

ETHICS AND ANTI- CORRUPTION COMMISSION



RE-ADVERTISEMENT

TENDER DOCUMENT

FOR

PROPOSED FACE LIFTING OF EACC'S INTEGRITY CENTER HOUSE

PHASE 1

**(External Walling, Decking and Partitioning of the
4th floor, together with the related electrical and
mechanical works and associated works)**

TENDER NO. EAC/T/24/2021-2022

IFMIS NEGOTIATION NO:916493-2

CLOSING DATE:

29th April 2022 at 10:00am

SITE VISIT DATE:

19th APRIL 2022 at 10:00am

INTEGRITY

CENTRE

Valley Rd/Jakaya Kikwete Rd

Junction

P.O Box 61130-00200, Nairobi,

Kenya

Tel: 2717318/310722 fax 254 (020)

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INVITATION TO TENDER

PROCURING ENTITY: ETHICS AND ANTI- CORRUPTION COMMISSION

CONTRACT NAME AND DESCRIPTION: PROPOSED FACE LIFTING OF EACC'S INTEGRITY CENTER HOUSE -PHASE 1

1. The Ethics and Anti-Corruption Commission (EACC) invites sealed bids from eligible candidates for **PROPOSED FACE LIFTING OF EACC'S INTEGRITY CENTER HOUSE -PHASE 1 which involves external walling, decking and partitioning of the roof top floor, demolition of the atrium, introduction of a parapet wall, installation of two no scenic passenger lifts, installation of a modular data center together with the associated electrical and mechanical works at integrity center.**
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 8.00 am and 5.00 pm starting from the date of advert at the office of:

**Secretary / Chief Executive Officer
Ethics and Anti-Corruption Commission
INTEGRITY CENTRE
Valley Rd/Jakaya Kikwete Rd Junction
Tel: 0709781000 / 0730997000 fax 254 (020) 2240954
Email: supply-chain@integrity.go.ke**

4. Tender documents may be obtained free of charges electrically from the website www.eacc.go.ke, IFMIS suppliers' portal supplier.treasury.go.ke and PPIP (Public Procurement Information Portal) www.tenders.go.ke.
5. A complete set of tender documents may be viewed and downloaded free of charge from the Commission's website www.eacc.go.ke, IFMIS suppliers' portal supplier.treasury.go.ke and PPIP (Public Procurement Information Portal) www.tenders.go.ke. Tenderers who download the tender document must forward their particulars immediately to facilitate any further clarification or addendum to

**Secretary / Chief Executive Officer
Ethics and Anti-Corruption Commission
INTEGRITY CENTRE
Valley Rd/Jakaya Kikwete Rd Junction
P.O Box 61130-00200, Nairobi, Kenya
Tel: 0709781000 / 0730997000 fax 254 (020) 2240954
Email: supply-chain@integrity.go.ke**

6. Tenders shall be quoted be in Kenya Shillings and shall include all taxes. Tenders shall remain valid for **120 days** from the date of opening of tenders.
7. All Tenders must be accompanied by a Tender Security of **Kes. 2,000,000.00** in the form of a Bank guarantee from a reputable Commercial bank or micro finance licenced by the Central Bank of Kenya valid for **150 Days** from date of tender closure.

8. The Tenderer shall chronologically serialize and paginate the tender documents submitted. Completed tender documents **MUST** be submitted through the IFMIS system so as to reach the:

**The Secretary/Chief Executive Officer, Ethics
and Anti-Corruption Commission,
P. O. Box 61130-
00200,
NAIROBI.**

On or before **29th April 2022 10.00AM**. The IFMIS will automatically lock out at the time and date of tender closing

9. Tenders will be opened immediately after the deadline date and time specified above or any dead line date and time specified later. Tenders will be accessed by the procuring entity electronically
10. Late tenders shall not be allowed since IFMIS will automatically lock out at the time and date of tender closing.

THE SECRETARY/CEO,

ETHICS AND ANTI-CORRUPTION COMMISSION.

8th April 2022

EACC adheres to high standards of integrity in its business operations. Report any unethical behavior immediately to any of the provided anonymous hotline service.

- 1) *Phone: 0202717473;*
- 2) *Email: eacc@integrity.go.ke*
- 3) *Website: www.eacc.go.ke / report corruption*

PART1: TENDERING PROCEDURES

SECTION I - INSTRUCTIONS TO TENDERERS

2. A GENERAL PROVISIONS

10 Scope of tender

- 11** 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**.
- 12** 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.

20 Fraud and corruption

- 21** 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.
- 22** 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.
- 23** 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.
- 24** 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.

30 Eligible tenderers

- 31** 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 in to 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 another tenderer;
- b) Receives or has received any director indirect subsidy from another tenderer;
 - c) Has the same legal representative as another tenderer;
 - d) 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;
 - 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.
- 38** 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.
- 39** 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.
- 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.
- 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 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.

- 54 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

60 Sections of Tender Document

- 61 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

- 62 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.

13.2 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.

13.3 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.

13.4 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

14.1 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.

14.2 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.

14.3 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.

14.4 The Tenderer shall quote any discounts and the methodology for their application in the Form of Tender, in accordance with ITT 12.1.

14.5 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.

14.6 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.

150 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.

170 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.

177 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.

- 178** 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.
- 179** 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 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 have 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

- 191** 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.
- 192** 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 ITT47; 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.

1910 A tenderer shall not issue a tender security to guarantee itself.

200 Format and Signing of Tender

201 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.

202 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.

203 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

210 Sealing and Marking of Tenders

211 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 a nenvelope 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 there after 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**.

- 252 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.
- 253 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.
- 254 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.
- 255 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.
- 256 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.
- 257 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 Clarification of Tenders

- 271 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.

272 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.

280 Deviations, Reservations, and Omissions

281 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

291 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.

292 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.

293 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.

294 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

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

302 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.

303 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

311 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.

312 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 asspecified in the **TDS.330 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 as pecific 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. Incase the ProcuringEntity 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** a scan be met by subcontractors referred to hereafter as 'Specialized Subcontractors', in which case, the qualifications of the Specialized Subcontractorsproposed by the Tenderer may be added to the qualifications of the Tenderer.

35. Evaluation of Tenders

35.1 TheProcuring 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 theLowest Evaluated Tender in accordance with ITT 40.

35.2 To evaluate a Tender, the Procuring Entity shall consider the following:

- a) priceadjustment 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) pricea djustment due to quantifiable non materialnon-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 consideredin 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 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 Low Tenders

- 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
A. General	
ITT 1.1	<p>The name of the contract is PROPOSED FACE LIFTING OF EACC’S INTEGRITY CENTER HOUSE -PHASE 1 (External walling, decking and partitioning of the 4th floor, together with the related electrical and mechanical works and associated works)</p> <p>The reference number of the Contract is W.P ITEM NO. D122/NB/NB/2101 JOB NO. 10106C</p> <p>The number and identification of lots (contracts) comprising this Tender is</p> <ol style="list-style-type: none"> 1. Builders works with associated electrical, structured cabling and mechanical works. <p>Associated Tenders that have been advertised separately are;</p> <ol style="list-style-type: none"> 1. Installation of 2 No Scenic Lift. (EACC/T/25/2021-2022, IFMIS NO: 916500)-re-advertised 2. Installation Modular Data Center. (EACC/T/26/2021-2022, IFMIS NO. 916504). Already awarded
ITT 2.4	<p>The Information made available on competing firms is as follows:</p> <ol style="list-style-type: none"> 1. Instructions to tenderers 2. Bills of quantities 3. Conditions of contract
ITT 2.4	<p>The firms that provided consulting services for the contract being tendered for are: STATE DEPARTMENT FOR PUBLIC WORKS P. O. BOX 30743-00100, NAIROBI</p> <p>The firm shall provide the following consultants:</p> <p><u>Project Manager:</u> Works Secretary. <u>Project Architect:</u> Chief Architect.. <u>Project Quantity Surveyor:</u> Chief Quantity Surveyor. <u>Project Mechanical Engineer:</u> Chief Engineer Mechanical, (BS). <u>Project Electrical Engineer:</u> Chief Engineer Electrical, (BS). <u>Project Structural/Civil engineer:</u> Chief Engineer Structural/civil. <u>Project Interior Designer:</u> Chief Designer.</p>
ITT 3.1	<p>Maximum number of members in the Joint Venture (JV) shall be: <i>none.</i> <i>Eligibility is citizen contractors</i></p>
ITT 3.12	<p>Valid NCA Registration Certificate and Practicing License in the required category; shall be provided as detailed in the Evaluation/Qualification Criteria SECTION IV</p>
B. Contents of Tender Document	
ITT 7.1	<p>The Tenderer will submit any request for clarifications in writing at the Address</p> <p style="text-align: center;">The Secretary/Chief Executive Officer Ethics and Anti-Corruption Commission P. O. Box 61130-00200 NAIROBI.</p>

Reference to ITC Clause	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
	Email: supply-chain@integrity.go.ke to reach the Procuring Entity not later Seven (7) days than before Tender Closure. (ii) The Procuring Entity shall publish its response at the website www.eacc.go.ke
ITT 7.2	(A) A pre-arranged pretender site visit <i>shall take</i> place at the following date, time and place: Date: 19th April 2022. Time: 10.00AM EAT Place: EACC HQ, Integrity Centre Nairobi. (B) Pre-Tender meeting take place at the following date, time and place: Date: 19th April 2022 Time: Immediate after the Pre Tender Site Visit Place: Ethics and Anticorruption Commission, Integrity Centre
ITT 7.3	The Tenderer will submit any questions in writing, to reach the Procuring Entity not later than Seven (7) days before the closing date.
ITT 7.5	The Procuring Entity's website where Minutes of the pre-Tender meeting will be published is www.eacc.go.ke
ITT 9.1	For Clarification of Tender purposes, for obtaining further information and for purchasing tender documents, the Procuring Entity's address is: Secretary / Chief Executive Officer Ethics and Anti-Corruption Commission INTEGRITY CENTRE P.O Box 61130-00200, Nairobi, Kenya Rd/Jakaya Kikwete Rd Junction Tel: 0709781000 / 0730997000 fax 254 (020) 2240954 Email: supply-chain@integrity.go.ke
C. Preparation of Tenders	
ITT 13.1	Alternative Tenders shall not be considered.
ITT 13.2	Alternative times for completion shall not be permitted.
ITT 13.4	Alternative technical solutions shall not be permitted
ITT 14.5	The prices quoted by the Tenderer shall be: Fixed.
ITT 15.2 (a)	Foreign currency requirements Not allowed.
ITT 18.1	The Tender validity period shall be 120 Days
ITT 19.1	All Tenders must be accompanied by a Tender Security of Kes. 2,000,000.00 in the form of a Bank guarantee from a reputable Commercial bank or micro finance licenced by the Central Bank of Kenya valid for 150 Days from date of tender closure. <ul style="list-style-type: none"> • The original tender security to be dropped in the tender box at Integrity Centre, Ground Floor • Scanned copy Must be attached to the bid documents and submitted through IFMIS. • If there is a discrepancy between the manual tender security submitted and the scanned copy in IFMIS will lead to disqualification.
ITT 20.1	In addition to the original of the Tender, the number of copies is: <u>N/A</u>
ITT 20.3	The written confirmation of authorization to sign on behalf of the Tenderer shall consist of a written power of attorney
D. Submission and Opening of Tenders	

Reference to ITC Clause	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
ITT 22.1	<p>For <u>Tender submission purposes</u> only, the Procuring Entity's address is: Secretary / Chief Executive Officer Ethics and Anti-Corruption Commission INTEGRITY CENTRE Valley Rd/Jakaya Kikwete Rd Junction Tel: 0709781000 / 0730997000 fax 254 (020) 2240954 Email: <u>supply-chain@integrity.go.ke</u></p> <p>Bidders are required to submit through the tender box the original tender security and original form of tender only in addition to scan and submitting the whole tender documents through IFMIS.</p> <p>Physical address for hand Courier Delivery to be dropped at the tender box at ground floor of integrity center. Date and time for submission of Tenders as indicated in the Tender Document. Tenders shall be submitted electronically and manually for the original form of tender and tender security only.</p>
ITT 25.1	<p>The Tender opening shall take place at the time and the address for Opening of Tenders provided below:</p> <p style="text-align: center;">Ground Floor Ethics and Anticorruption Commission HQs Integrity Centre Nairobi</p> <p>Physical address for the location <u>as indicated</u> above. State date and time of tender opening. <u>Immediate upon the Tender Closure</u></p>
E. Evaluation, and Comparison of Tenders	
ITT 30.3	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.
ITT 31.2	An error shall be considered a major deviation that leads to disqualification
ITT 33.2	A margin of preference <i>shall not apply</i> .
ITT 33.4	The invitation to tender is extended to the following group that qualify for Reservations N/A
ITT 34.1	At this time, the Procuring Entity <i>intends</i> to execute certain specific parts of the Works by subcontractors selected in advance.
ITT 34.2	Contractor's may propose subcontracting: Maximum percentage of subcontracting permitted is: <i>10% of the total contract amount.</i> Tenderers planning to subcontract more than 10% 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	[Indicate N/A if not applicable] The parts of the Works for which the Procuring Entity permits Tenderers to propose Specialized

Reference to ITC Clause	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
	<p>Subcontractors are designated as follows:</p> <ol style="list-style-type: none"> 1. Electrical works 2. Mechanical & Air Conditioning 3. Structured Cabling and Access Control 4. Plumbing <p>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.</p> <p>For sub contractor, the Main contractor MUST attach a contract agreement with each of the Sub contractor.</p>
ITT 35.2 (e)	Additional requirements apply. These are detailed in the evaluation criteria in Section III, Evaluation and Qualification Criteria.
ITT 48.1	<p>Other documents required in addition to the performance security after award are:</p> <ol style="list-style-type: none"> 1. Program of Works / Progress Chart 2. Relevant Insurance policies.
ITT 50.1	<p>The procedures for making a Procurement-related Complaint are detailed in the “Notice of Intention to Award the Contract” herein and are also available from the PPRA Website www.ppra.go.ke or email complaints@ppra.go.ke.</p> <p>If a Tenderer wishes to make a Procurement-related Complaint, the Tenderer should submit its complaint following these procedures, in writing (by the quickest means available, that is either by hand delivery or email to:</p> <p style="text-align: center;">Attention: The Secretary/Chief Executive Officer Ethics and Anti-Corruption Commission INTEGRITY CENTRE Valley Rd/Jakaya Kikwete Rd Junction P. O. Box 61130-00200 NAIROBI Supply-chain@integrity.go.ke</p> <p>In summary, a Procurement-related Complaint may challenge any of the following (among others):</p> <ol style="list-style-type: none"> (i) the terms of the Tender Documents; and (ii) the Procuring Entity’s decision to award the contract.

SECTION III - EVALUATION AND QUALIFICATION CRITERIA

10 GENERAL PROVISIONS

11 This section contains the criteria that the Employer shall use to evaluate tender and qualify tenderers. No other factors, methods or criteria shall be used other than specified in this tender document. The Tenderer shall provide all the information requested in the forms included in Section IV, Tendering Forms. The Procuring Entity shall use **the Standard Tender Evaluation Document for Goods and Works** for evaluating Tenders.

12 Wherever a Tenderer is required to state a monetary amount, Tenderers should indicate the Kenya Shilling equivalent using the rate of exchange determined as follows:

- a) For construction turnover or financial data required for each year - Exchange rate prevailing on the last day of the respective calendar year (in which the amounts for that year is to be converted) was originally established.
- b) Value of single contract - Exchange rate prevailing on the date of the contract signature.
- (c) Exchange rates shall be taken from the publicly available source identified in the ITT 14.3. Any error in determining the exchange rates in the Tender may be corrected by the Procuring Entity.

13 EVALUATION AND CONTRACT AWARD CRITERIA

The Procuring Entity shall use the criteria and methodologies listed in this Section to evaluate tenders and arrive at the Lowest Evaluated Tender. The tender that (i) meets the qualification criteria, (ii) has been determined to be substantially responsive to the Tender Documents, and (iii) is determined to have the Lowest Evaluated Tender price shall be selected for award of contract.

2.0 PRELIMINARY EXAMINATION FOR DETERMINATION OF

RESPONSIVENESS Preliminary examination for Determination of Responsiveness

The Procuring Entity will start by examining all tenders to ensure they meet in all respects the eligibility criteria and other mandatory requirements in the ITT, and that the tender is complete in all aspects in meeting the requirements provided for in the preliminary evaluation criteria outlined below. The Standard Tender Evaluation Report Document for Goods and Works for evaluating Tenders provides very clear guide on how to deal with review of these requirements. Tenders that do not pass the Preliminary Examination will be considered non-responsive and will not be considered further.

[The Procuring Entity will provide the preliminary evaluation criteria. To facilitate, a template may be attached or clearly described all information and list of documentation to be submitted by Tenderers to enable preliminary evaluation of the Tender]

3.0 TENDER EVALUATION (ITT 35)

Price evaluation: in addition to the criteria listed in ITT 35.2 (a) – (d) the following criteria shall apply:

- (i) Alternative Completion Times, if permitted under ITT 13.2, will be evaluated as follows:
.....
- (ii) Alternative Technical Solutions for specified parts of the Works, if permitted under ITT 13.4, will be evaluated as follows.....
- (iii) Other Criteria; if permitted under ITT 35.2(j):

4.0 MULTIPLE CONTRACTS

41 Multiple contracts will be permitted in accordance with ITT 35.4. Tenderers are evaluated on basis of Lots and a lowest evaluated tenderer identified for each Lot. The Procuring Entity will select one Option of the two Options listed below for award of Contracts.

3. OPTION 1

- (i) If a tenderer wins only one Lot, the tenderer will be awarded a contract for that Lot, provided the tenderer meets the Eligibility and Qualification Criteria for that Lot.
- (ii) If a tenderer wins more than one Lot, the tender will be awarded a contract for all won Lots, provided the tenderer meets the aggregate Eligibility and Qualification Criteria for all the won Lots. The tenderer will be awarded only the combinations for which the tenderer qualifies and the others will be considered for award to second lowest the tenderers.

4. OPTION 2

The Procuring Entity will consider all possible combinations of won Lots [contract(s)] and determine the combination with the lowest evaluated price. Tenders will then be awarded to the Tenderer or Tenderers in the combination provided the tenderer meets the aggregate Eligibility and Qualification Criteria for all the won Lots.

5.0 ALTERNATIVE TENDERS (ITT 13.1)

Alternative Tenders (ITT 13.1) An alternative if permitted under ITT 3.1, will be evaluated as follows:

The Procuring Entity shall consider Tenders offered for alternatives as specified in Part 2 - Works requirements. Only the technical alternatives, if any, of the Tenderer with the Best Evaluated Tender conforming to the basic technical requirements shall be considered by the Procuring Entity.

5. 60 MARGIN OF PREFERENCE

- 61** If the TDS so specifies, the Procuring Entity will grant a margin of preference of fifteen percent (15%) to be loaded on evaluated prices of the foreign tenderers, where the percentage of share holding of Kenyan citizens is less than fifty-one percent (51%).
- 62** Contractors 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.
- 63** After Tenders have been received and reviewed by the Procuring Entity, responsive Tenders shall be assessed to ascertain their percentage of shareholding of Kenyan citizens. Responsive tenders shall be classified into the following groups:
 - i) *Group A:* tenders offered by Kenyan Contractors and other Tenderers where Kenyan citizens hold shares of over fifty-one percent (51%).
 - ii) *Group B:* tenders offered by foreign Contractors and other Tenderers where Kenyan citizens hold shares of less than fifty-one percent (51%).
- 64** All evaluated tenders in each group shall, as a first evaluation step, be compared to determine the lowest tender, and the lowest evaluated tender in each group shall be further compared with each other. If, as a result of this comparison, a tender from Group A is the lowest, it shall be selected for the award of contract. If a tender from Group B is the lowest, an amount equal to the percentage indicated in Item 6.1 of the respective tender price, including unconditional discounts and excluding provisional sums and the cost of day works, if any, shall be added to the evaluated price offered in each tender from Group B. All tenders shall then be compared using new prices with added prices to Group B and the lowest evaluated tender from Group A. If the tender from Group A is still the lowest tender, it shall be selected for award. If not, the lowest evaluated tender from Group B based on the first evaluation price shall be selected.

7. Post qualification and Contract ward (ITT 39), more specifically,

- a) In case the tender was subject to post-qualification, the contract shall be awarded to the lowest evaluated tenderer, subject to confirmation of pre-qualification data, if so required.
- b) Incase the tender was not subject to post-qualification, the tender that has been determined to be the lowest evaluated tenderer shall be considered for contract award, subject to meeting each of the following conditions.
 - 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 of Kenya Shillings Twenty million (ksh 20,000,000)
 - ii) Minimum average annual construction turnover of Kenya Shillings Three hundred million [300,000,000.00] equivalent calculated as total certified payments received for contracts in progress and/or completed within the last Three years [3 years] years.
 - iii) At least five (5) of contract(s) of a similar nature executed within Kenya, or the East African Community or a broad, that have been satisfactorily and substantially completed as a prime contractor, or joint venture member or sub-contractor each of minimum value Kenya shillings Fifty million (50,000,000.00) equivalent.
 - iv) Contractor's Representative and Key Personnel, which are specified as: Site agent, electrical and mechanical engeneer
 - v) Contractors' key equipment listed on the table "Contractor's Equipment" below and more specifically listed as *[specify requirements for each lot as applicable]*

Main Scope of Works of this Tender	Main Equipment	Quantity(No) (Minimum)	Owned	Hired/ leased
Total				

- iv) Other conditions depending on their seriousness. a)

History of non-performing contracts:

Tenderer and each member of JV in case the Tenderer is a JV, shall demonstrate that non-performance of a contract did not occur because of the default of the Tenderer, or the member of a JV in the last Ten (10years). The required information shall be furnished in the appropriate form.

b) Pending Litigation

Financialpositionandprospectivelong-termprofit ability of the Single Tenderer, and in the case the Tenderer is a JV, of each member of the JV, shall remain sound according to criteria established with respect to Financial Capability under Paragraph (i) above if all pending litigation will be resolved against the Tenderer. Tenderer shall provide information on pending litigations in the appropriate form.

c) LitigationHistory

There shall be no consistent history of court/arbitral award decisions against the Tenderer, in the last Ten (10years). All parties to the contract shall furnish the information in the appropriate form about any litigation or arbitration resulting from contracts completed or on going unde rits execution over the years specified. A consistent history of awards against the Tenderer or any member of a JV may result in rejection of the tender.

EVALUATION /QUALIFICATION CRITERIA

To be qualified for award of Contract, the tenderer shall provide evidence satisfactory to the Employer of their eligibility and of their capability and adequacy of resources to effectively carry out the subject Contract. To this end, the tenderer shall be required to provide latest information set out below: This tender is for Citizen contractors note

6. 1. PRELIMINARY EXAMINATION

NO	Mandatory Requirement	Document and Mode of Submission
MR 1	Valid Copy of certificate of incorporation/ Registration	Copy of the document scanned in IFMIS
MR 2	Submission of valid CR12 form showing the list of directors /shareholding (issued within the last 6 months) or National Identity Card(s) for Sole Proprietorship/Partnership	Copy of the document scanned in IFMIS
MR 3	Valid Current Tax Compliance Certificate issued by Kenya Revenue Authority in accordance with ITT 4.14	Copy of the document scanned in IFMIS
MR 4	<p>Provide a copy of Tender Security (on IFMIS) in the prescribed format from a commercial bank or Micro finance bank licensed by Central Bank of Kenya in the amount of Kenya shillings Two Million (KSH 2,000,000.00). Tender and valid for the period specified under ITT 19.</p> <ul style="list-style-type: none"> • The original tender security MUST be dropped in the tender box at Integrity Centre, Ground Floor • Scanned copy MUST be attached to the bid documents and submitted through IFMIS. • A discrepancy between the dropped original tender security and the scanned copy in IFMIS will lead to disqualification. 	Original submitted in the tender box and Copy of the document scanned in IFMIS
MR 5	Current Category of Registration with National Construction Authority (NCA) in the building Works category NCA Category 1-4 for the main contractor.	Copy of the document scanned in IFMIS
MR 6	Main contractor's valid Annual Practicing license from the NCA.	Copy of the document scanned in IFMIS
MR 7	Submit a written power of attorney authorizing the signatory of the bid to commit the Bidder <i>Executed</i> by a Commissioner for Oaths, in accordance with ITT 20.3. (Applicable to a company with more than one director as per CR 12)	Copy of the document scanned in IFMIS
MR 8	<p>The Form of Tender MUST be dully filled, Signed and Stamped Pursuant to ITT 12.</p> <p>The Form of tender shall include the following documents that the Original copies MUST be dropped in the Tender box and scanned copies in IFMIS;</p> <ol style="list-style-type: none"> a. Confidential Business Questionnaire b. Certificate of independent tender determination. c. Self-declaration forms (SD1 and SD2). d. Disclosure-of-interest form. e. Declaration and commitment to the code of ethics. <ul style="list-style-type: none"> • The original Form of Tender comprising the five documnts listed above must be dropped in the tender box at Integrity Centre, Ground Floor • Scanned copy to be attached to the bid documents and submitted through IFMIS. • A discrepancy between the dropped original form of tender and the scanned copy in IFMIS will lead to disqualification. 	Original submitted in the tender box and Copy of the document scanned in IFMIS

	A person issued with the power of attorney must sign the form of tender where applicable. Failure, will lead to disqualification.	
MR 9	Priced and Filled Bills of Quantities Pursuant to ITT 14	Copy of the document scanned in IFMIS
MR 10	Must submit pdf scanned bid document through IFMIS. All pages must be Initialed/signed/stamped pursuant to ITT 12.1 (preferable mode of scan is a continuous pdf that is indexed)	Copy of the document scanned in IFMIS
MR 11	Submit certified copies of Audited accounts for the last three (3) years i.e 2018,2019 and 2020 or 2019, 2020 and 2021. The audited accounts must be signed by auditors and director(s).	Copy of the document scanned in IFMIS
MR 12	Attach proof of similar previous experience of three (3) projects. At least one of the projects must amount to Kes. 50M and above. (Attach award letters / contracts and corresponding completion certificates/documentation) The similarity of previous experience shall be based on the following: (Building works and partitioning works with electrical and mechanical works)	Copy of the document scanned in IFMIS
MR 13	The Main Contractor must attach duly signed and stamped pre-contract agreement with each Sub-Contractor that they will work with (Joint Venture with subcontractors will not be allowed).	Copy of the document scanned in IFMIS
MR 14	Attach proof of Citizenship and Directors' i.e National Identification Card or Passport corresponding to the CR12 not older than 6 months or CR13 (This tender is for citizen contractors.)	Copy of the document scanned in IFMIS

7. MANDATORY REQUIREMENTS FOR SUB CONTRACTS

- The Main Contractor **MUST** team up with Sub-Contractors registered by National Construction Authority (NCA) if the contractor does not have sufficient capacity, statutory documents and requirements for each of the sub contracts below.
- Where the Main Contractor does not sub contract any of the works below, the Main Contractor **MUST** meet/provide the requirements below for every sub contract.
- Note that both the Main Contractor and Sub contractor **MUST** pass the preliminary evaluation for the bid to qualify to TECHNICAL Evaluation.

8. ELECTRICAL SUB CONTRACTOR.

NO	MANDATORY REQUIREMENTS	Mode of Submission
MR 1	Certificate of Incorporation/Registration	Scanned in IFMIS
MR 2	Submission of valid CR12 form showing the list of directors /shareholding (issued within the last 6 months) or National Identity Card(s) for Sole Proprietorship / Partnership	Scanned in IFMIS
MR 3	NCA valid registration certificate Category NCA 1 - 6 in Electrical Works	Scanned in IFMIS
MR 4	Contractors valid Annual Practicing license from the NCA for the current year.	Scanned in IFMIS
MR 5	Current and valid Class of Licenses with the Energy and Petroleum Regulatory Authority (EPRA) at least C1 and above.	Scanned in IFMIS
MR 6	Provide A tax compliance Certificate from KRA	Scanned in IFMIS
MR7	Attach proof of similar previous experience of one (1) project amounting to Kes. 2M and above within the last 5 years. (Attach award letters / contracts and corresponding completion certificates/documentation) The similarity of previous experience shall be based on the following: (Electrical works)	Scanned in IFMIS

9. MECHANICAL AND AIR CONDITIONING SUB CONTRACTOR.

NO	MANDATORY REQUIREMENTS	YES/NO
MR 1	Certificate of Incorporation/Registration	Scanned in IFMIS
MR 2	Submission of valid CR12 form showing the list of directors /shareholding (issued within the last 6 months) or National Identity Card(s) for Sole Proprietorship / Partnership	Scanned in IFMIS
MR 3	Valid Tax Compliance Certificate,	Scanned in IFMIS
MR 4	valid registration certificate Category NCA 6 and above in Mechanical or Air Conditioning category	Scanned in IFMIS
MR 5	NCA Current and Valid Annual Contractor Practicing License of the Category NCA 6	Scanned in IFMIS
MR 6	Must a tax Compliance Certificate from KRA	Scanned in IFMIS
MR7	Attach proof of similar previous experience of one (1) project amounting to Kes. 2M and above within the last 5 years. (Attach award letters / contracts and corresponding completion certificates/documentation) The similarity of previous experience shall be based on the following: (Mechanical and Air Conditioning works)	Scanned in IFMIS

STRUCTURED CABLING AND ACCESS CONTROL SUB CONTRACTOR.

NO	MANDATORY REQUIREMENTS	YES/NO
MR 1	Certificate of Incorporation/Registration	Scanned in IFMIS
MR 2	Submission of valid CR12 form showing the list of directors /shareholding (issued within the last 6 months) or National Identity Card(s) for Sole Proprietorship / Partnership	Scanned in IFMIS
MR 3	Valid Tax Compliance Certificate,	Scanned in IFMIS
MR 4	NCA valid registration certificate Category NCA 6 and above in CCTV/Security Surveillance and Telecommunication and structured cabling Installations.	Scanned in IFMIS
MR 5	NCA Current and Valid Annual Contractor Practicing License of the Category NCA 6	Scanned in IFMIS
MR 6	Current Class of License with Communication Authority (CA))	Scanned in IFMIS
MR 7	Manufacturer's Authorization Letter from Cisco or a supply agreement where applicable with certified cisco partner (provide manufacturer authorization for the partner) for the active network devices and telephone sets.	Scanned in IFMIS
MR 8	Provide Manufacturers authorization letters for CCTV equipments and Access Control devices being offered by the bidder. (Preferable attach brochures for CCTV and Access Control devices from the Manufacturers)	Scanned in IFMIS
MR 9	Attach proof of similar previous experience of one (1) project amounting to Kes. 2M and above within the last 5 years. (Attach award letters / contracts and corresponding completion certificates/documentation) The similarity of previous experience shall be based on the following: (Structured cabling and Access Control works)	Scanned in IFMIS

PLUMBING SUB CONTRACTOR

NO	MANDATORY REQUIREMENTS	YES/NO
MR 1	Certificate of Incorporation/Registration	Scanned in IFMIS
MR 2	Submission of valid CR12 form showing the list of directors /shareholding (issued within the last 6 months) or National Identity Card(s) for Sole Proprietorship / Partnership	Scanned in IFMIS
MR 3	Valid Tax Compliance Certificate,	Scanned in IFMIS

MR 4	valid registration certificate Category NCA 6 and above in Plumbing and Drainage category	Scanned in IFMIS
MR 5	NCA Current and Valid Annual Contractor Practicing License of the Category NCA 6	Scanned in IFMIS
MR 6	Must a tax Compliance Certificate from KRA	Scanned in IFMIS
MR 7	Attach proof of similar previous experience of one (1) project amounting to Kes. 2M and above within the last 5 years. (Attach award letters / contracts and corresponding completion certificates/documentation) The similarity of previous experience shall be based on the following: (Plumbing works)	Scanned in IFMIS

The Main Contractor and all the sub contractors where applicable MUST meet all the Mandatory requirements to proceed to the Technical Evaluation.

2. TECHNICAL EVALUATION

No	Description	Max. Points	Bidder Score
	Key Personnel (Attach evidence cv and certificates)		
TS1	Dully filled form PER 1 for Key Personnel required below	3	
TS2	Dully filled form PER 2, for the Director of the Firm	1	
	Director of the firm (Building, Civil, Electrical and Mechanical Engineering or Construction Related Field) Main Contractor <ul style="list-style-type: none"> • Holder of degree in relevant Engineering field ----- 3 • Holder of diploma in relevant Engineering field----- 2 • Holder of certificate in relevant Engineering field-----1 • Holder of trade test certificate in relevant Engineering field--0.5 	3	
TS3	Dully filled form PER 2, for Key technical personnel	1.5	
	Provide three (3) Degree holders of key technical personnel in Building, Civil, Electrical and Mechanical Engineering Construction or Related Field) . <ul style="list-style-type: none"> • Main contractor personel with over10 years relevant experience with degree -1.5 mks each • Main contractor personel with over 5years relevant experience with degree - 1 mk each • Main contractor personel with under 5years relevant experience with degree - 0.5 mks each 	4.5	
TS4	Dully filled form PER 2, for key personnel	1.5	
	Provide 3No of key personnel, Minimum Diploma Holder for each in Building, Civil, Electrical and Mechanical Engineering Construction or Related Field) <ul style="list-style-type: none"> • Main contractor personel with over10 years relevant experience ----- 1.5 mks each • Main contractor personel with over 5years relevant experience----- 1 mks each • Main contractor personel with under 5years relevant experience -----0.5mks each 	4.5	
TS5	Dully filled form PER 2, for Artisan personnel	1	

	<p>Provide 2No artisans (trade test certificate in relevant Engineering field) – (Building, Civil, Electrical and Mechanical Engineering Construction Related Field) .</p> <ul style="list-style-type: none"> • Main contractor personel with over10 years relevant experience and ----- 1 mk each • Main contractor personel with over 5years relevant experience----- 0.5 • Main contractor personel with under 5years relevant experience -----0 	2	
	Proof of similar experience:		
TS6	<p>Dully complete the following FORMS</p> <ul style="list-style-type: none"> • FORM EXP 4.2: Specific construction and contract management experience • FORM EXP 4.2b: Construction experience in Key activities. 		
	<p>Provide proof of similar previous nature of five (5) projects completed in the last five (5) years by the Main Contractor. The project must be of similar nature, complexity and magnitude (Attach Award letter/Contract Agreement and Completion Certificate/documentation)</p> <ul style="list-style-type: none"> • Project of similar nature, complexity and magnitude of 50 M and above -----6 mks each • Project of similar nature, complexity and magnitude betwee 30M to 50M ---- 3mks each • Project of similar nature, complexity and magnitude below 30M ----0mks each <p>The similarity of previous nature shall be based on the following: (Building works and partitioning works with electrical and mechanical works)</p>	30	
TS7	<p>On-going projects of similar nature by the Main Contractor – Provide Evidence (Award letter/ Contract Agreement). MUST dully complete FORM FIN 3.4</p> <ul style="list-style-type: none"> • Two and below Projects of similar, nature complexity and magnitude ---2 • Four and above Projects of similar nature, complexity and magnitude ----- 0 <p>The similarity shall be based on the following: (Building works and partitioning works with electrical and mechanical works)</p>	2	
	Proof of Tools and equipments		
	Note; Dully filled FORM QU: Equipments		
TS8	<p>Schedule of contractor’s equipment and transport (proof or evidence of ownership/Lease) – Main Contractor at least 2 number relevant transport</p> <p>a) Relevant Transport (pick- ups, lorries, trucks) -----2 mark each</p> <p>b) No means of transport ----- 0</p>	4	
TS9	<p>Relevant Tools and Equipment</p> <ul style="list-style-type: none"> • Owned ----- 2 • leased -----1 • No evidence-----0 	2	
	Financial report (Main Contractor)		
TS 10	<p>Dully completed FORM</p> <ul style="list-style-type: none"> • FORM FIN 3.1: Financial data and Sources of Finance..... 1 Mark • FORM FIN 3.2: Annual Construction Turnover 1 Mark • FORM FIN 3.3: Finanancial Resources..... 1 Marks 	3	
TS10	<p>Annual Turnover for each year (From Audited Accounts for the last 3 years -, (2018, 2019 and 2020 or 2019, 2020 & 2021) for Main Contractor only</p> <ul style="list-style-type: none"> • Annual Turn-over equal to or greater than of Kes. 100M----4 mks for each year • Annual Turn-over above 50M but below Kes. 100M----- 3 mks for each year • Annual Turn-over below Kes. 50M ----- 1 mks for each year • No audited Financial Statements attached----- 0 	12	
TS11	<p>Evidence of Financial Resources (cash in hand, lines of credit, over draft facility etc.)- Bank/Creditors/Letters dated within the last 3 months from tender closure)</p> <p>The Projected Cash flow required is over 25M per month.</p>	15	

	<ul style="list-style-type: none"> • Has financial resources to finance the project, Cash in bank (certified bank statements) for the last 3 months over 25M monthly –15 Marks • Has financial resources to finance the project, Lines of Credit letter over 25M ---- 10 Marks • Has financial resources to finance the Project, Over draft facility letter ----5 Marks • Has not indicated sources of financial resources -----0 		
TS12	Litigation History/Affidavit signed and Stamped by an Attorney/ Commissioner for Oaths (Main Contractor) as provided in the FORM CON 2 Format <ul style="list-style-type: none"> • Attached ----- 1 • Not attached----- 0 	1	
TS13	The tenderer to provide accurate information on the location of their office premises, size of the office, and Direction. Provide lease or title deed or utility bill	2	
TS14	Proposed methodology Adequacy and quality of the proposed work Plan linked to the methodology and technical approach - 1 Mks Provide a preliminary work Methodology and technical approach – 2Mks Provided a Methodology on safety during the construction period – 2Mks	5	
TS 15	Neatness of the tender document, continuously scanned, paginated and indexed in pdf	2	
	Total	100	

Any bidder who scores 75 point and above shall be considered for further evaluation.

3. FINANCIAL EVALUATION:

Upon completion of the technical evaluation a detailed financial evaluation shall follow. The financial evaluation shall proceed in the manner described in the Public Procurement and Asset Disposal Act (2015) and the Public Procurement and Asset Disposal Regulations, 2020.

The evaluation shall be in **three stages**;

- a) Comparison of Rates; and
- b) Consistency of the Rates.
- c) Arithmetical Error checking

A) Comparison of rates-

Items that are underpriced or overpriced may indicate potential for non-delivery and front loading respectively. The committee shall promptly write to the tenderer asking for detailed breakdown of costs for any of the quoted items, relationship between those prices, proposed construction/installation methods and schedules.

The evaluation committee shall evaluate the responses and make an appropriate recommendation to the procuring entity giving necessary evidence. Such recommendations may include but not limited to:

- a. Recommend no adverse action to the tenderer after a convincing response;
- b. Employer requiring that the amount of the performance bond be raised at the expense of the successful tenderer to a level sufficient to protect the employer against potential financial losses;
- c. Recommend non-award based on the response provided and the available demonstrable evidence that the scope, quality, completion timing, administration of works to be undertaken by the tenderer, would adversely be affected or the rights of the employer or the tenderers obligations would be limited in a substantial way.

B) Consistency of the Rates

The evaluation committee will compare the consistency of rates for similar items and note all inconsistencies of the rates for similar items.

C) Arithmetical Error checking

The evaluation committee will check for any arithmetic errors, any error shall be considered as a deviation. A minor deviation, that does not materially depart from the requirements set out in the tender documents or errors or oversights that can be corrected without affecting the substance of the tender. The deviation shall be quantified to extent possible and be taken into account in the evaluation and comparison of tenders as stipulated in the PPADA 2015.

STAGE 4 - RECOMMENDATION FOR AWARD

The successful bidder shall be the tenderer with the lowest evaluated tender price.

3. 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. FORM OF 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:	<i>[insert the whole period (start and end dates) for which this position will be engaged]</i>
	Time commitment: for this position:	<i>[insert the number of days/week/months/ that has been scheduled for this position]</i>
	Expected time schedule for this position:	<i>[insert the expected time schedule for this position (e.g. attach high level Gantt chart)]</i>
2.	Title of position: [_____] /	
	Name of candidate:	
	Duration of appointment:	<i>[insert the whole period (start and end dates) for which this position will be engaged]</i>
	Time commitment: for this position:	<i>[insert the number of days/week/months/ that has been scheduled for this position]</i>
	Expected time schedule for this position:	<i>[insert the expected time schedule for this position (e.g. attach high level Gantt chart)]</i>
3.	Title of position: [_____] /	
	Name of candidate:	
	Duration of appointment:	<i>[insert the whole period (start and end dates) for which this position will be engaged]</i>
	Time commitment: for this position:	<i>[insert the number of days/week/months/ that has been scheduled for this position]</i>
	Expected time schedule for this position:	<i>[insert the expected time schedule for this position (e.g. attach high level Gantt chart)]</i>
4.	Title of position: [_____] /	
	Name of candidate:	
	Duration of appointment:	<i>[insert the whole period (start and end dates) for which this position will be engaged]</i>
	Time commitment: for this position:	<i>[insert the number of days/week/months/ that has been scheduled for this position]</i>
	Expected time schedule for this position:	<i>[insert the expected time schedule for this position (e.g. attach high level Gantt chart)]</i>
5.	Title of position: <i>[insert title]</i>	
	Name of candidate:	
	Duration of appointment:	<i>[insert the whole period (start and end dates) for which this position will be engaged]</i>
	Time commitment: for this position:	<i>[insert the number of days/week/months/ that has been scheduled for this position]</i>
	Expected time schedule for this position:	<i>[insert the expected time schedule for this position (e.g. attach high level Gantt chart)]</i>

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: _____ Date of birth: _____
	Address: _____ E-mail: _____
	Professional qualifications: _____
	Academic qualifications: _____
	Language proficiency: <i>[language and levels of speaking, reading and writing skills]</i>
Details	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:

Commitment	Details
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 on 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 on 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: [*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
Information Form**

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: <input type="checkbox"/> Legal and financial autonomy <input type="checkbox"/> Operation under commercial law 1. Establishing that the Tenderer is not under the supervision of the Procuring Entity 2. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.

52 FORM ELI -1.2

**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: _____
1. Attached are copies of original documents of <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. <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.
2. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.

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			
<input type="checkbox"/> Contract non-performance did not occur since 1 st January [insert year] specified in Section III, Evaluation and Qualification Criteria, Sub-Factor 2.1.			
<input type="checkbox"/> Contract(s) not performed since 1 st January [insert year] specified in Section III, Evaluation and Qualification Criteria, requirement 2.1			
<input type="checkbox"/> Contract(s) withdrawn since 1 st January [insert year] specified in Section III, Evaluation and Qualification Criteria requirement 2.1			
Year	Non- performed portion of contract	Contract Identification	Total Contract Amount (current value, currency, exchange rate and Kenya Shilling equivalent)
[insert year]	[insert amount and percentage]	Contract Identification: [indicate complete contract name/ number, and any other identification] Name of Procuring Entity: [insert full name] Address of Procuring Entity: [insert street/city/country] Reason(s) for nonperformance: [indicate main reason(s)]	[insert amount]
Pending Litigation, in accordance with Section III, Evaluation and Qualification Criteria			
<input type="checkbox"/> No pending litigation in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.3.			
<input type="checkbox"/> Pending litigation in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.3 as indicated below.			

Year of dispute	Amount in dispute (currency)	Contract Identification	Total Contract Amount (currency), Kenya Shilling Equivalent
		Contract Identification: _____ Name of Procuring Entity: _____ Address of Procuring Entity: _____ Matter in dispute: _____ Party who initiated the dispute: _____ Status of dispute: _____	
		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.			
Year of dispute	Amount in dispute (currency)	Contract Identification	Total Contract Amount (currency), Kenya Shilling Equivalent

<i>[insert year]</i>	<i>[insert percentage]</i>	Contract Identification: [indicate complete contract name, number, and any other identification] 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>
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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 <u> </u> years, (amount in currency, currency, exchange rate*, USD equivalent)				
	Year 1	Year 2	Year 3	Year 4	Year 5
Statement of Financial Position (Information from Balance Sheet)					
Total Assets (TA)					
Total Liabilities (TL)					
Total Equity/Net Worth (NW)					
Current Assets (CA)					
Current Liabilities (CL)					
Working Capital (WC)					
Information from Income Statement					
Total Revenue (TR)					
Profits Before Taxes (PBT)					
Cash Flow Information					
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		

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 statements¹ for the __years required above; and complying with the requirements

¹ 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: _____

Annual turnover data (construction only)			
Year	Amount Currency	Exchange rate	Kenya Shilling equivalent
<i>[indicate year]</i>	<i>[insert amount and indicate currency]</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

Financial Resources		
No.	Source of financing	Amount (Kenya Shilling equivalent)
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.

Current Contract Commitments					
No.	Name of Contract	Procuring Entity's Contact Address, Tel,	Value of Outstanding Work [Current Kenya Shilling /month]	Estimated Completion Date	Average Monthly Invoicing Over Last Six Months [Kenya Shilling /month]
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	Kenya Shilling			
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	Kenya Shilling			
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.)

Similar Contract No.	Information
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 Name² (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:				

² If applicable

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

2. Activity No. Two

3.

4. OTHER FORMS

6. FORM OF TENDER

INSTRUCTIONS TO TENDERERS

- i) *The Tenderer must prepare this Form of Tender on stationery with its letterhead clearly showing the Tenderer's complete name and business address.*
- ii) *Allitalicized text is to help Tenderer in preparing this form.*
- iii) *Tenderer must complete and sign CERTIFICATE OF INDEPENDENT TENDER DETERMINATION and the SELF DECLARATION OF THE TENDERER attached to this Form of Tender.*
- iv) *The Form of Tender shall include the following Forms duly completed and signed by the Tenderer.*
 - *Tenderer's Eligibility- Confidential Business Questionnaire*
 - *Certificate of Independent Tender Determination*
 - *Self-Declaration of the Tenderer*

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 sum³ of Kenya Shillings *[[Amount in figures] ____ Kenya Shillings [amount in words]*
-

The above amount includes foreign currency⁴ 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.
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;

³ This sum should be carried forward from the Summary of the Bills of Quantities.

