the architect applied with a steel trowel or roller by specialist on backing render (m.s).</u>				
<b>J</b>	Rendered stone wall and concrete surfaces	5	SM		
	<b>TOTAL CARRIED TO SECTION SUMMARY</b>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b><u>SECTION SUMMARY:</u></b>				
	<b><u>Element No:</u></b>	<b><u>Page No</u></b>			
1	SUBSTRUCTURES (ALL PROVISIONAL)	PR/5	Shs		
2	REINFORCED CONCRETE WORKS	PR/6	Shs		
3	WALLING	PR/7	Shs		
4	ROOF CONSTRUCTION	PR/8	Shs		
5	DOORS	PR/9	Shs		
6	FINISHES	PR/10	Shs		
	<b>TOTAL CARRIED TO BUILDERS WORKS SUMMARY PAGE</b>		<b>Shs</b>		

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## **BASEMENT FINISHES**

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ITEM	DESCRIPTION	UNIT	QTY	RATE	COST
<b>BASEMENT FINISHES</b>					
A	25mm Cement and sand (1:3) screed as described in 150mm floor slab to receive terrazzo finish	SM	1543		
B	25mm terrazzo floor finish to 150mm floor slab	SM	1543		
<b><u>Prepare and apply three coats first grade plastic emulsion paint as described on:-</u></b>					
C	Soffits 150mm thick suspended floor slab and beams	SM	1620		
D	Ditto vertical sides to columns	SM	1263		
E	Ditto vertical sides to walls,	SM	1200		
F	Supply and fix approved plastic water proof sealant to expansion joints	LM	75		
<b><u>BASEMENT FINISHES CARRIED TO SUMMARY</u></b>					
				<b>Kshs</b>	

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## **EXTERNAL WORKS**

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ITEM	DESCRIPTION	UNIT	QTY	RATE	COST
<b><u>EXTERNAL WORKS</u></b>					
A	Excavate depth not exceeding 3.0m deep x 3m wide and store material for reuse	CM	1200		
B	Return and Compact the material in layers 150mm – 300mm	CM	1200		
C	Lay and spread 50mm sand or any other approved Material to receive 600 x 600mm mazerras slab	SM	300		
D	Supply and fix 600 x 600mm mazerras slab jointed in cement sand mortar.	SM	300		
<b><u>EXTERNAL WORKS CARRIED TO SUMMARY PAGE</u></b>				<b>Kshs</b>	

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## **BUILDER'S WORKS SUMMARY**

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ITEM	DESCRIPTION	PAGE NO.	AMOUNT
	<b><u>SUMMARY OF BUILDERS WORKS</u></b>		
<b>A</b>	GROUND FLOOR	GF/1	
<b>B</b>	FIRST FLOOR	FF/2	
<b>C</b>	SECOND, THIRD, FOURTH AND FIFTH FLOOR	SF/9	
<b>D</b>	POWER HOUSE	PH/13	
<b>E</b>	PUMP ROOM	PR/11	
<b>F</b>	BASEMENT FINISHES	B/1	
<b>G</b>	EXTERNAL WORKS	EX/1	
	<b>TOTAL CARRIED TO GRAND SUMMARY</b>		

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**BILL 4**

**PLUMBING AND DRAINAGE WORKS**

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**MECHANICAL WORKS**

**SUB-CONTRACT 1**

**WIP NO-D1065/NB/NB/2501-**

**JOB NO.11612A**

**SANITARY FITTINGS, PLUMBING, DRAINAGE AND FIRE FIGHTING**

**INSTALLATION WORKS FOR THE PROPOSED COMPLETION OF**

**MIULTIMEDIA UNIVERSITY ULTRA MODERN LIBRARY**

**JANUARY, 2026**

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## PART1: TENDERING PROCEDURES

### **TENDER EVALUATION CRITERIA**

**Note: The tenderer, who shall be domestic subcontractor to the Main Contractor upon award of the tender, must comply with the following conditions and instructions failure to which the tender shall be rejected.**

After tender opening, the tenders will be evaluated in **2 stages**, namely:

1. Preliminary Evaluation;
2. Technical Evaluation;

### **STAGE 1: PRELIMINARY EVALUATION**

This stage of evaluation shall involve examination of the mandatory requirements as set out in the Tender Advertisement Notice or Letter of Invitation to Tender and any other conditions stated in the bid document.

These conditions shall include the following:

- i) Company Certificate of incorporation/registration;
- ii) Current National Construction Authority Registration certificate (NCA 6and above in Mechanical Engineering (Plumbing and Drainage, Fire Protection Installations Works) and current annual practicing license.
- iii) Valid Current Tax Compliance Certificate from Bidding Company, and if Consortium, from each member of the consortium.
- iv) Provide a copy of valid business permit;
- v) Dully filled (in ink) Bills of quantities in the format provided;
- vi) Signed pre contract agreement between the main contractor and sub contractor, and to be commissioned by commissioner of oaths, This applied if the sub contractor firm is different from the main contractor firm.
- vii) Provision of catalogues, brochures for all items listed in the technical schedule page of Key items to be supplied ***Please attach Catalogues and Brochures and mark the pages with items to be supplied***
- viii) Fully filled schedule of unit rates as listed
- ix) Signed statement of compliance
- x) Submission of valid CR12 form showing the list of directors /shareholding (issued within the Tendering Period) or National Identity Card(s) for Sole Proprietorship / Partnership

**Note:**

*On compliance with Technical Specifications, bidders shall supply equipment /items which comply with the technical specifications set out in the bid document. In this regard, the bidder will be required to submit relevant technical brochure/catalogues with the tender document, highlighting (using a mark-pen or highlighter) the Catalogue Number/Model of the proposed items. Such brochure/catalogues should indicate comprehensive relevant data of the proposed equipment/items which should include but not limited to the following:*

- (i) Standards of manufacture;
- (ii) Performance ratings/characteristics;
- (iii) Material of manufacture;
- (iv) Electrical power ratings; and
- (v) Any other necessary requirements so as to comply with the bid technical specifications.

The bid will then be analyzed, using the information in the technical brochures, to determine compliance with key technical specifications for the works/items as indicated in the tender document. Bidders not complying with **any** of the key Technical Schedule specifications shall be **non-responsive** while those meeting all the key technical specifications shall be **Responsive** (**evaluation committee may add more key requirements from the bid technical specifications.**

The tenderer shall also fill in the Technical Schedule as Specified in the tender document for Equipment's and items indicating the Country of Origin, Model/Make/Manufacturer, and catalogue numbers of the Items/ Equipment they propose to supply.

**The tenderers who do not satisfy any of the above mandatory requirements shall be considered non-responsive and their tenders will not be evaluated further.**

**STAGE 2 TECHNICAL EVALUATIONS**

**A) Assessment for eligibility**

The tender document shall be examined based on a detailed scoring plan shall be as shown in table 1 below.

**TABLE 1: Assessment for Eligibility**

<b>Item</b>	<b>Description</b>	<b>Met</b>	<b>Not Met</b>
<b>i</b>	<b>Key Personnel (Attach evidence)</b>		
	<b>Director of the firm</b> <ul style="list-style-type: none"><li>• Holder of degree/ Diploma in relevant field</li></ul>		
	<b>At least 1No. degree/diploma of key personnel in relevant Engineering field</b> <ul style="list-style-type: none"><li>• With over 10 years relevant experience</li></ul>		
	<b>At least 1No certificate holder of key personnel in relevant Engineering field</b> <ul style="list-style-type: none"><li>• With over 10 years relevant experience</li></ul>		
	<b>At least 2No artisan (trade test certificate in relevant Engineering field)</b> <ul style="list-style-type: none"><li>• Artisan with over 10 years relevant experience</li></ul>		
<b>ii</b>	<b>Contract Completed in the last five (5) years (Max of 3 No. Projects)- <u>Provide Evidence</u></b> <ul style="list-style-type: none"><li>• Project of similar nature, complexity and magnitude</li></ul>		
<b>iii</b>	<b>Schedule of contractors equipment and transport (proof or evidence of ownership/Lease)</b> <b>a) Relevant Transport (at least 2No.)</b> <ul style="list-style-type: none"><li>• Means of transport (Vehicle)</li></ul>		
	<b>b) Relevant Equipment (at least 5No.)</b> <ul style="list-style-type: none"><li>• Has relevant equipment for work being tendered</li></ul>		
<b>iv</b>	<b>Litigation History</b> <ul style="list-style-type: none"><li>• Form Filled</li></ul>		
<b>v</b>	<b>REMARKS</b>		

**Any bidder who meets the above shall be considered for further evaluation**

**A-PART II- WORKS REQUIREMENTS**  
**GENERAL MECHANICAL SPECIFICATIONS**

**SECTION C**

**GENERAL MECHANICAL SPECIFICATION**

<b>CLAUSE</b>	<b>DESCRIPTION</b>	<b>PAGE</b>
2.01	GENERAL.....	B-1
	.....	
2.02	QUALITY OF MATERIALS.....	B-1
2.03	REGULATIONS AND STANDARDS.....	B-1
2.04	ELECTRICAL REQUIREMENTS.....	B-2
2.05	TRANSPORT AND STORAGE.....	B-3
2.06	SITE SUPERVISION.....	B-3
2.07	INSTALLATION.....	B-3
	.	
2.08	TESTING.....	B-4
	....	
2.09	COLOUR CODING.....	B-5
2.10	WELDING.....	B-6
	...	

## **GENERAL MECHANICAL SPECIFICATION**

### **2.01 General**

This section specifies the general requirement for plant, equipment and materials forming part of the Sub- contract Works and shall apply except where specifically stated elsewhere in the Specification or on the Contract Drawings.

### **2.02 Quality of Materials**

All plant, equipment and materials supplied as part of the Sub-contract Works shall be new and of first-class commercial quality, shall be free from defects and imperfections and where indicated shall be of grades and classifications designated herein.

All products or materials not manufactured by the Sub-contractor shall be products of reputable manufacturers and so far as the provisions of the Specification is concerned shall be as if they had been manufactured by the Sub-contractor.

Materials and apparatus required for the complete installation as called for by the Specification and Contract Drawings shall be supplied by the Sub-contractor unless mention is made otherwise.

Materials and apparatus supplied by others for installation and connection by the Sub-contractor shall be carefully examined on receipt. Should any defects be noted, the Sub-contractor shall immediately notify the Engineer.

Defective equipment or that damaged in the course of installation or tests shall be replaced as required to the approval of the Engineer.

### **2.03 Regulations and Standards**

The Sub-contract Works shall comply with the current editions of the following:

- a) The Kenya Government Regulations.
- a) The United Kingdom Institution of Electrical Engineers (IEE) Regulations for the Electrical Equipment of Buildings.
- b) The United Kingdom Chartered Institute of Building Services Engineers (CIBSE) Guides.
- c) British Standard and Codes of Practice as published by the British Standards Institution (BSI)
- e) The Local Council By-laws.
- f) The Electricity Supply Authority By-laws.
- g) Local Authority By-laws.

h) The Kenya Building Code Regulations.

i) The Kenya Bureau of Standards

#### 2.04 **Electrical Requirements**

Plant and equipment supplied under this Sub-contract shall be complete with all necessary motor starters, control boards, and other control apparatus. Where control panels incorporating several starters are supplied, they shall be complete with a main isolator.

The supply power up to and including local isolators shall be provided and installed by the Electrical Sub-contractor. All other wiring and connections to equipment shall form part of this Sub-contract and be the responsibility of the Sub-contractor.

The Sub-contractor shall supply three copies of all schematic, cabling and wiring diagrams for the Engineer's approval.

The starting current of all electric motors and equipment shall not exceed the maximum permissible starting currents described in the Kenya Power and Lighting Company (KPLC) By-laws.

All electrical plant and equipment supplied by the Sub-contractor shall be rated for the supply voltage and frequency obtained in Kenya, that is 415 Volts, 50Hz, 3-Phase or 240Volts, 50Hz, 1-phase.

Any equipment that is not rated for the above voltages and frequencies shall be rejected by the Engineer.

#### 2.05 **Transport and Storage**

All plant and equipment shall, during transportation be suitably packed, crated and protected to minimize the possibility of damage and to prevent corrosion or other deterioration.

On arrival at site all plant and equipment shall be examined and any damage to parts and protective priming coats made good before storage or installation.

Adequate measures shall be taken by the Sub-contractor to ensure that plant and equipment do not suffer any deterioration during storage.

Prior to installation all piping and equipment shall be thoroughly cleaned.

If, in the opinion of the Engineer any equipment has deteriorated or been damaged to such an extent that it is not suitable for installation, the Sub-contractor shall replace this equipment at his own cost.

#### 2.06 **Site Supervision**

The Sub-contractor shall ensure that there is an English-speaking supervisor on the site at all times during normal working hours.

#### 2.07 **Installation**

Installation of all special plant and equipment shall be carried out by the Sub-contractor under adequate supervision from skilled staff provided by the plant and equipment manufacturer or his appointed agent in accordance with the best standards of modern practice and to the relevant regulations and standards described under Clause 2.03 of this Section.

## 2.08 **Testing**

### 2.08.1 **General**

The Sub-contractor's attention is drawn to Part 'C' Clause 1.38 of the "Preliminaries and General Conditions".

### 2.08.2 **Material Tests**

2.08.3 All material for plant and equipment to be installed under this Sub-contract shall be tested, unless otherwise directed, in accordance with the relevant B.S Specification concerned.

For materials where no B.S. Specification exists, tests are to be made in accordance with the best modern commercial methods to the approval of the Engineer, having regard to the particular type of the materials concerned.

The Sub-contractor shall prepare specimens and performance tests and analyses to demonstrate conformance of the various materials with the applicable standards.

If stock material, which has not been specially manufactured for the plant and equipment specified is used, then the Sub-contractor shall submit satisfactory evidence to the Engineer that such materials conform to the requirements stated herein in which case tests of material may be partially or completely waived.

Certified mill test reports of plates, piping and other materials shall be deemed acceptable.

### 2.08.4 **Manufactured Plant and Equipment – Work Tests**

The rights of the Engineer relating to the inspection, examination and testing of plant and equipment during manufacture shall be applicable to the Insurance Companies or Inspection Authorities so nominated by the Engineer.

The Sub-contractor shall give two weeks' notice to the Engineer of the manufacturer's intention to carry out such tests and inspections.

The Engineer or his representative shall be entitled to witness such tests and inspections.

The cost of such tests and inspections shall be borne by the Sub-contractor.

Six copies of all test and inspection certificates and performance graphs shall be submitted to the Engineer for his approval as soon as possible after the completion of such tests and inspections

Plant and equipment which is shipped before the relevant test certificate has been approved by the Engineer shall be shipped at the Sub-contractor's own risk and should the test and inspection certificates not be approved; new tests may be ordered by the Engineer at the Sub-contractor's expense.

#### **2.08.5 Pressure Testing**

All pipe work installations shall be pressure tested in accordance with the requirements of the various sections of this Specification. The installations may be tested in sections to suit the progress of the works but all tests must be carried out before the work is buried or concealed behind building finishes. All tests must be witnessed by the Engineer or his representative and the Sub-contractor shall give 48 hours' notice to the Engineer of his intention to carry out such tests.

Any pipe work that is buried or concealed before witnessed pressure tests have been carried out shall be exposed at the expense of the Sub-contractor and the specified tests shall then be applied.

The Sub-contractor shall prepare test certificates for signature by the Engineer and shall keep a progressive and up-to-date record of the section of the work that has been tested.

#### **2.08.6 Shop drawings**

Before manufacture or Fabrication is commenced the contractor shall submit Two copies of detailed drawings of all water tanks, fire hose reel pump, water booster pump and any other equipment including their components showing all pertinent information including sizes, capacities, construction details, etc., as may be required to determine the suitability of the equipment for the approval of the Engineer. Approval of the detailed drawings shall not relieve the contractor of the full responsibility of errors or the necessity of checking the drawings himself or of furnishing the materials and equipment and performing the work required by the plans and specifications.

#### **2.09 Color Coding**

Unless stated otherwise in the Particular Specification all pipe work shall be color coded in accordance with the latest edition of B.S 1710 and to the approval of the Engineer or Architect.

## 2.10 **Welding**

### 2.10.1 Preparation

Joints to be made by welding shall be accurately cut to size with edges sheared, flame cut or machined to suit the required type of joint. The prepared surface shall be free from all visible defects such as lamination, surface imperfection due to shearing or flame cutting operation, etc., and shall be free from rust scale, grease and other foreign matter.

### 2.10.2 Method

All welding shall be carried out by the electric arc processing using covered electrodes in accordance with B.S. 639.

Gas welding may be employed in certain circumstances provided that prior approval is obtained from the Engineer.

### 2.10.3 Welding Code and Construction

All welded joints shall be carried out in accordance with the following Specifications:

a) Pipe Welding

All pipe welds shall be carried out in accordance with the requirements of B.S.806.

b) General Welding

All welding of mild steel components other than pipework shall comply with the general requirements of B.S. 1856.

### 2.10.4 Welders Qualifications

Any welder employed on this Sub-contractor shall have passed the trade tests as laid down by the Government of Kenya.

The Engineer may require to see the appropriate to see the appropriate certificate obtained by any welder and should it be proved that the welder does not have the necessary qualifications the Engineer may instruct the Sub- contractor to replace him by a qualified welder.

# GENERAL SPECIFICATIONS FOR PLUMBING AND DRAINAGE INSTALLATION WORK

## PARTICULAR PLUMBING AND DRAINAGE SPECIFICATIONS

CLAUSE No.	DESCRIPTION	PAGE
1.1	General .....	C-1
1.2	Materials and standards.....	C-1
1.2.1	Pipework and Fittings.....	C-1
1.2.2	Valves.....	C-4
1.2.3	Waste Fitment Traps.....	C-4
1.2.4	Pipe Supports.....	C-5
1.2.5	Sanitary Appliances.....	C-8
1.2.6	Pipe Sleeves.....	C-6
1.3	Installation.....	C-6
1.3.1	General.....	C-6
1.3.2	Above Ground Installation.....	C-6
1.4	Testing Inspection.....	C-15
1.4.1	Site Tests – Pipework Systems.....	C-6
1.4.2	Site Test – Performance.....	C-6
1.5	sterilization of Hot and Cold-Water System.....	C-16
1.6	Drainage.....	C17

## GENERAL

### **SITE LOCATION**

The site of the proposed works is at **Multimedia University, along Magadi road,**

### **SCOPE OF WORKS**

The works to be carried out under this sub-contract comprise Supply, Installation, Testing and commissioning of the following: -

**Sanitary Fittings, Plumbing, Drainage and Fire Protection Installation Works**

### **BROCHURES FOR DEVICES**

For consideration and qualification tenderers shall, at their own cost, provide colored manufacturer's brochures detailing technical literature and specifications where applicable

This section specifies the general requirements for plant, equipment and materials forming part of the plumbing and drainage installations.

### **3.2 MATERIALS AND STANDARDS**

#### **3.2.1 Pipework and Fittings**

Pipework materials are to be used as follows:

i. **Galvanized Steel Pipework**

Galvanized steel pipe works up to 65mm nominal bore shall be manufactured in accordance with B.S. 1387 Medium Grade, with tapered pipe threads in accordance with B.S. 21. All fittings shall be malleable iron and manufactured in accordance with B.S. 143.

Pipe joints shall be screwed and socketed and sufficient coupling unions shall be allowed so that fittings can be disconnected without cutting the pipe. Running nipples and long screws shall not be permitted unless exceptionally approved by the Engineer.

Galvanized steel pipe work, 80mm nominal bore up to 150mm nominal bore shall be manufactured to comply in all respects with the specification for 65mm pipe, except that screwed and bolted flanges shall replace unions and couplings for the jointing of pipes to valves and other items of plant. All flanges shall comply with the requirements of B.S. 10 to the relevant classifications contained hereinafter under Section 'C' of the Specification.

Galvanizing shall be carried out in accordance with the requirements of B.S. 1387 and B.S. 143 respectively.

## ii. PPR\_piping

PPR (Polypropylene Random Copolymer) that has been chlorinated via a free radical chlorination reaction

PPR is produced by adding chlorine to PPR in a water slurry or fluidized bed chlorination process.

The chlorination reaction is initiated by ultraviolet light. The chlorinated PPR is compounded with ingredients necessary for the desired properties for further processing. The chlorine added to PPR gives PPR higher temperature performance and improved fire and corrosion resistance.

Should conform to ASTM D2846 standard and ASTM F441 Standard for chlorinated poly vinyl chloride pipes.

Short copper connection tubes between galvanized pipe work and sanitary fittings shall not be used because of the risk of galvanic action.

If, as may occur in certain circumstances, it is not possible to make the connection in any way than the use of copper tubing, then a brass straight connector shall be positioned between the galvanized pipe and the copper tube in order to prevent direct contact.

**i. PPR (Hard) Pressure Pipes and Fittings**

All PPR pipes and fittings shall be manufactured in accordance with B.S. 3505: 1968.

Jointing -The method of jointing to be employed shall be that of solvent welding, using the pipe and manufacturer's approved cement. Seal ring joint shall be introduced where it is necessary to accommodate thermal expansion.

Testing

Pipelines shall be tested in sections under an internal water pressure normally one and a half times the maximum allowable working pressure of the class of pipe used.

Testing shall be carried out as soon as practical after laying and when the pipeline is adequately anchored. Precautions shall be taken to eliminate all air from the test section and to fill the pipe slowly to avoid risk of damage due to surge.

**ii. A.B.S. Waste System**

Where indicated on the Drawings and Schedules, the Sub-contractor shall supply and fix A.B.S. waste pipes and fittings. The pipes, traps and fittings shall be in accordance with the relevant British Standards, including B.S. 3943, and fixed generally in accordance with manufacturer's instructions and B.S. 5572: 1978.

Jointing of pipes shall be carried out by means of solvent welding, the manufacturer's instructions and B.S. 5572: 1978. Jointing of pipes shall be carried out by means of solvent welding. The manufacturer's recommended method of joint preparation and fixing shall be followed.

Standard brackets, as supplied for use with this system, shall be used wherever possible. Where the building structure renders this impracticable the Sub-contractor shall provide purpose made supports, centers of which shall not exceed one meter.

Expansion joints shall be provided as indicated. Supporting brackets and pipe clips shall be fixed on each side of these joints.

### 3.2.2. Valves

#### a). Draw-off Taps and Stop Valves (Up to 50mm Nominal Bore)

Draw-off taps and valves up to 50mm nominal bore, unless otherwise stated or specified for attachment or connection to sanitary fitment shall be manufactured in accordance with the requirements of B.S.1010.

#### b). Gate Valves

All gate valves 80mm nominal bore and above, other than those required for fitting to buried water mains shall be of cast iron construction, in accordance with the requirements of B.S. 3464. All gate valves required for fitting to buried water mains shall be of cast iron construction in accordance with the requirements of B.S.1218.

All gate valves up to and including 65mm nominal bore shall be of bronze construction in accordance with the requirements of B.S. 1952.

The pressure classification of all valves shall depend upon the pressure conditions pertaining to the site of works.

#### c). Globe Valves

All globe valves up to and including 65mm nominal bore shall be of bronze construction in accordance with the requirements of B.S.3061.

The pressure classification of all globe valves shall depend upon the pressure conditions pertaining to the site of works.

### 3.2.3 Waste Fitment Traps

#### a) Standard and Deep Seal P & S Traps

Where standard or deep seal traps are specified, they shall be manufactured in suitable non-ferrous materials in accordance with the full requirements of B.S. 1184.

In certain circumstances, cast iron traps may be required for cast iron baths and in these instances bath traps shall be provided which are manufactured in accordance with the full requirements of B.S.1291.

b) Anti-Syphon Traps

Where anti-syphon traps are specified, these shall be similar or equal to the range of traps manufactured by Greenwood and Hughes Limited, Deacon Works Littlehampton, Sussex, England.

The trade name for traps manufactured by this company is 'Grevak'.

**3.2.4 Pipe**  
**Supports**

a) General

This sub-clause deals with pipe supports securing pipes to the structure of buildings for above ground application.

The variety and type of support shall be kept to a minimum and their design shall be such as to facilitate quick and secure fixings to metal, concrete, masonry or wood.

Consideration shall be given, when designing supports, to the maintenance of desired pipe falls and the restraining of pipe movements to a longitudinal axial direction only.

The Sub-contractor shall supply and install all steelwork forming part of the pipe support assemblies and shall be responsible for making good damage to builder's work associated with the pipe support installation.

The Sub-contractor shall submit all his proposals for pipe supports to the Engineer for approval before any erection works commence.

### **3.2.5 Sanitary Appliances**

All sanitary appliances supplied and installed as part of the Sub-contract works shall comply with the general requirements of B.S. Code of Practice 305 and the particular requirements of the latest B.S. Specifications. They shall be as described in the bill of quantities.

### **3.2.5 Pipe Sleeves**

Main runs of pipework are to be fitted with sleeves where they pass through walls and floors. Generally, the sleeves shall be of P.V.C. except where they pass through the structure, where they shall be mild steel. The sleeves shall have 6mm – 12mm clearance all around the pipe or for insulated pipework all around the installation. The sleeve will then be packed with slag wool or similar.

## **3.3 INSTALLATION**

### **3.3.1 General**

Installation of all pipework, valves, fittings and equipment shall be carried out under adequate supervision from skilled staff to the relevant codes and standards as specified herein. The Sub-contractor shall be responsible to the Main Contractor for ensuring that all builders work associated with his piping installation is carried out in a satisfactory manner to the approval of the Engineer.

### **3.3.1 Above Ground Installation**

#### **a) Water Services**

Before any joint is made, the pipes shall be hung in their supports and adjusted to ensure that the joining faces are parallel and any falls which shall be required are achieved without springing the pipe.

Where falls are not shown on the Contract Drawings or stated elsewhere in the Specification, pipework shall be installed parallel to the lines of the buildings and as close to the walls, ceilings, columns, etc., as is practicable.

All water systems shall be provided with sufficient drain points and automatic air vents to enable them to function correctly.

Valves and other user equipment shall be installed with adequate access for operation and maintenance. Where valves and other operational equipment are unavoidably installed beyond normal reach or in such Position as to be difficult to reach from a small step ladder, extension spindles with floor or wall pedestals shall be provided.

Screwed piping shall be installed with sufficient number of unions to facilitate easy removal of valves and fittings, and to enable alterations of pipework to be carried out without the need to cut the pipe.

Full allowances shall be made for the expansion and contraction of pipework, precautions being taken to ensure that any force produced by the pipe movements are not transmitted to valves, equipment or plant.

All screwed joints to piping and fittings shall be made with P.T.F.E. tape.

The test pressure shall be maintained by the pump for about one hour and if there is any leakage, it shall be measured by the quantity of water pumped into the main in that time. A general leakage of 4.5 litres per 25mm of diameter, per 1.6 kilometers per 24 hours per 30 metres head, may be considered reasonable but any visible individual leak shall be repaired.

### **Sanitary Services**

Soil, waste and vent pipe system shall be installed in accordance with the best standard of modern practice as described in B.S. 5572 to the approval of the Engineer.

The Sub-contractor shall be responsible for ensuring that all ground waste fittings are discharged to a gully trap before passing to the sewer via a manhole.

The Sub-contractor shall provide all necessary rodding and inspection facilities within the draining system in positions where easy accessibility is available.

Where a branch requires rodding facilities in a position to which normal access is unobtainable, then that branch shall be extended so as to provide a suitable purpose made rodding eye in the nearest adjacent wall or floor to which easy access is available.

The vent stacks shall terminate above roof level and where stack passes through roof, a weather skirt shall be provided. The Sub-contractor shall be responsible for sealing the roof after installation of the stacks.

The open end of each stack shall be fitted with a plastic coated or galvanized steel wire guard. Access for rodding and testing shall be provided at the foot of each stack.

a) **Sanitary Appliances**

All sanitary appliances associated with the Sub-contract works shall be installed in accordance with the best standard of modern practice as described in C.P. 305 to the approval of the Engineer.

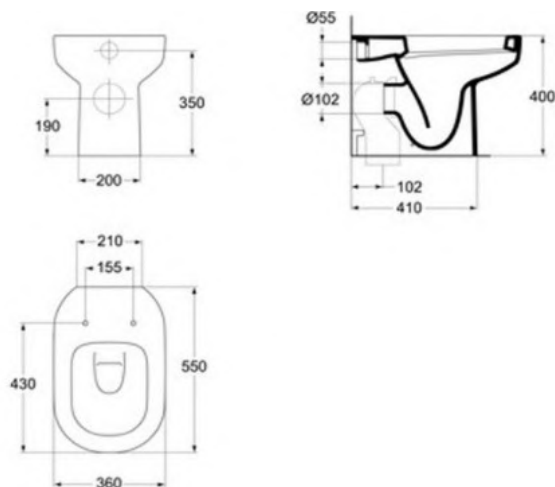
**PARTICULAR SPECIFICATIONS FOR SANITARY FITTINGS**

All sanitary fittings specifications shall be as described in bill of quantities unless a written instruction is issued.

However below are specifications for some items

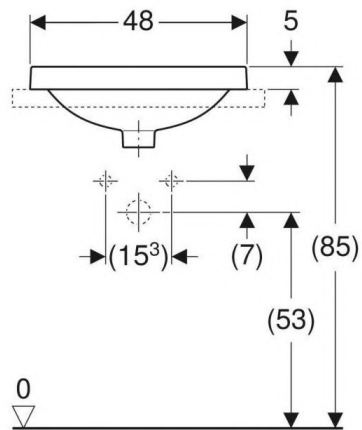
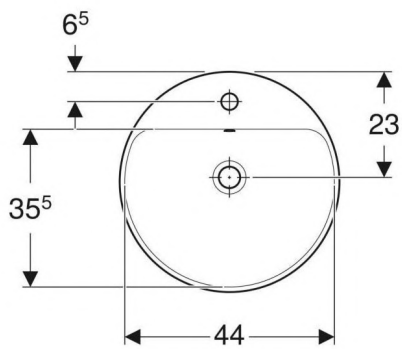
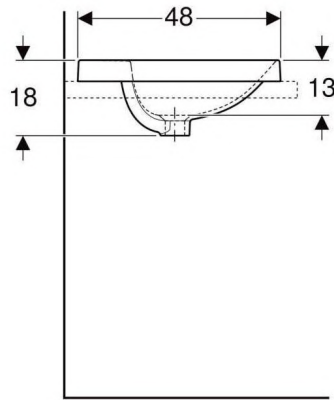
**WATER CLOSET**

- Rimless Floor Standing WC with UF soft close slim seat cover and Hinges,
- Accessories set complete with concealed flush valve & Finish flat Plate
- Finish with an antibacterial ceramic glaze
- Noise reduction gasket
- Ceramic vitreous china
- Meets EU declaration of conformity certificate



## WASH HAND BASIN

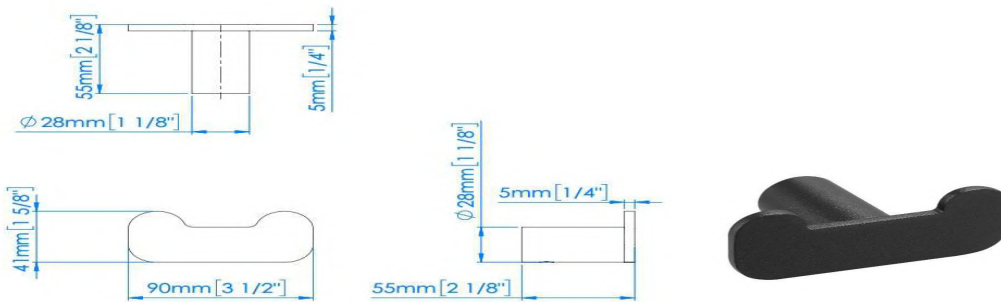
- Without overflow
- with tap platform
- square tube 14 mm
- Ceramic
- Meets EU declaration of conformity certificate



**AS Tapis Vanity basin code LVA1290 OR EQUIVALEN**

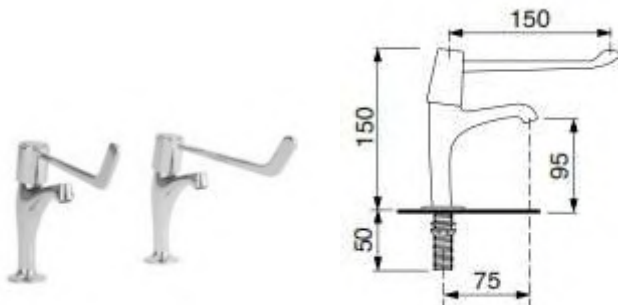
## **ROBE HOOK**

- Double-ended bathroom robe hook, made of AISI 304 stainless steel black finish
- Made with anti-corrosive and highly resistant stainless steel.
- With hidden wall mounting system
- With stainless steel hardware kit for installing on brick walls.
- DOUBLE HOOK: made of 5 mm thick AISI 304 stainless steel plate.
- WALL BRACKETS: two units, made with AISI 304 stainless steel cylindrical tube of  $\varnothing$  28mm and 1.2mm thick. Attached to the bar by means of a threaded stud and nut.
- WALL ANCHORS: two units made of AISI 304 stainless steel tube of  $\varnothing$  22mm and 1.0mm thick.



