



TENDER NO: KEFRI/ONT/004/2021-2022

**TENDER REFERENCE NAME: PROPOSED CONSTRUCTION OF
SEED CENTRES – ENHANCEMENT OF NATIONAL SEED
COLLECTION AND DISTRIBUTION IN KENYA TOWARDS 10%
TREE COVER AND CLIMATE CHANGE MITIGATION**

RELEASE DATE: TUESDAY, 26TH OCTOBER, 2021

CLOSING DATE: FRIDAY 12TH NOVEMBER, 2021

CLOSING TIME: 12:00 NOON



Table of Contents

INVITATION TO TENDER.....	3
SECTION I - INSTRUCTIONS TO TENDERERS	6
SECTION II - TENDER DATA SHEET (TDS)	31
SECTION III - EVALUATION AND QUALIFICATION CRITERIA	38
SECTION V - BILLS OF QUANTITIES.....	89
SECTION VI - SPECIFICATIONS	970
SECTION VII - DRAWINGS.....	971
SECTION VIII - GENERAL CONDITIONS OF CONTRACT (GCC)	976
SECTION IX - SPECIAL CONDITIONS OF CONTRACT.....	1055
SECTION X - CONTRACT FORMS.....	1058



INVITATION TO TENDER

TENDER NO: KEFRI/ONT/004/2021-2022

TENDER REFERENCE NAME: PROPOSED CONSTRUCTION OF SEED CENTRES – ENHANCEMENT OF NATIONAL SEED COLLECTION AND DISTRIBUTION IN KENYA TOWARDS 10% TREE COVER AND CLIMATE CHANGE MITIGATION

1. KEFRI invites sealed tenders for Proposed Construction of Seed Centres – Enhancement of National Seed Collection and Distribution in Kenya Towards 10% Tree Cover and Climate Change Mitigation -Tender No: KEFRI/ONT/004/2021 – 2022.
2. Tendering will be conducted under open competitive method - Open National Tender using a standardized tender document for procurement for Works-Building and Associated Civil Engineering Works. Tendering is open to all qualified and interested Tenderers
3. Qualified and interested tenderers may obtain further information from the email address – tenders@kefri.org and inspect the Tender Document at <https://www.kefri.org/components/tenders/tenders.html> or during office hours, Monday – to Friday between 8:00am to 4:30 pm except for public holidays at the address given below.

**Kenya Forestry Research Institute Headquarters,
Muguga, off Nairobi – Naivasha Road,
Supply Chain Management Division
P.O Box 20412-00200, Nairobi**

4. A complete set of tender document may be obtained by interested tenderers electronically free of charge from; <https://www.kefri.org/components/tenders/tenders.html> or Public Procurement Information Portal (www.tenders.go.ke).Tender document shall be obtained electronically **free of charge**.
- 5 Tender document may be viewed and downloaded for free from the website <https://www.kefri.org/components/tenders/tenders.html> or Public Procurement Information Portal (www.tenders.go.ke). Tenderers who download the tender document and intent to submit the tender **must** forward their particulars immediately

to tenders@kefri.org to facilitate any further clarification or addendum. The procedure to be followed by tenderers in registering their particulars will be as **follows:**

Tenderers shall indicate the below particulars ;

- i) Tender Number;
- ii) Tender Reference Name;
- iii) Tender Lot Number;
- iv) Complete name of the tenderer's representative;
- v) Designation of the tenderer's representative;
- vi) email Address of the tenderer's representative,
- vii) Telephone number.

KEFRI will not be liable for failure of delivery of the Clarification/Addenda to the indicated Contacts, therefore the tenderers are reminded to re-confirm their contacts before they emailed.

6. The Tender shall be quoted in Kenya Shillings and shall include all taxes. The Tender shall remain valid for **150 days** from the date of opening of tender.

7. The Tender must be accompanied by a dully filled Tender-Securing Declaration Form in the format provided.

8. The Tenderer shall chronologically serialize all pages of the tender document submitted.

9. Completed tenders must be delivered to the address below on or before Friday 12th November, 2021 at 12:00 noon. **Electronic Tenders shall not be permitted.**

10. Tenders will be opened immediately after the deadline date and time specified above or any dead line date and times specified later. Tenders will be publicly opened in the presence of the Tenderers' designated representatives who choose to attend at the address below.

11. Late tenders will be rejected.

12. The addresses referred to above are:

A. Address for obtaining further information on the Tender Document

Kenya Forestry Research Institute (KEFRI)

Supply Chain Management Office

Ag. Deputy Director-Supply Chain Management

Email: tenders@kefri.org

Tel: 0722157414 / 0724259781 / 0734251888 Ext 289/284/298

B. Address for Submission of Tenders.

Kenya Forestry Research Institute (KEFRI)

The Director,

P.O Box 20412-00200 City Square, Nairobi

Tender Box, situated outside Director's offices

N/B: Bulky tenders that cannot be dropped in the tender box shall be received and registered in the tender register at the Main registry adjacent to Directors Office on or before the closing time of 12:00noon, **Friday 12th November, 2021.**

C. Address for Opening of Tenders.

Kenya Forestry Research Institute (KEFRI)

Auditorium Hall, immediately after the closing of the tender.

Designation: Ag. Deputy Director-Supply Chain Management

For: DIRECTOR-KEFRI

SECTION I - INSTRUCTIONS TO TENDERERS

A GENERAL PROVISIONS

1.0 Scope of tender

- 1.1 KEFRI as defined in the Appendix to Conditions of Contract invites tenders for Works Contract as described in the tender document. The name, identification, and number of lots (contracts) of this Tender Document are specified in the TDS.
- 1.2 Throughout this tendering document:
 - a) The term “in writing” 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 KEFRI) 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 KEFRI. It excludes official public holidays.

2.0 Fraud and corruption

- 2.1 KEFRI requires compliance with the provisions of the Public Procurement and Asset Disposal Act, 2015, Section 62 “Declaration not to engage in corruption”. The tender submitted by a person shall include a declaration that the person shall not engage in any corrupt or fraudulent practice and a declaration that the person or his or her sub-contractors are not debarred from participating in public procurement proceedings.
- 2.2 KEFRI requires compliance with the provisions of the Competition Act 2010, regarding collusive practices in contracting. Any tenderer found to have engaged in collusive conduct shall be disqualified and criminal and/or civil sanctions may be imposed. To this effect, Tenders shall be required to complete and sign the “Certificate of Independent Tender Determination” annexed to the Form of Tender.
- 2.3 Tenderers shall permit and shall cause their agents (whether declared or not), subcontractors, sub-consultants, service providers, suppliers, and their personnel, to permit KEFRI 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 KEFRI.
- 2.4 Unfair Competitive Advantage - Fairness and transparency in the tender process require that the firms or their Affiliates competing for a specific assignment do not derive a competitive advantage from having provided consulting services related to this tender. To that end, KEFRI shall indicate in the **Data Sheet** and make available to all the firms together with this tender document all information that would in that respect give such firm any unfair competitive advantage over competing firms.

3.0 Eligible tenderers

- 3.1** A Tenderer may be a firm that is a private entity, a state-owned enterprise or Institution subject to ITT 3.8, or an individual or any combination of such entities in the form of a joint venture (JV) under an existing agreement with the intent to enter 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.
- 3.2** Public Officers of KEFRI, 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.
- 3.3** 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 direct or 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 KEFRI 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 KEFRI 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 KEFRI 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 conflict stemming from such relationship has been resolved in a manner acceptable to KEFRI throughout the tendering process and execution of the Contract.

3.4 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

3.5 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.

3.6 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.

3.7 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.

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

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

- 3.9** Firms and individuals shall be ineligible if their countries of origin are:
- (a) As a matter of law or official regulations, Kenya prohibits commercial relations with that country;
 - (b) By an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, Kenya prohibits any import of goods or contracting of works or services from that country, or any payments to any country, person, or entity in that country.

A tenderer shall provide such documentary evidence of eligibility satisfactory to KEFRI, as KEFRI 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 KEFRI determine if this condition is met shall be provided for this purpose in *“SECTION I 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.

3.14 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 KEFRI'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 KEFRI 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 KEFRI to enter upon its premises and lands for the purpose of such visit. The Tenderer shall indemnify KEFRI 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.

5.4 The tenderer shall provide in the Form of Tender and Qualification Information, a preliminary description of the proposed work method and schedule, including charts, as necessary or required.

B. CONTENTS OF TENDER DOCUMENTS

6.0 Sections of Tender Document

6.1 The tender document consists of Parts 1, 2, and 3, which includes all the sections specified below, and which should be read in conjunction with any Addenda issued in accordance with ITT 11.

PART 1: Tendering Procedures

Section I – Instructions to Tenderers

Section II – Tender Data Sheet (TDS)

Section III- Evaluation and Qualification Criteria

Section IV – Tendering Forms

PART 2: Works' Requirements

Section V - Bills of Quantities

Section VI - Specifications

Section VII – Drawings

PART 3: Conditions of Contract and Contract Forms

Section VIII - General Conditions (GCC)

Section IX - Special Conditions of Contract

Section X- Contract Forms

- 6.2** The Invitation to Tender Notice issued by KEFRI is not part of the Contract documents. Unless obtained directly from KEFRI, KEFRI 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 KEFRI shall prevail.
- 6.3** 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.
- 7.0 Clarification of Tender Document, Site Visit, Pre-tender Meeting**
- 7.1** A Tenderer requiring any clarification of the Tender Document shall contact KEFRI in writing at KEFRI's address specified in the **TDS** or raise its enquiries during the pre-Tender meeting if provided for in accordance with ITT 7.2. KEFRI 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. KEFRI 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**, KEFRI 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, KEFRI shall amend the Tender Documents following the procedure under ITT 8 and ITT 22.2.
- 7.2** 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. KEFRI 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 KEFRI 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 KEFRI 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.

8.0 Amendment of Tender Documents

- 8.1 At any time prior to the deadline for submission of Tenders, KEFRI may amend the Tender Document by issuing addenda.
- 8.2 Any addendum issued shall be part of the Tender Document and shall be communicated in writing to all who have obtained the Tender Document from KEFRI. KEFRI shall also promptly publish the addendum on KEFRI's website in accordance with ITT 7.1
- 8.3 To give Tenderers reasonable time in which to take an addendum into account in preparing their Tenders, KEFRI 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 KEFRI 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 KEFRI, 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 KEFRI's design as described in the Tender Documents and shall further provide all information necessary for a complete evaluation of the alternative by KEFRI, 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 KEFRI.

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 KEFRI. 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 KEFRI 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.

- 14.7** All duties, taxes, and other levies payable by the Contractor under the Contract, or for any other cause, as of the date 30 days prior to the deadline for submission of Tenders, shall be included in the rates and prices and the total Tender Price submitted by the Tenderer.

15.0 Currencies of Tender and Payment

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

- 15.2** 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.

- 15.3** Tenderers may be required by KEFRI to justify, to KEFRI’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 breakdown 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, and sufficient detail to demonstrate the adequacy of the Tenderer's proposal to meet the work's requirements and the completion time.

17.0 Documents Establishing the Eligibility and Qualifications of the Tenderer

- 17.1** 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 KEFRI, a particular contractor or group of contractor's qualifies for a margin of preference. Further the information will enable KEFRI 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 KEFRI 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 KEFRI may request in relation to owner ship and control which in formation 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 KEFRI. 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 KEFRI.
- 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 KEFRI (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 depending on the outcome of (iii),
- iii) the tenderer will be referred to the relevant law enforcement authorities for investigation of whether the tenderer or any other persons 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 ITT 17.8 will ensue unless the tenderer can show to the reasonable satisfaction of KEFRI 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 KEFRI in accordance with ITT 22). At tender valid for a shorter period shall be rejected by KEFRI as non-responsive.

18.2 In exceptional circumstances, prior to the expiration of the Tender validity period, KEFRI may request Tenderers to extend the period of validity of their Tenders. The request and the responses shall be made in writing. If a Tender Security is requested in accordance with ITT 19, it shall also be extended for thirty (30) days beyond the deadline of the extended validity period. A Tenderer may refuse the request without forfeiting its Tender security. A Tenderer granting the request shall not be required or permitted to modify its Tender.

19.0 Tender Security

19.1 The Tenderer shall furnish as part of its Tender, either a Tender-Securing Declaration or a Tender Security as specified in the **TDS**, in original form and, in the case of a Tender Security, in the amount and currency **specified** in the **TDS**. A Tender-Securing Declaration shall use the form included in Section IV, Tender Forms.

19.2 If a Tender Security is specified pursuant to ITT 19.1, the Tender Security shall be a demand guarantee in any of the following forms at the Tenderer's option:

- I) cash;
- ii) a bank guarantee;
- iii) a guarantee by an insurance company registered and licensed by the Insurance Regulatory Authority listed by the Authority;
- (iv) a guarantee issued by a financial institution approved and licensed

by the Central Bank of Kenya, from a reputable source, and an eligible country.

- 19.3** 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.
- 19.4** 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 KEFRI as non-responsive.
- 19.5** 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. KEFRI 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.
- 19.6** 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.
- 19.7** 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.
- 19.8** Where tender securing declaration is executed, KEFRI shall recommend to the PPRA to debar the Tenderer from participating in public procurement as provided in the law.
- 19.9** The Tender Security or the Tender-Securing Declaration of a JV shall be in the name of the JV that submits the Tender. If the JV has not been legally constituted into a legally enforceable JV at the time of tendering, the Tender Security or the Tender-Securing Declaration shall be in the names of all future members as named in the letter of intent referred to in ITT 4.1 and ITT 11.2.
- 19.10** A tenderer shall not issue a tender security to guarantee itself.

20.0 Format and Signing of Tender

- 20.1** The Tenderer shall prepare one original of the documents comprising the Tender as described in ITT 11 and clearly mark it “ORIGINAL.” Alternative Tenders, if permitted in accordance with ITT 13, shall be clearly marked “ALTERNATIVE.” In addition, the Tenderer shall submit copies of the Tender, in the number specified in the **TDS** and clearly mark them “COPY.” In the event of any discrepancy between the origins and the copies, the original shall prevail.
- 20.2** Tenderers shall mark as “CONFIDENTIAL” all information in their Tenders which is confidential to their business. This may include proprietary information, trade secrets, or commercial or financially sensitive information.
- 20.3** The original and all copies of the Tender shall be typed or written in indelible ink and shall be signed by a person duly authorized to sign on behalf of the Tenderer. This authorization shall consist of a written confirmation as specified in the **TDS** and shall be attached to the Tender. The name and position held by each person signing the authorization must be typed or printed below the signature. All pages of the Tender where entries or amendments have been made shall be signed or initialed by the person signing the Tender.
- 20.4** 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.
- 20.5** Any inter-lineation, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the Tender.