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

- 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 ITT 3.8]*;
- 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 person acting 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) We, the Tenderer, have completed fully and signed 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 of contact person..... 8. Email Address..... Phone No.....
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			

(iii) Conflict of interest disclosure

	Type of Conflict	Disclosure YES OR NO	If YES provide details of the relationship with
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 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		

	Type of Conflict	Disclosure YES OR NO	If YES provide details of the relationship with
	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/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/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 is representation, 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 award¹ 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 inspect² 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.

¹*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.*

²*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 for Tenders 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, 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) 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	[To be entered by the Procuring Entity]

PART II - WORKS REQUIREMENTS

SECTION V - BILLS OF QUANTITIES

A. Notes and Sample Items for Preparing a Bill of Quantities

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. 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.
3. The Bills of Quantities should be divided generally into the following sections:
 - a) Preambles
 - b) Preliminary items
 - c) Work Items
 - c) Daywork Schedule; and
 - d) Provisional items
 - e) Summary.

4. 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 part 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.
- 4.2 Units of Measurement - The following units of measurement and abbreviations shall be used, unless other national units are mandatory in Kenya.

Unit	Abbreviation	Unit	Abbreviation
cubic meter	m ³ or cu m	millimetre	mm
hectare	ha	month	mon
hour	h	number	nr
kilogram	kg	square meter	m ² or sq m
lump sum	ls	square millimeter	mm ² or sq
meter	m	week	mm wk
metric ton	t		

- 4.3 The Bills of Quantities shall be read in conjunction with the Instructions to Tenders, General and Special Conditions of Contract, Technical Specifications, and Drawings.
- 4.4 The quantities given in the Bills of Quantities are estimated and partly provisional and are given to provide a common basis for tendering. The basis of payment will be the actual quantities of work ordered and carried out, as measured by the Contractor and verified by the Architect and valued at the rates and prices tendered in the priced

Bills of Quantities, where applicable, and otherwise at such rates and prices as the Architect may fix within the terms of the Contract.

45. 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.
46. 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.
47. 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.
48. 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.

5. NOTES ON PREPARING BILLS OF QUANTITIES

- 5.1 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.
- 5.2 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.
- 5.3 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.
- 5.4 Where the measured items are deemed 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 cover-up.
- 5.5 All items that have not been measured and therefore not subject to tender 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". The inclusion of such provisional sums often facilitates budgetary approval by avoiding the need to request periodic supplementary approvals as the future need arises.

- 5.6 Provisional sums to cover specialized works normally carried out by Nominated Sub Contractors should be avoided and instead Bills of Quantities of the specialized Works should be included as a section of the main Bills of Quantities to be priced by the Main Contractor. The Main Contractor should be required to indicate the name(s) of the specialized firms he proposes to engage to carry out the specialized Works as his approved domestic sub-contractors. Only provisional sums to cover specialized Works by statutory authorities should be included in the Bills of Quantities.
- 5.7 A Daywork Schedule should be included if the probability of unforeseen work, outside the items included in the Bill of Quantities, is relatively high. To facilitate checking by the Procuring Entity of the realism of rates quoted by the tenderers, the Daywork Schedule should normally comprise:
- i) A list of the various classes of labor, and materials for which basic.
 - ii) Daywork rates and prices for various categories of labor are to be inserted by the tenderer, together with a statement of the conditions under which the Contractor will be paid for Work executed on a Daywork basis.
 - iii) A percent to be entered by the tenderer against each basic Day work item.
 - iv) Subtotal amount for labor, materials and plant representing the Contractor's profit, overheads, supervision and other charges.
- 5.8 The Summary should contain a tabulation of the separate parts of the Bills of Quantities carried forward, with provisional sums for Daywork, Provisional sums and Contingencies, and provision for Total Costing. The last line should allow for tenderer to indicate any discounts before arriving at a total cost carried forward to the Form of Tender

BILLS OF QUANTITIES

(a) Preambles

1. The method of measurement of completed work for payment shall be in accordance with *[insert the name of a standard reference guide, or full details of the methods to be used]*.
2. The Site is situated in *(provide full description where the site is situated, coordinates from the nearest known landmark like a town and its size)* ____ It is approximately __Kilometers from Nairobi. 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 preceding 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 as 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, waterpipes 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 therewith.
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. The areas as available to the Contractor for workyards, 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 safe guard 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 there on, 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 15th 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 of his rates.
26. The Contractor shall provide temporary sheds, offices, messrooms, 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 sites 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 there with.
35. 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.
36. 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.
37. 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 1st July 2000. A 3% withholding tax will be applicable to all in term 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.
38. 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.
39. 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 over see the construction industry and coordinate its development. The National Construction Authority Regulations 2014 with an effective date of 6th 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 else where.
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. 2: WORK ITEMS

(organized appropriately into work sections, such as foundations, walls/structure, finishes, doors and windows, mechanical installations. etc.

Bill No 2 - *(Name of Section e.g. Foundations).*

<i>Item no.</i>	<i>Description</i>	<i>Unit</i>	<i>Quantity</i>	<i>Rate</i>	<i>Amount</i>
Total for Bill No. 2 (carried forward to Summary, p.)					

Bill No. 3: Schedule of Daywork Rates - Labor

Item no.	Description	Unit	Nominal quantity	Rate	Amount
	Subtotal				
	Allow _percent ^a of Subtotal for Contractor's overhead, profit, etc., in accordance with paragraph 3 (b) above.				
	Total for Daywork (carried forward to Daywork Summary, p.)				

a. To be entered by the Tenderer.

Bill No. 4: Schedule of Daywork Rates - Materials

Item no.	Description	Unit	Nominal quantity	Rate	Extended amount
	Subtotal				
	Allow _percent a. of Subtotal for Contractor’s overhead, profit, etc., in accordance with paragraph 4 (b) above.				
	Total for Daywork: Materials (carried forward to Daywork Summary, p.)				

a. To be entered by the Tenderer.

Bill No. 5: Schedule of Daywork Rates - Contractor's Equipment

<i>Item no.</i>	<i>Description</i>	<i>Nominal quantity (hours)</i>	<i>Basic hourly rental rate</i>	<i>Extended amount</i>
	Allow percent ^a of Subtotal for Contractor's overhead, profit, etc., in accordance with paragraph 5 above.			
Total for Daywork: Contractor's Equipment (carried forward to Daywork Summary, p.)				

a. To be entered by the Tenderer.

Bill No. 6: Daywork Summary

	<i>Amount^a</i>	<i>% Foreign</i>	<i>Currency</i>
1. Total for Daywork: Labor			
2. Total for Daywork: Materials			
3. Total for Daywork: Contractor's Equipment			
Total for Daywork (Provisional Sum) (carried forward to Summary of Bills of Quantities, p.)			

Bill No. 7: Provisional Sums

<i>Bill no.</i>	<i>Item no.</i>	<i>Description</i>	<i>Amount</i>
1			
2			
3			
4			
etc.			
Total for Specified Provisional Sums (carried forward to Grand Summary)			

GRAND SUMMARY

SUMMARY ITEMS	<i>Page</i>	<i>Amount</i>
Bill No. 1: Preliminary Items		
Bill No. 2: Work Items		
Bill No 3: Daywork Summary		
Bill No 4: Provisional Sums		
Subtotal of Bills No 1-4		
Allow for any Discounts ¹		
TOTAL TENDER PRICE Carried forward to Form of Tender		

(i) If a percentage used, it should be indicated on which Bill No. items but on Bill No.4 – Provisional Sums.

5. SECTION VI - SPECIFICATIONS

Notes for preparing Specifications

1. Specifications must be drafted to present a clear and precise statement of the required standards of materials, and workmanship for tenderers to respond realistically and competitively to the requirements of the Procuring Entity and ensure responsiveness of tenders. The Specifications should require that all materials, plant, and other supplies to be permanently incorporated in the Works be new, unused, of the most recent or current models, and incorporating all recent improvements in design and materials unless provided otherwise in the Contract. Where the Contractor is responsible for the design of any part of the permanent Works, the extent of his obligations must be stated.
2. Specifications from previous similar projects are useful and may not be necessary to re-write specifications for every Works Contract.
3. There are considerable advantages in standardizing **General Specifications** for repetitive Works in recognized public sectors, such as high ways, urban housing, irrigation and water supply. The General Specifications should cover all classes of workmanship, materials and equipment commonly involved in constructions, although not necessarily to be used in a particular works contract. Deletions or addenda should then adapt the General Specifications to the particular Works.
4. Care must be taken in drafting Specifications to ensure they are not restrictive. In the Specifications of standards for materials, plant and workmanship, existing Kenya Standards should be used as much as possible, otherwise recognized international standards may also be used.
5. The Procuring Entity should decide whether technical solutions to specified parts of the Works are to be permitted. Alternatives are appropriate in cases where obvious (and potentially less costly) alternatives are possible to the technical solutions indicated in tender documents for certain elements of the Works, taking into consideration the comparative specialized advantage of potential tenderers.
6. The Procuring Entity should provide a description of the selected parts of the Works with appropriate reference to Drawings, Specifications, Bills of Quantities, and Design or Performance criteria, stating that the alternative solutions shall be at least structurally and functionally equivalent to the basic design parameters and Specifications.
7. Such alternative solutions shall be accompanied by all information necessary for a complete evaluation by the Procuring Entity, including drawings, design calculations, technical specifications, breakdown of prices, proposed construction methodology, and other relevant details. Technical alternatives permitted in this manner shall be considered by the Procuring Entity each on its own merits and independently of whether the tenderer has priced the item as described in the Procuring Entity's design included with the tender documents.

6. SECTION VII - DRAWINGS

Note A list of drawings should be inserted here. The actual drawings including Site plans should be annexed in a separate booklet.

PART III - THE CONDITIONS OF CONTRACT AND CONTRACT

SECTION VIII - GENERAL CONDITIONS OF CONTRACT (GCC)

[Name of Procuring Entity]

[Name of Contract]

[Architect Name and Address]

General Conditions of Contract

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 as certified 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 of 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.

1.3.2 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

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:

- a) 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 as sign 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.

1.8.2 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.

1.8.3 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.

1.8.4 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

1.9.1 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.

1.9.2 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.
- 2.1.4 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) ofSub-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 Clause14 [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 Architectis 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 approvalis required, then (for the purposes of the Contract) the contractor shall require the Architect toprovideevidence of such approval before complying with the instruction.
- 3.1.5 Except as otherwise stated in these Conditions:
- a) Whenever carrying out duties or exercising authority, specified in or implied by the Contract, the Architect shallbedeemedtoactfortheProcuring 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 within 14 days of receipt.
- 3.1.6 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.
- 3.1.7 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

- 3.2.1 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].
- 3.2.2 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.

3.3 Instructions of the Engineer

- 3.3.1 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.
- 3.3.2 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).

3.4 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.

3.5 Determinations

3.5.1 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.

4.1.4 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 or specification of the Permanent Works.

4.1.5 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.

4.1.6 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, be fit 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 an other 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 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 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].
- 4.43 The Contractor shall ensure that the requirements imposed on the Contractor by Sub-Clause 1.12 [Confidential Details] apply equally to each Subcontractor.
- 4.44 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

- 4.61 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.
- 4.62 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.
- 4.63 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.

4.73 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 these.

4.8 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.

4.9 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.

4.12.7 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 a 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.

4.183 The Contractors shall ensure that emissions, surface 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, defect or 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 [Nominated Subcontractors]),

- 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 adjacentl and.

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 of the 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 a n 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-Clause 8.10 [Payment for Plant and Materials in Event of Suspension].

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 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 16.2 [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 Tests 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 14 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

- 861 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.
- 862 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.

8.6.3 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

8.7.1 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.

8.7.2 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

8.8.1 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 a gainst any deterioration, loss or damage.

8.8.2 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

8.9.1 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.

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

8.9.3 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.

9.2 Delayed Tests

- 9.2.1 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.
- 9.2.2 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.
- 9.2.3 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 Test 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.

9.3 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.

9.4 Failure to Pass Tests on Completion

- 9.4.1 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 Contract or 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 Contract or, stating the date on which the Works or Section were completed in accordance with the Contract, except for any minor out standing 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 his Sub-Clause.
- 10.1.4 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

103.1 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.

103.2 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.

103.3 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.

103.4 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 defects 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 defector 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 defector 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.

11.112 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.

11.113 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 done 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.

1232 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.

1233 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.

1234 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.

1235 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.

1236 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.

1237 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.

13.13 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.

13.14 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.

132. Variation Order Procedure

13.21 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 Architect are 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 Materials or Schedule of Daywork Prices. If the rates contained in the Bills of Materials or Daywork 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 Daywork 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 finance 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 forth with 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 31.3.

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 half (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 13.2.3 (c) (i) is less than amount established in item 13.2.3 (c) (ii), there shall not be a fee. However, if the amount established in item 13.2.3 (c) (i) is more than amount established in item 13.2.3 (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.

13.7 Dayworks

13.7.1 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.

13.7.2 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.

- 13.7.3 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.
- 13.7.4 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].

13.8 Adjustments for Changes in Legislation

- 13.8.1 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.
- 13.8.2 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.
- 13.8.3 After receiving this notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.
- 13.8.4 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].

13.9 Adjustments for Changes in Cost

- 13.9.1 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.
- 13.9.2 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 amounts to cover the contingency of other rises and falls in costs.
- 13.9.3 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 shall be of the following general type:**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 Im/Io
w
h
e
r
e
:

P is the adjustment factor for the portion of the Contract Price payable.

A and **B** are coefficients **specified in the SCC**, representing the non adjustable and adjustable portions, respectively, of the Contract Price payable and

I m is the index prevailing at the end of the month being invoiced and **Ioc** 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.

13.94 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. For this 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.

13.95 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.

13.96 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.

13.97 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.

13.98 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 inapplicable, 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.

142 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.

14.26 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.

143 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 parton 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 Contract 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.

14.53 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.

14.54 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.

14.55 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

14.61 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.

14.62 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.

14.63 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], whichever 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 out standing 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 in demnification 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, incompeting for or in executing the Contract.

- 1522 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.
- 1523 The Procuring Entity's election to terminate the Contract shall not prejudice any other rights of the Procuring Entity, under the Contractor otherwise.
- 1524 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.
- 1525 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.
- 1526 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.

153 Valuation at Date of Termination

Assoon 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.

154 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 [Procurin 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.

155 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 door 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 there of 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.

163 Termination by Contractor

163.1 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].

163.2 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.

163.3 The Contractor's election to terminate the Contract shall not prejudice any other rights of the Contractor, under the Contract otherwise.

164 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.

165 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 what so ever 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 actor 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 actor 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.

174 Consequences of Procuring Entity's Risks

174.1 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.

174.2 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.

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

175 Intellectual and Industrial Property Rights

175.1 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.

175.2 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.

175.3 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.

175.4 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.

17.5.5 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.

17.5.6 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 herein 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

17.6.1 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 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].

17.6.2 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.

17.6.3 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

17.7.1 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).

17.7.2 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.

- 18.12 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.
- 18.13 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.
- 18.14 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.
- 18.15 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.
- 18.16 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].
- 18.17 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.
- 18.18 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.
- 18.19 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 Contract 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.

182 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) apart 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) apart 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.

1832 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.

1833 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.

19.12 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

19.21 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.

19.22 The Party shall, having given notice, be excused performance of its obligations for so long as such Force

Majeure prevents it from performing them.

19.23 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

19.41 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].

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

195 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.

196 Optional Termination, Payment and Release

196.1 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].

196.2 Upon such termination, the Architect shall determine the value of the work done and issue a Payment

Certificate which shall include:

- a) the amounts 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.

197 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.
- 20.1.9 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.

202 Procuring Entity's Claims

- 202.1 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.
- 202.2 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.
- 202.3 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].
- 202.4 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.

203 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.

204 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.

205 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.

- 2054 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.
- 2055 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 notice had been given.
- 2056 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.
- 2057 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.
- 2057 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.
- 2058 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

- 2061 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
- 2062 The institution written to first by the aggrieved party shall take precedence over all other institutions.

20.7 Arbitration with Foreign Contractors

- 207.1 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.

2072 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

2091 The award of such Arbitrator shall be final and binding up on the parties.

2092 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
Part A - Contract Data		
Procuring Entity's name and address	Heading	ETHICS AND ANTI-CORRUPTION COMMISSION
Name and Reference No. of the Contract	Heading and 1.1	PROPOSED FACE LIFTING OF EACC'S INTEGRITY CENTER HOUSE -PHASE 1 W.P ITEM NO. D122/NB/NB/2101 JOB NO. 10106C
Engineers Name and address	Heading and 3.1.1	STATE DEPARTMENT FOR PUBLIC WORKS P. O. BOX 30743-00100, NAIROBI The firm shall provide the following consultants: <u>Project Manager:</u> Works Secretary. <u>Project Architect:</u> Chief architect. <u>Project Quantity Surveyor:</u> Chief Quantity Surveyor. <u>Project Mechanical Engineer:</u> Chief Engineer Mechanical, (BS). <u>Project Electrical Engineer:</u> Chief Engineer Electrical, (BS).. <u>Project Structural/Civil engineer:</u> Chief Engineer Structural/civil. <u>Project Interior Designer:</u> Chief Designer.

Contractor's Representative's name	4.3.1	
Key Personnel names	16.9.1	
Max Time for Completion	1.1.	18 MONTHS
Defects Notification Period	1.1	6 MONTHS
Sections	1.1	N/A
Electronic transmission systems	1.3	
Time for the Parties entering into a Contract Agreement	1.6	Within 14 days
Commencement Date	8.1.1	To be Agreed with the Project Manager
Time for access to the Site	2.1.1	No later than the Commencement Date, and not later than 14 days after Commencement Date
Architect Duties and Authority	3.1.6 (b) (ii)	Variations resulting in an increase of the Accepted Contract Amount in excess of 00% 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 5 percent of the Accepted Contract Amount and in the same currency(ies) of the Accepted Contract Amount.
Normal working hours	6.5	0800-1700 HRS
Delay damages for the Works	8.7 & 14.15(b)	0.002 % of the Contract Price per day.
Maximum amount of delay damages	8.7.1	5% of the final Contract Price.
Provisional Sums	13.6. (b)(ii)	<i>[If there are Provisional Sums, insert a percentage for adjustment of Provisional Sums]</i> _ %

Conditions	Sub-Clause	Data
Adjustments for Changes in Cost	13.9	Period "n" applicable to the adjustment multiplier "Pn": <i>_[Insert the period if different from one (1) month; if period "n" is one (1) month, insert "not applicable"]</i>
Total advance payment	14.2.1	N/A
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 Free on Board
	14.5.3(c)(i)	Plant and Materials for payment when delivered to the Site _ Plant And Materials to be Incorporated into Permanent Work.
Minimum Amount of Interim Payment Certificates	14.6.2	0% of the Accepted Contract Amount.
Publishing source of commercial interest rates for financial charges in case of delayed payment	14.8	Specify _3% + CBK rate per month of delayed payment. 3 percentage points above the Central Bank of Kenya's average rate for base lending prevailing as of the first day the payment becomes overdue
Maximum total liability of the Contractor to the Procuring Entity	17.6.2	The product of zero point one (0.10) times the Accepted Contract Amount.
Periods for submission of insurance: a. evidence of insurance. b. relevant policies	18.1.6	14 days 14 days

Maximum amount of deductibles for insurance of the Procuring Entity's risks	18.2.4 (d)	<i>NILL</i>
Minimum amount of third-party insurance	18.3.2	<i>Ksh 1,000,000.00</i>
The place of arbitration	20.7.2	<i>Nairobi</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.

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: _____

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 ofdated the...day of
.....20.....in the matter of Tender No.....of20..... 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/order
that:

- 1.
- 2.

SIGNED (Applicant) Dated on..... day of
...../.....20.....

FOR OFFICIAL USE ONLY Lodged with the Secretary Public Procurement Administrative Review Board
on.....day of
.....20.....

SIGNED

Board Secretary

FORM NO 3: LETTER OF AWARD

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)* ,¹ 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.....², 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.*

¹*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.*

²*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 are advised to use Performance Security – Unconditional Demand Bank Guarantee in stead of Performance Bond due to difficulties involved in calling Bond holder to action]

[Guarantor letterhead or SWIFT identifier code]

Beneficiary: *[insertnameandAddressof ProcuringEntity]*

Date: ____*[Insert date of issue]* **PERFORMANCE BOND**

No.: _____

Guarantor: *[Insert name and address of place of issue, unless indicated in the letterhead]*

1. By this Bond _____ as 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 available 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 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 _____ (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 _____)¹ 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____, ² 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.*

¹*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.*

²*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]___)*¹ 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.....², 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.*

¹*The Guarantor shall insert an amount representing the amount of the second half of the Retention Money.*
²*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

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. 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 Tenderer by meeting one or more of the following conditions:

- *Directly or indirectly holding 25% or more of the shares.*
- *Directly or in directly holding 25% or more of the voting rights.*
- *Directly or indirectly having the right to appoint a majority of the board of directors or equivalent governing body of the Tenderer.*

Tender Reference No.: _____ [insert identification no] Name of the Assignment: _____ [insert name of the assignment] to:
 _____ [insert complete name of Procuring Entity]

In response to 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

Identity of Beneficial Owner	Directly or indirectly holding 25% or more of the shares (Yes / No)	Directly or indirectly holding 25 % or more of the Voting Rights (Yes / No)	Directly or indirectly having the right to appoint a majority of the board of the directors or an equivalent governing body of the Tenderer (Yes / No)
[include full name (last, middle, first), nationality, country of residence]			

OR

ii) *We declare that there is no Beneficial Owner meeting one or more of the following conditions: directly or indirectly holding 25% or more of the shares. Directly or indirectly holding 25% or more of the voting rights. Directly or indirectly having the right to appoint a majority of the board of directors or equivalent governing body of the Tenderer.*

OR

We declare that we are unable to identify any Beneficial Owner meeting one or more of the following conditions. [If this option is selected, the Tenderer shall provide explanation on why it is unable to identify any Beneficial Owner]

Directly or indirectly holding 25% or more of the shares. Directly or indirectly holding 25% or more of the voting rights.

Directly or indirectly having the right to appoint a majority of the board of directors or equivalent governing body

of the Tenderer]”

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]*

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 ye

PARTICULAR PRELIMINARIES

ITEM	DESCRIPTION	K.SHS
	<u>PARTICULAR PRELIMINARIES</u>	
A	EMPLOYER	
	The Employer is the Secretary/ Chief Executive Officer, Ethics and Anti-Corruption Commission, P.O.BOX 61130 – 00600, NAIROBI.	
	The term "Employer" and "Government" wherever used in the contract document shall be synonymous.	
B	PROJECT MANAGER	
	The term "PM" wherever used in these Bills of Quantities shall be deemed to imply the project Manager 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 .	
C	ARCHITECT	
	The term "Architect" shall be deemed to mean "The P.M " as defined above whose address unless otherwise notified is Ministry of Transport, Infrastructure, Housing & Urban Development, State Department for Public Works, P.O Box 30743, NAIROBI.	
D	QUANTITY SURVEYOR	
	The term "Quantity Surveyor" shall be deemed to mean "The P.M " as defined above whose address unless otherwise notified is Ministry of Transport, Infrastructure, Housing & Urban Development, State Department for Public Works, P.O Box 30743, NAIROBI.	
E	ELECTRICAL ENGINEER	
	The term "Electrical Engineer" shall be deemed to mean "The P.M " as defined above whose address unless otherwise notified is Ministry of Transport, Infrastructure, Housing & Urban Development, State Department for Public Works, P.O Box 30743, NAIROBI.	
F	MECHANICAL ENGINEER	
	The term "Mechanical Engineer" shall be deemed to mean "The P.M " as defined above whose address unless otherwise notified is Ministry of Transport, Infrastructure, Housing & Urban Development, State Department for Public Works, P.O Box 30743, NAIROBI.	
G	STRUCTURAL ENGINEER	
	The term "Structural Engineer" shall be deemed to mean "The P.M " as defined above whose address unless otherwise notified is Ministry of Transport, Infrastructure, Housing & Urban Development, State Department for Public Works, P.O Box 30743, NAIROBI.	
H	CHIEF DESIGNER	
	The term "Chief Designer" shall be deemed to mean "The P.M " as defined above whose address unless otherwise notified is Ministry of Transport, Infrastructure, Housing & Urban Development, State Department for Public Works, P.O Box 30743, NAIROBI.	
	<i>Carried to collection</i>	

ITEM	DESCRIPTION	K.SHS
A	<p>PRICING ITEMS OF PRELIMINARIES Prices SHALL BE INSERTED against items of “preliminaries” in the tenderer’s priced Bills of Quantities. The contractor is advised to read and understand all preliminary items.</p>	
B	<p>DESCRIPTION OF THE WORKS The works consists of ,</p> <p>A. Roof top floor:</p> <p>1. Builders works Demolition of the existing atrium. External walling of toughened glass on aluminium framing, EPS panels and aluminium sliding windows with blinds. Masonry walling on the wash rooms to be finished with ceramic wall tiles. Decking on I sections, galvanised steel deck and 755mm thick concrete reinforced with BRC and one number steel stair case. Polycarbonate roof covering on steel structure to the cylindrical area and a parapet wall of alucobond to the existing roof. Partitioning to the floor using frosted glass, MDF, timber dividers and solid phenolic panels. With panel, flush, glass and phenolic doors. Finishes to the additional floor i.e. particle boards to the walls and columns, ceramic wall tiles, ceramic floor tiles, porcelain floor tiles, carpet tile, gypsum ceiling and timber slats together with fittings and fixtures to kitchen.</p> <p>2. Electrical works Lighting, power, fire detection and alarm system, structured cabling telephone system, CCTV, and access control.</p> <p>3. Mechanical works Plumbing and drainage, fire protection installation, heating ventilation and air conditioning installation works</p> <p>B. Server room.</p> <p>1. Builders works Demolition of the existing partitions, doors, granite counter, work top, floor and ceiling finishes. Introduction of a new masonry wall, painting to wall and aluminium ceiling, fixing of ceramic floor tiles and mahogany doors.</p> <p>2. Electrical works Installation of UPS, power supply, fire detection and alarm system, CCTV, access control and interlinking other floor switches to the server room.</p> <p>3. Mechanical works Fire suppression, heating ventilation and air conditioning.</p> <p>C. LIFT Installation of 2 number passenger.</p>	
	<i>Carried to collection</i>	

ITEM	DESCRIPTION	K.SHS
A	<p>MEASUREMENTS</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 in accordance with Clause 13 of the Conditions of Contract. The discrepancies shall then be treated as a variation and be dealt with in accordance with Clause 13 of the said Conditions.</p>	
B	<p>LOCATION OF SITE</p> <p>The site is Located at the Integrity center along valley road approximately 2.5km from Nairobi CBD, Nairobi County. The Contractor is advised to visit the site, to familiarize with the nature and position of the site. No claims arising from the Contractor's failure to do so will be entertained.</p>	
C	<p>DEMOLITIONS AND ALTERATIONS</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</p> <p>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.</p> <p>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.</p> <p>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>	
D	<p>CLEARING AWAY</p> <p>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 and leave in a clean and tidy state to the reasonable satisfaction of the Project Manager.</p> <p>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>	
C	<p>CLAIMS</p> <p>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>	
<i>Carried to collection</i>		

ITEM	DESCRIPTION	K.SHS
A	<p>PAYMENTS The tenderer's attention is drawn to the fact that the GOVERNMENT DOES NOT MAKE ADVANCE PAYMENTS but pays for work done and materials delivered to sit: all in accordance with Clause 14 of the Conditions of Contract Agreement. In order to facilitate this, a list of the general component elements for the works is given at the summary page of these specifications and the tenderer is requested to break down his tender sum commensurate to the said elements</p>	
B	<p>PREVENTION OF ACCIDENT, DAMAGE OR LOSS 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 accidents, damage or loss and disruption of activities being carried out by the Client. The Contractor shall allow in his rates any expense he deemed necessary by taking such care within the site.</p>	
C	<p>WORKING CONDITIONS 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, as the facility will be operating as usual during the course of the contract.</p>	
D	<p>SIGNBOARD 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>	
E	<p>LABOUR CAMPS 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>	
F	<p>MATERIALS FROM DEMOLITIONS Any materials arising from demolitions and not re-used shall become the property of the client. The Contractor shall allow in his rates the cost of disposing the demolished materials as directed.</p>	
G	<p>PRICING RATES 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>	
H	<p>SECURITY 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>	
	<i>Carried to collection</i>	

ITEM	DESCRIPTION	K.SHS
A	<p>URGENCY OF THE WORKS The Contractor is notified that these “ works are urgent” and should be completed within the period stated in these Particular Preliminaries.</p> <p>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>	
B	<p>PAYMENT FOR MATERIALS ON SITE All materials for incorporation in the works must be stored on site before payment is effected, unless specifically exempted by the Project Manager. This is to include materials of the Contractor, nominated sub-Contractors and nominated suppliers.</p>	
C	<p>EXISTING SERVICES 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 for the support, maintenance and protection of such services.</p>	
D	<p>CONTRACT COMPLETION PERIOD The contract completion period in accordance with condition 31 of the Conditions of contract must be adhered to.</p> <p>The ‘PROJECT MANAGER’ shall strictly monitor the Contractors progress in relation to the progress chart and should it be found necessary the ‘PROJECT MANAGER’ shall inform the Contractor in writing that his actual performance on site is not satisfactory .In all such cases the Contractor shall accelerate his rate of performance production and progress by all means such as additional labour,plant, e.t.c and working overtime all at his cost.</p>	
E	<p>PERFORMANCE BOND A bond of 5% of the contract sum will be required in accordance with clause 48 (as amended) on award of contract of the Instructions to Tenderer’s. No payment on account for the works executed will be made to the contractor until he has submitted the Performance Bond to the Project Manager duly signed, sealed and stamped from an approved Bank.</p>	
F	<p>TENDER DOCUMENTS Tender documents are as listed in Clause 6 of the Instruction to Tenderer’s</p>	
G	<p>DELIVERY OF TENDER Tenders and all documents in connection therewith, as specified above must be delivered in the addressed envelope which should be properly sealed and deposited at the offices as specified in the letter accompanying these documents or as indicated in the advertisement.</p> <p>Tenders will be opened at the time specified in the letter accompanying these Tender Documents or as indicated in the advertisement. Tenders delivered/received later than the above time will not be opened.</p>	
	<i>Carried to collection</i>	

ITEM	DESCRIPTION	K.SHS
A	<p>VALUE ADDED TAX</p> <p>The Contractor's attention is drawn to the Legal Notice in the Finance Act part 3 Section 21(b) operative from 1st September, 1993 which requires payment of VAT on all contracts. The Contractor should therefore include allowance in his rates and prices for prices for VAT and any other Government taxes currently in force.</p> <p>The tenderer is advised that in accordance with Government public notice No. 35 & 36 Dated 11th September 2003 operational from 1st October 2003, VAT will be deducted against the contract sum at the prevailing rate by the Employer and remitted directly to the Commissioner of VAT through all interim certificates. It should however be noted that this is not additional tax but a new mode of payment for VAT, any excess payment will be refundable once the Contractor has submitted monthly returns to the Commissioner of VAT who will do the refunds when satisfied that the VAT regulations have been complied with.</p> <p>NB: The Contractor should therefore include the tax within the rates.</p> <p>PROJECT MANAGERS EXPENSES</p>	
B	Provide a sum of Kenya Shillings Eight hundred and Thirty Five Thousand (Ksh 835,000.00) for Project Management expences to be expended as per the Project Manager's Instructions with the consent of the client.	835,000.00
C	Allow for Contractor's profit and overheads (-----%)	
D	Provide a provisional sum of Kenya Shillings Five hundred and twenty Two thousand (Kshs 522,000.00) only for Clerk of works expenses with the consent of the client.	522,000.00
E	Allow for Contractor's profit and overheads (-----%)	
F	Provide a sum of Kenya Shillings Two hundred and Seventy-five Thousand (Ksh 275,000.00) for airtime for Project Management to be expended as per the Project Manager's Instructions with the consent of the client.	275,000.00
G	Allow for Contractor's profit and overheads (-----%)	
	<i>Carried to collection</i>	

ITEM	DESCRIPTION	K.SHS
A	<p><u>PARTICULARS OF INSERTIONS TO BE MADE IN APPENDIX TO CONTRACT AGREEMENT</u></p> <p>The following are the insertions to be made in the appendix to the Contract Agreement: -</p> <p>Period of Final Measurement 3 Months From Practical completion</p> <p>Defects Liability Period 6 Months from Practical completion</p> <p>Date for Possession To be agreed with the Project Manager</p> <p>Date for Completion ...72.. Weeks from date of Possession</p> <p>Liquidated and Ascertained At the rate of Kshs.. 20,000... per week or part thereof:</p> <p>Prime cost sums for which The Contractor desires to tender</p> <p>Period of Interim Certificates Monthly</p> <p>Period of Honouring Certificates 30 days</p> <p>Percentage of Certified Value Retained 10%</p>	
	<i>Carried to collection</i>	

ITEM	DESCRIPTION	K.SHS
	<p style="text-align: center;"><u>COLLECTION</u></p> <p>Brought forward from page PP/1</p> <p>Brought forward from page PP/2</p> <p>Brought forward from page PP/3</p> <p>Brought forward from page PP/4</p> <p>Brought forward from page PP/5</p> <p>Brought forward from page PP/6</p> <p>Brought forward from page PP/7</p>	
	TOTAL FOR PARTICULAR PRELIMINARIES CARRIED TO GRAND SUMMARY	

GENERAL PRELIMINARIES

Item	Description	
	<p>GENERAL PRELIMINARIES</p> <p>A. PRICING OF ITEMS OF PRELIMINARIES AND PREAMBLES</p> <p>Prices will be inserted against items of Preliminaries in the Contractor's priced Bills of Quantities and Specification.</p> <p>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. ABBREVIATIONS</p> <p>Throughout these Bills, units of measurement and terms are abbreviated and shall be interpreted as follows:-</p> <p><i>C.M.</i> Shall mean cubic metre</p> <p><i>S.M.</i> Shall mean square metre</p> <p><i>L.M.</i> Shall mean linear metre</p> <p><i>MM</i> Shall mean Millimetre</p> <p><i>Kg.</i> Shall mean Kilogramme</p> <p><i>No.</i> Shall mean Number</p> <p><i>Prs.</i> Shall mean Pairs</p> <p><i>B.S.</i> Shall mean the British Standard Specification Published by the British Standards Institution, 2 Park Street, London W.I., England.</p> <p><i>Ditto</i> Shall mean the whole of the preceding description except as qualified in the description in which it occurs.</p> <p><i>m.s.</i> Shall mean measured separately.</p> <p><i>a.b.d</i> Shall mean as before described.</p> <p><i>S.d.p.w</i> Shall mean state department for public works</p>	
	<i>Carried to collection</i>	

Item	Description	
A.	<p>EXCEPTION TO THE STANDARD METHOD OF MEASUREMENT <i>Attendance</i> ; Clause B19(a) of the Standard Method of Measurement is deleted and the following clause is substituted:-</p> <p>Attendance on nominated Sub-Contractors shall be given as an item in each case shall be deemed to include: allowing use of standing scaffolding, mess rooms, sanitary accommodation and welfare facilities; provision of special scaffolding where necessary; providing space for office accommodation and for storage of plant and materials; providing light and water for their work: clearing away rubbish; unloading checking and hoisting: providing electric power and removing and replacing duct covers, pipe casings and the like necessary for the execution and testing of Sub- Contractors' work and being responsible for the accuracy of the same.</p> <p>Fix Only:- "Fix Only" shall mean take delivery at nearest railway station (Unless otherwise stated), pay all demurrage charges, load and transport to site where necessary, unload, store, unpack, assemble as necessary, distribute to position, hoist and fix only.</p>	
B	<p>FORM OF CONTRACT The Conditions of Contract are also included herein</p> <p><i>General Conditions of Contract</i></p> <p>These are numbered from 1 to 20 as set out in pages 74 to 127 of these tender documents.</p> <p>Particulars of insertions to be made in the Appendix to the Contract Agreement will be found in the Particular Preliminaries part of these Bills of Quantities</p>	
C	<p>PLANT, TOOLS AND VEHICLES 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>	
D	<p>TRANSPORT. 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>	
	<p><i>Carried to collection</i></p>	

Item	Description	
A	<p>MATERIALS AND WORKMANSHIP. 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>	
B	<p>SIGN FOR MATERIALS SUPPLIED. The Contractor will be required to sign a receipt for all articles and materials supplied by the PROJECT MANAGER 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 PROJECT MANAGER 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>	
C	<p>STORAGE OF MATERIALS 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>	
D	<p>SAMPLES 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>	
	<i>Carried to collection</i>	

Item	Description	
A	<p>GOVERNMENT ACTS REGARDING WORK, PEOPLE ETC.</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.</p> <p>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 organisation of the works, supply and control of labour, etc., and allow accordingly in his tender. No claim in respect of want of knowledge in this connection will be entertained.</p>	
B	<p>SECURITY OF WORKS ETC.</p> <p>The Contractor shall be entirely responsible for the security of all the works stores, materials, plant, personnel, etc., both his own and sub-contractors' and must provide all necessary watching, lighting and other precautions as necessary to ensure security against theft, loss or damage and the protection of the public.</p>	
C	<p>PUBLIC AND PRIVATE ROADS.</p> <p>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>	
D	<p>EXISTING PROPERTY.</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>	
E	<p>VISIT SITE AND EXAMINE DRAWINGS.</p> <p>The Contractor is recommended to examine the drawings and visit the site the location of which is described in the Particular Preliminaries hereof. He shall be deemed to have acquainted himself therewith as to its nature, position, means of access or any other matter which, may affect his tender. No claim arising from his failure to comply with this recommendation will be considered.</p>	
	<i>Carried to collection</i>	

Item	Description	
A	<p>ACCESS TO SITE AND TEMPORARY ROADS. Means of access to the Site shall be agreed with the PROJECT MANAGER prior to commencement of the work and Contractor must allow for building any necessary temporary access roads (approximately 70 metres long) 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>AREA TO BE OCCUPIED BY THE CONTRACTOR 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>OFFICE ETC. FOR THE PROJECT MANAGER The Contractor shall provide a space and maintain where directed on site a properly ventilated office space for the consultants, having a minimum floor area of 40 Square Metres complete with furniture (Tables, chairs e.t.c). Provision shall be made for artificial lighting and cleaning facilities for the duration of the works. Upon completion the Contractor shall clear away the office space and furnitures.</p>	
	<i>Carried to collection</i>	

Item	Description	
A	<p>WATER AND ELECTRICITY SUPPLY FOR THE WORKS</p> <p>The Contractor shall provide at his own risk and cost all necessary water, electric light and power 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. Nominated Sub-contractors are to be made liable for the cost of any water or electric current used and for any installation provided especially for their own use.</p>	
B	<p>SANITATION OF THE WORKS</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</p>	
C	<p>SUPERVISION AND WORKING HOURS</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>	
D	<p>PROVISIONAL SUMS.</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 mentioned. Such sums are net and no addition shall be made to them for profit.</p>	
E	<p>PRIME COST (OR P.C.) SUMS.</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 as stated in Condition No. 5 of the Conditions of Contract are described herein as Nominated Sub-Contractors.</p> <p>Persons or firms so nominated to supply goods or materials are described herein as Nominated Suppliers.</p>	
	<p><i>Carried to collection</i></p>	

Item	Description	
A	<p>PROGRESS CHART. 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	<p>ADJUSTMENT OF P.C. SUMS. 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.</p> <p>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>	
C	<p>ADJUSTMENT OF PROVISIONAL SUMS. 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 as described for Variations in Conditions No. 13 of the Conditions of Contract, but should any part of the work be executed by a Nominated Sub-Contractor, 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>	
D	<p>NOMINATED SUB-CONTRACTORS When any work is ordered by the PROJECT MANAGER to be executed by nominated sub-contractors, the Contractor shall enter into sub-contracts as described in Condition No. 5 of the Conditions of Contract 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>	
	<p><i>Carried to collection</i></p>	

Item	Description	
A	<p>DIRECT CONTRACTS</p> <p>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 the priced Bills of Quantities will be adjusted as described for P.C. Sums and allowed.</p> <p>B ATTENDANCE UPON OTHER TRADESMEN, ETC.</p> <p>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 INSURANCE</p> <p>The Contractor shall insure as required in Conditions 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 and 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>C PROVISIONAL WORK</p> <p>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 left uncovered for a reasonable time to allow all measurements needed for such adjustment to be taken by the PROJECT MANAGER.</p> <p>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>	
	<i>Carried to collection</i>	

Item	Description	
A	<p>ALTERATIONS TO BILLS, PRICING, ETC. Any unauthorised 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 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>C MATERIALS ARISING FROM EXCAVATIONS Materials of any kind obtained from the excavations shall be the property of the Government. 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> <p>D PROTECTION OF THE WORKS. 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 Government.</p> <p>E WORKS TO BE DELIVERED UP CLEAN 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>	
	<i>Carried to collection</i>	

Item	Description	
A	<p>GENERAL SPECIFICATION.</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	<p>TRAINING LEVY</p> <p>The Contractor's attention is drawn to the legal notice 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. 1,000,000.00 in value.</p>	
C	<p>MATERIALS ON SITE</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>	
D	<p>HOARDING</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 centres 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>	
E	<p>CONTRACTOR'S SUPERINTENDENCE/SITE AGENT</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>	
	<i>Carried to Collection</i>	

Item	Description	
	<p style="text-align: center;"><u>COLLECTION</u></p> <p>Brought Forward From Page GP/1</p> <p>Brought Forward From Page GP/2</p> <p>Brought Forward From Page GP/3</p> <p>Brought Forward From Page GP/4</p> <p>Brought Forward From Page GP/5</p> <p>Brought Forward From Page GP/6</p> <p>Brought Forward From Page GP/7</p> <p>Brought Forward From Page GP/8</p> <p>Brought Forward From Page GP/9</p> <p>Brought Forward From Page GP/10</p>	
	<p>TOTAL FOR GENERAL PRELIMINARIES CARRIED TO GRAND SUMMARY</p>	

BUILDER'S WORKS

DATA CENTER

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<p>BILL 1. DATA CENTER</p> <p><u>ELEMENT NO.1 DEMOLITIONS AND ALTERATIONS.</u></p> <p><i><u>All demolitions must be carried out with utmost care to avoid damage to adjoining works.</u></i></p> <p><i><u>All salvaged materials shall become the property of the Client and must not be removed from site without their express permission in writing.</u></i></p> <p><i><u>The Contractor will not be allowed to use any salvaged materials without the express permission of the Project Manager in which case he will be expected to give discount for the materials used at a rate to be agreed upon with the Project Manager.</u></i></p> <p><i><u>Where materials are described as "set aside" prices to include for cleaning and safe storage until required for fixing.</u></i></p> <p><u>Partitions</u></p> <p>A Carefully demolish existing MDF partitions including timber frames and cart away as directed by the project manager. (Approximately 18sm)</p> <p>B Carefully demolish existing 50mm glass partitions including timber frames and cart away as directed by the project manager. (Approximately 28sm)</p> <p><u>Doors</u></p> <p>C Carefully remove existing 6no flush doors including frames and cart away as directed by the project manager</p> <p><u>Granite work top</u></p> <p>D Carefully demolish existing Granite work top and cart away as directed by the project manager. (Approximately 6sm)</p>				
	Curried to collection				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
A	<p>Floor Carefully hulk the existing cement screed in preparation to receive new screed for the new floor finish. (Approximately35sm)</p>		ITEM		
B	<p>Ceiling Carefully demolish existing the aluminium panel ceiling finishes and cart away as directed by the project manager. Also provide for re-rooting of the service lines above the ceiling and demolition of the others as directed by the project manager (Approximately36sm)</p>		ITEM		
	Curried to collection				
	<p>COLLECTION</p> <p>From page DC/1</p> <p>From page Above</p>				
	Total Demolitions Carried to Summary				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO. 2: WALLING</u>				
	<u>Thicknessing</u>				
A	Extra over 150mm thick bed for thicknessing underside sizes 600mm (average) x 300mm (average) including handpacking hardcore to a slope both sides and all necessary formwork. (concrete 1:3:6)	10	LM		
	<u>Medium chisel dressed natural stone walling in cement and sand (1:4) mortar reinforced with and including 25 x 3mm thick hoop iron in every alternate course</u>				
B	150mm Thick walling internally	76	SM		
	<u>Cement and Sand (1:4) to walls in;</u>				
C	10mm Thick plaster to receive paint	152	SM		
	<u>Prepare and apply one undercoat and three coats of first quality emulsion paint to the following surfaces</u>				
D	To plastered surfaces.	152	SM		
	Total Walling Carried to collection				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	ELEMENT NO. 3: FINISHES				
	<u>FLOOR FINISHES</u>				
	<u>Cement and sand screed (1:4)</u>				
A	32mm Thick (average) to receive ceramic tiles (m.s) rate to include hacking uneven surfaces	70	SM		
	<u>Approved first quality cream non slip ceramic tiles; bedded and jointed in cement sand mortar(1:4) grouting joints with matching cement.</u>				
B	600x600x8mm Thick	70	SM		
	<u>CEILING FINISHES</u>				
	<u>Prepare and apply one undercoat and three coats of first quality emulsion paint to the following surfaces</u>				
C	General surfaces of plastered ceiling	70	SM		
	Total Finishes Carried to collection				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	ELEMENT NO 4 DOOR				
	<u>Wrot Mahogany framed frames and framings</u>				
A	150 x 50 mm; 2 No. labours; plugged door frame	6	LM		
B	40 x 35 mm moulded architrave	6	LM		
C	25 x 25mm moulded quadrants	6	LM		
	<u>50mm thick Mahogany pannelled door, comprising 150 x 50mm top, middle and bottom rails infilled with 50mm thick solid moulded timber panels in 6 No. per leave with moulded beading around panels; edges bevelled and grooved into frames; all framed, clamped and grooved together.</u>				
D	Single swing door size 840 x 2060 mm high <u>Iron mongery</u> <u>Supply and fix the following to UNION catalogue or other equal and approved</u> <i>To softwood, hardwood or the like fixing with screws</i>	1	No.		
E	Three lever mortice lock complete with set lever aluminium handle furniture	1	No.		
F	100mm brass-plated butt hinges	1	prs		
G	Door closer as Briton CAT No. 200	1	NO		
H	Rubber door stop to concrete or blockwork; fixing with bolts; plugging complete with 38 mm rawl bolt	1	No.		
	<u>Painting and Decorations</u>				
	<u>Knot, prime and stop; prepare and apply one coat stain and two coats of clear varnish</u>				
J	General surfaces of timber doors over 300mm girth; external	2	sm		
K	Frames; over 200mm but not exceeding 300mm girth; internal	6	lm		
L	Frames not exceeding 100mm girth; internal	6	lm		
	Total Doors Carried to collection				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<p><u>ELEMENT NO. 5. FITTINGS AND FIXTURES</u></p> <p><u>The following in server carbinete base overall of 100mm high</u> <u>In Wrot cypress</u></p> <p>A 100 x 50mm bearer</p> <p><u>Blockboard:</u> B 25mm thick blockboards shelving veneered with mahogany on both sides , lipped on all sides in hardwood and fixed with 300 x 300 angle bars</p>	89	LM		
	Total Fittings and Fixture Carried to collection				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>SUMMARY</u>				
A	ELEMENT NO.1 DEMOLITIONS AND ALTERATIONS.	DC/2			
B	ELEMENT NO. 2: WALLING	DC/3			
C	ELEMENT NO. 3: FINISHES	DC/4			
D	ELEMENT NO 4 DOOR	DC/5			
E	ELEMENT NO. 5. FITTINGS AND FIXTURES	DC/6			
	TOTAL DATA CENTER CARRIED TO BW SUMMARY				