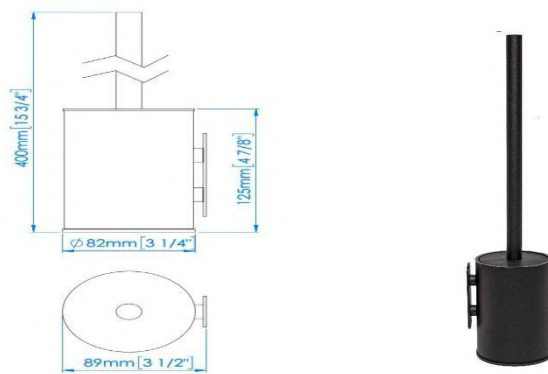
## **ELBOW ACTION PILLAR TAP**

- For connecting to hot and cold water.
- with 150mm long levers which
- Can be operated by either the elbows or wrists using a quarter turn action.
- Manufactured from chromium plated brass.
- Mounting: Deck mounted
- Spout projection: 75mm
- To conform to WRAS standards



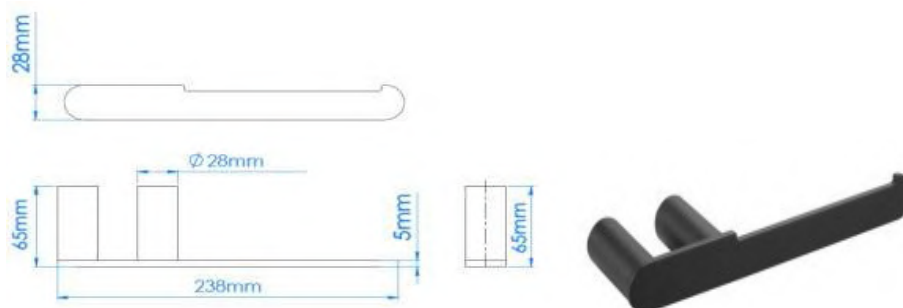
## TOILET BRUSH SET

- Toilet brush set for fixing to the bathroom wall, made of AISI 304 stainless steel 1 mm thick
- Resistant to humidity and corrosion
- Circular lid with an airtight seal that prevents the spread of bad odors and protects hands from getting dirty or splashed while cleaning the toilet.
  - Comes with stainless steel hardware for fixing it to a brick wall
  - WALL BRACKET: made of AISI 304 stainless steel, 2 mm tick. Allows quick removal of the brush holder for cleaning, without tools.
  - INNER RECIPIENT: to collect water and prevent body rust. Made of black thermoplastic to prevent oxidation of the body.
  - HANDLE: made with AISI 304 stainless steel rod and is 27.5 cm in length, which for ease of reach and clean the toilet bowl.
  - LID: made of black circular rubber seal, 2.0 mm thick. □
  - BRUSHES: long, dense and soft



## TOILET ROLL HOLDER

- Toilet roll holder made of AISI 304 stainless steel black finish.
- Roll axis made of 5 mm thick AISI 304 stainless steel sheet.
- Wall brackets of two units, made with AISI 304 stainless steel cylindrical tube of  $\varnothing$  28mm and 1.2mm thick and attached to the bar by means of a threaded stud and nut.
- Wall anchors made of two units, made of AISI 304 stainless steel tube of  $\varnothing$  22mm and 1.0mm thick. Attached to the wall bracket by means of a screw. It has two oval holes (one vertical and one horizontal) to facilitate wall mounting.



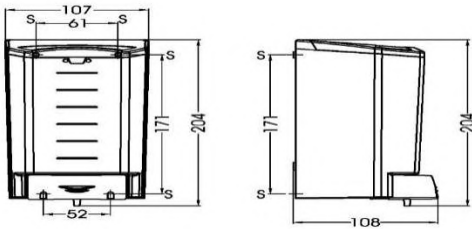
## MAINS OPERATION WC AND URINAL FLUSH VALVE

- Finish: Polished Chrome
- Manual Push Operation
- Non-Concussive Function (timed shut-off)
- Style: Modern
- Requirement: Suitable for all concealed toilet plumbing systems
- Does not use electricity
- Type of mounting: In Wall above back to wall toilet



## PUSH BUTTON SOAP DISPENSER

- Wall mounted liquid soap dispenser
- capacity of 1.1 litres
- manufactured in 3 mm thick thermoplastic ABS
- hand operated by means of a push-button
- Quantity dispensed per pump 1.2 ml
- Compliance with ISO and C.E standards
- With preferred dimensions as shown



**Mediclinic's AC0957C" or approved equivalent**

## Water Closet

Dual flush mechanism with 4.5 L (full) and 3 L or lower (eco) options; efficient washdown system ensures effective flushing with reduced water use. (iv) Dimensions & Performance:

Approximate size: 355 mm (width) × 545 mm (projection) × 360 mm (height); supports load up to 400 kg when used with certified in-wall frame.

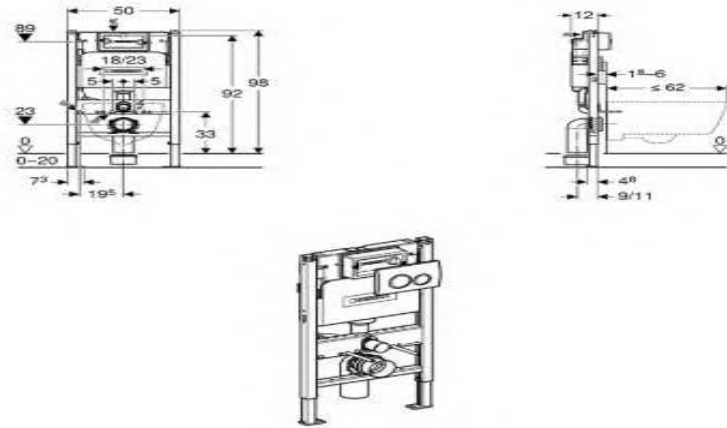
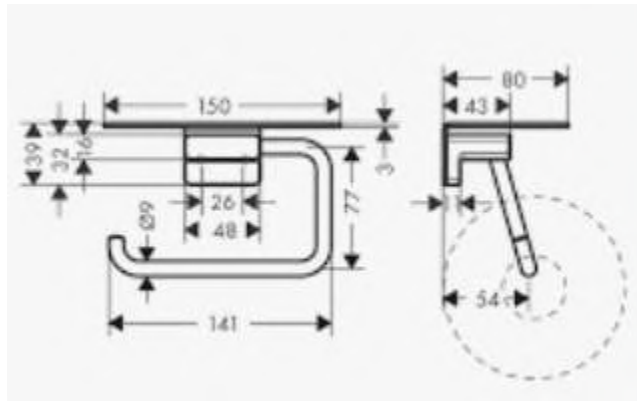


Figure 1: Geberit + Duravit D-Code concealed (wall-hung) water closet:

## TOILET PAPER ROLL DISPENSER

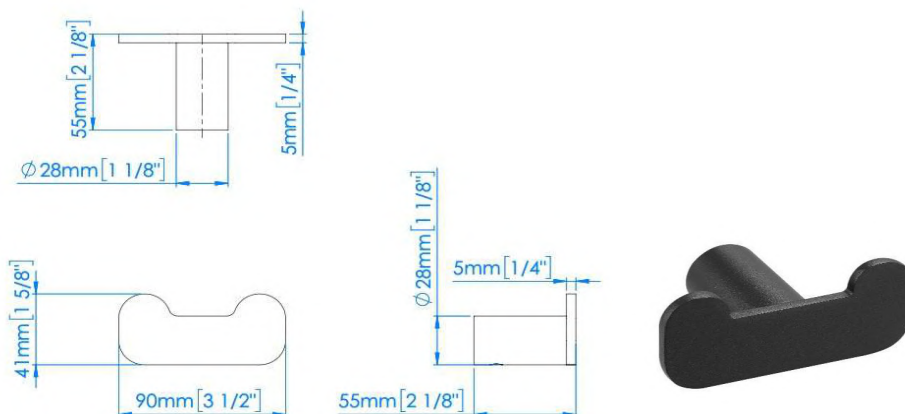
- Wall-mounted metal construction (durable steel/brass alloy depending on variant), sturdy and corrosion-resistant
- Concealed fastening with included mounting hardware; hole spacing is 26 mm, requiring Ø6 mm drill holes
- Overall dimensions:
- Shelf: 150 × 80 mm
- Width (installation center to center): approx. 150 mm / 5-15/16"
- Height: 3-1/16" (~78 mm)
- Single-roll capacity, oriented horizontally



### Hansgrohe 41772 Wall Mounted Euro Toilet Paper Holder

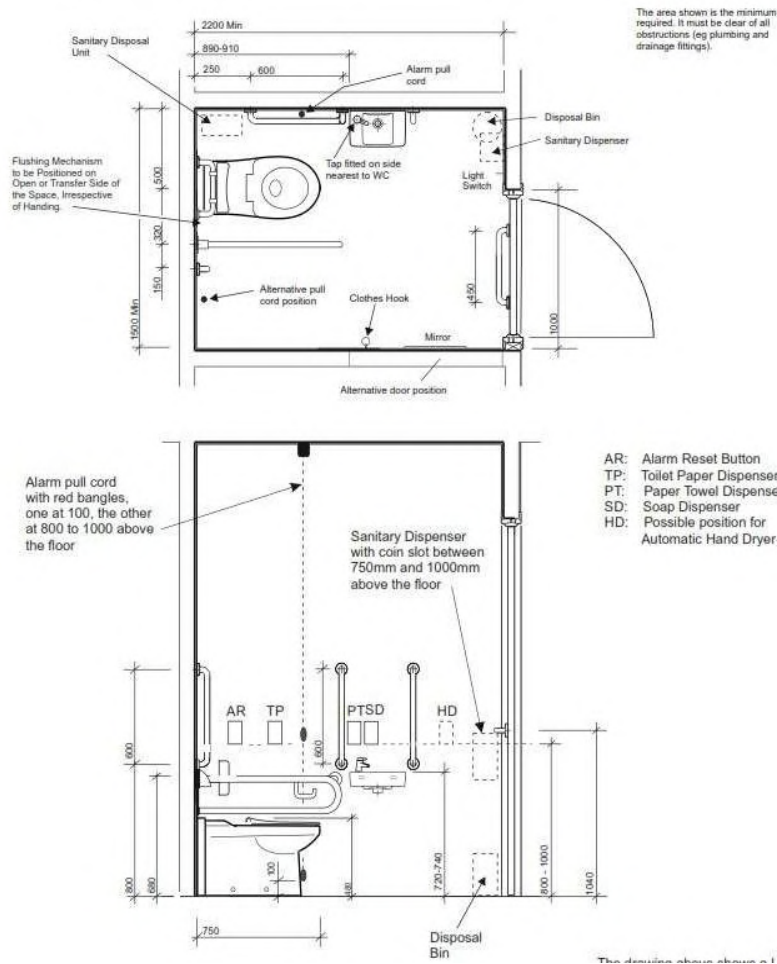
#### ROBE HOOK

- Double-ended bathroom robe hook, made of AISI 304 stainless steel black finish
- Made with anti-corrosive and highly resistant stainless steel.
- With hidden wall mounting system
- With stainless steel hardware kit for installing on brick walls.
- DOUBLE HOOK: made of 5 mm thick AISI 304 stainless steel plate.
- WALL BRACKETS: two units, made with AISI 304 stainless steel cylindrical tube of Ø 28mm and 1.2mm thick. Attached to the bar by means of a threaded stud and nut.
- WALL ANCHORS: two units made of AISI 304 stainless steel tube of Ø 22mm and 1.0mm thick.



## PHYSICALLY CHALLENGED WATER CLOSET

- 700mm projection Rim free pan
- Concealed cistern, single flush lever, 4 litre flush
- Seat ring, stainless steel bar hinge, top fix and stability buffers
- back support with cushion
- hand rinse basin 400, no overflow 1 tap
- thermostatic basin mixer with fixed spout and copper tails
- 4 x 600mm grab rails concealed fixings, 1 x 450mm grab rail concealed fixings, 1 x Hinged support rail and toilet roll holder concealed fixings
- Material to be Vitreous china.
- Grab rails in powder coated aluminium.
- WRAS Approved and TMV3 Approved



AS TWYFORD DOC M PACK MODEL PK8357BE OR EQUIVALENT

## **BATHROOM SIGNS**

- Made of stainless steel, 0.5 mm thick and the subject is embossed in black on the stainless steel.
- The signs are all circular and have a diameter of 116 mm and they are fixed to the wall by means of a double side tape

### **WOMEN'S WASHROOM SIGN**



**AS MEDICLINIC MODEL PP1321CS OR EQUIVALENT**

### **MEN'S WASHROOM SIGN**



**AS MEDICLINIC MODEL PS0003CS OR EQUIVALENT**

### **ADAPTED WASHROOM SIGN**



**AS MEDICLINIC MODEL PS0004CS OR EQUIVALENT**

## 1.1. **TESTING AND INSPECTION**

### 3.4.1 **Site Tests Pipework Systems**

#### a) **Above Ground Internal Water Services Installation**

All water service pipe system installed above ground shall be tested hydraulically for a period of ten hours to not less than one and half times to design working pressure.

If preferred, the Sub-contractor may test the pipelines in sections. Any such section found to be satisfactory need not be the subject of a further test when system has been completed, unless specifically requested by the Engineer. During the test, each branch and joint shall be examined carefully for leaks and any defects revealed shall be made good by the Sub-contractor and the section re-tested.

The Sub-contractor shall take all necessary precautions to prevent damage occurring to special valves and fittings during the tests. Any item damaged shall be repaired or replaced at the Sub-contractor's expenses.

#### b) **Above Ground Soil Waste and Ventilation System**

All soil, waste and ventilating pipe system forming part of the above ground installation, shall be given appropriate test procedures as described in B.S. 5572, 1972.

Smoke tests on above ground soil, waste and ventilating pipe system shall not be permitted. Pressure tests shall be carried out before any work which is to be concealed is finally enclosed. In all respects, tests shall comply with the requirements of B.S. 5572.

### 3.4.2 **Site Test – Performance**

Following satisfactory pressure test on the pipework system operational tests shall be carried out in accordance with the relevant B. S. Code of practice on the systems as a whole to establish that special valves, gauges, control, fittings, equipment and plant are functioning correctly to the satisfaction of the Engineer.

All hot water pipework shall be installed with pre-formed fibre glass lagging to a thickness of 25mm where the pipe runs above a false ceiling or in areas where the ambient temperature is higher than normal with the result that pipe "sweating", due to condensation will cause nuisance.

All lagged pipes which run in a visible position after erection shall be given a canvas cover and prepared for painting as follows:

- Apply a coating of suitable filler until the canvas weave disappears and allow to dry.
- Apply two coats of an approved paint and finish in suitable gloss enamel to colors approved by the Engineer.

All lagging for cold and hot water pipes erected in crawlways, ducts and above false ceiling which after erection are not visible from the corridors of rooms, shall be covered with a reinforced aluminum foil finish banded in colours to be approved by the Engineer.

In all respects, unless otherwise stated, the hot and cold-water installation shall be carried out in accordance with the best standard of modern practice and described in C.P.342 and C.P.310 respectively to the approval of the Engineer. The test pressure shall be applied by means of a manually operated test pump or, in the case of long main or mains of large diameter, by a power-driven test pump which shall not be left unattended. In either case precautions shall be taken to ensure that the required pressure is not exceeded.

Pressure gauges should be recalibrated before the tests.

The Sub-contractor shall be deemed to have included in his price for all test pumps, and other equipment required under this specification.

The test pressure shall be one and a half times the maximum working pressure except where a pipe is manufactured from a material for which the relevant B.S. specification designates a maximum test pressure.

### **3.5: STERILISATION OF COLD-WATER SYSTEM**

All water distribution system shall be thoroughly sterilized and flushed out after the completion of all tests and before being fully commissioned for handover.

The sterilization procedures shall be carried out by the Sub-contractor in accordance with the requirements of B.S. Code of Practice 301, Clause 409 and to the approval of the Engineer

## PLUMBING PIPES SPECIFICATION

- ⌋ Impact Strength of over 45 avg ft/lbs tested by ASTM D2444 Standard Practice for Determination of the Impact Resistance of Thermoplastic Pipe and Fittings
- ⌋ Biofilm Formation Potential of less than 120 pg ATP/cm<sup>2</sup>
- ⌋ integrates specialized additives that protect the pipe from UV
  
- ⌋ To meet the requirement of having a flame spread index of 0-25 and a smoke developed index of 0-50 (25/50 rating) when tested in accordance with ASTM E84/UL723

Item	Parameter	Required
<b>A</b>	Material	Chlorinated Polyvinyl Chloride
<b>B</b>	Tensile Strength (MPa at 23°C)	High.55 MPa
<b>C</b>	Flow Rate	High due to higher ID
<b>D</b>	Jointing	cold fusion as done by solvent joint
<b>E</b>	Scale Formation/ Calcination	No scale formation, pitting and corrosion
<b>F</b>	Fire Retardance	LOI = 60%. Self extinguishes
<b>G</b>	Bacterial Growth	Less than 5000Kbe/cm
<b>H</b>	Thermal Conductivity	0.14W/MK Less energy loss
<b>I</b>	Coefficient of Thermal expansion	0.7x10 <sup>-5</sup> mm/mk less supports, less snaking.
<b>J</b>	Effect of UV	Dehydrochlorination reaction. Temp and pressure bearing capacity remains unaffected
<b>K</b>	Oxygen Permeation	Less than 1 cm <sup>3</sup> /m day atmosphere (at 70°C) No corrosion risk
<b>L</b>	Reliability	Being in production for at least 20 years
<b>M</b>	Maximum Temperature	93 degrees centigrade
<b>N</b>	Resistance to water disinfectant (Chlorine)	Not affected by chlorine in water supply or by pH of Water

## HANGERS AND SUPPORT

- Piping should not be anchored tightly to supports, but rather secured with smooth straps or hangers that allow for movement caused by expansion and contraction.
- Hangers should not have rough or sharp edges which come in contact with the tubing.

		Hangers Spacing			
		Horizontal			Vertical
		20 ° C	60 ° C	80 ° C	
A	16	850	700	600	1000
B	20	950	850	750	1200
C	25	1050	950	850	1300
D	32	1200	1100	1000	1400
E	40	1300	1150	1150	1500
F	50	1500	1450	1350	1700
G	63	1700	1650	1550	2000

## PIPES AND FITTINGS

PPR(Poly Propylene Random) pipes shall be as per Top Pipe brand

### DRAINAGE PIPING

Drainage Piping shall be with specifications as follows

- Raw material - **100% VIRGIN Polyvinyl chloride (PVC-U)**
- Stabilizers - Non-lead/ Organic
- Jointing method - Rubber ring or Solvent Weld
- Density (g/cm<sup>3</sup>) - 1.40
- Yield strength (N/mm<sup>2</sup>) - 50 – 55
- E-modulus (N/mm<sup>2</sup>) - 3000
- Melting point - Ca. 90°C
- Vicat softening point - 80°C
- Specific heat - 1.00 kJ/kg • K
- Colour Light Grey to BS EN 1329-1:2000 and quality to BS 5255
- Colour Brown to BS EN 1401-1:1998 and quality to BS 4660
- Coefficient of heat conduction - 0.16 W/mK
- Tensile Strength : Min. 45 N/mm<sup>2</sup>
- Jointing by Rubber Ring/Solvent Weld
  - With all associated fittings
- WC Connectors
- Vent pipes and caps

- Air admittance valves
- Traps/siphons
- Floor gullies
- Access fittings
- Connectors and reducers

15° chamfer is applied to all spigot ends for rubber ring pipe.

<b>Item</b>	<b>Parameter</b>	<b>Value</b>	<b>Test method</b>
A	Impact Resistance	TIR $\leq$ 10%	EN 744
B	Vicat Softening	$\geq$ 79°C	EN 727
C	Longitudinal Reversion	$\leq$ 5%	EN 743
D	Dichloromethane Acid Resistance	No attack	EN 580
E	Water Tightness of Rubber Ring Joint	No leakage	EN 1277
F	Elevated Temp. Cycling	No leakage	EN 1055
G	Long Term Performance of TPE Seals	90 days $\geq$ 1.3 bar	EN 1989
		100 years $\geq$ 0.6 bar	EN 1989
H	Resistance to Internal Pressure	No failure during the test 10.0MPA for 1000 hours, at	EN 921

# PIPE FITTINGS



**BEND 90° - SWR**

**Sizes**  
 1 1/4"  
 1 1/2"  
 2"  
 3" (82mm)



**BEND 45° - SWR**

**Sizes**  
 4" (110mm)  
 Bend 45°



**REDUCING BUSH - SWR**

**Sizes**  
 1 1/4"  
 1 1/2"  
 2"  
 3" (82mm)



**W.C. CONNECTOR - SWR**

**Sizes**  
 W.C. Connector  
 Straight 4" (110mm)



**SHOWER TRAP - SWR**

**Sizes**  
 4" (110mm) Tee



**BOSS CONNECTOR - SWR**

**Sizes**  
 4' (110mm) x 1 1/4"  
 4' (110mm) x 1 1/2"  
 4' (110mm) x 2"



**FLOOR TRAP - SWR**

**Description**  
 Complete with Grill and Tile  
 Grill and Tile (inlet)  
 Main Trap  
 Grill



**INSPECTION BEND 90° - SWR**

**Sizes**  
 4" (110mm) Inspection  
 Bend 90°



**VENT COWL - SWR**

**Description**  
 4' (110mm)



**ACCESS PLUG - SWR**

**Sizes**  
 1 1/4"  
 1 1/2"  
 2"



**TEE SWR**

**Sizes**  
 1 1/4"  
 1 1/2"  
 2"  
 3" (82mm)



**TEE SWR**

**Sizes**  
 4" (110mm) Tee



**INSPECTION TEE**

**Sizes**  
 4" (110mm) Bend 90°

**GENERAL SPECIFICATIONS FOR FIRE SUPPRESSION SYSTEM AND PORTABLE FIRE EXTINGUISHERS**

**PARTICULAR PLUMBING AND DRAINAGE SPECIFICATIONS**

6.1 General.....D-1

6.2 Scope Of Works.....D-1

6.3 Portable Carbon Dioxide Fire Extinguishers.....D-1

6.4 Dry Chemical Powder Portable Fire Extinguisher..... D-2

6.5 General Installation Instructions - Inergen Fire Suppression System.... D-3

6.6 Installation Conditions..... D-6

6.7 Design And Calculation Requirements.....D-6

6.8 Installation Specifications.....D-6

6.9 Testing And Commissioning.....D-7

6.10 Documentation Requirement.....D-7

6.11 Maintenance And Service Conditions.....D-8

6.12 Regulatory Compliance.....D-9

6.13 Warranty And Performance Guarantees.....D-8

6.6 Signage-Fire Instruction /Fire Exit..... D-10

6.7 Statement Of Compliance.....D-14

## PART D

### PARTICULAR SPECIFICATIONS FOR PORTABLE FIRE EXTINGUISHER AND FIRE SUPPRESSION SYSTEM

#### 6.14 GENERAL

The particular specification details the requirements for the supply and installation and commissioning of the Portable Fire Extinguishers and Boosted Hose Reel System. The Sub-contractor shall include for all appurtenances and appliances not necessarily called for in this specification or shown on the contract drawings but which are necessary for the completion and satisfactory functioning of the works.

If in the opinion of the Sub-contractor there is a difference between the requirements of the Specifications and the Contract Drawings, he shall clarify these differences with the Engineer before tendering.

#### 6.15 SCOPE OF WORKS

The Sub-contractor shall supply, deliver, erect, test and commission all the portable fire extinguishers which are called for in these Specifications and as shown on the Contract Drawings.

#### 6.16 PORTABLE CARBON DIOXIDE FIRE EXTINGUISHERS

These shall be portable carbon dioxide fire extinguishers and shall comply with B.S. 3326: 1960 and B.S. 5423: 1977.

The body of extinguisher shall be a seamless steel cylinder manufactured to one of the following British Standards; B.S. 401 or B.S. 1288.

The filling ratio shall comply with B.S. 5355 with valves fittings for compressed gas cylinders to B.S.341. Where a hose is fitted it shall be flexible and have a minimum working pressure of 206.85 bar (3000 p.s.i.). The hose is not to be under internal pressure until the extinguisher is operated.

The nozzle shall be manufactured of brass gunmetal, aluminum or stainless steel and may be fitted with a suitable valve for temporarily stopping the discharge if such means are not incorporated in the operating head.

The discharge horn shall be designed and constructed so as to direct the discharge and limit the entrainment of air. It shall be constructed of electrically non-conductive material.

The following markings shall be applied to the extinguishers: -

- a) The words “Carbon Dioxide Fire Extinguisher” and to include the appropriate nominal gas content.
- b) Method of operation.
- c) The words “Re-charge immediately after use”.
- d) Instructions for periodic checking.
- e) The number of the British Standard B.S. 3326: 1960 or B.S. 5423.
- f) The manufacturers name or identification markings

#### **6.4 DRY CHEMICAL POWDER PORTABLE FIRE EXTINGUISHER**

The portable dry powder fire extinguishers shall comply with BS3465: 1962 and BS 5423.

The body shall be constructed to steel not less than the requirements of BS 1449 or aluminum to BS 1470: 1972 and shall be suitably protected against corrosion.

The dry powder charge shall be not-toxic and retain its free-flowing properties under normal storage conditions. Any pressurizing agent used as an expellant shall be in dry state; in particular, compressed air.

The discharge tube and gas tube if either is fitted shall be made of steel, brass, copper or other not less suitable material. Where a hose is provided it shall not exceed 1,060mm and shall be acid and alkali resistant.

Provision shall be made for securing the nozzle when not in use.

The extinguisher shall be clearly marked with the following information

- a) The word “Dry Powder Fire Extinguisher”
- b) Method of operation in prominent letters.
- c) The working pressure and the weight of the powder charge in Kilogram.
- d) Manufacturers name or identification mark

- e) The words “RECHARGE AFTER USE” if rechargeable type.
- f) Instructions to regularly check the weight of the pressure container (gas Cartridge) or inspect the pressure indicator on stored pressure types when fitted, and remedy any loss indicated by either.
- g) The year of manufacture.
- h) The Pressure to which the extinguisher was tested.
- i) The number of this British Standard BS 3465 or BS 5423: 1977.
- j) When appropriate complete instructions for charging the extinguisher shall be clearly marked on the extinguisher or otherwise be supplied with the refill

## **6.5. General Installation Instructions and Conditions - Inergen Fire Suppression System**

### **6.5.1 SYSTEM OVERVIEW**

The Inergen fire suppression system shall be a clean agent gaseous fire suppression system utilizing Inergen (IG-541) as the extinguishing agent. Inergen is an inert gas mixture composed of 52% nitrogen, 40% argon, and 8% carbon dioxide. The system shall be designed, installed, and commissioned in accordance with applicable international standards including NFPA 2001, ISO 14520, and local fire safety regulations.