D. SUBMISSION AND OPENING OF TENDERS

21.0 Sealing and Marking of Tenders

- 21.1** The Tenderer shall deliver the Tender in a single sealed envelope, or in a single sealed package, or in a single sealed container bearing the name and Reference number of the Tender, addressed to KEFRI and a warning not to open before the time and date for Tender opening date. Within the single envelope, package or container, the Tenderer shall place the following separate, sealed envelopes:
- a) in an envelope or package or container marked “ORIGINAL”, all documents comprising the Tender, as described in ITT 11; and
 - b) in an envelope or package or container marked “COPIES”, all required copies of the Tender; and
 - c) if alternative Tenders are permitted in accordance with ITT 13, and if relevant:
 - i) in an envelope or package or container marked “ORIGINAL – ALTERNATIVE TENDER”, the alternative Tender; and

- ii) in the envelope or package or container marked “COPIES-ALTERNATIVE TENDER”, all required copies of the alternative Tender.

The inner envelopes or packages or containers shall:

- i) bear the name and address of KEFRI,
- ii) bear the name and address of the Tenderer; and
- iii) 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, KEFRI 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 KEFRI 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 KEFRI 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 KEFRI and Tenderers previously subject to the deadline shall thereafter be subject to the deadline as extended.

23.0 Late Tenders

KEFRI shall not consider any Tender that arrives after the deadline for submission of tenders, in accordance with ITT 22. Any Tender received by KEFRI 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 withdrawals notices do not require copies), and in addition, the respective envelopes shall be clearly marked “WITHDRAWAL,” “SUBSTITUTION,” “MODIFICATION;” and
- b) Received by KEFRI 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, KEFRI shall publicly open and read out all Tenders received by the deadline, at the date, time and place specified **in the TDS**, in the presence of Tenderers' designated representatives who chooses to attend. Any specific electronic Tender opening procedures required if electronic Tendering is permitted in accordance with ITT 22.1, shall be as specified in the **TDS**.

25.2 First, envelopes marked "WITHDRAWAL" shall be opened and read out and the envelopes with the corresponding Tender shall not be opened but returned to the Tenderer. No Tender withdrawal shall be permitted unless the corresponding withdrawal notice contains a valid authorization to request the withdrawal and is read out at Tender opening.

25.3 Next, envelopes marked "SUBSTITUTION" shall be opened and read out and exchanged with the corresponding Tender being substituted, and the substituted Tender shall not be opened, but returned to the Tenderer. No Tender substitution shall be permitted unless the corresponding substitution notice contains a valid authorization to request the substitution and is read out at Tender opening.

25.4 Next, envelopes marked "MODIFICATION" shall be opened and read out with the corresponding Tender. No Tender modification shall be permitted unless the corresponding modification notice contains a valid authorization to request the modification and is read out at Tender opening.

25.5 Next, all remaining envelopes shall be opened one at a time, reading out: the name of the Tenderer and whether there is a modification; the total Tender Price, per lot (contract) if applicable, including any discounts and alternative Tenders; the presence or absence of a Tender Security or Tender-Securing Declaration, if required; and any other details as KEFRI may consider appropriate.

25.6 Only Tenders, alternative Tenders and discounts that are opened and read out at Tender opening shall be considered further for evaluation. The Form of Tender and pages of the Bill of Quantities (to be decided on by the tender opening committee) are to be initialed by the members of the tender opening committee attending the opening.

25.7 At the Tender Opening, KEFRI shall neither discuss the merits of any Tender nor reject any Tender (except for late Tenders, in accordance with ITT 23.1).

- 25.8 KEFRI 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.
- 25.9 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

- 26.1 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.
- 26.2 Any effort by a Tenderer to influence KEFRI in the evaluation of the Tenders or Contract award decisions may result in the rejection of its tender.
- 26.3 Notwithstanding ITT 26.2, from the time of tender opening to the time of contract award, if a tenderer wishes to contact KEFRI on any matter related to the tendering process, it shall do so in writing.

27.0 Clarification of Tenders

- 27.1 To assist in the examination, evaluation, and comparison of the tenders, and qualification of the tenderers, KEFRI may, at its discretion, ask any tenderer for a clarification of its tender, given a reasonable time for response. Any clarification submitted by a tenderer that is not in response to a request by KEFRI shall not be considered. KEFRI'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 KEFRI in the evaluation of the tenders, in accordance with ITT 31.
- 27.2 If a tenderer does not provide clarifications of its tender by the date and time set in KEFRI's request for clarification, its Tender may be rejected.

28.0 Deviations, Reservations, and Omissions

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

29.0 Determination of Responsiveness

29.1 KEFRI's determination of a Tender's responsiveness is to be based on the contents of the tender itself, as defined in ITT 11.

29.2 A substantially responsive Tender is one that meets the requirements of the Tender document without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that, if accepted, would:

- a) Affecting 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, KEFRI's rights or the tenderer's obligations under the proposed contract;
- c) if rectified, would unfairly affect the competitive position of other tenderers presenting substantially responsive tenders.

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

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

30.0 Non-material non-conformities

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

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

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

31.0 Arithmetical Errors

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

31.2 Provided that the Tender is substantially responsive, KEFRI 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, sub-total and total bid price shall be considered as a major deviation that affects the substance of the tender and shall lead to disqualification of the tender as non-responsive. and
- c) if there is a discrepancy between words and figures, the amount in words shall prevail

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

32.0 Conversion to Single Currency

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

33.0 Margin of Preference and Reservations

33.1 A margin of preference may be allowed only when the contract is open to international competitive tendering where foreign contractors are expected to participate in the tendering process and where the contract exceeds the value/threshold specified in the Regulations.

33.2 A margin of preference shall not be allowed unless it is specified so in the **TDS**.

33.3 Contracts procured on basis of international competitive tendering shall not be subject to reservations exclusive to specific groups as provided in ITT 33.4.

33.4 Where it is intended to reserve a contract to a specific group of businesses (these groups are Small and Medium Enterprises, Women Enterprises, Youth Enterprises and Enterprises of persons living with disability, as the case may be), and who are appropriately registered as such by the authority to be specified in the **TDS**, KEFRI 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**, KEFRI does not intend to execute any specific elements of the Works by subcontractors selected/nominated by KEFRI. In case the Procuring Entity nominates a subcontractor, the subcontract agreement shall be signed by the Subcontractor and KEFRI. 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 KEFRI in the **TDS** as can be met by subcontractors referred to hereafter as 'Specialized Subcontractors', in which case, the qualifications of the Specialized Subcontractor proposed by the Tenderer may be added to the qualifications of the Tenderer.

35. Evaluation of Tenders

35.1 KEFRI 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 KEFRI shall determine the Lowest Evaluated Tender in accordance with ITT 40.

35.2 To evaluate a Tender, KEFRI shall consider the following:

- a) Price adjustment in accordance with ITT 31.1 (iii); excluding provisional sums and contingencies, if any, but including Day work items, where priced competitively;
- b) price adjustment due to discounts offered in accordance with ITT 14.4;
- c) converting the amount resulting from applying (a) and (b) above, if relevant, to a single currency in accordance with ITT 32;
- d) price adjustment due to quantifiable non material non-conformities in accordance with ITT 30.3; and
- e) any additional evaluation factors specified in the **TDS** and Section III, Evaluation and Qualification Criteria.

35.3 The estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be considered in Tender evaluation.

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

36.0 Comparison of tenders

KEFRI 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, KEFRI 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 KEFRI determines that the Tenderer has failed to demonstrate its capability to perform the Contract for the offered Tender Price KEFRI 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 KEFRI is concerned that it (KEFRI) 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 a nab normally high price, KEFRI 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. KEFRI may also seek written clarification from the tenderer on the reason for the high tender price. KEFRI shall proceed as follows:

- i) If the tender price is abnormally high based on wrong estimated cost of the contract, KEFRI may accept or not accept the tender depending on KEFRI's budget considerations.
- ii) If specifications, scope of work and/or conditions of contract are contributory to the abnormally high tender prices, KEFRI 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 KEFRI determines that the Tender Price is abnormally too high because genuine competition between tenderers is compromised (*often due to collusion, corruption or other manipulations*), KEFRI 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 KEFRI's opinion, the Tender that is evaluated as the lowest evaluated price is seriously unbalanced and/or frontloaded, KEFRI 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, KEFRI 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 KEFRI paying too much for undelivered works;
- d) reject the Tender,

39.0 Qualifications of the tenderer

39.1 KEFRI 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 KEFRI 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, KEFRI shall determine the Lowest Evaluated Tender. The Lowest Evaluated Tender is the Tender of the Tenderer that meets the Qualification Criteria and who's 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.

KEFRI 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

KEFRI 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 KEFRI 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 son 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 KEFRI has transmitted to each Tenderer the Notification of Intention to Enter into a Contract with the successful Tenderer.

45.0 Debriefing by KEFRI

- 45.1** On receipt of KEFRI's Notification of Intention to Enter into a Contract referred to in ITT 43, an unsuccessful tenderer may make a written request to KEFRI for a debriefing on specific issues or concerns regarding their tender. KEFRI 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, KEFRI 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, KEFRI 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 it 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 KEFRI, 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 KEFRI. A foreign institution providing a bank

guarantee shall have a correspondent financial institution located in Kenya, unless KEFRI 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 KEFRI 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, KEFRI 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 KEFRI;
- 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 Tender reference name: Proposed Construction of Seed Centres – Enhancement of National Seed Collection and Distribution in Kenya Towards 10% Tree Cover and Climate Change Mitigation</p> <p>The Tender reference number: TENDER NO: KEFRI/ONT/004/2021-2022</p> <p>The number and identification of lots comprising this Tender are:-</p> <p>Lot 1- 3 No. Proposed Construction of Seed Centres at Central Highland Eco Regional Research Program -Nyeri, Rumuruti and Rift Valley Eco Regional Research Program Baringo -Marigat</p> <p>Lot 2- 3 No. Proposed Construction of Seed Centres at Dry Land Eco Regional Research Program- Tiva -Kitui, Kibwezi and Garissa.</p> <p>Lot 3 - 3 No. Proposed Construction of Seed Centres at Lake Victoria Eco Regional Research Program -Maseno, Migori and Kakamega.</p> <p>Lot 4 - 2 No. Proposed Construction of Seed Centres at Coastal Eco Regional Research Center - Gede and Taita Taveta sub center- Ngerenyi</p> <p>NB: TENDERERS MAY BID FOR ALL LOTS – BUT SHALL ONLY BE ELIGIBLE TO BE AWARDED ONE LOT. – incase a Tenderer, tender being the lowest evaluated tender in more than one Lot, the tenderer shall be awarded the lot with the highest Tender Sum.</p> <p>TENDERERS WHO BID ONE SITE IN A LOT SHALL BE DEEMED NON-RESPONSIVE.</p>
ITT 2.4	The Information made available on competing firms is as follows: NONE

Reference to ITC Clause	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
ITT 2.4	The Tender document was prepared by KEFRI and State Department of Public Works.
ITT 3.1	Maximum number of members in the Joint Venture (JV) shall be: Two
ITT 3.5	Tenderers Shall adhere to ITT 3.5
ITT 3.10	Foreign Tenderers are not allowed to participate in this tender
ITT 3.12	Tenderers are required to submit NCA registration together with their Tender document as per mandatory Evaluation Criteria
B. Eligible Goods, Equipment, and Services	
ITT 4.1	Bidders to provide evidence of the origin of the Mechanical equipment's (Cold rooms) Including specific brochures for items quoted.
C. Tenderer's Responsibilities	
ITT 5.2	Tenderers are encouraged to visit the sites however, it's not a mandatory requirement. Tenderers may visit the site from Monday to Friday between 9:00am and 3:00pm
D. Contents of Tender Document	
ITT 6.1	<p>The tender document consists of:</p> <p>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</p> <p>PART 2: Works' Requirements Section V - Bills of Quantities Section VI - Specifications Section VII – Drawings</p> <p>PART 3: Conditions of Contract and Contract Forms Section VIII - General Conditions (GCC) Section IX - Special Conditions of Contract Section X- Contract Forms</p>
ITT 6.3	The tenderer Tender document must meet the Mandatory, Technical and Financial Criteria
ITT 7.1	The Tenderer will submit any request for clarifications in writing at the Address below: Ag. Deputy Director -Supply Chain Management Division Email address: tenders@kefri.org to reach KEFRI not later than three (3) days to closure of the tender.

Reference to ITC Clause	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
	Latest – close of business on Tuesday 9 th November 2021. KEFRI shall publish its response at the website https://www.kefri.org/components/tenders/tenders.html
ITT 7.2	A pre-arranged pretender site visit shall not take place however the tenderers are encouraged to visit the sites before tendering from Monday to Friday between 9:00am and 3:00pm
ITT 7.3	The Tenderer who visit sites and need any clarification should communicate in writing through tenders@kefri.org , to reach KEFRI not later than three (3) days before tender closing date.
ITT 7.5	N/A -There shall be No pre-arranged/pre-tender site visit
ITT 9.0	This includes the cost of obtaining the tender document electronically -KEFRI shall not sale this tender-Tenderers Shall be required to obtained the Tender document electronically free of charge.
ITT 9.1	For Clarification of Tendering purposes, obtaining further information the contact details are; Kenya Forestry Research Institute (KEFRI) Supply Chain Management Office Ag. Deputy Director-Supply Chain Management Email: tenders@kefri.org Tel: 0722157414 / 0724259781 /0734251888 – Extn. 265/298/289/284/287
E. Preparation of Tenders	
ITT 11.1 (h)	The Tenderer, tender shall be required to comply/meet the mandatory, technical and financial requirements set out in the Tender document- Evaluation Criteria The tenderer must submit all parts of the Tender documents- - Tendering Forms -Section IV-must be dully filled.
ITT 11.2	Incase of a Joint Venture -Joint Venture agreements Must be submitted by the tenderer in her tender
ITT 12.1	All tendering forms must be dully filled by the tenderer.
ITT 13.1	Alternative Tenders Shall not be allowed
ITT 13.2	Alternative times for completion shall be permitted
ITT 13.4	N/A
ITT 14.2	The tenderer must price all the items as provided in the BQ
ITT 14.5	The prices adjustments will not be allowed
ITT 15.2 (a)	Foreign currency is not allowed- Tenderers to quote only in Kenya Shillings
ITT 16.0	The tenderer must comply with mandatory, technical and financial evaluation criteria.
ITT 17.4	As per Mandatory requirements
ITT 17.5	Tenderers Must provide their CR12/13-in case of a JV-CR12/13 must be provided for both companies.