LIFT

ITEM	DESCRIPTION	QTY	UNIT	RATE	TOTAL (Kshs)
A	<p>BILL NO. 2 -LIFT</p> <p><u>ELEMENT NO.1 DEMOLITIONS AND ALTERATIONS.</u></p> <p><i><u>All demolitions must be carried out with utmost care to avoid damage to adjoining works.</u></i></p> <p><i><u>All salvaged materials shall become the property of the Client and must not be removed from site without their express permission in writing.</u></i></p> <p><i><u>The Contractor will not be allowed to use any salvaged materials without the express permission of the Project Manager in which case he will be expected to give discount for the materials used at a rate to be agreed upon with the Project Manager.</u></i></p> <p><i><u>Where materials are described as "set aside" prices to include for cleaning and safe storage until required for fixing.</u></i></p> <p><u>Partitions</u></p> <p>Carefully demolish existing curtain walling including steel framing and cart away as directed by the project manager. (Approximately 99sm)</p>		ITEM		
	Total Demolitions Carried to Summary				
	<u>ELEMENT NO.2 SUBSTRUCTURES</u>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	TOTAL (Kshs)
	<u>(All Provisional)</u> <u>Excavations and earthworks</u>				
A	Bulk Excavation starting from natural ground but not exceeding 1.50 metres deep and cart away as directed.	54	Cm		
B	Ditto from 1.50 metres but not exceeding 3.0 metres deep	18	Cm		
C	Return, fill and ram murrum around excavations	39	Cm		
D	Remove and cart away all surplus excavated materials from site.	33	Cm		
E	Allow for keeping excavation free from water by any means		Item		
F	Allow for maintaining sides of excavation by plunking and strutting		Item		
	<u>Anti-termite treatment</u>				
G	Treat bottom and tops of foundation with 'Termidor 250EC' or similar approved anti-termite chemical applied strictly in accordance the manufacturer's printed manual or instructions	36	Sm		
	<u>Plain concrete</u>				
H	50mm Thick mass concrete mix 1:4:8 blinding under foundations	36	Sm		
	Total carried to collection				

ITEM	DESCRIPTION	QTY	UNIT	RATE	TOTAL (Kshs)
	<u>In situ vibrated reinforced concrete class 25/(20mm) in:</u>				
A	Coumns	2	CM		
B	Raft foundation	22	CM		
C	Ground Beams	2	CM		
D	Lift shaft	7	CM		
E	150mm thick slab	6	SM		
	<u>Reinforcement</u>				
	<u>High yield steel coldworked to B.S 4461 including bends, hooks, tying wire, and spacer blocks in :-</u>				
F	8mm Diameter bars	956	Kg		
G	12mm Ditto	1560	Kg		
H	16mm Ditto	1879	Kg		
	<u>BRC</u>				
J	Reference A142 mesh 200 x 200 mm , weight 2.22 kgs per square meter (measured net - no allowance made for laps(including bends, tying wire and distance blocks	6	SM		
	<u>Sawn timber formwork to:</u>				
K	Sides of Raft	16	Sm		
L	Sides of lift shaft	54	Sm		
M	Sides of columns	174	Sm		
N	Ditto ground beam	8	Sm		
P	to sides of 75-150mm thick slab	7	lm		
	Total carried to collection				

ITEM	DESCRIPTION	QTY	UNIT	RATE	TOTAL (Kshs)
A	<u>Medium chisel dressed natural stone walling bedded and jointed in cement and sand (1:3) mortar and reinforced in every alternate course with hoop iron ties</u> 200mm Thick walling.	9	Sm		
B	<u>Damp-proofing</u> 200mm Wide damp-proof course to B.S 743 type A butimen base laid with 150mm minimum head laps.	6	Lm		
	Total carried to collection				
	<u>COLLECTION</u>				
A	Total brought forward from page LIFT/2				
B	Total brought forward from Page LIFT/3				
C	Total brought forward from Above				
	Total for substructures carried forward to summary				

ITEM	DESCRIPTION	QTY	UNIT	RATE	TOTAL (Kshs)
	<u>ELEMENT NO.3 SUPERSTRUCTURE CONCRETE WORKS</u>				
	<u>In situ vibrated reinforced concrete class 25/(20mm) in:-</u>				
A	Columns	3	Cm		
B	Beams	8	CM		
C	Lift shaft	46	CM		
D	To ramp	3	CM		
E	to steps	2	CM		
F	150mm thick slab	42	SM		
G	150mm thick landing	16	SM		
	<u>Reinforcement all provisional High yield steel coldworked to B.S 4461 including bends, hooks, tying wire, and spacer blocks in :-</u>				
H	8mm Diameter bars	1658	KG		
J	12mm Ditto	4697	KG		
K	16mm Ditto	4928	KG		
	<u>Sawn timber formwork as described to:</u>				
L	Sides of columns	32	SM		
M	Sides of lift shaft	432	SM		
N	Ditto beam	65	SM		
P	to soffits of suspended slab	42	SM		
Q	ditto landing	16	SM		
R	to sides of 75-150mm thick slab	47	LM		
S	ditto landing	18	LM		
	Total for concrete superstructure carried forward to summary				
	<u>ELEMENT NO.3 WALLING</u>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	TOTAL (Kshs)
A	<p><u>Superstructure walling</u> 200mm Thick 'Ruiru' or other equal and approved machine cut stone walling bedded and jointed in cement and sand (1:3) mortar and reinforced in every alternate course with hoop iron ties as described.</p>	102	SM		
B	<p><u>Glass</u> 8mm thick toughened Glass Panel Partitions Framed with perimeter channel frames 50X50X1.6mm powder coated aluminium frames (ms) with rubber gaskets, butt-glazed dry joint and framed joints between panels, equipped with swinging doors(ms) where indicated: with branded frost filming(ms) as per interior designer's approvals.</p>	91	SM		
C	<p><u>Aluminium frames</u> 50X50X1.6mm powder coated aluminium frames with rubber gaskets, butt-glazed dry joint and framed joints at the corners</p>	56	LM		
D	Heavy duty powder coated 1800 X 2100 mm high double leaf sliding aluminium door including frames, ironmongery and 8 mm thick clear sheet glass	1	NO		
E	3 lever sliding door lock	1	NO		
	Total for walling carried forward to summary				

ITEM	DESCRIPTION	QTY	UNIT	RATE	TOTAL (Kshs)
	ELEMENT NO. 5: FINISHES				
	WALL FINISHES				
	<u>Cement and Sand (1:4) to walls in:</u>				
A	10mm Thick plaster to receive paint	204	SM		
	<u>Prepare and apply one undercoat and three coats of first quality emulsion paint to the following surfaces</u>				
B	General surfaces of plastered wall	204	SM		
	<u>FLOOR FINISHES</u>				
	<u>Cement and sand screed (1:4)</u>				
C	32mm Thick (average) to receive ceramic tiles (m.s) rate to include hacking uneven surfaces	64	SM		
	<u>Approved first quality cream non slip ceramic tiles; bedded and jointed in cement sand mortar(1:4) grouting joints with matching cement.</u>				
D	600x600x8mm Thick	64	SM		
E	Ditto 100mm skirting	72	SM		
	Total for Finishes carried forward to summary				

ITEM	DESCRIPTION	QTY	UNIT	RATE	TOTAL (Kshs)
	<u>SECTION SUMMARY</u>				
A	ELEMENT NO.1 DEMOLITIONS AND				
B	ELEMENT NO.2 SUBSTRUCTURES				
C	ELEMENT NO.3 SUPERSTRUCTURE				
D	ELEMENT NO.3 WALLING				
E	ELEMENT NO. 5: FINISHES				
	TOTAL FOR LIFT CARRIED TO BW SUMMARY				

ROOFTOP

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<p>BILL 3 ROOF TOP</p> <p><u>ELEMENT NO.1 DEMOLITIONS AND ALTERATIONS.</u></p> <p><i><u>All demolitions must be carried out with utmost care to avoid damage to adjoining works.</u></i></p> <p><i><u>All salvaged materials shall become the property of the Client and must not be removed from site without their express permission in writing.</u></i></p> <p><i><u>The Contractor will not be allowed to use any salvaged materials without the express permission of the Project Manager in which case he will be expected to give discount for the materials used at a rate to be agreed upon with the Project Manager.</u></i></p> <p><i><u>Where materials are described as "set aside" prices to include for cleaning and safe storage until required for fixing.</u></i></p> <p><u>Partitions</u></p> <p>A Carefully demolish existing aluminium louvers together with the levered doors and do a proper finish to the exposed edges of approximately 12m and cart away as directed by the project manager. (Approximately 70sm)</p> <p>B Carefully demolish existing atrium made of glass and steel framing and re-in store the damaged surfaces to original statures then cart away as directed by the project manager. (Approximately 287sm)</p>		ITEM		
	<p>TOTAL DEMOLITIONS AND ALTERATIONS CARRIED TO ROOF TOP SUMMARY</p>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO. 2: EXTERNAL WALLING</u>				
	<u>Walling</u>				
	<u>EPS panels</u>				
A	Supply, assemble and fix 100mm thick expandable polystyrene wall panels with and including 25mm thick short screed 1:3 to both sides and all necessary panel accessories externally.	352	SM		
	<u>Glass Panel</u>				
	<u>Glazing</u>				
B	8mm thick toughened Glass Panel Partitions Framed with perimeter channel frames 150 X 50 X 2.1mm (ms) powder coated aluminium frames with rubber gaskets, butt-glazed dry joint and framed joints between panels, equipped with swinging doors where indicated: with branded frost filming as per interior designer's approvals.	159	SM		
	<u>Aluminium frames</u>				
C	150 X 50 X 2.1mm powder coated aluminium frames with rubber gaskets, butt-glazed dry joint and framed joints at the conners	456	LM		
	<u>Medium chisel dressed natural stone walling in cement and sand (1:4) mortar reinforced with and including 25 x 3mm thick hoop iron in every alternate course</u>				
D	100mm Thick walling internally	203	SM		
	<u>Cement and Sand (1:4) to walls in;</u>				
E	10mm Thick plaster to receive paint	406	SM		
	<u>WINDOWS</u>				
	<u>Supply, assemble and fix the following powder coated champagne silver aluminium framed window and frames complete with 6mm thick tinted sliding glass windows and fixing to and glazed in matching aluminium beads including 75x25x3mm thick framing and all joints filled with silicon and complete with accessories and ironmongery.</u>				
F	Window overal size 5200 x 2200mm high	6	NO		
G	Window overal size 5100 x 2200mm high	4	NO		
H	Window overal size 4800 x 2200mm high	3	NO		
	Total Carried to walling collection				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
A	Window overal size 4000 x 2200mm high	3	NO		
B	Window overal size 3200 x 2200mm high	7	NO		
C	Window overal size 2500 x 2200mm high	2	NO		
D	Window overal size 2300 x 2200mm high	1	NO		
E	Window overal size 2050 x 2200mm high	7	NO		
F	Window overal size 4000 x 600mm high	8	NO		
G	Window overal size 3000 x 600mm high	4	NO		
H	Window overal size 3000 x 1050mm high	4	NO		
J	Window overal size 900 x 1050mm high	4	NO		
K	Window overal size 1200 x 1350mm high	4	NO		
L	Window overal size 3600 x 2200mm high	1	NO		
M	Window overal size 3800 x 2200mm high	1	NO		
P	Window overal size 4400 x 2200mm high	1	NO		
Q	Window overal size 5150 x 2200mm high	1	NO		
R	Window overal size 4200 x 2200mm high	1	NO		
S	Window overal size 6600 x 2200mm high	1	NO		
T	Window overal size 4100 x 2200mm high	2	NO		
	<u>Ventilation blinds</u>				
V	Supply and fix 'window plus' or equally approved flame retardant light filtering/blocking fabric, manual chain operated roller blinds complete with all necessary accessories as per manufacturer's specifications and subject to approval of sample by the interior designer.	395	SM		
	Total Carried to walling collection				
	<u>EXTERNAL WALLING COLLECTION</u> Brought forward from page 2 Brought forward from Above				
	TOTAL EXTERNAL WALLING CARRIED TO ROOF TOP SUMMARY				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	ELEMENT NO.3 STRUCTURAL STEEL (all provisional)				
	Floor decking <u>Mild steel I-sections to the Engineers specifications and approval, complete with and including fabricating hoisting and fixing in position approximately 16m from the ground level, assembly and connection details in 300 x 300 x 12mm thick steel plates with 7No 18mm holes on the web to house 16mm diameter bolts, washers and nuts fish plates, steel angle cleats, intermediate connections for the I-sections and all necessary fixing accessories are to be included in the rates for steelwork to</u> <u>Unframed; bolted</u>				
A	203 x 203 x 71KG/LM Universal column fixed horizontally to existing concrete upstand beams.	47,386	KG		
	<u>Supply, assemble and fix profiled galvanised steel floor decking sheet bolted with 5mm diameter self-drilling screw including all other necessary accessories</u>				
B	0.6mm thick	1,235	SM		
	<u>Concrete</u>				
C	75mm thick mass concrete class 25 on galvanised steel floor decking sheet	1,235	SM		
	<u>BRC</u>				
D	Reference A142 mesh 200 x 200 mm , weight 2.22 kgs per square meter (measured net - no allowance made for laps(including bends, tying wire and distance blocks	1,235	SM		
	<u>STAIRCASE</u> <u>The following in 1no staircase to BS 449, including all necessary welds, bolts, site welds, cleats, plates and sundry fixings, priming with red lead graphite primer, painting of exposed steelwork with 2 coats gloss oil paint, delivered to site and fixing in position</u>				
E	200 X50X3MM thick beams	152	KG		
F	ditto carved	45	KG		
G	100 X 50 X 3MM thick beams	36	KG		
	Total Carried to structural steel collection				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
A	75 X50X3MM thick beams	14	KG		
B	100 X 75 X 3 column	286	KG		
C	75 X 50 X 2 mm thick hand rail	87	KG		
D	ditto carved	16	KG		
E	50 X 50 X 2mm thick horizontal ballustar	176	KG		
F	ditto carved	32	KG		
G	50 X 50 X 2mm thickvertical ballustar	178	KG		
H	25 X 25 X2mm	114	KG		
J	4.5mm thick chequered plate to tread	8	SM		
K	4.5mm thick chequered plate to landing	5	SM		
	Total Carried to structural steel collection				
	<u>STRUCTURAL STEEL COLLECTION</u> Brought forward from page 4 Brought forward from Above				
	TOTAL STRUCTURAL STEEL CARRIED TO ROOF TOP SUMMARY				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	ELEMENT NO. 4 ROOF (ALL PROVISIONAL)				
A	<u>IT5 Polycarbonate steel box profile sheets; 28 gauge; of approved colour and complete as per manufacture specifications and direction of the project.</u> Roof covering; 150mm laps on one end and one and a half corrugation side lap; fixed to angle section purlins with and including self-tapping screws and neoprene washers.	156	SM		
B	<u>Heat insulation</u> Supply and fix 10mm thick industrial grade heavy duty double sided reflective foil insulation with a closed cell polyethylene foam core which provides an effective thermal, vapor and noise barrier.	1,771	sm		
C	<u>Mild steel Hollow sections(RHS/SHS) to the Engineers specifications and approval, complete with and including fabricating hoisting and fixing in position approximately 19metres from the existing flat ground level, assembly and connection details in steel plates, packing pieces and angle cleats welds, bolts, washers and nuts fish plates, steel angle cleats and all necessary fixing accessories are to be included in the rates for steelwork in the particular trusses where they occur.</u> <u>Unframed; bolted</u> 152.4 x 50.8 x 2mm thick zed-purlins	682	KG		
D	<u>Roof trusses; hoisting 3metres above existing flat roof; Rate to include base plates and bolts, angle cleats, gusset plates and all necessary accessories all to structural Engineer's details and specifications</u> 200 x 120 x 5mm external members	1,434	KG		
	Parapet wall Alucobond Cladding: To match existing, Approved quality Alucobond wall cladding as supplied by an approved specialist: on and including pressed steel RHS framing work; matching power coated aluminium grid framework: deflection controlled: allow end trimming and secure framework to building structure: allow finish to steel gutters, tie beam, curved or tapered surface: allow for making holes for light fittings or other mounted fittings as necessary: protect finished product: all to architects approval: 5 years guarantee	142	SM		
	TOTAL ROOF CARRIED TO ROOF TOP SUMMARY				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO. 6. PARTITION WORKS</u>				
	<u>1. Wall Partitioning</u>				
	<u>Glass Panel Partition</u>				
A	8mm thick toughened Glass Panel Partitions Framed with perimeter channel frames 50X50X1.6mm powder coated aluminium frames (ms) with rubber gaskets, butt-glazed dry joint and framed joints between panels, equipped with swinging doors(ms) where indicated: with branded frost filming(ms) as per interior designer's approvals.	506	SM		
	<u>Aluminium frames</u>				
B	50X50X1.6mm powder coated aluminium frames with rubber gaskets, butt-glazed dry joint and framed joints at the conners	759	LM		
	<u>Frosting</u>				
C	Frost branding 'window plus' or equally approved on glass partition using embossed film imprinted with the clients' brand identity in a roughened texture as per the interior directions and approval.	506	SM		
	<u>MDF</u>				
D	200mm thick dry wall comprising of double skin medium 12mm density fibre board [MDF Board] confirming to KS: 2242-1 made of wood fibre bonded with urea formaldehyde for interior grade: together With Styrofoam's, Frame work to be 50 X 50mm timber struts with maximum distance of 450mm c/c both ways (Horizontal /Vertical): Finished with necessary grooves, cuts lipping etc: Accessorised with horizontal 25 x 2mm brushed aluminium beading 600mm c/c: including anti-termite treatment to all wooden	336	SM		
	<u>Timber dividers</u>				
E	Mahogany Sculptform Free Standing Screen: well seasoned Batten coated with clear poly: Batten size 50 x 200mm spaced 150mm c/c mounted on straight wrot 50x6mm Black powder coated aluminium Base and Toptrack, complete with 26mm long x 14mm wide Tenon, featuring 10mm shadow gap, complete with threaded rod and spacers	69	SM		
	Carried to Wall Partitioning collection				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
A	<p><u>Solid phenolic</u> Supply and install solid phenolic panels "HDPE High Density Polyethylene 13 mm thick for toilets partitions, complete with all their accessories made in Germany or equivalent, including 2No double swing double active doors and 3No single swing single active doors, separation and all hardware, fixtures, hinges, legs, aluminium profiles, all kind of bolts, aluminium hook, lock and opening signs, locks and knobs, all according to drawings, instruction of the manufacturer and the engineer requirements. Colour to be chosen by client. Measurements of this item per compartment. knowing that the height of the HPL is not less than 220 cm and the dimension of the toilet is 110 X 150 cm</p>	33	SM		
B	<p><u>Knot, prime and stop; prepare and apply one coat stain and two coats of clear varnish</u> General surfaces of Timber dividers over 300mm girth;</p>	69	SM		
Carried to Wall Partitioning collection					
	<p><u>WALL PARTITIONING COLLECTION</u> Brought forward from page 7 Brought forward from above</p>				
TOTAL WALL PARTITIONING CARRIED TO PARTITION WORKS SUMMARY					

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	2. FINISHES				
	a. WALL AND COLUMNS				
	<u>Particle board</u>				
A	18mm thick particle board bonded with urea formaldehyde for interior interior grade: made out of of Frame work to be 100 x50mm thick soft wood with maximum distance of 450mm c/c both ways(Horizontal/Vertical) or as directed. Floor or slab with 65 to 75 mm long screws as per Interior designer instructions and site conditions: Finished with necessary grooves, cuts lipping etc: Accosorised with horizontal 25 x 2mm brushed aluminun beading 600mm c/c: including anti-termite treatment to all wooden	249	SM		
	<u>Glass Panel To atrium</u>				
	<u>Glazing</u>				
B	8mm thick toughened Glass Panel Partitions Framed with perimeter channel frames 150 X 50 X 2.1mm (ms) powder coated aluminium frames with rubber gaskets, butt-glazed dry joint and framed joints between panels, equipped with swinging doors where indicated: with branded frost filming as per interior designer's approvals.	62	SM		
	<u>Aluminium frames</u>				
C	50mm dia powder coated aluminium frames with rubber gaskets, butt-glazed dry joint and framed joints at the conners	64	LM		
	<u>Cement and sand screed (1:4)</u>				
D	15mm Thick (average) to receive ceramic tiles (m.s) rate to include hacking uneven surfaces	203	SM		
	<u>Approved first quality cream speckled ceramic tiles; bedded and jointed in cement sand mortar (1:4) grouting joints with matching cement.</u>				
E	300x600x8mm Thick	203	SM		
	<u>Prepare and apply one undercoat and three coats of first quality emulsion paint to the following surfaces</u>				
F	General surfaces of aluminium louvers Forming an industrial ceiling	42	SM		
	Carried to Finishes collection				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>b. FLOOR FINISHES</u>				
	<u>Cement and sand screed (1:4)</u>				
A	32mm Thick (average) to receive ceramic tiles (m.s) rate to include hacking uneven surfaces	838	SM		
B	32mm Thick (average) to receive porcelain tiles (m.s) rate to include hacking uneven surfaces	159	SM		
C	28mm Thick (average) to receive carpet tiles (m.s) rate to include hacking uneven surfaces	212	SM		
	<u>Approved Porcelain floor tiles; local; colored floor tiles to regular or approved other pattern; bedding and jointing in cement sand (1:4) mortar, grouting with white cement</u>				
D	600x600x8mm Thick	159	SM		
	<u>Approved first quality cream non slip ceramic tiles; bedded and jointed in cement sand mortar(1:4) grouting joints with matching cement.</u>				
E	600x600x8mm Thick	838	SM		
	<u>Carpet</u>				
F	Supply and fix high quality 12mm thick floor carpet tiles with dense yarn: high fade resistance with 100% solution dyed nylon suitable for heavy commercial usage: yarn weight with minimum 1.2kg/m2 and total weight equal or above 2.5 kg/m2: electrostatic propennsity less than2.0kv: prepare surface and lay complete with Rubber underlay(felt) with weight 3.087 g/m2, a density of 3.2kg/m2 displaying woven capabilities, sound proof of 25dB and 9 mm thick fire proof with top layer paper, supplied with warrant. as per manufacturer's printed instructions allow for and brass knaplocks as necessary or as directed: on cement and sand screed (ms) all to Architect's approval with ten (10) year warranty.	212	SM		
	Carried to Finishes collection				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	c. CEILING FINISHES				
	<u>Drop down Decorative gypsum ceiling on approved suspension system comprising 25mm x 20mm galvanised mild steel channels and studs on grid to Manufacturer's instructions provide and fixing perimeter channel of size 0.55mm thick with adequate flange and web to secure anchorage along perimeter of ceiling</u>				
A	12mm proprietary gypsum ceiling board	1,615	SM		
B	labour and material cutting gypsum for 300 x 300mm light fittings (Provisional)	55	NO		
C	labour for cutting around 200 x 200mm column (Provisional)	58	NO		
D	100mm wide gypsum cornice; fixed to walls and gypsum board ceiling surfaces; with profiles to architects approval	138	LM		
	<u>Brandaring</u>				
E	25 x 25 x 3mm RHS welded to existing truss and including.	2978	LM		
	<u>Timber Slats</u>				
	Mahogany Sculptform Free Standing Screen: well seasoned Batten coated with clear poly: Batten size 50 x 200mm spaced 150mm c/c mounted on straight wrot 50x6mm Black powder coated aluminium Base and Toptrack, complete with 26mm long x 14mm wide Tenon, featuring 10mm shadow gap, complete with threaded rod and spacers	48	SM		
	<u>Prepare and apply one undercoat and three coats of first quality emulsion paint to the following surfaces</u>				
G	General surfaces of gypsum	1,615	SM		
H	100mm wide gypsum cornice;	138	LM		
J	General surfaces of aluminium louvers Forming an industrial ceiling	156	SM		
	<u>Knot, prime and stop; prepare and apply one coat stain and two coats of clear varnish</u>				
K	General surfaces of Timber Slats	48	SM		
	Carried to Finishes collection				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>FINISHES COLLECTION</u>				
A	Brought forward from page 9				
B	Brought forward from page 10				
C	Brought forward from page 11				
	TOTAL FINISHES CARRIED TO PARTITION WORKS SUMMARY				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	3. DOORS				
	<u>Supply and fix 6mm thick glass frameless door including all the hinges, locks and ironmongeries.</u>				
A	900mm wide 2100mm high door complete with all necessary ironmongery, decorative film fixed to glass to interior Designer's detail, approved aluminium push/pull handles, approved locking system to manufacturers specifications all hung on approved specialised stainless steel hinges.	6	NO		
	<u>Supply and fix 6mm thick glass door on 100 x 50mm aluminium frameless including all the hinges, locks and ironmongeries.</u>				
B	900mm wide 2100mm high door complete with all necessary ironmongery, decorative film fixed to glass to interior Designer's detail, approved aluminium push/pull handles, approved locking system to manufacturers specifications all hung on approved specialised stainless steel hinges.	18	NO		
	<u>Panelled door</u>				
	<u>Wrot Mahogany framed frames and framings</u>				
C	150 x 50 mm; 2 No. labours; plugged door frame	55	LM		
D	40 x 35 mm moulded architrave	55	LM		
E	25 x 25mm moulded quadrants	55	LM		
	<u>50mm thick Mahogany panelled door, comprising 150 x 50mm top, middle and bottom rails infilled with 50mm thick solid moulded timber panels in 6 No. per leave with moulded beading around panels; edges bevelled and grooved into frames; 300mm high fanlight; all framed, clamped and grooved together.</u>				
F	Single swing door size 900 x 2400 mm high	10	No.		
	<u>Flush doors</u>				
	<u>Wrot Cypress framed frames and framings</u>				
G	100 x 50 mm; 2 No. labours; plugged door frame	78	LM		
H	40 x 35 mm moulded architrave	78	LM		
J	25 x 25mm moulded quadrants	78	LM		
	Carried to Doors collection				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>45mm Thick solid core flush doors to B.S 459: part 2 veneered both sides with internal quality plywood and lipped on all edges in approved hardwood</u>				
A	Double door single active oval size 1200 X 2400	5	NO		
B	Single swing door size 900 x 2400 mm high	6	No.		
	<u>Iron mongery</u> <u>Supply and fix the following to UNION catalogue or other equal and approved</u> <i>To softwood, hardwood or the like fixing with screws</i>				
C	Three lever mortice lock complete with set lever aluminium handle furniture	10	No.		
D	Two lever bathroom mortice lock complete with set lever aluminium handle furniture	11	No.		
E	100mm brass-plated butt hinges	24	prs		
F	Door closer as Briton CAT No. 200	35	NO		
G	Rubber door stop to concrete or blockwork; fixing with bolts; plugging complete with 38 mm rawl bolt	35	No.		
	<u>Painting and Decorations</u>				
	<u>Knot, prime and stop; prepare and apply one coat stain and two coats of clear varnish</u>				
H	General surfaces of timber doors over 300mm girth; external	88	sm		
J	Frames; over 200mm but not exceeding 300mm girth; internal	133	lm		
K	Frames not exceeding 100mm girth; internal	133	lm		
	Carried to Doors collection				
	<u>DOOR COLLECTION</u> Brought forward from page 13 Brought forward from Above				
	TOTAL DOORS CARRIED TO PARTITION WORKS SUMMARY				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	4. FITTINGS AND FIXTURES				
	<u>The following in Low Level Kitchen and mothers room Cupboards and Worktops; overall size 8500mm long x 600mm wide x 1000mm</u>				
	<u>Plain concrete class 20/12 as described in: -</u>				
A	100mm Plinths	12	SM		
B	100mm thick worktop	12	SM		
	<u>Labour and materials</u>				
C	Form or leave hole for sink size 600 x 400mm wide in reinforced concrete	2	NO		
	<u>Fabric: B.S. 4483</u>				
D	Reference A142 mesh 200 x 200 mm , weight 2.22 kgs per square meter (measured net - no allowance made for laps(including bends, tying wire and distance blocks	12	SM		
E	100 mm thick reinforced with hoop iron at alternate courses approved local natural stone walling; chisel dressed both sides; bedding, jointing and pointing in cement sand (1:3) mortar	5	SM		
	<u>Granito tile top</u>				
F	12mm thick approved coloured granit0 worktop fixed to worktop with and including approved adhesive	12	SM		
G	Extra; grounded edges to a smooth finish	18	LM		
	<u>Wood Work</u>				
	<u>In Wrot cypress</u>				
H	50 x 50mm bearer	16	LM		
J	50 x 50mm ditto; plugged	12	LM		
	<u>In mahogany veneered MDF boards</u>				
K	18mm thick blockboard shelving, lipped on all sides in hardwood	22	SM		
L	18mm thick door size 500 x 800mm high lipped on all edges in hardwood.	21	NO		
	Carried to Fittings and fixtures collection				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>Ironmongery</u>				
	<u>Supply and fix the following ironmongery to timber</u>				
A	Malpa hinges	21	prs		
B	100mm aluminium D handles	21	NO		
C	50 mm Aluminium tower bolt	21	NO		
D	100mm brass ball catch	21	NO		
	<u>12mm thick cement sand (1:3) screed, wood floated as described in; -</u>				
E	Concrete or blockwork base; internal	12	SM		
	<u>Plaster; 12mm thick cement sand (1:3), steel trowelled as described in; -</u>				
F	Walls; internal	10	SM		
	<u>Painting and decorations</u>				
	<u>Prepare and apply one undercoat and three coats of first quality plastic emulsion paint to: -</u>				
G	Plastered surfaces; internal	10	SM		
	<u>Knot, prime and stop, prepare and apply three coats of polyurethane clear varnish on: -</u>				
H	Timber surfaces	17	SM		
J	To frames; 100 - 200mm girth; internal	56	SM		
	<u>The following in High level Kitchen cabinets overall</u>				
	<u>In Wrot cypress</u>				
K	50 x 50mm bearer	55	LM		
	<u>In mahogany veneered MDF boards</u>				
L	18mm thick blockboard shelving, lipped on all sides in hardwood	12	SM		
M	Ditto; divisions	6	SM		
	Carried to Fittings and fixtures collection				
	<u>FITTINGS AND FIXTURES COLLECTION</u>				
	Brought forward from page 15				
	Brought forward from above				
	TOTAL FITTINGS AND FIXTURES CARRIED TO PARTITION WORKS SUMMARY				

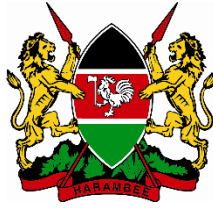
ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>PARTITION WORKS SUMMARY</u>				
1	1. Wall Partitioning	RT/8			
2	2. FINISHES	RT/12			
3	3. DOORS	RT/14			
4	4. FITTINGS AND FIXTURES	RT/16			
TOTAL CARRIED TO SUMMARY					

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>SUMMARY</u>				
1	ELEMENT NO.1 DEMOLITIONS AND ALTERATIONS.	RT/1			
2	ELEMENT NO. 2: EXTERNAL WALLING	RT/3			
3	ELEMENT NO.3 STRUCTURAL STEEL (all provisional)	RT/5			
4	ELEMENT NO. 4 ROOF (ALL PROVISIONAL)	RT/6			
6	ELEMENT NO. 6. PARTITION WORKS	RT/17			
	TOTAL PARTITION CARRIED TO BW SUMMARY				

BW SUMMARY

BUILDER'S WORK SUMMARY			
ITEM	DESCRIPTION	PAGE	AMOUNT
1	Data center	DT/7	
2	Lift	LIFT/8	
3	Roof Top	RT/18	
TOTAL BUILDER'S WORK CARRIED TO GRAND SUMMARY			

REPUBLIC OF KENYA



ETHICS AND ANTI-CORRUPTION COMMISSION

**PROPOSED FACELIFT OF EACC INTEGRITY CENTRE
HOUSE PHASE 1**

W.P. ITEM NO. D122NB/NB/2101 – JOB NO. 10106C.

TENDER DOCUMENTS

FOR

**SUPPLY, DELIVERY, INSTALLATION, TESTING AND COMMISSIONING OF
PLUMBING, DRAINAGE AND FIRE PROTECTION INSTALLATIONS**

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CHIEF ARCHITECT
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NAIROBI

STRUCTURAL ENGINEER

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OCTOBER 2021

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SECTION E: TECHNICAL SCHEDULE OF ITEMS TO BE SUPPLIED	E-1 to E-3
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(i)

DEFINITIONS

The following terms and expressions used in the contract document shall have the following meanings:

The Employer	Government of the Republic of Kenya Represented by: The Chief Executive Officer, Ethics and Anti-Corruption Commission, P.O. Box 61130-00200, <u>NAIROBI</u>
Architect	Chief Architect State Department of Public Works P.O. Box 30743 <u>NAIROBI</u>
Engineer (Mechanical)	Chief Engineer - Mechanical (BS) State Department of Public Works P.O. Box 41191 <u>NAIROBI</u>
Engineer (Electrical)	Chief Engineer – Electrical (BS) State Department of Public Works P.O. Box 41191 <u>NAIROBI</u>
Quantity Surveyor	Chief Quantity Surveyor State Department of Public Works P.O. Box 30743 <u>NAIROBI</u>
Structural Engineer	Chief Engineer (Structural) State Department of Public Works P.O. Box 30743 <u>NAIROBI</u>
Employer’s representative	This shall mean the Project Manager and shall be The Works Secretary State Department of Public Works P.O. Box 30743 <u>NAIROBI</u>
Site Location	The site is located at Nairobi, in Nairobi County.

(ii)

SECTION A

GENERAL MECHANICAL SPECIFICATIONS

SECTION A

GENERAL MECHANICAL SPECIFICATION

<u>CLAUSE</u>	<u>DESCRIPTION</u>	<u>PAGE</u>
2.01	General.....	A-1
2.02	Quality of Materials	A-1
2.03	Regulations and Standards	A-1
2.04	Electrical Requirements	A-2
2.05	Transport and Storage	A-2
2.06	Site Supervision	A-2
2.07	Installation.....	A-2
2.08	Testing.....	A-3
2.09	Colour Coding.....	A-4
2.10	Welding.....	A-4

SECTION A

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.
- b) The United Kingdom Institution of Electrical Engineers (IEE) Regulations for the Electrical Equipment of Buildings.
- c) The United Kingdom Chartered Institute of Building Services Engineers (CIBSE) Guides.
- d) British Standard and Codes of Practice as published by the British Standards Institution (BSI)
- e) The County Government By-laws.
- f) The Electricity Supply Authority By-laws.
- g) County Government 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

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.

2.08.3 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 week's 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.

2.08.4 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.

2.09 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.

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 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.

SECTION B:

PARTICULAR SPECIFICATIONS

FOR

PLUMBING AND DRAINAGE

PARTICULAR PLUMBING AND DRAINAGE SPECIFICATIONS

CLAUSE No.	DESCRIPTION	PAGE
3.1	GENERAL	B-1
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3.2.1	Pipe work and Fittings	B-1
3.2.2	Valves	B-3
3.2.3	Waste Fitment Traps	B-3
3.2.4	Pipe Supports	B-3
3.2.5	Sanitary Appliances	B-5
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3.3	INSTALLATION.....	B-5
3.3.1	General.....	B-5
3.3.2	Above Ground Installation.....	B-5
3.4	TESTING AND INSPECTION	B-7
3.4.1	Site Tests – Pipework Systems	B-7
3.4.2	Site Test – Performance.....	B-7
3.5	STERILISATION OF COLD WATER SYSTEM	B-8

PARTICULAR SPECIFICATIONS FOR PLUMBING AND DRAINAGE

3.1 GENERAL

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 Pipe work and Fittings

Pipe work materials are to be used as follows:

a) PP-R Pipe-work

PP-R pipe-work upto 63mm bore shall be manufactured in accordance with the current British Standards i.e. DIN 8077 and DIN 8078 for PN 20 tubing, with metallic joints to DIN 8076, joints and fittings for tubings to DIN 16962. All threaded inserts in the fittings and joints shall be made of nickel brass OT58 and are turned from bars and manufactured in accordance with DVGW 534E.

Pipe joints shall be screwed and socketed and sufficient coupling unions shall be allowed so that fittings can be disconnected without cutting pipe. Running nipples long screws shall not be permitted unless exceptionally approved by the Engineer.

b) Galvanized Steel Pipe work

Galvanized steel pipe work 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.

c) Copper Tubing

All copper tubing shall be manufactured in accordance with B.S. 2871 from C.160 'Phosphorous De-oxidized Non-Arsenical Copper' in accordance with B.S. 1172.

Pipe joints shall be made with soldered capillary fittings and connections to equipment shall be with compression fittings manufactured in accordance with B.S. 864.

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.

d) **P.V.C. (Hard) Pressure Pipes and Fittings**

All P.V.C. 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.

e) **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, centres 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.

f) **PVC Soil System**

The Sub-contractor shall supply and fix PVC soil pipes and fittings as indicated on the Drawings and Schedules. Pipes and fittings shall be in accordance with relevant British Standards, including B.S. 4514 and fixed to the manufacturer's instructions and B.S. 5572.

The soil system shall incorporate synthetic rubber gaskets as provided by the manufacturer whose fixing instructions shall be strictly adhere to.

Connections to WC pans shall be effected by the use of a WC connector, gasket and cover, fixed to suit pan outlet.

Suitable supporting brackets and pipe clips shall be provided at maximum of one metre centres.

The Sub-contractor shall be responsible for the joint into the Gully Trap on Drain as indicated on the Drawings.

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.

a) 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 builders 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.

b) Steel and Copper Pipes and Tubes

Pipe runs shall be secured by clips connected to pipe angles, wall brackets, or trapeze type supports. 'U' bolts shall not be used as a substitute for pipe clips without the prior approval of the Engineer.

An approximate guide to the maximum permissible supports spacing in metres for steel and copper pipe and tube is given in the following table for horizontal runs.

Size Nominal Bores	Copper Tube to B.S. 659	Steel Tube to B.S. 1387
15mm	1.25m	2.0m
20mm	2.0m	2.5m
25mm	2.0m	2.5m
32mm	2.5m	3.0m
40mm	2.5m	3.0m
50mm	2.5m	3.0m
65mm	3.0m	3.5m
80mm	3.0m	3.5m
100mm	3.0m	4.0m
125mm	3.0m	4.5m
150mm	3.5m	4.5m

The support spacing for vertical runs shall not exceed one and a half times the distances given for horizontal runs.

c) Expansion Joints and Anchors

Where practicable, cold pipework systems shall be arranged with sufficient bends and changes of direction to absorb pipe expansion providing that the pipe stresses are contained within the working limits prescribed in the relevant B.S. specification.

Where piping anchors are supplied, they shall be fixed to the main structure only. Details of all anchor design proposals shall be submitted to the Engineer for approval before erection commences.

The Sub-contractor when arranging his piping shall ensure that no expansion movements are transmitted directly to connections and flanges on pumps or other items of plant.

The Sub-contractor shall supply flexible joints to prevent vibrations and other movements being transmitted from pumps to piping systems or vice versa.

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.

3.2.6 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.

3.3.2 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 kilometres per 24 hours per 30 metres head, may be considered reasonable but any visible individual leak shall be repaired.

b) 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 galvanised steel wire guard.

Access for rodding and testing shall be provided at the foot of each stack.

c) 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.

3.4 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 one hour 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.

d) 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:

- i) Apply a coating of suitable filler until the canvas weave disappears and allow to dry.
- ii) 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 crawl ways, ducts and above false ceiling which after erection are not visible from the corridors of rooms, shall be covered with a reinforced aluminium 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 precaution 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 sterilised and flushed out after the completion of all tests and before being fully commissioned for handover.

The sterilisation 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.

SECTION C:

**PARTICULAR SPECIFICATION FOR PORTABLE FIRE
EXTINGUISHER BOOSTED HOSE REEL SYSTEM AND FIRE
HYDRANT INSTALLATIONS**

1.0 PORTABLE FIRE EXTINGUISHER AND HOSE REEL INSTALLATIONS

1.1 General

The particular specification details the requirements for the supply and installation and commissioning of the Portable Fire Extinguishers, Hose Reel, Fire Hydrant and Dry Riser. 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.

1.2 Scope of Works

The Sub-contractor shall supply, deliver, erect, test and commission all the portable fire extinguishers, Hose Reel, Fire Hydrant and Dry Riser which are called for in these Specifications and as shown on the Contract Drawings.

1.3 Water/CO2 Extinguishers

These shall be 9-litre water filled CO2 cartridge operated portable fire extinguishers and shall comply with B.S. 1382: 1948 and to the requirements of B.S.4523: 1977. Unless manufactured with stainless steel, bodies shall have all internal surfaces completely coated with either a lead tin, lead alloy or zinc applied by hot dipping. There shall be no visibly uncoated areas.

The extinguishers shall be clearly marked with the following:

- a) Method of operation.
- b) The words 'WATER TYPE' (GAS PRESSURE) in prominent letters.
- c) Name and address of the manufacturer or responsible vendor.
- d) The nominal charge of the liquid in imperial gallons and litres.
- e) The liquid level to which the extinguisher is to be charged.
- f) The year of manufacture.
- g) A declaration to the effect that the extinguisher has been tested to a pressure of 24.1 bar (350 psi.).
- h) The number of British Standard 'B.S' 1382 or B.S. 5423: 1977.

1.4 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 psi). The hose is not to be under internal pressure until the extinguisher is operated.

The nozzle shall be manufactured of brass gunmetal, aluminium 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

1.5 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 aluminium 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 Kilogramme.
- 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.

1.6 Air Foam Fire Extinguisher

These shall be of 9 litres capacity complete with refills cartridges and wall fixing brackets and complying with B.S. 5423 with the following specifications: -

Cylinder:	to B.S. 1449
Necking:	to be 76mm outside diameter steel EN 3A 2 ³ / ₄ X 8TPI female thread.
Head cap:	to be plastic moulding acetyl resin.
CO₂ Cylinder:	to be 75gm P.V.C coated.
Internal Finish:	to be polythene lining on phosphate coating.
External finish:	to be phosphated - One coat primer paint and one coat stove enamel B.S. 381 C.

1.7 Fire Blanket

The fire blanket shall be made from cloth woven with pre-asbestos yarn or any other fire proof material and to measure 1800 x 1210 mm and shall be fitted with special tapes folded so as to offer instantaneous single action to release blanket from storing jacket.

2.0 Boosted Hose Reel System

2.1 General

The Particular Specification details the requirements for the supply, installation and commissioning of the hose reel installation. The hose reel installation shall comply in all respects to the requirements set out in C.O.P 5306 Part 1: 1976, B.S 5041 and B.S 5274. The System shall comprise of a pumped system.

2.2 Hose Reel Pumps

The fire hose reel pumps shall consist of a duplicate set of multi-line centrifugal pumps from approved manufacturers. The pumps shall be capable of delivering 0.76 lit/sec at a running pressure of 2 bars.

The pump casing shall be of cast iron construction with the impeller shaft of stainless steel with mechanical seal.

2.3 Control Panel

The control panel shall be constructed of mild steel 1.0mm thick sheet, be moisture, insect and rodent proof and shall be provided complete with circuit breakers and a wiring diagram enclosed in plastic laminate.

The pump shall be controlled by a flow switch therefore; the control panel shall include the following facilities:

- (a) 'On' push button for setting the control panel to live.
- (b) Green indicator light for indicating control panel live.
- (c) Duty / Stand-by pump auto change over.
- (d) Duty pump run green indicator light.
- (e) Stand-by pump run green indicator light.
- (f) Duty pump fail red indicator light.
- (g) Stand-by pump fail red indicator light.
- (h) Low water condition pump cut-out with red indicator light.