### **6.5.2 DESIGN REQUIREMENTS**

#### **Protected Areas**

- The system shall protect designated areas as specified in the project drawings and specifications
- Each protected area shall have independent zone control and detection
- Design concentration shall be minimum 37.5% by volume for most combustible materials

- Design concentration shall be minimum 43.4% by volume for electrical equipment and flammable liquids

### **System Components**

The complete system shall include but not be limited to:

- Inergen gas storage cylinders with valve assemblies
- Distribution network including manifolds, piping, and discharge nozzles
- Electronic control panel with manual and automatic operation modes
- Detection system with smoke and heat detectors as appropriate
- Manual release stations and abort switches
- Pre-discharge warning devices (visual and audible alarms)
- Door fan test equipment for enclosure integrity testing

### **6.5.3 INSTALLATION CONDITIONS**

#### **Environmental Conditions**

- Storage cylinder room temperature range: -10°C to +50°C
- Protected area temperature range: 0°C to +50°C
- Relative humidity: Maximum 95% non-condensing
- Altitude: System design shall account for site altitude affecting gas density calculations

#### **Structural Requirements**

- Cylinder storage area shall have adequate ventilation and access for maintenance
- Protected areas shall maintain structural integrity during agent discharge
- All openings shall be capable of closure within 30 seconds of detection activation
- Floor loading capacity shall accommodate cylinder weights and seismic requirements

#### **Electrical Requirements**

- Primary power supply: 220-240V AC, 50Hz with backup battery supply
- Battery backup shall provide minimum 24 hours standby plus 30 minutes alarm operation
- All electrical installations shall comply with local electrical codes and standards
- Lightning and surge protection shall be provided for all electronic components

## **6.5.4 DESIGN AND CALCULATION REQUIREMENTS**

### **Hydraulic Calculations**

- Complete hydraulic flow calculations shall be provided showing pressure losses throughout the distribution network
- Calculations shall account for temperature, altitude, and safety factors
- Minimum and maximum cylinder pressures shall be verified for all operating conditions
- Discharge time shall not exceed 60 seconds for 95% agent delivery

### **Enclosure Integrity**

- All protected areas shall undergo door fan testing to verify enclosure integrity
- Maximum allowable leakage area shall not exceed calculated retention requirements
- Test results shall demonstrate agent retention for minimum 10 minutes at design concentration

## **6.5.5 INSTALLATION SPECIFICATIONS**

### **Gas Storage and Distribution**

- Cylinders shall be securely mounted with anti-seismic restraints where required
- All piping shall be Schedule 40 black steel or approved equivalent with proper supports every 3 meters maximum
- Pipe joints shall be welded or approved mechanical fittings rated for system pressures
- Distribution manifold shall include pressure equalization and flexible connections to cylinders
- Discharge nozzles shall be positioned to ensure uniform agent distribution

### **Detection and Control System**

- Detection devices shall provide cross-zoned confirmation before automatic release
- Control panel shall be located outside protected areas with clear visibility and access
- Pre-discharge time delay shall be adjustable from 0-30 seconds with factory setting at 30 seconds
- System shall include provisions for manual activation and abort functions
- All field devices shall be addressable with individual monitoring capability

## **Safety Systems**

- Pre-discharge warning devices shall operate during time delay period
- Exit door electromagnetic locks shall release immediately upon detection activation
- HVAC systems shall shut down automatically upon discharge initiation
- Personnel safety egress time shall be calculated and verified for all protected areas

### **6.6.6 TESTING AND COMMISSIONING**

#### **Factory Testing**

- All major components shall be factory tested and certified before delivery
- Pressure vessels shall have current hydrostatic test certification
- Electronic components shall have functional test certificates

#### **Installation Testing**

- Complete system functional testing including all detection, control, and discharge sequences
- Enclosure integrity testing with certified door fan test equipment
- Electrical continuity and isolation testing of all circuits
- Communication interface testing with building management systems

#### **Performance Verification**

- Simulated discharge test using compressed air or nitrogen to verify flow calculations
- Detector sensitivity and response time verification
- Pre-discharge timing and abort function testing
- Documentation of all test results and system performance parameters

### **6.6.7 DOCUMENTATION REQUIREMENTS**

#### **Design Documentation**

- Complete system drawings including plans, elevations, and details
- Hydraulic calculation reports and design basis documentation
- Equipment specifications and data sheets for all components
- Operation and maintenance manuals in local language

#### **Installation Documentation**

- As-built drawings reflecting actual installation conditions
- Test certificates and commissioning reports
- Training records for operating and maintenance personnel
- Spare parts list and recommended inventory levels

## **6.6.8 MAINTENANCE AND SERVICE CONDITIONS**

### **Preventive Maintenance**

- System shall be designed for routine maintenance without system shutdown
- Annual inspection and testing program shall be established
- Cylinder weigh scales and pressure monitoring equipment shall be provided
- Service access shall be maintained to all system components

### **Service Requirements**

- Local service support shall be available with 4-hour emergency response
- Annual maintenance contract shall include all routine inspections and testing
- Replacement parts availability shall be guaranteed for minimum 20 years
- Technical support and training shall be provided for maintenance personnel
- 

## **6.6.9 REGULATORY COMPLIANCE**

### **Standards and Codes**

- System design shall comply with NFPA 2001 or ISO 14520 as applicable
- Installation shall meet local fire safety and building code requirements
- Pressure vessel regulations and certification requirements shall be satisfied
- Environmental regulations regarding agent handling and disposal shall be followed

### **Approvals and Certifications**

- All major components shall have appropriate third-party certifications
- System design shall be approved by local fire authority having jurisdiction
- Installation contractor shall be certified by system manufacturer
- Final system acceptance shall include regulatory authority approval where required

## **6.6.10 WARRANTY AND PERFORMANCE GUARANTEES**

### **System Warranty**

- Complete system warranty of minimum 2 years from final acceptance
- Component warranties shall be passed through from manufacturers
- Performance guarantee for design concentration achievement and retention
- Defect correction and replacement guarantee during warranty period

## **Performance Criteria**

- System availability shall exceed 99.5% excluding scheduled maintenance periods
- False alarm rate shall not exceed 1 per zone per year after commissioning period
- Response time from detection to discharge shall not exceed 60 seconds
- Agent retention shall maintain minimum 85% design concentration for 10 minutes

## **Instruction Period**

The Sub-contractor shall allow in his contract sum for instructing of the use of the equipment to the Client's maintenance staff. The period of instruction may be within the contract period but may also be required after the contract period has expired.

The period of time required shall be stipulated by the Client but will not exceed two days in which time the Client's staff shall be instructed on the operation and maintenance of the equipment.

### **6.8 Signage-Fire Instruction /Fire Exit**

#### **6.8.1 Fire Instruction Notice**

Print fire instruction on the Perspex plates with White Colour

Background measuring 510mm length x 380mm width x 4mm thick as follows;

#### **6.8.2 Fire Exit Sign**

Print Fire Exit signs on the Perspex plate, 4mm thick, with white colour background as follows: -

1. Lettering **IN RED COLOUR** of not less than 50mm in height.
2. A pendant sign bearing words, **FIRE EXIT** and with a directional arrow.

The sign must be capable of being read from both approaches to exit and so is double sided.

#### **6.8.3 Hose Reel Label**

Print Fire Exit signs on the Perspex plate, 4mm thick, with white colour background as follows: -

1. Lettering **IN RED COLOUR** of not less than 50mm in height.
2. A pendant sign bearing words, **HOSE REEL** and with a directional arrow.

The sign must be capable of being read from both approaches to exit and so is double sided.

## **FIRE EXTINGUISHER CABINET**

- Size of 560mm width by 710mm high and 260mm deep
- Surface Mounted
- Paint Finish in epoxy powder red (Minimum 70 micron)
- To host 2No.Portable 9kg Extinguisher
- Material Mild steel minimum 0.9mm thick

## **FIRE HOSEREEL CABINET**

- Size of 1050mm width by 800mm high and 400mm deep
- Surface Mounted
- Paint Finish in epoxy powder red (Minimum 70 micron)

## **GENERAL SPECIFICATION FOR THE FIRE HYDRANT AND FIRE HYDRANT PUMP**

### **1.1 FIRE HYDRANT DETAILS**

#### **1.1.1 Definition**

The fire hydrant is a system which is installed along the water mains to be used as a means of providing water to the fire brigades through the connection of the hose from a stand pipe.

#### **1.1.2 Installation**

The fire hydrants are installed along the water mains with the first hydrant at a location which is not more than 60 m from the entry of any building and they should not be more than 120 m apart.

#### **1.1.3 Hydrant body**

The body of the hydrant shall be made of grey cast iron complying with the requirements of BS 1452 having a tensile strength not less than that given for grade 14.

#### **1.1.4 Hydrant Valve**

The valve shall be faced with suitable resilient material. The threaded part of the valve, which engages with the spindle, shall be of bronze.

Body seating for the valves shall be of copper alloy complying with the requirements of BS 1400 (KS 06 – 744 – 1:1991) or high tensile brass complying with the requirements of BS 2872 or BS 2874.

Turning the spindle cap in a clockwise direction when viewed from above shall close valves and the direction of opening shall be permanently marked on the ground.

#### **1.1.5 Spindle & Spindle Cap**

The spindle note shall be either of the same material as the spindle, or of copper alloy complying with the requirements of BS 1400 (KS 06 – 744 – 1:1991). It shall have a squared top formed to receive either a cast iron spindle cap.

The spindle shall be made of copper alloy complying with the requirements of BS 2874 (KS 06 – 744 – 1:1991), and it shall have a threaded machined of trapezoidal form. The spindle cap shall be of a cast iron secured to the spindle by on M12 hexagon socket set screw conforming to BS 4168.

#### **1.1.6 Hydrant outlet**

The outlet flange of the hydrant shall have above nominal diameter 65mm, and shall be fitted with a screwed outlet – Both flanges shall be 50 mm conforming to BS 4504: Part 1: 1969.

The screwed outlet shall be provided with a cap of cast iron or other suitable material. The cap shall cover the outlet thread completely and shall be attached to the hydrant by a chain.

The distance between the axis of the outlet and the nearest point on the spindle fitting shall be not less than 100 mm.

The screwed outlet shall be made of Copper alloy to BS 1400 (KS 06 – 744 – 1:1991), or Copper alloy to BS 2872, or Suitable Spheroidal graphite iron to BS 2789 protected against corrosion accordance with CP 2008.

#### **1.1.7 Drain Boss**

Each shall be provided with a suitable drain boss on the outlet side. This shall be located at the lowest practical point which will permit the filling of self- operating a drilled drip plug

#### **1.1.8 Jointing**

The hydrants shall have machined joint faces throughout and the fitting of adjoining parts shall be such as to make sound joints, corresponding parts of hydrants of the same design and manufacture shall be interchangeable.

#### **1.1.9 Hydrant coating**

The hydrant shall be coated in accordance to BS. 4164.

#### **1.1.10 Fire Hydrant Box**

Fire Hydrant box: Weather proof standard fire hose cabinet (1700 mm x 750 mm x 250 mm) made of 16 SWG powder coated M.S sheet cabinets of approved type, stove enameled Fire red finish, suitable for housing 2 nos. Hose pipe, 1 No. branch pipe & nozzle spanner. The Box shall be painted with two coats of red oxide primer and two coats of synthetic enamel paint of Fire red shade (Conforming to relevant BS standard) approved shade complete as required. The cabinet and required accessories shall be provided with each stand-post type hydrant. The mounting arrangement of cabinets for stand type hydrants shall be as shown in Plant detail drawings & coordinated with Architecture.

- a. Hydrant Key: Aluminum alloy hydrant key, length as required.

### 1.1.11 Marking

Surface box covers shall be clearly marked by having the words '**FIRE HYDRANT**' in letter not less than 30mm high, or the initials '**FH**' in letters not less than 75mm high cost into the cover.

### 1.1.12 Testing

The hydrants shall be deemed to have undergone the necessary hydrostatic and flow test at time of manufacture. Necessary test certificates from the manufacturer shall be needed. The test, to conform to BS 750: 1977:

#### 1.2 STAND PIPES

One end of these shall have internal threads to couple with the 80mm diameter external threads of the screw down type or above ground fire Hydrant (BS 750 type 2 hydrants) outlet.

#### 1.3 HOSE PIPE

Each cotton synthetic fibre rubberized fire hosepipe to be at least 25 metres long with 65mm diameter female instantaneous type connector.

#### 1.4 FIRE HYDRANT PUMP

2 No. electrically operated pumps capable of pumping **11.7 Litres per second of water against 60 metres (6bar)** head shall be installed. The pumps to be as GRUNDFOS MODEL CR – 45-3 or equal and approved.

1 No. electrically **Jockey pump** capable of pumping **1.17 Litres per second** of water against 60 metres (6bar) head shall be installed. The pumps to be as GRUNDFOS or equal and approved.

Each pump shall be directly driven by a three-phase motor; the pump motor being mounted on a common base.

Pump casing shall be manufactured from good quality cast iron and impellers, shafts and other material in contact with water shall be of corrosion resistant metal. The pumps shall be suitable for pumping filtered water treated for human consumption.

The motor shall be completely protected against possible damage due to entry of water, dust etc. The motor shall be fitted with glands for the entry of PVC armoured cables with overall PVC sheath. The completed cable connection to the motor terminal box shall be proof against ingress of water or dust.

The pump shall be mounted on concrete plinth which shall be constructed by the main contractor in accordance with specifications from the sub-contractor.

Holes for holding down bolts shall be left in concrete and after the concrete has cured the pumps shall be placed in position and bolts grounded into position. A grout shall be floated under pump motor base to ensure an even surface for the pump to rest upon.

### **1.4.1 Electrical works**

It shall be the responsibility of the sub-contractor to provide all electrical wiring between all items of his sub-contract works to ensure the correct functioning of his equipment. The sub-contractor's electric works shall start from nearest electrical isolator.

### **1.4.2 Control panel**

The sub-contractor shall provide an electric control panel and shall be responsible for its fixing and satisfactory operation. The panel shall be fabricated from minimum thickness. 1.2mm steel sheet and finished grey stoved enamel. The panel shall be wall mounted with a removable hinged front access panel. Motor control switch gear shall be of approved type. The panel shall have an integral isolator

Pump changeover shall be automatic alternating after each duty cycle. A green 'running' red 'trip' lamp shall be provided for each pump. The control system (float switches etc) shall be energized when a pump is started.

The motor system shall be wired so that they operate only automatically as called for by the switches except that starter push button shall be connected so as to enable the pumps to be started and run and cease to run when the push button is allowed to its normal position.

An emergency stop button shall be located adjacent to each pump.

The level regulator/float switches shall be wired and set in such a manner that the duty pumps shall stop and or will not come on when the tanks are empty to avoid dry runs.

Where a three-phase motor is used, a single phasing protector shall be provided if the motor does not have one.

A phase failure relay shall be installed in 3 phase – operated pumps.

The pump set shall be supplied complete with all tools and spares as recommended.

**STATEMENT OF COMPLIANCE**

- a) I confirm compliance of all clauses of the General Conditions, General Specifications and Particular Specifications in this tender.
  
- b) I confirm I have not made and will not make any payment to any person, which can be perceived as an inducement to win this tender.

Signed.....*for and on behalf of the Tenderer*

Date: .....

Official Rubber Stamp: .....

**SECTION VI - BILLS OF QUANTITIES**

1.1 Notes And Sample Items for Preparing a Bill of Quantities..... E-i  
1.2 Notes To Preparing Preambles..... E-ii  
1.3 Preambles.....E-iii  
1.4 Schedule of Unit Rates.....E-11  
1.5 Bill of Quantities .....E-32  
1.6 Technical Schedule.....E-34

## **2 Notes and Sample Items for Preparing a Bill of Quantities**

2.1 These Notes for Preparing a Bill of Quantities are intended only as information for the Procuring Entity or the person drafting the Tender Documents. Priced Bills of Quantities shall be part and parcel of the Contract Documents.

2.2 The objectives and purpose of the Bills of Quantities are to provide sufficient information on the specifications, descriptions and quantities of Works to be performed to enable tenders to be prepared efficiently and accurately and when a contract has been entered into, to provide a priced Bill of Quantities for use in the periodic valuation of Works executed. In order to attain these objectives, Works should be itemized in the Bill of Quantities insufficient detail to distinguish between the different classes of Works, or between Works of the same nature carried out in different locations or in other circumstances which may give rise to different considerations of cost. Consistent with these requirements, the layout and content of the Bill of Quantities should be as simple and clear as possible.

### **2.3 NOTES TO PREPARING PREAMBLES**

4.1 The Preambles should include only those items that constitute the cost of the works but would not be priced separately as they are expected to be included in the unit prices. Care should be taken to ensure that these items are not a repetition of the conditions of contract. The Preambles should indicate the inclusiveness of the unit prices and should state the methods of measurement that have been adopted in the preparation of the Bill of Quantities, that are to be used for the measurement of any part of the Works. The units of measurement and abbreviations should be defined and any mandatory national units defined and described. The methods of and procedure for re-measurement should be described in the Preambles.

44. The rates and prices tender in the priced Bills of Quantities shall, except in so far as it is otherwise provided under the Contract, include all Constructional Plant, labour, supervision, materials, erection, maintenance, insurance, profit, taxes, and duties, together with all general risks, liabilities, and obligations set out or implied in the Contract.

45. A rate or price shall be entered against each item in the priced Bill of Quantities, whether quantities are stated or not. The cost of Items against which the Contractor has failed to enter a rate or price shall be deemed to be covered by other rates and prices entered in the Bill of Quantities.

46. The whole cost of complying with the provisions of the Contract shall be included in the Items provided in the priced Bills of Quantities, and where no Items are provided, the cost shall be deemed to be distributed among the rates and prices entered for the related Items of Work.
47. General directions and descriptions of work and materials are not necessarily repeated nor summarized in the Bills of Quantities. References to the relevant sections of the Contract documents shall be made before entering prices against each item in the priced Bills of Quantities.
49. Provisional Sums and contingency sums included and so designated in the Bills of Quantities shall be expended in whole or in part at the direction and discretion of the Architect in accordance with Sub- Clause 13.5 and Clause 13.6 of the General Conditions of contract.
- 4.10 In preparing the Bills of Quantities, notes should be removed as they are intended to guide the person preparing the Tender Documents. The Contractor must allow in his rates for any costs associated with and complying with the requirements in the Preambles.
- 4.11 Should a tenderer/contractor not price any item in any section of the Bills of Quantities including Preliminary items, it will be assumed that he/she has spread its cost in other areas that he/she will have priced. Therefore, the item or items will be executed without any additional costs or without being treated like variations.

#### 2.4 **NOTES ON PREPARING BILLS OF QUANTITIES**

51. The Preliminary Items should be limited to tangible items that should be priced by the tenderer, are identifiable and can be priced separately and included in the interim valuations precisely. Such items may include such items as site office, notice boards, and other temporary works, otherwise items such as security for the Works which are primarily part of the Contractor's obligations should be included in the Contractor's rates.
52. The work items in the Bills of Quantities should be grouped into sections to distinguish between those parts of the Works which by nature, location, access, timing, or any other special characteristics may give rise to different methods of construction, or phasing of the Works, or considerations of cost. Such groups could be ground excavations, structures, external works, services, etc. General items common to all parts of the Works may be grouped as a separate section in the Bill of Quantities.

- 53 Quantities should be computed net from the Drawings, unless directed otherwise in the Contract, and no allowance should be made for bulking, shrinkage or waste. Quantities should be rounded up where appropriate.
- 54 Where the measured items are redeemed not to be exact because of the likelihood that the scope can change during the execution of the works, such items could be subject to re-measurement, the word “**provisional**” should be used to identify such cases. Where whole sections of the work items fall in this class, for example foundations, they should be labelled “Provisional Quantities” or “Provisional Items” so that the Tenderer/Contractor is advised up front that such items are subject to re-measurement to be done before such work is covered-up.
- 55 All items that have not been measured and therefore not subject to tenders pricing should be listed in the Bills of Quantities as **Provisional Sums** for particular item or class of Work, which may be subject to a nominated subcontract or separate measurements at a later date during the execution of the works. For example, if it is deemed not possible to measure electrical works before going to tender because detail designs are not ready, a provisional sum can be allowed in the Bills of Quantities for “Installation of Electrical Works” to be executed later when actual design details are completed. To the extent not covered above, there should be in the Bills of Quantities a general provision for physical and financial contingencies made as a “Provisional Sum for Contingencies” and “Provisional Sum for Fluctuations”.

#### **PREAMBLES**

1. The method of measurement of completed work for payment shall be in accordance with *The Standard Method of Measurements for Building Works and Associated Civil Works for Eastern Africa (2<sup>nd</sup> edition) of 2008 prepared by The Architectural Association of Kenya (Quantity Surveyors Chapter)*
2. The Site is situated in **Multimedia University Nairobi County, along Magadi road** It is approximately \_\_Kilometers from Nairobi CBD. Access to the site shall be through, Which is an existing public road Any damage caused to the surfaces of this road shall be made good at the Contractor's expense. The Contractor shall visit the site and acquaint itself with its nature and position, the nature of the ground, substrata and other local conditions, positions of existing power, water and other services, access roads or any other limitations that might affect his cost or progress. No claim for extras shall be considered on account of lack of knowledge in this respect.

3. The Contractor shall obtain the Architect's approval on the siting of all temporary buildings, spoil heaps, temporary access path, and storage of materials. The Contractor shall also obtain the Architect approval and direction regarding the use of any materials found on the Site.
4. The drawings used in the preparation of these Bills of Quantities can be inspected at the offices of the Procuring Entity or Procuring Entity's Representative during normal working hours. Two sets of the Working Drawings shall be provided to the contractor but additional copies shall be provided at a cost to be determined by the Engineer.
5. The Contractor shall allow for the payment of all bank charges in connection with the procurement of Bank Guarantees and stamp charges in connection with this contract Agreement.
6. The Contractor shall carry out the various sections of the Works in such an order as the Architect May direct. The Procuring Entity reserves the right to occupy the Works by sections on completion provided that such occupation is considered to be both practical and reasonable and will not interfere with the Works. The Contractor shall allow any costs associated with such occupation.
7. The main Contractor will be fully responsible for paying his Sub-Contractor but the Procuring Entity reserves the right in very exceptional circumstances to make such payments direct in the interests of the project where the completion thereof might be jeopardized by any dispute or vicariousness between the Contractor and the Sub-Contractor involve.
8. The Contractor shall complete and deliver the Works in the period inserted in the Form of Tender as his time for completion of the Works from the date for Possession, to be agreed with the Engineer. The Contract Period is presumed to have been calculated making due allowance for seasonal inclement weather conditions. No claim for extension of time due to the normal inclement weather for this area shall be entertained.
9. The Contractor shall, upon receiving instructions to proceed with the Works, draw up a Programme and Progress Chart setting out the order in which the Works are to be carried out, with the appropriate dates thereof. This Chart shall be agreed with the Architect and no deviation from the order set out in it will be permitted without the written consent of the Engineer. The Contractor will be responsible for arranging the above programme with all his sub-Contractors and Specialties. The Contractor shall allow in his rates for carrying out this exercise, and for updating it as required.

10. The Contractor shall submit to the Architect on the first day of each week or such longer period as the Architect from time to time direct, a Progress Report and any information for the proceeding period, showing the progress during the period and the up-to-date cumulative progress on all important items of each section or portion of the Works.
11. The Contractor shall arrange for photographs of the Site to be taken by a professional photographer approved by the Engineer. The Photographs shall provide a record of the Site and adjacent areas prior to the commencement of the Works and shall cover such portion of the works in progress and completion as the Architect shall direct. All prints shall be full plate size, unmounted, and marked on the reverse side with the date of exposure, identification reference and brief description. The copyright of all photographs shall be vested in the Procuring Entity. The negatives and four prints from each negative shall be delivered to the Architect within two weeks of exposure.
12. Figured dimensions are to be followed in preference to dimensions scaled from the Drawings, but whenever possible dimensions are to be taken on the Site or from the buildings. Before any work is commenced by Sub- Contractors or Specialist Firms, dimensions must be checked on the site comparable dimensions shown on the drawings. The Contractor shall be responsible for the accuracy of such dimensions.
13. Prior to commencement of any work the Contractor is to ascertain from the relevant Authorities the exact position, depth and level of all existing electric cables, water pipes or other services in the area and he shall make whatever provisions may be required by the Authorities concerned for the support and protection of such services. Any damage or disturbance caused to any services shall be reported immediately to the Architect and the relevant Authority and shall be made good to their satisfaction at the Contractor's expense. Where appropriate the Contractor shall open up the ground in advance of the main work by hand digging, if necessary, to locate precisely the position and details of the services which are likely to affect his operations.
14. The Contractor shall include in his prices for the transport of materials, workmen, etc./, to and from the site of the proposed works, at such hours and by such route as are permitted by the Authorities.

15. The Contractor will be required to make good, at his own expense and damage he may cause to the present road surface and pavements within or beyond the boundary of the Site, during the period of the works. All existing paths, storm water channels, etc., that may be destroyed or damaged during the progress of the Works shall be reinstated by the Contractor to the satisfaction of the Engineer.
16. The Contractor is to allow for complying with all instructions and regulations of the Police Authorities.
17. All water shall be fresh, clean and pure, free from earthly, vegetable or organic matter, acid or alkaline substance in solution. The Contractor shall provide at his own risk and cost all water for use in connection with the Works, (including works of sub-contractors). If need be, he shall make arrangements with the Local Water Authority for the installation of a separate meter for all water used by him throughout the Contract and pay all cost and fees in connection therewith. He shall also provide temporary storage tanks and tubing, etc., as may be necessary, and clear away at completion.
18. The Contractor shall provide all artificial lighting and power for his own use on the Works, (including Sub – Contractor's) including all temporary connections, wiring, fittings, etc., and clearing away on completion. The Contractor shall pay all fees and obtain all permits in connection there with.
19. The Contractor shall constantly keep on the Works a Literate English-speaking Agent or Representative, competent and experienced in the kind of work involved, who shall give his whole time to the superintendence of the works. (Including works of sub – contractors). Such Agent or Representative shall receive on behalf of the Contractor directions and instruction from the Engineer, and such directions and instructions shall be deemed to be given to the contractor in accordance with the Conditions of Contract. The Agent shall not be replaced without the specific approval of the Engineer.
20. The Contractor shall ensure that the safety of his work people and all authorized visitors to the site are protected at all times. In particular, there shall be the proper provision of guard-rails to scaffolding, protection against falling materials, tools on site, dust, nail and other sharp objects. The site shall be kept tidy and clear of dangerous rubbish. The Architect shall be empowered to suspend work on site should it be considered this condition is not being observed and no claim arising from such suspension will be allowed.

21. They are as available to the Contractor for work yards, offices and other facilities shall be directed by the Architect and any existing features to remain shall be protected from damage throughout the Contract Period and handed back in good condition when they are vacated at the end of the Contract. If additional areas are required, the contractor shall source them at own cost.
22. The Contractor shall give the Architect reasonable notice of the intention to set out or take levels for any part of the Works so that arrangements may be made for checking the work. The accuracy of setting out and leveling shall be within the tolerances specified in the Specifications or on the Drawings. The checking of setting out or leveling by the Architect shall not relieve the Contractor of his duties or responsibilities under the Contract.
23. The Contractor must take steps necessary to safeguard and shall be held fully responsible for any damage caused to existing and adjacent property, including buildings that are not a subject of demolition. He shall make good at his own cost damage to persons and property caused thereon, and he shall indemnify the Procuring Entity against any loss or claim that may arise.
24. The Contractor shall take such steps and exercise such care and diligence as to minimize nuisance arising from dust, noise or any other cause to the occupiers of the existing and adjacent property. He must provide such temporary and special screens and tarpaulins or gummy bags, hoarding, barriers, warning signs etc. as he considers necessary and sufficient for the protection of the existing and adjacent property and or prevention of nuisance etc. as directed by Engineer.
25. The Contractor's attention is drawn to the standards levy order which was amended on 15<sup>th</sup> October 1998. Legal notice No.154 of 1998. The Contractor is required to pay a monthly level of 0.2% of his factory price of construction works with effect from January 1999. Tenderer shall allow for this in the build-up his rates.

26. The Contractor shall provide temporary sheds, offices mess rooms, sanitary, accommodation and other temporary buildings for the use of the contractor and sub-contractors, including lighting furniture equipment and attendance.
27. Contractor shall provide/build labor camp sat areas to be agreed with the Engineer. Labor camps shall be complete with sanitary accommodation and fencing gates.
28. The Contractor must provide the necessary toilet facilities to the requirement and satisfaction of the Health Authorities and maintain the same in a thoroughly clean and sanitary condition and pay all conservancy fees during the period of the Works and remove when no longer required.
29. The Contractor shall provide at his own risk and cost all watching and lighting as necessary to safeguard the Works, Plant and materials against damage and theft.
30. The Contractor shall provide all necessary hoists, tackle, plant, equipment, vehicles, tools and appliances of every description for the due and satisfactory completion of the Works and shall remove the same on completion. All such plant, tools and equipment shall comply with all regulations in force throughout the period of the Contract and shall be altered or adopted during the Contract period as may be necessary to comply with any amendments in or additions to such regulations.
31. Provide, erect and maintain all necessary scaffolding, sufficiently strong and efficient for the due performance of the works, including Sub-Contract Works, provide special scaffolding as required by Sub- Contractors, alter and adopt all scaffolding as and when required during the Works, and remove on completion. No scaffolding is measured here in after and the Contractor must allow in his rates for this.
32. The Contractor shall take all necessary precautions such as temporary fencing, hoarding fans, planked footways, guard-rails gantries screen, etc., for the safe custody of the Works, materials and public protection and adjacent properties.
33. Cover up all and protect from damage, including damage from inclement weather, all finished work and unfixed materials, including that of Sub-Contractors, etc., to the satisfaction of the Architect until the completion of the Contract.

34. The Contractor shall, after completion of the works, at his own expense, remove and clear away all surplus excavated demolition materials, plant, rubbish and unused materials and shall leave the whole of the Site and Works in a clean and tidy state to the satisfaction of the Engineer, sheds, camps, etc. Particular care shall be taken to leave clean all floors and windows and to remove all paint and cement all rubbish and dirt as it accumulates. The Contractor is to find his own dump and shall pay all charges in connection therewith. Concrete test cubes shall be prepared in a set of three, as described including testing fees, labor and materials, making molds, transport, handling, etc. Allow in your rates for making at least four cubes on each occasion, from different batches; the concrete being taken from the point of deposit.
35. The Contractors shall furnish at the earliest possible opportunity before work commences, and at his own cost, any samples of materials and workmanship that may be called for by the Architect for the approval or rejection, and any further samples in the case of rejection, until such samples are approved by the Engineer. Such samples, when approved, shall be the minimum standard for the work to which they apply. The procedure for submitting samples of materials for testing or approval and the method of marking for identification shall be as laid down by the Engineer. The Contractor shall allow in his Tender for such samples and tests, including those in connection with his Sub-Contractors work.
36. The Contractors attention is drawn to the Finance Bill of the year 2000/2001 on withholding tax on contractual payment section 35(7)(i)(ii) which became effective on 1<sup>st</sup> July 2000. A 3% withholding tax will be applicable to all interim payments exceeding Kshs..... for work done in respect of building or civil works. The contractor shall allow for any costs arising resulting there from in the build-up of rates.
37. Blasting will only be allowed with the express permission of the Architect in writing. All blasting operations shall be carried out at the Contractor's sole risk and cost, in accordance with any Government regulations in force for the time being, and any special regulations laid down by the Architect governing the use and storage of explosives.
38. The National Construction Authority is a state corporation established under the national construction authority Act No.14 of 2011. The broad Mandate of the Authority is to oversee the construction industry and coordinate its development. The National

39. Construction Authority Regulations 2014 with an effective date of 6<sup>th</sup> June 2014, regulation 25, - Allow 0.5% of the tender sum/contract sum for construction levy.
  
40. The Contractor attention is drawn to Finance Bill of 1993 where VAT was introduced in all contracts for construction services. The tenderer is also drawn to VAT Act Cap 476 clause 19(9). The tenderer must allow for VAT 1.19 as instructed elsewhere.
  