Reference to ITC Clause	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
ITT 18.1	The Tender validity period shall be 150 days from the date of closing the tender.
ITT 18.3	N/A
ITT 19.1	Tenderers shall be required to provide a dully filled Tender-Securing Declaration form in the format provided
ITT 19.7(b)(ii)	Other documents required include: Relevant insurance policies
ITT 19.9	The Tender-Securing Declaration of a JV shall be in the name of the JV that submits the Tender
ITT 20.1	<p>The tenderer will be required to submit One original Tender document in line with ITT 21.1.</p> <p>The tenderer is required to submit the Tender Document comprising of the lot(s) quoted only.</p> <p>Tenderers may quote/bid for all LOTS but shall only be eligible to be awarded one Lot. Incase a Tenderer, tender emerges as the lowest evaluated tender in more than one Lot, the tenderer shall be awarded the lot with the highest Tender Sum only.</p> <p>Tenderers Must quote for all the sites in the lot.</p>
ITT 20.2	Tenderers to specify confidential documents in their Tender Document. KEFRI will not be held responsible for documents not specified as confidential.
ITT 20.3	<p>(i) The written confirmation of authorization to sign on behalf of the Tenderer shall consist of: The Authorization Letter and should be signed by director(s) appearing in CR12/13- The director(s) with the highest shares must sign-in case of 50/50 shareholding the two Directors Must sign and incase of many directors at least two of the director(s) with the highest shares must sign.</p> <p>(ii) The Authorization Letter must indicate the name, position held by person authorized to sign the Tender on behalf of the tenderer and his/her Signature.</p>
ITT 20.4	In case of a JV – the person signing the Tender Document on behalf of a JV must submit the power of attorney authorizing the representative to sign the tender document. The power of attorney must indicate the name, position held by person authorized to sign the tender on behalf of the JV and his/her Signature and date.
ITT 20.5	Any inter-lineation, erasures, or overwriting must be signed or initialed by the person authorized to sign the Tender on behalf of the tenderer.
ITT 20.1	The Tenderer shall deliver the Tender in a single sealed envelope, or in a single sealed package, or in a single sealed

Reference to ITC Clause	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
	<p>container bearing the;</p> <ul style="list-style-type: none"> i) Tender reference Number ii) Tender reference Name iii) Tender reference Lot Number and Name <p>And addressed to KEFRI and a warning not to open before the time and date for Tender opening date.</p> <p>Within the single envelope, package or container.</p> <p>The Tenderer shall place the following separate, sealed envelopes:</p> <ul style="list-style-type: none"> a) in an envelope or package or container marked “ORIGINAL”, all documents comprising the Tender, as described in ITT 11; and <p>The inner envelopes or packages or containers shall:</p> <ul style="list-style-type: none"> i) bear the name and address of KEFRI, ii) bear the name and address of the Tenderer; iii) bear the Tender reference name, iv) Tender Reference number, v) Tender Reference Lot number.
F. Submission and Opening of Tenders	
ITT 22.1	<p>The address for submission of the tender document: -</p> <p>The Director, Kenya Forestry Research Institute, P.O Box 20412-00200 City Square, Nairobi</p> <p>Tel: 0722157414/0724259781/0734251888</p> <p>The Tender Closing Date shall be on Friday 12th November, 2021 at 12:00 noon.</p> <p>Electronic submission of tender is not allowed.</p>
ITT 25.1	<p>The Tenders shall be opened at the: -</p> <p>Auditorium Hall Kenya Forestry Research Institute, P.O Box 20412-00200 City Square, Nairobi</p> <p>Date and Time: Immediately after the closing on Friday 12th November, 2021 at 12:00 noon</p>

Reference to ITC Clause	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
ITT 25.8	The actual number of pages and serilization of the Tenderers tender shall be determined by the Evaluation Committee in line with the mandatory evaluation criteria. The Opening Committee shall only indicate the last serial number of the tender document and the pages where the Form of Tender and Tender Securing -Declaration is paginated in the tenderers tender.
ITT 29.3	All the technical requirements shall be examined as per the technical evaluation criteria set out in the Tender Document
G. Evaluation, and Comparison of Tenders	
ITT 30.3	No adjustment shall be allowed
ITT 31.2	Any arithmetic errors shall be deemed to be major deviation and the tenderer shall be disqualified.
TT 32.1	The currency that shall be used is Kenya Shillings
ITT 33.2	A margin of preference shall not apply.
ITT 33.4	The invitation to tender is Reserved to AGPO groups registered by the National Treasury
ITT 34.1	At this time, KEFRI does not intend to execute certain specific parts of the Works by subcontractors selected in advance.
ITT 34.2	The tenderer can only subcontract Electrical and Mechanical works
ITT 34.3	Tenderer Domestic Subcontractors must meet/comply with the mandatory and technical evaluation criteria
ITT 35.2 (e)	The Mandatory, Technical and Financial evaluation criteria as set out in the Tender Document.
ITT 35.4	Tenderers MAY BID for all LOTS but shall only be eligible to be awarded one Lot. Incuse a Tenderer, tender is the lowest evaluated tender in more than one Lot, the tenderer shall be awarded the lot with the highest Tender Sum and the second lowest evaluated tender in other lots where the tenderer is the lowest evaluated shall be awarded to the second lowest evaluated tenderer. Tenderers Must quote for all the sites in the lot to be responsive for that particular Lot. If a tenderer wins more than one Lot, the tenderer shall be awarded the lot with the highest tender Sum, provided the tenderer meets the Eligibility and Qualification Criteria for the Lot. The tenderer will be awarded only the lot with the highest Tender Sum and the others will be considered for award to second lowest the tenderers
ITT 37.2	In the event of identification of a potentially Abnormally Low

Reference to ITC Clause	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
	Tender and the tenderer submitting in writing that she will perform the works, the tenderer must complete the works as per the total bid sum. Failure to do so the tenderer shall be reported to PPRA for debarment
ITT 48.1	Other documents required in addition to the Performance Security are relevant Insurance policies.
ITT 50.1	<p>The procedures for making a Procurement-related Complaint are 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 her complaint following these procedures, in writing (by the quickest means available, that is either by hand delivery or email to:</p> <p style="padding-left: 40px;">The Director, Kenya Forestry Research Institute, P.O Box 20412-00200 Tel: 0722157414/0724259781/0734251888 City Square, Nairobi director@kefri.org, tenders@kefri.org</p> <p>In summary, a Procurement-related Complaint may challenge any of the following:</p> <p>(ii) KEFRI's decision to award the contract.</p>

SECTION III - EVALUATION AND QUALIFICATION CRITERIA

The tender shall be evaluated in the below listed stages:

1. Preliminary/ Mandatory Examination.
2. Detailed Technical Examination.
3. Financial Evaluation.
4. Post qualification: Due diligence.

STAGE 1-PRELIMINARY EXAMINATION

KEFRI 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. **Tenders that do not pass the Preliminary Examination will be considered non-responsive and will not be considered further.**

ITEM	MANDATORY REQUIREMENT (MR)	Bidder's Response with Evidence Referenced pages –Where applicable (YES /NO)
MR 1	Must submit One (1) copy of the Tender Document, clearly marked; <ol style="list-style-type: none"> i) Tender Number ii) Tender Reference Name iii) Tender Lot Number. iv) Tender Lot Name 	
MR 2	The tenderer MUST submit his/her tender document as follows: <ol style="list-style-type: none"> (i) The Tender document must be submitted as issued - All parts of the tender document including addendum(s) where applicable must be submitted by the tenderer and shall be typed or written in indelible ink and be signed by an Authorized person appointed by the tenderer through Authorization Letter (iii) The Authorization Letter should be signed by director(s) appearing in CR12/13- At least the director(s) with the highest shares must sign. (In case of 50/50 shareholding the two Directors Must sign) and incase of many directors at least two of the director(s) with the highest shares must sign. (ii) The Authorization Letter Must be attached and must indicate the name, position held by person authorized to sign the tender on behalf of the tenderer and his/her Signature 	

ITEM	MANDATORY REQUIREMENT (MR)	Bidder's Response with Evidence Referenced pages -Where applicable (YES /NO)
	<p>and Initial –The authorized person shall submit/execute this agreement as a binding document and this person should sign all the documents related to this tender.</p> <p>(iii) The Authorized person to sign the tender on behalf of the tenderer and must sign or initialize all the pages of the Tender where entries (i.e all the forms, priced Bills of Quantities) or amendments have been made.</p> <p>(iv) 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.</p> <p>(v) The tender document Must have a coherent table of contents</p> <p>(vi) The entire/complete original tender document (including attachments) MUST be serialized/paginated using a numbering machine or typed numbering, and Tape/Book bound. Note: spiral bound Tender document and hand written pagination will be deemed non-responsive (ITT- 6.1, 11.0, 20, and 21)</p>	
MR 3	<p>Main contractor/the tenderer submitting the tender document must attach a duly filled, signed and stamped Form of Tender in the format provided</p> <p>The Form of Tender shall include the following Forms duly completed and signed by the Tenderer authorized person.</p> <ul style="list-style-type: none"> • Tenderer's Eligibility- Confidential Business Questionnaire • Certificate of Independent Tender Determination • Self-Declaration of the Tenderer- Forms SD1 and SD2 	

ITEM	MANDATORY REQUIREMENT (MR)	Bidder's Response with Evidence Referenced pages -Where applicable (YES /NO)
MR 4	<p>The bidder must dully fill Form ELI-1: -Tenderer Information Form and must attach copies of original documents for Main contractor/ Tenderer submitting the tender and her Domestic Sub contractors where applicable as listed below:-</p> <ul style="list-style-type: none"> • Certificate of Registration/ Incorporation • In case of JV, form of intent to form JV or JV agreement, in accordance with ITT 4.1.6 • Include organizational chart, Board of Directors and Beneficial ownership • Attach CR12/13 not more than 12 Months from the date of closing the tender issued by Registrar of Companies • Attach Current AGPO Certificate 	
MR 5	Provide a copy of valid Tax Compliance certificate or Tax exemption certificate issued by the Kenya Revenue Authority for the Main contractor/Tenderer submitting the tender and her Domestic Sub contractors where applicable -	
MR 6	Attach the current business permit/Trade License from the County Government for the Main contractor/Tenderer submitting the tender and her Domestic Sub contractors where applicable	
MR 7	<p>Attach Relevant registration certificates and Licenses from (NCA) for the Main contractor/Tenderer submitting the tender and her Domestic Sub contractors where applicable</p> <p>a. Relevant current trade registration</p> <ul style="list-style-type: none"> i. Builders Works - category NCA 6 to 1 ii. Plumbing, drainage and refrigeration NCA 6 to 1 iii. Electrical installation works NCA 6 to 1 <p>b. Current Practicing License</p> <ul style="list-style-type: none"> i. Builders Works - category NCA 6 to 1 ii. Plumbing, drainage and refrigeration NCA 6 to 1 iii. Electrical installation works NCA 6 to 1 	
MR 8	Copy of current EPRA License in Electrical Installation works - Class C1 and above – Electrical Works	

-
-

ITEM	MANDATORY REQUIREMENT (MR)	Bidder's Response with Evidence Referenced pages –Where applicable (YES /NO)
MR 9	The tenderer submitting the tender must attach a dully filled, signed and stamped Tender Securing Declaration Form in the format provided	
MR 10	Tenderer must fill Form CON-2 Historical Contract Non-Performance and Pending Litigation.	
MR 11	Main Contractor/ The tenderer submitting the tender where applicable shall attach a dully signed and stamped pre-contract agreement with her Domestic Sub-Contractors in the implementation of the project. The agreement should be signed by all parties for it to be valid.	

KEFRI may seek further clarification/confirmation, if necessary, to confirm authenticity/compliance of any document required in the mandatory requirements.

STAGE2: TECHNICAL EVALUATION

Evaluation of the Main Contractor/ Tenderer Submitting the Tender and her Domestic Sub- Contractors Where Applicable

No.	Description	Maximum Score
TR-1(a)	<p>Experience of the firm in similar works: - For Main Contractor/Tenderer submitting the tender document Provide Three (3) Assignments of Building and Construction of similar nature- awarded to the firm between the Periods of 2017 to 2021 calendar year. Attach copies of;</p> <p>i.Complete dully signed contracts/Local service Orders ii.Practical completion certificate of the above submitted contracts</p> <p>Bidders quoting for Lot 4 i.Each with Kshs. 25 million and above - (10 Mks each max of 30) ii.Each with Kshs. 20M – to below 25 million (each 7.5 Marks) iii.Each with Ksh 10 M – to below 20 M (5.5 Marks each)</p> <p>Bidders quoting for Other Lots- Lot 1 or 2 or 3 i.Each with Kshs. 35 million and above - (10 Mks each max of 30) ii.Each with Kshs. 30M – to below Ksh 35M (each 7.5 Marks) iii.Each with Ksh 20 M – to below Ksh 30M (5.5 Marks each)</p> <p>The above information Must be provided in the format in</p>	30

No.	Description	Maximum Score
	<p>section IV Tendering forms</p> <ul style="list-style-type: none"> • Form Exp – 4.2 (a) General Construction Experience • Form Exp – 4.2 (b) Construction Experience in Key Activities 	
TR1(b)	<p>On-going projects including Sub/Contracts – (Attach Proof – Submit duly sworn affidavit)</p> <ul style="list-style-type: none"> • No Project of similar nature, complexity and magnitude ----- 5Marks • Two and below Projects of similar, nature complexity and magnitude ----- 2 Marks • Four and above Projects of similar nature, complexity and magnitude ----- 1 Mark <p>The above information to be provided in Form Fin – 3.4 Work Commitment</p>	5
TR- 2	<p>Qualification and Experience of the Staff</p> <p>A) Director of the firm Academic Qualification (attach proof i.e. copies of certificates)</p> <p>The above information to be provided in FORM PER - 1: Contractor's Representative and Key Personnel.</p> <ul style="list-style-type: none"> • Holder of degree ----- 5 Marks • Holder of diploma ----- 3.5 Marks • Holder of certificate ----- 2 Marks • Holder of KCSE/ O Level Certificate ----- 1 Mark • No certificate ----- 0 Mark <p>Experience</p> <ul style="list-style-type: none"> • Over 3 years ----- 3 Marks • Between one and 3 years ----- 1 mark <p>The above information to be provided in FORM PER - 2: Resume and Declaration - Contractor's Representative and Key Personnel.</p>	8
	<p>b) At least Three (3) other technical staff.</p> <p>Academic Qualification (attach proof i.e. copies of certificates) The above information to be provided in FORM PER - 1: Contractor's Representative and Key Personnel.</p> <ul style="list-style-type: none"> • Holder of degree/ higher diploma in Building, Electrical and Mechanical Engineering Construction Related Field ----- (Max Marks 9 – 3 Marks each) • Holder of diploma holder in Building, Electrical and Mechanical Engineering Construction Related Field) ----- (Max Marks 6 -2 Mark each) 	18