The pumps are to be protected by a low-level cut-out switch to prevent dry pump run when low level water conditions occur in the water storage tank.

2.3.1 Hose Reel

The hose reel to the installation shall consist of a recessed, swing-type hose reel as Angus Fire Armour Model III or from other approved manufacturers.

The hose reel shall comply with B.S. 5274: 1975 and B.S 3161: 1970 and is to be installed to the requirements of C.P. 5306 Part 1: 1976.

The hose reel shall be supplied and installed complete with a first-aid Non-kinking hose 30 meters long with a nylon spray / jet / shut-off nozzle fitted. A screw down chrome - plated globe valve to B.S 1010 to the inlet to the reel is to be supplied.

The orifice to the nozzle is to be not less than 4.8mm to maintain a minimum flow of 0.4 lit / sec to jet.

The hose reels shall be installed complete with electro-galvanized cabinet recessed on the wall.

The hose reels shall be installed at 1.5 meters centre above the finished floor level in locations shown in the contract drawings.

2.3.2 Pipe Work

The pipe work for the hose reel installation shall be galvanized wrought steel tubing heavy grade Class B to B.S 1387: 1967 with pipe threads to B.S 21. The pipe work and all associated fittings shall be in approved colour for fire fittings.

2.3.3 Pipe Fittings

The pipe fittings shall be wrought steel pipe fittings, welded or seamless fittings conforming to B.S. 1740 or malleable iron fittings to B.S 143.

All changes in direction will be with standard bends or long radius fittings. No elbows will be provided.

2.3.4 Non-return Valves

The non-return valves up to and including 80mm diameter shall be to B.S. 5153: 1974.

The valves shall be of cast iron construction with gunmetal seat and bronze hinge pin.

2.3.5 Gate Valves

The gate valves up to and including 80mm diameter shall be non-rising stem and wedge disc to B.S 5154: 1974 with screwed threads to B.S. 21 tapes thread

2.3.6 Sleeves

Where pipe work passes through walls, floors or ceilings, a sleeve shall be provided one diameter larger than the diameter of the pipe, the space between them to be packed with mineral wool, to the Engineer's approval.

2.3.7 Earthing

The hose reel installation shall be electrically earthed by a direct earth connection. The installation of the earthing shall be carried out by the Electrical Sub- contractor.

2.3.8 Finish Painting

Upon completion of testing and commissioning the hose reel installation, the pipe work shall be primed and finish painted with 2 No. coats of paints to the Engineer's requirements.

2.3.9 Testing and Commissioning

The hose reel installation shall be flushed out before testing to ensure that no builder's debris has entered the system. The installation is to be then tested to one and half times the working pressure of the installation to the approval of the Engineer. Simulated fault conditions of the pumping equipment are to be carried out before acceptance of the System by the Engineer.

2.3.10 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.

3.0 Signage-Fire Instruction /Fire Exit

3.1 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;

FIRE INSTRUCTION NOTICE

In the event of fire;

1. Raise the alarm by actuating the nearest alarm system point, Sound Siren /gong or Shout **Fire**
2. Attack fire using the nearest available equipment
3. Call nearest fire Brigade or Police 999 and inform your
4. switchboard (PABX) Operator
5. Ensure that all personnel not involved in fire fighting evacuation
6. to safety outside the building.
7. Close but **DO NOT LOCK** doors behind as you leave.
8. Evacuate the building using stairs or fire escapes. Do not use Lifts/escalators. Walk calmly. Avoid panic. Do not stop or return for personal belongings.
9. Assemble as per floor outside the building for roll call.

3.1.1.1 Fire Exit Sign

Print Fire Exit signs on the Perspex plate, 4mm thick, with white colour background as follows: -

1. Lettering **IN RED COLOR** 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.

3.1.1.2 Hose Reel Label

Print Fire Exit signs on the Perspex plate, 4mm thick, with white colour background as follows: -

1. Lettering **IN RED COLOR** 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.

4.0 FIRE HYDRANT

4.1 Fire Hydrant Details

4.1.1 Definition

The fire hydrant is a system which is installed along the water mains to used as a means of providing water to the fire brigades through the connection of the hose from a stand pipe.

4.1.2 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.

4.1.3 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.

4.1.4 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 gland.

4.1.5 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.

4.1.6 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.

4.1.7 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.

4.1.8 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.

4.1.9 Hydrant coating

The hydrant shall be coated in accordance to BS. 4164.

4.1.10 Surface Box

The clear opening of hydrant surface boxes at ground level shall not be less than 250mm x 380mm.

The depth of frame shall normally be:

- a) For boxes located on footpaths: 100mm
- b) For boxes located in roads: 125mm

4.1.11 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 cast into the cover.

4.1.12 Surface Box Covers & Frames

The surface box frames and covers shall be graded in accordance with BS 497:1967 and shall meet the loading test requirement also given in BS 497

4.2 **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. It shall have 65mm diameter internal threads to couple with the interconnect or hose of the pump set

4.3 **Hose Pipe**

Each cotton synthetic fibre rubberized fire hosepipe to be at least 30 metres long with 65mm diameter female instantaneous type connector complete with nozzle.

4.4 **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:

SECTION D

**BILLS OF QUANTITIES AND SCHEDULE OF UNIT
RATES**

BILLS OF QUANTITIES AND SCHEDULE OF UNIT RATES

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BILLS OF QUANTITIES

A) PRICING OF PRELIMINARIES ITEMS.

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.

The Bills of Quantities are divided generally into three sections:-

Preliminaries – Bill 1

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.

Installation Items – Other Bills

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.

The unit of measurements and observations are as per those described in clause 3.05 of the section C.

(c) Summary

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

SPECIAL NOTES

1. The Bills of Quantities form part of the contract documents and are to be read in conjunction with the contract drawings and general specifications of materials and works.
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, 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**.
6. Tenderers must enclose, together with their submitted tenders, detailed Manufacturer's Brochures detailing Technical Literature and specifications on all the Equipment they intend to offer.

1. 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:

SCHEDULE 1 – SUB-CONTRACT

PRELIMINARIES

ITEM	DESCRIPTION	QTY	UNIT	RATE	KSHS	CTS
1	Discrepancies clause 1.02					
2	Conditions of sub-contract Agreement clause 1.03					
3	Payments clause 1.04					
4	Site location clause 1.06					
5	Scope of Contract Works clause 1.08					
6	Extent of the Contractor’s Duties clause 1.09					
7	Firm price contract clause 1.12					
8	Variation clause 1.13					
9	Prime cost and provisional sum clause 1.14 (insert profit and attendance which is a percentage of expended PC or provisional sum.)					
10	Bond clause 1.15					
11	Government Legislation and Regulations clause 1.16					
12	Import Duty and Value Added Tax clause 1.17 (Note this clause applies for materials supplied only. VAT will also be paid by the sub-contractor as allowed in the summary page)					
13	Insurance company Fees clause 1.18					
14	Provision of services by the Main contractor clause 1.19					
15	Samples and Materials Generally clause 1.21					
	SUB-TOTAL CARRIED TO PAGE D -6					

ITEM	DESCRIPTION	QTY	UNIT	RATE	KSHS	CTS
16	Supplies clause 1.20					
17	Bills of Quantities clause 1.23					
18	Contractor's Office in Kenya clause 1.24					
19	Builder's Work clause 1.25					
20	Setting to work and Regulating system clause 1.29					
21	Identification of plant components clause 1.30					
22	Working Drawings clause 1.32					
23	Record Drawings(As Installed) and Instructions clause 1.33					
24	Maintenance Manual clause 1.34					
25	Hand over clause 1.35					
26	Painting clause 1.36					
27	Testing and Inspection – manufactured plant clause 1.38					
28	Testing and Inspection – Installation clause 1.39					
29	Storage of Materials clause 1.41					
30	Initial Maintenance clause 1.42					
	SUB-TOTAL CARRIED TO PAGE D -6					

ITEM	DESCRIPTION	QTY	UNIT	RATE	KSHS	CTS
31	Attendance Upon Tradesmen, etc. (Insert percentage only) clause 1.58					
32	Local and other Authorities notices and fees clause 1.60					
33	Temporary Works clause 1.63					
34	Patent Rights clause 1.64					
35	Mobilization and Demobilization Clause 1.65					
36	Extended Preliminaries Clause 1.66(see appendix page C – 24)					
37	Supervision by Engineer and Site Meetings Clause 1.67					
38	Allow for profit and Attendance for the above					
39	Amendment to Scope of Sub-contract Works Clause 1.68					
40	Contractor Obligation and Employers Obligation clause 1.69(see appendix page C -24)					
41	Provisional sum for resident Mechanical Engineer’s allowance (Contractor to pay this money directly to Resident Engineer)					
42	Provisional sum for Resident Engineer’s Stationery					
43	Any other preliminaries;					
	Subtotal above					
	Subtotal brought forward from page..... D-4					
	Subtotal brought forward from page..... D-5					
	TOTAL FOR SCHEDULE NO. 1- PRELIMINARIES CARRIED FORWARD TO PRICE SUMMARY PAGE D - 20					

Item	Description	Qty	Unit	Rate (Kshs)	Cost (Kshs)
	<u>SANITARY APPLIANCES</u> 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.				
	Water Closet (WC)				
A	Floor standing WC Pan with 'P'-trap in approved colour complete with horizontal outlet to BS 3402 with WC FLUSH VALVES as Cobra, plastic flush bend, inlet connection, and Soft close heavy plastic seat and cover with chrome plated hinges. All to be as Duravit D-Code (Horizontal outlet) CAT No. 21150900002 floor standing water closet or equal and approved.	6	No.		
	Water Closet (WC)				
B	Wall-hung water closet suite in white colour complete with horizontal outlet to BS 3402 with , inlet connection and soft close heavy plastic seat and cover with chrome plated hinges. To be as "WC DURAVIT DURASTYLE MODEL: 253609" or approved equivalent.	1	No.		
	Water Closet (WC)				
C	80mm deep 6-litre concealed cistern with dual fix frame and fittings including siphon as Geberit , 15mm diameter side inlet ball valves, 20mm diameter side overflow, plastic flush bend, inlet connection, with self supporting frame, front actuation, dual-flush system with push flush plate to be as. To be as "Geberit" or approved equivalent.		No.		
	Hand Spray				
D	Chrome plated hand spray fixed next to the water closet complete with chrome plated wall bracket as Cobra or equal and approved.	8	No.		
	Robe Hook				
E	Chrome plated double robe hook mounted by concealed screws to doors. To be as Mediclinic robe hook double robe hook or equal and approved.	8	No.		
	Wash hand basin (WHB)-Pedestal				
F	Pedestal wash hand basin size 650 x 500mm with one tap hole, 32mm diameter chrome plated waste with plug and chain, pedestal, monobloc basin tap as Cobra monobloc press action tap or approved equivalent and heavy duty plastic bottle trap (32mm 'P' trap) with 75mm seal. To be as Duravit Durastyle CAT No. 0863270000 or equal and approved.	5	No.		
	Wash hand basin (WHB)-Countertop				
G	Countertop wash hand basin size 650 x 500mm with one tap hole, 32mm diameter chrome plated waste with plug and chain, monobloc basin tap as Cobra monobloc press action tap or approved equivalent and heavy duty plastic bottle trap (32mm 'P' trap) with 75mm seal. To be as Duravit D-code or equal and approved.	2	No.		
Total carried to next page for sanitary fittings					

Item	Description	Qty	Unit	Rate (Kshs)	Cost (Kshs)
Total carried to from the previous page for sanitary fittings					
	Flexible Tubing				
A	15mm diameter x 300mm long flexible connectors complete with integral chrome plated angle valve as Cobra or equal approved.	17	No.		
	Toilet Brush and Holder				
B	Wall mounted toilet brush holder and brush of approved colour as Mediclinic toilet brush set model ES1002C. or approved equivalent.	8	No.		
	Toilet Roll Holder				
C	Stainless Steel toilet roll holder with epoxy finish of diameter 275mm for dispensing big rolls in approved colour as Mediclinic model PR 2787 or equal and approved.	8	No.		
	Urinal Bowl Divisions				
D	Ceramic urinal bowl divisions separating the above described urinal bowls fixed firmly on the wall. The fittings shall be as Duravit Starck 3 CAT No.8500000000 or equal and approved.	2	No		
	Urinal Bowls				
E	Ceramic urinal bowl complete with concealed inlet, rimless, for 1/2" connection, includes jet nozzle, inlet-set, waste, Ø32mm heavy duty plastic bottle trap and fixings and 40mm diameter chrome plated outlet with grating firmly fixed on the wall with chrome plated screws. The fittings shall be as Duravit D-Code CAT No.082930 or equal and approved.	3	No		
	Urinal Bowl Sensor Operated Flush Valves				
F	25mm urinal bowl sensor operated flush valve for the above urinal bowls complete with, back entry with integral vacuum breaker, non-hold-open features and non-return valve, inlet control stop and wall plate 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.	3	No		
	Mirror				
G	Wall mounted 6mm thick polished plate glass silver backed mirror with bevelled edges, size 600 x800mm, Plugged and screwed to wall with 4No. chrome plated dome capped screws. The mirror shall rest against a layer of 5mm thick foam and shall be as approved	9	No.		
H	Ditto size1500 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.	3	No.		
	Automatic Soap Dispenser				
I	Wall mounted automatic soap dispenser made of stainless steel with a capacity of about one litre with automatic soap release mechanism complete with fixing screws. Allow for initial soap supply. To be as Mediclinic soap dispenser model DJS0039AC or approved equivalent.	6	No.		
Total carried to next page for sanitary fittings					

Item	Description	Qty	Unit	Rate (Kshs)	Cost (Kshs)
Total carried to from the previous page for sanitary fittings					
	Hand Towel/Paper Dispenser				
A	Stainless steel paper/ towel dispenser with epoxy finish for dispensing interfolded paper tissue. The dispenser shall include a casing having a narrow dispensing slot in the bottom surface. The dispenser should have a proper mechanism to prevent excessive quantities of tissue. The paper towel dispenser shall be as Mediclinic model DT2106 in approved colour or approved equivalent.	5	No.		
	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 (3.82m ³ /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 Medclinic or approved equivalent.	5	No.		
	Shower Tray				
C	Ceramic non-slip 1500 x 900mm corner shower tray complete with chrome plated waste outlet, trap and all other accessories. All to be as Duravit 1500 x 900 mm shower tray or an approved equivalent.	1	No		
	Shower Fittings				
D	Hot water instant shower complete with exposed shower fitting consisting of 15mm chrome plated riser pipe to connect the four way diverter single lever shower mixer as Midea or approved equivalent for hot and cold water to a 200mm diameter shower rose pressure pump, shower arm and other necessary fittings and accessories. All to be as Midea or equal and approved.	1	No.		
	Soap Dish				
E	Chrome plated soap tray of size: 150 x 150mm in approved colour as Tapis or equal and approved.	1	No.		
	Towel Rail				
F	Chrome plated towel rail 600mm long with the rail and brackets as one piece. To be as Tapis or equal and approved.	1	No.		
	Bathroom Shelf				
G	Chrome plated bathroom shelf as Tapis or approved equivalent.	1	No		
	Shower Cubicle				
H	High quality shower cubicle of size 1500 x 900mm complete with 900 x 1850mm pivot door in chrome plated frame with frosted glass, side panels, 40mm diameter grid waste fitting, frame to be screwed to the wall and sealed to shower using silicon sealant and fixing pack. The enclosure to be as Duravit or an approved equivalent.	1	No		
Total carried to next page for sanitary fittings					

Item	Description	Qty	Unit	Rate (Kshs)	Cost (Kshs)
	Total carried to from the previous page for sanitary fittings				
A	<p>Kitchen Sink (DBDD) 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 pull out sink mixer with over-arm swivel spout as Cobra , heavy duty plastic bottle trap with 75mm deep seal and chain waste fitting.</p>	2	No.		
B	<p>Undersink Heater 10 litres capacity undersink instantaneous water heater complete with 3.0kw electric heating element, externally adjustable capillary type thermostat, polyurethane form thermal insulation, corrosion-proof moulding outer casing, mountings, water and electrical connections. The heater shall be as Ariston with power supply 3.0kw, 240/50Hz or equal and approved.</p>	2	No		
C	<p>Disabled Persons Water Closet and Wash Hand Basin Facility Wheel chair accessible W.C facility Comprising of the following:- i)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, 15mm 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, 600 x 800 x 6mm thick mirror and robe hook. 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 15mm chrome plated lever action pillar tap, chrome plated waste with height adjustable trap, pedestal and wall fixing bolts. 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, 4No. 600mm grab rails with covered wall plates. The set shall be as Duravit wheelchair accessible W.C. facility or approved equivalent.</p>	2	set		
	Total carried to collection page for sanitary fittings				

Item	Description	Qty	Unit	Rate (Kshs)	Cost (Kshs)
	<u>INTERNAL PLUMBING</u>				
	PPR Pipes Supply, deliver and install PPR pipes, tubing and fittings as described and shown on the drawings. The pipes and fittings shall be produced as per SDR 11 and shall meet or exceed the requirements of ASTM D 2846, current European standards for PPR installations and to the Engineers approval. All joints shall be assembled employing solvent cements that meet or exceed the requirements of ASTM F442 and ASTM F441 . 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, supporting brackets, 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. The pipes will be pressure tested before the plastering of wall commences and as per the manufacturers recommended testing pressures.				
A	25mm diameter pipework	34	Lm		
B	32mm diameter pipework	24	Lm		
C	40mm diameter pipework	20	Lm		
D	50mm diameter pipework	24	Lm		
E	65mm diameter pipework	18	Lm		
	Bends				
F	25mm diameter bend	20	No.		
G	32mm diameter bend	18	No.		
H	40mm diameter bend	20	No.		
I	50mm diameter bend	18	No.		
J	65mm diameter bend	12	No.		
	Tees				
K	25mm equal tee	18	No.		
L	32mm equal tee	24	No.		
M	40mm equal tee	24	No.		
N	50mm equal tee	20	No.		
O	65mm equal tee	10	No.		
	Total carried to next page for plumbing works				

Item	Description	Qty	Unit	Rate (Kshs)	Cost (Kshs)
Total carried to next page for plumbing works					
Reducers					
A	32 x 25mm diameter reducer	24	No.		
B	40 x 32mm diameter reducer	65	No.		
C	50 x 32mm diameter reducer	45	No.		
D	50 x 40mm diameter reducer	24	No.		
E	65 x 50mm diameter reducer	32	No.		
F	65 x 40mm diameter reducer	18	No.		
Male/Female Adapters (Brass threaded)					
G	25mm brass threaded adapter	18	No.		
H	32mm brass threaded adapter	16	No.		
I	40mm brass threaded adapter	10	No.		
Threaded Brass Coupling					
J	25mm threaded brass coupling	8	No.		
K	32mm threaded brass coupling	14	No.		
L	40mm threaded brass coupling	12	No.		
M	50mm threaded brass coupling	12	No.		
N	65mm threaded brass coupling	8	No.		
Valves					
O	25mm gate valve	2	No.		
P	32mm gate valve	2	No.		
Q	40mm gate valve	2	No.		
R	50mm gate valve	2	No.		
S	65mm gate valve	1	No.		
Unions					
T	25mm diameter pipe unions	4	No.		
U	32mm diameter pipe unions	4	No.		
V	40mm diameter pipe unions	2	No.		
W	50mm diameter pipe unions	2	No.		
X	65mm diameter pipe unions	4	No.		
Total carried to collection page for plumbing works					

Item	Description	Qty	Unit	Rate (Kshs)	Cost (Kshs)
	<u>FOUL WATER INTERNAL DRAINAGE</u>				
	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.				
	MuPVC and uPVC Waste and Soil pipework				
A	100mm diameter heavy gauge grey mUPVC pipe	28	Lm		
B	50mm diameter waste pipe	54	Lm		
C	40mm diameter waste pipe	48	Lm		
D	32mm diameter waste pipe	56	Lm		
	Bends				
E	100mm diameter long radius bend	8	No.		
F	100mm diameter short radius bend	10	No.		
G	100mm diameter bend with access	13	No.		
H	100mm diameter sweep bend	14	No.		
I	50mm diameter sweep bend	24	No.		
J	40mm diameter sweep bend	8	No.		
K	32mm diameter sweep bend	24	No.		
	Tees				
L	100mm diameter sweep tee	8	No.		
M	50mm diameter sweep tee	12	No.		
N	40mm diameter sweep tee	8	No.		
O	32mm diameter sweep tee	8	No.		
	WC Connectors				
P	100mm diameter WC connector	6	No.		
	Access Caps				
Q	100mm diameter access cap	4	No.		
R	50mm diameter acces cap	8	No.		
S	40mm diameter access cap	2	No.		
T	32mm diameter access cap	4	No.		
	Total carried to next page for drainage works				

Item	Description	Qty	Unit	Rate (Kshs)	Cost (Kshs)
Total carried to the previous page for drainage works					
	Boss Connectors				
A	100 x 50mm diameter boss connector	6	No.		
B	100 x 40mm diameter boss connector	2	No.		
	Single Branches				
C	100mm diameter single branch	1	No.		
	Double Branches				
D	100mm diameter double branch	1	No.		
	Traps				
E	100 x 50mm diameter floor trap and stainless steel grating	6	No.		
	Weathering Slates and Vent Cows				
F	100mm diameter weathering slate and apron.	3	No.		
G	100mm diameter vent cowl	3	No.		
	Water Storage Tank -Roft tank				
H	Supply, deliver and install vertical rectangular plastic moulded tank of capacity 2300 litres (542 gallons) of dimension diameter 1600mm x 1360mm high. The tank to be assembled complete with cover and having screwed connections for 25mm inlet, 25mm outlet, 32mm overflow, 25mm medium pressure ball valve, drain pipes and any other necessary item for its proper functioning. The tank shall be mounted on a flat timber platform and shall be as ROTO Model or approved equivalent.	2	No.		
	Testing and Commissioning				
I	Allow for testing and commissioning of the plumbing and drainage installations to the satisfaction of the Engineer.	1	Item		
	Working and Record (As-installed) Drawings				
J	Prepare and submit three sets of working and record (as-installed) plan and isometric layout drawings to easily readable scale, A1 or A0 paper size format as follows; i) general arrangement drawings of all equipment, plant etc. ii) routes - types and sizes and arrangement of all pipework iii) wiring (electrical & control) details iv) any other details as per specifications Drawings are to be submitted in soft copy (AutoCAD 2004 format) & hard copy to the client, the Architect and the Engineer. The soft copies to be stored in CD and 4GB flash disk. Allow for preparation & submitting draft and three final copies of operation, instruction and maintenance manuals to Engineer's approval.	1	Item		
Total carried to collection page					

Collection Page

	Page	Cost(Kshs)
1	Total from page Sanitary fittings D-10	
2	Total from page plumbing pipework D-12	
3	Total from page drainage pipework D-14	
	Total Cost for plumbing and drainage installation Works Carried Forward to Summary Page	

Item	Description	Qty	Unit	Rate (Kshs)	Cost (Kshs)
	FIRE FIGHTING				
	Supply, deliver and install the following fire fighting equipment in positions indicated on the contract drawings or as shall be instructed by the Engineer.				
	Hose Reel System				
	Hose Reel				
A	Swinging type hosereel fitted with 45 metres long, 20mm 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.	2	No.		
	GMS Pipes Class B				
B	25mm diameter pipework	4	Lm		
C	50mm diameter pipework	30	Lm		
	Extra Over Pipework-GMS pipes class B				
	Bends				
D	25mm diameter bends	4	No.		
E	50mm diameter bends	8	No.		
	Tees				
F	50mm diameter equal Tee	2	No.		
	Reducers				
G	50 x 25 mm diameter reducer	2	No.		
	Valves				
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.	2	No.		
I	50mm diameter gate valve	1	No.		
	Unions				
J	25mm diameter pipe union	2	No.		
K	50mm diameter pipe union	1	No.		
	Fire Cabinet				
L	Provide a lockable fire cabinet made of steel and painted red to accommodate two portable fire extinguishers and a hosereel to be of size 1540mmx450mm deep x 740mm wide capable of accomodating 2 portable fire extinguishers and a hose reel as 'Angus' or equal and approved.	2	No		
	Fire Notices				
M	Allow for fire signage for the hose reel system, portable fire extinguishers, fire exits and fire instructions as directed by the Project Engineer.	2	No		
Total carried to collection page for fire protection works					

Item	Description	Qty	Unit	Rate (Kshs)	Cost (Kshs)
A	<p>Hosereel Pumpset Hose reel pumpset, one duty, the other standby mounted on a frame with a mild steel base plate and a canopy for protection from the weather. Each pump shall have a duty 1.5 l/s against 55m head as Grundfos model CR 4 - 60 or approved equivalent. In addition, there shall be a 60 litres diaphragm pressure vessel (as Varem or approved equivalent), pressure switches, a switch to protect dry run, 50mm foot valve and strainer, tank connections, gate valves and non-return valves. The pressure set to be as Dayliff SGV5/25 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 pumpset shall include all non-returns valves, timer, isolating valves and pipe connections.</p>	1	Set		
B	<p>Control Panel Control panel for above pumps with contactors, over voltage and under voltage protection relays, MCBs, phase failure protection, timer, 20 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	Item		
D	<p>Associated Electrical Works Allow for associated electrical works including wiring and fitting to pumps, control panel and float switches from isolator provided by others.</p>	1	Item		
E	<p>Painting Allow for painting of the hose reel pipework as per particular specifications.</p>	1	Item		
F	<p>Portable Fire Extinguishers Supply, deliver, install, test and commission the following portable fire extinguishers and conforming to BS EN 3 / BS 1449.</p> <p>Water/Carbon Dioxide Gas Fire Extinguisher 9 litres water/carbon dioxide gas portable fire extinguisher complete with pressure gauge, initial charge and mounting brackets.</p>	2	No		
G	<p>Carbon Dioxide Gas Fire Extinguisher 5 Kg carbon dioxide gas portable fire extinguisher complete with pressure gauge, initial charge and mounting brackets.</p>	2	No		
H	<p>Manual Alarm Bell 9" (225mm) manual operated alarm bell (Gong)</p>	2	No		
I	<p>Dry Chemical Powder Fire Extinguisher 6kg dry chemical powder portable fire extinguisher complete with pressure gauge, initial charge and mounting brackets.</p>	2	No		
Total carried to collection page for fire protection works					

Item	Description	Qty	Unit	Rate (Kshs)	Cost (Kshs)
A	<p>Automatic Dry Chemical Powder Fire Extinguisher 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 68°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.</p>	1	No		
B	<p>Automatic Dry Chemical Powder Fire Extinguisher 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.</p>	1	No		
C	<p>Fire Blanket Fire blanket made of cloth woven with pre-asbestos yarn or any other fire proof material and to measure 1800 x 1210 mm. It shall be fitted with special tapes folded so as to offer instantaneous single action to release blanket from storing jacket to BS 1721.</p>	2	No		
Total carried to collection page for fire protection works					

COLLECTION PAGE FOR FIRE PROTECTION WORKS

Item	Description	Amount (Kshs)
1	Total carried forward from page D-16	
2	Total carried forward from page D-17	
3	Total carried forward from page D-18	
Total Fire Protection Works Carried to Summary Page		

MAIN SUMMARY PAGE FOR PLUMBING DRAINAGE AND FIRE FIGHTING WORKS

Item	Description	Cost (Kshs)
1	Sub-Contract Preliminaries and General Conditions Carried Forward from D-6	
2	Total for Plumbing and Drainage Works Carried Forward from Collection Page D-15	
3	Total for Fire Protection installation and associated Works Carried Forward from Collection Page D-19	
4	Allow for Contingency Sum	500,000.00
	Total Cost for Plumbing, Drainage and Fire Protection Works Carried to Form of Tender	

Amount in words.....

.....

Tenderer's Name and Stamp

.....

Address

.....

Period To Execute The Works

Tenderer's V.A.T No

Tenderer's P.I.N No

Telephone No.

Mobile No.

Tenderer's Signature Date.....

Witness Signature Date.....

SECTION E:

TECHNICAL SCHEDULE OF ITEMS TO BE SUPPLIED

CONTENTS

<u>CLAUSE No.</u>	<u>PAGE</u>
1. GENERAL NOTES TO THE TENDERER.....	(i)
2. TECHNICAL SCHEDULE.....	E-1

2 **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.

TECHNICAL SCHEDULE

The tenderer must complete in full the technical schedule. 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).

ITEM	DESCRIPTION	MANUFACTURER	COUNTRY OF ORIGIN	REMARKS (Catalogue No. etc.)
A	Close coupled water closet			
B	WC Pan			
C	WC flush valve concealed			
D	Wash hand basin (half pedestal)			
E	Wash hand basin (counter top)			
F	Under sink water heater			
G	Basin mixer tap			
H	Towel ring			
I	Bathroom shelf			
J	Shower cubicle			
K	Shower fittings			
L	Instantaneous shower heater			
M	Towel rail			
N	Urinal bowl range			
O	Soap dispenser			
P	Hand drier			
Q	Tissue dispenser			
R	Bathroom waste paper bin			
S	Toilet roll holder			
T	Robe hook			
U	Kitchen sink			
V	Disabled unit			

W	Cleaner sink			
X	Soap dish			
Y	Mirror			
Z	PPR Pipes			
AA	GMS Pipes			
BB	Gate Valves			
CC	Flexible pipe			
DD	Hose reel Pump set			
EE	9lit. water/CO2 fire extinguisher			
FF	5kg CO2 fire extinguisher			
GG	Drainage pipe			

Catalogue must be attached for all the items **in the schedule of material above**

SECTION F:

STANDARD FORMS

NOTE:

**ALL FORMS IN THIS SECTION MUST BE FILLED AS THEY SHALL BE
PART OF THE EVALUATION CRITERIA**

CONTENTS OF SECTION H

	TITLE	PAGE
1.	Key Personnel.....	F/1
2.	Schedule of Contracts completed in the last eight (8) years.....	F/2
3.	Schedule of on-going projects.....	F/3
4.	Schedule of major items of contractor's equipment.	F/4

NOTE:

1.0 Tenderers must duly fill these Standard Forms as a mandatory requirement.

2.0 Any tender returned with **unfilled Standard Forms** shall be considered **non - responsive and shall automatically be disqualified.**

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
F/1

.....
Date

CONTRACTS COMPLETED IN THE LAST FIVE (5) YEARS

Work performed on works of a similar nature, complexity and volume over the last 5 years.

PROJECT NAME	NAME OF CLIENT	TYPE OF WORK AND YEAR OF COMPLETION	VALUE OF CONTRACT (Kshs.)

I certify that the above works were successfully carried out and completed by ourselves.

.....

Title

Signature

Date

SCHEDULE OF ON-GOING PROJECTS

Details of on-going or committed projects, including expected completion date.

PROJECT NAME	NAME OF CLIENT	CONTRACT SUM	% COMPLETE	COMPLETION DATE

I certify that the above works are currently being carried out by ourselves.

.....

Title

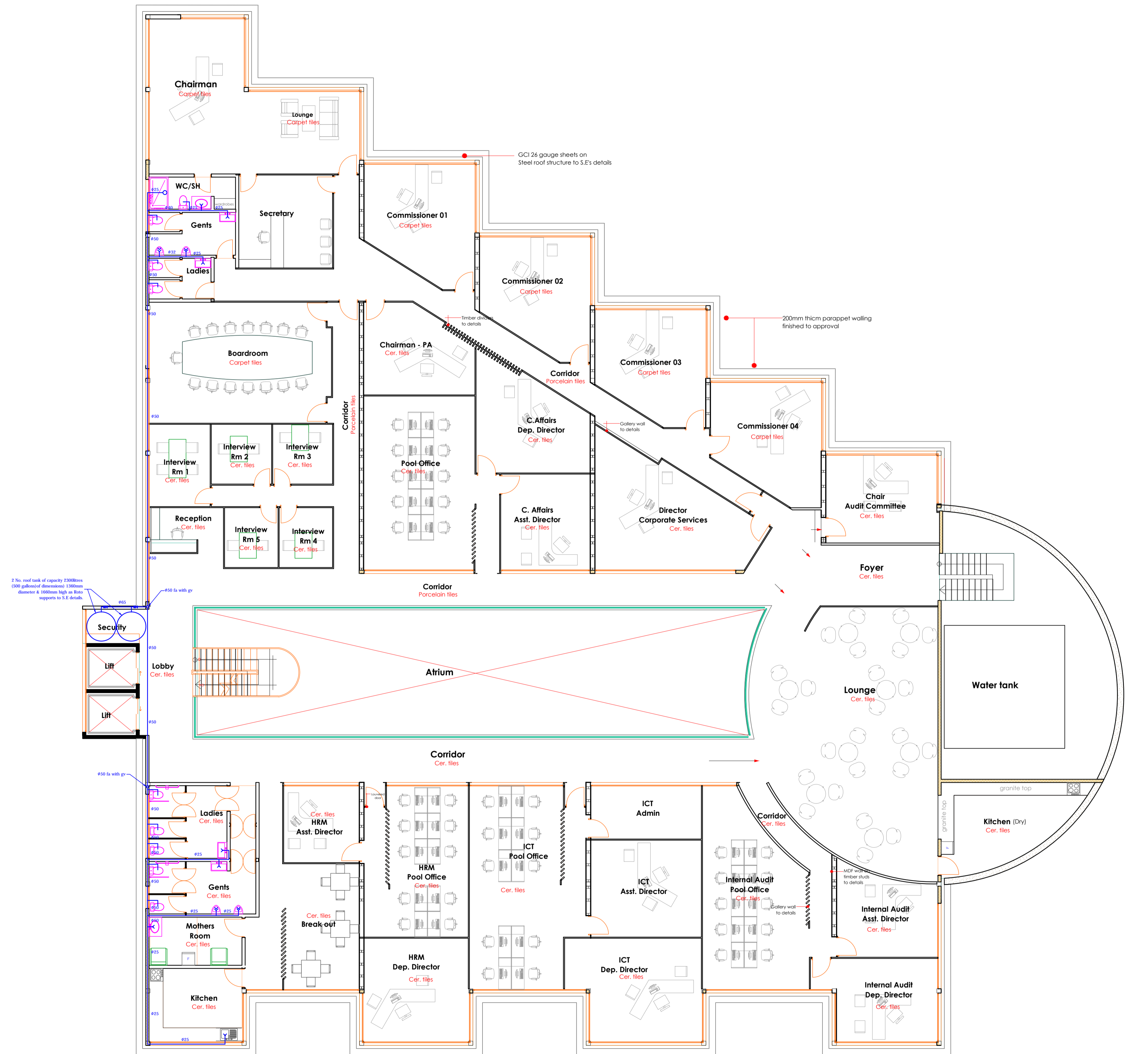
Signature

Date

**SCHEDULE OF MAJOR ITEMS OF CONTRACTOR'S EQUIPMENT PROPOSED FOR CARRYING
OUT THE WORKS**

ITEM OF EQUIPMENT	DESCRIPTION, MAKE AND AGE (Years)	CONDITION (New, good, poor) and number available	OWNED, LEASED (From whom?), or to be purchased (From whom?)

SECTION G: DRAWINGS



ROOFTOP FLOOR PLUMBING LAYOUT

LEGEND

	Existing Wall
	Proposed masonry wall
	Proposed EPS Panel wall
	Proposed glass wall
	Proposed gypsum wall
	Proposed hdpe wall
	Proposed timber dividers

NOTES

1. All dimensions are in millimetres unless otherwise stated.
2. All drawing shall be read together with Architects and Structural Engineers drawings
3. The piping to be blown clear to remove chips or metal shavings before nozzles are installed.
4. The detectors shall be wired in sequential method of operation, standard cross-zoned detection or single detector release. No other wiring arrangements shall be accepted

LEGEND

- fa- from above
- fb - from below
- ta - to above
- tb-to below
- WC- water closet
- whb - wash hand basin
- ks - kitchen sink
- re-rodading eye
- pd- pipe drop
- pr - pipe rise
- ks - kitchen sink
- ft-floor trap
- svp - soil vent pipe
- sh-shower

Project
PROPOSED PARTITIONING OF TOP FLOOR OF INTEGRITY CENTRE BUILDING

Site
NAIROBI

Client
EACC

Title
**INTEGRITY CENTRE
FOURTH FLOOR PLAN
PLUMBING LAYOUT**

	Name	Signature	Date
Drawn	Eng. L.MWAMBI		
Drawn	Eng. L.MWAMBI		
Group Engineer(M)			

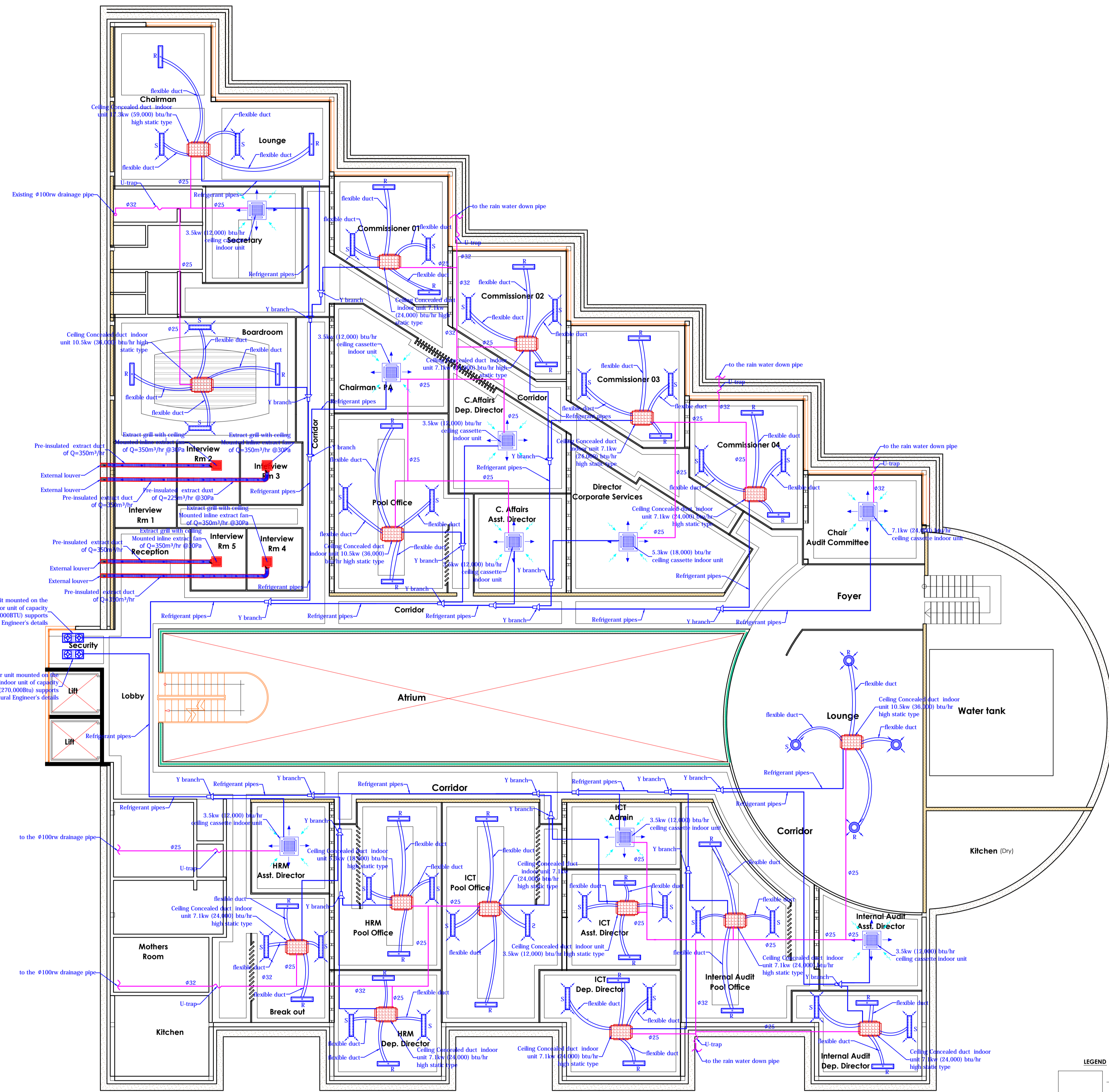
Approved _____ Signature & Date

**ENG. B. N. KAROBIA,
FOR CHIEF ENGINEER (MECHANICAL-BS)**

Scale	Date	Drawing No.
1:100	SEPTEMBER 2021	D22-M001

**MECHANICAL DEPARTMENT (BUILDING SERVICES)
STATE DEPARTMENT OF PUBLIC WORKS
MINISTRY OF TRANSPORT, INFRASTRUCTURE, HOUSING AND
URBAN DEVELOPMENT**

THE GOVERNMENT OF THE REPUBLIC OF KENYA

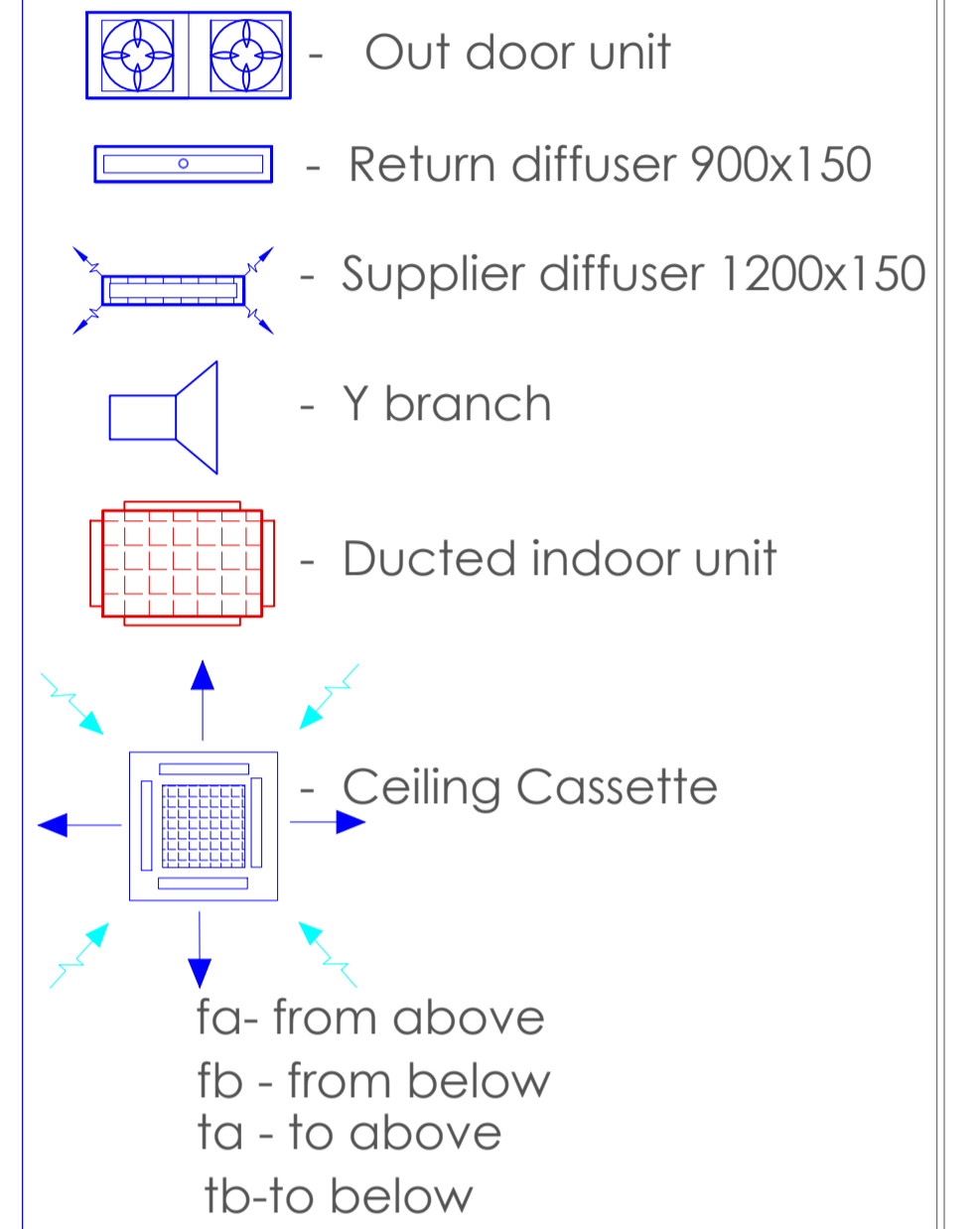


ROOFTOP FLOOR HVAC LAYOUT

NOTES

1. All dimensions are in millimetres unless otherwise stated.
2. All drawing shall be read together with Architects and Structural Engineers drawings
3. The piping to be blown clear to remove chips or metal shavings before nozzles are installed.
4. The detectors shall be wired in sequential method of operation, standard cross-zoned detection or single detector release. No other wiring arrangements shall be accepted

LEGEND



Project
PROPOSED PARTITIONING OF TOP FLOOR OF INTEGRITY CENTRE BUILDING

Site
NAIROBI

Client
EACC

Title
INTEGRITY CENTRE FOURTH FLOOR PLAN HVAC LAYOUT

	Name	Signature	Date
Drawn	Eng. L.MWAMBI		
Drawn	Eng. L.MWAMBI		
Group Engineer(M)			

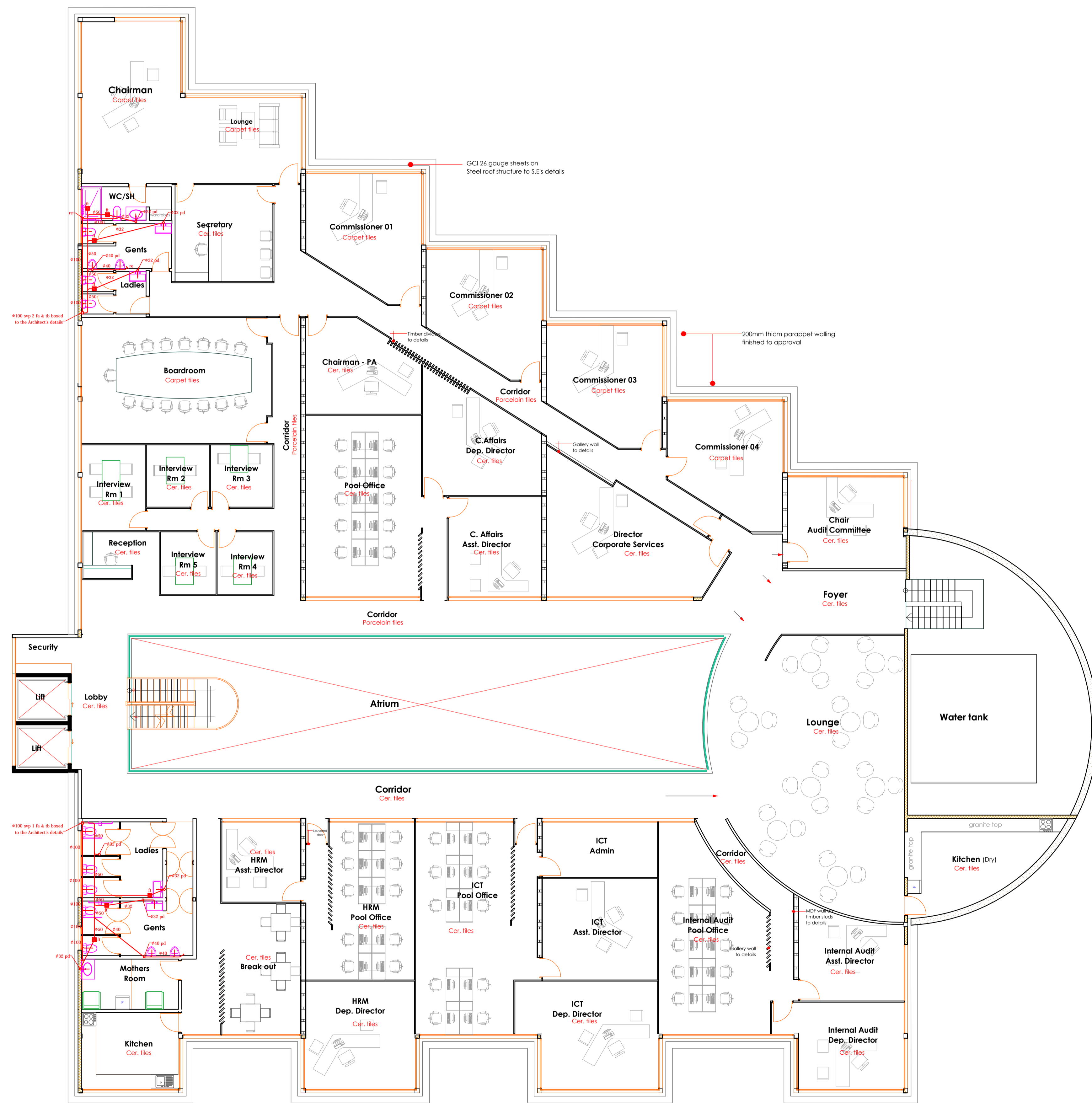
Approved _____ Signature & Date

ENG. B. N. KAROBIA,
FOR CHIEF ENGINEER (MECHANICAL-BS)

Scale	Date	Drawing No.
1:100	SEPTEMBER 2021	D22-M001

MECHANICAL DEPARTMENT (BUILDING SERVICES)
STATE DEPARTMENT OF PUBLIC WORKS
MINISTRY OF TRANSPORT, INFRASTRUCTURE, HOUSING AND URBAN DEVELOPMENT

THE GOVERNMENT OF THE REPUBLIC OF KENYA



ROOFTOP FLOOR DRAINAGE LAYOUT

NOTES

1. All dimensions are in millimetres unless otherwise stated.
2. All drawing shall be read together with Architects and Structural Engineers drawings
3. The piping to be blown clear to remove chips or metal shavings before nozzles are installed.
4. The detectors shall be wired in sequential method of operation, standard cross-zoned detection or single detector release. No other wiring arrangements shall be accepted

LEGEND

- fa- from above
- fb - from below
- ta - to above
- tb-to below
- WC- water closet
- whb - wash hand basin
- ks - kitchen sink
- re-rodding eye
- pd- pipe drop
- pr - pipe rise
- ks - kitchen sink
- ft-floor trap
- svp - soil vent pipe
- sh-shower

Project
PROPOSED PARTITIONING OF TOP FLOOR OF INTEGRITY CENTRE BUILDING

Site
NAIROBI

Client
EACC

Title
**INTEGRITY CENTRE
 FOURTH FLOOR PLAN
 DRAINAGE LAYOUT**

	Name	Signature	Date
Drawn	Eng. L.MWAMBI		
Drawn	Eng. L.MWAMBI		
Group Engineer(M)			

Approved _____ Signature & Date

**ENG. B. N. KAROBIA,
 FOR CHIEF ENGINEER (MECHANICAL-BS)**

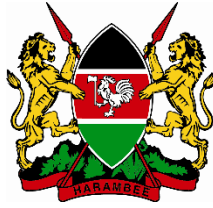
Scale	Date	Drawing No.
1:100	SEPTEMBER 2021	D22-M001

**MECHANICAL DEPARTMENT (BUILDING SERVICES)
 STATE DEPARTMENT OF PUBLIC WORKS
 MINISTRY OF TRANSPORT, INFRASTRUCTURE, HOUSING AND URBAN DEVELOPMENT**

THE GOVERNMENT OF THE REPUBLIC OF KENYA

- LEGEND**
- Existing Wall
 - Proposed masonry wall
 - Proposed EPS Panel wall
 - Proposed glass wall
 - Proposed gypsum wall
 - Proposed fibre wall
 - Proposed timber dividers

REPUBLIC OF KENYA



ETHICS AND ANTI-CORRUPTION COMMISSION

**PROPOSED FACELIFT OF EACC INTEGRITY CENTRE
HOUSE PHASE 1**

W.P. ITEM NO. D122NB/NB/2101 – JOB NO. 10106C.