41. The contractor shall allow and pay for all insurance to cover risks and indemnities required Items 17 and 18 of the Conditions of contract and also specified in the Special Conditions of Contract

BILL NO.1 SUBCONTRACT PRELIMINARIES					
Item	Description	Qty	Unit	Rate (Kshs)	Amount (Kshs)
	<b>PRELIMINARIES</b>				
	<b>Scope of Contract Works</b>				
A	The contractor shall supply, deliver, unload, hoist, fix, test, commission and hand-over in satisfactory working order the complete installations specified hereinafter and/or as shown on the Contract Drawings attached hereto, including the provision of labour, transport and plant for unloading material and storage, and handling into position and fixing, also the supply of ladders, scaffolding the other mechanical devices to plant, installation, painting, testing, setting to work, the removal from site from time to time of all superfluous material and rubbish caused by the works.	0	Item		
	<b>Firm price contract</b>				
B	This is a firm-price Contract and the contractor must allow in his tender for the increase in the cost of labour and/or materials during the duration of the contract. No claims will be allowed for increased costs arising from the fluctuations in duties and/or day to day currency fluctuations. The Sub-contractor will be deemed to have allowed in his tender for any increase in the cost of materials, which may arise as a result of currency fluctuation during the contract period.	1	Item		
	<b>Bond</b>				
C	The tenderer must submit with his tender the name of one Surety who must be an established Bank only who will be willing to be bound to the Government for an amount equal to 5 % of the Contract amount	0	Item		
	<b>Government Legislation and Regulations</b>				
D	The Contractor's attention is called to the provision of the Factory Act 1972 and subsequent amendments and revisions, and allowance must be made in his tender for compliance therewith, in so far as they are applicable. The Contractor must also make himself acquainted with current legislation and any Government regulations regarding the movement, housing, security and control of labour, labour camps, passes for transport, etc.	0	Item		
<b>Total carried forward to Collection Page</b>					

Item	Description	Qty	Unit	Rate (Kshs)	Amount (Kshs)
A	<p><b>Import Duty and Value Added Tax</b></p> <p>The contractor will be required to pay full Import Duty and Value Added Tax on all items of equipment, fittings and plant, whether imported or locally manufactured. The tenderer shall make full allowance in his tender for all such taxes.</p>	0	Item		
B	<p><b>Insurance Company Fees</b></p> <p>Attention is drawn to the tenderers to allow for all necessary fees, where known, that may be payable in respect of any fees imposed by Insurance Companies or statutory authorities for testing or inspection.</p>	0	Item		
C	<p><b>Samples and Materials Generally</b></p> <p>The Contractor shall, when required, provide for approval at no extra cost, samples of all materials to be incorporated in the works. Such samples, when approved, shall be retained by the Engineer and shall form the standard for all such materials incorporated.</p>	1	Item		
D	<p><b>Builder's Work</b></p> <p>All chasing, cutting away and making good will be done by the Contractor. The Contractor shall mark out in advance and shall be responsible for accuracy of the size and position of all holes and chases required.</p> <p>The Contractor shall drill and plug holes in floors, walls, ceiling and roof for securing services and equipment requiring screw or bolt fixings.</p> <p>Any purpose made fixing brackets shall be provided and installed by the Contractor</p>	0	Item		
<b>Total carried forward to Collection Page</b>					

Item	Description	Qty	Unit	Rate (Kshs)	Amount (Kshs)
A	<p><b>Position of Services, Plant, Equipment, Fittings and Apparatus</b></p> <p>The Contract Drawings give a general indication of the intended layout. The position of the equipment and apparatus, and also the exact routes of the ducts, main and distribution pipework shall be confirmed before installation is commenced. The exact sitting of appliances, pipework, etc., may vary from that indicated.</p> <p>The contractor shall be deemed to have allowed in his Contract Sum for locating terminal points of services (e.g. lighting, switches, socket outlets, lighting points, control switches, thermostats and other initiating devices, taps, stop cocks) in positions plus or minus 1.2m horizontally and vertically from the locations shown on Contract Drawings.</p>	1	Item		
B	<p><b>Setting to Work and Regulating System</b></p> <p>The Contractor shall carry out such tests of the Contract Works as required by British Standard Specifications, or equal and approved codes as specified hereinafter and as customary.</p> <p>No testing or commissioning shall be undertaken except in the presence of and to the satisfaction of the Engineer unless otherwise stated by him (Contractor's own preliminary and proving tests excepted).</p> <p>It will be deemed that the Contractor has included in the Contract Sum for the costs of all fuel, power, water and the like, for testing and commissioning as required as part of the Contract Works. He shall submit for approval to the Engineer a suitable programme for testing and commissioning. The Engineer and Employer shall be given ample warning in writing, as to the date on which testing and commissioning will take place.</p>	1	Item		
<b>Total carried forward to Collection Page</b>					

Item	Description	Qty	Unit	Rate (Kshs)	Amount (Kshs)
A	<p><b>Working Drawings</b></p> <p>The Contractor shall allow for Working Drawings as may be necessary. The Working Drawings shall be complete in such detail not only that the Contract Works can be executed on site but also that the Engineer can approve the Contractor's proposals, detailed designs and intentions in the execution of the Contract Works.</p> <p>Two copies of all Working Drawings shall be submitted to the Engineer for approval. One copy of the Working Drawings submitted to the Engineer for approval shall be returned to the Contractor indicating approval or amendment therein.</p>	1	Item		
B	<p><b>Record Drawings (As Installed) and Instructions</b></p> <p>The Contractor shall allow for Record Drawings of the installed Contract Works.</p>	1	Item		
C	<p>Three copies of all Record Drawing shall be submitted to the Engineer for approval.</p> <p>Provide airtime for use by the project engineer for use during the entire project period for any calls touching the project.</p>	0	Item		
D	<p><b>Maintenance Manual</b></p> <p>The Contractor shall allow for furnishing the Engineer four copies of a Maintenance Manual relating to the installation forming part of all of the Contract Works.</p> <p>The manual shall be loose-leaf type, International A4 size with stiff covers and cloth bound. It may be in several volumes and shall be sub-divided into sections, each section covering one Engineering service system. It shall have a ready means of reference and a detailed index.</p>	1	Item		
<b>Total carried forward to Collection Page</b>					

Item	Description	Qty	Unit	Rate (Kshs)	Amount (Kshs)
A	<p><b>Mobilization and Demobilization</b></p> <p>The Contractor shall allow for mobilization of labour plant and equipment to site according to his programme and schedule of work. He shall ensure optimum presence and utilization of labour, plant and equipment. He should not pay and maintain unnecessary labour force or maintain and service idle plant and equipment. Where necessary he shall demobilize and mobilize the labour, plant and equipment, as he deems fit to ensure optimum progress of the works and this shall be considered to be a continuous process as works progress. He shall make provision for this item in his tender. No claim will be entertained where the contractor has not made any provision for mobilization and demobilization of labour, plant and equipment in the preliminary bills of quantities or elsewhere in this tender.</p>	0	Item		
B	<p><b>Contractor Obligation</b></p> <p>The contractor will finance all activities as part of his obligation to this contract. The employer shall pay interim payment for materials and work completed on site as his obligation in this contract, as the works progresses. No claims will be entertained for pre-financing of the project by the sub-contractor, or for loss of profit (expectation loss) in case of premature termination, reduction or increase of works as the sub-contractor shall be deemed to have taken adequate measures in programming his works and expenditure and taken necessary financial precaution while executing the works.</p>	1	Item		
D	<p>Allow for tax, attendace and overheads for above</p> <p><b>Any other Preliminaries</b></p>	1	Item		
E	<p>The contractor to allow for any other preliminaries neccessary for hime to complete all the works</p>	1	Item		
	<p><b>Total Carried Forward to Collection Page</b></p>				

**COLLECTION PAGE**

<b>Item</b>	<b>Description</b>	<b>Amount (Kshs)</b>
A	Total cost carried forward from Page E-1 .....	
B	Total cost carried forward from Page E-2 .....	
C	Total cost carried forward from Page E-3 .....	
D	Total cost carried forward from Page E-4 .....	
E	Total cost carried forward from Page E-5 .....	
<b>Total Amount Carried to Summary Page</b>		

**Bill no. 2 Sanitary fittings, plumbing, drainage and fire protection works upto the Third Floor**

Item	Description	Qty	Unit	Rate (Kshs)	Amount (Kshs)
	<b><u>SANITARY APPLIANCES</u></b>				
	Supply, deliver, install, test and commission the following sanitary appliances complete with all the accessories including all connections to the services, waste, jointing to water supply overflows, supports and all plugging and screwing to walls and floors. (i) All sanitary fittings shall be in approved colour. (ii) The Model and Ref No. indicated is only a guide to the type and quality of fittings. (iii) Equivalent and Approved models may be acceptable.				
	<b>Water Closet (WC) pan</b>				
A	Rimless, Floor standing and back to wall WC bowl with 'P'-trap in approved white colour complete with horizontal outlet to BS 3402, Material as Ceramic and of Dimensions: Size [mm]: 370mm x 400mm [Width x Height]. All to be as Tapis Ivo CB1076 or equal and approved.	34	No.		
B	Heavy duty soft close heavy plastic seat, cover and ring with stainless steel hinges To be as Tapis ivo only for above wc.	34	No.		
C	Vario connector set of code #001422 and/or outlet bow of code #001462	34	No.		
	<b>WC installation(fix and install)</b>				
D	Allow for installaton of the already supplied water closet pans to full functionality. Include all accessories required.	5	No		
	<b>WC Flush valve installation</b>				
E	Allow for installaton of the already supplied water closet pans flush valves to full functionality. Include all accessories required.	34	No.		
	<b>Water closet Flush Valves</b>				
F	Water closet flush valve for the above water Closet pans complete with, back entry with integral vacuum breaker, non-hold-open features and non-return valve, inlet control stop and comprising flush valve, bent chrome plated flush pipe and rubber pipe connector. The flush valve to be push button type. The fittings shall be as Docol or equal and approved. To be either 40mm or 32mm depending on site low or high water pressure levels.	25	No		
G	Flat Water closet flush valve wall plate. To have a flat wall flange. To be as per DocolFlat of code 00931706 or equal and approved	20	No		
	<b>Sub Total Carried Forward to Next Page</b>				

Item	Description	Qty	Unit	Rate (Kshs)	Amount (Kshs)
<b>Sub Total Borrowed Forward from Previous Page</b>					
A	<b>Waste bin</b> Floor standing Waste receptacle with self-closing lid, 20L of capacity, free standing.All to be as Mediclinic of code PP0065or equal and approved.	1	No.		
B	<b>Countertop Wash hand basin(WHB)</b> Drop in counter top Wash hand basin size 550mm with one tap hole, overflow, 32mm diameter chrome plated chain waste, chain stay hole as Tapis Vanity basin code LVA1290 or equal and approved.	36	No		
C	<b>Pressmatic Wash hand basin taps</b> Self-closing and press type pillar tap DN 15 for sanitary facilities with piston-free design, self-closing, stepless adjustment of flow duration. Pillar Cock Auto Closing System with 65mm Extension Body. Casing, high-polished chromium-plated brass. Aerator with an integrated flow regulator 3.0 l/min as <b>Docol</b> or approved equivalent	36	No		
D	<b>Wash hand basin Installation</b> Allow for intsall and fix of the already supplied water wash basins to full functionality. Incude all accessories required.	4	item		
E	<b>Toilet brush and holder</b> Wall mounted toilet brush holder and brush of approved colour as GROHE "Atrio accessories Tier:G5 Prestige" Model- 40 314 toilet brush set or approved equivalent.	40	No.		
F	<b>Toilet Roll Holder</b> Toilet roll holder made of AISI 304 stainless steel black finish, Roll axis made of 5 mm thick AISI 304 stainless steel sheet, Wall brackets of two units, made with AISI 304 stainless steel cylindrical tube of Ø 28mm and 1.2mm thick and attached to the bar by means of a threaded stud and nut in approved colour MEDICLINIC TOILET ROLL HOLDER MODEL AI1321B or equal and approved.	10	No.		
G	Lockable Jumbo toilet roll holder in approved colour as Mediclinic or equal and approved. To be supplied with initial toliet paper as Velvex.	10	No.		
<b>Sub Total Carried Forward to Next Page</b>					

Item	Description	Qty	Unit	Rate (Kshs)	Amount (Kshs)
<b>Sub Total Borrowed Forward from Previous Page</b>					
A	<p><b>Mirror</b> 6mm thick polished plate glass silver backed mirror with bevelled edges, size 610 x 610mm, Plugged and screwed to wall with 4No. chrome plated dome capped screws. The mirror shall rest against a layer of 5mm thick foam. The mirror to be one unit complete along the arrangement of wash hand basins</p>	44	No.		
B	<p><b>Soap Dispenser</b> Wall mounted soap dispenser with a capacity of about 1.5 litre having a press action soap release mechanism complete with fixing screws. Allow for initial soap supply. To be as Tapis soap dispenser.</p>	20	No.		
C	<p><b>Urinal bowl and Cistern Installation</b> Allow for fix and installaton of the already supplied urinal bowls and cistern to full functionality. Incude all accessories required.</p>	4	item		
D	<p><b>Hand Driers</b> Automatic hand drier in white colour, operating on an infra-red automatic sensing system with heating element safety cut-out complete with a 30 seconds safety timer, plastic rawl plugs and fixing screws. The hand drier to have a heating capacity of 2.1kw and performance flow rate of 135cfm (3.82m3/min) and to be of size 270x264x143mm deep It shall have a noise level below 72.5 dBA at 1.5m. It shall be as MEDICLINIC MODEL M06A OR EQUIVALENT</p>	6	No.		
E	<p><b>Toilet Shattaf/Health Faucet</b> Toilet Spray Shattaf as PEX Economy kit chrome No PEX-SHATTAF-B-CP. To have Interface of 1/2". An hose length of 1.5m 59". The t-adapter material of Copper. To be as JAQUAR HEALTH KIT ALE-ESS-593 OR EQUIVALENT or approved equivalent</p>	12	No.		
<b>Sub Total Carried Forward to Next Page</b>					

Item	Description	Qty	Unit	Rate (Kshs)	Amount (Kshs)
<b>Sub Total Borrowed Forward from Previous Page</b>					
A	<b>Urinal Bowl</b> Rimless, back inlet urinal bowl with concealed bowl bottle trap and grating firmly fixed on the wall with chrome plated screws. The bowl to be of ceramic material. The fittings shall be as duravit code 2809300000 or equal and approved.	8	No		
B	Quote for <b>fix and install</b> only for the already supplied urinal bowls. Allow for installation accessories	5	No		
<b>Urinal cistern</b>					
C	Ceramic urinal cistern with a automatic timer mechanicanism and supplying water to the two urinal bowls below. Allow for firm mounting of the ciostern to the wall and for stainless steel piping to the urinal bowls	5	No		
D	<b>Urinal bowl trap.</b> E6227(67) Concealed Urinal syphon connector with 75mm water seal, and 40mm outlet. To be as ideal standard	10	No		
E	<b>Urinal bowl spreader.</b> Stainless steel urinal bowl sprader for above urinal bowls. To be as ideal standard or equal and approved.	0	No		
F	<b>Urinal Connecting set.</b> To be as ideal standard product code K7106(67) or equal and approved	5	No		
<b>Stainless steel urinal pipe work</b>					
G	Allow for supply and installation of 25mm diameter stainless steel urinal pipework kit for twin urinal bowls and suitable for concealed urinal bowl pipework.	24	Lm		
<b>Kitchen Sink (DBDD)</b>					
H	Double bowl, double drainer stainless steel kitchen sink of size 1800 x 500mm as manufactured by ASL 159 or equal and approved. The bowl size to be 370 x 340 x 200mm deep complete with chrome plated 40mm waste fittings, plugs, chain stays, overflow, 1No. 15mm diameter chrome plated sink mixer with over-arm swivel spout as Cobra model 166/04 with carina handles, chrome plated bottle trap with 75mm deep seal and chain waste fitting.	1	No.		
<b>Sub Total Carried Forward to Next Page</b>					

Item	Description	Qty	Unit	Rate (Kshs)	Amount (Kshs)
<b>Sub Total Borrowed Forward from Previous Page</b>					
A	<b>Fittings approval</b> Allow for approved factory/showroom visit with 2No.client representatives and 2No. Project mechanical engineers for selection and approval of all fittings samples. Total sum Kshs. 50,000. Include taxes and any other overheads	1	No		
B	<b>Cleaner Sink</b>  Floor standing janitorial unit manufactured from grade 1.4301 (304) stainless steel, Stainless steel janitor sink with, 2 Tier bowls -Square bowl Round bowl, sheet skirting Adjustable stainless steel plugs, Stainless steel sound deadening plate Hand wash bowl on top, mop stand at bottom. See specifications. To be complete with mob faucet or Monobloc Mixer Tap. To be as FRANKE JANITORIAL UNIT OR APPROVED EQUIVALENT	4	No.		
C	<b>Cleaner Sink Installation(fix and install)</b> Allow for fix and installaton of the already supplied Cleaner sink to full functionality. Incude all accessories required.	1	item		
D	<b>Kitchen Sink Installation</b> Allow for installaton of the already supplied kitchen sink to full functionality. Incude all accessories required.	1	item		
E	Letter head quality paper, Blue, 500 Sheets as Classic or Conqueror or approved equivalent.	5	No.		
F	Toner Cartridge as Hp Laser Jet Pro M402dne	2	No.		
G	Letter head quality paper, size A4, 80g/cm3, White, 500 sheets	5	No.		
<b>Sub Total Carried Forward to Next Page</b>					

Item	Description	Qty	Unit	Rate (Kshs)	Amount (Kshs)
<b>Sub Total Borrowed Forward from Previous Page</b>					
A	<p><b>Disabled Persons Water Closet and Wash Hand Basin Facility. Supply, deliver and install:</b> Wheel chair accessible W.C facility Comprising of the following:-</p> <p>i) Rimless Close coupled W.C with 7.5 litre cistern with bottom inlet and overflow.The bowl shall be of size 375x560x420mm high.The bowl and cistern shall be manufactured from vitreous china complying with B.S 3402 .The unit shall be complete with valveless cistern fittings including syphon, 1 /2" side inlet ballvalve, 3 /4" side overflow, plastics flushbend, inlet connector and reversible metallic chrome plated cistern lever.There shall also be a heavy duty seat(25mmhigh) and cover with chrome plated metal hinges, toilet roll holder, 610 x 610 x 6mm</p> <p>ii) Semi pedestal wall mounted W.H.B of size 600x500x545mm high with flexible connectors to waste and taps.The basin shall be manufactured from vitreous china complying with B.S 3402.It shall have one L/H tap hole with 1/2" chrome plated lever action pillar tap, chrome plated waste with height adjustable trap, pedestal and wall fixing bolts.</p> <p>iii) Hinged support rail with toilet roll holder 770mm long manufactured in nylon coated aluminium and mounted on a wall fixing plate plate size 230x100 mm, 5No 600mm grab rails with covered wall plates.The set shall be as Twyford's DOC.M wheelchair accessible W.C. facility or approved equivalent.</p> <p><b>pwd suite Installation</b> Allow for installaton of the already supplied pwd wc pack to full functionality. Incude all accessories required.</p>	5	Set		
B		1	item		
<b>Sub Total Carried Forward to Next Page</b>					

Item	Description	Qty	Unit	Rate (Kshs)	Amount (Kshs)
<b>Sub Total Borrowed Forward from Previous Page</b>					
<b>INTERNAL PLUMBING</b>					
<b>PPR Pipes</b>					
Supply, deliver and install Polypropylene Random (PP-R) 20 pipework to DIN 8077 with joints, couplings, reducers, tees, adaptors, pipe fixing clips etc all to DIN 16962 and DIN 16928 .Pipe jointing shall be by polyfusion or use of electric coupling. Where pipework is not chased proper anchoring using approved fixtures shall be done. No pipework shall be left exposed to the sun. Rates must allow for all Metal/plastic threaded adaptors where required for the connection of sanitary fixtures, valves, sockets, sliding and fixed joints, support raceways, isolating sheaths, elastic materials, expansion arms and bends, crossovers, couplings, clippings, connectors, joints etc. as required in the running lengths of pipework and also where necessary, for pipe fixing clips, holder bats plugged and screwed for the proper and satisfactory functioning of the system.					
<b>Pipe work-PPR PIPES</b>					
A	20mm diameter pipework	30	Lm		
B	25mm diameter pipework	28	Lm		
C	32mm diameter pipework	20	Lm		
D	40mm diameter pipework	20	Lm		
E	50mm diameter pipework	46	Lm		
F	65mm diameter pipework	50	Lm		
<b>Bends</b>					
G	20mm diameter bend	10	No.		
H	25mm diameter bend	10	No.		
I	32mm diameter bend	10	No.		
J	40mm diameter bend	10	No.		
K	50mm diameter bend	10	No.		
L	63mm diameter bend	10	No.		
<b>Sub Total Carried Forward to Next Page</b>					

Item	Description	Qty	Unit	Rate (Kshs)	Amount (Kshs)
<b>Sub Total Borrowed Forward from Previous Page</b>					
<b>Tees</b>					
A	25mm equal tee	8	No.		
B	32mm equal tee	8	No.		
C	40mm equal tee	8	No.		
D	50mm equal tee	8	No.		
E	65mm equal tee	5	No.		
<b>Reducers</b>					
F	25 x 20mm diameter reducer	10	No.		
G	32 x 20mm diameter reducer	10	No.		
H	32 x 25mm diameter reducer	10	No.		
I	40 x 25mm diameter reducer	10	No.		
J	40 x 32mm diameter reducer	10	No.		
K	50 x 32mm diameter reducer	10	No.		
L	50 x 40mm diameter reducer	10	No.		
M	65 x 50mm diameter reducer	10	No.		
N	65 x 40mm diameter reducer	10	No.		
<b>Male/Female Adapters (Brass threaded)</b>					
O	20mm brass threaded adapter	48	No.		
P	25mm brass threaded adapter	48	No.		
Q	32mm brass threaded adapter	12	No.		
R	40mm brass threaded adapter	12	No.		
S	50mm brass threaded adapter	12	No.		
T	65mm brass threaded adapter	12	No.		
<b>Male/Female Bend (Brass threaded)</b>					
U	20mm brass threaded bend	48	No.		
V	25mm brass threaded bend	48	No.		
W	32mm brass threaded bend	12	No.		
X	40mm brass threaded bend	12	No.		
<b>Sub Total Carried Forward to Next Page</b>					

Item	Description	Qty	Unit	Rate (Kshs)	Amount (Kshs)
<b>Sub Total Borrowed Forward from Previous Page</b>					
<b>Flexible Tubing</b>					
A	15mm diameter x 300mm long flexible connectors complete with integral chrome plated angle valve as Cobra or equal and approved.	40	No.		
<b>Threaded Brass Coupling</b>					
B	25mm threaded brass coupling	58	No.		
C	32mm threaded brass coupling	12	No.		
D	40mm threaded brass coupling	12	No.		
E	50mm threaded brass coupling	12	No.		
F	65mm threaded brass coupling	12	No.		
<b>Valves</b>					
G	25mm gate valve	13	No.		
H	32mm gate valve	13	No.		
I	40mm gate valve	12	No.		
J	50mm gate valve	10	No.		
K	65mm gate valve	4	No.		
<b>Unions</b>					
L	25mm diameter pipe union	8	No.		
M	32mm diameter pipe union	8	No.		
N	40mm diameter pipe union	8	No.		
O	50mm diameter pipe union	8	No.		
P	65mm diameter pipe union	12	No.		
<b>Pipe Sleeves</b>					
Q	100mm diameter heavy duty PVC pipe sleeves for crossing over columns and beams.	10	Lm		
<b>Sub Total Carried Forward to Next Page</b>					

Item	Description	Qty	Unit	Rate (Kshs)	Amount (Kshs)
<b>Sub Total Borrowed Forward from Previous Page</b>					
<b>FOUL WATER INTERNAL DRAINAGE</b>					
Supply ,deliver and install the following UPVC, MUPVC, soil and waste systems respectively to B.S 5255 with fittings fixed to Manufactures Printed instructions and manufactured by reputable manufacturers. Tenderers must allow in their pipework prices for all the couplings, clippings, connectors, joints etc. as required in the running lengths of pipework and also where necessary, for pipe fixing clips, holder bats plugged and screwed for the proper and satisfactory functioning of the system.					
<b>MuPVC and uPVC Waste and Soil pipework</b>					
A	100mm diameter heavy gauge golden brown UPVC pipe	100	Lm		
B	100mm diameter heavy gauge grey mUPVC pipe	100	Lm		
C	50mm diameter waste pipe	20	Lm		
D	40mm diameter waste pipe	24	Lm		
E	32mm diameter waste pipe	24	Lm		
<b>Bends</b>					
F	100mm diameter long radius bend	14	No.		
G	100mm diameter short radius bend	14	No.		
H	100mm diameter bend with access	14	No.		
I	100mm diameter sweep bend	14	No.		
J	50mm diameter sweep bend	14	No.		
K	40mm diameter sweep bend	14	No.		
L	32mm diameter sweep bend	14	No.		
<b>Tees</b>					
M	100mm diameter sweep tee	3	No.		
N	50mm diameter sweep tee	3	No.		
O	40mm diameter sweep tee	3	No.		
P	32mm diameter sweep tee	3	No.		
<b>Sub Total Carried Forward to Next Page</b>					

Item	Description	Qty	Unit	Rate (Kshs)	Amount (Kshs)
<b>Sub Total Borrowed Forward from Previous Page</b>					
<b>Access Caps</b>					
A	100mm diameter access cap	12	No.		
B	50mm diameter access cap	12	No.		
C	40mm diameter access cap	12	No.		
D	32mm diameter access cap	12	No.		
<b>Boss Connectors</b>					
E	100 x 50mm diameter boss connector	5	No.		
F	100 x 40mm diameter boss connector	5	No.		
<b>Single Branches</b>					
G	100mm diameter single branch	1	No.		
<b>WC Connectors</b>					
H	100mm diameter WC connector	20	No.		
<b>Traps</b>					
I	100 x 50mm diameter floor trap and grating	4	No.		
J	Allow for a standard 300 x 300 x 450mm masonry gully trap complete with concrete cover.	0	No.		
<b>Weathering Slates and Vent Cowls</b>					
K	100mm diameter weathering slate and apron.	6	No.		
L	100mm diameter vent cowl	6	No.		
<b>Supporting Brackets</b>					
M	Allow for suitable supporting steel brackets with bolts for anchoring and supporting drainage pipes bends on the lower floor. To be painted to match the walling colour where necessary	100	No.		
<b>Grease trap</b>					
P	Allow for a standard grease trap 2800 x 850 x 450mm with three chambers manhole trap complete with cover and 3No.stainless steel tray of 400mmx400mm with handle.	1	No.		
<b>Testing and Commissioning</b>					
Q	Allow for testing and commissioning of the plumbing and drainage installations to the satisfaction of the Engineer.	1	Item		
<b>Sub Total Carried Forward to Next Page</b>					

**COMMON ITEMS ON ALL FLOORS**

<b>Item</b>	<b>Description</b>	<b>Qty</b>	<b>Unit</b>	<b>Rate (Kshs)</b>	<b>Amount (Kshs)</b>
	<b>Sub Total Borrowed Forward from Previous Page</b>				
A	Allow for a standard 300 x 300 x 450mm masonry gully trap complete with concrete cover.	6	No.		
	<b>Plumbing drop pipes and roof pipework</b>				
B	PPR 65mm diameter pipework from the roof storage to form a ring manifold around the tanks	50	Lm		
	<b>MuPVC and uPVC Waste and Soil pipework (SVP drops)</b>				
C	100mm diameter heavy gauge golden brown UPVC pipe	70	Lm		
D	100mm diameter heavy gauge grey MUPVC pipe	70	Lm		
	<b>Weathering Slates and Vent Cowls</b>				
E	100mm diameter weathering slate and apron.	6	No.		
F	100mm diameter vent cowl	6	No.		
	<b>Supporting Brackets</b>				
G	Allow for suitable supporting steel brackets for anchoring and supporting drainage pipes bends on the lower floor. To be painted to match the walling colour.	50	No.		
	<b>Rainwater drainage</b>				
H	100mm diameter heavy gauge grey mUPVC down pipes	150	Lm		
I	100mm diameter 45° bend	16	No.		
J	100mm diameter sweep bend	16	No.		
K	50mm diameter bend	16	No.		
L	100mm diameter tee	16	No.		
M	100mm diameter cast iron fulbora	10	No.		
N	Allow for 300 x 300 stainless steel kitchen floor drain and complete with all connections	2	No.		
	<b>Sub Total Carried Forward to Next Page</b>				

Item	Description	Qty	Unit	Rate (Kshs)	Amount (Kshs)
<b>Sub Total Borrowed Forward from Previous Page</b>					
A	Wall mounted toilet brush holder and brush of approved colour as GROHE "Atrio accessories Tier:G5 Prestige" Model- 40 314 toilet brush set or equal and approved <b>Paper towel dispenser</b>	10	No.		
B	Paper towel dispenser as Tapis or equal and approved	3	item		
C	Allow for corrected water supply and drainage system for the above units. Allow for all tests and associated new materials, accessories to ensure no leakage and proper functionality of the plumbing system with no malfunction.	0	item		
D	Flat Water closet flush valve wall plate. To have a flat wall flange. To be as per DocolFlat or equal and approved	0	No		
E	<b>Testing and Commissioning</b> Allow for testing and commissioning of the plumbing and drainage installations to the satisfaction of the Engineer.	1	Item		
<b>Sub Total Carried Forward to Next Page</b>					

**Bill No 5: Fire Hosereel Installation and Associated Pipework**

<b>Item</b>	<b>Description</b>	<b>Qty</b>	<b>Unit</b>	<b>Rate (Kshs)</b>	<b>Amount (Kshs)</b>
<b>Sub Total Borrowed Forward from Previous Page</b>					
	<b>Fire Fighting</b>				
	Supply, deliver and install the following fire fighting equipment in positions indicated on the contract drawings or as shall be instructed by the Engineer.				
	<b>Hose Reel</b>				
A	Swinging type hosereel fitted with 30 metres long, 20 mm diameter reinforced non-kink rubber hose with 5/6 mm lever operated shut-off nozzle, mild steel feed pipe, isolation valve, guide and all other accessories as 'Angus Fire Armour' or equal and approved.	10	No.		
	<b>GMS Pipes</b>				
B	25mm diameter GMS pipework	90	Lm		
C	50mm diameter GMS pipework	90	Lm		
	<b>Extra Over Pipework</b>				
	<b>Bends</b>				
D	25mm diameter bend	12	No.		
E	50mm diameter bend	12	No.		
	<b>Tees</b>				
F	50mm diameter equal Tee	8	No.		
	<b>Reducers</b>				
G	50 x 25 mm diameter reducer	8	No.		
	<b>Valves</b>				
H	25mm diameter approved medium pressure screw down full way non-rising stem wedge gate valve to BS 1952, with wheel and head joints to steel tubing. The gate valve to be as PEGLER or approved equivalent.	18	No.		
I	Fire hosereel pressure gauge for above hosereels. To be as Angus or equal and approved	10	No.		
<b>Sub Total Carried Forward to Next Page</b>					

Item	Description	Qty	Unit	Rate (Kshs)	Amount (Kshs)
<b>Sub Total Borrowed Forward from Previous Page</b>					
	<b>Unions</b>				
A	25mm diameter pipe unions	8	No.		
B	50mm diameter pipe unions	8	No.		
	<b>Painting</b>				
C	Allow for painting of the hose reel pipework as per particular specifications.	1	Item		
	<b>Water Fire Extinguisher</b>				
D	9 litres water portable fire extinguisher complete with pressure gauge, initial charge and mounting brackets.	12	No		
	<b>Carbon Dioxide Gas Fire Extinguisher</b>				
E	9 litres carbon dioxide gas portable fire extinguisher complete with pressure gauge, initial charge and mounting brackets.	12	No		
	<b>DCP Fire Extinguisher</b>				
F	Dry Chemical Powder fire extinguisher complete with initial charge and mounting brackets.	12	No		
	<b>Manual Bell</b>				
G	Manual Bell	12	No		
	<b>Fire Portables cabinet</b>				
H	Powder coated and red painted fire cabinet. To house the fire portables, fire hose, hose reel, landing valve. To be firmly bolted on the wall. Contractor to provide a shop drawing before supply or fabrication	12	No		
	<b>Fire Notices</b>				
J	Allow for fire signage for the hose reel system, fire exits, fire instructions as directed by engineer	12	No		
	<b>Automatic Dry Chemical Powder Fire Extinguisher</b>				
K	10kg automatic dry chemical powder fire extinguisher complete with pressure gauge, initial charge, glass bulb, sprinkler head and mounting base. The operating temperature of the bulb shall be 79°C. The unit shall be mounted on the concrete slab ceiling using purpose-made screws and to be as Germania, model GD 25 or equal and approved.	6	No		
<b>Sub Total Carried Forward to Next Page</b>					