No.	Description	Maximum Score
	<ul style="list-style-type: none"> • Holder of certificate holder in Building, Electrical and Mechanical Engineering Construction Related Field) ----- -----(Max Marks 3 -1 Mark each) <p>Experience</p> <ul style="list-style-type: none"> • Building, Mechanical Engineer and Electrical Engineer over 3 years ----- 3 Marks each. • Building, Mechanical Engineer and Electrical Engineer between one and 3 years -----2 marks each <p>The above information to be provided in FORM PER - 2: Resume and Declaration - Contractor's Representative and Key Personnel.</p>	
	<p>c)At least Three (3) artisans Academic Qualification (attach proof i.e. copies of certificates) The above information to be provided in FORM PER - 1: Contractor's Representative and Key Personnel.</p> <ul style="list-style-type: none"> • Trade test certificate in relevant field ----- -----Max Marks 3 1 Mark each <p>Experience</p> <ul style="list-style-type: none"> • Building, Mechanical Engineer and Electrical Engineer over 3 years ----- 1 Marks each. • Building, Mechanical Engineer and Electrical Engineer between one and 3 years -----0.5 mark each <p>The above information to be provided in:- The above information to be provided in FORM PER - 2: Resume and Declaration - Contractor's Representative and Key Personnel.</p>	6
TR 3	<p>1. Adequacy of tools and equipment: <i>(The Bidder must demonstrate that it will have access to the key Contractor's equipment listed hereafter)- The Tenderer must provide proof of evidence of ownership/lease and fill Form EQU-Equipment for each item/equipment provided</i></p> <hr/> <p>a. Transportation – Main Contractor At least 3 no (1 Mark for each max 3)</p> <ul style="list-style-type: none"> • pick- ups • Lorries • Trucks • Van • Tractor • Or any other relevant mode of transport 	3

No.	Description	Maximum Score
	b) Relevant Tools and Equipment - at least 5 no (1 Mark for each max 5) <ul style="list-style-type: none"> • Backhoe • Concrete Mixer • Concrete Vibrator • Roller compacter • Bulldozer • Excavator • Grader • Or any other relevant equipment 	5
TR 4	Financial Report (Main Contractor/Tenderer submitting the tender document) <p>a) Average Annual Turnover (From Audited Accounts for the last 2 years -, (2020- showing the 2019 results)</p> <ul style="list-style-type: none"> • Average Annual Turn-over of Kshs 60,000,000.0010 Marks • Average Annual of Kshs 50,000,000.007.5 Marks • Average Annual of Kshs 30,000,000.00 5 Marks <p>The above information Must be provided in Form FIN – 3.2 and should be in tandem with the Audited Accounts provided.</p> <ul style="list-style-type: none"> • Failure to submit audited accounts ----- 0 Mark 	10
TR 5	Provide copies of audited accounts for the Main Contractor/Tenderer submitting the tender for the accounting years 2020 indicating/showing the 2019 financial results <ul style="list-style-type: none"> • Attach copies of financial statements/Audited accounts (balance sheets, including all related notes, and income statements) for the years required above complying with the following conditions: <ul style="list-style-type: none"> • Must reflect the financial situation of the Tenderer or member to a JV, and not sister or parent companies. • Historic financial statements (2020 accounts) must be audited by a certified accountant. - Registration Number/Practicing Number of the accountant must be clearly shown • Historic financial statements must be complete, including all notes to the financial statements. 	10

No.	Description	Maximum Score
	<ul style="list-style-type: none"> • Historic financial statements must correspond to accounting periods already completed and audited (no statements for partial periods shall be accepted). • Current ratio 2:1 – Current Assets/Current Liabilities <p>Must also dully fill the below listed Forms</p> <ul style="list-style-type: none"> • FORM FIN – 3.1 Financial Situation and Performance • FORM FIN – 3.3 Financial Resources <p>Note: Failure to meet any of the above requirements leads to 0 Marks.</p>	
TR 6	<p>Works Programme</p> <p>Describe the step-by-step approach of accomplishing the key tasks of the assignment</p> <ul style="list-style-type: none"> • Within 8 Months ----- 5 Marks • Within 10 Months ----- 3 Marks • Within 12 Months ----- 2 Marks <p>Note: The works programme should be technically realistic and the tenderer shall demonstrate how she will deliver the project within the proposed timelines without compromising on the quality.</p>	5
Total		100%
Pass Mark		70%

Any bidder who scores 70% and above shall be considered for further evaluation
Notes on evaluation.

STAGE 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).

The evaluation shall be in three stages:-

- a) Determination of the Corrected Tender Sums;
- b) Comparison of Rates for major components of Works; and
- c) Consistency of the Rates

Bidder	Bidder's price (Form of Tender)	Error	Ranking
1			
2			

STAGE 4 –RECOMMENDATION FOR AWARD

Award Criteria:

The firm achieving the lowest evaluated price will be awarded the contract in line with Section 86 of the Public Procurement and Disposal Act,2015

N/B: If a tenderer wins more than one Lot, the tenderer shall be awarded the lot with the highest tender Sum, provided the tenderer meets the Eligibility and Qualification Criteria for the Lot. The tenderer will be awarded only the lot with the highest Tender Sum and the others will be considered for award to second lowest the tenderers.

STAGE 5 - POST-QUALIFICATION

An evaluation committee may, after tender evaluation, but prior to the award of the tender, conduct due diligence and present the report in writing to confirm and verify the qualifications of the tenderer who submitted the lowest evaluated responsive tender to be awarded the contract in accordance with this Act.

The conduct of due diligence may include obtaining confidential references from persons with whom the tenderer has had prior engagement.

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 ITT13.2, will be evaluated as follows: NOT PERMITTED
- (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

4.1 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. KEFRI will select award the tender as follows;

- (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.

7. If a tenderer wins more than one Lot, the tenderer shall be awarded the lot with the highest tender Sum, provided the tenderer meets the Eligibility and Qualification Criteria for the Lot. The tenderer will be awarded only the lot with the highest Tender Sum and the others will be considered for award to second lowest the tenderers.

8. Post qualification and Contract award (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) In case 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_____
- ii) Minimum average annual construction turnover of Kenya Shilling 50 million, equivalent calculated as total certified payments received for contracts in progress and/or completed within the last two (2) years. -Refer to technical evaluation criteria.
- iii) At least three (3) number 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 shilling -Referer to Evaluation criteria.
- iv) Contractor's Representative and Key Personnel, which are specified -Refer to evaluation criteria
- v) Contractors' key equipment listed on the table "Contractor's Equipment" below and more specifically listed as *Refer to evaluation criteria*
- iv) Other conditions depending on their seriousness -Refer to technical evaluation criteria.

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 two (2) years. The required information shall be furnished in the appropriate form.

b) **Pending Litigation**

Financial position and prospective ong-term profit 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) **Litigation History**

There shall be no consistent history of court/arbitral award decisions against the Tenderer, in the last three (3) years. 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 under its execution over the year's specified. A consistent history of awards against the Tenderer or any member of a JV may result in rejection of the tender.

QUALIFICATION FORM – Refer to Section III –Evaluation and Qualification Criteria.

1	2	3	4	5
Item No.	Qualification Subject	Qualification Requirement	Document To be Completed by Tenderer	For KEFRI's Use (Qualification met or Not Met)
1	Nationality	Nationality in accordance with ITT 3.6	Forms ELI – 1.1 and 1.2, with attachments	
2	Tax Obligations for Kenyan Tenderers	Has produced a current tax clearance certificate or tax exemption certificate issued by Kenya Revenue Authority in accordance with ITT 3.14.	Attachment	
3	Conflict of Interest	No conflicts of interest in accordance with ITT 3.3	Form of Tender	
4	PPRA Eligibility	Not having been declared ineligible by the PPRA as described in ITT 3.7	Form of Tender	
5	State- owned Enterprise	Meets conditions of ITT 3.8	Forms ELI – 1.1 and 1.2, with attachments	
6	Goods, equipment and services to be supplied under the contract	To have their origin in any country that is not determined ineligible under ITT 4.1	Forms ELI – 1.1 and 1.2, with attachments	
7	History of Non-Performing Contracts	Non-performance of a contract did not occur as a result of contractor default since 1 st January [.....].	Form CON-2	
8	Suspension Based on Execution of Tender/Proposal Securing Declaration by KEFRI	Not under suspension based on-execution of a Tender/Proposal Securing Declaration pursuant to ITT 19.9	Form of Tender	
9	Pending Litigation	Tender's financial position and prospective long-term profitability still sound according to criteria established in 3.1 and assuming that all pending litigation will NOT be resolved against the Tenderer.	Form CON – 2	

1	2	3	4	5
Item No.	Qualification Subject	Qualification Requirement	Document To be Completed by Tenderer	For KEFRI's Use (Qualification met or Not Met)
10	Litigation History	No consistent history of court/arbitral award decisions against the Tenderer since 1 st January <i>[insert year]</i> .	Form CON – 2	
11	Financial Capabilities	<p>(i) The Tenderer shall demonstrate that it has access to, or has available, liquid assets, unencumbered real assets, lines of credit, and other financial means (independent of any contractual advance payment) sufficient to meet the construction cash flow requirements estimated as Kenya Shillings <i>[insert amount]</i> equivalent for the subject contract(s) net of the Tenderer's other commitments.</p> <p>(ii) The Tenderers shall also demonstrate, to the satisfaction of KEFRI, that it has adequate sources of finance to meet the cash flow requirements on works currently in progress and for future contract commitments.</p> <p>(iii) The audited balance sheets or, if not required by the laws of the Tenderer's country, other financial statements acceptable to KEFRI, for the last <i>[insert number of years]</i> years shall be submitted and must demonstrate the current soundness of the Tenderer's financial position and indicate its prospective long-term profitability.</p>	Form FIN – 3.1, with attachments	
12	Average Annual Construction Turnover	Minimum average annual construction turnover of Kenya Shillings <i>[insert amount]</i> , equivalent	Form FIN – 3.2	

1	2	3	4	5
Item No.	Qualification Subject	Qualification Requirement	Document To be Completed by Tenderer	For KEFRI's Use (Qualification met or Not Met)
		calculated as total certified payments received for contracts in progress and/or completed within the last <i>[insert of year]</i> years, divided by <i>[insert number of years]</i> years		
13	General Construction Experience	Experience under construction contracts in the role of prime contractor, JV member, sub-contractor, or management contractor for at least the last <i>[insert number of years]</i> years, starting 1 st January <i>[insert year]</i> .	Form EXP – 4.1	
14	Specific Construction & Contract Management Experience	<p>A minimum number of <i>[state the number]</i> similar contracts specified below that have been satisfactorily and substantially completed as a prime contractor, joint venture member, management contractor or sub-contractor between 1st January <i>[insert year]</i> and tender submission deadline i.e. (number) contracts, each of minimum value Kenya shillings..... equivalent.</p> <p><i>[In case the Works are to be tender as individual contracts under multiple contract procedure, the minimum number of contracts required for purposes of evaluating qualification shall be selected from the options mentioned in ITT 35.4]</i></p> <p>The similarity of the contracts shall be based on the following: <i>[Based on Section VII, Scope of Works, specify the minimum key requirements in terms of physical size, complexity, construction method,</i></p>	Form EXP 4.2(a)	

1	2	3	4	5
Item No.	Qualification Subject	Qualification Requirement	<i>Document To be Completed by Tenderer</i>	<i>For KEFRI's Use (Qualification met or Not Met)</i>
		<i>technology and/or other characteristics including part of the requirements that may be met by specialized subcontractors, if permitted in accordance with ITT 34.3]</i>		

N/B- Refer to Section III –Evaluation and Qualification Criteria

SECTION IV - TENDERING FORMS

QUALIFICATION FORMS

1. FORM EQU: EQUIPMENT

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

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	

2. FORM PER -1

Contractor's Representative and Key Personnel Schedule

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

Contractor' Representative and Key Personnel

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 schedule for this position:	<i>[insert the expected time schedule for this position (e.g. attach high level Gantt chart)]</i>

3. 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 responsibilities and 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): _____

4. 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.

4.1 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: <ul style="list-style-type: none">• Legal and financial autonomy• Operation under commercial law <ol style="list-style-type: none">1. Establishing that the Tenderer is not under the supervision of KEFRI2. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.

42 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 KEFRI, in accordance with ITT 3.5.
2. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.

4.3 FORM CON -2

Historical Contract Non-Performance, Pending Litigation and Litigation History

Tenderer's Name: _____

Date: _____

JV Member's Name _____

ITT No. and title: _____

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

- Contract non-performance did not occur since 1st January *[insert year]* specified in Section III, Evaluation and Qualification Criteria, Sub-Factor 2.1.
- Contract(s) not performed since 1st January *[insert year]* specified in Section III, Evaluation and Qualification Criteria, requirement 2.1
- Contract(s) withdrawn since 1st 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)
<i>[insert year]</i>	<i>[insert amount and percentage]</i>	Contract Identification: <i>[indicate complete contract name/ number, and any other identification]</i> Name of KEFRI: <i>[insert full name]</i> Address of KEFRI: <i>[insert street/city/country]</i> Reason(s) for nonperformance: <i>[indicate main reason(s)]</i>	<i>[insert amount]</i>

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

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

Year of dispute	Amount in dispute (currency)	Contract Identification	Total Contract Amount (currency), Kenya Shilling Equivalent (exchange rate)
		Contract Identification: _____ Name of Procuring Entity: _____ Address of Procuring Entity: _____ Matter in dispute: _____ Party who initiated the dispute: _____ Status of dispute: _____	
		Contract Identification: Name of Procuring Entity : Address of Procuring Entity: Matter in dispute: Party who initiated the dispute: Status of dispute:	
Litigation History in accordance with Section III, Evaluation and Qualification Criteria			
<input type="checkbox"/> No Litigation History in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.4.			
<input type="checkbox"/> Litigation History in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.4 as indicated below.			
<i>[insert year]</i>	<i>[insert percentage]</i>	Contract Identification: [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>

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.

4.4 FORM FIN – 3.1:

Financial Situation and Performance

Tenderer's Name: _____
 Date: _____
 JV Member's Name _____
 ITT No. and title: _____

4.4.1. Financial Data

Type of Financial information in _____ (currency)	Historic information for previous _____ 2 _____ years, (Amount in currency Kshs.)		
	Year 1	Year 2	Year 3
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

4.4.2 Sources of Finance

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

No.	Source of Finance	Amount (Kenya Shilling Equivalent)
1		
2		
3		

4.4.3 Financial documents

The Tenderer and its parties shall provide copies of financial statements for the *2020* year-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 *2019 /2020* 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.