TENDER DOCUMENTS

FOR

**SUPPLY, DELIVERY, INSTALLATION, TESTING AND COMMISSIONING OF
FIRE SUPPRESSION INSTALLATIONS**

ARCHITECT

CHIEF ARCHITECT
STATE DEPARTMENT OF PUBLIC WORKS
P.O. BOX 30743
NAIROBI

STRUCTURAL ENGINEER

CHIEF ENGINEER – STRUCTURAL
STATE DEPARTMENT OF PUBLIC WORKS
BOX 30743- 00100 GPO
NAIROBI

CLIENT

CHIEF EXECUTIVE OFFICER,

ETHICS AND ANTI-CORRUPTION COMMISSION
P.O. Box 61130-00200,
NAIROBI

QUANTITY SURVEYOR

CHIEF QUANTITY SURVEYOR
STATE DEPARTMENT OF PUBLIC WORKS
P.O. BOX 30743
NAIROBI

MECHANICAL ENGINEER

CHIEF ENGINEER- MECHANICAL (BS)
STATE DEPARTMENT OF PUBLIC WORKS
P.O. BOX 41191- 00100 GPO
NAIROBI

ELECTRICAL ENGINEER

CHIEF ENGINEER- ELECTRICAL (BS)
STATE DEPARTMENT OF PUBLIC WORKS
P.O. BOX 41191- 00100 GPO
NAIROBI

OCTOBER 2021

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SECTION B: PARTICULAR SPECIFICATIONS FOR FIRE SUPPRESSION B-1toB-10	
SECTION C: BILLS OF QUANTITIES AND SCHEDULE OF UNITS RATES ...C-1 to C-10	
SECTION D: DRAWINGS	D-1 to D-3
SECTION E: TECHNICAL SCHEDULE OF ITEMS TO BE SUPPLIED	E-1 to E-3
SECTION F: STANDARD FORMS.....	F-1 to F-4

DEFINITIONS

The following terms and expressions used in the contract document shall have the following meanings:

The Employer	Government of the Republic of Kenya Represented by: The Chief Executive Officer, Ethics and Anti-Corruption Commission, P.O. Box 61130-00200, <u>NAIROBI</u>
Architect	Chief Architect State Department of Public Works P.O. Box 30743 <u>NAIROBI</u>
Engineer (Mechanical)	Chief Engineer - Mechanical (BS) State Department of Public Works P.O. Box 41191 <u>NAIROBI</u>
Engineer (Electrical)	Chief Engineer – Electrical (BS) State Department of Public Works P.O. Box 41191 <u>NAIROBI</u>
Quantity Surveyor	Chief Quantity Surveyor State Department of Public Works P.O. Box 30743 <u>NAIROBI</u>
Structural Engineer	Chief Engineer (Structural) State Department of Public Works P.O. Box 30743 <u>NAIROBI</u>
Employer’s representative	This shall mean the Project Manager and shall be The Works Secretary State Department of Public Works P.O. Box 30743 <u>NAIROBI</u>
Site Location	The site is located at Nairobi, in Nairobi County.

SECTION A

GENERAL MECHANICAL SPECIFICATIONS

SECTION A

GENERAL MECHANICAL SPECIFICATION

<u>CLAUSE</u>	<u>DESCRIPTION</u>	<u>PAGE</u>
2.01	General.....	A-1
2.02	Quality of Materials	A-1
2.03	Regulations and Standards	A-1
2.04	Electrical Requirements	A-2
2.05	Transport and Storage	A-2
2.06	Site Supervision	A-2
2.07	Installation.....	A-2
2.08	Testing.....	A-3
2.09	Colour Coding.....	A-4
2.10	Welding.....	A-4

SECTION A

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.
- b) The United Kingdom Institution of Electrical Engineers (IEE) Regulations for the Electrical Equipment of Buildings.
- c) The United Kingdom Chartered Institute of Building Services Engineers (CIBSE) Guides.
- d) British Standard and Codes of Practice as published by the British Standards Institution (BSI)
- e) The County Government By-laws.
- f) The Electricity Supply Authority By-laws.
- g) County Government 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

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.

2.08.3 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 week's 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.

2.08.4 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.

2.09 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.

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 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.

SECTION B

PARTUCLAR SPECIFICATIONS FOR FIRE SUPPRESSION

<u>CLAUSE</u>	<u>DESCRIPTION</u>	<u>PAGE</u>
2.1	General.....	2-B
2.2	System arrangements	2-B
2.3	Design parameters.....	4-B
2.4	Detection.....	5-B
2.5	Equipment material general	5-B
2.6	Warning Signs.....	7-B
2.7	Equipment and material electrical.....	7-B
2.8	Testing.....	9-B
2.9	Warranty	10-B

PARTICULAR SPECIFICATIONS FOR FIRE SUPPRESSION SYSTEM

2.1 General

The specifications described here make reference to Argonite fire suppression system. However, alternative systems utilizing inert gases may be used subject to the condition that they meet all the requirements of this specification.

The Argonite shall be used to extinguish fires in the rooms to be specified.

The gas shall be stored under pressure in liquefied form inside cylinders and piped to fire protected areas. Each Argonite system in a given zone shall be supplied complete with its control Unit that shall receive the signal from smoke detectors or break glass and automatically release the gas after sounding an alarm bell and switching off any existing Ventilation systems . The fire detection system in all areas where Argonite gas system is not installed shall be supplied and installed by, but the Sub-Contractor shall liaise with him and extend detection signal outputs into the Master Alarm Control Panel.

The Design, equipment, installation, testing and maintenance of the system shall be made in accordance with these specifications, drawings and the following standards:

- a) **NFPA 2001-Clean Agent Fire Extinguishing systems**
- b) **NFPA 70-National Electrical Code**
- c) **NFPA 72-National Fire Alarm Code**
- d) **Local authority requirements**

The fire suppression systems shall be designed by competent personnel who are trained and authorized by the equipment manufacturer for design of total flooding Argonite systems and the integrated detection systems. Working Drawings shall be provided in sufficient detail to indicate the type, size, and arrangement of component materials and devices; and the dimensions needed for installations and correlation with other materials and equipment.

All Working Drawings shall be submitted for review and approval prior to installation.

Detailed literature outlining the operation, recharge and service of the system, Maintenance procedures for the owner shall be provided.

Equipment manufacturer shall provide a **12 month** warranty Details of this warranty shall be furnished upon request.

All devices, components and equipment shall be products of the same manufacturer and shall be U.L listed or FM approved.

2.2 SYSTEM ARRANGEMENT

Argonite fire suppression system shall be of the engineered, permanently piped, fixed nozzle type with all pertinent components of the same manufacturer. All agent storage containers shall be centrally located as vertical, free-standing cylinders with wall mounted retaining brackets. Where multiple cylinders are required for the same hazard, a common manifold should be employed.

Manifolds shall be constructed from seamless schedule 80 piping. They shall be complete with a safety relief valve. Manifoldded cylinders shall employ a flexible discharge hose to facilitate installation and system maintenance. Each cylinder on a manifold shall also include an agent check valve installed to the manifold inlet.

Where a set of manifolded cylinders shall be required to serve multiple zones, selector valves shall be used to direct the extinguishing agent to the respective zone.

Detection system shall be of the engineered type, suitable for direct interface with the Argonite fire suppression system. Detectors shall be wired in Sequential Detection method of operation or standard Cross-Zoned detection.

For each hazard, both Ionization and Photoelectric type smoke detectors shall be used to provide automatic input to the control panel.

In addition, manual pull station(s) shall be provided for the direct electric release of the Argonite Fire Suppression System.

Automatic operation of each protected area shall be as follows:

- a) Actuation of one (1) detector, within the system to:
 - i) Illuminate the -ALARM LED on the control panel face.
 - ii) Energize the audible notification appliances within the protected space with a unique pattern to indicate a first alarm condition
 - iii) Transfer sets of 5 Amp rated auxiliary contacts which can perform auxiliary system functions such as: Operate door holder/closures on access doors, Transmit a signal to the fire alarm system, Shutdown HVAC equipment, etc
 - iv) Light an individual LED on an optional graphic annunciator.

- b) Actuation of a 2nd detector, within the system, to:
 - i) Illuminate the -PRE-DISCHARGE LED on the control panel face; energize the audible notification appliances within the protected space with a unique pattern to indicate a second alarm (predischarge) condition, Shut down the HVAC system and/or close dampers, Start time-delay sequence (not to exceed 60 seconds), enable System abort sequence, Light an individual LED on a graphic annunciator.

 - ii) After completion of the time-delay sequence, the system shall activate and the following shall occur: Illuminate a -RELEASE LED on the control panel face, Energize the audible notification appliances within the protected space with a continuous on pattern to indicate a release condition, Shutdown of all power to high-voltage equipment, Energize a visual indicator(s) outside the hazard in which the discharge occurred, Energize a -System Fired audible device.

The system shall be capable of being actuated by manual discharge devices located at each hazard exit. Operation of a manual device shall duplicate the sequence description above except that the time delay and abort functions SHALL be bypassed. The manual discharge station shall be of the electrical actuation type and shall be supervised at the main control panel.

2.3 DESIGN PARAMETERS – ARGONITE

Design of the total flooding Argonite system shall be based upon the enclosure being sufficiently tight against agent leakage with all ventilation shut down and or fire dampered or provide for static air condition upon discharge.

Agent quantity calculations shall be determined from dimensions furnished on the construction drawings and or in the particular specification using a design concentration based on fire hazard class of the protected zone and the NFPA 2001 standards. As a minimum a concentration of 38% at the minimum anticipated hazard temperature of 20 °C shall be used.

Calculation for the maximum design concentration shall be based upon maximum anticipated hazard temperature of 32 °C.

When applicable, agent quantity shall be adjusted for:

- i) Altitudes of more than (915m) above sea level.
- ii) Non-flooded false ceiling volume.
- iii) Multiple hazards from a common agent supply.
- iv) Manufacturer standard tanks and fill increments
- v) Duct volume for HVAC system.

The system shall be designed to discharge the calculated agent quantity in a nominal 60 second period.

Nozzle spacing shall be in accordance with the listed approved coverage for each nozzle type. In all cases, the need for additional nozzle shall be considered based upon site conditions and manufacturer's recommendations.

Hydraulic calculations for each system shall be used upon two-phase flow equations for unbalanced systems as defined by **NFPA** regardless if a single nozzle or balanced piping network is used.

Computerized verification of hydraulic calculations shall be submitted for each Argonite system.

The contractor shall provide data to indicate the free venting area required per **NFPA standards** for each hazard volume.

2.4 DESIGN PARAMETERS – DETECTION

The design of the detection/control system shall be based on a clean, vibration free, electrical non-hazardous environment

As a minimum detector spacing shall be based upon **NFPA** recommended practices for ceiling construction, air flow and manufacturer recommendations.

At least one smoke detector of each type (ionization and photoelectric) shall be used in each protected area. Where multiple detectors are used, detection shall alternate such that ionization are adjacent to photoelectric.

Unless otherwise stated on the drawings manual pull station(s) shall be located at all points of exit from the protected area.

Unless otherwise stated on the drawings at least one alarm device shall be located within the protected area for the general alarm function.

Battery capacity shall be sufficient to permit normal non-alarm condition for 24 hours with subsequent general alarm for 5 minutes after loss of primary line power. The

contractor shall be required to furnish calculations to back up the battery capacity to be installed.

2.5 EQUIPMENT AND MATERIAL

General

All materials and equipment shall be of new, unused, and undamaged condition in strict accordance with the requirement of this section. Equipment shall be required to meet the specified standards; **ISO 14520, NFPA.**

All equipment's and materials shall only be used for their intended application, in locations for which they were designed, and installed in accordance with the manufacturer's instructions and or recognized standard trade practice.

2.5.1 Pipe Material – Argonite 300 bar System.

Argonite 200 bar system piping shall be of non –combustible materials having physical and chemical characteristics such that its integrity under stress can be predicted with reliability. Materials other than listed below , such as stainless steel or nonferrous piping or tubing , may be used if the materials satisfy the applicable requirements of NFPA.

As a minimum, piping materials and manifolds shall be schedule 40 seamless steel pipes conforming To BS specifications and capable of 65 bar operating pressure (ASTM Grade A-106B). Under no conditions shall ordinary cast iron pipe, steel pipe or non- metallic pipe be used.

Argonite system piping joints shall be suitable for the design conditions and shall be selected with consideration of joint tightness and mechanical strength.

As a minimum, fittings shall be black class 300 malleable iron fittings. Ordinary cast iron fittings shall not be permitted.

Piping shall be installed accordance with good commercial practice to the appropriate codes, securely supported with Listed hangers, and arranged with close attention to the design layout since deviations may alter the design flow performance as hydraulically calculated.

All Piping must be reamed, blown clear, and swabbed with appropriate solvent to remove mill varnish and cutting oils before assembly. The piping shall also be finished off with two coats of red paint after testing. Multi- outlet fittings other than tees shall not be permitted.

Assembly of all joints shall conform to the appropriate standards. Threaded pipe joints shall utilize Teflon tape applied to male threads only.

2.5.2 Agent Storage Tank

Argonite agent storage containers shall be of welded steel construction in accordance with **NFPA** Specification and finished in (baked red enamel) (red epoxy) paint.

Tank assemblies shall be filled with Argonite pressurized to 300 bar at (15 °C).

Initial filling of the cylinders and recharge shall be done in accordance with the manufacturer's established procedures and shall not require replacements components for normal service.

The size and fill weights of all cylinders shall be of the following nominal sizes: _

- i) 80 litre 22.8kg
- ii) 80 litre 32.1kg

Nominal 270kg tank assembly shall be equipped with an internal liquid level measuring rod, marked in ¼ inch increments to allow direct reading of the liquid level and conversion to the weight of Argon within the tank.

Tank assemblies shall be vertical, free standing modules employing suitable wall mounted retaining brackets. Tank assemblies shall be listed or approved to perform in the temperature range -20C to 50C.

Aluminum **name plates** indicating manufacturer's name and part number, agent fill weight, total charged weight date of fill, shall be permanently bonded to each tank. Each tank assembly shall have the means to accommodate lifting devices to facilitate weighing removal and replacing.

Tank assembly shall include a pressure gauge and a low pressure switch that operates at approximately 180 bar to facilitate continuous supervision of tank pressure.

2.5.3 Tank Valve

Agent storage tank assemblies shall include an integral, high flow valve assembly connected to the tank by a machined thread and sealed by an O-ring.

Valve outlet sizes shall be based on the nominal tank capacity with a one inch size for 18,33,54 and 72 pound assemblies, and three inch for 600 pound assemblies.

The valve design shall be of the differential pressure type which utilizes tank pressure to seal the valve assembly. The valve shall be compatible with separate, removable, stackable type actuators for electric, pneumatic, and or manual actuation.

Operation of the valve by the stackable type actuator shall be such actuation.

Operation of the valve by the stackable type actuator shall be such that pressure is relieved from the upper chamber of the valve causing the valve to open. Valves shall be forged brass construction with an o-ring sealed brass spool incorporating the main electrometric seal surface.

The valve assembly shall include recessed pressure gauge 0 to 250 bar, overpressure safety relief disc assembly, normally pressurized connection port for an optional low pressure switch, normally unpressurized connection port used as pneumatic source for a slave cylinder valve actuation, and brass shipping caps on exposed thread connection. When pneumatically operated main/reserve systems are used, pilot valves shall be equipped with actuation isolators.

All tank valves shall be F.M or LPCB Approved.

2.5.4 Tanks Brackets

Each Argonite tank shall be furnished with a stainless steel, two part, strap type retaining bracket designed to secure the cylinders to the wall or any other suitable surface as may be recommended by the system manufacturer.

2.5.4.1 Valve Actuator system

Argonite valve actuator system shall consist of a pneumatically operated cylinder actuator assembly and a and a **solenoid type** Electric actuator package.

The solenoid actuator package shall consist of the solenoid valve mounted either on a rechargeable slave nitrogen cylinder or on the Argon gas cylinder. A signal from the control panel shall operate the solenoid valve to discharge the gas in the pilot cylinder.

The discharged gas shall then open the cylinder actuator assembly mounted on the Argonite cylinder discharge valve. This process shall release the stored Argonite gas for

fire extinguishing.

Where multiple zones are protected from the same storage system, selector valves shall be used. These valves shall be actuated by the Nitrogen gas from the actuation package. Manual override actuators shall be designed to attach to electric actuator or directly to the valve assembly and permit manual operation of the pilot cylinder tank assembly. Manual actuator positions shall be clearly marked and operating instructions provided. All actuators shall be LPCB Approved.

2.5.5.2 Discharge Nozzles

Argonite discharge nozzles shall be of one piece (brass) construction sized to provide flow rates in accordance with system design hydraulics.

Orifice (s) shall be machined in the nozzle body to provide a horizontal discharge in 90°, 180°, or 360° patterns based upon the approved coverage arrangements. Separate, interchangeable orifice plates are not acceptable.

Nozzles shall be permanently marked with the manufacturer's part number, number of orifice and orifice code. The nozzle shall be threaded directly to the discharge piping without the use of special adaptors.

Nozzles shall be LPCB Approved.

2.6 Warning Signs

Etched aluminum Warning Signs shall be provided at all Entrance and Exits of the protected area.

Entrance sign shall read: -WARNING DO NOT ENTER ROOM WHEN ALARM SOUNDS, **ARGONITE** BEING RELEASED.¶

Exit sign shall read: -WHEN ALARM SOUNDS, VACATE AT ONCE, **ARGONITE** BEING RELEASED.¶

2.7 EQUIPEMENT AND MATERIAL –ELECTRICAL

2.7.1 General Materials

All electrical trunkings and conduits shall be employed in accordance with applicable codes and intended use and contain only those electrical circuits associated with the fire detection and control system and shall not contain any circuit that is unrelated to the system.

Unless specifically provided otherwise in each case, all conductors shall be enclosed in steel conduit, rigid or thin walled as conditions dictate, except in computer room where they shall be PVC conduit concealed in building fabrics.

All wiring shall be of the proper size to conduct the circuit current. The use of aluminium wire is strictly prohibited. Splicing of circuits shall be kept to a minimum and are only to be found in an electrical device suited for the purpose. Wire spliced together shall have the same colour insulation. Wire splices shall be made with appropriate devices suited for the purposes.

All wire terminations shall be made with crimp terminals unless the device at the termination is designed for bare wire termination.

All electrical circuits shall be numerically tagged with suitable devices at its terminating point and/ or splice. All circuits numbers shall correspond with the installation drawings.

The use of coloured wires is encouraged. White coloured wire shall be used exclusively for the identification of the neutral conductor of an alternating current circuit. Green coloured wire shall be used exclusively for the identification of the earth ground conductor of an AC and DC circuit.

2.7.2 Control Panels – General

All control panels shall be F.M Approved and be utilized with listed or approved operating devices and shall be capable of the following features,;

- a. Supervised Detection Circuits (s) with a first stage and a second stage circuit.
- b. Supervised Alarm Circuit allowing for a first stage alarm, second stage alarm and the third stage for gas release.
- c. Supervised Release Circuit
- d. Supervised Manual Electric Pull Circuit
- e. Supervised Manual mechanical Pull Circuit
- f. 0-60 second Programmable Time Delay
- g. Battery Standby
- h. Front Panel Indicating Lamps and 4x20 character display
- i. Key Lock Steel Enclosure with a glass panel covering the controls

The internal power supply shall operate from 240V 50Hz A.C power supply. A fused polarity reversing , 1 amp, 24VDC supervised dedicated release circuit for use with approved fire suppression system releasing devices shall be provided.

The control unit shall provide provisions for housing its own set of -on-line float charged emergency batteries within the enclosure.; Battery supervision shall be provided for condition and placement of the batteries.

A supervised dedicated manual pull circuit designated for immediate operation of the release circuit shall be provided. An auxiliary trouble circuit for supervision of other normally closed accessory devices shall be provided. The control unit shall be housed in steel cabinet of approved type with conduit knockouts in a (red) (beige) enamel finish. The control unit shall be F.M or LPCB Approved as an alarm releasing control unit

Smoke Detector - Ionization

Ionization type smoke detector shall be dual chamber type and compatible with the control unit. The detector shall have an LED in its base which is illuminated in a steady -on mode when in alarm. Reset of the detector shall be performed by the control unit reset switch.

The design of the ionization detector compensating circuits shall provide stable operation with regard to minor changes in temperature, humidity, and atmosphere conditions.

The sensitivity voltage shall be factory set per U.L 268. A special locking screw shall be provided to lock the head to the base; the head to base connection shall be by use of bifurcated contracts. Terminal connections to the base shall be of the screw type.

The detector shall be F.M or LPCB Approved.

Smoke Detector - Photoelectric

Photoelectric detector shall be a solid-state sensing chamber unit providing stable operations (sensitivity) and compatible with the control unit. The detector shall utilize a light sensing photodiode and a pulse signal processor to measure the density of the

combustion products within

The sensing chamber - The detector head shall have a stainless steel mesh to prevent foreign objects from entering the sensing chamber. The sensitivity voltage shall be factory set.

A special locking screw shall be provided to lock the head to the base. The head to base connection shall be by use of bifurcated contacts. Terminal connections to the base shall be of the screw type.

The detector shall be F.M or LPCB Approved.

Alarm Bells

The vibrating Alarm Bell shall be approved for use with the listed control unit. The polarized alarm bell shall be rated at 24VDC and draw no more than .063 amps and shall contain a series diode for use in supervised systems. It shall also incorporate a flashing strobe light. It shall have a dB level of 86 – 90 at 3 metres.

The bell shall be constructed of high quality materials to ensure reliability and long life and have a baked red enamel finish. The device shall be F.M or LPCB Approved.

Manual Pull Stations (Fire man's switch)

The Manual Pull Station shall be provided for the release (electrical) of the Argonite in case of an emergency. The unit shall be contained within a metal body having a (single) (double) pole switch. The device shall be F.M or LPCB Approved.

The abort switch shall be used where an investigation delay is desired between detection and actuation of the Argonite System.

The Abort Station shall be the "Dead Man" type and shall be located next to each manual Switch. "Locking" or "Keyed" abort stations **shall not** be permitted. The Abort Station shall indicate a trouble condition at the Control Panel, if depressed, and no alarm condition exists. The Abort Station shall be located adjacent to each manual station and can be furnished in combination with a Manual Release Switch.

The device shall be U.L listed or F.M Approved for a delay switch.

2.7.3 Pressure Switch

This pneumatically actuated switch shall be used to give positive identification of release of Argonite in the piping system.

The switch shall have one set of normally open and one set of normally closed contacts.

2.8 SYSTEM INSPECTION AND TESTING

The completed installation shall be inspected by authorized personnel and shall include a full operational test of all components per the equipments manufacturer recommendation including agent discharge.

This shall be done in the presence of the owner's representative and other insuring authority having jurisdiction.

All mechanical and electrical components shall be tested according to the manufacturer's recommended procedure to verify system integrity.

The inspection and testing shall be carried out by the contractor. The tests shall demonstrate that the entire control system functions as designed and intended. All

circuits shall be tested: automatic actuation, solenoid and manual actuation, HVAC and power shutdowns, audible and visual alarm devices and manual override of abort functions. Supervision of all panel circuits, including AC power and battery power supplies, shall be tested and qualified. Inspection shall include a complete checkout of and certification of weight and cylinder pressure. A written report shall be filed with the Engineer.

Two copies of drawings shall be provided by Contractor indicating the installed details. All routing or piping and electrical conduit and accessories shall be noted. Equipment, Installation and Maintenance Manuals shall be provided in FOUR copies, in addition to the as-built drawings.

Prior to final acceptance, the contractor shall provide operational training in all concepts of this system to the owner's key personnel. Training shall consist of:-

- i) System Control Unit Operation
- ii) Troubleshooting Procedures
- iii) Abort Procedures
- iv) Emergency Procedures
- v) Safety Requirements
- vi) A functional test shall be completed prior to the concentration test consisting of detection, release alarm, accessories related to system, control unit, and a review of the tanks, piping, fittings, hangers and cylinder pressure.

2.9 WARRANTY

All system components shall be guaranteed against defects in design, materials and workmanship for the full warranty period which shall in no case be less than one (1) year from the date of system acceptance.

SECTION C

**BILLS OF QUANTITIES AND SCHEDULE OF UNIT
RATES**

BILLS OF QUANTITIES AND SCHEDULE OF UNIT RATES

CONTENTS

<u>CLAUSE No.</u>	<u>PAGE</u>
1. GENERAL NOTES TO TENDERERS.....	C-1
2. SPECIAL NOTES.....	C-2
3. STATEMENT OF COMPLIANCE.....	C-3
4. BILLS OF QUANTITIES	C-4 to C-8
5. SUMMARY PAGE.....	C-9

BILLS OF QUANTITIES

A) PRICING OF PRELIMINARIES ITEMS.

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.

The Bills of Quantities are divided generally into three sections:-

Preliminaries – Bill 1

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.

Installation Items – Other Bills

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.

The unit of measurements and observations are as per those described in clause 3.05 of the section C.

(c) Summary

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

SPECIAL NOTES

1. The Bills of Quantities form part of the contract documents and are to be read in conjunction with the contract drawings and general specifications of materials and works.
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, 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**.
6. Tenderers must enclose, together with their submitted tenders, detailed Manufacturer's Brochures detailing Technical Literature and specifications on all the Equipment they intend to offer.

1. 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:

SCHEDULE 1 – SUB-CONTRACT

PRELIMINARIES

ITEM	DESCRIPTION	QTY	UNIT	RATE	KSHS	CTS
1	Discrepancies clause 1.02					
2	Conditions of sub-contract Agreement clause 1.03					
	Payments clause 1.04					
3	Site location clause 1.06					
4	Scope of Contract Works clause 1.08					
5	Extent of the Contractor’s Duties clause 1.09					
6	Firm price contract clause 1.12					
7	Variation clause 1.13					
8	Prime cost and provisional sum clause 1.14 (insert					
9	profit and attendance which is a percentage of					
	expended PC or provisional sum.)					
	Bond clause 1.15					
10	Government Legislation and Regulations clause 1.16					
11	Import Duty and Value Added Tax clause 1.17(Note					
12	this clause applies for materials supplied only. VAT					
	will also be paid by the sub-contractor as allowed in					
	the summary page)					
	Insurance company Fees clause 1.18					
13	Provision of services by the Main contractor clause					
14	1.19					
	Samples and Materials Generally clause 1.21					
15						
	SUB-TOTAL CARRIED TO PAGE C -6					

ITEM	DESCRIPTION	QTY	UNIT	RATE	KSHS	CTS
16	Supplies clause 1.20					
17	Bills of Quantities clause 1.23					
18	Contractor's Office in Kenya clause 1.24					
19	Builder's Work clause 1.25					
20	Setting to work and Regulating system clause 1.29					
21	Identification of plant components clause 1.30					
22	Working Drawings clause 1.32					
23	Record Drawings(As Installed) and Instructions clause 1.33					
24	Maintenance Manual clause 1.34					
25	Hand over clause 1.35					
26	Painting clause 1.36					
27	Testing and Inspection – manufactured plant clause 1.38					
28	Testing and Inspection – Installation clause 1.39					
29	Storage of Materials clause 1.41					
30	Initial Maintenance clause 1.42					
	SUB-TOTAL CARRIED TO PAGE C -6					

ITEM	DESCRIPTION	QTY	UNIT	RATE	KSHS	CTS
31	Attendance Upon Tradesmen, etc. (Insert percentage only) clause 1.58					
32	Local and other Authorities notices and fees clause 1.60					
33	Temporary Works clause 1.63					
34	Patent Rights clause 1.64					
35	Mobilization and Demobilization Clause 1.65					
36	Extended Preliminaries Clause 1.66(see appendix page C – 24)					
37	Supervision by Engineer and Site Meetings Clause 1.67					
38	Allow for profit and Attendance for the above					
39	Amendment to Scope of Sub-contract Works Clause 1.68					
40	Contractor Obligation and Employers Obligation clause 1.69(see appendix page C -24)					
41	Provisional sum for resident Mechanical Engineer’s allowance (Contractor to pay this money directly to Resident Engineer)					
42	Provisional sum for Resident Engineer’s Stationery					
43	Any other preliminaries;					
	Subtotal above Subtotal brought forward from page..... C-4 Subtotal brought forward from page..... C-5					
	TOTAL FOR SCHEDULE NO. 1- PRELIMINARIES CARRIED FORWARD TO PRICE SUMMARY PAGE C - 10					

SERVER-ROOM FIRE SUPPRESSION SYSTEM					
Item	Description	Qty	Unit	Rate (Kshs)	Amount (Kshs)
	Supply and install fire suppression system with the following items to the satisfaction of the Engineer. The server room area volume of 112m ³ .The tenderer to submit the technical brochures and working calculations together with the tender for evaluation. Alternative and approved systems utilising inert gases or a mixture of such gases may be provided.				
A	80litre (32.1Kg) normal charged capacity Argonite specified containers charged with Argonite gas at 300bar with dimensions 267mm diameter and 1910mm high when fitted with valve cylinders to be complete with discharge valves gauges and hoses for connection to the manifold. All to be as "Fike" or approved equivalent.	4	No.		
B	80litre (32.1Kg) normal charged capacity Argonite specified containers charged with Argonite gas at 300bar for testing.	1	No		
C	Cylinder support bracket system	1	Item		
D	50mm schedule 40 discharge manifold kit with 2 No. ports complete with end caps and a threaded port for pressure switch. All to be as "Fike" or approved equivalent.	1	Item		
E	25mm selector switch	1	No		
F	Actuation package	1	Item		
G	Solenoid valve/ manual release valve assembly inclusive of hoses, connectors etc.	1	Item		
H	50mm pressure reducing valve	1	No.		
I	15mm Argonite discharge Nozzles V type 6 orifice, Nozzle coverage 360 degrees pattern and a radius of 3M. The Nozzle will be located less than 300mm below the ceiling as "Fike" or approved equivalent.	8	No.		
J	Relief valve	1	No		
K	Check valve	1	No		
L	Pressure gauge	1	No		
M	Pressure relief/vent	1	No		
N	Discharge pressure switch	1	No.		
O	Flexible discharge hose	2	No.		
P	Controls, addressable Control panel and wiring complete with standby batteries	1	Item		
Total Carried to collection Page					

Item	Description	Qty	Unit	Rate (Kshs)	Amount (Kshs)
A	Maintenance switch	1	No.		
B	Double Action manual /electric releasing switch	1	No.		
C	Abort switch	1	No.		
D	Ionization sensors	4	No.		
E	Photo electric sensors	4	No.		
F	Audible alarms	1	No.		
G	Visual alarm	1	No.		
	Pipework				
H	25mm diameter seamless black pipe Schedule 40	30	LM		
I	20mm diameter seamless black pipe Schedule 40	18	LM		
J	15mm diameter seamless black pipe Schedule 40	8	LM		
K	20mm diameter pipe bend/elbow	4	No		
L	15mm diameter pipe bend/elbow	2	No		
M	25mm x 20mm pipe reducer	2	No		
N	25mm x 15mm pipe reducer	2	No		
O	20mm x 15mm pipe reducer	2	No		
P	25mm equal tee	2	No		
Q	20mm equal tee	1	No		
R	Allow for associated Builders work	1	Item		
S	Allow for pipework anchorage/hangers	1	Item		
T	Allow for painting system pipework	1	Item		
U	Electrical works and earthing	1	Item		
V	Labelling and warning signs inside and outside the rooms	2	No		
W	Calculations,working drawings and as installed drawings	1	Item		
	Dry Chemical Powder Fire Extinguisher				
X	6kg dry chemical podwer portable fire extinguisher complete with pressure gauge, initial charge and mounting brackets.	2	No		
Y	Testing and commissioning of the fire suppression system to the approval of the Mechanical Engineer	1	Item		
	Total Carried to Summary Page				

COLLECTION PAGE

Item	Description	Total Cost
1	Total brought forward from C-7	
2	Total brought forward from C-8	
Total Amount for Fire Suppression System for server room		

SUMMARY PAGE

Item	Description	Total Cost (Kshs)
1	Total for Preliminaries and General Items from C-6	
2	Total Carried Forward from Collection Page C-9 for fire suppression Works	
3	Allow for Contingency Sum	300,000.00
Total Cost for Fire Suppression Carried to Form of Tender		

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

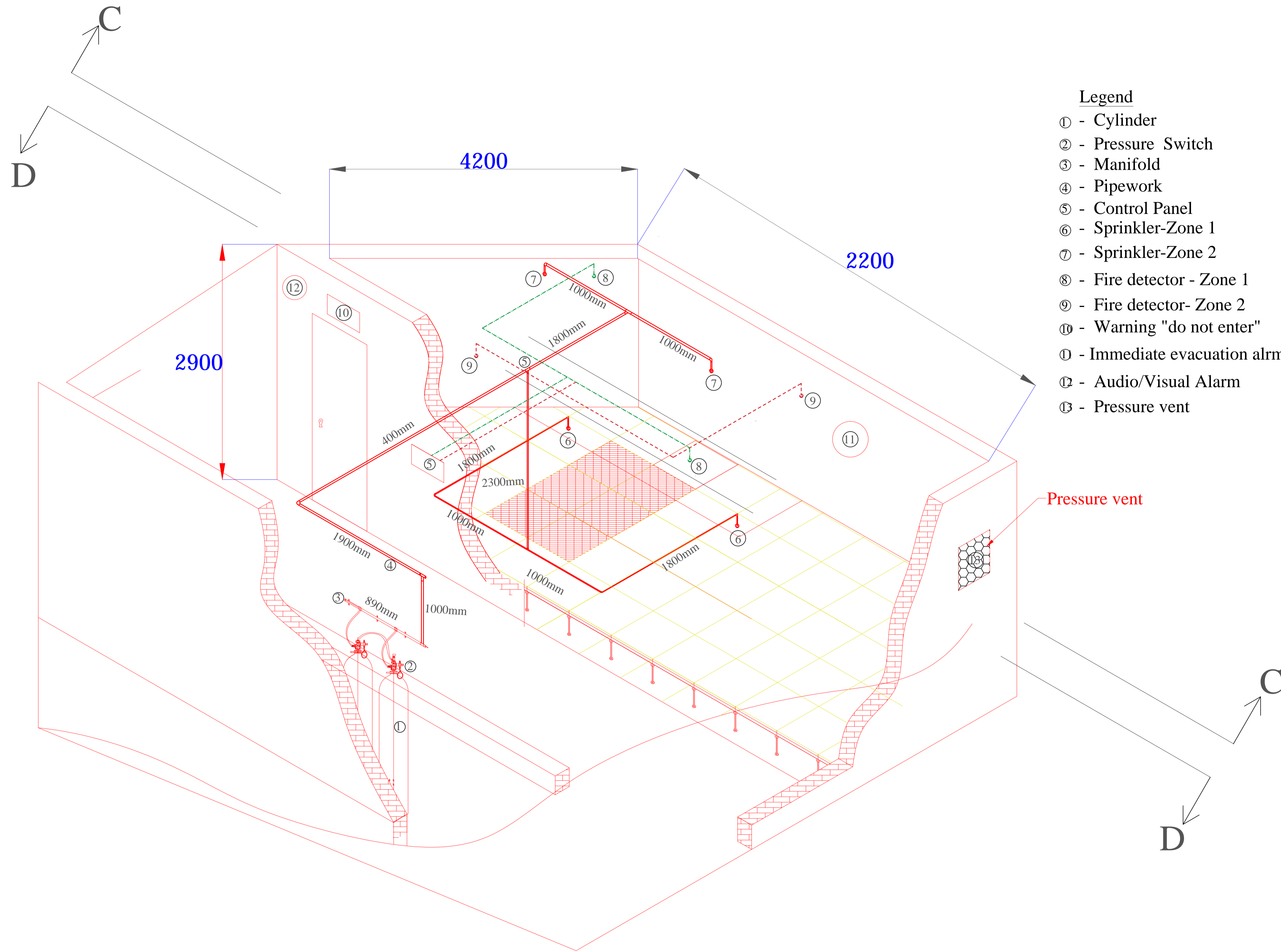
Tenderer's P.I.N No

Tenderer's Signature Date.....

Witness Signature Date.....