BILL NO 8:DRY RISER INSTALLATIONS					
Sub Total Borrowed Forward from Previous Page					
Item	Description	Qty	Unit	Rate (Kshs)	Amount (Kshs)
	<b>DRY RISER INSTALLATION</b> Supply and installation the following fittings for dry riser				
	<b>Sheet Metal Box</b> Inlet breeching sheet metal box with wired glass door secured with spring locks openable from inside by smashing the glass and releasing the locking devices on the lock. Approximate size to be 595 x 295 x 395mm high.	2	No.		
A					
	<b>Fire Brigade Breeching Inlet</b> 100mm diameter inlet breeching with twin inlets, each inlet consisting of a 65mm diameter male instantaneous coupling with a non-return valve and black cap secured with a short length of chain.	2	No.		
B					
	<b>Landing Valve</b> 65 mm diameter, gunmetal gate pattern landing valve with flanged inlet and female instantaneous outlet fitted with plug secured by short chains and fixed on 100mm diameter dry riser pipe.	10	No.		
C					
	<b>Fire Hose</b> 65mm diameter, 30 metres long canvas fire hose complete with branch pipe, nozzle, female instantaneous coupling head, hanging hook and other associated fittings for its proper functioning.	10	No.		
D					
	<b>Associated Pipework</b> Supply and installation of Galvanized mild steel piping and fittings with screwed & socketed joint to medium grade class "B" to BS. 1387.				
E					
	<b>GMS Pipework</b>				
F	100mm diameter pipe	98	Lm		
G	65mm diameter ditto	75	Lm		
H	50mm diameter ditto	18	Lm		
	<b>Extra over Pipework</b>				
J	100mm diameter bends/elbows	8	No.		
K	65mm diameter bends/elbows	8	No.		
L	50mm diameter bends/elbows	8	No.		
Sub Total Carried Forward to Next Page					

Item	Description	Qty	Unit	Rate (Kshs)	Amount (Kshs)
<b>Sub Total Borrowed Forward from Previous Page</b>					
	<b>Tees</b>				
A	100 x 100 x 100mm tee	4	No.		
B	100 x 100 x 65mm tee	4	No.		
C	100 x 100 x 50mm tee	4	No.		
	<b>Reducers</b>				
D	100 x 65mm reducer	4	No.		
E	100 x 50mm reducer	4	No.		
	<b>Valves</b>				
F	65mm isolating valve with its associated unions	8	No.		
G	65mm diameter flange	8	No.		
H	50mm automatic air release valve	4	No.		
	<b>Kitchen hood fire suppression</b>				
J	Allow for 16L and four zone kitchen hood fire suppression complete with gas cylinder, schedule 40 piping, sprinklers and all installations, mountings and accessories. To be CE marked equipment approved in Europe and recognized by UL-300, NFPA 17A, NFPA 9. All be as Ansul R-102 or equal and approved. To be complete with all schedule 40 piping, electrical works, address panel, platform for the cylinder	0	Item		
	<b>Testing and Commissioning</b>				
K	Allow for testing and commissioning of the dry riser, Hosereel and portable fire extinguishers installations to the satisfaction of the Engineer.	1	Item		
<b>Total Amount Carried Forward to Sanitary fittings, Plumbing, Drainage and Fire Fighting Summary Page</b>					

<b>Water Reticulation, Fire Water reticulation, Pump sets and Associated works</b>					
<b>Item</b>	<b>Description</b>	<b>Qty</b>	<b>Unit</b>	<b>Rate (Kshs)</b>	<b>Amount (Kshs)</b>
	Supply, deliver, install, test and commission the following plumbing fittings in positions indicated on the contract drawings or as shall be instructed by the Engineer. The pipes and fittings shall be galvanized mild steel pipes (class B) to B.S 1387 heavy gauge and fittings to B.S. 1740 laid in trench. Tenderers must allow in their pipework prices for all fittings, jointings couplings, flanges couplings, unions, connector joints, reducers, etc. as required in the running lengths of pipe, all fixing clips, and holderbats, plugged and screwed and clamps where necessary for the proper functioning of the installation when pricing.				
	<b><u>HDPE PN20 Pipework</u></b>				
A	100mm diameter pipework	60	Lm		
B	75mm diameter pipework	2200	Lm		
C	50mm diameter pipework	10	Lm		
D	25mm diameter pipework	0	Lm		
	<b><u>Extra over Pipework for the following:</u></b>				
	<b>Bends</b>				
E	100mm diameter bend/elbow	2	No		
F	75mm diameter bend/elbow	18	No		
G	50mm diameter bend/elbow	2	No		
H	25mm diameter bend/elbow	0	No		
	<b>Tees</b>				
I	100mm diameter equal tee	1	No		
J	75mm diameter equal tee	2	No		
K	50mm diameter equal tee	1	No		
L	25mm diameter equal tee	0	No		
<b>Sub Total Carried Forward to Next Page</b>					

Item	Description	Qty	Unit	Rate (Kshs)	Amount (Kshs)
<b>Sub Total Borrowed Forward from Previous Page</b>					
	<b>Reducers</b>				
A	100x65mm diameter reducer	2	No		
B	100x50mm diameter reducer	2	No		
C	100x25mm diameter reducer	2	No		
D	75x50mm diameter reducer	4	No		
E	50x25mm diameter reducer	0	No		
	<b>Excavations</b>				
F	Excavate trench in hard soil/murram 600mm wide and depth not exceeding 1000mm deep and average 850mm deep, prepare bed with red soil/murram of particle size not more than 20 mm to a depth of 750mm. Bed shall be approved by Engineer before laying of pipes. Fill with same material as above and compact in layers of 75 mm. Cart away surplus soil.	2000	LM		
	<b>Valves</b>				
G	100mm diameter sluice valve complete with 2No. connecting flanges.	2	No		
H	75mm diameter sluice valve complete with 2No. connecting flanges.	2	No		
I	50mm diameter approved high pressure screw down full way non-rising stem wedge gate valve to BS 5154 PN 20 for series 'B' rating, with wheel and head joints to tubing and complete with round male threaded transition fittings and associated unions.	2	No		
J	25mm diameter ditto	0	No		
	<b>Air release Valves</b>				
K	75mm diameter air release valve	2	No		
L	100mm diameter air release valve	0	No		
	<b>Drain Valves</b>				
M	100mm diameter drain valve complete with connecting flanges.	1	No		
<b>Sub Total Carried Forward to Next Page</b>					

Item	Description	Qty	Unit	Rate (Kshs)	Amount (Kshs)
<b>Sub Total Borrowed Forward from Previous Page</b>					
	<b>Unions</b>				
A	75mm diameter union	10	No		
B	25mm diameter union	0	No		
	<b>Valve Chamber</b>				
	Standard precast concrete valve chamber of size 450 x 450 x 450mm deep made of concrete (1:3:6) base, including formwork, excavations backfilling and disposal.				
C		4	No		
	<b>Stand Pipe</b>				
	15mm diameter hose bib tap suitable for connecting hose pipe complete with threaded adaptors. The tap to be complete with 5meter long 15mm diameter GMS pipe, bends support, etc. The chrome plated bib tap to be as Cobra ref.108 hose bib taps or equal and approved.				
D		2	No		
	<b>Pipe Sleeves</b>				
	100mm diameter heavy duty PVC Class 41pipe sleeves for crossing over pathways and driveways. The sleeves will be encased in 150mm concrete sorround.				
E		20	Lm		
	<b>Fire Hydrants</b>				
	65mm diameter screw down type fire hydrant conforming to BS 750: 1977 complete with Copper alloy spindle complying with requirements of BS 2874 and having a thread machined of trapezoidal form, Cast iron spindle cap secured to the spindle by an M12 hexagonal socket set screw to BS 4168, A tapered key suitable for the spindle cap, A screwed outlet with cast iron cap attached to the hydrant body by a chain. The hydrant shall have the hydrant valve, 100mm stand pipe above ground (1000mm high), plastic/metal adaptor, bends and any other necessary accessories necessary for the proper functioning of the hydrant. The hydrant to be as 'Greenfield' type or approved equivalent.				
F		2	No.		
<b>Sub Total Carried Forward to Next Page</b>					

Item	Description	Qty	Unit	Rate (Kshs)	Amount (Kshs)
<b>Sub Total Borrowed Forward from Previous Page</b>					
A	<b>Fire Hose</b> 65mm diameter, 30 metres long canvas fire hose capable of with standing 10 bar working pressure complete with branch pipe, nozzle, female instantaneous coupling head, hanging hook and other associated fittings for its proper functioning. To be as Germania single jacket fire hose model GSJ 60 or equal and approved.	2	No.		
B	<b>Fire Hydrant Markers</b> Standard precast concrete ware line marker, post marked 'FH' set in concrete (1:3:6) base, including formwork, excavations backfilling and disposal. The plate to be painted with blue gloss oil paint.	2	No		
C	<b>Sluice Valve Indicator Plates</b> Standard precast concrete Sluice valve marker post marked 'SV' set in concrete (1:3:6) base, including formwork, excavations backfilling and disposal. The plate to be painted with blue gloss oil paint.	2	No		
D	<b>Gate Valve Indicator Plates</b> Standard precast concrete Sluice valve marker post marked 'GV' set in concrete (1:3:6) base, including formwork, excavations backfilling and disposal. The plate to be painted with blue gloss oil paint.	2	No		
E	<b>Water Line Markers</b> Standard precast concrete water line marker, post marked 'WL' set in concrete (1:3:6) base, including formwork, excavations backfilling and disposal. The plate to be painted with blue gloss oil paint.	4	No		
F	<b>Sterilization</b> Allow for flushing out and sterilizing the whole system with chlorine to the satisfaction of the engineer	1	Sum		
G	<b>Wall Mounted Drinking Water Station</b> Wall Mounted Drinking Water Station comprising of Recessed round bathroom sink without overflow, made of stainless steel AISI 304, satin finish of one-piece construction, 1.2 mm thick with 405mm bowl diameter tand. 50 mm outflow diameter as <b>MEDICLINIC</b> product code <b>SN0036CS</b> or equal and approved	0	No		
<b>Sub Total Carried Forward to Next Page</b>					

Item	Description	Qty	Unit	Rate (Kshs)	Amount (Kshs)
<b>Sub Total Borrowed Forward from Previous Page</b>					
A	<p><b>Hosereel Pump</b></p> <p>Hose reel pump, mounted on a frame with a mild steel base plate. The pump shall have a duty 5m<sup>3</sup>/hr. against 45m head as Grundfos model CHV 4 - 100 or approved equivalent. In addition, there shall be a 100 litres diaphragm pressure vessel (as Varem or approved equivalent), pressure switches, a switch to protect dry run, 65mm foot valve and strainer, tank connections, gate valves and non-return valves. The pressure set to be as Dayliff or equal and approved. Control shall be effected via a pressure switch through a pre-wired control panel which shall give automatic change-over from duty to standby pump within 5 seconds should the duty pump fail to deliver for any reason. The pump shall include all non-returns valves, timer, isolating valves and pipe connections. Make plumbing provision for installation of a standby pump in future.</p>	1	No		
B	<p><b>Control Panel</b></p> <p>Control panel for above pump with contactors, over voltage and under voltage protection relays, MCBs, phase failure protection, timer, 120 meters long float switch control 4-core cable to the roof tanks, start/stop push buttons and indicator lights. All these shall be housed in a lockable cabinet (with integral isolator) made from SWG 18 mild steel sheet that is oven powder coated. There shall also be an adjustable time delay switch to ensure pumping cycles are controlled to not more than 6 per hour. It should include a change-over switch to enable the pumps to work alternately.</p>	1	No.		
C	<p>Allow for purchase and supply of well binded 2026 ASHRAE design guides APPLICATIONS AND FUNDAMENTALS including accompanying CDs. All to be submitted to Project Manager, Works Secretary, State department of Public Works. Copy of the same to be submitted to client engineering department. Include taxes and attendance.</p>	1	Item		
<b>Sub Total Carried Forward to Next Page</b>					

Item	Description	Qty	Unit	Rate (Kshs)	Amount (Kshs)
<b>Sub Total Borrowed Forward from Previous Page</b>					
A	Install Y- strainer valve of 50mm dia for protecting the fire hose reel pump against dirt and particles in water	2	No.		
B	Provide by pass piping for testing the fire hose reel pump either quarterly or annually. The by pass piping to go back to the roof tank	1	Item		
C	50 mm dia non return valve	2	No		
D	50 mm dia gate valve	2	No		
<b>Automatic Dry Chemical Powder Fire Extinguisher</b>					
E	10kg automatic dry chemical powder fire extinguisher complete with pressure gauge, initial charge, glass bulb, sprinkler head and mounting base. The operating temperature of the bulb shall be 79°C. The unit shall be mounted on the concrete slab ceiling using purpose-made screws and to be as Germania, model GD 25 or equal and approved.	4	No		
F	Allow for flushing, cleaning and repair of any leakages on the existing galvanised pressed steel water tank	1	Item		
<b>Sub Total Carried Forward to Next Page</b>					

Item	Description	Qty	Unit	Rate (Kshs)	Amount (Kshs)
<b>Sub Total Borrowed Forward from Previous Page</b>					
A	<p><b>Booster Pumps</b></p> <p>Set of automatic electrically driven twin booster pump. One <b>duty</b> and the other one <b>duty assist</b> with automatic changeover, capable of delivering 5.0m<sup>3</sup>/h against a head of 60M with a three phase power source. It will be multistage centrifugal pump. The pump shall be complete manifold with NR, Gate Valves and, with 1No. Float valve in the reservoir tank for other run dry protection and PM1 Controller for automatic operation and other accessories. It includes pressure switches, time delay switch, a switch to protect against dry run, timer, gate valves, non-return valves, water level indicator, float level regulator, 65mm diameter foot valve and strainer. The pump shall have over and under voltage protection from unstable power conditions, overload and high temperature conditions. The pump to be as Wilo or approved equivalent. Pump to be installed on mild steel frame with approved paint.</p>	1	set		
B	<p><b>Sand filter</b></p> <p>Supply, install and commission the filter media described below. c/w filter sand, activated carbon, softening resin and any other accessories to make it fully operational. Make: Dayliff, Model:, Flow rate: 12m/hr, Head: 5.5 bars</p>	1	No		
C	<p>Allow for a dedicated GMS pipe class B from the tank to the fire hydrant. Provide gate valve and all accessories. Include costs for extra outlet from the galvanised tank</p>	1	Item		
D	<p><b>Basement and Tank Room Drainage</b></p> <p>50mm diameter PN 16 PVC pipework from the basement sumps to storm water drain.</p>	100	LM		
E	50mm diameter PVC bend	12	No		
F	50mm diameter gate valve	4	No		
G	50mm diameter non-return valve	4	No		
H	A submersible pumpset capable of delivering 5.5m <sup>3</sup> /hr against 10M head, power rating 0.55KW, single phase, 50HZ as Pedrollo model Top 5 or equal and approved complete with control panel, associated electrical works, protection against dry run, on/off neon lights, control/pump status display panel, audio alarm with manual silencer to indicate when the pump is faulty, float switch and all necessary controls.				
E		2	No		
<b>Sub Total Carried Forward to Next Page</b>					

Item	Description	Qty	Unit	Rate (Kshs)	Amount (Kshs)
<b>Sub Total Borrowed Forward from Previous Page</b>					
A	Pump control float switch to be fixed in the sump inclusive of cable and laying from the pump to the control float switch.	2	No		
B	Low water level cut-out switch and the connecting cable and trunking	2	No		
C	Allow for excavation, masonry 150 mm concrete block wall, 1:3 mortar and plastering to 1:2, 400 x 500 x 700 mm deep sump complete with:- 50 x 50 x 5mm angle section, 400 x 400 mm wide frame complete with 15 mm diameter steel bars spaced at 30 mm between centres 300 x 300 x 600 mm deep perforated galvanised steel sediment pan Gauge 14. The sump to have a heavy gauge checkered plate cover and painted with anti rust paint.	4	No		
<b>Dismantling, Relocation and assembling and installation of existing 40,000L galvanised pressed steel plates tank</b>					
D	Allow for draining or pumping out all water in the tank to another storage as advised by client	0	item		
E	Allow for safe and careful dismantling of the at least 40no tank panels, roof, base, level indicator and other members of the storage tank	0	item		
F	Allow for relocation and transportation of all disassembled tank materials to another site within the University compound	0	item		
G	Allow for installing and assembling together all 40no. Panels, roof, base and other members of the tank to leak proof	0	item		
H	Allow for approved Methacrylate Adhesives and bonding material on panels and bolting	0	item		
J	Allow for replacement of bolts and nuts as need arises if they got damaged during dismantling	0	item		
K	Allow for installation of level indicator, 100mm diameter, drain outlet with valve, 100mm diameter overflow, 65mm diameter inlet with valve, 100mm diameter outlet with valve	0	item		
L	Allow for repainting worn out steel plates and replaced nuts with galvanized coating	0	item		
M	50mm diameter high pressure ball valve	1	No		
N	100mm diameter high pressure ball valve	1	No		
P	Y- strainer water valve of 100mm diameter	1	No.		
Q	50mm diameter gate valve	2	No		
<b>Testing and Commissioning</b>					
R	testing and commissioning of water reticulation and water tanks installation works	1	Item		
<b>Total Amount Carried Forward to Sanitary fittings, Plumbing, Drainage and Fire Fighting Summary Page</b>					

**SUMMARY PAGE FOR SANIATRY FITTINGS, PLUMBING, DRAINAGE AND FIRE FIGHTING  
INSTALLATION WORKS**

<b>Item</b>	<b>Description</b>	<b>Amount (Ksh)</b>
A	Preliminaries	
B	Total for Sanitary fittings, plumbing, drainage and Fire fighting works.	
C	Total for pumps, water reticulation, fire reticulation	
	<b>Totals for Plumbing and Drainage Installation Works Carried to GRAND SUMMARY PAGE for main works</b>	

Amount in words.....

Tenderer's Name and Stamp

Address

Period To Execute The Works

Telephone No

Mobile Phone No.

Tenderer's V.A.T No

Tenderer's P.I.N No

Tenderer's Signature

Date

Witness Signature

Date

**SCHEDULE OF UNIT RATES**

1. The tenderer shall insert unit rates against the items in the following schedules and may add such other items as he considers appropriate.
2. The unit rates shall include for supply, transport, insurance, delivery to site, storage as necessary, assembling, cleaning, installing, connecting, profit and maintenance in defects liability and any other obligation under this contract.
3. The unit rates will be used to assess the value of additions or omissions arising from authorized variations to the contract works.
4. Where trade names or manufacturer’s catalogue numbers are mentioned in the specification, the reference is intended as a guide to the type of article or quality of material required.  
Alternative brands of **equal and approved** quality will be accepted

Item	Description	Unit	Rate (Kshs)
1.	50mm CPVC pipe	LM	
2.	40mm CPVC pipe	LM	
3.	32mm CPVC pipe	No.	
4.	25mm –ditto	No.	
5.	Pedestal “Duravit” wash hand basin (Chrome pop up waste)	No.	
6.	Paper Towel disposal bin 20L (Foot pedal operated lid)	No.	
7.	Paper Towel dispensing unit (250 Sheets).	No.	
8	32 mm Pressure Reducing valve (Pegler)	LM	
9	40mm - ditto	No.	
10	300L solar hot water heating system complete	Set	
12	Dualflow hand drier	No	
13			

**SECTION F:**

**TECHNICAL SCHEDULE OF ITEMS TO BE SUPPLIED**

**TECHNICAL SCHEDULE**

1. The technical schedule shall be submitted by tenderers to facilitate and enable the Project Manager to evaluate the tenders, especially where the tenderer intends to supply or has based his tender sum on equipment which differs in manufacture, type or performance from the specifications indicated by the Project Manager/Engineer.
2. This schedule shall form part of the technical evaluation criterion, and tenderers are therefore advised to complete the schedule as they shall be considered non responsive.

**NB.** The tenderer must complete in full the technical schedule. Apart from the information required in the technical schedule, the tenderer **MUST SUBMIT LEGIBLE** comprehensive manufacturer's technical brochures and performance details for all items listed in this schedule and **CLEARLY HIGHLIGHT THE SPECIFIC REQUIRED ITEM ONLY.**

<b>S/NO</b>	<b>DESCRIPTION</b>	<b>MANUFAC T URER</b>	<b>COUNTR Y OF ORIGIN</b>	<b>REMARKS (Catalogue No. etc.)</b>
A	WC pan			
B	Pipes PPR			
C	PWD set-wc,wash hand basin and taps			
D	Wash hand basin			
E	Urinal bowl			
F	Soap dispenser			
G	Wc flush valve and flat plate			
H	Fire hosereel pumpset			
J	Water booster pumpset			
K	Fire hydrant			
L	Kitchen fire suppression as per boq			

**Catalogue must be attached for all the items in the schedule of material above.**

**SECTION G:  
STANDARD  
FORMS**

**NOTE:**

ALL FORMS IN THIS SECTION MUST BE FILLED AS THEY SHALL BE PART OF THE EVALUATION CRITERIA

**STANDARD FORMS**

**CONTENTS**

<b><u>FORM</u></b>	<b><u>PAGE</u></b>
1. KEY PERSONNEL..... .....	G-1
2. CONTRACTS COMPLETED IN THE LAST FIVE (5) YEARS.	G-2
3. SCHEDULE OF ON-GOING PROJECTS.....	G-3
4. DETAILS OF LITIGATIONS OR ARBITRATION PROCEEDINGS .....	G-4
5. SCHEDULE OF MAJOR ITEMS OF CONTRACTOR'S EQUIPMENT PROPOSED FOR CARRYING OUT THE WORKS.....	G-5

# 1 KEY PERSONNEL

Qualifications and experience of key personnel proposed for administration and execution of the Contract.

POSITION	NAME	YEARS OF EXPERIENCE (GENERAL)	YEARS OF EXPERIENCE IN PROPOSED POSITION
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			

9.			
10.			

I certify that the above information is correct.

.....

.....

.....

Title

Signature

Date

2

**CONTRACTS COMPLETED IN THE LAST FIVE (5) YEARS**

Work performed on works of a similar nature and volume over the last five years.

<b>PROJECT NAME</b>	<b>NAME OF CLIENT</b>	<b>TYPE OF WORK AND YEAR OF COMPLETION</b>	<b>VALUE OF CONTRACT (Kshs.)</b>

I certify that the above works were successfully carried out and completed by ourselves.

.....

Title

.....

Signature

.....

Date

### 3 SCHEDULES OF ON-GOING PROJECTS

Details of on-going or committed projects, including expected completion date.

PROJECT NAME	NAME OF CLIENT	CONTRACT SUM	% COMP LETE	COMPLET ION DATE

I certify that the above works are currently being carried out by ourselves.

.....

Title

.....

Signature

.....

....

Date

**3 DETAILS OF LITIGATIONS OR ARBITRATION PROCEEDINGS IN WHICH THE TENDERER IS INVOLVED AS ONE OF THE PARTIES**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
- 10** \_\_\_\_\_

**4 SCHEDULE OF MAJOR ITEMS OF CONTRACTOR'S EQUIPMENT PROPOSED FOR CARRYING OUT THE WORKS**

<b>ITEM OF EQUIPMENT</b>	<b>DESCRIPTION, MAKE AND AGE (Years)</b>	<b>CONDITION (New, good, poor) and number available</b>	<b>OWNED, LEASED (From whom?), or to be purchased (From whom?)</b>

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**BILL 5**

**AIR CONDITIONING AND MECHANICAL  
VENTILATION INSTALLATION WORKS**

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**MECHANICAL WORKS**

**SUB-CONTRACT 2**

**WIP NO-D1065/NB/NB/2501-**

**JOB NO.11612A**

**AIR CONDITIONING AND MECHANICAL  
VENTILATION INSTALLATION WORKS**

**FEB 2026**

## CONDITIONING AND MECHANICAL VENTILATION INSTALLATION WORKS EVALUATION CRITERIA

### SECTION A - EVALUATION AND QUALIFICATION CRITERIA

*This criterion shall be used to evaluate the bidders proposed to carry out the specialized works who shall be domestic subcontractors to the main bidder on award of the contract.*

#### TENDER EVALUATION CRITERIA

After tender opening, the tenders will be evaluated in **2 stages**, namely:

##### **1. Preliminary Evaluation**

##### **2. Technical Evaluation**

Note: This criterion shall be used to evaluate sub-contracts

#### STAGE 1: PRELIMINARY EVALUATION

This stage of evaluation shall involve examination of the mandatory requirements as set out in the Tender Advertisement Notice or Letter of Invitation to Tender and any other conditions stated in the bid document. These conditions shall include the following:

S/No	MANDATORY REQUIREMENTS(MR)
MR1	Valid Copy of certificate of incorporation/ Registration.
MR2	Valid Current Tax Compliance Certificate from Bidding Company, and if Consortium, from each member of the consortium.
MR3	Submission of valid CR12 form showing the list of directors /shareholding (issued within the last 12 months) or National Identity Card(s) for Sole Proprietorship / Partnership
MR4	NCA registration certificate, <b>valid NCA 8 and Above</b> in Air Conditioning and Mechanical Ventilation installation works category.
MR5	Current annual contractors practicing license from <b>NCA</b> for works listed in item MR4
MR6	Provision of catalogues, brochures for all items listed in the technical schedule page of Key items to be supplied <b><i>Please attach Catalogues and Brochures and mark the pages with items to be supplied</i></b>
MR7	Fully filled, signed and stamped statement of compliance
MR8	Domestic sub-contractors must sign and stamp the summary page of their respective specialist works on the tender document.
MR9	Valid Copy of Current Single Business permit
MR10	Pre-contract agreement between the main contractor & Air Conditioning and Mechanical Ventilation sub-contractor signed and commissioned by commissioner of oaths.
MR11	Provide proof of authorization (in form of a Power of attorney signed by commissioner of oaths) as a Tender Signatory if the signatory is not a director or partner of the firm.
MR12	Fully filled schedule of unit rates as listed

*N/B*

***1. Full compliance by the tenderers shall be required to proceed to the next stage of evaluation. Failure to provide any of the listed requirements shall lead to disqualification.***

***2. All Copies of original certificates submitted must be certified as a true copy of the original***

**The employer may seek further clarification/ confirmation if necessary; to confirm authenticity/ compliance to any condition of the tender.**

**The bidders' who do not satisfy any of the above requirements shall be considered non-responsive and their tenders will not be evaluated further.**

**STAGE 2: EVALUATION OF TECHNICAL ASPECT OF THE TENDER**

At this stage technical evaluation shall be done by comparing each tender to the technical requirements in the tender document

Item	Description	COMPLIANT YES/NO
1.	<p><b>Compliance with Technical Specifications</b>  <i>(Note: Tender Evaluation Committee to carry out analysis showing how decision on this requirement has been arrived at)</i></p>	
2.	<p><b>Qualification and Experience of Key Personnel</b>  <b>Academic Qualification and Experience (Provide evidence)</b>  <b>a) Director of the firm</b></p> <ul style="list-style-type: none"> <li>• Holder of at least a diploma with 10 years’ experience in Mechanical Engineering field</li> </ul>	
	<p><b>b) Project Manager</b></p> <ul style="list-style-type: none"> <li>• Holder of at least a degree with 5 years’ experience in Mechanical Engineering field</li> </ul>	
	<p><b>c) At least 3 No artisans</b></p> <ul style="list-style-type: none"> <li>• Holder of at least a certificate with 5 years’ experience in relevant Engineering field. The tenderer <b>MUST</b> fill the forms listed below in the format provided</li> </ul> <p>and attach the necessary qualification certificates:  1. Form PER - 1 Contractor's Representative and Key Personnel Schedule  2. Form PER - 2 Resume and Declaration - Contractor's Representative and Key Personnel.</p>	
3.	<p><b>Experience of the firm in similar services: Mechanical installation works</b>  a) Provide Three (3No.) projects of similar nature, complexity or magnitude) between the Period 2019 – 2025: <b>(Provide evidence)</b>  The tenderer <b>MUST</b> fill the forms listed below in the format provided  1. Form EXP – 3.4 Current contract commitments/works in progress  2. Form EXP – 4.1 General Construction and contract Experience  3. Form EXP – 4.2.a Specific and Contract Management Experience  4. Form EXP – 4.2.b Construction Experience and Key Activities</p>	
4.	<p><b>Adequacy of tools and equipment</b>  The tenderer <i>must</i> show proof of ownership or leasing of the following equipment: -</p>	
	<p><b>a) Relevant Transport (at least 3No.)</b></p> <ul style="list-style-type: none"> <li>• Means of transport</li> </ul> <p><b>b) Relevant Equipment (at least 3No.)</b></p> <ul style="list-style-type: none"> <li>• Has relevant equipment for work being tendered</li> </ul> <p>The tenderer <b>MUST</b> fill the forms listed below in the format provided.  <b>1. Form EQU: Equipment</b></p>	

**N/B Full compliance by the tenderers shall be required. Failure to provide any of the listed requirements shall lead to disqualification. Hence the tenderer shall not proceed to financial evaluation.**

## ION IV - QUALIFICATION FORMS

### 1. FORM EQU: EQUIPMENT

The Tenderer shall provide adequate information to demonstrate clearly that it has the capability to meet the requirements for the key equipment listed in Section III, Evaluation and Qualification Criteria. A separate Form shall be prepared for each item of equipment listed, or for alternative equipment proposed by the Tenderer.

<b>Item of Equipment</b>		
Equipment Information	Name of Manufacturer	Model and Power Rating
Current	Capacity	Year of Manufacture
	Current Location	
	Indicate source of the equipment <input type="checkbox"/> Owned <input type="checkbox"/> Rented <input type="checkbox"/> Leased <input type="checkbox"/> Specially Manufactured	
<b>Omit the following information for equipment owned by the tenderer</b>		
Owner	Name of Owner	
	Address of Owner	
	Telephone	Contact Name and Title
	Fax	Telex
Agreements	Details of rental/lease/manufacture agreements specific to the project	

## **2 FORM PER -1**

### **Contractor's Representative and Key Personnel Schedule**

Tenderers should provide the names and details of the suitably qualified Contractor's Representative and Key Personnel to perform the Contract. The data on their experience should be supplied using the Form PER-2 below for each candidate.

### **Contractor' Representative and Key Personnel**

<b>1.</b>	<b>Title of Position</b>	
	<b>Name of Candidate</b>	
	<b>Duration of Appointment</b>	
	<b>Time Commitment for This Position</b>	
	<b>Expected Time Schedule for This Position</b>	
<b>2.</b>	<b>Title of Position</b>	
	<b>Name of Candidate</b>	
	<b>Duration of Appointment</b>	
	<b>Time Commitment for This Position</b>	
	<b>Expected Time Schedule for This Position</b>	
<b>3.</b>	<b>Title of Position</b>	
	<b>Name of Candidate</b>	
	<b>Duration of Appointment</b>	
	<b>Time Commitment for This Position</b>	
	<b>Expected Time Schedule for This Position</b>	
<b>4.</b>	<b>Title of Position</b>	
	<b>Name of Candidate</b>	
	<b>Duration of Appointment</b>	
	<b>Time Commitment for This Position</b>	
	<b>Expected Time Schedule for This Position</b>	

**1. FORM PER - 2:**

Resume and Declaration - Contractor's Representative and Key Personnel.

<b>Name of Tenderer</b>		
<b>Position [#1] [title of position from Form Per-1]</b>		
Personell Information	Name:	Date of Birth:
	Address:	E-Mail:
	Professional Qualifications:	
	Academic Qualifications:	
	Language Proficiency: <i>[language and levels of speaking, reading and writing skills]</i>	
	Address of Procuring Entity:	
	Telephone:	Contact (Manager/Personnel Officer)
	Fax:	
	Job Title:	Years with present Procuring Entity:

Summarize professional experience in reverse chronological order. Indicate particular technical and managerial experience relevant to the project.