4.5 FORM FIN – 3.2:

Average Annual Turnover

Tenderer's Name: _____

Date: _____

JV Member's Name _____

ITT No. and title: _____

Annual Turnover Data			
Year	Amount Currency	Exchange Rate	Kenya Shilling Equivalent
<i>[indicate year]</i>	<i>[insert amount and indicate currency]</i>		
Average Annual Turnover *			

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

4.6 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		

4.7 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 Equivalent]	Estimated Completion Date	Average Monthly Invoicing Over Last Six Months [Kenya Shilling /month]
1					
2					
3					
4					
5					

4.8 FORM EXP - 4.1
General Construction Experience

Tenderer's Name: _____

Date: _____

JV Member's Name (where applicable) _____

ITT No. and title: _____

No	Starting Date	Ending Date	Contract Identification	Role of Tenderer(Main or Sub contractor)
1			Contract Name: _____ Brief Description of the Works performed by the Tenderer: _____ Amount of contract: _____ Name of Procuring Entity: _____ Address: _____	
2			Contract Name: _____ Brief Description of the Works performed by the Tenderer: _____ Amount of contract: _____ Name of Procuring Entity: _____ Address: _____	
3			Contract Name: _____ Brief Description of the Works performed by the Tenderer: _____ Amount of contract: _____ Name of Procuring Entity: _____ Address: _____	

Name of the authorized person to sign the tender document on behalf of the tenderer.....

Position.....

Date.....

Signature.....

4.9 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/Tender Identification number				
Award date				
Completion date				
Role in Contract	Main Contractor <input type="checkbox"/>	Member in JV <input type="checkbox"/>	Management Contractor <input type="checkbox"/>	Sub-contractor <input type="checkbox"/>
Total Contract Amount- KSh				
If member in a JV or sub-contractor, specify participation in total Contract amount				
Procuring Entity's Name: Address: Telephone/fax number E-mail:				
Procuring Entity's contact person Name: Designation: Telephone number and Extension Official E-mail:				

Name of the authorized person to sign the tender document on behalf of the tenderer.....

Position.....

Date.....

Signature.....

4.10 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/Tender Identification number				
Award date				
Completion date				
Role in Contract	Main Contractor <input type="checkbox"/>	Member in JV <input type="checkbox"/>	Management Contractor <input type="checkbox"/>	Sub-contractor <input type="checkbox"/>
Total Contract Amount- KSh				
If member in a JV or sub-contractor, specify participation in total Contract amount				
Procuring Entity's Name: Address: Telephone/fax number E-mail:				
Procuring Entity's contact person Name: Designation: Telephone number and Extension Official E-mail:				

Name of the authorized person to sign the tender document on behalf of the tenderer.....

Position.....

Date.....

Signature.....

4.11 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:-TR 1	
1. Amount	
2. Physical size of required works items	
3. Complexity	
4. Methods/Technology	
5. Construction rate for key activities	
6. Other Characteristics	

Name of the authorized person to sign the tender document on behalf of the tenderer.....

Position.....

Date.....

Signature.....

Stamp.. ..

4.12 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	
Procuring Entity's Name:	
Address: Telephone/fax number E-mail:	
Information	
Description of the key activities in accordance with Sub-Factor 4.2(b) of Section III:	

2. Activity No. Two

3.

² If applicable

OTHER FORMS

6. FORM OF TENDER

INSTRUCTIONS TO TENDERERS

- ii) The Tenderer must prepare this Form of Tender on stationery with its letterhead clearly showing the Tenderer's complete name and business address.*
- iii) All italicized text is to help Tenderer in preparing this form.*
- iv) Tenderer must complete and sign CERTIFICATE OF INDEPENDENT TENDER DETERMINATION and the SELF DECLARATION OF THE TENDERER attached to this Form of Tender.*
- v) 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]_____*

(Insert lot here)

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 _____

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.

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;
 - iii) Tender - Securing Declaration: We have not been suspended nor declared ineligible by PPRA based on execution of a Tender-Securing or Proposal-Securing Declaration in 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) 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
 - (a) Total price of all lots (sum of all lots) *[insert the total price of all lots in words and figures, indicating the various amounts and the respective currencies]*;
 - vii) Discounts: The discounts offered and the methodology for their application are:
 - viii) The discounts offered are: *[Specify in detail each discount offered.]*
 - ix) The exact method of calculations to determine the net price after application of discounts is shown below: *[Specify in detail the method that shall be used to apply the discounts]*;
 - x) Tender Validity Period: Our Tender shall be valid for the period specified in TDS 18.1 (as amended, if applicable) from the date fixed for the Tender submission deadline specified in TDS 22.1 (as amended, if applicable), and it shall remain binding upon us and may be accepted at any time before the

expiration of that period;

- xi) Performance Security: If our Tender is accepted, we commit to obtain a Performance Security in accordance with the Tendering document;
- xii) One Tender Per Tender: We are not submitting any other Tender(s) as an individual Tender, and we are not participating in any other Tender(s) as a Joint Venture member or as a sub-contractor, and meet the requirements of ITT 3.4, other than alternative Tenders submitted in accordance with ITT 13.3;
- xiii) Suspension and Debarment: We, along with any of our subcontractors, suppliers, Engineer, manufacturers, or service providers for any part of the contract, are not subject to, and not controlled by any entity or individual that is subject to, a temporary suspension or a debarment imposed by the Public Procurement Regulatory Authority or any other entity of the Government of Kenya, or any international organization.
- xiv) State-owned enterprise or institution: [*select the appropriate option and delete the other*] [*We are not a state-owned enterprise or institution*]/[*We are a state-owned enterprise or institution but meet the requirements of ITT3.8*];
- xv) Commissions, gratuities, fees: We have paid, or will pay the following commissions, gratuities, or fees with respect to the tender process or execution of the Contract: [*insert complete name of each Recipient, its full address, the reason for which each commission or gratuity was paid and the amount and currency of each such commission or gratuity*].

Name of Recipient	Address	Reason	Amount

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

- xvi) Binding Contract: We understand that this Tender, together with your written acceptance thereof 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 not in any conflict to interest.
 - (b) Certificate of Independent Tender Determination - to declare that we completed the tender without colluding with other tenderers.
 - (a) Self-Declaration of 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]*

Date signed _____ day

of _____,

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

General and Specific Details

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

Name in full _____ Age _____
Nationality _____ Country of Origin _____
Citizenship _____

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

	Names of Partners	Nationality	Citizenship	% Shares owned
1				
2				
3				

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

- I) Private or public Company _____
 ii) State the nominal and issued capital of the Company__

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

iii) Give details of Directors as follows.

	Names of Director	Nationality	Citizenship	% Shares owned
1				
2				
3				

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

- i) Are there any person/persons in..... (*Name of KEFRI*) who has/have an interest or relationship in this firm? Yes/No.....

If yes, provide details as follows.

	Names of Person	Designation in KEFRI	Interest or Relationship with Tenderer
1			
2			
3			

(ii) **Conflict of interest disclosure**

	Type of Conflict	Disclosure YES OR NO	If YES provide details of the relationship with Tenderer
1	Tenderer is directly or indirectly controls, is controlled by or is under common control with another tenderer.		
2	Tenderer receives or has received any direct or indirect subsidy from another		

	Type of Conflict	Disclosure YES OR NO	If YES provide details of the relationship with Tenderer
	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 KEFRI 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 KEFRI who are directly or indirectly involved in the preparation of the Tender document or specifications of the Contract, and/or the Tender evaluation process of such contract.		
8	Tenderer has a close business or family relationship with a professional staff of KEFRI who would be involved in the implementation or supervision of the such Contract.		
9	Has the conflict stemming from such relationship stated		

	Type of Conflict	Disclosure YES OR NO	If YES provide details of the relationship with Tenderer
	in item 7 and 8 above been resolved in a manner acceptable to KEFRI 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 KEFRI] 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/ 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 KEFRI)* 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 KEFRI*) and duly authorized and competent to make this statement.
2. THAT theafore said Bidder, its servants and/or agents/subcontractors will not engage in any corrupt or fraudulent 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 KEFRI*) which is KEFRI.
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 KEFRI*).
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 KEFRI under subsection (7) does not limit any legal remedy KEFRI may have;
 - 5) An employee or agent of KEFRI or a member of the Board or committee of

KEFRI 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 into, 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, KEFRI:
- 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 KEFRI 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 KEFRI 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.

¹For the avoidance of doubt, a party's in eligibility to be awarded a contract shall include, 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 KEFRI 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 - 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

SECTION V - BILLS OF QUANTITIES

BILLS OF QUANTITIES

(a) Preambles

1. The method of measurement of completed work for payment shall be in accordance with *measured works as per priced BQ*.

2. The Sites are situated as follows;

No.	Lot	KEFRI Center/Sub - Center	Geographic Coordinates	
			Latitude	Longitude
1.	Lot 1:	Nyeri Sub-Center	S 0° 24'05.1"	E 36° 56'26.1"
		Rumuruti Sub-Center	N 0° 17'10.703"	E 36° 33'2.98"
		Baringo – Marigat Sub-Center	N 0° 28'20.1"	E 35° 59'41.4"
2.	Lot 2:	Tiva- Kitui Center	S 1° 21'57.6"	E 37° 52'04.8"
		Kibwezi Sub-Center	S 2° 24'50.6"	E 37° 57'36.5"
		Garissa Sub-Center	N 0° 24'59.2"	E 39° 39'58.3"
3.	Lot 3:	Maseno Center	N 0° 00'25.6"	E 34° 36'15.5"
		Migori Sub-Center	S 1° 06'37.2"	E 34° 28'50.2"
		Kakamega Sub-Center	N 0° 17'41"	E 34° 46'22"
4.	Lot 4:	Gede Center	S 3° 18'06"	E 39° 59'46"
		Taita Taveta Sub-Center	S 3° 26'06"	E 0° 38'20.43"

3. 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.

4. The Contractor shall obtain the project implementation team 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.

5. The drawings used in the preparation of these Bills of Quantities can be inspected at the offices of KEFRI or KEFRI'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.

6. 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.

7. The Contractor shall carry out the various sections of the Works in such an order as the project implementation team may direct. KEFRI 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.

8. The main Contractor will be fully responsible for paying his Sub-Contractor but KEFRI 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.
9. 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.
10. 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 Project Implementation Team 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.
11. The Contractor shall submit to the Project Implementation Team on the first day of each week or such longer period as the Project Implementation Team from time to time direct, a Progress Report and any information for the proceeding period, showing the progress during the period and the up-to-date cumulative progression all important items of each section or portion of the Works.
12. The Contractor shall arrange for photographs of the Site to be taken by a professional photographer approved by the Project Implementation Team. 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 KEFRI. The negatives and four prints from each negative shall be delivered to the Project Implementation Team within two weeks of exposure.
13. 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.
14. Prior to commencement of any work the Contractor is to ascertain from the relevant Authorities the exact position, depth and level of all existing electric

cables, water pipes or other services in the are 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 Project Implementation Team 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.

15. 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.
16. 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 Project Implementation Team.
17. The Contractor is to allow for complying with all instructions and regulations of the County and other Regulatory Authorities.
18. 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.
19. The Contractor shall provide all artificial lighting and power for his own use on the Works, (including Sub – Contractor's) including all temporary connections, wiring, fittings, etc., and clearing away on completion. The Contractor shall pay all fees and obtain all permits in connection there with.
20. 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 Project Implementation Team.
21. 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 Project Implementation Team 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.

22. The are as available to the Contractor for work yards, offices and other facilities shall be directed by the Project Implementation Team 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 then a town cost.
23. The Contractor shall give the Project Implementation Team 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 Project Implementation Team shall not relieve the Contractor of his duties or responsibilities under the Contract.
24. The Contractor must take steps necessary to safe guard and shall beheld 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 KEFRI against any loss or claim that may arise.
25. 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 Project Implementation Team.
26. The Contractors 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.
27. The Contractor shall provide temporary sheds, offices mesh rooms, sanitary, accommodation and other temporary buildings for the use of the contractor and sub-contractors, including lighting furniture equipment and attendance.
28. Contractor shall provide/build labor camp sat areas to be agreed with the Project Implementation Team. Labor camps shall be complete with sanitary accommodation and fencing gates.
29. 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.
30. 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.

31. 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.
32. 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.
33. 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.
34. 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 Project Implementation Team until the completion of the Contract.
35. 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 Project Implementation Team, 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.
36. 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.
37. The Contractor 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 Project Implementation Team for the approval or rejection, and any further samples in the case of rejection, until such samples are approved by the Project Implementation Team. 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 Project Implementation Team. The Contractor shall allow in his Tender for such samples and tests, including those in connection with his Sub-Contractors work.
38. The Contractor's 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 interim payments exceeding Kshs..... for work done in respect of building or civil works. The contractor shall allow for any costs arising resulting there from in the build-up of rates.

39. Blasting will only be allowed with the express permission of the Project Implementation Team 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 Implementation Team governing the use and storage of explosives.
40. 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.
41. The Contractor attention is drawn to Finance Bill of 1993 where VAT was introduced in all contracts for construction services. The tenderer is also drawn to VAT Act Cap 476 clause 19(9). The tenderer must allow for VAT 1.19 as instructed elsewhere.
42. 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 OF QUANTITIES

**LOT 1:
THIS LOT COMPRISES OF THE
FOLLOWING SUB-CENTERS**

- 1. NYERI SUB- CENTER -**
- 2. RUMURUTI SUB- CENTER**
- 3. BARINGO – MARIGAT SUB- CENTER**

NYERI SUB-CENTRE

SITE 1 OF LOT 1

PARTICULAR PRELIMINARIES

ITEM	DESCRIPTION	Kshs.	Cts
	<p><u>PARTICULAR PRELIMINARIES</u></p> <p>A PRICING ITEMS OF PRELIMINARIES</p> <p>Prices SHALL BE INSERTED against items of “preliminaries” in the tenderer’s priced Bills of Quantities. 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. The contractor is advised to read and understand all preliminary items.</p> <p>B DESCRIPTION OF THE WORKS</p> <p>The works to be carried out under this contract involves substructures works, walling, steel windows, timber and steel doors, terrazzo floor finishes, chipboard ceiling finishes and joinery fittings and all associated electrical, mechanical and civil works</p> <p>C 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 22 of the Conditions of Contract. The discrepancies shall then be treated as a variation and be dealt with in accordance with Clause 22 of the said Conditions.</p> <p>D LOCATION OF SITE</p> <p>The sites are located at KEFRI Nyeri Seed Sub-Centre, Rumuruti Seed Sub-Centre and Baringo - Marigat Seed Sub-Centre</p>		
	Carried to Collection		

ITEM	DESCRIPTION	Kshs.	Cts
A	<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 claim or intent to claim notice to the PROJECT MANAGER within the contract period. No claims shall be entertained upon the expiry of the said contract period.</p>		
B	<p>PAYMENTS</p> <p>The tenderer's attention is drawn to the fact that the GOVERNMENT SHALL NOT MAKE ADVANCE PAYMENTS</p>		
C	<p>PREVENTION OF ACCIDENT, DAMAGE OR LOSS</p> <p>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 instructed to take reasonable care in the execution of the works as to prevent accidents, damage or loss and disruption of normal activities being carried out by the Client. The Contractor shall allow in his rates any expense he deems necessary by taking such care within the site.</p>		
D	<p>BID SECURITY</p> <p>The contractor shall provide a dully filled tender securing declaration form in the provided format.</p>		
Carried to Collection			