SECTION D:

DRAWINGS



- Legend**
- ① - Cylinder
 - ② - Pressure Switch
 - ③ - Manifold
 - ④ - Pipework
 - ⑤ - Control Panel
 - ⑥ - Sprinkler-Zone 1
 - ⑦ - Sprinkler-Zone 2
 - ⑧ - Fire detector - Zone 1
 - ⑨ - Fire detector- Zone 2
 - ⑩ - Warning "do not enter"
 - ⑪ - Immediate evacuation alarm
 - ⑫ - Audio/Visual Alarm
 - ⑬ - Pressure vent

- NOTES**
1. All dimensions are in millimetres unless otherwise stated.
 2. All drawing shall be read together with Architects and Structural Engineers drawings
 3. The piping to be blown clear to remove chips or metal shavings before nozzles are installed.
 4. The detectors shall be wired in sequential method of operation, standard cross-zoned detection or single detector release. No other wiring arrangements shall be accepted

- LEGEND**
- smoke detector wiring
 - heat detector wiring
 - gas agent piping
- fa- from above
fb - from below
ta - to above
tb-to below
sh-shower
whb - wash hand basin
ks - kitchen sink
wc - water closet

FIRE SUPPRESSION ISOMETRIC LAYOUT

Project
PROPOSED PARTITIONING OF TOP FLOOR OF INTEGRITY CENTRE BUILDING

Site
NAIROBI

Client
EACC

Title
INTEGRITY CENTRE DATA CENTRE ISOMETRIC FIRE SUPPRESSION LAYOUT

	Name	Signature	Date
Drawn	L.MWAMBI		
Drawn	L.MWAMBI		
Group Engineer(M)			

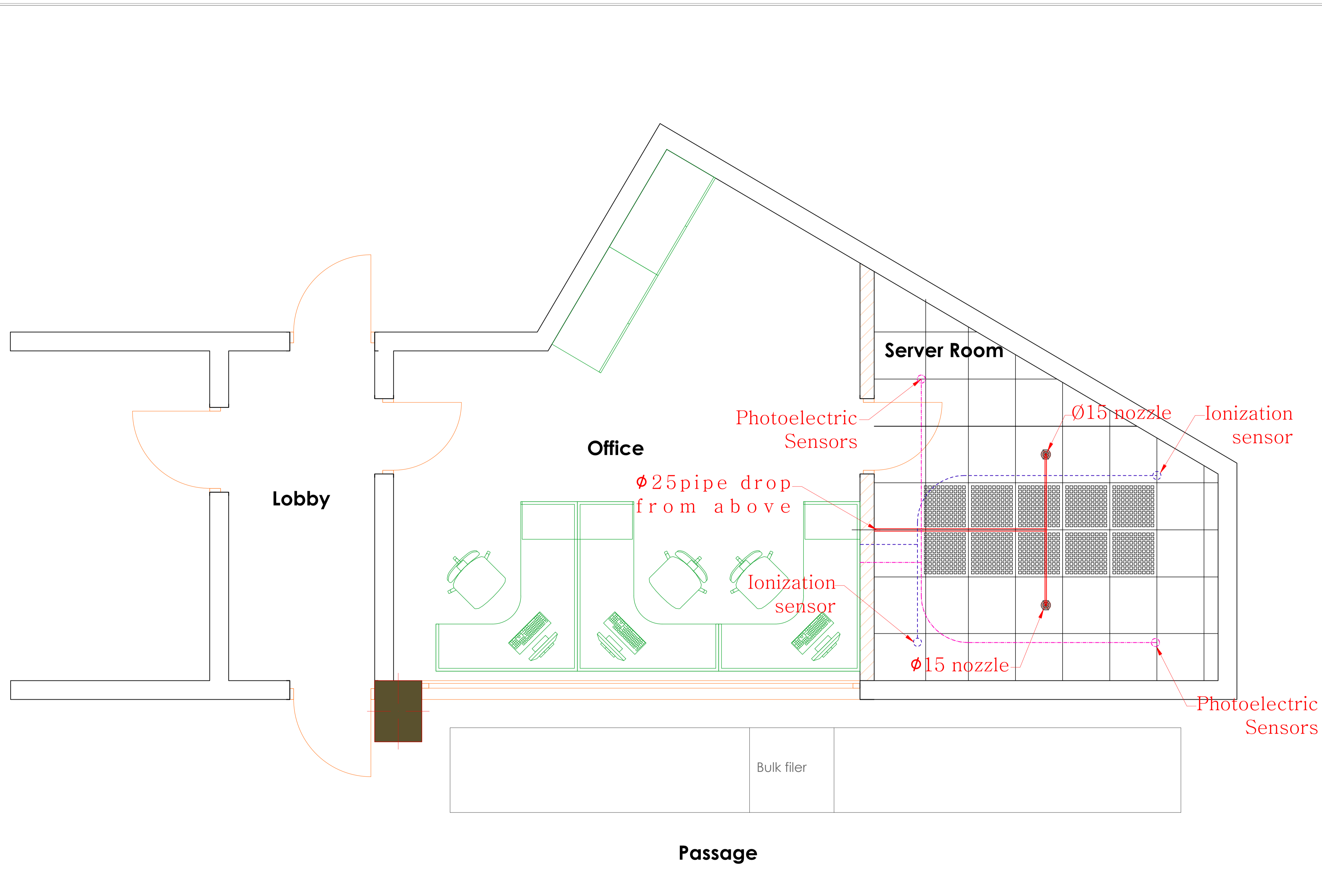
Approved _____ Signature & Date

ENG. B. N. KAROBIA,
FOR CHIEF ENGINEER (MECHANICAL-BS)

Scale	Date	Drawing No.
1:100	SEPTEMBER 2021	D22-M001

MECHANICAL DEPARTMENT (BUILDING SERVICES)
STATE DEPARTMENT OF PUBLIC WORKS
MINISTRY OF TRANSPORT, INFRASTRUCTURE, HOUSING AND URBAN DEVELOPMENT

THE GOVERNMENT OF THE REPUBLIC OF KENYA



FIRE SUPPRESSION FLOOR LAYOUT

NOTES

1. All dimensions are in millimetres unless otherwise stated.
2. All drawing shall be read together with Architects and Structural Engineers drawings
3. The piping to be blown clear to remove chips or metal shavings before nozzles are installed.
4. The detectors shall be wired in sequential method of operation, standard cross-zoned detection or single detector release. No other wiring arrangements shall be accepted

LEGEND

- smoke detector wiring
- heat detector wiring
- gas agent piping

- fa- from above
- fb - from below
- ta - to above
- tb-to below
- sh-shower
- whb - wash hand basin
- ks - kitchen sink
- wc - water closet

Project
PROPOSED PARTITIONING OF TOP FLOOR OF INTEGRITY CENTRE BUILDING

Site
NAIROBI

Client
EACC

Title
INTEGRITY CENTRE DATA CENTRE UNDER FLOOR PLAN FIRE SUPPRESSION LAYOUT

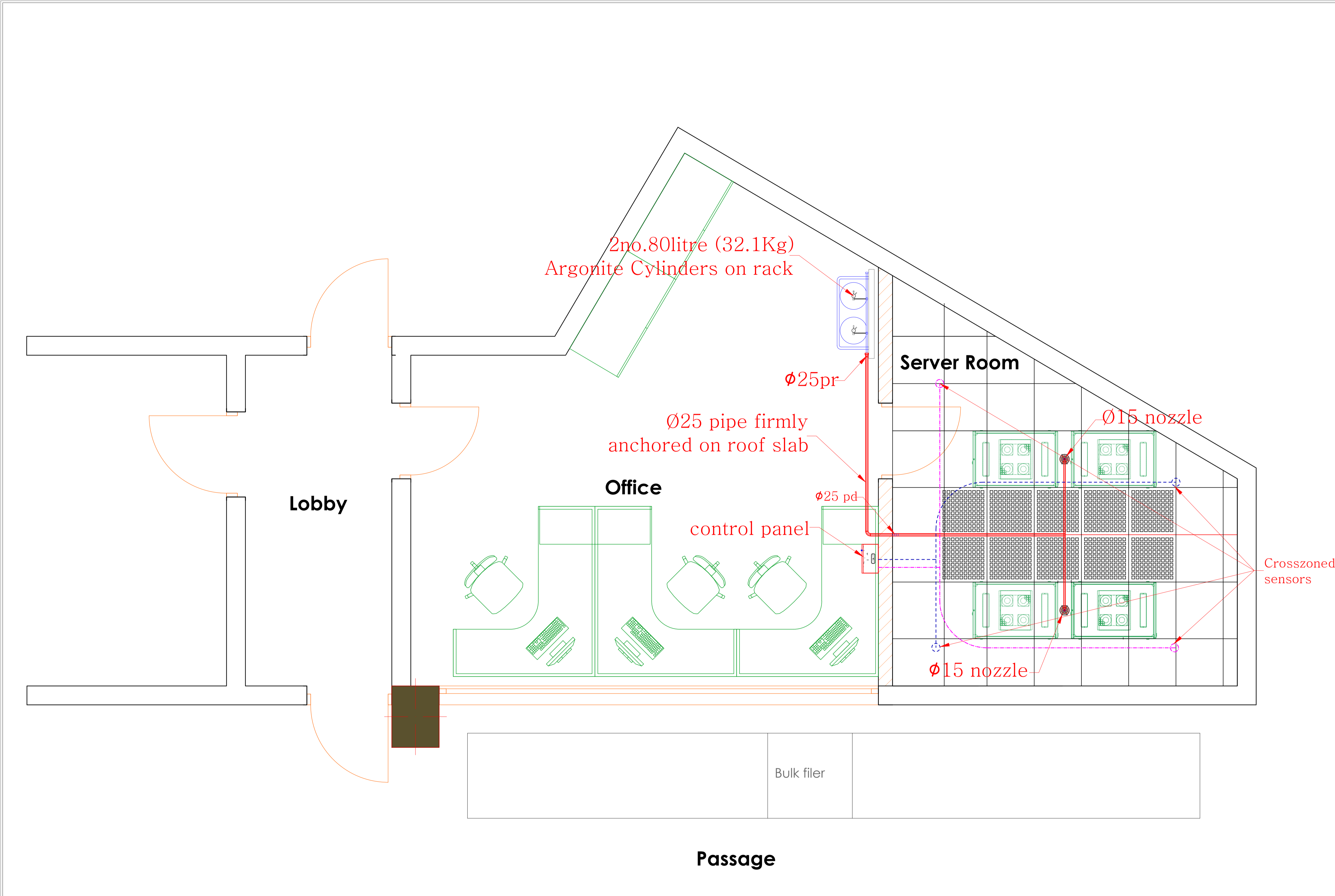
	Name	Signature	Date
Drawn	L.MWAMBI		
Drawn	L.MWAMBI		
Group Engineer(M)			

Approved _____ Signature & Date

ENG. B. N. KAROBIA,
FOR CHIEF ENGINEER (MECHANICAL-BS)

Scale	Date	Drawing No.
1:100	SEPTEMBER 2021	D22-M001

MECHANICAL DEPARTMENT (BUILDING SERVICES)
 STATE DEPARTMENT OF PUBLIC WORKS
 MINISTRY OF TRANSPORT, INFRASTRUCTURE, HOUSING AND URBAN DEVELOPMENT



NOTES

1. All dimensions are in millimetres unless otherwise stated.
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4. The detectors shall be wired in sequential method of operation, standard cross-zoned detection or single detector release. No other wiring arrangements shall be accepted

LEGEND

- smoke detector wiring
- heat detector wiring
- gas agent piping

- fa- from above
- fb - from below
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- sh-shower
- whb - wash hand basin
- ks - kitchen sink
- wc - water closet

Project
PROPOSED PARTITIONING OF TOP FLOOR OF INTEGRITY CENTRE BUILDING

Site
NAIROBI

Client
EACC

Title
INTEGRITY CENTRE DATA CENTRE FLOOR PLAN FIRE SUPPRESSION LAYOUT

	Name	Signature	Date
Drawn	Eng. L.MWAMBI		
Drawn	Eng. L.MWAMBI		
Group Engineer(M)			

Approved _____ Signature & Date

ENG. B. N. KAROBIA,
FOR CHIEF ENGINEER (MECHANICAL-BS)

Scale	Date	Drawing No.
1:20	SEPTEMBER 2021	D22-M001

MECHANICAL DEPARTMENT (BUILDING SERVICES)
 STATE DEPARTMENT OF PUBLIC WORKS
 MINISTRY OF TRANSPORT, INFRASTRUCTURE, HOUSING AND URBAN DEVELOPMENT

THE GOVERNMENT OF THE REPUBLIC OF KENYA

FIRE SUPPRESSION FLOOR LAYOUT

SECTION E:

TECHNICAL SCHEDULE OF ITEMS TO BE SUPPLIED

CONTENTS

<u>CLAUSE No.</u>	<u>PAGE</u>
1. GENERAL NOTES TO THE TENDERER.....	(i)
2. TECHNICAL SCHEDULE.....	E-1 to E-2

2 **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.

TECHNICAL SCHEDULE

The tenderer must complete in full the technical schedule. 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).

ITEM	DESCRIPTION	MANUFACTURER	COUNTRY OF ORIGIN	REMARKS (Catalogue No. etc.)
A	Cylinder			
B	Manifold			
C	Relief valve			
D	Panel			
E	Sensors			
F	Abort switch			

Catalogue must be attached for all the items **in the schedule of material above**

SECTION F:

STANDARD FORMS

NOTE:

**ALL FORMS IN THIS SECTION MUST BE FILLED AS THEY SHALL BE
PART OF THE EVALUATION CRITERIA**

CONTENTS OF SECTION E

	TITLE	PAGE
1.	Key Personnel.....	F/1
2.	Schedule of Contracts completed in the last eight (8) years.....	F/2
3.	Schedule of on-going projects.....	F/3
4.	Schedule of major items of contractor's equipment.	F/4

NOTE:

1.0 Tenderers must duly fill these Standard Forms as a mandatory requirement.

2.0 Any tender returned with **unfilled Standard Forms** shall be considered **non - responsive and shall automatically be disqualified.**

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
F/1

.....
Date

CONTRACTS COMPLETED IN THE LAST FIVE (5) YEARS

Work performed on works of a similar nature, complexity and volume over the last 5 years.

PROJECT NAME	NAME OF CLIENT	TYPE OF WORK AND YEAR OF COMPLETION	VALUE OF CONTRACT (Kshs.)

I certify that the above works were successfully carried out and completed by ourselves.

.....

Title

Signature

Date

SCHEDULE OF ON-GOING PROJECTS

Details of on-going or committed projects, including expected completion date.

PROJECT NAME	NAME OF CLIENT	CONTRACT SUM	% COMPLETE	COMPLETION DATE

I certify that the above works are currently being carried out by ourselves.

.....

Title

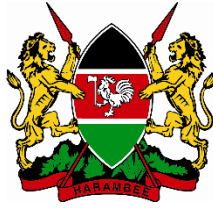
Signature

Date

**SCHEDULE OF MAJOR ITEMS OF CONTRACTOR'S EQUIPMENT PROPOSED FOR CARRYING
OUT THE WORKS**

ITEM OF EQUIPMENT	DESCRIPTION, MAKE AND AGE (Years)	CONDITION (New, good, poor) and number available	OWNED, LEASED (From whom?), or to be purchased (From whom?)

REPUBLIC OF KENYA



ETHICS AND ANTI-CORRUPTION COMMISSION

**PROPOSED FACELIFT OF EACC INTEGRITY CENTRE
HOUSE PHASE 1**

W.P. ITEM NO. D122NB/NB/2101 – JOB NO. 10106C.

TENDER DOCUMENTS

FOR

**SUPPLY, DELIVERY, INSTALLATION, TESTING AND COMMISSIONING OF
MECHANICAL VENTILATION AND AIR CONDITIONING INSTALLATIONS**

ARCHITECT

CHIEF ARCHITECT
STATE DEPARTMENT OF PUBLIC WORKS
P.O. BOX 30743
NAIROBI

STRUCTURAL ENGINEER

CHIEF ENGINEER – STRUCTURAL
STATE DEPARTMENT OF PUBLIC WORKS
BOX 30743- 00100 GPO
NAIROBI

CLIENT

CHIEF EXECUTIVE OFFICER,

ETHICS AND ANTI-CORRUPTION COMMISSION
P.O. Box 61130-00200,
NAIROBI

QUANTITY SURVEYOR

CHIEF QUANTITY SURVEYOR
STATE DEPARTMENT OF PUBLIC WORKS
P.O. BOX 30743
NAIROBI

MECHANICAL ENGINEER

CHIEF ENGINEER- MECHANICAL (BS)
STATE DEPARTMENT OF PUBLIC WORKS
P.O. BOX 41191- 00100 GPO
NAIROBI

ELECTRICAL ENGINEER

CHIEF ENGINEER- ELECTRICAL (BS)
STATE DEPARTMENT OF PUBLIC WORKS
P.O. BOX 41191- 00100 GPO
NAIROBI

OCTOBER 2021

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(i)

DEFINITIONS

The following terms and expressions used in the contract document shall have the following meanings:

The Employer	Government of the Republic of Kenya Represented by: The Chief Executive Officer, Ethics and Anti-Corruption Commission, P.O. Box 61130-00200, <u>NAIROBI</u>
Architect	Chief Architect State Department of Public Works P.O. Box 30743 <u>NAIROBI</u>
Engineer (Mechanical)	Chief Engineer - Mechanical (BS) State Department of Public Works P.O. Box 41191 <u>NAIROBI</u>
Engineer (Electrical)	Chief Engineer – Electrical (BS) State Department of Public Works P.O. Box 41191 <u>NAIROBI</u>
Quantity Surveyor	Chief Quantity Surveyor State Department of Public Works P.O. Box 30743 <u>NAIROBI</u>
Structural Engineer	Chief Engineer (Structural) State Department of Public Works P.O. Box 30743 <u>NAIROBI</u>
Employer’s representative	This shall mean the Project Manager and shall be The Works Secretary State Department of Public Works P.O. Box 30743 <u>NAIROBI</u>
Site Location	The site is located at Nairobi, in Nairobi County.

(ii)

SECTION A

GENERAL MECHANICAL SPECIFICATIONS

SECTION A

GENERAL MECHANICAL SPECIFICATION

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2.03	Regulations and Standards	A-1
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SECTION A

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.
- b) The United Kingdom Institution of Electrical Engineers (IEE) Regulations for the Electrical Equipment of Buildings.
- c) The United Kingdom Chartered Institute of Building Services Engineers (CIBSE) Guides.
- d) British Standard and Codes of Practice as published by the British Standards Institution (BSI)
- e) The County Government By-laws.
- f) The Electricity Supply Authority By-laws.
- g) County Government 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

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.

2.08.3 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 week's 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.

2.08.4 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.

2.09 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.

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 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.

SECTION B:

**PARTICULAR SPECIFICATIONS FOR MECHANICAL
VENTILATION AND AIR CONDITIONING**

GENERAL SPECIFICATION FOR MECHANICAL VENTILATION INSTALLATIONS

1.0 SCOPE OF WORK

The scope of the works comprises Installation, Testing, and Commissioning of Mechanical Ventilation and Air Conditioning systems in accordance with Specifications and drawings.

All the necessary elements and details for complete system are to be included.

Excluded from the specifications are the following: -

- All concrete works
- All block work
- Electrical wiring, isolators and switch boards, except internal wiring for control system from a local isolator.

2.0 SYSTEM COMPONENTS

Dimensions and capacities of ducts and fans are calculated and based on a specific requirements of air, and on an assumed resistance through grilles, silencers etc.

However, the installer shall be responsible for the correct functioning of the system. Subsequently it is therefore his duty to size the systems' components with consideration to his offered equipment.

3.0 DRAWINGS

The Engineer's drawings show the main layout and principles for the Ventilation and Air Conditioning Systems. If need for further detailing is required in order to carry out the work, working drawings and details shall be produced for approval by the Engineer before the work is executed.

In preparation of the working drawings care should be taken to coordinate the Ventilation and Air Conditioning works with other services involved and avoid any interference with these.

4.0 MATERIALS AND WORKMANSHIP GENERALLY

In the specification, equipment is generally described according to capacities and a given standard in order to aid in identification of the particular equipment to satisfy specifications. The equipment selected shall be of reputable manufacture with adequate Back-up service.

If the Engineer finds it necessary, samples of the materials will be submitted for approval before placing an order. The Engineer shall reject any materials which he finds to be of unsatisfactory quality.

Works shall be carried out by competent workmen under experienced supervision.

The Engineer shall have the authority to have any substandard work or equipment redone and/ or equipment replaced.

5.0 DUCTWORK GENERALLY

5.1 Ductwork

All seams, joints and connections to plant shall be so made as to reduce air leakage to a minimum. Internal roughness and obstructions to airflow will not be accepted. Sharp edges or corners on the outside of ductwork, flanges, supports, etc will not be accepted. Any part of galvanized ductwork where the galvanizing is damaged during manufacture or erection shall be painted with two coats of aluminum, zinc or other corrosion – resisting paint to the approval of the Engineer.

Where ducts pass through roofs (and external walls where applicable) these shall be fitted with angle flanges and weather cravats to ensure a weather-proof fitting to the building structure.

Connections to equipment shall be made with angle flanged joints. Ductwork which may have to be moved to enable plant to be removed shall incorporate angle flanged joints. For long duct runs, angle flanged joints shall be included at intervals to facilitate any subsequent alternations.

Bends and offsets shall have a minimum throat radius equal to the width of the duct. Where short radius elbows are indicated or agreed by the Engineer as necessary due to site limitations the dimensions and internal vane (s) shall be in accordance with HVCA publication DW/121.

Ductwork shall be constructed by galvanized, cold rolled, close annealed patent flattened sheets. Tests holes shall be provided in branch ducts from grilles and there shall be three or four tests holes on side of duct according to duct depth at each test position. At branch positions there shall be one test hole. Air tight swivel type metal covers shall be fitted over the test holes in such a manner that they shall be readily removed as required.

5.2 Rectangular ductwork

Construction of ductwork shall be as per the following guidelines:

- Up to 300mm longer side – 22 S.W.G.
- over 300mm and up to 460mm longer size – 20 S.W.G.
- over 460mm and up to 900mm longer side 18 S.W.G (stiffening to be 25mm x 25mm x 3mm. M.S angle at slip joints at 180mm spacing)
- Over 900mm and up to 1370mm. longer side 16 S.W.G. (stiffening to be 30mm x 30mm x 3mm M.S angle at 900mm spacing).
- Over 1370mm longer side – 14 S.W.G. (Stiffening to be 40mm x 40mm x 5mm M.S angle at 900mm. spacing).

Ductwork constructed from 22 and 20 S.W.G sheet shall have folded locked seams and ductwork constructed from 18, 16 and 14 S.W.G. sheets shall have riveted seam with 8 S.W.G rivets at 2” pitch.

Joints for ductwork having a side greater in width than 610mm shall be flanged by means of 30mm x 30mm x 3mm mild steel angles.

Mild steel used as flanges or stiffeners shall be riveted to the ductwork, with 8 S.W.G rivets at 2” pitch. The joint faces of flanges shall be drilled for 10mm bolts at 75mm pitch.

Air tight access doors shall be provided on the ductwork wherever indicated on the drawings. The access doors, of sufficiently heavy construction to avoid distortion, complete with handles, shall be secured by brass wing nuts screwed into studs provided, on galvanized mild steel stiffening frames riveted, or bolted to the ductwork. The access doors shall be provided with felt or rubber gaskets to ensure that when closed they are perfectly tight.

The ductwork shall be installed with all joints air tight and adequately stiffened and braced shall have the largest radius possible with a minimum throat radius of one diameter if possible. Square or miter elbows will only be allowed where shown on the drawings. Turning vanes shall be fitted in square or miter elbows.

Transformer pieces except where situated on fan suction shall be constructed so that the angle on any side does not exceed 15° to the axis of the duct where possible.

Branch ducts shall enter main ducts expansion sections where possible. Where branch ducts occur, at taper or transformation pieces, the length of such pieces in the main duct shall be symmetrical about the axis of the branch.

6. BRACKETS AND SUPPORTS

Supports and brackets for ductworks shall be made adjustable for height, spaced to ensure support and where practicable shall be fitted at each joint of the ductwork. Vertical ductwork shall be supported at each floor level, horizontal ducts at intervals not exceeding 2280mm and adjacent to fans, canvas joints and other equipment. All members of supports in contact with metal ductwork shall be galvanized after fabrication.

Socketed joints shall have a minimum overlap of 50mm in the direction of flow. The joint shall be made with an approved type jointing compound with bolts or rivets at centres not exceeding 50mm. Wherever access cannot be made for riveting or bolting self-tapping screw of the shortest length which will give a satisfactory joint shall be used in lieu of the rivets or bolts, on size or diameters up to 530mm. All slip joints on circular ductwork are to have a spigot carefully swaged damper leaves shall be multi leaf type. The quadrants shall be of robust construction and securely fixed to the ductwork. The leaves shall be linked with a connecting rod and the ends of the spindle shall be housed in bearings. Dampers are to indicate the full and closed positions and are to be marked and then locked after air Volume has been set.

7.0 JOINTS

7.1 Flexible Joints

Flexible joints shall be provided on fan inlet and outlet connections and elsewhere on the ductwork where indicated. They shall be over the full cross-sectional area of the mating fan inlet or outlet section. The ends of the duct and fan connections shall be in line.

Flexible joints shall consist of, or be protected by, material having a fire penetrating time of at least fifteen minutes when tested in accordance with BS 476 Part 1 Section 3. The material shall be of the glass fibre cloth type, canvas or other approved material. The width of joints from metal edge to metal edge shall not be less than 80mm and more than 250mm.

All flexible joints other than fan inlet connections shall be between flanged ends. The flexible material flange shall be backed by an angle or flat iron flange and the flexible joint flat iron bar used with fan inlets shall not be less than 5mm thick.

7.2 Flexible Connections.

Where flexible connections are indicated or required between rigid ductwork and particular components or items of equipment, the internal diameter of the flexible duct shall be equal to the external diameter of the rigid ductwork and of the spigot type. The use of flexible duct between rigid sections of sheet metal ductwork to change direction or plane will not be permitted except where indicated or expressly authorized by the Engineer.

The flexible duct shall have a liner a cover of tough tea-resistant fabric equal in durability and flexibility to glass fibre shall be impregnated and coated with plastics. It shall be reinforced with a bonded galvanized spring steel wire helix or glass fibre cord or equal and shall be bonded to cover to ensure regular convolutions.

Alternatively, the flexible duct shall consist of flexible corrugated metal tubing of stainless steel, aluminium, tinplated steel or aluminium coated steel. The metal may be lined on the inside or the outside or both with plastics materials.

The joints to rigid spigots shall be sealed with a brush coat of pipe jointing paste or mastic compound. Ducts up to 150mm diameter shall be secured with a worm drive type hose clip complying with BS 3628. Ducts over 150mm diameter shall be secured with band clip.

The frictional resistance to air flow per unit length of the flexible duct shall not exceed 50% more than the frictional resistance per unit length of galvanized steel ducts of equivalent diameter. The radius ratio R/D for bends shall not be less than 2, where R is the centre line radius and D is the diameter of the flexible duct.

Flexible ducts shall be suitable for an operating temperature range of 18°C to 120°C and shall comply with BS 476 Part 1, Section 2, Clause 7 (Clause 1; surface of very low flame spread).

8.0 FINISH PAINTING

Upon completion of the installation and after all tests have been carried out to the satisfaction of the Engineer, the plant, equipment, supports, etc. shall be examined and all priming coats damaged during erection made good.

Any plant or equipment, ductwork, etc., which is to be insulated, shall have had the priming paint protection made good before the application of the insulation. After the above procedures have been carried out to the satisfaction of the Engineer, the various surface shall be given the necessary preparation as recommended by the paint and insulation manufacturers and finish painted in colours to be agreed between the Sub-Contractor and Engineer, at a later date.

For the purposes of the Specification, however, it shall be deemed that the sub-contractor's tender price was based on the identification requirements for the various services detailed in Code of Practice DW/161 Identification of Ductwork as published by the H.V.A.

9.0 AIR INTAKES AND OUTLETS

Unless otherwise indicated fixed louvers on external walls will be fitted at air intake and outlet positions. A galvanized steel wire mesh screen of 20mm diamond mesh and at 2mm diameter wire and complete with a frame of galvanized steel rod with securing lugs or of flat iron shall also be fitted on the inner side of the louvers.

10.0 FANS

10.1 General

Fans shall capable of giving the specified performance when tested in accordance with BS 848. Although estimated values of the resistance to airflow of items of equipment may be indicated, this does not relieve the Contractor to the responsibility for providing fans capable of delivering the required air volume flow through the system.

The make and design of fans shall be approved by the Engineer and evidence supporting noise levels and fan efficiencies shall be provided. Where fans are supplied with noise attenuations, full details of the attenuations shall be given.

Belt driven fans shall be fitted with pulleys suitable for V-belts; pulleys of the taper lock type may be used for drivers up to 30kW output. Alternatively, and in any case above 30kW output, pulleys shall be secured to the fan and the motor shafts by keys fitted into machined keyways. Pulleys shall be keyed to the fan shaft in the overhung position. Keys shall be easily accessible so that they can be withdrawn or tightened and they shall be accurately fitted so that the gib head does not protrude beyond the end of the shaft.

Machined bolts, nuts and washers only shall be used for the assembly of fans; all bearing surfaces for the heads of bolts or washers shall be counter faced. Holding down bolts for fans and meters shall be square section under the head or be fitted with snugs to prevent them tuning in the fan base plate when the nuts are tightened.

Any fan which is too large or too heavy for safe manhandling shall be provided with eyebolts or other lifting facilities to enable mechanical lifting equipment to be used.

10.2 Axial Flow Fans

Axial flow fans shall be of either the single stage type or the multi-stage contra-rotating type with each impeller mounted on an independent motor. Casings shall be rigidly constructed of mild steel stiffened and braced to obviate drumming and vibration. Cast iron or fabricated steel feet shall be provided where necessary for bolting to the base or supports. Inlet and outlet ducts shall terminate in flanged rings for easy removal. The length of the fan (s) and motors(s) shall also terminate in flanges in order that the complete

section may be removed without disturbing adjacent ductwork. Electrical connections to the motor(s) shall be through an external terminal box secured to the casing. Impellers shall be of steel or aluminium, the blades shall be secured to the hub or the blades and the hub shall be formed in one piece. The hub shall be keyed to a substantial mild steel shaft and the whole statically balanced. Blades shall be of aerofoil section. Shafts shall be carried in two bearings which may be ball roller or sleeve type. Lubricators shall be extended to the outside of the casing.

Where axial flow fans are driven by a motor external to the casing the requirements for pulleys and for V-belt drives and guards shall be met. Unless otherwise indicated a guard is not required for any part of a drive which is within the fan casing. An access door of adequate size shall be provided.

Where axial flow fans of the bifurcated type are indicated the motors shall be out of the air stream. Motors may be placed between the two halves of the casing in the external air or may be placed within the fan casing provided that effective ventilation is given to the motor. Where hot gases or vapours are being handled the motor and the bearings shall be suitable for operation at the temperature they may experience.

11.0 DAMPERS

11.1 General

Sufficient dampers shall be provided to regulate and balance the system. Dampers on grills or diffusers shall be used for fine or secondary control. All dampers shall be sufficiently rigid to prevent fluttering. Unless otherwise indicated, the air leakage past dampers in the fully-closed position shall not exceed 5% of maximum design air flow in the duct. All duct dampers except fire dampers and self-closing flaps shall be fitted with locking devices and position indicators. Dampers shall be generally in accordance with the appropriate HVCA Specification.

Each Primary control damper shall be fitted with a non-corrodible label stating the actual air flow in M³/S and the cross-sectional area. Alternatively, these figures shall be painted in a visible position on the adjoining ductwork or insulation. The position of a damper as set after final regulation and balancing be indelibly marked on the damper quadrant

11.2 Butterfly dampers

Butterfly dampers shall each consist of two plates edge seamed, and of the same thickness of material as that from which the associated duct is made, and rigidly fixed to each side of a mild steel operating spindle, the ends of which shall be turned and housed in non-ferrous bearings.

11.3 Bifurcating dampers

Bifurcating dampers shall be of 2mm thick sheet for sizes up to 450mm square. For larger sizes, the thickness shall be as indicated. Damper plates shall be rigidly fixed to square section mild steel spindles the ends of which shall be turned and housed in non-ferrous bearings.

11.4 Multi-leaf dampers

Multi – leaf dampers shall consist of two plates of material of the same thickness as the associated duct and rigidly fixed to each side of an operating spindle, the ends of which shall be housed in brass, nylon, oil impregnated sintered metal, PTFE impregnated or ball bearings. The ends of the spindles shall be linked such that one movement of the operating handle shall move each leaf an equal amount. An inspection door shall be provided adjacent to each multi-leaf damper.

On low velocity systems only, multi-leaf damper blades may be of a single plate, at least 1.6mm thick and suitably stiffened, and the blade linkages may be within the duct. Those dampers shall have bearings and inspection doors as specified above.

11.5 Damper Quadrants and Operating Handles

Quadrants and Operating handles shall be of die-cast aluminium with the words "OPEN" and "SHUT" cast on the Quadrants. Quadrants shall be securely fixed to the damper spindles and shall be close-fitting in the quadrants hubs to prevent any damper movement when the damper levers are locked.

11.6 Self-closing dampers

Self-closing dampers shall be designed so as to present the minimum of resistance to airflow under running conditions, to take up a firm, non-fluctuating position under running conditions and to give a tight shut-off when closed. They shall incorporate rubber stops to prevent rattling and to give a tight shut-off when closed. They shall incorporate rubber stops to prevent rattling.

11.7 Sliding Dampers

Sliding dampers shall be provided only where indicated. They shall be of 2mm. thick sheet steel for size up to 450mm square. For larger sizes the thickness shall be as indicated. They shall run in guides lined with felt.

11.8 Iris type dampers.

Iris type dampers may be used in ducting up to 600mm, dia. Or 450mm square. The control shall be on the outside of the damper. The design shall be such that the leaves of the damper can be easily moved for adjustment.

12.0 GRILLES

12.1 Supply & Return Registers

Supply registers shall be manufactured from high grade, extruded Aluminium sections with lacquered finish and fixing shall be 32mm with beveled edges.

The registers shall have a front set of blades parallel to the long dimension, of rear set of blades parallel to the short dimension, the blades being at 17mm centres and individually adjustable with opposed blade dampers.

12.2 Extract grilles

Extract grilles shall be similar to the Supply Registers described above with the exception that they have only one set of blades parallel to the long dimension.

12.3 Fresh Air Grilles

These shall be manufactured from sheet steel with steel fixing flanges and shall be galvanized after manufacture. An insect screen shall be fixed downstream.

12.4 Diffusers

These shall be manufactured from high grade extruded sections with lacquered finish, beveled flanges and removable core. Fixing shall be by self-tapping screws through the duct into neck of the diffuser.

12.5 Louvres

Discharge and Fresh air Intake louvres shall be manufactured from mild steel and be galvanized after manufacture. A screen shall be fixed to the back of the louvres

13.0 ATTENUATORS

13.1 General

Purpose made attenuators and sound absorbing material shall be designed to air flow, have adequate strength and cohesion to resist erosion by air flow and do not produce dust. They shall be free of odour and proof against rot, damp and vermin and shall comply with the requirements as to fire and smoke hazards. Adhesives shall be compatible with the sound absorbent material and should preferably be non-flammable.

Where sound absorbent material and /or special attenuators are indicated they shall either reduce the sound level in the space, due to the equipment, to the specified value or shall give the specified sound level attenuation over the specified range of frequencies. Purpose made attenuators shall be tested in accordance with HVRA Laboratory Report No. 55 (Code for the measurement of the performance of unit silencers). The insertion loss and generated noise level for each octave band and the pressure loss of the silencer shall be stated.

Attenuators shall be suitable for internal air pressure of 100N/m², air stream temperatures of up to 40oc and free from air stream erosion for velocities up to 25m/s. The mineral wool lining shall be rot, vermin and fire-proof. Attenuator casing shall be pre-galvanized sheet steel with galvanized pre-drilled flanges.

13.2 Rectangular Attenuators

These shall be rectangular in section with splitters forming air passages in parallel. The mineral wool lining shall be resin bonded.

13.3 Circular Attenuators

Circular section attenuators will have a central pod. The mineral wool lining shall be retained by expanded steel. The end flanges shall be match drilled to suit the fan which they are fixed to.

13.4 Acoustic lining

Where indicated on the contract drawings, the ductwork shall be acoustically lined. The lining shall consist of resin bonded mineral wool 25mm, thick fixed to the ductwork by a suitable adhesive.

14.0 INSTRUMENTS

14.1 General

The instruments, gauges etc, detailed in this section shall be provided in addition to those associated with specific items of plate and detailed elsewhere, they shall be mounted in accessible positions and shall be easily read.

14.2 System Static Pressure Gauge

A system static pressure gauge shall be provided for the system. It shall consist of a small inclined manometer gauge similar to a filter gauge. The edge of the gauge shall be connected to the system and the other end shall be left open to the plant room but where fluctuation of the static pressure in the plant room may occur the gauge shall be connected across the main fan. Such fluctuations may be caused by wind pressure affecting large open air intakes to the plant room.

15.0 VIBRATION, NOISE AND SOUND INSULATION

15.1 Anti-Vibration Mountings

Fans, compressors, motors and any other vibration-inducing equipment shall be isolated from the building structure by anti-vibration mountings which shall be compressed machinery cork, spring or rubber dampers or rubber/metal bearers as indicated.

15.2 Noise

The noise produced by the installation in the spaces served, in any adjacent buildings and in the open air surrounding plant rooms shall be kept as low as possible. This shall be specially considered in the selection of fan motors, grilles and the internal finish and arrangements of extraction ducting.

Noise level information for fans based on octave analysis data, shall be stated. The reference level and the testing technique shall be stated.

The sound level in the spaces served, due to the equipment shall comply with the recommended design criteria given in the IHVE Guide (Table 13.1 of 1965 Edition). The maximum sound pressure level due to ventilation system must not exceed value mentioned below measured by a reference value of 2×10^{-5} N/m² transferred to a logarithmic scale, and measured at any point 1.5 meters above the floor and 1.0 meters from the walls.

The maximum sound pressure level measured at any point 4 meters from the extract point must not exceed 55dB.

The maximum sound pressure level measured at any point 4 metres from fans must not exceed 60dB.

16.0 THERMAL INSULATION

16.1 General Description

All heated, cooled, and recirculated air ductwork shall be insulated.

Insulation shall be of 25mm thick expanded polystyrene sheet, or spray applied polyurethane foam to a uniform thickness of 25mm. Polystyrene shall be fixed so that the edges butt closely without gap and the insulation shall overlap at corners by the thickness of the insulation. The sheet shall be fixed by means of a suitable adhesive and plastic impingement pins attached to the ductwork.

16.2 Ductwork in Plant Room

The insulation described above in Clause 5.1 above shall be finished by the application of a 15mm thick layer of hard setting finish. Insulation shall bevelled thick to angle of 45o at all connecting flanges, access hatches and all other places where operation or maintenance is likely to cause the breaking of the insulation.

The insulation shall then be given a vapour sealing by the application of two coats of anti-condensation paint.

16.3 Ductwork External to plant Rooms

The insulation described in Clause 5.1 above shall finish by the application of two coats of bitumastic.

17.0 ELECTRICAL EQUIPMENT AND WIRING

17.1 Scopes

The responsibility for electrical equipment and wiring shall be as defined as below:-

An on-off starter shall be provided and placed in the appropriate position for connection of the fans required for the installation and within a time agreed with the Engineer fully detailed wiring diagrams for all connections to them shall be availed.

The Installer shall be responsible for the accuracy of all wiring diagrams provided by him and for the correct internal wiring of all pre-wired equipment supplied. The Installer shall reimburse the full cost of abortive or remedial work arising from any error in these aspects.

17.2 General

Unless otherwise indicated all electrical equipment and installation shall be suitable for use in ambient temperatures up to 40°C and relative humidities up to 90%. For tropical climates, electrical equipment shall be suitable for use in the temperature and humidity as indicated; it shall be proof against atmospheric corrosion, including that of saline air where relevant, and materials shall not be susceptible to mould growth or attack by termite and similar hazards.

17.3 Electrical Motors

Electrical motors shall comply with BS 170 2048 or with BS 2613 and BS 3979 as appropriate. All motors shall have Class E insulation (BS2757) and can be continuously rated.

They shall be screen protected (BS2817) unless otherwise indicated. Under all normal conditions without being overloaded. All motors larger than 0.75kw output shall be three phase, for motors above 15kw output the type of motor and method of starting shall be such as to limit the starting and run-up currents to three times the rated full load current unless otherwise indicated. No motor shall run faster than 25 rev/s unless otherwise indicated.

18.0 INSPECTION, COMMISSION AND TESTING

18.1 General

Unless otherwise indicated tests shall be carried out in accordance with the appropriate BS or CP. Test certificates for works tests, site tests and tests required by BS shall be submitted in duplicate to the Engineer.

18.2 Testing

Where an individual inspection or tests take place at outside the site of the works representatives of the Engineer will be required to be present.

Unless otherwise indicated the contract shall include the cost of all tests, necessary instruments, plant supervision and labour both at work and on site. The accuracy of the instruments shall be demonstrated where so directed by the Engineer.

The site test shall be of at least six hours duration. Any defects or workmanship, materials and performance maladjustments or other irregularities which become apparent during the tests shall be rectified by the supplier at his expense and the tests shall be repeated at his expense to the satisfaction of the Engineer.

The Supplier/Installer's representative present at the site tests shall be fully conversant with the operation of the thermostatic controls and shall be expected to explain the operation and safety controls forming part of the installation to the employer's representatives.

18.2.1 Site Tests

The Installer shall supply all instruments and equipment necessary to carry out site tests and shall arrange with other parties for the testing of associated equipment which may affect the performance of the plants installed under these works.

18.2.2 Site Tests-Fans

All fans shall be charged with suitable lubricant and shall be tested upon completion of the auxiliary system erection to ascertain that the performance of each fan complies with the requirements of the specification.

18.2.3 Completion of Works – Balancing and Commissioning

Following the site tests and prior to handover, Mechanical Ventilation or Air-Conditioning systems shall be balanced by means of grills, dampers and other special controls installed so to give the required air flow rates and

where applicable the required temperatures, pressures and humidity conditions in all areas served by the said systems.

The complete system shall be balanced and commissioned as a whole. Sectional balancing and commissioning on any part of the system where this excludes final complete system balancing and commissioning shall not be accepted.

Test volumes within ducts shall be within +5% of the design volumes, and volumes at grills and diffusers shall be within +10% of the design volumes.

When the system has been balanced to the satisfaction of the project manager, it shall be run under complete automatic control for 72 hours continuous operation to ascertain any faults in operation before acceptance and handover. Any faults discovered during this time shall be corrected and another test or tests of 72 hours duration shall be carried out to ensure satisfactory operation, all at the expense of the Supplier/Installer.

During this phase, particular attention shall be paid to:

- The maintenance of cleanliness of all plant and extraction systems during construction and ensuring that extraction systems are cleaned through as part of commissioning.
- The protection of plant, particularly sensitive or fragile items, from the activities of other trades during construction and from dirt and mal operation during commissioning.
- The protection of electrical of electrical equipment from damp during construction and commissioning.

19.0 CONTROL SYSTEM

Particular attention shall be paid to the following features:

- Satisfactory operation of any automatic or manually operated sequence to be used in the event of fire.
- Safety in the event of failure and of sudden resumption of electricity supply.
- Satisfactory operation of safety interlocks designed for the protection of personnel, such as those associated with the high voltage electrically operated plant.

The following items shall be checked and/or tested and recorded on the site Test Certificate: -

- Set devised value of all control devices
- Satisfactory operation of equipment protection devices.
- Satisfactory operation of all sequencing operations and alternate working selections and automatic or manual change-over of duplicate plant.

20.0 NOISE AND SOUND CONTROL

Sound level reading shall be taken with a simple sound level meter using the 'A' scale weighting network. The spaces in which readings shall be taken shall be as agreed with the Engineer but will in general be the following: -

- Plant rooms
- Occupied rooms adjacent to plant rooms
- Outside plant rooms facing air intakes and exhaust to assess possible nuisance to adjacent accommodation. If the adjacent accommodation is private residential building.
- tests may be required at night.
 - In the space served by the first grille or diffuser after a fan outlet.
 - In any space where, by the addition of special silencing material or techniques of by classification of use, a low level of noise is clearly required.

Alternatively, sound level reading shall be taken using a sound analyzer to give an octave band analysis of the ground spectrum and to pinpoint the frequency values of peak sound levels. The spaces in which readings shall be taken shall be as agreed with the Engineer but will in general be as detailed in paragraph above.

21.0 OPERATING AND MAINTAINANCE INSTRUCTION

The Supplier/Installer shall demonstrate and explain the plant and the method of starting, running and stopping to such staff as the Engineer shall nominate.

He shall provide three sets of operating and maintenance instructions which shall be enclosed in durable covers. The operating and maintenance instructions shall include; -

- A brief outline of the operation of the plant.
- Instructions on how to start and stop the plant, noting any safety and / or sequencing arrangements.
- Details of required maintenance with suggested frequency of action
- Details of all lubricating oils and greases required and filter replacement
- Details of each item of plant including the name and address of the manufacturer, type and model, serial number, duty and rating.

The operating and maintenance instructions shall be handed to the Engineer not later than at the end of the commissioning period.

22.0 SPARE PARTS

The Installer shall submit a priced list of any extra materials which he recommends should be purchased for the Ventilating and Air Conditioning Plants and all associated equipment and control gear and extras not supplied as standard. He shall be required to give a guarantee that he will hold sufficient running stock of spare parts for the maintenance of the equipment.

PARTICULAR SPECIFICATIONS FOR AIR CONDITIONING SYSTEMS

23.0 SCOPE OF WORKS

The works to be carried out comprises of the supply, delivery, installation, setting to work, testing and commissioning of all materials and equipment called for in this specification and/or shown in the contract drawings.

The tenderer shall include for all appurtenances and appliances not particularly called for in this specification or on the contract drawings but which are necessary for the completion and satisfactory functioning of the system.

No claim for extra payment shall be accepted from the contractor for non-compliance with the above requirements.

If in the opinion of the tenderer there exists difference between the specification and the contract drawings, the tenderer shall clarify the difference with the engineer before tendering.

The Works to be installed under the contract shall comply with the State Department of Public Works requirements for contract works under "GENERAL MECHANICAL SPECIFICATION".

23.1 CLIMATIC CONDITIONS

The following climatic conditions apply at the sites of the works and all materials and equipment used shall be suitable for these conditions: -

PARAMETERS	(CONDITIONS) NAIROBI TOWN
Maximum mean outdoor dry bulb Temperature, t_o	29°C
Minimum Temperature	12.1°C
Relative Humidity	46% - 95%
Altitude	1800m ASL
Longitude	
Latitude	
Max. solar radiation occurs during the month of February	

23.2 SYSTEMS DESIGN DATA

The air-conditioning systems are designed to maintain the following internal conditions with ambient conditions of 29°C DB and 55% RH

Internal Temperature	23 ± 1°C
Relative Humidity	50± 10%

The equipment described here under covers the specific requirements of equipment to be used for this contractor work and shall be used in conjunction with the accompanying contract drawings.

It shall be deemed that the tenderer has based his tender on plant and equipment which is equal in performance to that stated within the specification.

23.3 SPLIT AIR CONDITIONING SYSTEM

This shall be installed in the

The system shall be complete with;

23.3.1 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
- 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 $23\pm 1^{\circ}$ C and relative humidity of $50\pm 10\%$.

23.3.2 Outdoor Units.

The outdoor units shall be installed and mounted on the wall using appropriate and approved mounting brackets. They shall be complete with hermetically sealed compressors. Safety devices shall include overload/surge protection among others.

The unit shall be connected to power provided by others. It shall also be connected to refrigerant piping and control wiring. It shall have adequate charge of refrigerator oil and R 407 refrigerant.

The air conditioning units shall be as York or approved equivalent and shall be provided with approved mounting brackets.

The Unit shall be complete with the following:

- Casing constructed of 18 gauge zinc coated mild steel, zinc phosphate bonderized, coated with oven baked polyester paint and weatherized for outdoor installation. It shall have weep holes on base to allow ease of drainage.
- Hermetically sealed compressor mounted to unit base with rubber isolated hold down bolts, uniform in oil & pressures and shall have internal overload protection.
- Refrigeration pipe work with flared connections

- Distributor with refrigeration control
- Fixing brackets/wall mounting kit/ceiling mounting kit
- Heat exchanger capacity controls
- Precise inverter frequency controls
- New oil returning system (refrigerant oil control system)
- High and low pressure units
- An innovation of installation with automatic address settings for indoor units with twin multiplex transmission system of no polarity.
- Condensate discharge pipe work
- Service access valves
- Voltage Surge Protector

23.3.3 Refrigeration Piping

Refrigerant pipe work shall be approved copper tubing and fittings, and shall be properly sized in conformity with the system manufacturer specifications. Pipework shall be joined together by soldering/brazing and shall be complete with all necessary joints, reducers and accessories.

The Ozone friendly refrigerant flow shall be controlled with either a capillary tube or thermostatic expansion valve. Installation shall be carried out by competent and qualified craftsmen. The Engineer may demand proof of qualifications and experience in installation of refrigeration systems.