Project	Role	Duration of involvement	Relevant experience
<i>[main project details]</i>	<i>[role and responsibilities on the project]</i>	<i>[time in role]</i>	<i>[describe the experience relevant to this position]</i>

**Declaration**

I, the undersigned ..... [*insert either “Contractor's Representative” or “Key Personnel” as applicable*], certify that to the best of my knowledge and belief, the information contained in this Form PER-2 correctly describes myself, my qualifications and my experience.

I confirm that I am available as certified in the following table and throughout the expected time schedule for this position as provided in the Tender:

<b>Commitment</b>	<b>Details</b>
Commitment to duration of contract	[ <i>insert period (start and end dates) for which this Contractor's Representative or Key Personnel is available to work in this contract</i> ]
Time commitment	[ <i>insert period (start and end dates) for which this Contractor's Representative or Key Personnel is available to work in this contract</i> ]

**I understand that any misrepresentation or omission in this form may:**

- a) be taken into consideration during Tender evaluation;
- b) result in my disqualification from participating in the tender;
- c) result in my dismissal from the contract.

**Name of Contractor's Representative or Key Personnel:**

**Signature:**.....

**Date:** .....(day month year):

**Counter signature of authorized representative of the Tenderer:**

**Signature:**.....

**Date:** .....(day month year)



**5.7 FORM EXP -4.1**

**General Construction Experience**

Tenderer's Name: \_\_\_\_\_ Date: \_\_\_\_\_

JV Member's Name: \_\_\_\_\_ ITT No. and Title: \_\_\_\_\_

Page \_\_\_\_\_ of \_\_\_\_\_ pages

Starting Year	Ending Year	Contract Identification	Role of Tenderer
		Contract Name: _____ Brief Description of the Works Performed by the Tenderer _____ Amount of Contract _____ Name of Procuring Entity _____ Address _____	
		Contract Name: _____ Brief Description of the Works Performed by the Tenderer _____ Amount of Contract _____ Name of Procuring Entity _____ Address _____	
		Contract Name: _____ Brief Description of the Works Performed by the Tenderer _____ Amount of Contract _____ Name of Procuring Entity _____ Address _____	

**5.8 FORM EXP - 4.2(a)**

**Specific Construction and Contract Management Experience**

Tenderer's Name: \_\_\_\_\_ Date: \_\_\_\_\_

JV Member's Name: \_\_\_\_\_ ITT No. and Title: \_\_\_\_\_

<b>Similar Contract No.</b>	<b>Information</b>			
<b>Contract Identification</b>				
<b>Award Date</b>				
<b>Completion Date</b>				
<b>Role in Contract</b>	<b>Prime Contractor</b> <input type="checkbox"/>	<b>Member in JV</b> <input type="checkbox"/>	<b>Management Contractor</b> <input type="checkbox"/>	<b>Sub-Contractor</b> <input type="checkbox"/>
<b>Total Contract Amount</b>			<b>Kenya Shilling</b>	
<b>If Member in a JV or Sub-Contractor, Specify Participation in Total Contract Amount</b>				
<b>Procuring Entity's Name:</b>				
<b>Address:</b>				
<b>Telephone/Fax Number:</b>				
<b>E-Mail:</b>				
<b>Description of the similarity in accordance with Sub-Factor 4.2(a) of Section III:</b>				
<b>Amount</b>				
<b>Physical Size of Required Works Items</b>				
<b>Complexity</b>				
<b>Methods/Technology</b>				
<b>Construction Rate for Key Activities</b>				
<b>Other Characteristics</b>				

**5.9 FORM EXP - 4.2 (b)**

**Construction Experience in Key Activities**

Tenderer's Name: Date: Tenderer's JV Member Name:

All Sub-contractors for key activities must complete the information in this form as per ITT 34 and Section III, Evaluation and Qualification Criteria, Sub-Factor 4.2.

<b>Similar Contract No.</b>	<b>Information</b>			
<b>Contract Identification</b>				
<b>Award Date</b>				
<b>Completion Date</b>				
<b>Role in Contract</b>	<b>Prime Contractor</b> <input type="checkbox"/>	<b>Member in JV</b> <input type="checkbox"/>	<b>Management Contractor</b> <input type="checkbox"/>	<b>Sub-Contractor</b> <input type="checkbox"/>
<b>Total Contract Amount</b>			<b>Kenya Shilling</b>	
<b>Quantity (Volume, Number of Rate of Production as applicable) performed under the contract per year or part of the year</b>	<b>Total Quantity in the Contract (i)</b>	<b>Percentage Participation (ii)</b>	<b>Actual Quantity Perfomed (i) x (ii)</b>	
Year 1				
Year 2				
Year 3				
Year 4				
<b>Procuring Entity's Name:</b>				
<b>Address:</b>				
<b>Telephone/Fax Number:</b>				
<b>E-Mail:</b>				
<b>Description of the similarity in accordance with Sub-Factor 4.2(b) of Section III:</b>				

**SPECIFICATIONS AND BILLS OF QUANTITIES**

**FOR**

**SUPPLY, INSTALLATION, TESTING AND  
COMMISSIONING**

**OF**

**AIR CONDITIONING AND MECHANICAL  
VENTILATION INSTALLATION WORKS**

**FEB, 2026**

**SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF AIR  
CONDITIONING AND MECHANICAL VENTILATION INSTALLATION WORKS  
INSTALLATION WORKS**

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**NOTES TO ALL TENDERERS;**

1. The tenderer is required to check the number of pages in this document and should any be found to be missing or the figures indistinct, he must inform the Engineer at once and have the same rectified. Should the tenderer be in doubt the precise meaning of any item, word or figure. Or for any reason whatsoever observe any apparent omission of words or figures, he must inform the Engineer in order that the correct meaning may be decided upon before the date for the submission of the tenders.
2. No liability whatsoever will be admitted nor claim allowed in respect of errors in the completed tender due to mistakes in this document which should have been rectified in the manner described above.
3. The tenderer shall not otherwise qualify the text of this specification. Any alteration or qualification made without authority will be ignored and the text of the specification as printed will be adhered to.
4. The tenderer shall be deemed to have made allowances in his unit prices generally to cover items of preliminaries or additions to prime cost Sums or other items. If those have not been priced against the respective items.
5. The tenderer's price shall include all government taxes including duties, VAT, etc which must be included in the rates. No claims whatsoever will be allowed in respect of duties, VAT etc if the tenderer does not price them as aforementioned.
6. In no case will expense incurred by the tenderer in preparation of this tenderer be reimbursed.
7. The copyright of this specification is vested in the Engineer and no part thereof may be reproduced without their express permission, given in writing.
8. The Sub-Conductor shall be solely responsible for the accurate ordering of materials in accordance with the drawings and these specifications.
9. The specifications must be priced in Kenya Shillings
10. This is a fixed price Contract and no claims shall be entertained on whatever ground. The sub-contractor is advised to include all such costs as he projects may arise in his unit rates. Any variations in the exchange rate will also be no excuse for any variations in the contract sum.

Signed (As in form of Tender) .....

Date/Stamp .....

**PART A:**

**PRELIMINARIES AND GENERAL CONDITIONS**

## **PART A - PRELIMINARIES AND GENERAL CONDITIONS**

### **NAMES OF PARTIES**

The following will be inserted in the Articles of Agreement:-

Architects:	<b>AS PER MAIN WORKS</b>
Engineer:	<b>AS PER MAIN WORKS</b>
Employer:	<b>AS PER MAIN WORKS</b>

### **2. DEFINITIONS OF TERMS**

The terms, phrases and abbreviations shall be deemed to have the following meanings wherever used hereinafter and in all contract documents.

“Engineer” shall in the case of mechanical works mean **‘project mechanical engineer’** and, or in the event of any of their deaths, or ceasing to be the Engineers for the purposes of this Sub-contract, such other person as the client shall nominate for that purpose. For the purpose of **Mechanical** engineering works the Engineer shall be deemed vested with the duties of, and be the representative of the Architect, except on respect of variations which involve the sub-contract sum.

“Main Contractor” shall mean the person or persons, partnership, firm or company, whose tender for the main contract has been accepted, and who has or have, signed the main contract and shall include his or their heirs, executors, administrators, assigned successors and duly appointed representatives. For the purposes of this work, the terms “Main Contractor” and “Contractor” shall have the same meaning.

“Sub-Contractor” shall mean the person or persons, partnership, firm or company, whose tender for the sub-contract for the electrical and mechanical works has been accepted, and who has or have, signed the sub-contract and shall include his or their heirs, executors, administrators, assigned successors and duly appointed representatives.

“Works” shall mean all or part of the works, material and articles, wherever the same are being manufactured or prepared, which are to be used in the execution of this sub-contract and whether the same may be on the site or not.

“Approved” shall mean approved by the Engineer/Architect at his absolute discretion.

“Directed” shall mean directed by the Engineer/Architect at; his absolute discretion.

“Selected” shall mean selected by the Engineer/Architect at his absolute discretion.

“M<sup>3</sup>” shall mean cubic metre

“M<sup>2</sup>” shall mean square metre

“M” shall mean linear millimetre

“Kg” shall mean Kilogram

“No.” shall mean Number

“Prs” shall mean Pairs

“B.S.” shall mean the current British Standard Specification published by the British Standards institution, 2 Park Street, London, W.I. England

“As before” shall mean in all respects as earlier described in the same or previous bill

“Ditto” shall mean the whole of the preceding description except as qualified in the description. Where it occurs in descriptions of succeeding terms it shall mean the whole of the preceding description which is contained within the appropriate brackets.

“Fix Only” shall mean take delivery on site (unless otherwise stated), unload where necessary, transport within site compound, store, unpack, check contents against orders and packing lists, assemble as necessary, distribute to position, hoist and fix only.

### **3. TENDER CONDITIONS**

Any act of collusion that may distort normal competitive conditions may cause the rejection of the tenders concerned. By participating in the tendering, tenderers certify not to be involved in such acts of collusion.

Tenders containing abnormally high or low unit prices and /or lump sums may be rejected. Before such rejection, however the sub-contractor may be given the opportunity of giving a detailed explanation.

Tenders must be returned complete and tenderers, or their assigned representatives are at liberty to witness the tender opening at the time and venue stated in the letter of invitation to tender. Tenders received after the stated time will be returned unopened and incomplete tenders will be rejected.

Tenders are invited in strict accordance with the documents issued, counter offers submitted with tenders will not be considered, letters of qualifications with tenders may be ignored if they have the effect of modifying either the terms of a tender or the compatibility of a tender with the other tenders. However should a tenderer. In good faith wish to propose modifications to the tender terms, conditions and contents for the purposes of reducing the tender amount then he shall contact the Engineer in writing well before the date of tender opening. Should the Engineer approve the proposed modification, all tenderers will be advised in due time for the modification of their tenders. No proposed modification will be considered unless this procedure has been followed.

The client is not bound to accept the lowest or any tender, nor is the client bound to divulge reasons for the acceptance or non-acceptance of any tender. Any tender may be accepted by the client within the stated period unless previously withdrawn by the tenderer.

All deletions, additions and corrections to figures inserted in the tender document are to be counter signed by the tenderer.

In the event of two or more tenders being in the same sum, tenderers may be given 7 days within which to revise their tender prices. Should there again be two or more tenders in the same sum, and in the absence of any qualities to give one tenderer preference over the other(s), then the sub-contract may be awarded by drawing lots in the presence of the tenderers concerned.

#### **4. DESCRIPTION OF SITE**

The site of the works is within **Multimedia University Main campus, Nairobi County along Magadi road**. Due care will be required during construction so that the occupants and facilities in the adjacent premises and the premises themselves are not interfered with in any way.

The sub-contractor is recommended to visit the site and will be deemed to have satisfied himself with regard to the relevant details of preliminary. If the sub- contractor, for whatever reason, feels specialised attendance will be required, with significant financial implications or requires specialised mobilisation to start the works, he should spread the cost of such works in his unit rates.

No claims whatsoever by the sub-contractor for additional payment will be allowed on the grounds of any misunderstanding or misapprehension in respect of any such matters or otherwise, should the sub-contractor be required to offer specialised attendance prior to, or during, the performance of the contract.

#### **5. TENDER EVALUATION PROCEDURES**

Following the return of the tenders for the works measured in these bills of quantities, arithmetical and other analysis will be carried out in order to select the lowest acceptable tender in terms of responsive and realistic pricing, etc. This section will be at the sole discretion of the Employer.

The unit rates offered by the selected tenderer will then be applied to new quantities measured by the Engineer for the revised scope of works.

The resultant total, together with the priced preliminaries and any modified prime cost and provisional sums will be consolidated into a sum for which the sub-contract will be signed. This procedure will be applied only to the selected tender. Neither the Client nor the Consultants will enter into discussion or any correspondence with the other tenderers after the selection process has been carried out and no reasons will be given for selection or non-selection.

Any tenderer unable to comply with these procedures will be disqualified from the selection process

## **6. ACCESS TO SITE AND SECURITY**

Means of access to the site will be as directed by the Architect; no other access will be permitted in any circumstances.

## **7. AREA TO BE OCCUPIED BY THE SUB-CONTRACTOR**

Areas to be occupied by the sub-contractor for use as storage shall be as directed by the Project Architect.

## **8. DRAWINGS**

**8.1** The sub-contractor will be deemed to have examined the drawings before tendering and to have satisfied himself regarding their details and regarding the nature and extent of the works and the method of installation involved. No claims arising out of misapprehension in these respects will be allowed.

**8.2** The sub-contractor shall at his own risk and costs execute and perform the works described in the conditions of contract and bills of quantities and detailed in the drawings provided and supplied to the sub-contractor for the purpose of works and completely finish the said works in a good workmanship and with the utmost expedition.

**8.3** The sub-contractor shall satisfy himself as to the correctness of all drawings and measurements. If the sub-contractor finds any discrepancy in the drawing or between the drawing and the specifications he shall immediately refer the same to the Engineer who will decide which shall be followed.

Figured dimensions shall be taken in preference to the scale mentioned on or attached to any drawing. Details shown on drawings shall be taken in preference to items and quantities in the specification.

**8.4** Two copies of all drawings and of the specifications will be furnished free of cost to the sub-contractor (whose tender has been accepted) for his own use. Any extra copies will be paid for.

## **9. VALUATIONS OF LUMP SUMS AND PRELIMINARY COSTS**

Lump sums entered in these bills of quantities against any item of general condition or preliminaries will be included in appropriate valuations according to reasonable assessment of actual costs involved in the item.

## **10. PAYMENT FOR MATERIALS ON SITE**

All materials for incorporation in the works must be properly installed before payment is effected unless specifically exempted by the Engineer/Architect. This is to include the materials of the sub-contractor, and his nominated suppliers.

## **11. CONTRACT AGREEMENT AND CONDITIONS**

### **11.1 General**

The articles of Agreement and conditions shall be the agreement and schedule of conditions of building contract forms published by the Kenya Association of Building and Civil Engineering Contractors' (KABCEC).

### **11.2 Water and Electricity Supply**

The main contractor will make water and electrical power available to the **mechanical** sub-contractor. The main contractor and the sub-contractor will mutually agree whether or not the latter should pay for the water /electricity used for the works. That notwithstanding, no excuse will be entertained for power failure or lack of water as the sub-contractor is required to make his own arrangements in such circumstances.

### **11.3 Sub-contractor's Materials**

Purchase of materials by the sub-contractor and their storage on site for inclusion in payment certificates far in advance of reasonable requirements may be allowed at the sole discretion of the Engineer. This however is also subject to availability of such storage space. Storage space may be provided on site.

## **12. WARRANTY AND PERFORMANCE STANDARDS**

The sub-contractor must furnish the client through the Engineer with a general written warranty covering quality of workmanship, material and equipment and be compelled thereby for a one year period after practical completion of the sub- contract.

The sub-contractor must make good, at his own expense, such repairs and replacements as may be required as a consequence of negligent workmanship or defective materials. The sub-contractor must also procure such warranties and guarantees as aforesaid from all manufacturers and/or suppliers of materials or equipment incorporated in the project under this contract.

The sub-contractor must comply in all respects with given standards of workmanship as defined and described in the specifications and Bills of Quantities and relevant codes of Practice. The sub-contractor must also comply with all tests of materials as required and/or directed by the Engineer.

**13. TOOLS, PLANTS, ETC**

The sub-contractor shall allow for providing of all ladders, tools, plant and transport required for the works, except in so far as may be specifically stated otherwise.

**14. SAFETY, HEALTH AND WELFARE OF WORKPEOPLE**

The sub-contractor shall allow for providing for the safety, health and welfare of workpeople and for complying with any relevant ordinances, Regulations or Union agreement.

**15. NATIONAL INSURANCE AND PENSIONS**

The Sub-contractor shall allow for making any National Social Security Fund payments due in respect of workpeople.

**16. HOLIDAY AND TRANSPORT OF WORKPEOPLE**

The sub-contractor shall allow for providing holidays and transport for workpeople and for complying with any relevant ordinances or union agreement.

**17. TRAINING LEVY**

The sub-contractor's attention is drawn to legal notice no. 237 of October, 1971, which requires payments by the sub-contractor of a training levy on all contracts of more than Shs. 50,000/= in value and his tender must include for all costs arising or resulting there from. Proof of payment of those training levies will be required.

**18. EXISTING PROPERTY**

The sub-contractor shall take every precaution to avoid damage to all existing property including flower beds, fences, roads, cables, office equipment, drains, adjacent buildings and other services and he will be held responsible for all damages arising from the execution of this sub-contract to the afore-mentioned property and he shall make good all such damage where directed at his own expenses to the satisfaction of the Engineer.

**19. TESTING**

The sub-contractor shall allow for all testing of material and installations required by these specifications and he shall be responsible for all expenses incurred in completing such tests, including costs of materials and labour, equipment, transport and all other costs.

## **20. SUPERVISION AND WORKING HOURS**

The works shall be executed under the direction, and to the entire satisfaction in all respects, of the Engineer who shall at all times during normal working hours have access to the works and to the yards and workshops of the sub-contractor or other places where work is being prepared for the sub-contractor.

The working hours shall be those generally worked by good employers in the building and civil engineering trades taking note of gazetted holidays unless the Engineer shall so direct.

No work shall be covered up in the absence of the clerk of works without the prior approval of the Engineer in writing.

## **21. SAMPLES**

The Sub-contractor shall furnish at his own cost any samples of materials or workmanship that may be called for by the Engineer for his approval or rejection and any further samples in the case of rejection until such are approved by the Engineer, and the Engineer may reject any materials or workmanship not in his opinion up to the approved samples.

The Engineer shall instruct for the testing of such materials as he may at his discretion deem desirable and the testing shall be made at the sub-contractor's cost. The sub-contractor shall allow in his tender for such samples and tests.

## **22. MATERIALS, TOOLS, PLANT ETC.**

All materials and workmanship used in the execution of works shall be of the best quality and description unless otherwise described. Any materials for the works condemned by the Engineer shall immediately be removed from the site at the sub-contractor's expense.

The sub-contractor shall provide at his own risk and cost all materials, scaffolding, tools, plant, transport and workmen required for the works except, insofar as may be stated otherwise herein.

The sub-contractor shall order all materials to be obtained from overseas immediately after the sub-contract is signed and shall also order materials to be obtained from local sources as early as necessary to ensure that such materials are on site when required for use in the works.

Any defects which may appear, either of materials or of workmanship, during the defects liability period provided by the sub-contract, shall be made good by the sub-contractor at his own expense, as and when directed.

If the sub-contractor shall fail to carry out such orders, as by the preceding paragraph provided within such reasonable time as may be specified in the order, the materials or works affected may be made good by others in such manner as the Engineer may direct, in which case the cost thereby incurred shall, upon the written certificate of the Engineer, be recovered from the sub-contractor as liquidated damages.

**23. FOREMAN**

The sub-contractor shall keep constantly on works a competent English-speaking foreman and any directions or explanations given by the Engineer to such a foreman shall be deemed to have been given to the sub-contractor.

**24. INSURANCE**

The sub-contractor shall during the execution of the works, insure himself and keep himself insured against all liability under the workmen's compensation act or any amendment thereto for accidents to workmen employed by him on the said works and shall hold the employer and all parties to the contract harmless in respect of any such liability.

The sub-contractor shall further insure himself and keep himself insured against all liabilities arising from all Third party claims arising from accidents and he shall hold the Employer, the Consultants and all parties to the contract harmless in respect of any such liabilities.

No payments on account of the work executed will be made to the sub-contractor until he has satisfied the Engineer either by the production of an Insurance Certificate that the foregoing provisions have been complied with in all respects. Thereafter the Engineer may from time to time check that premiums are duly paid up by the sub-contractor who shall, if called upon to do so, produce receipts of premium renewals for the Engineer's inspection.

**25. BOND**

The sub-contractor shall find and submit for the approval by the Engineer one surety who shall be an established bank, Insurance company or fidelity guarantee corporation and who will be willing to be bound to the Employer in an amount equal to five percent (5%) of the sub-contract amount for the due performance of the sub-contractor up to the date of completion as certified by the architect and who will then and if called upon, sign a bond to that effect, on the same day as the sub-contract agreement is signed. In the event of the surety named not being approved by the Engineer, the sub-contractor shall furnish within seven days another surety to the approval of the Engineer. This shall be complied with unless the **MAIN WORKS** deems the subcontract as **DOMESTIC** contract.

## **26. TIME FOR COMPLETION AND LIQUIDATED DAMAGES**

The sub-contractor shall proceed with the works in such manner and in such order, as the Engineer shall direct so as to complete the works on the shortest possible time.

It is the responsibility of the sub-contractor to ensure that all material, fittings, equipment and items to be supplied are ordered and delivered to the site ready for installation at such times as to cause no hold up to the programme of work.

NOTE: 1. The sub-contract completion period is the same as that of main contract.

2. Liquidated damages and Ascertained damages will be calculated pro-rata on the rate provided in the main contract.

## **27. PAYMENT AND CERTIFICATES**

Payments shall be made through certificates direct to the sub-contractor. All payments shall be less retention as specified in the sub-contract agreement. The sub-contractor shall be paid only for work done and /or materials on site.

The percentage of certified value retained should be 10%. Limit of Retention shall be a sum equivalent to 5% of the sub-contract sum.

Prices quoted shall include 16% VAT and 3% withholding tax and all taxes applicable at the time of tender.

No certificate so issued by the Engineer/Architect shall in itself be considered conclusive evidence as to the sufficiency of any work or materials to which the terms and conditions of this agreement or from his liability to make good all defects as provided thereby.

## **28. CONDITIONS OF SUB-CONTRACT, ETC**

The sub-contract agreement shall be based on KABCEC conditions. FIDIC conditions for electrical and mechanical works shall form complementary reference where clear interpretation cannot be made.

## **29. BLASTING**

Blasting will not be allowed unless with express authority of the Engineer.

## **30. HOISTING**

The sub-contractor is referred to the Drawings and to the general description of the building. Throughout these specifications generally no mention is made of heights for hoisting.

All prices must include for hoisting and fixing at any level within the limits shown on the drawings or included in the general description of works. Where a particular level is specified the sub-contractor shall price accordingly.

**31. CASING UP AND PROTECTING**

The sub-contractor shall be responsible for casing up or otherwise protecting to the satisfaction of the Engineer all parts of the sub-contract works liable to cause injury and for removing such protection and making good on completion.

**32. WORKS TO BE DELIVERED UP CLEAN**

On completion of the works, the site and the works shall be cleared of all plant, scaffolding, rubbish and unused materials and shall be delivered up in a clean and perfect condition in every respect to the satisfaction of the Engineer.

**33. DEFECTS LIABILITY PERIOD**

The defects liability period shall be as provided in the main contract.

**34. CLAIMS FOR EXTRAS**

This is a fixed price contract and no claims whatsoever on extras will be entertained.

**35. TRADE NAMES**

Where trade names of manufacturer's catalogue numbers are mentioned in these specifications the reference is intended, as a guide to the type of the article or material required. The sub-contractor may use any article or material equal in type or quality to those therein described subject to the prior approval of the Engineer, and at his (Engineer's) absolute discretion. The onus of proof as to equivalent quality will rest with the sub-contractor, whose tender will be deemed to include for the makes described hereafter.

**36. FLUCTUATIONS**

This is a fixed price sub-contract and claims shall not be allowed on fluctuations.

**SECTION NAME:**

**GENERAL MECHANICAL SPECIFICATIONS**

## **GENERAL MECHANICAL SPECIFICATION**

<b><u>CLAUSE</u></b>	<b><u>DESCRIPTION</u></b>
1.01	GENERAL
1.02	QUALITY OF MATERIALS
1.03	REGULATIONS AND STANDARDS
1.04	ELECTRICAL REQUIREMENTS
1.05	TRANSPORT AND STORAGE
1.06	SITE SUPERVISION
1.07	INSTALLATION
1.08	TESTING
1.09	COLOUR CODING
1.10	WELDING

## **GENERAL MECHANICAL SPECIFICATION**

### **1.01 General**

This section specifies the general requirement for plant, equipment and materials forming part of the Sub-contract Works and shall apply except where specifically stated elsewhere in the Specification or on the Contract Drawings.

### **1.02 Quality of Materials**

All plant, equipment and materials supplied as part of the Sub-contract Works shall be new and of first class commercial quality, shall be free from defects and imperfections and where indicated shall be of grades and classifications designated herein.

All products or materials not manufactured by the Sub-contractor shall be products of reputable manufacturers and so far as the provisions of the Specification is concerned shall be as if they had been manufactured by the Sub-contractor.

Materials and apparatus required for the complete installation as called for by the Specification and Contract Drawings shall be supplied by the Sub-contractor unless mention is made otherwise.

Materials and apparatus supplied by others for installation and connection by the Sub-contractor shall be carefully examined on receipt. Should any defects be noted, the Sub-contractor shall immediately notify the Engineer.

Defective equipment or that damaged in the course of installation or tests shall be replaced as required to the approval of the Engineer.

N/B. Any other item specified in these particulars, shall be as per the Bill of quantities guidance in size, brand and quality.

### 1.03 **Regulations and Standards**

The Sub-contract Works shall comply with the current editions of the following:

- The Kenya Government Regulations.
- The United Kingdom Institution of Electrical Engineers (IEE) Regulations for the Electrical Equipment of Buildings.
- The United Kingdom Chartered Institute of Building Services Engineers (CIBSE) Guides.
- British Standard and Codes of Practice as published by the British Standards Institution (BSI)
- The Local Council By-laws.
- The Electricity Supply Authority By-laws.
- Local Authority By-laws.
- The Kenya National Building Code 2024
- The Kenya Bureau of Standards

### 1.04 **Electrical Requirements**

Plant and equipment supplied under this Sub-contract shall be complete with all necessary motor starters, control boards, and other control apparatus. Where control panels incorporating several starters are supplied they shall be complete with a main isolator.

The supply power up to and including local isolators shall be provided and installed by the Electrical Sub-contractor. All other wiring and connections to equipment shall form part of this Sub-contract and be the responsibility of the Sub-contractor. The Sub-contractor shall supply three copies of all schematic, cabling and wiring diagrams for the Engineer's approval. The starting current of all electric motors and equipment shall not exceed the maximum permissible starting currents described in the Kenya Power Company (KP) By-laws.

All electrical plant and equipment supplied by the Sub-contractor shall be rated for the supply voltage and frequency obtained in Kenya, that is 415 Volts, 50Hz, 3-Phase or 240Volts, 50Hz, 1-phase. Any equipment that is not rated for the above voltages and frequencies shall be rejected by the Engineer.

#### 1.05 **Transport and Storage**

All plant and equipment shall, during transportation be suitably packed, crated and protected to minimise the possibility of damage and to prevent corrosion or other deterioration.

On arrival at site all plant and equipment shall be examined and any damage to parts and protective priming coats made good before storage or installation.

Adequate measures shall be taken by the Sub-contractor to ensure that plant and equipment do not suffer any deterioration during storage.

Prior to installation all piping and equipment shall be thoroughly cleaned.

If, in the opinion of the Engineer any equipment has deteriorated or been damaged to such an extent that it is not suitable for installation, the Sub-contractor shall replace this equipment at his own cost.

#### 1.06 **Site Supervision**

The Sub-contractor shall ensure that there is an English-speaking supervisor on the site at all times during normal working hours.

#### 1.07 **Installation**

Installation of all special plant and equipment shall be carried out by the Sub-contractor under adequate supervision from skilled staff provided by the plant and equipment manufacturer or his appointed agent in accordance with the best standards of modern practice and to the relevant regulations and standards described under Clause 1.03 of this Section.

## 1.08 **Testing**

### 1.08.1 **General**

The Sub-contractor's attention is drawn to Part 'C' Clause 1.38 of the "Preliminaries and General Conditions".

### 1.08.2 **Material Tests**

All material for plant and equipment to be installed under this Sub-contract shall be tested, unless otherwise directed, in accordance with the relevant B.S Specification concerned.

For materials where no B.S. Specification exists, tests are to be made in accordance with the best modern commercial methods to the approval of the Engineer, having regard to the particular type of the materials concerned.

The Sub-contractor shall prepare specimens and performance tests and analyses to demonstrate conformance of the various materials with the applicable standards.

If stock material, which has not been specially manufactured for the plant and equipment specified is used, then the Sub-contractor shall submit satisfactory evidence to the Engineer that such materials conform to the requirements stated herein in which case tests of material may be partially or completely waived.

Certified mill test reports of plates, piping and other materials shall be deemed acceptable.

### 1.08.3 Manufactured Plant and Equipment – Work Tests

The rights of the Engineer relating to the inspection, examination and testing of plant and equipment during manufacture shall be applicable to the Insurance Companies or Inspection Authorities so nominated by the Engineer. The Sub-contractor shall give two weeks' notice to the Engineer of the manufacturer's intention to carry out such tests and inspections.

The Engineer or his representative shall be entitled to witness such tests and inspections. The cost of such tests and inspections shall be borne by the Sub-contractor.

Six copies of all test and inspection certificates and performance graphs shall be submitted to the Engineer for his approval as soon as possible after the completion of such tests and inspections.

Plant and equipment which is shipped before the relevant test certificate has been approved by the Engineer shall be shipped at the Sub-contractor's own risk and should the test and inspection certificates not be approved, new tests may be ordered by the Engineer at the Sub-contractor's expense.

### 1.08.4 Pressure Testing

All pipework installations shall be pressure tested in accordance with the requirements of the various sections of this Specification. The installations may be tested in sections to suit the progress of the works but all tests must be carried out before the work is buried or concealed behind building finishes. All tests must be witnessed by the Engineer or his representative and the Sub-contractor shall give 48 hours notice to the Engineer of his intention to carry out such tests.

Any pipework that is buried or concealed before witnessed pressure tests have been carried out shall be exposed at the expense of the Sub-contractor and the specified tests shall then be applied.

The Sub-contractor shall prepare test certificates for signature by the Engineer and shall keep a progressive and up-to-date record of the section of the work that has been tested.

## 1.09 **Colour Coding**

Unless stated otherwise in the Particular Specification all pipework shall be colour coded in accordance with the latest edition of B.S 1710 and to the approval of the Engineer or Architect.

## 1.10 **Welding**

### 1.10.1 **Preparation**

Joints to be made by welding shall be accurately cut to size with edges sheared, flame cut or machined to suit the required type of joint. The prepared surface shall be free from all visible defects such as lamination, surface imperfection due to shearing or flame cutting operation, etc., and shall be free from rust scale, grease and other foreign matter.