ITEM	DESCRIPTION	Kshs.	Cts
A	<p>WORKING CONDITIONS</p> <p>The Contractor shall allow in this tender for any interference that he may encounter in the course of execution 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>		
B	<p>SIGNBOARD</p> <p>Allow for providing, erecting, maintaining throughout the course of the Contract and afterwards clearing away the signboard as designed, specified and approved by the Project Manager.</p>		
C	<p>LABOUR CAMPS</p> <p>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>		
D	<p>MATERIALS FROM DEMOLITIONS</p> <p>The Contractor shall allow for a credit for salvaged materials. Any materials arising from demolitions shall not be re-used. The Contractor shall allow for carting away all demolished materials.</p>		
E	<p>PRICING RATES</p> <p>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>		
	Carried to Collection		

ITEM	DESCRIPTION	Kshs.	Cts
A	<p>URGENCY OF THE WORKS</p> <p>The Contractor is notified that these “works are urgent” and should be completed within the period stated in these Particular Preliminaries. The Contractor shall allow in this tender for any costs he deems that he/she may incur by having to complete the works within the stipulated contract period.</p>		
B	<p>PAYMENT FOR MATERIALS ON SITE</p> <p>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</p> <p>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 which may be required by the authorities concerned for the support, maintenance and protection of such services.</p>		
Carried to Collection			

ITEM	DESCRIPTION	Kshs.	Cts
A	<p>TENDER DOCUMENTS</p> <p>Tender documents are as listed in Clause 2.1 of the Instruction to Tenderer's</p>		
B	<p>DELIVERY OF TENDER</p> <p>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>		
C	<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. Notice No. 35 & 36 Dated 11th September 2003 operational from 1st October 2003, withholding VAT will be levied against the contract sum by the Employer . The contractor should therefore include this tax in the Grand Summary page as indicated herein. The tenderer is advised that in accordance with the Finance Act 2014 withholding VAT tax was reintroduced at a rate of 2% with effect from 7th November, 2019</p>		
	Carried to collection		

ITEM	DESCRIPTION	Kshs.	Cts
	<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</p> <p>Defects Liability Period</p> <p>Date for Possession</p> <p>Date for Completion</p> <p>Liquidated and Ascertained Damages</p> <p>Period of Interim Certificates</p> <p>Percentage of Certified Value Retained</p> <p>Limit of Retention Fund</p>	<p>-</p> <p>-</p> <p>3 Months from Practical Completion</p> <p>6 Months from Practical Completion</p> <p>To be agreed with the Project Manager</p> <p>32 weeks from date of Possession</p> <p>at a rate of Kshs 5,000.00 Per day or part thereof</p> <p>Monthly</p> <p>10%</p> <p>5%</p>	
	Carried to Collection		

ITEM	DESCRIPTION	Kshs.	Cts
	<p><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> <p>Brought forward from page PP/8</p>		
	<p>PARTICULAR PRELIMINARIES CARRIED TO MAIN SUMMARY</p>		

GENERAL PRELIMINARIES

ITEM	DESCRIPTION	KSHS	CTS
-	GENERAL PRELIMINARIES		
A.	PRICING OF ITEMS OF PRELIMINARIES AND PREAMBLES		
	Prices will be inserted against items of Preliminaries in the Contractor's priced Bills of Quantities and Specification.		
	The Contractor shall be deemed to have included in his prices or rates for the various items in the Bills of Quantities or Specification for all costs involved in complying with all the requirements for the proper execution of the whole of the works in the Contract.		
B.	ABBREVIATIONS		
	Throughout these Bills, units of measurement and terms are abbreviated and shall be interpreted as follows:-		
	<i>C.M.</i> Shall mean cubic metre		
	<i>S.M.</i> Shall mean square metre		
	<i>L.M.</i> Shall mean linear metre		
	<i>MM</i> Shall mean Millimetre		
	<i>Kg.</i> Shall mean Kilogramme		
	<i>No.</i> Shall mean Number		
	<i>Prs.</i> Shall mean Pairs		
	<i>B.S.</i> Shall mean the British Standard Specification Published by the British Standards Institution, 2 Park Street, London W.1., England.		
	<i>Ditto</i> Shall mean the whole of the preceding description except as qualified in the description in which it occurs.		
	<i>m.s.</i> Shall mean measured separately.		
	<i>a.b.d</i> Shall mean as before described.		
	<i>Carried to collection</i>		

ITEM	DESCRIPTION	KSHS	CTS
A.	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:-		
	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.		
	<i>Fix Only:-</i>		
	"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.		
B.	EMPLOYER		
	The "Employer" is Kenya Forestry Research Institute		
	The term "Employer" and "Government" wherever used in the contract document shall be synonymous		
C.	PROJECT MANAGER		
	The term "P.M." 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 as may be duly authorized to represent him on behalf of the Government.		

ITEM	DESCRIPTION	KSHS	CTS
D.	ARCHITECT		
	The term "Architect" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 30743, NAIROBI.		
E.	QUANTITY SURVEYOR		
	The term "Quantity Surveyor" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 30743, NAIROBI.		
	<i>Carried to collection</i>	-	
A.	ELECTRICAL ENGINEER		
	The term "Electrical Engineer" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 41191, NAIROBI.		
B.	MECHANICAL ENGINEER		
	The term "Mechanical Engineer" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 41191, NAIROBI.		

ITEM	DESCRIPTION	KSHS	CTS
C	STRUCTURAL ENGINEER		
	The term "Structural Engineer" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 41191, NAIROBI.		
D	FORM OF CONTRACT		
	The Form of Contract shall be as stipulated in the Republic of Kenya's Standard Tender Document for Procurement of Building Works(2006 Edition) included herein The Conditions of Contract are also included herein Conditions of Contract These are numbered from 1 to 37 as set out in pages 16 to 36 of these tender documents. 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		
E.	PERFORMANCE BOND.		
	The Contractor shall find and submit on the Form of Tender from an approved Bank and who will be willing to be bound the Government in an amount equal to five per cent (5%) of the Contract amount for the due performances of the Contract up to the date of completion as certified by the PROJECT MANAGER and who will when and if called upon, sign a Bond to that effect on the relevant standard form included herein. (without the addition of any limitations) on the same day as the Contract Agreement is signed, by the Government, the Contractor shall furnish within seven days another Surety to the approval of the Government.		
	<i>Carried to collection</i>		
A.	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.		

ITEM	DESCRIPTION	KSHS	CTS
B.	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.		
C.	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.		
D.	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 delivery 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		
E.	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.		
	<i>Carried to collection</i>	-	

ITEM	DESCRIPTION	KSHS	CTS
A.	SAMPLES		
	<p>The Contractor shall furnish at his own cost any samples of materials or workmanship including concrete test cubes required for the works that may be called for by the PROJECT MANAGER for his approval until such samples are approved by the PROJECT MANAGER and the PROJECT MANAGER, may reject any materials or workmanship not in his opinion to be up to approved samples. The PROJECT MANAGER shall arrange for the testing of such materials as he may at his discretion deem desirable, but the testing shall be made at the expense of the Contractor and not at the expense of the PROJECT MANAGER. The Contractor shall pay for the testing in accordance with the current scale of testing charges laid down by the State Department of Public Works, Ministry of Land, Housing and Urban Development.</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>		
B.	GOVERNMENT ACTS REGARDING WORK PEOPLE ETC.		
	<p>Allow for complying with all Government Acts, Orders and Regulations in connection with the employment of Labour and other matters related to the execution of the works. In particular the Contractor's attention is drawn to the provisions of the Factory Act 1950 and his tender must include for all costs arising or resulting from compliance with any Act, Order or Regulation relating to Insurances, pensions and holidays for workpeople or so the safety, health and welfare of the workpeople. The Contractor must make himself fully acquainted with current Acts and Regulations, including Police Regulations regarding the movement, housing, security and control of labour, labour camps , passes for transport, etc. It is most important that the Contractor, before tendering, shall obtain from the relevant Authority the fullest information regarding all such regulations and/or restrictions which may affect the information regarding all such regulations and/or restrictions which may affect the 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>		

ITEM	DESCRIPTION	KSHS	CTS
C.	SECURITY OF WORKS ETC.		
	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.		
	<i>Carried to collection</i>		
A.	PUBLIC AND PRIVATE ROADS.		
	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		
B.	EXISTING PROPERTY.		
	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		
C.	VISIT SITE AND EXAMINE DRAWINGS.		
	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.		
D.	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 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		

ITEM	DESCRIPTION	KSHS	CTS
	satisfaction of the PROJECT MANAGER		
E.	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		
	<i>Carried to collection</i>	-	
A.	OFFICE ETC. FOR THE PROJECT MANAGER		
	The Contractor shall provide and maintain where directed on site a room to be used as the site office, complete with Furniture.		
B.	WATER AND ELECTRICITY SUPPLY FOR THE WORKS		
	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.		
C.	SANITATION OF THE WORKS		
	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		
D.	SUPERVISION AND WORKING HOURS		
	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.		

ITEM	DESCRIPTION	KSHS	CTS
E.	PROVISIONAL SUMS.		
	The term "Provisional Sum" wherever used in these Bills of Quantities shall have the meaning stated in Section A item A7(i) of the Standard Method of Measurement. Such sums are net and no addition shall be made to them for profit.		
	<i>Carried to collection</i>		
A.	PRIME COST (OR P.C.) SUMS.		
	The term "Prime Cost Sum" or "P.C. Sum" wherever used in these Bills of Quantities shall have the meaning stated in Section A item A7 (ii) of the Standard Method of Measurement. Persons or firms nominated by the PROJECT MANAGER to execute work or to provide and fix materials or goods are described herein as Nominated Sub-Contractors. Persons or firms so nominated to supply goods or materials are described herein as Nominated Suppliers.		
B.	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.		
C.	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. 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.		
	<i>Carried to collection</i>		

ITEM	DESCRIPTION	KSHS	CTS
A.	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 , 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.		
B.	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 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".		
C.	DIRECT CONTRACTS		
	Notwithstanding the foregoing conditions, the Government reserves the right to place a "Direct Contract" for any goods or services required in the works which are covered by a P.C. Sum in the Bills of Quantities and to pay for the same direct. In any such instances, profit relative to the P.C. Sum in the priced Bills of Quantities will be adjusted as described for P.C. Sums is allowed.		
D.	ATTENDANCE UPON OTHER TRADESMEN, ETC.		
	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.		
	<i>Carried to collection</i>	-	

ITEM	DESCRIPTION	KSHS	CTS
A.	INSURANCE		
	<p>The Contractor shall insure as required in Conditions No. 30 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>		
B.	PROVISIONAL WORK		
	<p>All work described as "Provisional" in these Bills of Quantities is subject to re-measurement 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 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>		
C.	ALTERATIONS TO BILLS, PRICING, ETC.		
	<p>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>		
D.	BLASTING OPERATIONS		
	<p>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>		
	<i>Carried to collection</i>		

ITEM	DESCRIPTION	KSHS	CTS
A.	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.		
B.	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.		
C.	REMOVAL OF RUBBISH ETC.		
	Removal of rubbish and debris from the Buildings and site as it accumulates and at the completion of the works and remove all plant, scaffolding and unused materials at completion.		
D.	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		
	<i>Carried to collection</i>		

ITEM	DESCRIPTION	KSHS	CTS
A.	GENERAL SPECIFICATION.		
	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.		
B.	TRAINING LEVY		
	The Contractor's attention is drawn to National Industrial Training Authority Act CAP 237, which requires payment by the Contractor of a Training Levy at the rate of 50.00 per employee per month.		
C.	MATERIALS ON SITE		
	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.		
D.	HOARDING		
	The Contractor is required to take all precautions necessary for the safe custody of the works, materials, plant, public and Employer's property on the site.		
E.	CONTRACTOR'S SUPERINTENDENCE/SITE AGENT		
	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.		
	<i>Carried to Collection</i>		

ITEM	DESCRIPTION	KSHS	CTS
	<u>COLLECTION</u>		
	Brought Forward From Page GP/1		
	Brought Forward From Page GP/2		
	Brought Forward From Page GP/3		
	Brought Forward From Page GP/4		
	Brought Forward From Page GP/5		
	Brought Forward From Page GP/6		
	Brought Forward From Page GP/7		
	Brought Forward From Page GP/8		
	Brought Forward From Page GP/9		
	Brought Forward From Page GP/10		
	Brought Forward From Page GP/11		
	Brought Forward From Page GP/12		
	TOTAL FOR GENERAL PRELIMINARIES		
	CARRIED TO MAIN SUMMARY		