Pipe work shall be tested for leaks after installation to the Engineers satisfaction. It shall be properly anchored, insulated and no vibration of pipes shall be allowed during the running of the systems. An electronic leak detector shall be used to test for leaks.

23.4 VARIABLE REFRIGERANT FLOW (VRF) SYSTEM

The VRF system shall be a dual aspect system (zone heating/cooling) with reduced energy & maintenance costs. The system shall be complete with flexible and user-friendly central management system that will be integrated to building management system. The system shall be capable of more personalized & accurate calculations of energy consumption. The required capacity and the relating technical parameters for the indoor units shall be electronically relayed to the system management and outdoor unit.

23.4.1 Inverter Controlled Outdoor Unit

The three-way pipe outdoor units shall be installed and mounted on the 3rd floor sky garden using appropriate and approved anti-vibration mounting/base. They shall be complete with hermetically sealed compressors. Safety devices shall include overload/surge protection among others.

The air conditioning unit shall allow for maximum 48 indoor units of different capacity & types to be connected to a single refrigerant circuit. It shall have an outdoor unit capacity ratio of 50-130% with nominal cooling load as stated in the bill of quantities and capacity control in the range of 10 - 130% according to the indoor cooling load.

There shall be two outdoor units operating as duty and standby and connected to the same indoor units through control panel.

The Unit shall be complete with the following:

- Casing constructed of 18 gauge zinc coated mild steel, zinc phosphate bonderized, coated with oven baked polyester paint and weatherized for outdoor installation. It shall have weep holes on base to allow ease of drainage. It shall have permanently attached base rails with 3-way forklift access and lifting holes.
- Hermetically sealed compressors mounted to unit base with rubber isolated hold down bolts, uniform in oil & pressures and shall have internal overload protection.
- Advanced compressor oil management system
- Compact flow selector unit

- TCC link: state-of-the-art communication bus system with automatically configured addressing and shall be Building management system (BMS) compatible.
- Heat exchanger capacity controls
- Precise inverter frequency controls with intelligent power drive unit (IPDU)
- New oil returning system (refrigerant oil control system)
- High and low-pressure units
- An innovation of installation with automatic address settings for indoor units with twin multiplex transmission system of no polarity.
- Condensate discharge pipe work
- Service access valves
- Voltage Surge Protector

23.4.2 Indoor 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 high static pressure ducted unit, 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
- Voltage Surge Protector
- Pulsed modulating valves (PMV) to permit linear variation of refrigerant flow in any circuit directly proportional to the thermal load.

The system shall be suitable for 240V, 1 – Phase, 50Hz power supply

23.4.3 Control Panel

Each system shall be provided for with a purpose made control panel fabricated from mild steel sheet of minimum SWG18 with a hinged door and then powder coated after manufacture. It shall be provided with an integral lock. It shall be complete with;

- ❖ Isolator
- ❖ Contactors
- ❖ Controlling thermostat with temp range from -10⁰C to +30⁰C
- ❖ 80mm dial thermometer with temp range from -10⁰C to +30⁰C
- ❖ Motor starters & current overload relays
- ❖ MCBs
- ❖ Phase failure relay with over and under voltage protection

- ❖ Timer switch for defrost control
- ❖ Push buttons for start and stop
- ❖ Audible and visual high temperature alarm with manual reset

The panel shall also have green light running indicators, red “door open” light and equipment circuit trip lights.

23.4.4 System Controls Unit

Controls Unit for each system shall incorporate complete controls to ensure continuous system services. Such controls shall include protection against any possible motor overload and over-heat, central control and monitoring for all the indoor units, individual temperature setting for each indoor unit, group control, set lock for each indoor unit and shall have self diagnosis function (display system errors).

The control unit shall control the duty and standby outdoor units to work alternately for twelve hours. This will be achieved by opening and closing of solenoid valves which will close or open the refrigerant pipes to achieve this operation.

The unit shall have a lock release to allow for control of the system by using wireless or wired remote control at the place where the indoor unit is installed. It shall also have a setup of a weekly and detailed schedule of the individual air conditioner.

The control unit shall have an open network controls designed for building management systems. It shall also have diagnostic software that will enable download of all operating parameters and instant analysis for commissioning and service.

The control system shall be complete with;

- Weekly timer for a 7 day timer complete with day omit
- Infrared wireless remote controller
- Remote temperature sensor for all indoor units
- Network/protocol adaptor kit to enable integration with artificial intelligence network
- External master on/off control board
- Error output control board
- Power peak cut control board
- Touch screen controller for full control of up to 64 indoor unit including electric billing
- Intelligent server and software package to allow connection to touch screen controller
- Energy monitoring interface

23.5 Testing and Commissioning Standards

The system shall be balanced to the satisfaction of the project engineer. It shall be run under complete automatic controls for 72 hours continuous operation to ascertain any faults in operation before acceptance and handover.

Any faults discovered during this time shall be corrected and a further test or tests of 72 hours duration shall be carried out to ensure satisfactory operation, all at the expenses of the contractor.

All accessories/equipment have to be tested for capacity, efficiency, leakages and other human errors and shall meet standards and specifications.

23.6 As-Built-Drawings and maintenance manuals

Once the air conditioning system has been tested and commissioned, drawings and maintenance manuals shall be provided. They shall be a true and accurate representation of what has been commissioned.

23.7 Training

Adequate personnel shall be trained to perform normal operations and routine maintenance of the air conditioning system. The number of personnel to be trained shall be specified for particular pool.

23.8 TESTING & COMMISSIONING

All the pipe work and connections herein described shall be tested in the presence of the Engineer and to the hydraulic pressure the Engineer deems satisfactory and for a minimum period of 1 hour.

These tests must be before any insulation work is undertaken or any pipe work is finally enclosed in any ducts, etc and due allowance is to be made in the tender for these tests.

The tenderer is to include for providing for all the testing equipment, temporary plugging and refilling etc.

23.9 ELECTRICAL WORKS

The tenderer shall include for supply, installation and commissioning of all starters, control apparatus, control panels and interconnecting wiring and conduits for equipment that the tenderer is supplying.

Power points shall be provided within 5 metres of the equipment installation point and the tenderer shall connect his equipment from this point.

23.10 BUILDERS WORKS

The tenderers shall allow for perforation of holes, hacking of walls etc. All disturbed surfaces shall thereafter be made good by the tenderer upon satisfactory completion of the works.

SECTION C

**BILLS OF QUANTITIES AND SCHEDULE OF UNIT
RATES**

BILLS OF QUANTITIES AND SCHEDULE OF UNIT RATES

CONTENTS

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BILLS OF QUANTITIES

A) PRICING OF PRELIMINARIES ITEMS.

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.

The Bills of Quantities are divided generally into three sections:-

Preliminaries – Bill 1

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.

Installation Items – Other Bills

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.

The unit of measurements and observations are as per those described in clause 3.05 of the section C.

(c) Summary

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

SPECIAL NOTES

1. The Bills of Quantities form part of the contract documents and are to be read in conjunction with the contract drawings and general specifications of materials and works.
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, 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**.
6. Tenderers must enclose, together with their submitted tenders, detailed Manufacturer's Brochures detailing Technical Literature and specifications on all the Equipment they intend to offer.

1. 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:

SCHEDULE 1 – SUB-CONTRACT

PRELIMINARIES

ITEM	DESCRIPTION	QTY	UNIT	RATE	KSHS	CTS
1	Discrepancies clause 1.02					
2	Conditions of sub-contract Agreement clause 1.03					
	Payments clause 1.04					
3	Site location clause 1.06					
4	Scope of Contract Works clause 1.08					
5	Extent of the Contractor’s Duties clause 1.09					
6	Firm price contract clause 1.12					
7	Variation clause 1.13					
8	Prime cost and provisional sum clause 1.14 (insert					
9	profit and attendance which is a percentage of expended PC or provisional sum.)					
	Bond clause 1.15					
10	Government Legislation and Regulations clause 1.16					
11	Import Duty and Value Added Tax clause 1.17 (Note this clause applies for materials supplied only. VAT will also be paid by the sub-contractor as allowed in the summary page)					
12	Insurance company Fees clause 1.18					
13	Provision of services by the Main contractor clause 1.19					
14	Samples and Materials Generally clause 1.21					
15						
	SUB-TOTAL CARRIED TO PAGE C -6					

ITEM	DESCRIPTION	QTY	UNIT	RATE	KSHS	CTS
16	Supplies clause 1.20					
17	Bills of Quantities clause 1.23					
18	Contractor's Office in Kenya clause 1.24					
19	Builder's Work clause 1.25					
20	Setting to work and Regulating system clause 1.29					
21	Identification of plant components clause 1.30					
22	Working Drawings clause 1.32					
23	Record Drawings(As Installed) and Instructions clause 1.33					
24	Maintenance Manual clause 1.34					
25	Hand over clause 1.35					
26	Painting clause 1.36					
27	Testing and Inspection – manufactured plant clause 1.38					
28	Testing and Inspection – Installation clause 1.39					
29	Storage of Materials clause 1.41					
30	Initial Maintenance clause 1.42					
	SUB-TOTAL CARRIED TO PAGE C -6					

ITEM	DESCRIPTION	QTY	UNIT	RATE	KSHS	CTS
31	Attendance Upon Tradesmen, etc. (Insert percentage only) clause 1.58					
32	Local and other Authorities notices and fees clause 1.60					
33	Temporary Works clause 1.63					
34	Patent Rights clause 1.64					
35	Mobilization and Demobilization Clause 1.65					
36	Extended Preliminaries Clause 1.66(see appendix page C – 24)					
37	Supervision by Engineer and Site Meetings Clause 1.67					
38	Allow for profit and Attendance for the above					
39	Amendment to Scope of Sub-contract Works Clause 1.68					
40	Contractor Obligation and Employers Obligation clause 1.69(see appendix page C -24)					
41	Provisional sum for resident Mechanical Engineer’s allowance (Contractor to pay this money directly to Resident Engineer)					
42	Provisional sum for Resident Engineer’s Stationery					
43	Any other preliminaries;					
	Subtotal above Subtotal brought forward from page..... C-4 Subtotal brought forward from page..... C-5					
	TOTAL FOR SCHEDULE NO. 1- PRELIMINARIES CARRIED FORWARD TO PRICE SUMMARY PAGE C - 22					

Item	Description	Qty	Unit	Rate (Kshs.)	Amount (Kshs.)
A	Extract Fans Office Extract fan capable of a volume flow rate of 350m ³ /hr against a pressure drop of 67 N/m ² . Fan to be an aerofoil axial flow fan complete with supports, flexible connections and anti vibrations mountings. As S&P A' TD 500/150 Silent inline type or approved equivalent.	4	No.		
B	Toilet extract fan capable of a volume flow rate of 0.265m ³ /sec against a pressure drop of 67 N/m ² . Fan to be an aerofoil axial flow fan complete with supports, flexible connections and anti vibrations mountings. As "WOODS" aerofoil axial flows inline type or approved equivalent.	2	No.		
C	Ductwork Galvanized mild steel ductwork 1.0 mm thick, complete with bends, transformation pieces, offsets, joints, branches, gaskets, supports, sleeves, stiffeners, splitters, turning vanes, test holes, access doors and any other accessories necessary for the complete laying of the ductwork.	56	No.		
D	Transformation Pieces Allow for various sizes of transformation pieces in galvanized mild steel thickness 1.0mm as indicated on the contract drawings and necessary for complete ductwork installation.	1	Item		
E	Volume control dampers Opposed blade variable volume control dampers with leaf thickness of 1.0mm (SWG 20) and manual control. To be suitable for the following duct sizes				
F	150 mm x 150 mm	4	No.		
G	250 mm x 200 mm	2	No.		
H	250 mm x 250 mm	2	No.		
I	Pre Insulated Flexible Ducts Flexible duct of diameter 150 mm	20	Lm		
J	Extract air grilles Single deflection extract grilles with damper fitted size 450mm x 450mm capable of extracting 0.1m ³ /sec of air.	4	No.		
Total Carried Forward to Collection Page					

Item	Description	Qty	Unit	Rate (Kshs.)	Amount (Kshs.)
A	Ditto size 350mm x 250mm capable of extracting 0.066m ³ /sec of air. External Weather Louvres	4	No.		
B	250 mm x 450 mm high external weather louvers with a weather resistant external cover for fresh air inlet openings complete with galvanized coated wire mesh screen on the front face and frame and blades fabricated from extruded aluminium sections. As “TROX” or equal and Flexible Connections	6	No.		
C	The flexible connections shall be rubber bellows or neoprene and not canvas to isolate vibrations from the air conditioning unit or fans from the inter-connecting ductwork Anti-Vibration Mountings	6	No.		
D	The fan shall be installed on anti-vibrations mountings to isolate vibrations from the buildings structures Control Panels	6	No.		
E	A splash proof fan control panel complete with operational switches shall be installed in a room remote from the fan. It shall incorporate isolator, contactors, phase failure relay, overheat safety controls and fuses and pilot lamps to enable operating conditions to be checked. The panel shall be cut of mild steel and anodized after manufacture. It shall include volt free contacts for on-off and audible signal connection to a central indicator panel for the above fans. Duct Work Painting	6	No.		
F	Allow for painting (2 No coats) of the ductwork internally and externally with suitable matt black paint. Kitchen Hood	1	Item		
G	Kitchen Hood of 90 cm capacity 350m ³ /hr Electrical Works	1	No.		
H	Allow for all electrical works including wiring to the fans from the local isolators and connection to the control panel. Testing and Commissioning	1	Item		
I	Allow for testing and commissioning of the extract ventilation system.	1	Item		
Total Carried Forward to Collection Page					

COLLECTION PAGE FOR MECHANICAL VENTILATION WORKS

Item	Description	Total Cost (Kshs.)
1	Total carried forward from page C-7	
2	Total carried forward from page C-8	
	Total for mechanical ventilation installation carried to the Summary page	

VRF AIR CONDITIONING SYSTEM

Item	Description	Qty	Unit	Rate (Kshs.)	Amount (Kshs.)
	<p align="center">4TH FLOOR</p> <p>VRF AIR CONDITIONING SYSTEM 1 Supply and install the following air conditioning installations complete with the associated accessories.</p> <p>VRF AIR CONDITIONING SYSTEM The system shall comprise of one outdoor unit connected to 17No. Indoor units with cooling capacities as indicated below; Indoor Units Indoor units with the following parameters: . A refrigerant (R410A) initial charge . Thermostat to control room temperature . Inbuilt condensate drain pump . 5m long insulated drain hose of 25mm diameter . Auto restart function . Sound pressure level of 38 db (A) The indoor unit to be mounted in the ceiling with prefabricated hanging supports comprising of hanging bolts, nuts, spring washer and plate washer on the position shown on the approved working drawings. The indoor unit to be as 'Toshiba VRF Series indoor unit' or approved equivalent. The Ceiling Cassette indoor units with the following A . Cooling capacity: 3.5kW (12,000 Btu/hr) B . Cooling capacity: 5.3 kW (18,000 Btu/hr) C . Cooling capacity: 7.1 kW (24,000 Btu/hr) The slim duct unit should have the following capacity:- D . Cooling capacity: 7.1kW (24,000 Btu/hr) E . Cooling capacity: 10.5kW (36,000 Btu/hr) Outdoor Unit 1No.floor mounted inverter controlled outdoor unit connected to 17No. indoor units as described above. It shall have a nominal cooling load of 114.5kW (390,600 Btu/hr) and capacity control in the range of 10 - 130% according to the indoor cooling load. The unit will operate with R410A refrigerant or any other non-ozone depleting refrigerant. It shall be provided with anchoring accessories including rawl bolts complete with anti-vibration rubber mountings. To be complete with 17No. wall mounted simple controllers to be mounted in each room and the control cable. The outdoor unit to be as 'Toshiba VRF Series outdoor unit model MMY-MAP2801T8' or approved equivalent.</p>				
	Total Carried Forward to Collection Page for Air Conditioning				

Item	Description	Qty	Unit	Rate (Kshs.)	Amount (Kshs.)
	<p>VRF AIR CONDITIONING SYSTEM 2</p> <p>The system shall comprise of one outdoor unit connected to 14No. Indoor units with cooling capacities as indicated below;</p> <p>Indoor Units</p> <p>Indoor units with the following parameters:</p> <ul style="list-style-type: none"> . A refrigerant (R410A) initial charge . Thermostat to control room temperature . Inbuilt condensate drain pump . 5m long insulated drain hose of 25mm diameter . Auto restart function . Sound pressure level of 38 db (A) <p>The indoor unit to be mounted in the ceiling with prefabricated hanging supports comprising of hanging bolts, nuts, spring washer and plate washer on the position shown on the approved working drawings. The indoor unit to be as 'Toshiba VRF Series indoor unit' or approved equivalent.</p> <p>The Ceiling Cassette indoor units with the following</p>				
A	. Cooling capacity: 3.5kW (12,000 Btu/hr)	4	No		
B	. Cooling capacity: 7.1 kW (24,000 Btu/hr)	1	No		
	<p>The slim duct unit should have the following capacity:-</p>				
A	. Cooling capacity: 3.5kW (12,000 Btu/hr)	1	No		
B	. Cooling capacity: 5.3 kW (18,000 Btu/hr)	1	No		
C	. Cooling capacity: 7.1kW (24,000 Btu/hr)	4	No		
D	. Cooling capacity: 10.5kW (36,000 Btu/hr)	3	No		
	<p>Outdoor Unit</p> <p>1No.floor mounted inverter controlled outdoor unit connected to 14No. indoor units as described above. It shall have a nominal cooling load of 91.4kW (280,000 Btu/hr) and capacity control in the range of 10 - 130% according to the indoor cooling load. The unit will operate with R410A refrigerant or any other non-ozone depleting refrigerant. It shall be provided with anchoring accessories including rawl bolts complete with anti-vibration rubber mountings. To be complete with 14No. wall mounted simple controllers to be mounted in each room and the control cable. The outdoor unit to be as 'Toshiba VRF Series outdoor unit model MMY-MAP2801T8' or approved equivalent.</p>				
E		1	Set		
F	Grilles 1200mm x 100mm air return grille/register with damper	40	No.		
G	900mm x300mm air return perforated grille/register with damper	16	No.		
Total Carried Forward to Collection Page for Air Conditioning					

Item	Description	Qty	Unit	Rate (Kshs.)	Amount (Kshs.)
	Control Cable Installation Works				
A	Allow for wiring and conduit works including but not limited to interconnecting cable between the outdoor unit, indoor units, wired remote control and control system. The transmission cable to be CVV-SB 1.25mm ² x 2C	80	Lm		
	Copper Pipework and Insulation				
B	Supply, deliver and instal copper tubing to BS 2871: part1 and capillary and compression fittings to BS 864: part 2. Tubing must be solid drawn round, clean, smooth and free from defects and from deleterious films in the bore. The fittings must be free from internal fins or other irregularities. Compression fittings shall be Type A (non-manipulative). Allow in pipework prices for pipe support, clips and cradles, bends, tees, insulation, branches, joining fixing and any other accessories for proper and satisfactory functioning of the system	40	Lm		
C	41.3mm diameter copper pipework with suitable insulation	18	Lm		
D	34.925mm diameter -ditto-	34	Lm		
E	28.575mm diameter -ditto-	80	Lm		
F	22.225mm diameter -ditto-	22	Lm		
G	19.05mm diameter -ditto-	146	Lm		
H	15.875mm diameter -ditto-	98	Lm		
I	12.70mm diameter -ditto-	138	Lm		
J	9.525mm diameter -ditto-	48	Lm		
	Y-Branches				
K	Copper Y-branches complete with reducers and tees to connect indoor units from/to both gas and liquid main refrigerant pipe. The Y-branches to be as Toshiba RBM-series or approved equivalent.	54	No		
	Bend				
L	41.3mm diameter copper bend	18	No		
M	34.9mm diameter copper bend	20	No		
N	28.575mm diameter copper bend	22	No		
O	22.225mm diameter copper bend	30	No		
P	19.05mm diameter copper bend	46	No		
Q	15.875mm diameter copper bend	56	No		
R	12.7mm diameter copper bend	64	No		
S	9.525mm diameter copper bend	84	No		
T	6.35mm diameter copper bend	89	No		
Total Carried Forward to Collection Page for Air Conditioning					

Item	Description	Qty	Unit	Rate (Kshs.)	Amount (Kshs.)
	<p>PVC Drain Pipework Supply and instal uPVC pipes for drainage of the indoor units. The pipes are to B.S 5235 with fittings fixed as per the manufacturer's instructions and BS 5572. Tenderer must allow in their prices for all sizes of connectors, adapters, socket, reducers, holderbats, clips e.t.c. required for the satisfactory running of the system.</p>				
A	50mm diameter grey uPVC pipework	85	LM		
B	40mm diameter grey uPVC pipework	68	LM		
C	32mm diameter grey uPVC pipework	84	LM		
D	50mm diameter tee	20	No		
E	40mm diameter tee	14	No		
F	40mm diameter bend and U-trap	14	No		
	General Items				
G	<p>PC Based Controller Unit PC based controller unit complete with computer, LCD screen, building network unit, Lonworks protocol or any other applicable protocol to connect the system to BMS system, operational switches installed in the reception area or any other convinient place. The unit shall be capable of controlling 30 indoor units. The unit shall incorporate pilot lamps to enable operating conditions to be checked. The system casing shall be of mild steel and anodized and shall be complete with all other</p> <ul style="list-style-type: none"> . To convert gateway between BMS system . Individual/Intergrated operation & Monitoring . Group Management . set lock/lock release for remote control of each indoor unit at place where its installed. . Schedule automatic operation management/energy saving . Self diagnosing function (display system errors) <p>The controls system shall be complete with:-</p> <ul style="list-style-type: none"> . 24.0" TFT LCD screen for thr computer . 320GB hard disk in the CPU unit . Central control network interface unit (CNU) . 12No. product interface unit (PI485), . Independent built-in battery (minimum 2 hours) . Ethernet (Cross UTP Cable) . 200 metres long 0.75mm² x 2C (shield) cable . Inbuilt controls software to perform above functions <p>The controls system shall be Toshiba PC based controller Unit or equal and approved</p>	1	No.		
Total Carried Forward to Collection Page for Air Conditioning					

Item	Description	Qty	Unit	Rate (Kshs.)	Amount (Kshs.)
A	Electrical Works Allow for associated electrical works including but not limited to wiring from local isolators provided by others within one meter to all indoor units, outdoor units and control system. Allow for labelling all the circuits and	1	Item		
B	Simple Central Controller Unit Central controller unit complete with operational switches shall be installed in the reception area or any other convenient place. The unit shall be capable of controlling 30 indoor units. The unit shall incorporate pilot lamps to enable operating conditions to be checked. The system casing shall be of mild steel and anodized and shall be complete with all other accessories necessary to automatic operations of the air conditioning system. The controls system functions shall be:- . Controlling indoor units in each floor (30No. maximum) . Individual operation and monitoring . Group Management . set lock/lock release for remote control of each indoor unit at place where its installed. . Schedule automatic operation management/energy saving . Self diagnosing function (display system errors) The controls system shall be complete with:- . Central control network interface unit (CNU) . 5No. product interface unit (PI485), . Independent built-in battery (minimum 2 hours) . Ethernet (Cross UTP Cable) . 30 meters long 0.75mm ² x 2C (shield) cable The controls system shall be Simple Central Controller Unit BMS compatible as manufactured by Toshiba or equal and approved.	1	No.		
C	Refrigerant Allow R410A extra refrigerant for charging all the VRF air conditioning systems described above.	1	Item		
D	Cleaning and Flushing the Installation Allow for cleaning and flushing the whole installation with appropriate medium before charging the system with refrigerant.	1	Item		
Total Carried Forward to Collection Page for Air Conditioning					

Item	Description	Qty	Unit	Rate (Kshs.)	Amount (Kshs.)
A	<p>Training of maintenance staff and operators 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.</p>	1	Item		
B	<p>As-built Drawings and Maintenance Manuals Allow for preparation of as-built drawings and maintenance manuals. All these will be handed to project Engineer in three hard copies and soft copy in 8Gb flash disk and compact disk.</p>	1	Item		
C	<p>Testing and Commissioning Allow for testing and commissioning of the air conditioning installations to the satisfaction of the Engineer.</p>	1	Item		
Total Carried Forward to Collection Page for Air Conditioning					

COLLECTION PAGE

COLLECTION PAGE FOR AIR CONDITIONING WORKS (BILL 7)

Item	Description	Total Cost (Kshs.)
1	Total carried forward from page C- 11	
2	Total carried forward from page C-12	
3	Total carried forward from page C-13	
4	Total carried forward from page C-14	
5	Total carried forward from page C-15	
6	Total carried forward from page C-16	
Total Cost for Air Conditioning Works carried to Summary Page		

SPLIT AIR CONDITIONING SYSTEM

Item	Description	Qty	Unit	Rate (Kshs)	Amount (Kshs)
A	<p>SPLIT AIR CONDITIONING SYSTEM The air conditioning system shall be split type. The indoor unit shall be Ceiling Cassette type air-cooling unit . The air conditioning unit shall be supplied complete with room thermometer, room thermostat controls, Drainage pump and wireless remote control device. It shall be 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 “Toshiba” Model or equal and approved. The indoor unit shall have the following capacity:</p>	1	No.		
	<p>Refrigeration Pipework</p>				
B	<p>Refrigeration liquid line pipework including 25mm Amaflex insulation.</p>	20	LM		
C	<p>Refrigeration gas line pipework including 25mm Amaflex insulation</p>	20	LM		
D	<p>Refrigerant Allow R410A refrigerant for charging air conditioning system.</p>	1	Item		
E	<p>Drain 25mm PVC condensate drainage pipework, class D, including bends, clips, joints and tees in the running lengths of the pipe.</p>	20	LM		
F	<p>Surge Protector Power surge protector as Solatek to suite or equal and approved.</p>	1	No.		
G	<p>Electrical Works Allow for all the associated electrical works including wiring from indoor unit to outdoor unit.</p>	1	Item		
H	<p>Mounting bracket 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.</p>	1	Item		
I	<p>Wall Mounted Wired Remote Controller Fully wired wall mounted remote controller panel, wiring and conduit works including but not limited to interconnecting cable between the outdoor and indoor units.</p>	1	No.		
Total for Split Air Conditioning Carried Forward to Summary Page					

SUMMARY PAGE

Item	Description	Total Cost (Kshs)
1	Total for Preliminaries and General Items from C-6	
2	Total Carried Forward from Collection Page C-9 for Mechanical Ventillation Works	
3	Total Carried Forward from Collection Page C-17 for VRF Air Conditioning Works	
4	Total Carried Forward from Collection Page C-18 for Split Air Conditioning Works	
5	Allow for Contingency Sum	1,500,000.00
Total Cost for Mechanical Ventilation and Air Conditioning Carried to Form of Tender		

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 D:

TECHNICAL SCHEDULE OF ITEMS TO BE SUPPLIED

CONTENTS

<u>CLAUSE No.</u>	<u>PAGE</u>
1. GENERAL NOTES TO THE TENDERER.....	(i)
2. TECHNICAL SCHEDULE.....	D-1 to D-2

2 **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.

TECHNICAL SCHEDULE

The tenderer must complete in full the technical schedule. 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).

ITEM	DESCRIPTION	MANUFACTURER	COUNTRY OF ORIGIN	REMARKS (Catalogue No. etc.)
A	Ductwork			
B	Inline fans			
C	Ceiling mounted fan			
D	Grilles/Diffusers			
E	Split air-conditioning system			
F	Ceiling cassette indoor air conditioning unit			
G	Fire damper			
H	Copper piping			
I	VRF unit			

Catalogue must be attached for all the items **in the schedule of material above**

SECTION E:

STANDARD FORMS

NOTE:

**ALL FORMS IN THIS SECTION MUST BE FILLED AS THEY SHALL BE
PART OF THE EVALUATION CRITERIA**

CONTENTS OF SECTION E

	TITLE	PAGE
1.	Key Personnel.....	E/1
2.	Schedule of Contracts completed in the last eight (8) years.....	E/2
3.	Schedule of on-going projects.....	E/3
4.	Schedule of major items of contractor's equipment.	E/4

NOTE:

1.0 Tenderers must duly fill these Standard Forms as a mandatory requirement.

2.0 Any tender returned with **unfilled Standard Forms** shall be considered **non - responsive and shall automatically be disqualified.**

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
E/1

.....
Date

CONTRACTS COMPLETED IN THE LAST FIVE (5) YEARS

Work performed on works of a similar nature, complexity and volume over the last 5 years.

PROJECT NAME	NAME OF CLIENT	TYPE OF WORK AND YEAR OF COMPLETION	VALUE OF CONTRACT (Kshs.)

I certify that the above works were successfully carried out and completed by ourselves.

.....

Title

Signature

Date

SCHEDULE OF ON-GOING PROJECTS

Details of on-going or committed projects, including expected completion date.

PROJECT NAME	NAME OF CLIENT	CONTRACT SUM	% COMPLETE	COMPLETION DATE

I certify that the above works are currently being carried out by ourselves.

.....

Title

Signature

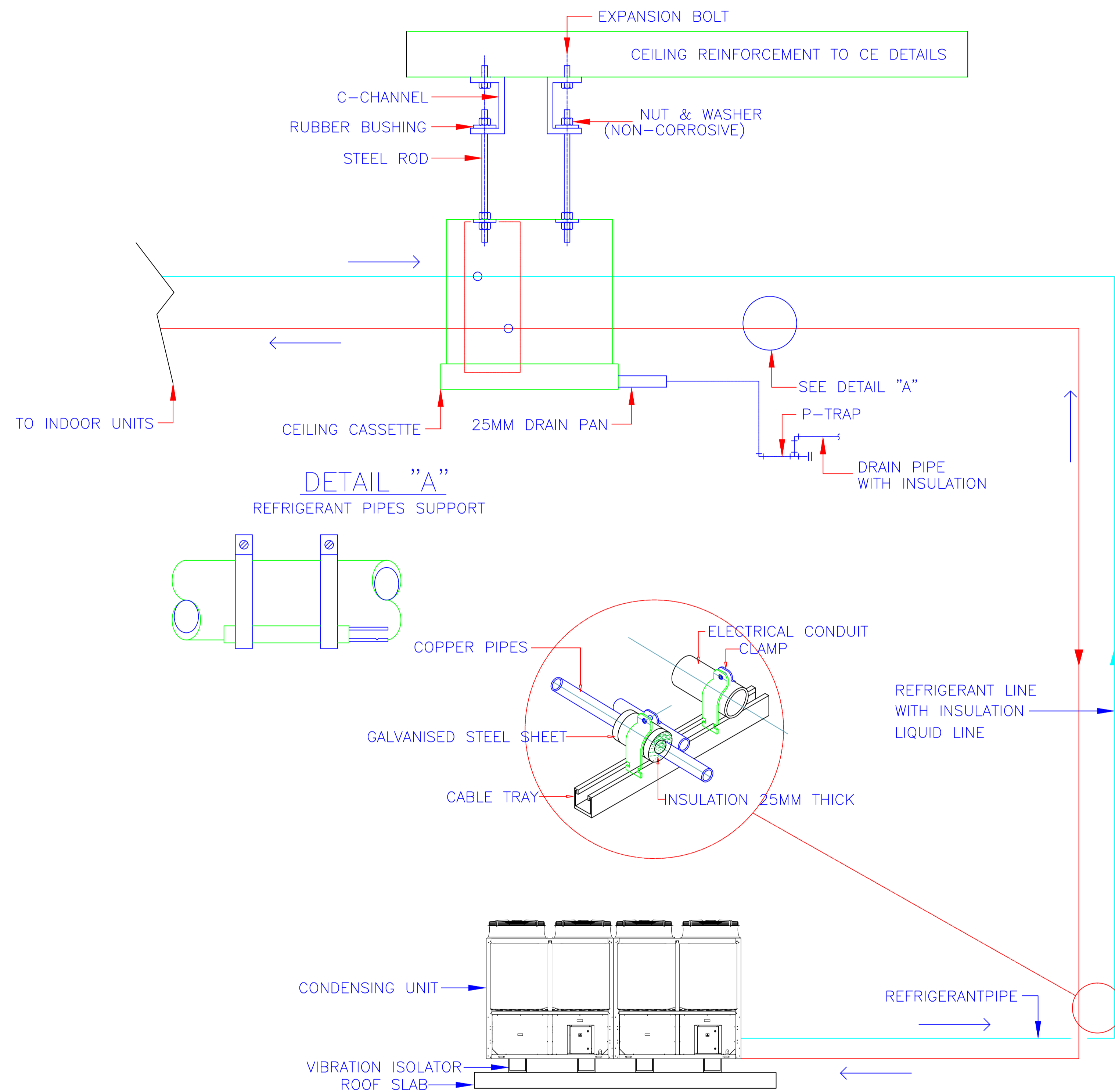
Date

**SCHEDULE OF MAJOR ITEMS OF CONTRACTOR'S EQUIPMENT PROPOSED FOR CARRYING
OUT THE WORKS**

ITEM OF EQUIPMENT	DESCRIPTION, MAKE AND AGE (Years)	CONDITION (New, good, poor) and number available	OWNED, LEASED (From whom?), or to be purchased (From whom?)

SECTION F: DRAWINGS

VRF TYPE AIR CONDITIONER INSTALLATION DETAILS



NOTES:

1. TYPE OF VIBRATION ISOLATOR SHALL BE REFER TO SPECIFICATION.
2. LOCATE CONDENSING UNIT SO THAT AIRFLOW IS UNRESTRICTED ON ALL SIDE AND ABOVE
3. ALLOW SUFFICIENT SPACE FOR WIRING, REFRIGERANT PIPING AND SERVICING UNIT
4. THE SOLENOID VALVE SHALL BE INSTALLED IN THE UNIT THAT IS 3 TONNAGE COOLING OR LARGER

NOTES

1. All dimensions are in millimetres unless otherwise stated.
2. All drawing shall be read together with Architects and Civil Engineers drawings
3. All plumbing and drainage pipes under floorslab/driveway/walkway car park etc to be sleeved in heavy duty UPVC pipe as instructed and to be encased in 150mm diameter concrete surround.
4. All pipeswork shall run in wall chase, underfloor, underworktop, in ceiling voids etc. exposed pipe work shall not be accepted.
5. All drainage pipes above ground shall be mUPVC grey while those below shall be UPVC golden brown, all medium duty (Class D).

LEGEND

- svp - stack vent pipe
- vp - vent pipe
- ic - inspection chamber
- GT - gulley trap
- ft - floor trap/grating
- whb - wash hand basin
- ks - kitchen sink
- wc - water closet
- tb - to below
- rwp - rain water pipe

REVISIONS

NO	DATE	BY	DESCRIPTION	SIGNATURE

Project
 PROPOSED NEWLY RECLAIMED TOP FLOOR OF INTEGRITY CENTRE BUILDING

Client
 EACC

Title
 AIR CONDITIONING-INSTALLATION DETAILS

Drawn	Name	Signature	Date
	Eng. L. M. MWAMBI		
	Eng. L. M. MWAMBI		

Approved **Date**

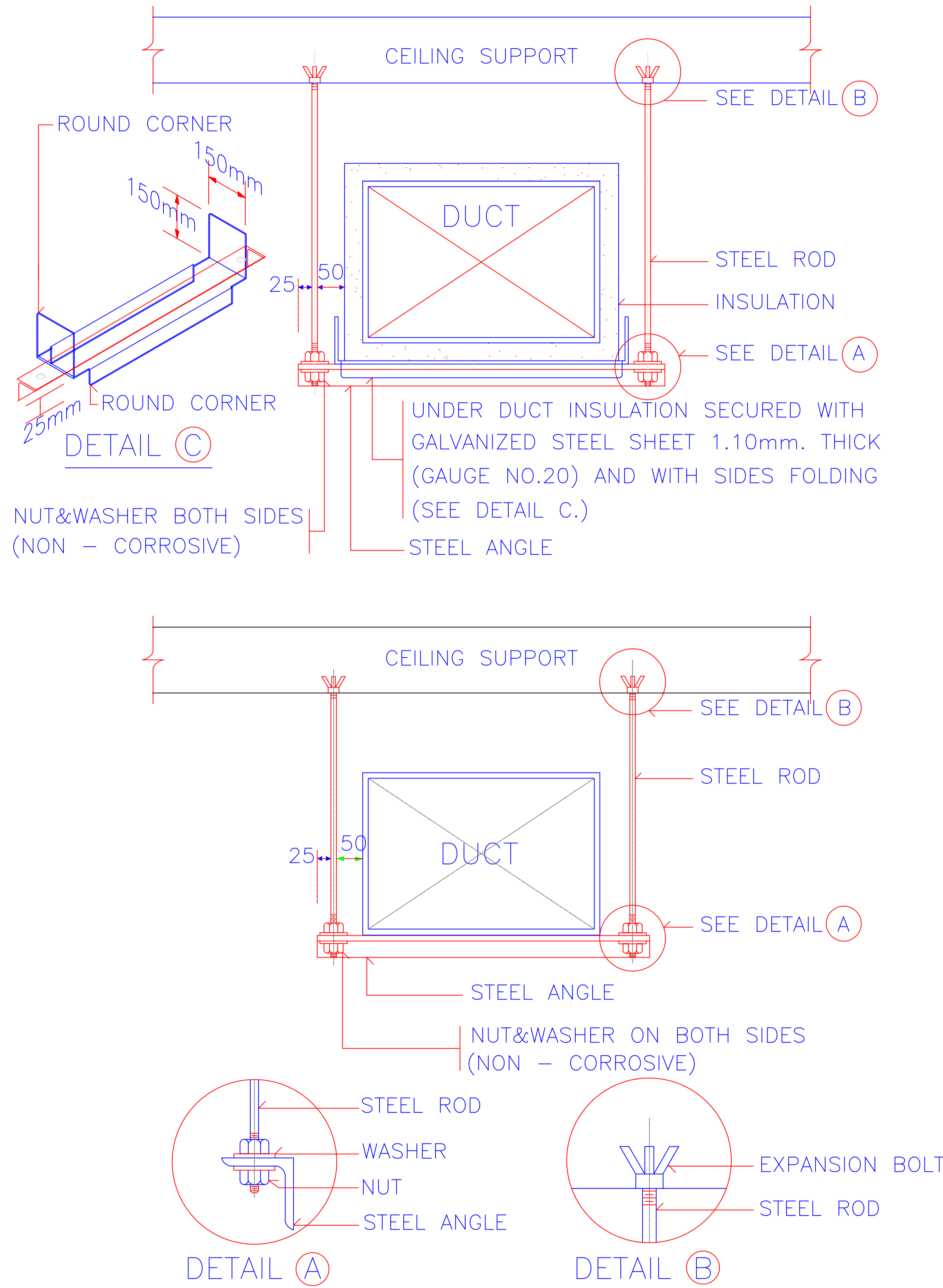
Eng. B. N. Karobia,
 Ag. CHIEF ENGINEER-MECHANICAL(BS)

Scale	Date	Drawing No.

STATE DEPT. FOR PUBLIC WORKS
 MECHANICAL DEPT. (BS)

THE GOVERNMENT OF THE REPUBLIC OF KENYA

DUCT HANGER AND SUPPORTS



NOTE:
ALL STEEL SUPPORTS SHALL BE PAINTED WITH 2 COATS OF ANTI-RUST PAINT AND 1 COAT OF FINISHED COAT OR AS SPECIFIED.

NOTES

1. All dimensions are in millimetres unless otherwise stated.
2. All drawing shall be read together with Architects and Civil Engineers drawings
3. All plumbing and drainage pipes under floorslab/driveway/walkway car park etc to be sleeved in heavy duty UPVC pipe as instructed and to be encased in 150mm diameter concrete surround.
4. All pipeswork shall run in wall chase, underfloor, underworktop, in ceiling voids etc. exposed pipe work shall not be accepted.
5. All drainage pipes above ground shall be mUPVC grey while those below shall be UPVC golden brown, all medium duty (Class D).

LEGEND

- svp - stack vent pipe
- vp - vent pipe
- ic - inspection chamber
- GT - gulley trap
- ft - floor trap/grating
- whb - wash hand basin
- ks - kitchen sink
- wc - water closet
- tb - to below
- rwp - rain water pipe

REVISIONS

NO	DATE	BY	DESCRIPTION	SIGNATURE

Project
PROPOSED NEWLY RECLAIMED TOP FLOOR AT INTEGRITY CENTRE BUILDING

Client
EACC

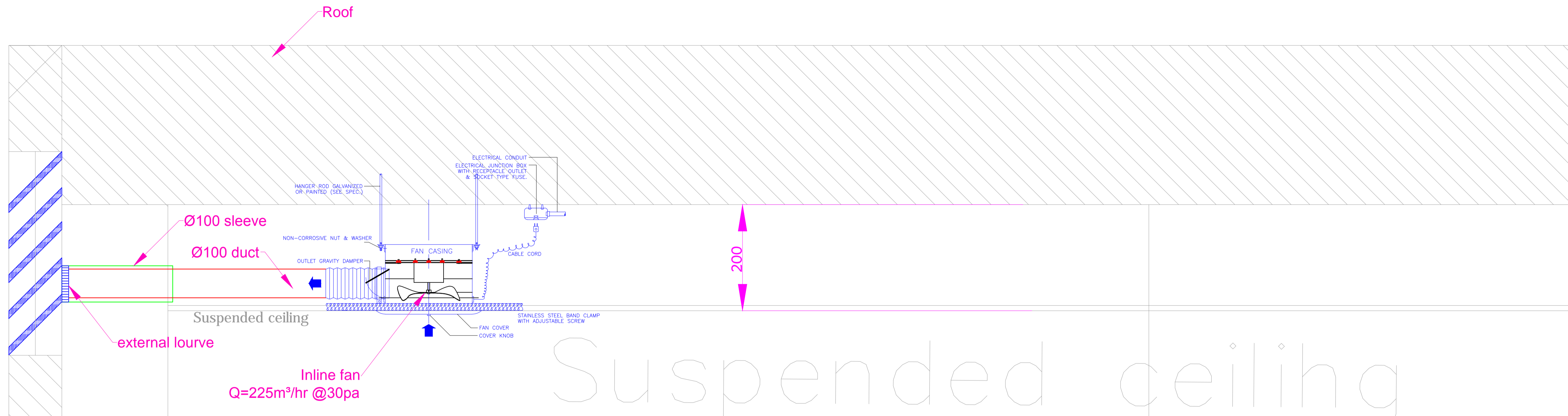
Title
DUCT HANGING & SUPPORT DETAILS

	Name	Signature	Date
Drawn	Eng. L. M. MWAMBI		
Designed	Eng. L. M. MWAMBI		
Group.Eng			

Approved Date

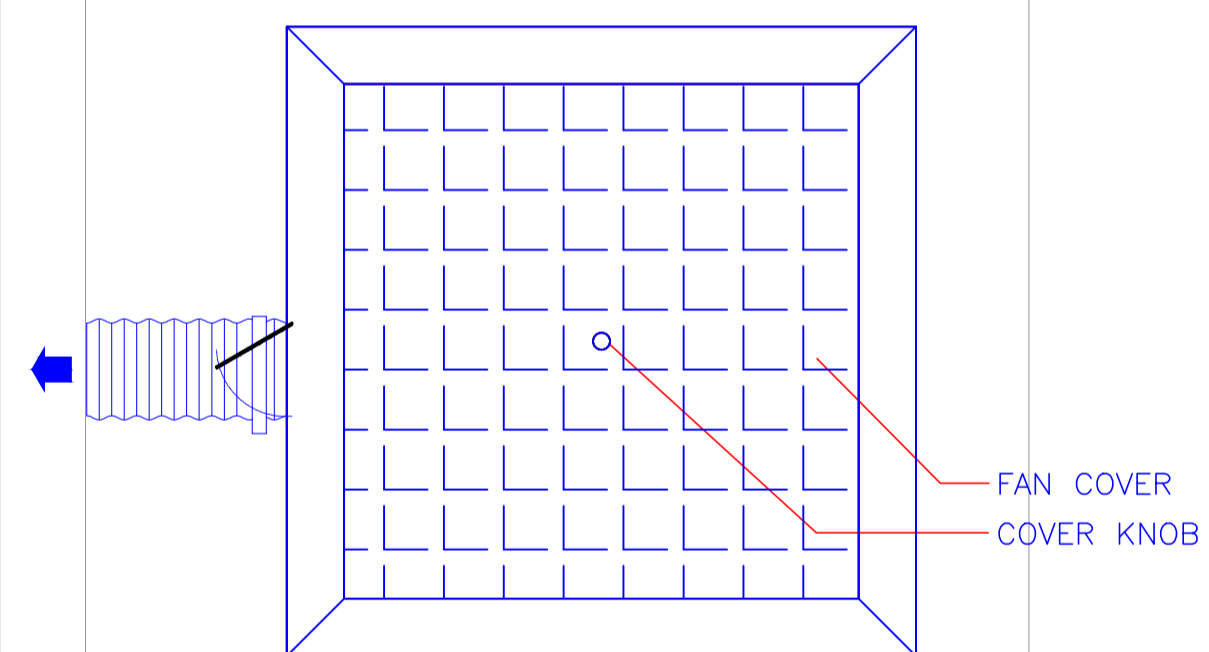
Eng. B. N. Karobia,
Ag. CHIEF ENGINEER-MECHANICAL(BS)

Scale	Date	Drawing No.
1:100	SEPTEMBER, 2021	D-M9



SECTION LAYOUT

Suspended ceiling



PLAN LAYOUT

NOTES

1. All dimensions are in millimetres unless otherwise stated.
2. All drawing shall be read together with Architects and Civil Engineers drawings
3. All plumbing and drainage pipes under floorslab/driveway/walkway car park etc to be sleeved in heavy duty UPVC pipe as instructed and to be encased in 150mm diameter concrete surround.
4. All pipeswork shall run in wall chase, underfloor, underworktop, in ceiling voids etc. exposed pipe work shall not be accepted.
5. All drainage pipes above ground shall be mUPVC grey while those below shall be UPVC golden brown, all medium duty (Class D).