### 1.10.2 **Method**

All welding shall be carried out by the electric arc processing using covered electrodes in accordance with B.S. 639.

Gas welding may be employed in certain circumstances provided that prior approval is obtained from the Engineer.

### 1.10.3 **Welding Code and Construction**

All welded joints shall be carried out in accordance with the following Specifications:

a) **Pipe Welding**

All pipe welds shall be carried out in accordance with the requirements of B.S.806.

b) **General Welding**

All welding of mild steel components other than pipework shall comply with the general requirements of B.S. 1856.

#### 1.10.4 Welders Qualifications

Any welder employed on this Sub-contractor shall have passed the trade tests as laid down by the Government of Kenya.

The Engineer may require to see the appropriate certificate obtained by any welder and should it be proved that the welder does not have the necessary qualifications the Engineer may instruct the Sub-contractor to replace him by a qualified welder.

## **Standards**

The design, manufacture and testing of equipment and system to be offered: -

(a) Air Conditioning System.

All the above systems shall be carried out as per the latest ASHRAE and other local relevant standards

## **General Design Data**

Location:MMU

campus Rongai, Kenya

Ambient Design Conditions: As per ASHRAE Data

Inside Design Condition:

Dry-bulb temperature:  $12^{\circ}\text{C} \pm 2\%$

Relative Humidity:  $55\% \pm 5\%$

## **SPLIT AIR CONDITIONING SYSTEM**

The system shall be complete with;

### Indoor wall mounted cooling unit (Evaporator)

Each coil unit shall consist of a cooling coil, air circulating fan, fan-guard and a thermostatic expansion valve. A timer unit shall be mounted in the control panel to both the de-frosting intervals and defrosting periods, both of which shall be variable.

The evaporator unit shall be of capacity as specified under the specified conditions, and shall be of the dry expansion type, and preferably of similar make as that of the condensing units. The unit shall be cassette type, high wall mounted or ceiling mounted as will be specified by the Engineer.

The coil shall be manufactured from seamless copper tubing with aluminium fins mechanically bonded to the tubes.

The panel shall be interlocked such, that on energizing the heater, the compressor, condenser and evaporator fan shall be de-energized and only re-energized when the heater is switched off by a evaporator mounted thermostat. A manual overriding switch shall by-pass the timer switch.

The air-circulating fan shall be manufactured from rigid aluminium sheet and finished in white casing. A drip tray with 25mm diameter connections shall be incorporated in the base of the casing.

The Unit shall be complete with the following:

- 1 No. air purifying filter.
- Built in drain pump to automatically drain water.

- Refrigeration pipe work with flared connections
- Fixing brackets/wall mounting kit/ground mounting kit
- Thermostat to control room temperature
- High and low pressure units
- Condensate discharge pipe work in Black PVC, 15mm diameter
- Service access valves

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- Voltage Surge Protector

The system shall be suitable for 240V, 1 – Phase, 50Hz power supply

The split air-conditioning system shall be designed to maintain room inside temperature of  $23 \pm 1^\circ \text{C}$  and relative humidity of  $50 \pm 10\%$ .

### **Variable Refrigerant Flow (VRF) System**

#### **OUTDOOR UNIT**

##### **Article I. PRODUCT DESCRIPTION**

Variable Refrigerant Flow (VRF) HVAC system shall be a variable capacity, direct expansion (DX) system.

Each system shall have single or Multiple, all inverter compressor(s). Each system shall be connected to Multiple indoor units (IDUs-ducted, non-ducted or mixed combinations) through a common refrigerant piping network and integrated system controls and communication network. Each indoor unit shall be controlled individually or as a group.

Heat Pump unified heating and cooling system shall be an air cooled system allowing user to configure in the field a heat pump system consisting of one to four outdoor unit modules, conjoined to make 8 to 96 HP single refrigerant circuit. Heat pump systems shall require a liquid pipe and gas pipe.

The heat pump system shall be capable of operating with  $<380-415\text{V}$  with a tolerance of  $\pm 10\%$   $> 50\text{Hz}$ , 3 phase power &  $380\text{V}$  with a tolerance of  $\pm 10\%$   $> 60\text{Hz}$ , 3 phase power.

## **Article II. Heat Pump**

Outdoor Unit shall be capable of maintaining continuous compressor operation under all of the following operating ambient air conditions.

- Operating ambient air conditions Cooling: 10°C DB to 48°C DB and Heating: -25°C WB to 18°C WB
- The VRF system shall maintain normal cooling or heating operation at all IDUs while any one IDU is powered down for service. When power is restored to the IDU serviced, normal operation shall be restored with no system shutdown, interruption, reset, or power cycling of the outdoor unit.

### **General features:**

The air-conditioning system shall use R-410A refrigerant.

The system shall be capable of an automatic refrigerant charge function for use in both the heating and cooling mode to ensure the proper amount of refrigerant is installed into the system.

Each system shall be consisted of one, two, three or four air source outdoor units.

Multi-frame configurations shall be field piped together using manufacturer's designed and supplied Y-branch kit

System shall employ self-diagnostics function to identify any malfunctions and provide type and location of malfunctions via fault alarms.

Refrigerant circuit configuration for heat pump system

- The refrigerant circuit shall be constructed using field provided copper piped together with manufacturer supplied y- branches or headers connected to Multiple (IDUs-ducted, non-ducted or combination thereof) indoor units to effectively and efficiently control heating or cooling operation of the VRF system.
- All refrigerant pipe, y-branches, elbows and valves shall be individually insulated with no air gaps. All joints shall be glued and sealed.

Factory installed microprocessor controls in the outdoor unit(s) and indoor unit(s) shall perform functions to optimize the operation of the VRF system and communicate in a daisy chain configuration between outdoor unit and indoor unit(s) via RS485 network.

Controls shall also be available to control other building systems as required from the VRF control system. DIO/AIO capabilities shall be available as well as a central controller to perform operation changes, schedules and other duties as required by this specification.

Addition of separate building control system shall not be required. Other control devices and sequences shall be as specified in other sections of this project specification.

**Inverter PCB cooling:** Cooling of the inverter PCB shall be conducted by way of high pressure, sub-cooled liquid refrigerant via heat exchanger attached to rear side of inverter PCB. The full capacity flow of refrigerant shall pass through the heat exchangers to maximize the cooling effect of the PCBs and to aid in the evaporation process and capacity of the outdoor coil during the heating mode. The recovered heat of the PCBs must be used to enhance the overall heating process, other uses or dissipation of heat to ambient shall not be permitted.

**Compressor control:** Fuzzy control logic shall establish and maintain target evaporating temperature ( $T_e$ ) to be constant on cooling mode and condensing temperature ( $T_c$ ) constant on heating mode by Fuzzy control logic to ensure the stable system performance.

**Flexible Capacity Control:** (Demand limiting ) The system shall allow for up to 5 steps of flexible capacity control or up to 8 steps of flexible capacity control using a BMS control by others.

This FCC (Flexible Capacity Control) shall be employed when electrical demand limiting or any other flexible capacity control requirement based on any other requirement using contact closures or 0-10vdc to engage.

**Initial Test Run (ITR) / Fault Detection Diagnosis (FDD) Code:**

This control mode shall monitor and display positive or negative results of system initial startup and commissioning. It shall monitor the following, but not be limited to, refrigerant quantity charge, auto-charge, stable operations, connection ratios, indoor unit status, error status, and number of indoor units connected. This control mode shall not replace the system error monitoring control system.

**Integration:** Each system shall be able to integrate via open protocol via BACnet IP, This gateway converts between BACnet IP or Modbus TCP protocol and RS-485 AP allowing third party control and monitoring of the A/C system, or LonWorks gateways.

**Dual Sensing SLC:** Dual sensing Smart load control operation shall be available at any time during or after system Commissioning.

This function shall be controlled by indoor/outdoor air temperature and indoor/outdoor relative humidity as sensed at the outdoor/indoor unit and shall automatically adjust the refrigerant's evaporating temperature target (condensing target for heating operation) pressure / temperature that the system will operate to in order precisely load match the system to the building load as the indoor/outdoor ambient temperature and indoor/outdoor humidity increases or decreases, by varying the compression ratios of the system and increase the operating efficiencies and reducing energy consumption by adjusting the compressor lifts.

The system shall gather all indoor units' data in real time and apply its algorithm to determine the optimal evaporating temperature to satisfy varying loads.

**Indoor unit connectivity:** The system shall be designed to accept connection up to 64 indoor units of various configuration and capacity, depending on the capacity of the system.

**Power and communication interruption:** The system shall be capable of performing continuous operation when an individual or several indoor units are being serviced; communication wire cut or power to indoor unit is disconnected. Systems that alarm and/or shut down because of a lack of power to any number of indoor units shall not be acceptable or allowed.

### **Refrigerant Flow Control**

The all Inverter compressor design shall be of the high pressure shell scroll type where the internal pressure below the suction valves of the compressor shall be at the same high pressure and high temperature.

The motor shall be cooled by high pressure gas at temperatures above saturation conditions and prevents the mixing of refrigerant liquid with oil in the sump. Bearing surfaces are continually coated with oil.

The compressor shall employ an bearing constructed with high lubricity materials increasing operation time in case of low sump oil level. Compressor shall have a nominal operating range from 10Hz to 165 Hz.

The VRF outdoor unit shall include a factory provided and mounted sub-cooler assembly consisting of a Double Spiral Tube-type Sub-cooling heat exchanger and EEV providing refrigerant sub-cooling modulation controlled by fuzzy logic of EEV and by mode of operation to provide capacity and efficiency as required.

System shall have following frame configurations vs. capacity (HP).

1. 8 to 26 HP units shall be a single frame only.
2. 22 to 48 HP units shall be two frame.
3. 50 to 72 HP units shall be three frames.
4. 74 to 96 HP units shall be four frames.

### **Field Supplied Refrigerant Piping Design Parameters**

The outdoor unit shall be capable of operating at an elevation difference of up to 110 meter above or below the lowest or highest indoor unit respectively without the requirement of field installed sub cooler or other forms of performance enhancing booster devices.

The outdoor unit shall be capable of operating with up to 1000 equivalent length meter of interconnecting liquid line refrigerant pipe in the network.

The outdoor unit shall be capable of operating with up to 150 actual meter or 175 equivalent length meter of liquid line refrigerant pipe spanning between outdoor unit and farthest indoor unit.

The piping system installation must conform to the VRF equipment manufacturer's published guidelines.

The installation of pipe hangers, supports, insulation, and in general the methods chosen to attach the pipe system to the structure must allow for expansion and contraction of the piping system and shall not interfere with that movement.

### **Cabinet**

The front panels of the outdoor units shall be removable type for access to internal components.

Outdoor unit cabinet material shall be made of SGCC of thickness 1mm

A controls maintenance and unit diagnostic access port shall be provided in front of the microprocessor to allow quick access to read service codes, set DIP switches, perform microprocessor operational checks, address system components and extract operational data without removing the unit's front panel(s).

The cabinet shall have piping knockouts to allow refrigerant piping to be connected at the front, right side, or through the bottom of the unit.

## **Fan Assembly**

8 to 12 HP frames shall be equipped with one direct drive variable speed propeller fan with Brush Less Direct Control (BLDC) inverter motor with a vertical air discharge.

14 to 26 HP frames shall be equipped with two direct drive variable speed propeller fan(s) with BLDC inverter motor(s) with a vertical air discharge.

The fan(s) blades shall be made of Acrylonitrile Butadiene Styrene (ABS) material and incorporate biomimetic technology to enhance fan performance and reduce fan generated noise.

The fan(s) motor shall be equipped with permanently lubricated bearings.

The fan motor shall be variable speed with an operating speed range of 0-1150 RPM UXB chassis cooling mode (UXA has Max. 1000 RPM).

The fan shall have a guard to help prevent contact with moving parts.

The cabinet shall have option to redirect the discharge air direction from vertical to horizontal with the addition of optional factory provided air guides.

## **Outdoor Unit Coil**

The outdoor unit coil for each cabinet shall have lanced aluminum fins with a maximum fin spacing of no more than 14 Fins Per Inch (FPI).

All the outdoor unit coils shall be comprised of aluminum fins mechanically bonded to copper tube four side and a 2 or 3 rows consisting of staggered tubes for efficient air flow across the heat exchanger.

The copper tubes shall have inner riffling to expand the total surface of the tube interior.

The aluminum fins shall have a factory applied **Ocean Black Fin heat exchanger** coating that is comprised of a corrosion resistant epoxy resin coating designed to perform in corrosive environments such as seaside with high salt contamination and industrial cities with severe air pollution.

The Ocean Black Fin heat exchanger protection shall include a Hydrophilic coating which minimizes moisture build up on the fin heat exchanger. The Ocean Black Fin coating shall be certified by Underwriters Laboratories and per ISO 21207.

The above conditions shall establish the minimum allowable performance which all alternates must comply. Shall have Multiple circuits designed for path isolation and variable velocity control

### **Compressor(s)**

8 to 16 HP frames shall be equipped with a single hermetically sealed, inverter driven, High Side Shell (HSS) scroll compressor.

18 to 26 HP frames shall be equipped with dual hermetically sealed, inverter driven, High Side Shell (HSS) scroll compressors.

Each inverter driven, HSS scroll compressor shall be capable of operating from 10 Hz up to 165 Hz with control in 1 Hz increments in any and all modes (cooling, heating or simultaneous modes).

The compressor(s) shall be equipped with a 60 Watt crankcase heater controlled by oil temperature.

The compressor shall be equipped with a motor insulation of Class B

The compressor shall employ a factory metered charge of Polyvinyl Ether (PVE) oil.

The compressor shall be designed for a separate port for oil to be directly returned to the compressor oil sump.

The compressor bearing(s) shall have Teflon™ coating and shall be an aero type design using High lubricity materials.

### **Inverter Compressor Controller(s)**

The VRF outdoor unit shall be provided with a separate inverter compressor controller PCB for each compressor.

The inverter compressor controller shall be designed and programmed to utilize the entire range of operation of the connected compressor during cooling cycle operation or heating cycle operation.

## **Sensors**

Each outdoor unit module shall have

- ✓ Suction temperature sensor
- ✓ Discharge temperature sensor
- ✓ Oil level sensor
- ✓ High Pressure sensor
- ✓ Low Pressure sensor
- ✓ Outdoor temperature sensor
- ✓ Outdoor humidity sensor
- ✓ Outdoor unit heat exchanger temperature sensor

## **INDOOR UNITS**

### **Ducted – High Static**

#### **A. General:**

- 1.0 Unit shall be manufactured by approved makes
- 2.0 Unit shall be factory assembled, wired, piped and run tested.
- 3.0 Unit shall be designed to be installed for indoor application.
- 4.0 Unit shall be designed to mount fully concealed above the finished ceiling.
- 5.0 Unit shall have opening to supply air from front horizontal and a dedicated rear horizontal return.
- 6.0 The supply air shall be flanged for field installed ductwork that shall not exceed the external static pressure limitation of the unit.
- 7.0 Unit shall be capable to be installed with heat pump VRF system.
- 8.0 The unit **MUST** have a provision for fresh make up air

#### **B. Product Capacity**

As specified in the BOQ

#### **C. Casing/Panel**

- 1.0 Unit case shall be manufactured using galvanized steel plate.
- 2.0 The cold surfaces of the unit shall be covered internally with a coated polystyrene insulating material.
- 3.0 The cold surfaces of the unit shall be covered externally with sheet insulation made of Ethylene Propylene Diene Monomer (M-Class) (EPDM)
- 4.0 The external insulation shall be plenum rated and conform to ASTM Standard D-1418.
- 5.0 Unit shall be provided with hanger brackets designed to support the unit weight on four corners.
- 6.0 Hanger brackets shall have pre-punched holes designed to accept field supplied, all thread rod hangers.

#### D. Cabinet Assembly:

- 1.0 Unit shall have supply air discharge outlets horizontal and a return air inlet horizontal.
- 2.0 Unit shall be equipped with factory installed temperature thermistors for:
  - a. Return air
  - b. Refrigerant entering coil
  - c. Refrigerant leaving coil
- 3.0 Unit shall have a factory assembled, piped and wired electronic expansion valve (EEV) for refrigerant control.
- 4.0 Unit shall have a built-in control panel to communicate with other indoor units and to the outdoor unit.
- 5.0 Unit shall have the following functions as standard:
  - a. Self-diagnostic function
  - b. Auto addressing
  - c. Auto restart function
  - d. Auto operation function
  - e. Child lock function
  - f. Forced operation
  - g. Dual thermistor control
  - h. Sleep mode
  - i. External static pressure (ESP) control
  - j. Dual set point control
  - k. Multiple aux heater applications
  - l. Filter life and power consumption display

#### E. Fan Assembly:

- 1.0 The unit shall have one or two direct drive Sirocco fans made of high strength ABS GP-2200 polymeric resin.
- 2.0 The fan impeller shall be statically and dynamically balanced.
- 3.0 The fans shall be mounted on a common shaft.
- 4.0 The fan motor is Brush Less Direct control (BLDC) with permanently lubricated and sealed ball bearings.
- 5.0 The fan motor shall include thermal, overcurrent and low RPM protection.
- 6.0 The fan/motor assembly shall be mounted on vibration attenuating rubber grommets.
- 7.0 The fan speed shall be controlled using microprocessor based direct digitally controlled algorithm.
- 8.0 In cooling mode, the indoor fan shall have the following settings:
  - Low, Med, High, Power Cool, and Auto.

- 9.0 In heating mode, the indoor fan shall have the following settings:  
Low, Med, High, and Auto.
- 10.0 Each of the settings can be field adjusted from the factory setting (RPM/ESP).
- 11.0 Unit shall be designed for high speed air volume against an external static pressure of up to 245 Pa.

**F. Filter Assembly:**

- 1.0 The return air inlet shall have a factory supplied removable, washable filter with antifungal treatment.
- 2.0 The filter access shall be from the rear of the unit.

**G. Coil Assembly:**

- 1.0 Unit shall have a factory built coil comprised of aluminum fins mechanically bonded on copper tubing.
- 2.0 The copper tubing shall have inner grooves for high efficiency heat exchanger.
- 3.0 Unit shall have a minimum 2-3 row coil, 14-21 fins per inch.
- 4.0 Unit shall have a factory supplied condensate drain pan below the coil constructed of HIPS (high impact polystyrene resin).
- 5.0 Unit shall include an installed and wired condensate drain pump capable of providing maximum 700mm lift from bottom surface of the unit.
- 6.0 The drain pump shall have a safety switch to shut off the unit if condensate rises too high in the drain pan.
- 7.0 Unit shall have provision of 45° flare refrigerant pipe connections.
- 8.0 The coil shall be factory pressure tested at a minimum of 3780kPa.
- 9.0 All refrigerant piping from outdoor unit to indoor unit shall be field insulated.

**H. Microprocessor Control:**

- 1.0 The unit shall have a factory installed microprocessor controller capable of performing functions necessary to operate the system.
- 2.0 The unit shall be able to communicate with other indoor units and the outdoor unit using a field supplied minimum of 18 AWG, 2 core, stranded and shielded communication cable.

- 3.0 The unit controls shall operate the indoor unit using one of the five operating modes:
  - a. Auto changeover (Heat Recovery System only)
  - b. Heating
  - c. Cooling
  - d. Dry
  - e. Fan only

I. Electrical:

- 1.0 The unit electrical power shall be as per the product data sheet
- 2.0 The unit shall be capable of operating within voltage limits of +/- 10% of the rated voltage.

J. Controls:

- 1.0 Unit shall use controls provided by the manufacturer to perform all functions necessary to operate the system effectively and efficiently and communicate with the outdoor unit over an RS485 daisy chain.

**Ceiling Cassette – 4 Way**

A. General:

- 1.0 Unit shall be manufactured by approved list of make
- 2.0 Unit shall be factory assembled, wired, piped and run tested.
- 3.0 Unit shall be designed to be installed for indoor application.
- 4.0 Unit shall be designed to mount recessed in the ceiling and has a surface mounted grille on the bottom of the unit.
- 5.0 The unit shall be available in both 620 x 620(mm) and 950 x 950(mm) chassis.
- 6.0 Unit shall be capable to be installed with heat pump VRF system.

B. Product Capacity

As specified in the BOQ

### C. Casing/Panel

- 1.0 Unit case shall be manufactured using galvanized steel plate.
- 2.0 The unit shall be provided with an off-white Acrylonitrile Butadiene Styrene (ABS) polymeric resin architectural grille.
- 3.0 The grille shall have a tapered trim edge, and a hinged, spring clip (screw-less) return air filter-grille door.
- 4.0 Unit shall be provided with metal ears designed to support the unit weight on four corners.
- 5.0 Ears shall have pre-punched holes designed to accept field supplied all thread rod hangers.

### D. Cabinet Assembly:

- 1.0 Unit shall have four supply air outlets and one return air inlet.
- 2.0 The supply air outlet shall be through four-directional slot diffuser each equipped with independent oscillating motorized guide vane designed to change the airflow direction.
- 3.0 The grille shall have a discharge range of motion of 40° in an up/down direction with capabilities of locking the vanes.
- 4.0 The unit shall have a guide vane algorithm designed to sequentially change the predominant discharge airflow direction in counterclockwise pattern.
- 5.0 Guide vanes shall provide airflow in all directions.
- 6.0 Unit shall be equipped with factory installed temperature thermistors for:
  - a. Return air
  - b. Refrigerant entering coil
  - c. Refrigerant leaving coil
- 7.0 Unit shall have a factory assembled, piped and wired electronic expansion valve (EEV) for refrigerant control.
- 8.0 Unit shall have a built-in control panel to communicate with other indoor units and to the outdoor unit.
- 9.0 The unit shall have factory designated branch duct knockouts on the unit case.
- 10.0 The unit shall have provision of fresh air ventilation through a knock-out on the cabinet.
- 11.0 The branch duct knockouts shall have the ability to duct up to ½ the unit airflow capacity.
- 12.0 The branch duct cannot be ducted to another room.

- 13.0 Unit shall have the following functions as standard:
- a. Self-diagnostic function
  - b. Auto addressing
  - c. Auto restart function
  - d. Auto operation function
  - e. Child lock function
  - f. Forced operation
  - g. Dual thermistor control
  - h. Sleep mode
  - i. Dual set point control
  - j. Multiple aux heater applications
  - k. Filter life and power consumption display (with wired controller)

E. Fan Assembly:

- 1.0 The unit shall have a single, direct drive, turbo fan made of high strength ABS HT-700 polymeric resin.
- 2.0 The fan impeller shall be statically and dynamically balanced.
- 3.0 The fan motor is Brush Less Direct control (BLDC) with permanently lubricated and sealed ball bearings.
- 4.0 The fan motor shall include thermal, overcurrent and low RPM protection.
- 5.0 The fan/motor assembly shall be mounted on vibration attenuating rubber grommets.
- 6.0 The fan speed shall be controlled using microprocessor based direct digitally controlled algorithm.
- 7.0 In cooling mode, the indoor fan shall have the following settings:  
Low, Med, High, Power Cool, and Auto.
- 8.0 In heating mode, the indoor fan shall have the following settings:  
Low, Med, High, and Auto.
- 9.0 Unit shall have factory installed motorized louver to provide flow of air in up and down direction for uniform airflow.

#### F. Filter Assembly:

- 1.0 The return air inlet shall have a factory supplied removable, washable filter with antifungal treatment.
- 2.0 The unit shall have the option for a secondary plasma filter accessory.
- 3.0 The filter access shall be from the bottom of the unit.
- 4.0 The unit shall have provision for an optional auto-elevating grille kit designed to provide motorized ascent/descent of the return air grille/pre filter assembly.
  - a. The ascent/descent of the return air grille shall be up to a distance of 4~ 0.3 meter allowing access to remove and clean the filter.
  - b. The auto-elevating grille shall have a control algorithm to accept up, down and stop control commands from the controller.
  - c. The auto-elevating grille shall have a control to stop the descent automatically if a contact is made with any obstacle.

#### G. Coil Assembly:

- 1.0 Unit shall have a factory built coil comprised of aluminum fins mechanically bonded on copper tubing.
- 2.0 The copper tubing shall have inner grooves for high efficiency heat exchanger.
- 3.0 Unit shall have a minimum 1 or 2 row coil, 18-21 fins per inch.
- 4.0 Unit shall have a factory supplied condensate drain pan below the coil constructed of EPS (expandable polystyrene resin).
- 5.0 Unit shall include an installed and wired condensate drain pump capable of providing maximum 700mm lift from bottom surface of the unit.
- 6.0 The drain pump shall have a safety switch to shut off the unit if condensate rises too high in the drain pan.
- 7.0 Unit shall have provision of 45° flare refrigerant pipe connections.
- 8.0 The coil shall be factory pressure tested at a minimum of 551 psig.
- 9.0 All refrigerant piping from outdoor unit to indoor unit shall be field insulated.

#### H. Microprocessor Control:

- 1.0 The unit shall have a factory installed microprocessor controller capable of performing functions necessary to operate the system.
- 2.0 The unit shall be able to communicate with other indoor units and the outdoor unit using a field supplied minimum of 18 AWG, 2 core, stranded and shielded communication cable.
- 3.0 The unit controls shall operate the indoor unit using one of the five operating modes:
  - a. Heating
  - b. Cooling
  - c. Dry
  - d. Fan only

#### I. Electrical:

- 1.0 The unit electrical power shall be 220 ~240 / 1 / 50 ~60 (V / Ph / Hz)
- 2.0 The unit shall be capable of operating within voltage limits of +/- 10% of the rated voltage.

#### J. Controls:

- 1.0 Unit shall use controls provided by the manufacturer to perform all functions necessary to operate the system effectively and efficiently and communicate with the outdoor unit over an RS485 daisy chain.

### **FRESH AIR UNITS**

#### **Energy Recovery Ventilator**

- 1) Features:
  - 1.1 CNC Manufactured 22 gauge pre coated steel cabinet
  - 1.2 Inner components made of galvanised steel sheet.
  - 1.3 Molecular Sieve coated aluminum, "Eco fresh". Total Energy Recovery wheel
  - 1.4 Compact radial blowers.
  - 1.5 Casing insulated with 13mm closed cells, high density insulation to prevent condensation of moisture on exteriors or interiors of the unit.
  - 1.6 Large panel opening for easy access to filters, & inspection of other components
  - 1.7 Metallic flanges for duct connections.
  - 1.8 Removable, washable synthetic pre filters.
  - 1.9 Unit should be have 3 way switch ( Auto for BMS, Manual & off ) for easy operation.
  - 1.11 Unit should also be equipped with corded remote for manual operation.
  - 1.12 Feather touch brush seals minimize cross contamination & ensure long life.

2) **Technical specifications:**

2.1 **CASING:**

Casing shall be made of 22 gauge CNC manufactured pre coated steel. Casing shall be insulated with 13 mm high density insulation. Access panel to the components shall be provided. The access panel shall be easily openable and tightly sealed by means standard gaskets.

2.2 **FANS:**

Compact radial blowers. The blades shall be designed for maximum efficiency & quiet operation. Impeller shall be statically & dynamically balanced.

2.3 **TOTAL ENERGY RECOVERY WHEEL:**

Rotor/wheel matrix is of *Ecofresh* make-

The substrate: The substrate or wheel matrix is of pure aluminum foil so as to allow:

- a) quick and efficient uptake of thermal energy.
- b) sufficient mass for optimum heat transfer
- c) maximum sensible heat recovery at a relatively low rotational speed of 20 to 30 rpm.

The *Ecofresh* wheel matrix does not make use of any non metallic substrates made from paper, plastic, synthetic or glass fibre media.

The substrate matrix is made from materials which are nether combustible nor support combustion.

The Desiccant : The desiccant is water molecule selective and non-migratory.

The desiccant 3A \* (Ecosorb 300) is coated/used on the aluminum substrates as it helps to limit the cross contamination to absolute minimum, and to ensure the exclusion of contaminants in the air stream, while transferring water vapour molecules.

For higher diffusion rate and slightly improved latent recovery without substantially sacrificing cross contamination, desiccant coated/used as 3A (Ecosorb 300).

The desiccant has sufficient mass, and is coated with a non masking porous binder adhesive on the aluminum substrate and it allows quick and easy uptake and release of water vapour.

The *Ecofresh* matrix does not have desiccants impregnated in a non metallic substrate, such as synthetic fibre, glass fibre, etc., as the substrate is made from aluminum foil.

The rotor/wheel matrix has equal sensible and latent recovery.

The effectiveness of the HRW should be more than 70%.

The HRW is to be certified as per AHRI 1060.

The weight of desiccant coating and the mass of aluminum foil is in a specific ratio so as to ensure equal recovery of both sensible and latent heat over the operating range. The *Ecofresh* rotor matrix does not have an etched or oxidised surface to make a desiccant on a metal foil as that would result in insufficient latent recovery and hence unequal recovery; also the rotor matrix is not made by impregnating the desiccant in a synthetic fibre matrix as that would result in insufficient sensible recovery, high rotation speed, and unequal recovery, which is generally not acceptable.

**Rotor :** As optimum heat and mass transfer takes place via the matrix formed by desiccant, which has sufficient mass, being coated on an aluminum foil, the rotor typically rotates at lower than 20 to 30 rpm, thereby also ensuring long life of belts and reduced wear and tear of seals. The rotor is made of alternate flat and corrugated aluminum foil of uniform width. The rotor honeycomb matrix foil is so wound and adhered that it makes a structurally very strong and rigid media which does not get cracked, deformed etc. due to change of temperature or humidity.

The surface of the wheel/rotor is specially and highly polished and ensures that the vertical run out does not exceed  $\pm 1$  mm, thereby ensuring, negligible leakage

The radial run out also does not exceed  $\pm 1$  mm, thereby minimising the leakage/drag on the radial seals, and minimising the fluctuations in the tension of the drive belt.

The number of wraps (of alternative corrugated and flat foil) for every inch of rotor radii are extremely consistent and this ensures uniform air flow and performance over the entire face in the air stream. Flute height and pitch are consistent to a very tight tolerance and this ensures uniform pressure drop and uniform airflows across the rotor face.

The rotor is a non clogging aluminum media, having a multitude of narrow aluminum foil channels, thus ensuring a laminar flow, and will allow particles upto 600 microns to pass through it.

The media is cleanable with compressed air, or low pressure steam or light detergent, without degrading the latent recovery.

#### **ROTOR WHEEL CASSETTE:**

The rotor/wheel cassette is made of galvanised steel/powder coated sheet framework which limits the deflection of rotor/wheel due to air pressure loss.

#### **FILTERS:**

Filter shall be 25mm thick washable type.

#### **ELECTRICALS:**

Power connection requirement:220 volt, 1 ph /50Hz.

#### **DIFFUSERS**

##### **Small Format Circular Diffusers**

The diffuser for both supply and exhaust applications requiring compact circular diffusers with small overall to neck size ratio. The diffusers are adjustable to produce horizontal or vertical air patterns.