BUILDERS WORK

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Main block (main works) ELEMENT NO. 1; SUBSTRUCTURES (All Provisional)				
A	Clear area of new construction of all undergrowth, small bushes, grab up all trees and remove any existing structures and obstructions as directed.	Sm	900		
B	Cut down trees girth 900mm- 1200mm, remove out tree stumps and grab out roots, dispose off as directed and refill pits	No.	4		
C	Excavate oversite to remove vegetable soil, load and cart away from site to contractor's dumping area as directed; Average 200 mm depth	Sm	350		
D	Excavate to reduce levels commencing from stripped level: not exceeding 1.5 m deep	Cm	495		
E	Excavate to reduce levels commencing from stripped level: over 1.5m not exceeding 3.0 m deep	Cm	330		
F	Excavate for strip foundation trenches commencing from reduced level: not exceeding 1.5m deep	Cm	180		
G	Ditto for column bases	Cm	8		
H	Excavating in any class of rock as described in the specifications	Cm	50		
I	Return, fill and ram selected soil in foundations	Cm	825		
	<i>Substructure carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Substructure brought forward</i>				
J	Remove surplus soil and debris from site to a place approved by local authority	Cm	100		
K	Allow for upholding and supporting sides of excavations including any necessary plunking and strutting	Item	1		
M	Allow for keep excavations free of spring, underground or running water including any necessary pumping, bailing or other approved means	Item	1		
	<u>Mass concrete mix (1:3:6):in</u>				
A	50 mm Thick blinding under strip foundations	Sm	120		
B	Ditto under column bases	Sm	24		
	<u>Vibrated reinforced insitu concrete class 25/20; with minimum cube crushing strength of 25N/mm² at 28 days; in</u>				
C	Strip foundations	Cm	50		
D	Column bases	Cm	12		
E	Columns	Cm	8		
F	Ground floor slab; 150 mm thick	Sm	290		
G	Ramps; Ditto	Sm	4		
H	Steps	Cm	4		
	<i>Substructure carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>Mesh fabric reinforcement</u>				
A	Mesh reinforcement No. A142 size 200 x 200 mm weighing 2.22 kg per square metre: in floor slab: including all necessary supports	Sm	290		
	<u>Supply and fix mild steel bar in structural concrete work including cutting, bending, hoisting, tying wire, spacing blocks and supporting all in position in foundation footing, column bases and columns</u>				
B	8 - 32 mm Bars	Kg	6000		
	<u>Sawn formwork: to</u>				
C	Vertical sides of column bases	Sm	22		
D	Sides of columns	Sm	48		
E	Sides of strip footing	Sm	120		
F	Edges of steps; cut to profile of steps	Sm	6		
G	Edges of slabs; 150 - 225 mm girth	Lm	100		
	<u>Walls</u>				
A	Medium Chisel dressed natural stone walling bedded in cement and sand mortar (1:4) with minimum stone crushing strength of 14N/mm ² ; foundations	Sm	400		
	<i>Substructure carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Substructure brought forward</i>				
	<u>Hardcore</u>				
B	300 mm thick hardcore of approved inert material: well watered and compacted in 150 mm thick (maximum) layers	Sm	290		
	<u>Blinding</u>				
C	50 mm Thick approved quality murrum blinding to surfaces of hardcore	Sm	290		
	<u>Anti-termite treatment</u>				
D	Termidor 25EC or other approved anti-termite chemical treatment to surfaces of blinded hardcore and around foundations : applied by approved professional pest control specialist: applied strictly in accordance with the manufacturer's instructions: 10 year guarantee	Sm	290		
	<u>DPM</u>				
E	Gauge 1000 polythene damp proof membrane	Sm	290		
	<u>25 mm Thick cement and sand (1:4) rendering: on concrete or stonework: wood float: to</u>				
F	Plinths: externally	Sm	60		
	<i>Substructure carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Substructure brought forward</i>				
	<u>Prepare surfaces and apply undercoat and two finishing coats black bitumastic or other equal approved water resistant paint: on rendered surfaces: to</u>				
G	Plinths: externally	Sm	60		
	<u>Substructures carried to summary page</u>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	ELEMENT NO. 2; CONCRETE WORKS				
	Sawn formwork: to				
A	Sides and soffits: ring beams and lintols	Sm	120		
B	Columns; vertical sides	Sm	66		
	<u>Supply and fix mild steel bar in structural concrete work including cutting, bending, hoisting, tying wire, spacing blocks and supporting all in position</u>				
C	8 - 32 mm Bars	Kg	6500		
	<u>Vibrated reinforced insitu concrete class 25/20; with minimum cube crushing strength of 25N/mm² at 28 days; in</u>				
D	Beams and lintols	Cm	36		
E	Columns	Cm	8		
	Concrete works carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>ELEMENT NO. 3; WALLS</u>				
	<u>External walls</u>				
	<u>Dressed natural quarry stone walling bedded in cement and sand mortar (1:3) with minimum stone crushing strength of 7N/mm²</u>				
A	200 mm Thick walls	Sm	330		
	<u>Internal</u>				
	<u>Natural stone walls: machine cut: bedded and jointed in cement and sand (1:3) mortar</u>				
B	200 mm Thick walls	Sm	130		
	<u>Bituminous felt or other equal approved damp-proof course: in cement/ sand (1:3) mortar</u>				
C	200 mm Wide	Lm	200		
D	12mm flexcell expansion joint	Sm	32		
	Walls carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>ELEMENT NO. 4: ROOF</u>				
	<u>Roof cover</u>				
A	Gauge 28 orientile shaped roof cover fixed with rubber washers to match.	Sm	450		
B	Ditto 450mm wide ridge / hip cover.	Lm	70		
C	Ditto valley gutter	Lm	20		
D	Raking and cutting roof cover at hips and valleys	Lm	70		
	<u>All in sawn celcured and well seasoned cypress:- 12mm diametre 300mm long mild steel anchor bolts with head, nut, washers and split ring cast into ring beam and bolted to wall plate(m.s) work.</u>				
E	- 150 x 50mm Tie beam	Lm	320		
F	150 x 50mm rafter, half rafters, valley & hip rafters (Rafters at 1.2m centre)	Lm	400		
G	100 x 50mm struts and king post	Lm	450		
	<u>end of trusses</u>				
H	150 x 50mm wall plate.	Lm	190		
I	75 x 50mm purlins (at 600mm centres)	Lm	800		
J	200 x 25mm wrott fascia and verge board	Lm	100		
	<u>Sundries</u>				
K	Bed wall plate(m.s) in cement sand mortar 1:3	Lm	190		
	<i>Roof carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Roof brought forward</i>				
M	Bore 12mm diameter holes through 50mm thick wall plate at 2m centres.	No.	95		
N	Knot, prime, stop and apply 3 coats super gloss oil paint to surfaces of fascia and vergeboard 200-300mm high.	Lm	100		
	<i>Rain water goods</i>				
A	150mm half diameter u.P.V.C gutters of 6lm lengths	Lm	90		
B	150mm half diameter u.P.V.C holder clips at 1.2m centre and at ends, complete with screws	No.	75		
C	Extra over ditto for connectors at joints nailed to fascia(m.s)	No.	16		
D	Extra over ditto for stoped ends	No.	8		
E	Extra over ditto swannecks	No.	5		
F	75mm diameter p.v.c downpipe to match, clipped to walls	Lm	30		
G	Extra over ditto for 600mm long shoe	No.	5		
H	Ditto bends	No.	24		

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Roof carried to summary page				
	ELEMENT NO. 5; DOORS				
	<u>Timber Doors</u>				
	<u>45 mm thick flush door: solid core; Mahogany veneered to both sides; hardwood lipped edges; refer to Architect's details</u>				
A	Single leaf door; overall size 900 x 2400 mm high; with 6 mm thick clear fanlight glazing overall size 860 x 300 mm high complete with all beadings	No	5		
	<u>Supply and fix the following mahogany glazed doors comprising of 150 x 50mm bottom rail, top rail, middle rail, transomes and stiles; 6 mm thick toughened glass and glazing infill with and including glazing beads; All as per architect's drawings and details</u>				
A	Single leaf door; overall size 900 x 2400 mm high; with 6 mm thick clear fanlight glazing overall size 860 x 300 mm high complete with all beadings	No	3		
B	Double door; overall size 1800 x 2400 mm high; with 6 mm thick clear fanlight glazing overall size 1760 x 300 mm high complete with all beadings	No	4		
	<i>Doors carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Doors brought forward</i>				
	<u>Roller shutter door</u>				
A	Supply and fix 2500mm x 2400mm galvanized roller shutter door complete with barrel, springs, hanger rings, end plates, canopy, vertical guide rails, curtain; 80mm slats, T bar or bottom rail	No	4		
	<u>Prepare surfaces and apply three coats of approved gloss oil paint to metal surfaces</u>				
B	Doors: both sides measured	Sm	50		
	<u>Wrot mahogany: prime grade; with stainless steel fixing straps; including chasing to masonry, plugging and making good</u>				
A	200 x 50 mm Door frame: twice rebated: plugged	Lm	82		
B	50 x 25 mm Architrave: splayed	Lm	66		
C	25 x 25 mm Quadrant	Lm	66		
	<u>Prepare and apply one coat of aluminium wood primer on timber surfaces in contact with concrete or masonry</u>				
D	Over 100 but not exceeding 200 mm girth	Lm	214		
	<u>Prepare surfaces: apply two coats clear pinotex spirit in clear matt varnish: on timber surfaces: to</u>				
E	Over 100 but not exceeding 200 mm girth	Lm	214		
	<i>Doors carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Doors brought forward</i>				
F	General timber surfaces: doors <u>Supply and fix: 'UNION' or other equal approved ironmongery: matching screws: locks to include a set of 3 keys: available from their authorised local dealers; brass finish to architects approval</u>	Sm	56		
A	100mm brass butt hinges	Prs	24		
B	Two lever mortice lock with handles	No	12		
C	Door closer	No	12		
D	38 mm Diameter oval rubber stop; floor or wall mounted	No	16		
	Door carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	ELEMENT NO. 6; WINDOWS				
	<u>Approved pre-cast concrete cill: bedded and jointed in cement (sand (1:3) mortar: pointed in matching coloured cement</u>				
A	250 x 50 mm Thick cill; once weathered and throated	Lm	40		
	<u>Supply and fix the following purpose made steel casement purpose made windows, including all necessary cuttings lugs, stays and bedding into walls in cement sand mortar 1:4 complete with stays, fasteners, all necessary accessories and priming once in red-oxide, to Architects approval, with minimal burglar proofing in 20mm angle line framing</u>				
A	- Window size 2500 x 750mm high. For stores	No.	2		
B	Ditto size 2500 x 1500mm high. For laboratory	No.	5		
C	Ditto size 1200 x 1500mm high.	No	2		
D	Ditto size 2000 x 1500mm high.	No.	6		
	<u>Glazing</u>				
F	4mm thick mild tinted sheet glass in panes 0.1-0.5sm fixed in steel window panes with putty.	Sm	54		

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>Painting</u> <u><i>Prepare, prime and apply 3 coats of super gloss oil paint as "crown" or any other equal and approved to surfaces of:</i></u>				
A	- Windows externally <i>Windows carried forward</i>	Sm	8		
	<u>Windows brought forward</u>				
B	Windows internally	Sm	8		
	<u>Curtain rods</u>				
A	Supply and fix 2900mm long double curtain rod for both vertical blinders and sheers with a strong chrome pipe of 28mm diameter, 2pcs finials, 2pcs end cups, 4pcs brackets, rings, screws and anchor to install	No	10		
	Window carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Element 07; Ceiling				
A	10mm thick chipboard ceiling fixed in rectangular shape	Sm	340		
B	10 x 75mm ditto cornice plugged and nailed to battens	Lm	320		
C	Extra-over ditto in access door size 450 x 600mm, including framing in 75 x 50mm sawn cypress	No.	2		
	Branding				
D	50 x 50mm sawn cypress branding	Lm	500		
E	50 x 75mm ditto.	Lm	800		
	Ceiling carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>ELEMENT 8; Fixtures and fittings</u>				
	<u>Shelving to packaging room</u>				
	<u>20 mm thick block board storage shelves supported of mild steel 25 x 25 mm frames; painted to approval; 450 mm wide</u>				
A	10000 mm long x 450 mm deep x 3000 mm high	Sm	50		
B	Ditto for cabinet below the worktop in seed lab	Sm	30		
	Ceiling carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>ELEMENT 9; FINISHES</u>				
	FLOOR FINISHES				
A	30mm thick cement sand 1:2 backing to receive ceramic floor tiles or terrazzo (s.m)/Skirting	Sm	300		
B	20mm thick polished terrazzo paving to floor and the worktop including plastic strip dividers/skirting	Sm	300		
	<u>walls internally</u>				
H	12mm thick gauged plaster cement sand lime 1:1:6 with a smooth float to walls, beams and columns internally	Sm	400		
I	Ditto to reveals and jambs.	Sm	30		
	<u>Walls Externaly</u>				
H	12mm thick gauged cement sand render 1:2 finished with a wood float to beams and columns	Sm	215		
I	Keying in cement sand 1:2, pointing in gloss oil paint and wire brushing natural machine cut stone externally	Sm	130		
	Finishes carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	ELEMENT 10; PAINTING & DECORATIONS <u><i>Prepare and apply 3 coats silk vinyle emulsion paint as "crown" or any other equal and approved paint to</i></u>				
A	Plastered walls internally	Sm	400		
B	Soffites of chip board ceiling	Sm	340		
C	Plastered walls externally	Sm	215		
	Painting carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>RAISED CONCRETE WATER TANK STAND 4500mm high from ground level</u>				
	Element 01: Substructure (all provisional)				
A	Clear area of new construction of all undergrowth, small bushes, grab up all trees and remove any existing structures and obstructions as directed.	Sm	16		
B	Excavate for column bases commencing from ground level level: not exceeding 1.5 m deep	Cm	14		
C	Return, fill and ram selected soil in foundations	Cm	13		
	<u>Vibrated reinforced insitu concrete class 25/20; with minimum cube crushing strength of 25N/mm² at 28 days; in</u>				
A	Column bases 200mm thick	Cm	2		
B	Sub structure and superstructure columns 400mmx400mm size	Cm	4		
	<u>Supply and fix mild steel bar in structural concrete work including cutting, bending, hoisting, tying wire, spacing blocks and supporting all in position</u>				
C	8 - 12 mm Bars for substructure columns, column bases, superstructure columns ring beams and slab	Kgs	478		
	<i>Raised conc. Water tank stand carried forward</i>				
	<i>Raised conc. Water tank stand brought forward</i>				
	<u>Sawn formwork: to</u>				
D	Vertical sides of coulumn bases	Sm	2		

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
E	Sides of columns	Sm	10		
	<u>Superstructure works</u> Sawn formwork: to				
F	Sides and soffits: beams	Sm	11		
G	Soffits and sides of suspended slab	Sm	9		
	<u>Vibrated reinforced insitu concrete class 25/20; with minimum cube crushing strength of 25N/mm² at 28 days; in</u>				
H	Slab and beams	Cm	5		
	<u>Plaster: 15 mm cement/lime putty/sand: steel trowelled: on masonry or concrete: to</u>				
I	concrete surfaces	Sm	98		
K	Purchase and instal 5,000 liters cylindrical kentank plastic water tank	Item	1		
	Sub total for construction of raised concrete water tank stand				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>SUMMARY OF ELEMENTS</u>				
A	ELEMENT NO. 1 , SUBSTRUCTURE				
B	ELEMENT NO 2, R.c WORKS				
C	ELEMENT NO 3, WALLING				
D	ELEMENT NO. 4, ROOF				
E	ELEMENT NO. 5 , DOORS				
F	ELEMENT NO. 6 , WINDOWS				
G	ELEMENT NO. 7 , CEILING				
H	ELEMENT NO. 8 , FIXTURES & Fittings				
I	ELEMENT NO 9, FINISHES				
J	ELEMENT NO. 10 PAINTING & DECORATIONS				
K	RAISED WATER TANK STAND				
	TOTAL FOR BUILDERS WORK CARRIED TO GRAND SUMMARY.				