LEGEND

- svp - stack vent pipe
- vp - vent pipe
- ic - inspection chamber
- GT - gully trap
- ft - floor trap/grating
- whb - wash hand basin
- ks - kitchen sink
- wc - water closet
- tb - to below
- rwp - rain water pipe

REVISIONS

NO	DATE	BY	DESCRIPTION	SIGNATURE

Project
PROPOSED NEWLY RECLAIMED ROOF TOP FLOOR FOR INTEGRITY CENTRE BUILDING

Client
EACC

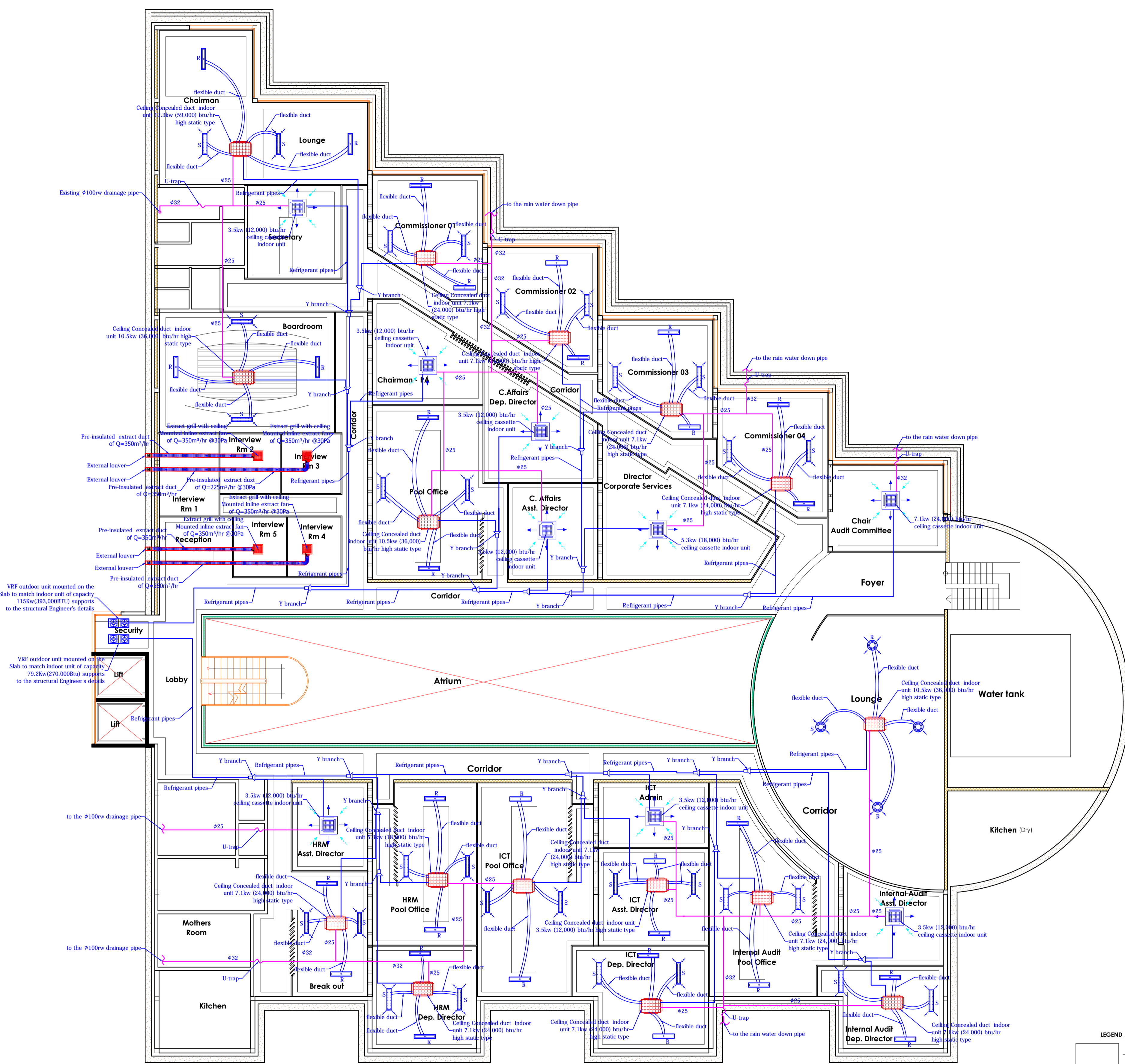
Title
INTERVIEW ROOM EXTRACT FAN-INSTALLATION DETAILS

	Name	Signature	Date
Drawn	Eng. L. M. MWAMBI		
Designed	Eng. L. M. MWAMBI		
Group.Eng			

Approved Date

Eng. B. N. Karobia,
Ag. CHIEF ENGINEER-MECHANICAL(BS)

Scale	Date	Drawing No.
	SEPTEMBER, 2021	D-M8



ROOFTOP FLOOR HVAC LAYOUT

LEGEND

	Gypsum ceiling
	Gypsum bulkheads
	Gypsum drop
	Timber planks

NOTES

1. All dimensions are in millimetres unless otherwise stated.
2. All drawing shall be read together with Architects and Structural Engineers drawings
3. The piping to be blown clear to remove chips or metal shavings before nozzles are installed.
4. The detectors shall be wired in sequential method of operation, standard cross-zoned detection or single detector release. No other wiring arrangements shall be accepted

LEGEND

- Out door unit
 - Return diffuser 900x150
 - Supplier diffuser 1200x150
 - Y branch
 - Ducted indoor unit
 - Ceiling Cassette
- fa - from above
fb - from below
ta - to above
tb - to below

PROPOSED PARTITIONING OF TOP FLOOR OF INTEGRITY CENTRE BUILDING

Project			
Site	NAIROBI		
Client	EACC		
Title	INTEGRITY CENTRE FOURTH FLOOR PLAN HVAC LAYOUT		

	Name	Signature	Date
Drawn	Eng. L.MWAMBI		
Drawn	Eng. L.MWAMBI		
Group Engineer(M)			

Approved _____ Signature & Date

ENG. B. N. KAROBIA,
FOR CHIEF ENGINEER (MECHANICAL-BS)

Scale	Date	Drawing No.
1:100	SEPTEMBER 2021	D22-M001

MECHANICAL DEPARTMENT (BUILDING SERVICES)
STATE DEPARTMENT OF PUBLIC WORKS
MINISTRY OF TRANSPORT, INFRASTRUCTURE, HOUSING AND URBAN DEVELOPMENT

THE GOVERNMENT OF THE REPUBLIC OF KENYA

**PROPOSED FACELIFT OF EACC'S INTEGRITY CENTRE HOUSE- PHASE 1
INTERNAL PARTITIONING OF THE ROOFTOP
ELECTRICAL INSTALLATION WORKS**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	Supply, install, test and commission the following :				
	Lighting Points				
1.01	Lighting point wired in 3x1.5mm ² SC-PVC-Cu cables drawn in 20mm diameter HG PVC conduits concealed inside the ceiling complete with all necessary accessories excluding switches and fittings				
	i) One way switching	294	No.		
	ii) Two way switching	74	No.		
1.02	10A Architrave lighting switch plates as Crabtree or approved equivalent as follows:				
	i) One gang one way switch	43	No.		
	ii) Two gang one way Switch	8	No.		
	iii) One gang two way Switch	5	No.		
	Lighting Fittings				
1.03	Light fittings complete with all accessories and lamps as follows:-				
	a) 600x600mm 40W 4200Lm, Surface mounted backlit (panel) LED luminaire with acrylic microprism and dispersal diffuser as PHILIPS or Approved equivalent	106	No.		
	b) Standard recessed 100mm x 1200mm, 30W, 3600Lm, 6500K, IP44 Daylight modular LED panel lighting fitting as PHILIPS or equal and approved equivalent.	77	No.		
	c) Circular recessed IP23, 4000K, 19.7W LED downlight luminaire, 295mm Dia. Made of aluminium acrylic material with tinted finish as Forlight TC-0204-BLA or an equal and approved equivalent.	39	No.		
	d) High performance 1200mm , 1x36W LED Batten fitting as Philips Coreline or approved equivalent (Type J)	14	No.		
	e) 11.5W LED ceiling fixture made of steel glass material with chrome finish as Forlight DE-0426-CRO or an equal and approved equivalent	30	No.		
	f) Standard circular surface luminaire with polycarbonate body and white trim, polycarbonate opal diffuser for 28 W LED lamp as THORN Supernovela or approved equivalent (Type N)	60	No.		
	g) 25.9W, IP20 Ultra horizontal thin pendant made of acrylic and aluminium with blanco tinted finish complete with warm white 3000K LED bulb as Forlight DE-0510-BLA or an equal and approved equivalent	20	No.		
	h) 7W ballet steel pendant with chrome finish, with 3GU10 Max bulbs as forlight DE-0224-CRO or an equal and approved equivalent	8	No.		
	i) 7W white pendant complete with GU10 LED bulbs as forlight DE-0180-BLA or an equal and approved equivalent	4	No.		
	j) Surface mounted 24W LED flexible strip as Forlight TC-2900-SIN or an approved equivalent (Provisional length, actual length will be measured)	300	Lm		
	k) Self-contained single sided EXIT sign with 8W fluorescent lamp for non-maintained emergency lighting for 3 hour duration as Thorn EF X3 or approved equivalent.	10	No.		
	Sub total C/F to next page				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	Sub total B/F from previous page				
	Supply, intall, test and commission				
	CCTV				
1.04	CCTV points for the camera, appoximately 20m for each point from the communication room done in 25mmsq. Size conduits concealed inside ceiling	15	No.		
	Cable Trays				
1.05	250x50 mm galvanised cable tray concealed inside ceiling for data points and power point .	50	M		
	Trunking				
1.06	a)250x50mm two compartment cream powder coated steel trunking manufactured in 14 swg galvanized mild steel sheet and finished in cream powder coating to details shown complete with covers, bends and all fixing accessories. The trunking to be angular section. Allow for colour change to Architect's detail.	350	M		
	b)Cream powder coated twin punched outlet plate for fixing twin socket outlets	254	No		
	d)Ditto but for data/telephone outlets	254	No		
	e)Carry out bonding throughout the entire length of the above trunking and connect to earthing system.	1	Item		
	Socket Outlets				
1.07	i)Socket outlet point comprising wiring in 3x2.5mm ² PVC-SC-Cu cables in concealed in trunking.	254	No.		
	ii) 13A switched twin socket outlet mounted on trunking as Crabtree or approved equivalent	254	No		
	iii) Clean/UPS power socket outlet power points comprising wiring in 3x4.0mm ² PVC-SC-Cu cables concealed in trunking.	254	No		
	iv)13A switched twin socket outlet mounted on trunking as Crabtree or approved equivalent for the UPS power sockets.	254	No		
	v)Floor recessed power outlet station complete with twin punched socket outlets wired in 3 x 2.5mm ² SC-PVC-CU cables, data/telephone outlets, stainless steel covers and fixing accessories as Power Technics or approved equivalent	38	No.		
	vi) 13A switched twin socket outlet mounted on trunking as Crabtree or approved equivalent	38	No		
	vii)4D Powder coated steel pedestal standing inclusive of covers, twin punched socket outlet and data/telephone outlet and fixing accessories as Power Technics or approved equivalent	4	No.		
	viii) 13A switched twin socket outlet mounted on trunking as Crabtree or approved equivalent	4	No		
	Hand Dryer				
1.08	Power point wired in 3 x 4.0mm ² SC/PVC insulated copper cables drawn in concealed 25mm diameter HG/PVC conduits and including all the other accessories.	5	No		
	a) 20A ivory brass moulded switched DP switch with neon light	5	No		
	Projector Points				
1.09	Final circuits for projector points comprising wiring in 3 x 2.5sqmm. SC PVC Cu cables in 20mm dia.heavy gauge PVC conduits concealed in wall/ concrete slab excluding other accessories.	1	No		
	Sub total C/F to next page				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	Sub total B/F from previous page				
	Air Conditioning				
1.10	i) Air conditioner points comprising wiring in 3 x 4sqmm. SC PVC Cu cables in 20mm dia. heavy gauge PVC conduits concealed in wall/ concrete slab excluding other accessories.	29	No		
	ii) 20A Double Pole switch with neon light ON indicator as Clipsal or equal and approved equivalent for items above	29	No		
	a) TV outlet plate with polished brass finish as Crabtree or approved equivalent	3	No		
	b) DSTV System Installation (Dish, Decoder, Cabling & Accessories)	1	No		
	c) 300mmx250mmx150mm, 14SWG, powder coated steel, telephone/data draw box to approval	2	No		
	Firefighting Equipment Power Supply				
1.11	20A 2P isolator switch with metallic casing and mounting rail as Easy9 Schneider switch disconnecter or an approved equivalent for firefighting equipment	1	No		
	20A Double Pole switch with neon light ON indicator as Clipsal or equal and approved equivalent for items above	1	No		
	20A radial final circuit Fire hose reel pump socket outlets comprising wiring in 3x2.5mm sq. single core PVC insulated copper cables drawn in 25mm Dia HG PVC conduit directly from the meter box and complete with all the necessary accessories	1	No		
	Outdoor Unit Power Supply				
1.12	20A 2P isolator switch with metallic casing and mounting rail as Easy9 Schneider switch disconnecter or an approved equivalent for the biodigester	2	No		
	20A Double Pole switch with neon light ON indicator as Clipsal or equal and approved equivalent for items above	2	No		
	Consumer Unit/Distribution Board				
1.13	a) 6-way TPN Distribution Board flush mounted on wall complete with a 125A TP/N integral isolator as CRABTREE or approved equivalent. Miniature Circuit Breakers to fit into the above Distribution Board as follows:	4	No.		
	(i) 10A SP	12	No		
	(ii) 20A SP	2	No		
	(iii) 30A SP	15	No		
	(iv) 45A SP	2	No		
	(v) SP Blanking plates	5	No		
	Sub total C/F to next page				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	Sub total B/F from previous page				
	b) 6 Way SPN Consumer Unit complete with 100A integral isolator as manufactured by Schneider.	4	No		
	Miniature Circuit Breakers to fit into the above consumer unit as follows:				
	(i) 20A SP	4	No		
	(ii) 45A SP	4	No		
	(iii) Blanking Plates	4	No		
	c) 3 No. 100A TPN MCCB	3	No.		
	d) 38mm diameter HG PVC conduit concealed in in concrete	30	M		
	Fire Alarm System				
1.14	Firealarm outlet point comprising wiring in 3x2.5mm ² special fire resistant FP 200 cables in 20mm diameter HG conduits in concealed in the ceiling	54	No.		
	i) Addressable Photoelectric Smoke Detector as Menvier or Approved Equivalent	52	No.		
	ii) Addressable Photoelectric Heat Detector as Menvier or Approved Equivalent	2	No.		
	iii) Addressable Manual Fire Alarm 'Break Glass' call points as MENVIER or approved equivalent.	1	No.		
	iv) Addressable Electronic Fire Alarm sounder complete with Red Flashing beacon(Visual alarm) as MENVIER or approved equivalent	7	No.		
	v)Addressable 3-zone slave fire alarm control panel to be connected to the existing Fire Alarm Control Panel complete with link cable (approximately 90m)	2	No.		
	Sub-Mains Cables				
1.15	a) 4 Core 35mm ² PVC/SWA/PVC copper cables strapped on a cable tray/ or in trunking buried in concrete and in walls for DB A	50	LM		
	b) 4 Core 35mm ² PVC/SWA/PVC copper cables strapped on a cable tray/ or in trunking buried in concrete and in walls for DB B	50	LM		
	c) 4 Core 16mm ² PVC/SWA/PVC copper cables strapped on a cable tray/ or in conduits buried in concrete and in walls for Cus	50	LM		
	d) 4 Core 10mm ² PVC/SWA/PVC copper cables(to isolators)	100	LM		
	Sub total C/F to next page				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
1.16	<p>Sub total B/F from previous page</p> <p>Lightning Protection</p> <p>a) 25x3mm copper tape down conductor supported at intervals of 1M</p> <p>b) Galvanized steel conduit 32mm diameter at ground floor for item (a) above (Approximately 1500mm)</p> <p>c) Earthing chamber 300x300mm masonry type complete with removable cover</p> <p>d) 16mm x 1500mm pure copper earth rod complete with clamp and all the necessary accessories</p> <p>e) Air termination (600mm long pure copper with spikes) mounted on brakcet as FURSE</p>	200	M		
	Sub total C/F to summary page				

SUMMARY PAGE

Item	Description	Kshs.
1.00	Schedule 1- Electrical Installation Works	
2.00	Allow a Contingency Sum to be expended at the discretion of the Project Manager in consultation with the Employer.	700,000
3.00	Allow a provision sum to be extended for flood lights installation	600,000
SUB-TOTAL FOR ELECTRICAL INSTALLATION WORKS C/F TO COLLECTION PAGE		

Amount of tender in words: Kenya Shillings.....

Kenya Shillings.....

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Tenderers Signature and Stamp.....

Witness: Name and Signature.....

Date

**PROPOSED FACELIFT OF EACC'S INTEGRITY CENTRE HOUSE- PHASE 1
INTERNAL PARTITIONING OF THE ROOFTOP
STRUCTURED CABLING WORKS**

SCHEDULE NO. 1: STRUCTURED CABLING INSTALLATION WORKS

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	Supply, Install, test and Commission the following				
	HORIZONTAL CABLING				
1.01	RJ45 cat 6A UTP (Dual) Data and voice outlets complete with faceplates and labelling system as Siemons or its equal and approved equivalent	127	No.		
1.02	3m RJ45- RJ45 Cat 6A UTP factory terminated patch cord as Siemons for use at workstation areas	127	No.		
1.03	1m, RJ45- RJ45 cat 6A UTP factory terminated patch cord as Siemons to be used in cabinet.	127	No.		
1.04	Cat 6A UTP 4-pair screened cable as Siemons pulled between cabinet and work stations.(Provisional length, actual will be measured)	6,200	Lm.		
	CABINETS				
1.05	22U Wall/ground Mounted cabinet with low noise (low dB) fans and power outlet sockets, as described in particular specifications	2	No.		
1.06	48 port RJ45 cat 6 Data patch panel for UTP termination as Siemon.	4	No.		
1.07	24 port RJ45 cat 6 Data patch panel for UTP termination as Siemon.	3	No.		
1.08	2U Cable Manager/Organizers as Siemon or approved equivalent	10	No.		
1.09	Rack mountable 240V, 50Hz 2000VA, APC Smart-UPS RM SMT2000RM2U(240V) un-interrupted power supply unit (UPS) with USB and Serial Port or equal and approved equivalent	2	No		
	Total for Structured Cabling C/F to the next page				

Total for Structured Cabling B/F from the previous page				
ACTIVE COMPONENTS				
1.10	48 Port Edge Switch as Cisco Catalyst 9200 48-port PoE+, Network Essentials Complete with 2No. Power Supply, 10G and 40G uplink ports, POE and fully populated.	2	No	
1.11	24 Port Edge Switch as Cisco Catalyst 9200 24-port PoE+, Network Essentials Complete with 2No. Power Supply, 10G and 40G uplink ports, POE and fully populated.	2	No	
1.12	Cisco Smart Net Licence for items (i) and (ii) above	4	No	
1.13	Wifi Hotspot router as Cisco Aironet 2800 Series	4	No	
1.14	Backbone Cabling for the Switch			
	a) 1000 Base-X8 Core fibre optic cable	30	lm	
	b) Dual Fibre optic patch leads	1	No	
1.15	50mm x 25mm Powder coated Metallic trunking .	100	lm	
1.16	50mm x 200mm Powder coated double compartment Metallic trunking (provisional length, actual length will be measured)	500	lm	
Total for Structured Cabling C/F to the next page				

Total for Structured Cabling B/F from the previous page				
TELEPHONE EQUIPMENT				
Supply, Install, test and Commission the following				
1.17	Cisco 4000 ISR Router for IP Phone connection.	1	No.	
1.18	Cisco 4000 ISR Router software for interconnectivity.	1	No.	
1.19	Cisco Smart Net License for item 1.17 above	1	No.	
TELEPHONE SETS				
1.20	IP Telephone instruments as Cisco 7841 Product No. CP-7841-K9 or equal and approved equivalent	34	No.	
1.21	Cisco Smart Net License for item above	34	No.	
1.22	Allow for programming of the ports for voice at the building and site of the fibre optic cable and proper termination of the equipment.	1	Item	
1.23	Allow for preparing and presenting warranty and documentation, indelible point labels and preparing and submitting individual test results.	1	Item	
1.24	Any other item necessary for successful completion of this installation. (Please itemize)			
	a)			
	b)			
	c)			
Total for Structured Cabling C/F to the next page				

Total for Structured Cabling B/F from the previous page				
AUDIO VISUAL INSTALLATION				
1.25	Digital LED Multimedia Projector with 3000 luminous efficiency- Max 160" Screen Optical Keystone USB/AV/SD/HDMI/VGA Interface complete with remote adjustable lens, VGA, HDMI, LAN as Sony VPL_DX142 XGA Multimedia or an equal and approved equivalent	1	No	
1.26	Electric ceiling mount retractable projector lift for item (A) above	1	No	
1.27	120" 16:9, 4K Theatre Electric motorized drop down projector screen complete with remote control	1	No	
1.28	Automatic Voltage Switcher 13A (AVS 13)	1	No	
1.29	Medium laser presenter pointer	1	No	
1.30	Cables and accessories	1	Item	
1.31	75 inch Interactive Smart Board with ARM Cortex-A73*2 + Cortex-A53*2 1.5GHz processor,3GB DDR4 memory, 32GB storage, touch screen functions, Android Operating system, 2.1 Stereo with built-in subwoofer, in-built microphone,top mounted 1080 web camera, and slot-in CPU of 8th generation,TFT LCD Module with DLED Backlight PC, plug and play,HDMI, VGA, USB, YPBPR, AV, Audio Input Ports, Rj45 Connectivity slots and Include a Mobile stand as Viewsonic Interactive	1	No	
Total for Structured Cabling Works C/F to Summary Page				

SUMMARY PAGE

Item	Description	Kshs.
1.00	Schedule 1- Structured Cabling Installation Works	
2.00	Allow a Contingency Sum to be expended at the discretion of the Project Manager in consultation with the Employer.	400,000
SUB-TOTAL FOR STRUCTURED CABLING WORKS C/F TO ELECTRICAL WORKS		

Amount of tender in words: Kenya Shillings.....

Kenya Shillings.....

.....

Tenderers Signature and Stamp.....

Witness: Name and Signature.....

Date

**PROPOSED FACELIFT OF EACC'S INTEGRITY CENTRE HOUSE- PHASE 1
INTERNAL PARTITIONING OF THE ROOFTOP
CCTV & ACCESS CONTROL WORKS**

SCHEDULE NO. 1: CCTV INSTALLATION WORKS

ITEM	DESCRIPTION	UNIT	QTY.	RATE	AMOUNT
				SHS.	SHS.
	CAMERAS				
	Supply, Install, Test and commission the following:				
	Cameras				
1.01	3Megapixel (2048 x 1536) resolution Network IR Indoor Dome Day & Night Camera; 3 ~ 8mm (2.8x) motorized varifocal lens, WDR (120dB), 64GB Edge Storage, R LED (12ea), PoE, IK8, Bi-directional audio support and 3year warranty c/w brackets and accessories as Axis or equal and approved equivalent.	No.	13		
1.02	3Megapixel (2048 x 1536) resolution Network Indoor Bullet Camera; 3 ~ 8mm (2.8x) motorized varifocal lens; Simple focus (Motorized VF), P-Iris; Day & Night (ICR), Enhanced DIS, Defog; 3M real-time WDR (Max. 120dB); 128GB Edge Storage, IK8, Bi-directional audio support and 3year warranty c/w brackets and accessories as Axis or equal and approved equivalent.	No.	4		
1.03	5MP 360 degrees IP Panoramic Network Outdoor Camera. With 1/2.7-in 5MP Progressive Scan, Single CMOS sensor, Tripple Stream Encoding, Smart H.265+ & H.2644 Dual Code, 1.4mm Fixed Lens, True Dynamic Range (120db), Built-In Microphone, Analytics and Functions (People counting and Heat Map), IP67, IK10 and 5year warranty c/w brackets and accessories as Dahua or equal and approved equivalent.	No.	4		
	Active Components				
1.04	24 Port Edge Switch as Cisco Catalyst 9200 24-port PoE+, Network Essentials Complete with 2No. Power Supply, 10G and 40G uplink ports, POE and fully populated.	No.	1		
	Total for CCTV C/F to the next page				

Total for CCTV B/F from the previous page				
1.05	240V, 50Hz 1000VA, APC smart un-interrupted power supply unit (UPS) with USB and Serial Port or an approved equivalent	No.	1	
1.06	Automatic Voltage Switcher 13A (AVS 13)	No.	1	
1.07	Power Distribution Units (PDU) 6/8 way Surge Protected /Triplite Voltage Regulator	No.	1	
Cabinets				
1.08	22U Free standing equipment cabinet with lockable door, low noise (low Db) fans and power outlet sockets (Additional 6-Way power extension cable, surge protected within the cabinet).	No.	2	
1.09	24 Port UTP Patch Panel as Molex or its equal and approved equivalent C/W all the necessary accessories.	No.	2	
1.10	Mini trunking PVC (provisional length)	lm	100	
1.11	Grounding and bounding kit complete with 50mm diameter copper bounding bar and 6mm thick green and yellow wire. The Earthing of the system is to be to the approval of the Engineer.	Item	1	
Cabling				
1.12	Cat 6A, UTP 4 Pair cable as Molex or its equal and approved equivalent. (This is provisional length, actual length will be measured)	lm	1,200	
1.13	1M, Cat 6A, UTP factory terminated Patch Cords as Molex or its equal and approved equivalent.	No.	22	
1.14	3M, Cat 6A, UTP factory terminated Patch Cords as Molex or its equal and approved equivalent.	No.	22	
1.15	Cat 6A, UTP 2U, Cable Manager/Organizer as Molex or its equal and approved equivalent C/W all the necessary accessories.	No.	1	
1.16	20mm Flexible Conduits in metres (provisional length)	lm	200	
1.17	Cable ties, Wrap Markers, Tower clips, Insulating Tapes, Masking Tapes e.t.c.	Item	1	
1.18	8 Core Multimode armoured outdoor fibre optic cable for interlinking other blocks to server room complete with connectors to active components and all terminations to active equipment i.e., floor edge switch	lm	100	
Total for CCTV C/F to the next page				

Total for CCTV B/F from the previous page				
Server System & Storage				
1.19	24 CH Network Video Recorder (NVR); 100Mbps network camera recording; Embedded Linux OS; Up to 8/6 RAID-5 + Hot standby; SATA Internal HDDs; External e-SATA (2 ports), iSCSI storage (96TB) iSCSI storage supported. Up to 4 Megapixels resolution recording HDMI and VGA output at up to 1920×1080P resolution	No.	1	
1.20	Storage Area Network (SAN) for the item above with 2 x Intel® Xeon® Silver 4110 8-core 2.1GHz, Turbo Boost up to 3.0GHz processor, 32GB DDR4 ECC RDIMM, expandable up to 512GB memory, onboard 10GBase-T ports, capable of installing optional 10GbE/25GbE/40GbE NICs, 24 x 2.5" HDD of minimum capacity 12TB each as Synology FlashStation FS6400 or equal and approved equivalent	No.	1	
1.21	Central IP Video Surveillance Management Software for viewing and Recording live video of premises with support for multi-site / multi-client monitoring compatible with existing system.	No.	1	
1.22	52" Professional, 24/7-operational, Industrial LED Monitor,4K, HDMI, DVI, VGA, and component (CVBS common) video output,Component video input, composite video input, S-video input, VGA input,VGA output and composite video output. 3 USB, RF In (Antenna/Cable), Ethernet, Optical, RS232C (Mini Jack) Smart TV Operating Systemweb OS 3.5 Ethernet / RS-232C remote control, Built-in speaker. (C/w wall mount bracket)	No.	2	
1.23	5M HDMI Cable	No.	3	
1.24	Installation, configuration , testing and commissioning	Item	1	
1.25	Allow for training of four personnel on how to operate the system.	Item	1	
1.26	Any other items required to complete the installations.	Item	1	
	i)			
	ii)			
	iii)			
Total for CCTV Works C/F to Summary Page				

SCHEDULE NO. 2: ACCESS CONTROL INSTALLATION WORKS

ITEM	DESCRIPTION	UNIT	QTY.	RATE	AMOUNT
				SHS.	SHS.
	Supply, Install, Test and commission the following: Access Control System				
2.01	IP based fingerprint/facial recognition terminal that works both in network and standalone modes. Software for access control and time attendance management. Wiegand output to connect with any 3rd party controllers as a slave reader. Anti-passback function, connect with an external source, for instance, a smoke detector or emergency switch. TCP/IP and RS485 communication, USB flash drive, Built-in auxiliary input with enhanced flexibility to link with wired detector or emergency switch, Unlock combinations, Tamper proof switch and multiple alarm outputs, storage capacity 1,500 fingerprint templates and 80,000 transaction records.	8	No.		
2.02	A 300Kg- Force magnetic door lock c/w Door Closer, Mounting Bracket and all other necessary accessories	8	No.		
2.03	IP67 IP Based Door Reader with Biometric Finger and face recognition, Proximity Card Reader, and keypad to provide comprehensive access control and time attendance features as Suprema Biolite or approved equivalent.	8	No.		
2.04	Web based -Access control software module c/w Access Control Alarm and Event Monitoring, Central Station Operator Controls, Photo-ID Badging Management, Intrusion Integration with CCTV system, Guest management module, Customized reports Generation capabilities, Staff attendance Reports which can integrate with existing Active Directory and doors of the data centre.	1	No.		
2.05	Access control Power supply module with necessary lead acid batteries to support a 12 hours runtime for the access control system as described in particular specification as SECO-LARM equal and approved equivalent.	8	No.		
Total for Access Control C/F to the next page					

Total for Access Control B/F from the previous page					
2.06	1KVA UPS for the system	1	No.		
2.07	proximity cards (50 is a provisional figure)	50	No.		
2.08	Door Exit switch	8	No.		
2.09	cat 6 cable for access control system (approximately 500m). This is provisional length.	500	Lm		
2.10	Alarm cable (approximately 500m). This is a provisional length.	500	Lm		
2.11	Power point wired in 3.0 x 2.5sqmm. SC PVC Cu cables in 40 by 25 mm metallic mini trunking (provisional length)	500	Lm		
2.12	Unswitched spur power point complete with socket plate.	10	No.		
2.13	50mm x 20mm metal trunking for concealing the power cables	100	Lm		
2.14	Programming, testing and commissioning	1	Lot		
2.15	Emergency Break glass	8	No.		
2.16	Override Key switch	8	No.		
2.17	Power and signal connection cables (Provisional length 500m)	500	Lm		
2.18	Allow for training of four personnel on how to operate the system.	Item	1		
2.19	Allow for full graphic customization and programming of the installed system	1	Lot		
2.20	Any other items required to complete the installations. i) ii) iii)	Item	1		
Total for Access Control Works C/F to Price Summary Page					

SUMMARY PAGE

Item	Description	Kshs.
1.00	Schedule 1- CCTV Installation Works	
2.00	Schedule 2- Access Control Installation Works	
3.00	Allow for software integration of the existing CCTV and Access Control system with the new CCTV and Access control system.	
4.00	Allow a Contingency Sum to be expended at the discretion of the Project Manager in consultation with the Employer	400,000
SUB-TOTAL FOR CCTV & ACCESS CONTROL WORKS C/F TO ELECTRICAL WORKS		

Amount of tender in words: Kenya Shillings.....

Kenya Shillings.....

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Tenderers Signature and Stamp.....

Witness: Name and Signature.....

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Date

**PROPOSED DATA CENTRE
ELECTRICAL WORKS**

ITEM	DESCRIPTION	QTY	UNIT	RATE KSHS	TOTAL KSHS
1.01	Remove all existing electrical equipment, including, but not limited to, light fittings, sockets, switches, electrical cables and conduits. The recovered items are to be handed to the client. Supply, Install, Test and commission the following:-	1	Item		
	LIGHTING POINTS				
1.02	Supply and install lighting points using 3 x 1.5mm ² PVC insulated Copper cables to be drawn in 20mm diameter PVC heavy gauge conduits concealed on the ceiling soffit and for one way switching but excluding the fittings and switches complete with all other accessories a)One way Switching	14	No.		
	SWITCHES				
1.03	10A plastic moulded ivory lighting switch as Crabtree or approved equivalent as follows: a)One gang One way	3	No.		
	LIGHTING FITTINGS				
1.04	Lighting fittings complete with bulbs or tubes as follows:- (a)600x600mm 40W 4200Lm, Surface mounted backlit (panel) LED luminaire with acrylic microprism and dispersal diffuser as PHILIPS or Approved equivalent	14	No.		
	SOCKET OUTLETS AND POWER POINTS				
1.05	Socket outlet point comprising wiring in 3x2.5mm ² PVC-SC-Cu cables in conduits concealed in bulding fabric.	16	No.		
1.06	Supply and install White 13A twin switched socket outlet as CRABTREE or equal and approved equivalent.	16	No.		
SUB-TOTAL C/F TO THE NEXT PAGE					

SUB-TOTAL B/F FROM PREV PAGE				
1.07	Radial Power Point wired in 5 x 10.0 mm ² SC PVC insulated CU cables drawn in 50 mm Ø HG PVC conduits concealed in building fabric complete with all the necessary accessories for the UPS. (Approximately 15m)	6	No.	
1.08	5x10.0 mm ² SC PVC insulated CU cables drawn in 50 mmØ HG PVC conduits concealed in building fabric complete with all the necessary accessories wired to bypass the UPS. (Approximately 15m)	6	No.	
1.09	5-Pin IP65 industrial socket outlet complete with plug as MEM or equal and approved equivalent.	6	No.	
1.10	Supply and install A/C circuits wired using 2x4.0 mm ² +4mm ² ECC PVC insulated copper cables drawn in 25 mm diameter PVC heavy gauge conduits but excluding the 20 Amps DP switch.	3	No.	
1.11	Supply and install flush mounted 20A DP switch complete with a pilot lamp and as CRABTREE or equal and approved equivalent.	3	No.	
1.12	Provide for security door access control points using 25mm dia PVC heavy gauge conduits complete with draw wire, saddles and all other accessories	3	No.	
1.13	Supply and install routing for the (CCTV) system in 25mm HG conduits and metal trunking system.	4	No.	
SUB-TOTAL C/F TO THE NEXT PAGE				
SUB-TOTAL B/F FROM PREV PAGE				
1.14	21U metal cabinet with a perforated metal door complete 4No fans, power socket 6No, grounding kits and castors and as specified in the particular specifications	1	No.	
1.15	8 Core Multimode armoured fibre optic cable for interlinking other floors to server room complete with connectors to active components and all terminations to active equipment i.e., floor edge switch (Provisional length, actual length will be measured on site)	500	Lm	
1.16	40A, TPN+E surface mounted interlocked switched 3 Phase socket outlet and complete with plug as MK for the incoming and outgoing supplies to and from the UPS.	No.	6	
1.17	40A 4-Pole, 3 position BYPASS switch for the UPS as MK	No.	6	
SUB-TOTAL C/F TO THE NEXT PAGE				

	SUB-TOTAL B/F FROM PREV PAGE				
1.18	10mm ² 4 Core PVC/SWA/PVC copper cable for interwiring the UPS, Manual Bypass Switch, Isolator, Clean Power DB complete with necessary cable lugs and any other necessary accessories (Provisional length, actual length will be measured on site)	80	LM		
1.19	35mm ² 4 Core PVC/SWA/PVC copper cable from the LV board to the DB (Provisional length, actual length will be measured on site)	100	LM		
1.20	Supply and install recessed 4 way TPN distribution board incorporating an incomer MCCB rated at 125A (without the MCBs) for Raw Power.The DB is to be as Schneider or approved equivalent.	No	1		
	SUB-TOTAL C/F TO THE NEXT PAGE				
	SUB-TOTAL B/F FROM PREV. PAGE				
1.21	Supply and Install the following MCCBs a) 125A TPN as Schneider or approved equivalent to be installed at the LV board (b) 10A (SP) (c) 30A (SP) (d) 20A (SP) (e) SP Spare Ways Blanking Plates	No. No No No No	1 2 2 1 7		
1.22	Supply and install recessed 4 way TPN distribution board incorporating an incomer MCB rated at 125A (without the MCBs).The DB is to be as Schneider or approved equivalent.	No	1		
1.23	Supply and install the following miniature circuit breakers (MCB'S) rated at 500Vac for the above Distribution boards. (a) 100A (TP) (b) 40A (TP) (c) SP Spare Ways Blanking Plates	No No No	1 6 9		
	SUB-TOTAL C/F TO THE NEXT PAGE				

SUB-TOTAL B/F FROM PREV. PAGE					
<u>FIRE ALARM SYSTEM</u>					
1.24	Supply and install smoke detector point wiring done using fire resistant 2x1.5mm ² PVC insulated copper cables drawn in 20mm dia PVC heavy gauge conduits but without the smoke detector.	No	3		
1.25	Supply and install a smoke detector- photoelectric addressable type complete with the common base and as Menvier or approved equivalent.	No	3		
1.26	Supply and install fire alarm manual call point wiring done using fire resistant 2x1.5mm ² PVC copper cables drawn in 20 mm dia PVC heavy gauge conduits but without the manual call point.	No	3		
1.27	Supply and install a recessed resettable and addressable manual call point (Break Glass), as menvier or approved equivalent.	No	3		
1.28	Provide for integration, configuration and testing to work of the new installation to the existing fire alarm system installed in the building.	Item	1		
TOTAL C/F TO PRICE SUMMARY PAGE					

DOOR ACCESS CONTROL					
2.01	TCP/IP intelligent door controller unit biometric-enabled security complete with all accessories as Suprema CoreStation or equal and approved equivalent	3	No.		
2.02	A 300Kg- Force magnetic door lock c/w Door Closer, Mounting Bracket and all other necessary accessories	3	No.		
2.03	IP67 IP Based Door Reader with Biometric Finger and face recognition, Proximity Card Reader, and keypad to provide comprehensive access control and time attendance features as Suprema Biolite or approved equivalent.	1	No.		
2.04	Access control Power supply module with necessary lead acid batteries to support a 12 hours runtime for the access control system as described in particular specification as SECO-LARM equal and approved equivalent.	2	No.		
SUB-TOTAL C/F TO THE NEXT PAGE					

	TOTAL B/F FROM PREV. PAGE				
	CCTV CAMERAS				
2.05	High resolution (5MP)Network IR Indoor Dome Day & Night Camera; Built-in motorized varifocal lens, , Micro SD/SDHC/SDXC,NAS Edge Storage, PoE, IK08, Bi-directional audio support, motion detection, as Wisenet XND-8080R or equal and approved equivalent.	4	No.		
2.06	Cat 6A, UTP 4 Pair cable as Siemon or its equal and approved equivalent (Provisional Length).	200	Lm		
2.07	12Port Edge Switch as Cisco Catalyst 9200 12-port PoE+, Network Essentials Complete with 2No. Power Supply, 10G and 40G uplink ports, POE and fully populated.	1	No.		
2.08	Allow for software integration, configuration and testing to work of the new installation to the existing CCTV system installed in the building.	2	Item		
	TOTAL C/F TO PRICE SUMMARY PAGE				

A	Total b/d from Schedule No. 1 - Electrical installation Works	
B	Total b/d from Schedule No. 2 - Access Control and CCTV installation	
C	Allow a Contingency Sum to be expended at the descretion of the Project Manager	300,000
SUB-TOTAL AMOUNT FOR DATA CENTRE ELECTRICAL WORKS C/F TO COLLECTION		
<p>Total Amount in Words (Kenya Shillings):</p> <p>.....</p> <p>Name of Domestic Sub-Contractor:</p> <p>.....</p> <p>P.O. Box:</p> <p>Tel:</p> <p>Signature: Date:.....</p> <p>Stamp:</p>		

**PROPOSED FACELIFT OF EACC'S INTEGRITY CENTRE HOUSE- PHASE 1
INTERNAL PARTITIONING OF THE ROOFTOP**

20KVA SMART UPS

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT KSHS
	Supply, Install, Test and Commission the following: SMART UPS				
1.01	20KVA,400V 3 Phase Floor Mount Smart Uninterruptible Power Supply w/4 Batt. Mod., Start-Up 5X8, Internal Maint Bypass, Parallel Capability with AP9631 Preinstalled. 6.0 kWatts Configurable Power , Double Conversion Online , Pure sinewave , Configurable for 380 : 400 or 415 V 3 Phase nominal output voltage ,304 – 477V Input Voltage , 400V 3PH Hard Wire 5-wire (3PH + N + G) Included Battery Modules 4 = 9810 VAH , DB-9 RS-232, Smart-Slot Multi-function LCD status and control console,DB-9 RS-232, Smart-Slotas as APC SUVTP20KH4B4S or equal and approved equivalent	1	Item		
	Suitably rated Battery Pack COMPATIBLE TO the above UPS and capable of extending the run time of the UPS to a minimum of 1 hours at full load comprising of maintence free lead acid batteries housed in a properly ventilated cabinet constructed of Heavy Gauge baked powder coated steel with lockable door/doors complete with appropriate battery charger and a battery monitoring system to protect the batteries from oveheating and over draining of charge.	1	Item		
1.02	4 core 10Sq.mm armoured PVC/SWA/PVC CU cable from Distribution Board to Server Room complete with cable glands	30	Lm		
1.03	63A TP MCB C-Curve as Schneider Electric Acti 9 Cat. No. A9K24363 or equal and approved equivalent	1	No.		
1.04	Suitably rated manual by-pass switch with clearly labelled NORMAL-OFF-BYPASS positions for the above UPS	1	No.		
1.05	Inter wire the UPSs, BY-PASS switch and Switchboard by use of 10 mm ² 4 Core PVC/SWA/PVC Copper cables.	1	item		
1.06	Any other necessary items	1	item		
	(i)				
	(ii)				
	(iii)				
SUB-TOTAL FOR UPS C/F TO ELECTRICAL WORKS COLLECTION PAGE					

COLLECTION PAGE FOR ELECTRICAL WORKS

Item	Description	Kshs.
1.00	Sub-Total B/F for Rooftop Electrical Installation	
2.00	Sub-Total B/F for Rooftop Structured Cabling	
3.00	Sub-Total B/F for Rooftop CCTV & Access Control	
4.00	Sub-Total B/F for Data Centre Electrical Works	
5.00	Sub-Total B/F for UPS	
TOTAL FOR ELECTRICAL WORKS C/F TO MAIN PRICE SUMMARY PAGE		

Amount of tender in words: Kenya Shillings.....

Kenya Shillings.....

.....

Tenderers Signature and Stamp.....

Witness: Name and Signature.....

.....

Date

PRIME COSTS AND PROVISIONAL SUMS

ITEM	DESCRIPTION	AMOUNT
<p><u>PROVISIONAL SUMS AND P.C SUMS</u></p>		
<p><u>The following provisional items are to be measured on completion of the works and priced in accordance with rates contained in these Bills of Quantities or pro-rata thereto or deducted in whole if not required.</u></p>		
<p><u>Prime cost sum for:</u></p>		
A	Allow a Prime cost sum of Kenya Shillings Fifteen Million Eight hundred thousand only (Ksh. 15,800,000.00) for 2.No Scenic Passenger Lift	15,800,000.00
B	Allow for main contractor's profit and overheads (-----%)	
C	Allow for attendants (-----%)	
D	Allow a Prime cost sum of Kenya Shillings Twenty Million (Ksh. 20,000,000.00) only for modular centre and relocation of the main server room to basement	20,000,000.00
E	Allow for main contractor's profit and overheads (-----%)	
F	Allow for attendants (-----%)	
<p><u>Provisional sum for:</u></p>		
G	Allow a provisional sum of Kenya Shillings Five Hundred thousand only (Ksh. 500,000.00) for the reception desk	500,000.00
H	Allow a provisional sum of Kenya Shillings Seventeen Million only (Ksh. 17,000,000.00) for insulation of containerized 500KVA power generator and associated works.	17,000,000.00
J	Allow a provisional sum of Kenya Shillings Two million Five Hundred thousand only (Ksh. 2,500,000.00) for branding works	2,500,000.00
K	Allow a provisional sum of Kenya Shillings Two Million only (Ksh. 2,000,000.00) for Project team training.	2,000,000.00
L	Allow a provisional sum of Kenya Shillings Four Million only (Ksh. 4,000,000.00) for contingencies	4,000,000.00
<p>Total PC and Provisional Sums carried to Grand Summary</p>		

Grand summary

ITEM	DESCRIPTION		SHS	SHS
		PAGE	FOR OFFICIAL USE	FOR CONTRACTOR'S USE
1	PARTICULAR PRELIMINARIES	PP/8		
2	GENERAL PRELIMINARIES	GP/11		
3	BUILDER'S WORK	BWSUM/1		
4	PLUMBING DRAINAGE AND FIRE PROTECTION INSTALLATIONS	D-20		
5	MECHANICAL VENTILATION AND AIR CONDITIONING INSTALLATIONS	C-19		
6	FIRE SUPPRESSION INSTALLATION	C10		
7	ELECTRICAL WORKS			
8	PROVISIONAL AND PRIME COST SUMS	PC/1		
TOTAL CARRIED TO FORM OF TENDER KSHS				

AMOUNT OF TENDER IN WORDS;.....

.....

TENDERER'S SIGNATURE AND STAMP;.....

ADDRESS;.....

DATE;.....

WITNESS NAME AND SIGNATURE;.....

ADDRESS;.....

DATE;.....