The diffusers are constructed from steel spinning retained on aluminium spider braces. **Each diffusers shall come with a 600 mm X 600 mm plate with same color to fit in acoustic grid.**

Small format circular diffuser Diffuser Butterfly type louvre damper Equalising deflector & louvre damper

#### **Double Deflection Grills:**

- Double deflection grille with a frame and 2 number sets of vertical and horizontal blades used to deflect air direction in both the horizontal and vertical plans.
- All supply air grilles shall be with an integral opposed blade damper to facilitate air volume control.
- The return/ exhaust grilles shall be without opposed blade dampers.
- The frame size shall be 8 mm with a minimum pitch of 19 mm

## **PIR DUCT**

The duct will be constructed using **Pre-Insulated duct** type sandwich panels with the following characteristics:

External Aluminium: Thickness of **80 micron** embossed protected w/polyester lacquer;

Internal Aluminium: Thickness of **80 micron** embossed protected w/polyester lacquer;

Insulation Component: Water foamed polyisocyanurate without use of CFC, HCFC or HFC, density of **45 Kg/m<sup>3</sup>**; with a tolerance of +/- 3 kg/m<sup>3</sup> as per (EN1602-2013)

Thickness: **20 mm**; with a tolerance of +/- 0.5 mm

Initial thermal conductivity: **0.021 – 0.022 W/(m °C)**;

Product cells characteristic: **Closed cells**

**Panels must be in conformity to the following international standard specifications:**

- 1) English certification BS 476, Part 6 & 7 – class 0; United Kingdom
- 2) English certification IMO Resolution MSC61(67): Annex 1: Part 2 for smoke and toxicity; United Kingdom
- 3) **UL 2818 Green Guard Gold Certificate**
- 4) **EN 13823 Standard Certificate with B, S2, d0**
- 5) **EXOVA Certificate of CERTFIRE CF 777**
- 6) **Dubai Central Laboratory DCL Conformity Certificate**
- 7) Canadian Certification ASTM – E84 for surface burning of the material characteristics.
- 8) Canadian Certification UL 723 – 2010 for surface burning characteristics building materials;
- 9) British Naval Engineering Standard NES 713, Toxicity index (average) below 5;
- 10) Exova Certification ASTM G 21 – 96 for Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi; rating “0”
- 11) Thermal Conductivity certification ASTM C – 518 (achieved) 0.021 W/(m °C)

### **Fire Damper:**

- All fire damper to comply with EN 15650. For maintenance of the integrity of compartmentation the fire dampers shall have an E classification to EN 13501-3. The fire damper case shall be fully welded to meet the air tightness test requirements of HVCA.
- Normal operating conditions - not exceeding 1000Pa, Classes A & B of DW 144 2016 Specification will apply.
- The fusible link shall have a melting temperature of 72 degree Celsius. The link melting shall allow the springs to close the damper.
- Frame shall be made of high quality galvanized steel sheet of thickness 16 gauge. All blades shall be interlock type roll formed blades of thickness 20 gauge.

### **Copper Piping:**

- Seamless soft copper tubing, type L shall be used to make connections to equipment, wherever required or specified.
- Flare fittings e.g. flare nuts, tees, elbows, reducers etc. shall all be of brass.

### **Refrigerant Piping:**

All refrigerant piping for the air conditioning system shall be constructed from soft seamless up to 19.1mm and hard drawn copper refrigerant pipes for above 19.1mm with copper fittings and silver-soldered joints.

The refrigerant piping arrangements shall be in accordance with good practice within the air conditioning industry, and are to include charging connections, suction line insulation and all other items normally forming part of proper refrigerant circuits.

All joints in copper piping shall be sweat joints using low temperature brazing and or silver solder. Before joining any copper pipe or fittings, its interiors shall be thoroughly cleaned by passing a clean cloth via wire or cable through its entire length.

The piping shall be continuously kept clean of dirt etc. while constructing the joints. Subsequently, it shall be thoroughly blown out using nitrogen.

After the refrigerant piping installation has been completed, the refrigerant piping system shall be pressure tested using nitrogen at pressure of 20Kg per sq.cm and 10 Kg per sq.cm (low side). Pressure shall be maintained in the system for 24 hours. The system shall then be evacuated to minimum vacuum if 700mm hg and held for 24 hours.

The air-conditioning system supplier shall be design sizes and erect proper interconnections of the complete refrigerant circuit.

The thickness of copper piping shall not be less than mentioned below:

<b>Pipe Size in mm (OD)</b>	<b>Wall Thickness in mm</b>
54.1	1.5
41.3 – 34.9	1.3
28.6 – 25.4	1.2
22.2 – 15.9	1.0
12.7 - 6.4	0.8

The suction line pipe size and the liquid line pipe size shall be selected according to the manufacturers specified outside diameter. All refrigerant pipes shall be properly supported and anchored to the building structure using steel hangers, anchors, brackets and supports which shall be fixed to the building structure by means of inserts or expansion shields of adequate size and number to support the load imposed thereon.

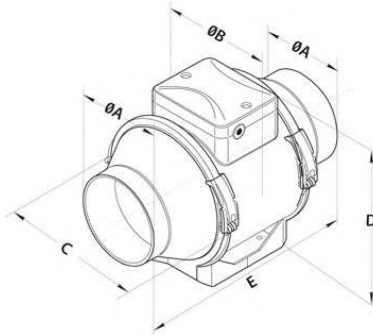
**Ducts:**

- ✓ All ducts shall be fabricated from galvanized steel sheets as indicated in the enclose table 1. Or PIR or PAL ducts as specified in Bill of Quantities
- ✓ Sheet metal ducts shall be fabricated out of galvanized steel sheets. Fabrication of ducts shall be through Triplex lock former or multiple lock formers, conforming to relevant BIS Codes.
- ✓ Sheets used shall be produced by Hot Dip Process and galvanizing shall be Class VII.
- ✓ All ducts shall be fabricated and installed in workmanlike manner, generally conforming to relevant BIS Codes. Round exposed ducts shall be die-formed for achieving perfect circle configuration.
- ✓ Ducts so identified on the Drawings shall be acoustically lined with thermal insulation as described in the section “Insulation” and as indicated in Schedule of Quantities.
- ✓ Duct dimensions should be compensated for the thickness of the acoustic insulation proposed wherever applicable.
- ✓ Ducts shall be straight and smooth on the inside with neatly finished joints. All joints shall be made airtight.
- ✓ Changes in dimensions and shape of ducts shall be gradual. Air-turns shall be installed in all vanes, arranged to permit the air to make the turn without appreciable turbulence.
- ✓ Plenums shall be panel type and assembled at site. Fixing of galvanized angle flanges on duct pieces shall be with rivets heads inside i.e. towards G. S. sheet and riveting shall be done from outside.
- ✓ Rubber lining 4 mm thick shall be used between duct flanges instead of felt, in all ducting installation.

- All ducts shall be installed generally as per tender Drawings, and in strict accordance with approved shop drawings to be prepared by the Contractor. While making the drawings contractor will have to consider the other services interference & suit to site conditions.
- The Contractor shall provide and neatly erect all sheet metal work as may be required to carry out the intent of these Specifications and Drawings. The work shall meet with the approval of Architect/ Consultant in all its parts and details.
- Structural members from floor shall support all vertical ductwork.
- Where metal ducts or sleeves terminate in woodwork, tight joints shall be made by means of closely fittings heavy flanged collars. Where ducts pass through brick or masonry openings, wooden frame work shall be provided within the opening and crossing ducts provided with heavy flanged collars on each side of wooden frame work, so that duct crossing is made leak-proof. All ducts shall be totally free from vibration under all conditions of operation.
- Whenever duct work is connected to fans, air handling units or blower coil units that may cause vibration in the ducts, ducts shall be provided with one flexible connection shall be constructed of fire retarding flexible heavy canvas sleeve at least 100mm long securely bonded and bolted on both sides.
- Contractor has deemed to have included the scaffolding & any other cost in their estimate which may be required for installation of the ducting. The quoted unit rate for external surface of ducts shall include all wastage allowances, flanges and gaskets for joints, nuts and bolts, hangers and angles and angle/ flat with double nuts for supports, felt strip between duct and support, vibration isolator suspension where specified or required, inspection chamber/ access panel, splitter damper with quadrant and lever for position indication, turning vanes, straightening vanes, and all other accessories required to complete the duct installation as per the Specifications. These accessories shall not be separately measured nor paid for.
- Unless otherwise specified, measurements for ducting, for the project shall be on the basis of centerline measurements described herewith.
- Duct Work shall be measured on the basis of external surface area of ducts. Duct measurements shall be taken before application of the insulation. The external surface area shall be calculated by measuring the perimeter comprising overall width and depth, including the corner joints, in the center of each duct section, multiplying with the overall length from flange face to flange face of each duct section and adding up areas of all duct sections.
- For tapered rectangular ducts, the average width and depth shall be considered for perimeter, whereas for tapered circular ducts, the diameter of the section midway between large and small diameters shall be adopted, the length of tapered duct section shall be the centerline distance between the flanges of the duct section.
- For special pieces like bends, tees, reducers, branches and collars, mode of measurement shall be identical to that described above using the length along the centerline.

## MIXED FLOW INLINE FAN

- The MFD series are made from injection moulded by ABS polymer of high quality.
- The fan is fitted with mixed flow impeller driven by long life motor sealed for life bearing.
- High quality ball bearings with special waterproof design, water can't enter, high strength, low noise, maintenance free and long service life.
- The motor is made from 100% cooper coil and thermal overload protection. Standard motor range is IP44, class B insulation and operating temperature is from -20°C to 40°C.



DIMENSIONS IN INCHES*							
MODEL	DUCT DIA.	ØA (in)	ØB (in)	C (in)	D (in)	E (in)	SHIP WT (lbs)
MFT100	4"	3.8	5.5	6.6	7.5	9.7	5.0
MFT125	5"	4.8	5.5	6.6	7.5	9.7	5.0
MFT150	6"	5.8	7.7	8.8	9.8	11.6	8.0
MFT200	8"	7.8	8.3	9.4	10.3	11.6	16.0
MFT250	10"	9.8	10.1	11.3	12.7	15.2	20.0
MFT300**	12"	12.3	12.7	14.3	16.1	22.9	27.0

\*DO NOT USE FOR CONSTRUCTION

CONSULT FACTORY FOR CERTIFIED PRINTS

\*\*INCLUDES 2 DUCT REDUCERS TO FIT 12" DUCT

- Compact design.
- High or low speed operation.
- Fitted with terminal box on the casing.
- Strong and durable.
- Light weight.
- Easy installation, service and clean.
- Can be installed directly on the wall.
- STANDARD APPLICATIONS
- Manufactured under a certified ISO 9001:2015 **Quality Management System**.
- The performance has been tested in accordance with ISO 5801.
- The sound data has been determined by testing to ISO 13347-2 for acoustic performance.
- Sound data are determined according to BS EN ISO 5136 – In-duct method.
- ISO 12759 Fans – Efficiency classification for fans.
- The fans have passed QCVN 04:2009/BKHCN and TCVN 5699-2-80:2007 (IEC 60335) standard for electric safety.
- Dynamically balance according to ISO 1940 with G2.5 mm/s quality standard.

**SECTION NAME:**

**BILLS OF QUANTITIES**

**BILLS OF QUANTITIES AND SCHEDULE OF UNIT RATES**

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## GENERAL NOTES TO TENDERERS

1. The Bills of Quantities form part of the contract documents and are to be read in conjunction with the contract drawings, general specifications of materials and works and particular specifications of materials
2. The prices quoted shall be deemed to include for all obligations under the sub-contract including but not limited to supply of materials, labour, delivery to site, storage on site, installation, testing, commissioning and all taxes (**including 16% VAT**).

In accordance with Government policy, the 3% Withholding Tax **shall be deducted** from all payments made to the Tenderer, and the same shall be forwarded to the **Kenya Revenue Authority (KRA)**.

- 3 All prices omitted from any item, section or part of the Bills of Quantities shall be deemed to have been included to another item, section or part thereof.
4. The brief description of the items given in the Bills of Quantities are for the purpose of establishing a standard to which the sub-contractor shall adhere. Otherwise alternative brands of **equal** and **approved** quality will be accepted.

Should the sub-contractor install any material not specified here in before receiving **written approval** from the Project Manager, the sub-contractor shall remove the material in question and, **at his own cost**, install the proper material.

5. The grand total of prices in the price summary page must be carried forward to the **Form of Tender for the tender to be deemed valid**.

**Statement of Compliance**

- a) I confirm compliance of all clauses of the General Conditions, General Specifications and Particular Specifications in this tender.
- b) I confirm compliance to the items specified in technical catalogues and brochures I have attached as required in the technical schedule.
- c) I confirm compliance to provisions of detailed working drawings and shop drawings where applicable before commencement of the works.

Name: .....

Capacity:..... (*Person with power of attorney*)

Signed: .....*for and on behalf of the Tenderer*

Date: .....

Official Rubber Stamp: .....

## **PRICING OF ITEMS.**

The Bills of Quantities are divided generally into three sections:-

### **Preliminaries Section**

Prices will be inserted against item of preliminaries in the sub-contractor's Bills of Quantities and specification. These Bills are designated as Bill 1 in this Section. Where the sub-contractor fails to insert his price in any item he shall be deemed to have made adequate provision for this on various items in the Bills of Quantities. The preliminaries form part of this contract and together with other Bills of Quantities covers for the costs involved in complying with all the requirements for the proper execution of the whole of the works in the contract

Sub-contractors preliminaries are as per those described in section C – sub-contractor preliminaries and conditions of contractor.

The sub-contractor shall study the conditions and make provision to cover their cost in this Bill. The number of preliminary items to be priced by the Tenderer have been limited to tangible items such as site office, temporary works and others.

However the Tenderer is free to include and price any other items he deems necessary taking into consideration conditions he is likely to encounter on site.

### **Mechanical installation Items Section**

The brief description of the items in these Bills of Quantities should in no way modify or supersede the detailed descriptions in the contract Drawings, conditions of contract and specifications.

### **Summary Section**

The summary contains tabulation of the separate parts of the Bills of Quantities carried forward with provisional sum, contingencies and any prime cost sums included. The sub-contract shall insert his totals and enter his grand total tender sum in the space provided below the summary.

This grand total tender sum shall be entered in the Form of Tender provided elsewhere in this document

<b>BILL NO.1 SUBCONTRACT PRELIMINARIES</b>					
<b>Item</b>	<b>Description</b>	<b>Qty</b>	<b>Unit</b>	<b>Rate (Kshs)</b>	<b>Amount (Kshs)</b>
	<b>PRELIMINARIES</b>				
	<b>Scope of Contract Works</b>				
A	The contractor shall supply, deliver, unload, hoist, fix, test, commission and hand-over in satisfactory working order the complete installations specified hereinafter and/or as shown on the Contract Drawings attached hereto, including the provision of labour, transport and plant for unloading material and storage, and handling into position and fixing, also the supply of ladders, scaffolding the other mechanical devices to plant, installation, painting, testing, setting to work, the removal from site from time to time of all superfluous material and rubbish caused by the works.	0	Item		
	<b>Firm price contract</b>				
B	This is a firm-price Contract and the contractor must allow in his tender for the increase in the cost of labour and/or materials during the duration of the contract. No claims will be allowed for increased costs arising from the fluctuations in duties and/or day to day currency fluctuations. The Sub-contractor will be deemed to have allowed in his tender for any increase in the cost of materials, which may arise as a result of currency fluctuation during the contract period.	0	Item		
	<b>Bond</b>				
C	The tenderer must submit with his tender the name of one Surety who must be an established Bank only who will be willing to be bound to the Government for an amount equal to 5 % of the Contract amount	0	Item		
	<b>Government Legislation and Regulations</b>				
D	The Contractor's attention is called to the provision of the Factory Act 1972 and subsequent amendments and revisions, and allowance must be made in his tender for compliance therewith, in so far as they are applicable. The Contractor must also make himself acquainted with current legislation and any Government regulations regarding the movement, housing, security and control of labour, labour camps, passes for transport, etc.	0	Item		
<b>Total carried forward to Collection Page</b>					

Item	Description	Qty	Unit	Rate (Kshs)	Amount (Kshs)
A	<p><b>Import Duty and Value Added Tax</b></p> <p>The contractor will be required to pay full Import Duty and Value Added Tax on all items of equipment, fittings and plant, whether imported or locally manufactured. The tenderer shall make full allowance in his tender for all such taxes.</p>	1	Item		
B	<p><b>Insurance Company Fees</b></p> <p>Attention is drawn to the tenderers to allow for all necessary fees, where known, that may be payable in respect of any fees imposed by Insurance Companies or statutory authorities for testing or inspection.</p>	0	Item		
C	<p><b>Samples and Materials Generally</b></p> <p>The Contractor shall, when required, provide for approval at no extra cost, samples of all materials to be incorporated in the works. Such samples, when approved, shall be retained by the Engineer and shall form the standard for all such materials incorporated.</p>	1	Item		
D	<p><b>Builder's Work</b></p> <p>All chasing, cutting away and making good will be done by the Contractor. The Contractor shall mark out in advance and shall be responsible for accuracy of the size and position of all holes and chases required.</p> <p>The Contractor shall drill and plug holes in floors, walls, ceiling and roof for securing services and equipment requiring screw or bolt fixings.</p> <p>Any purpose made fixing brackets shall be provided and installed by the Contractor</p>	0	Item		
	<b>Total carried forward to Collection Page</b>				

Item	Description	Qty	Unit	Rate (Kshs)	Amount (Kshs)
A	<p><b>Position of Services, Plant, Equipment, Fittings and Apparatus</b></p> <p>The Contract Drawings give a general indication of the intended layout. The position of the equipment and apparatus, and also the exact routes of the ducts, main and distribution pipework shall be confirmed before installation is commenced. The exact sitting of appliances, pipework, etc., may vary from that indicated.</p> <p>The contractor shall be deemed to have allowed in his Contract Sum for locating terminal points of services (e.g. lighting, switches, socket outlets, lighting points, control switches, thermostats and other initiating devices, taps, stop cocks) in positions plus or minus 1.2m horizontally and vertically from the locations shown on Contract Drawings.</p>	0	Item		
B	<p><b>Setting to Work and Regulating System</b></p> <p>The Contractor shall carry out such tests of the Contract Works as required by British Standard Specifications, or equal and approved codes as specified hereinafter and as customary.</p> <p>No testing or commissioning shall be undertaken except in the presence of and to the satisfaction of the Engineer unless otherwise stated by him (Contractor's own preliminary and proving tests excepted).</p> <p>It will be deemed that the Contractor has included in the Contract Sum for the costs of all fuel, power, water and the like, for testing and commissioning as required as part of the Contract Works. He shall submit for approval to the Engineer a suitable programme for testing and commissioning. The Engineer and Employer shall be given ample warning in writing, as to the date on which testing and commissioning will take place.</p>	0	Item		
<b>Total carried forward to Collection Page</b>					

Item	Description	Qty	Unit	Rate (Kshs)	Amount (Kshs)
A	<p><b>Working Drawings</b></p> <p>The Contractor shall allow for Working Drawings as may be necessary. The Working Drawings shall be complete in such detail not only that the Contract Works can be executed on site but also that the Engineer can approve the Contractor's proposals, detailed designs and intentions in the execution of the Contract Works.</p> <p>Two copies of all Working Drawings shall be submitted to the Engineer for approval. One copy of the Working Drawings submitted to the Engineer for approval shall be returned to the Contractor indicating approval or amendment therein.</p>	1	Item		
B	<p><b>Record Drawings (As Installed) and Instructions</b></p> <p>The Contractor shall allow for Record Drawings of the installed Contract Works.</p> <p>Three copies of all Record Drawing shall be submitted to the Engineer for approval.</p>	1	Item		
C	<p>Provide airtime for use by the project engineer for use during the entire project period for any calls touching the project.</p>	1	Item		
D	<p><b>Maintenance Manual</b></p> <p>The Contractor shall allow for furnishing the Engineer four copies of a Maintenance Manual relating to the installation forming part of all of the Contract Works.</p> <p>The manual shall be loose-leaf type, International A4 size with stiff covers and cloth bound. It may be in several volumes and shall be sub-divided into sections, each section covering one Engineering service system. It shall have a ready means of reference and a detailed index.</p>	1	Item		
<b>Total carried forward to Collection Page</b>					

Item	Description	Qty	Unit	Rate (Kshs)	Amount (Kshs)
A	<p><b>Mobilization and Demobilization</b></p> <p>The Contractor shall allow for mobilization of labour plant and equipment to site according to his programme and schedule of work. He shall ensure optimum presence and utilization of labour, plant and equipment. He should not pay and maintain unnecessary labour force or maintain and service idle plant and equipment. Where necessary he shall demobilize and mobilize the labour, plant and equipment, as he deems fit to ensure optimum progress of the works and this shall be considered to be a continuous process as works progress. He shall make provision for this item in his tender. No claim will be entertained where the contractor has not made any provision for mobilization and demobilization of labour, plant and equipment in the preliminary bills of quantities or elsewhere in this tender.</p>	0	Item		
B	<p><b>Contractor Obligation</b></p> <p>The contractor will finance all activities as part of his obligation to this contract. The employer shall pay interim payment for materials and work completed on site as his obligation in this contract, as the works progresses. No claims will be entertained for pre-financing of the project by the sub-contractor, or for loss of profit (expectation loss) in case of premature termination, reduction or increase of works as the sub-contractor shall be deemed to have taken adequate measures in programming his works and expenditure and taken necessary financial precaution while executing the works.</p>	0	Item		
C	<p><b>Validation</b></p> <p>Allow for Client/engineers facilitation cost in approval of sample and equipment which cannot be availed on site office. Include tax and attendance</p>	1	Item		
D	<p>Allow for taxes, attendance and overheads for above amount</p>	1	Item		
E	<p><b>Any other Preliminaries</b></p> <p>The contractor to allow for any other preliminaries necessary for hime to complete all the works Specify</p>	1	Item		
	<p><b>Total Carried Forward to Collection Page</b></p>				

**COLLECTION PAGE**

<b>Item</b>	<b>Description</b>	<b>Amount (Kshs)</b>
A	Total cost carried forward from Page MVAC-1 .....	
B	Total cost carried forward from Page MVAC-2 .....	
C	Total cost carried forward from Page MVAC-3 .....	
D	Total cost carried forward from Page MVAC-4 .....	
E	Total cost carried forward from Page MVAC-5 .....	
<b>Total Amount Carried to Summary Page</b>		

BILL NO.2 SERVER ROOM SPLIT UNIT					
Item	Description	Qty	Unit	Rate (Kshs)	Amount (Kshs)
	<b>SPLIT AIR CONDITIONING SYSTEM FOR THE SERVER ROOM</b>				
	Supply , Installation, testing and commissioning, upon approval of working drawings, of the following items. NB: Outdoor units shall be mounted on external walls.				
	<b>SPLIT UNITS FOR SERVER ROOM</b>				
A	Allow for installation of already supplied split AC unit for sever room Both outdoor and inddor units. Include all accessories, metal work, building works and electrical works for complete operation of the units	2	Item		
B	Complete outdoor and indoor unit set with indoor unit as floor standing air-cooling unit of capacity 24,000 Btu/hr). The air conditioning unit shall be supplied complete with room thermometer, room thermostat controls and remote control device. It shall charged with R410A refrigerant or any other non ozone depleting refrigerant. The unit shall be such that if the power supply goes off, it will start automatically after power is restored with three minute delay. The outdoor unit shall have matching capacity with the indoor unit. The unit shall be "LG" Model or equal and approved.	1	No.		
	<b>Refrigeration Pipework</b>				
C	Refrigeration liquid line pipework including 25mm Amaflex insulation.	80	LM		
D	Refrigeration gas line pipework including 25mm Amaflex insulation.	80	LM		
	<b>Refrigerant</b>				
E	Allow R410A refrigerant for charging air conditioning system.	3	Item		
	<b>Drain</b>				
F	25mm PVC condensate drainage pipework, class D, including bends, clips, joints and tees in the running lengths of the pipe.	50	LM		
	<b>Surge Protector</b>				
G	Power surge protector as Solatek to suite or equal and approved.	3	No.		
	<b>Electrical Works</b>				
H	Allow for associated electrical works from the local isolator provided by others within one meter to the air conditioning units and wiring from indoor unit to outdoor unit for all Ac units	1	Item		
	<b>Total Amount for Split Air Conditioning Works carried forward to Collection Page</b>				

Item	Description	Qty	Unit	Rate (Kshs)	Amount (Kshs)
	<b>Mounting Bracket</b>				
A	Mounting bracket for the outdoor unit complete with a cage and provided with purpose-made protective steel iron angle frame and all other anchoring accessories including rawl bolts and anti-vibration rubber mountings to engineer's approval.	3	Item		
	<b>Wall Mounted Wired Remote Controller</b>				
B	Fully wired wall mounted remote controller panel, wiring and conduit works including but not limited to interconnecting cable between the outdoor and indoor units.	3	No.		
	<b>Dehumidifier</b>				
C	40L capacity dehumidifier suitable for library paper storage areas.	0	No		
	<b>General items</b>				
D	Allow hard copy for all equipment data sheet for handover to engineer	1	Item		
E	Working draings and As-built drawings	0	Item		
F	Any other item for completion and functionalaiity of the above system. Kindly specify				
	<b>Training of maintenance staff and operators</b>				
G	Allow for training of three personnel on the operation and maintenance of the air conditioning installation. The training to be structured such that the personnel will undergo a course on the working of the machines, operations, settings, trouble shooting and maintenance of the machines.	1	Item		
	<b>Trunking</b>				
H	75x50mm approved PVC trunking for concealing the refrigerant pipework.	80	LM		
J	Photocopy paper, size A4, 80g/cm <sup>3</sup> , White, 500 sheets	10	ream		
K	Letter head quality paper, size A4, 80g/cm <sup>3</sup> , Green, 500 sheets	10	ream		
L	Hp Laser Jet Q7553A toner Cartridge	1	no		
	<b>Cyclone roof ventilators</b>				
M	600mm dia. Cyclone ventilator constructed from stainless steel with fins designed to help ventilation as well as create suction internally. The ventilator to be fixed with support structures, soakers flanges to ensure roof is leak proof as manufactured by steel structures ltd.	0	Item		
	<b>Testing and Commissioning</b>				
N	Allow for testing and commissioning of the air conditioning installations to the satisfaction of the Engineer.	1	Item		
	<b>Total Amount for Split Air Conditioning Works carried forward to Collection Page</b>				

<b>COLLECTION PAGE FOR SERVER ROOM SPLIT AIR CONDITIONING WORKS</b>		
<b>Item</b>	<b>Description</b>	<b>Amount (Kshs)</b>
A	Total Amount Carried forward from Page MVAC-7 .....	
B	Total Amount Carried forward from Page MVAC-8 .....	
<b>Total Amount Carried to Air Conditioning and Mechanical ventilation Summary Page</b>		

**SUMMARY PAGE FOR AIR CONDITIONING AND MECHANICAL  
VENTILATION INSTALLATION WORKS**

Item	Description	Total Amount (Kshs)
A	Total for Preliminaries and General Items .....	
B	Total splir Air conditioning Installation Works .....	
<b>Total Amount for Mechanical Ventilation and Air Conditioning Carried to Grand Summary Page for Main Works</b>		

Amount in words.....

Tenderer's Name and Stamp

.....  
.....

Address

.....

Period To Execute The Works .....

Telephone No .....

Mobile Phone No. ....

Tenderer's V.A.T No .....

Tenderer's P.I.N No .....

Tenderer's Signature ..... Date.....

Witness Signature ..... Date.....

**SECTION NAME:**

**SCHEDULE OF UNIT RATES**

<b>SCHEDULE OF UNIT RATES</b>			
<b>Item</b>	<b>Description</b>	<b>Unit</b>	<b>Rate</b>
A	7.1KW split cassette air conditioning unit with outdoor	set	
B	5.6 KW split air conditioning unit with outdoor	set	
C	24KW VRF outdoor unit	No	
D	10kw server room close control unit	set	
E	Two slot linear grille 600mm long	No	
F	Two slot linear grille 1000mm long	No	
G	Perforated Floor panel/Tile for server room 600x600mm size	No	
H	Raised floor tile for server room 600x600mm size	No	
J	24000Btu/hr high wall unit complete with indoor unit as LG	No	

**SECTION NAME:**

**TECHNICAL SCHEDULE**

**TECHNICAL SCHEDULE OF ITEMS TO BE SUPPLIED**

**CONTENTS**

1.	GENERAL NOTES TO THE TENDERER.....	(ii)
2.	TECHNICAL SCHEDULE.....	TS-1

## TECHNICAL SCHEDULE

### **1. General Notes to the Tenderer**

- 1.1 The tenderer shall submit technical schedules for all materials and equipment upon which he has based his tender sum.
- 1.2 The tenderer shall also submit separate comprehensive descriptive and performance details for all plant apparatus and fittings described in the technical schedules. Manufacturer's literature shall be accepted. Failure to comply with this may have his tender disqualified.
- 1.3 Completion of the technical schedule shall not relieve the Contractor from complying with the requirements of the specifications except as may be approved by the Engineer.
- 1.4 The tenderer **MUST** complete in full the technical schedule.
- 1.5 Apart from the information required in the technical schedule, the tenderer **MUST SUBMIT** comprehensive manufacturer's technical brochures and performance details for all items listed in this schedule (fill forms attached).

**TECHNICAL  
SCHEDULE**

<b>Item</b>	<b>Description</b>	<b>Manufacturer</b>	<b>Brand</b>	<b>Model/part</b>
A	24000Btu.hr floor standing unit split unit			
B	Refrigerant copper piping			
C	Wired remote controller			

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**BILL 6**  
**PROVISIONAL SUMS**

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ITEM	DESCRIPTION	QTY	UNIT	RATE (Ksh)	AMOUNT (Ksh)
	<b><u>PROVISIONAL SUMS</u></b>				
A	Include a Prime Cost Sum of Ksh Forty One Million Only (Ksh 41,000,000) for Electrical Installations and Structured Cabling Works		ITEM		41,000,000
B	Allow for profit and attendance upon Electrical and Structured Cabling Sub - Contractors		%		
C	Include a Prime Cost Sum of Kenya Shilling Seven Million, six hundred thousand Only (Ksh 7,600,000) for Bore Hole Drilling and Equipping.		ITEM		7,600,000
D	Allow for Profit and attendance upon Bore hole Sub - Contractor		%		
E	Include a Prime Cost Sum of Ksh Five Hundred Thousand Only (Ksh 500,000) for guard house		ITEM		500,000
F	Allow a provisional sum of Kenya shillings <b>Two Million (2,000,000.00)</b> only for contingencies for Builders Works and mechanical works to be spent at the Discretion of the Project Manager.				2,000,000
<b>TOTAL CARRIED TO GRAND SUMMARY</b>					

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## **GRAND SUMMARY**

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## GRAND SUMMARY

ITEM	DESCRIPTION	PAGE NO.	FOR TENDERER USE ONLY	FOR OFFICIAL USE ONLY
			KSHS.	KSHS.
	<b><u>GRAND SUMMARY</u></b>			
1	PARTICULAR PRELIMINARIES	PP /12		
2	GENERAL PRELIMINARIES	GP /14		
3	BUILDERS WORK	BS/1		
4	PLUMBING AND DRAINAGE WORKS	E/32		
5	AIR CONDITIONING AND MECHANICAL VENTILATION INSTALLATION WORKS	MVAC/16		
5	PROVISIONAL SUMS	PS/1		
<b>GRAND TOTAL CARRIED TO FORM OF TENDER ( INCLUSIVE OF ALL THE APPLICABLE TAXES AND LEVIES)</b>				

**AMOUNT:IN WORDS:**.....

SIGNED:  
( TENDERER'S NAME ) .....

Address: .....

Tel No: .....

Date: .....

SIGNED:  
( WITNESS'S NAME ) .....

Address: .....

Tel No: .....

Date: .....