MECHANICAL WORKS

Item	Description	Unit	Qty	Rate	Amount (ksh)
	<p><u>MECHANICAL ENGINEERING SERVICES</u> <u>BQ</u></p> <p>Bill No1: SANITARY APPLIANCES</p> <p>Supply, 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. Note:</p> <p>(i) All sanitary fittings shall be in approved colour.</p> <p>(ii) The Model and Ref No. indicated is only a guide to the type and quality of fittings.</p> <p>(iii) Equivalent and Approved models may be acceptable.</p>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<p><u>BILL NO.2: INTERNAL WATER CONNECTION</u></p> <p>Supply and install tubing and fittings as described and shown on the drawings. Tenderers must allow for jointings, couplings etc necessary for the proper and satisfactory functioning of the system when pricing the following in PN 20 PPRC conforming to the current European standards for PPR installations and to the Engineer's approval, pipe jointing shall be by polyfusion or use of electric coupling Rates must allow for all the Metal/plastic threaded adaptors where required for the connection of sanitary fixtures, valves, sockets, sliding and fixed joints, support raceways, isolating sheaths, elastic materials, expansion arms and bends, crossovers etc</p>				
	<u>PPR Pipes</u>				
A	20mm dia pipe chased in walls/floors	Lm	30		-
B	25mm –ditto-	Lm	20		-
C	32mm –ditto-	Lm	30		-
	<u>Extra-over PPR pipework for the following:-</u>				
	<u>Bends/elbows</u>				
G	20mm dia bend	No	10		
H	25mm bend	No	10		
I	32mm bend	No	5		
L	20x1/2" dia male threaded 90o bend	No	5		
M	20x1/2" dia female threaded 90o bend	No	5		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Sanitary appliances brought forward</i>				
	<u>Tees</u>				
N	25mm diameter equal tee	No	5		
O	25x1/2" female threaded tee	No	5		
P	25x1/2" male threaded tee	No	10		
Q	32mm diameter equal tee	No	5		
R	20mm dia tee	No	10		
	<u>Unions</u>				
A	20mm dia union	No	5		
B	25mm –ditto-	No	5		
C	32mm –ditto-	No	5		
	<u>Reducers</u>				
F	25/20mm reducers	No	5		
G	32/25mm reducers	No	5		
	<u>Gate valve</u>				
J	20mm Pegler	No	3		
K	25mm –ditto-	No	3		
L	32mm –ditto-	No	2		
	<u>Flexible connectors</u>				
O	450mm chrome plated flexible connector with chrome plated angle check valve size 15mm dia including unions and sockets to connect sanitary fittings to PP-R Pipework	No	5		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Sanitary appliances brought forward</i>				
	<u>Supply, deliver and install the following vulcathene laboratory system including waste outlets, sinks, drip cups, anti-siphon traps, dilution recovery traps and associated comprehensive range of pipe and fittings for the given sizes all as vulcathene or approved equivalent</u>				
A	<p>Laboratory sink</p> <p>A sink of preferred dimensions 552mm x 400mm with a depth of 231mm having a drain of 74mm, that is extremely robust and moulded with a self draining base with its recessed outlet to accept the flange of 1 1/2" (40mm) non overflow threaded outlet but if required, an overflow assembly can be fitted. The sink to be complete with anti siphon traps that can stop the backflow of potentially harzadious fumes. All the downstream fittings to be as vulcathene.</p>	No	2		
B	<p>Three way Assay Lab Faucet in solid brass High gloss epoxy powder , resistant to most chemicals, UV fading and heat. Ceramic headwork;90 deg turn, water static pressure max 10bar. To be complete with detachable brass serrated nozzle, splash controlled water filter attacheble, ergonomic high grade PP knob and 360 deg swing gooseneck spout.</p>	No	2		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Sanitary appliances brought forward</i>				
C	<p><u>Emergency Drencher Shower and Eye Fountain</u></p> <p>Body shower with eye/face shower and bowl modular in brass and stainless steel with chemical resistant red BROEN-LAB polycoat with self-draining shower head. The shower head with a pull to open mechanism and eye wash with a footpedal opening mechanism. Eye wash with built-in FLOWFIX for regulation of water flow at14l/min. Bowl in stainless steel with integrated out with a min working pressure of 1.5bar. all as BROEN-LAB or equal and approved</p>	No	1		
D	<p>Emergency shower instructions Wall mounted sign and instruction card for Body and Eye Shower above</p>	No	1		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<p><i>Sanitary appliances brought forward</i></p> <p><u>BILL NO.3 FOUL WATER INTERNAL DRAINAGE FROM THE WASHROOMS AND LABORATORY</u></p> <p>Supply and fix uPVC soil system to BS 4660 and BS 4515 and MuPVC waste systems to BS 5255 with screwed and socketed joints to BS 21. Solvent welded joints shall be as per the system's manufacturer's written instructions. 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.</p> <p><u>MuPVC and uPVC Waste and Soil pipework</u></p>				
A	150mm diameter heavy gauge grey mUPVC pipe	Lm	60		
B	100mm diameter heavy gauge grey mUPVC pipe	Lm	20		
C	50mm diameter waste pipe	Lm	50		
D	32mm diameter waste pipe	Lm	50		
	<u>Bends</u>				
E	150mm diameter access bend	No	4		
F	100mm diameter access bend	No	6		
G	150mm diameter sweep bend	No	6		
H	100mm diameter sweep bend	No	6		
I	50mm diameter sweep bend	No	6		
J	32mm diameter sweep bend	No	6		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Sanitary appliances brought forward</i>				
	<u>Tees</u>				
L	50mm diameter sweep tee	No	4		
M	32mm diameter sweep tee	No	4		
	<u>Access Caps</u>				
N	100mm diameter access cap	No	6		
P	32mm diameter access cap	No	6		
	<u>Boss Connectors</u>				
Q	150 x 100mm diameter boss connector	No	4		
R	100 x 50mm diameter boss connector	No	4		
S	50 x 32mm diameter boss connector	No	4		
	<u>Traps</u>				
D	100 x 50mm diameter floor trap and grating	No	4		
E	50 x 50mm diameter U-shaped tubular trap	No	4		
	<u>Testing and Commissioning</u>				
G	Allow for testing and commissioning of the plumbing and drainage installations to the satisfaction of the Engineer.	Item	1		
	<i>Sub total for sanitary appliances</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
C	Summary page SANITARY APPLIANCES				
	Total for sanitary appliances carried to summary page				

ELECTRICAL WORKS

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Electrical works				
A	Supply, deliver & install on site one gang one-way switches	No	6		
B	Supply, deliver & install on site one gang two-way switches	No	10		
C	Supply, deliver & install on site three gang two-way switches	No	1		
D	Supply, deliver & install on site one gang intermediate switch	No	2		
E	Supply, deliver & install on site two gang two-way switches	No	2		
F	Supply, deliver & Install 1200mm, 1x58w T26 LED fluorescent light fittings with Aluminium louvres (complete with tubes) as thorn, do wiring as appropriate using 3x1.5mm ² single core copper cables as E. African cable drawn in concealed pvc conduit. The fittings to be surface mounted on the ceiling & spaced as appropriate.	No	45		
G	Supply deliver to site, Install and do wiring of 1200mm single LED batten fluorescent fittings with prismatic diffuser (complete with tubes) wired in a 3x1.5mm ² PVC insulated single core copper cable drawn in a concealed 20mm PVC heavy gauge conduits	No	3		
H	Supply, deliver, Install & wire twin 13amps socket outlets drawn in concealed pvc conduit using 3x2.5mm ² single core copper cable in three ring circuit all terminated at the DB protected by 32Amps single pole MCB	No	22		
	Cont. electrical carried forward				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>electrical brought forward</i>				
I	Supply, deliver, Install in the processing area & wire five pin 32amps industrial socket outlets each as a final subcircuit from the DB isolated using 40Amps three pole MCB wired using 4x4.0mm ² single core copper cables as E. African cable drawn in concealed pvc conduit.	No	2		
J	Supply, deliver & install in the processing area 40Amps triple pole MCB as Schneider or equivalent as approved by project manager and housed in an enamel paint finish metal enclosure	No	2		
K	Supply, deliver & install on 32Ampsamps triple pole MCB to fit in the installed DB	No	2		
L	Supply, deliver & install on 10amps MCB to fit in the DB	No	4		
M	Supply, deliver & install single pole 32amps MCB to fit in the DB installed	No	3		
N	Supply, deliver & install 150x300mm concrete Danger Hatari tiles	No	270		
O	Excavate 250x600mm deep trench to lay the armoured cable	Cm	15		
P	Supply, deliver to site & install four core 16mm ² Armoured copper cable laid in 600mm deep trench pre-covered with "Danger Hatari" concrete tiles then back fill	Lm	80		
	<i>Cont. electrical carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>electrical brought forward</i>				
Q	Three phase 415v, 125Amps six ways distribution board as Havels or equivalent as approved by project manager	No	1		
R	Manhole of 450x450x600mm (LxWxH)using machine cut stone and plastered on internal faces complete with top 100mm concrete cover. Allow for 100mm ducts entry	No	2		
S	Supply, deliver to site & install four pole 125Amps MCCB plus Metal housing as Havels or equivalent as approved by project manager	No	1		
T	Supply and install concrete cable makers(UG) along the underground cable line	No	4		
	<u>SECURITY LIGHTING</u>				
A	Supply, deliver and install LED security lighting fitting 50watts as thorn or approved equivalent wired in a 3x1.5mm ² PVC insulated single copper cable drawn in a concealed 20mm PVC heavy gauge conduit	No	7		
B	Supply, deliver and install 240volts 32Amps contactor as Telemecanique or equivalent to switch on the security lights	No	1		
C	Supply, deliver and install 240volt 10amps Photo cell switch to activate the contactor "Ditto"	No	1		
D	Supply and do earthing at the building main connection point using 10mm ² single core cable and 12mmx1200mm copper earth rod	No	1		
	<i>Cont. electrical carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>electrical brought forward</i>				
E	Interconnect the item (O) above to the installed 3 phase DB using 5x16mm ² single core cables drawn in concealed pvc conduit as appropriate	No	1		
F	Supply and install <i>in situ</i> 100mm diameter heavy gauge UPVC pipe as duct (2No. Parallel ducts) from the constructed block to the rear side to receive the power cables	Lm	12		
	Sub total for electrical works carried to summary page				

CIVIL WORKS

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	CIVIL WORKS				
	Paving around the building				
B	Remove vegetable top soil average depth 150mm and dispose off as directed by P.M	Sm	120		
C	Provide, lay and compact 100mm thick approved murrum base	Sm	120		
D	Treat the surfaces with approved herbicide, with warranty of 10 years	Sm	120		
E	Provide, lay and joint in cement sand mortar 1:3 600 x 600 x 50mm p.c paving slabs including 50mm thick sand bed.	Sm	120		
	TOTAL FOR PAVING CARRIED TO GRAND SUMMARY				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	MANHOLES(all provisional)				
	The following in 12 No. Manholes class "B" All provisional				
	-				
A	Excavate manhole pit not exceeding 1.5m deep.	Cm	27		
B	Return, fill-in and consolidate excavated materials around manhole walls.	Cm	15		
C	Remove surplus excavated materials and deposit on site as directed.	Cm	12		
D	Extra-over excavation for excavating in rock class 'A'	Cm	2		
E	150mm thick mass concrete 1:3:6 in manhole base.	Sm	27		
	<u>Precast Concrete</u>				
F	100mm thick precast concrete 1:2:4 in manhole cover slab size 1380mmx1180mm, reinforced with 8mm diametre at 80mm centres both ways with rebated opening for 450x600mm cover and frame finished smooth including any necessary formwork.	Sm	12		
	<u>Benching</u>				
G	Concrete 1:3:6 in benching to bottom of manholes internal size 1000mmx800mm including haunching to a height of 200mm above channel and rendering in cement 1:2 trowelled smooth.	No.	12		
	<i>Manhole carried forward</i>				
	Ex2				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Manhole brought forward</i>				
H	Make or leave hole through 200mm concrete wall for 150mm diameter pipe (m.s) built-in and make good walls and render all round.	No.	24		
	<u>Extra-over benching to forming the following channels with external rounded angles with slopping top of benching:-</u>				
	-				
I	150mm diametre half-round section straight main channel 900mm long.	No.	12		
A	Ditto but curved 900mm long.	No.	12		
B	140mm thick masonry block walling in cement sand mortar 1:3.	Sm	72		
C	12mm thick cement sand 1:2 plaster to ditto with approved water-proofing admixture to internal sides of manholes trowelled smooth.	Sm	54		
D	Ditto but render to top and sides of cover slab and walling.	Sm	16		
E	Fiber manhole cover size 600mmx450mm and setting frame in cement sand mortar 1:3 and cover in grease.	No.	12		
F	Extra over formworks boxing to form opening for manhole cover(m.s)	No.	12		
	<i>Sub total for manhole carried to summary page</i>				
	Ex 3				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	SOAKAGE AREA(all provisional)				
	<u>The following in french drains as per standard drawing No.(50) 5344, average 5Lm</u>				
	-				
A	Excavate trench for french drains, not exceeding 1.5m deep starting from original ground level	Cm	4		
B	Extra-over excavation for excavating in rock class 'A'	Cm	1		
C	Cart away excavated materials from site.	Cm	2		
D	Trim sides of french drain to slope.	Sm	12		
E	20-60mm crushed stones or washed gravel.	Cm	2		
F	Back filling selected excavated soils mean thickness 350mm	Cm	1		
G	Imported 200mm thick compacted murrum	Cm	1		
H	500 gauge polythene sheet.	Sm	6		
I	150mm diametre agricultural or perforated upvc pipe laid to falls in units of 450mm lengths with 10mm open joints covered to top half with 100mm width paper.	Lm	6		
	TOTAL FOR SOAKAGE AREA CARRIED TO SUMMARY				
	Ex 4				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	1-No. SOAK- PITS(all provisional)				
	<u>The following in 1-No soakpits as per drawing No.M.o.W(50) 5345</u>				
A	Excavate pit not exceeding 1.5m deep starting from original ground level	Cm	6		
B	Ditto between 1.5m-3.0m deep.	Cm	6		
C	Ditto between 3.0m-4.5m deep.	Cm	6		
F	Extra-over excavation for excavating in rock class 'A'	Cm	8		
G	Cart away surplus excated materials from site.	Cm	20		
H	Return, fill-in and consolidate excavated materials around foundations.	Cm	6		
I	Mass concrete 1:3:6.	Cm	1		
J	100mm thick vibrated reinforced concrete 1:2:4 in cover slab.	Sm	4		
K	12mm diametre high tensile square twisted bars to B/s 4449	Kg	25		
	<u>Sawn formwork to:-</u>				
M	Soffites of suspended slab	Sm	4		
N	Edges of suspended cover slab girth 75-150mm.	Lm	8		
A	Boxing to form opening size 600x450mm in 150mm thick suspended cover slab, rebated all round.	No.	1		
	<i>Soak pit carried forward</i>				
	Ex 5				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Soak pit brought forward</i>				
B	Form or leave 150mm diametre hole in 150mm thick block walling.	No.	1		
C	Building in, 150mm diametre drain pipe through 150mm thick walling and make good in cement sand render 1:3.	No.	1		
	<u>approved machine cut walling in cement sand mortar 1:3:-</u>				
D	150mm walling coved on plain 740mm radius.	Sm	15		
E	12mm thick cement sand 1:4, rendering coved to wall radius	Sm	15		
F	Ditto but to top and edges of suspended slab.	Sm	5		
G	Fiber manhole cover size 600mmx450mm and setting frame in cement sand mortar 1:3 and cover in grease.	No.	1		
	CARRIED TO COLLECTION				
	Ex 6				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Septic tank brought forward</i>				
	<u>Vibrated reinforced concrete 1:2:4 to:-</u>				
I	150mm floor bed laid to falls not exceeding 15 degrees from horizontal.	Sm	24		
J	Ditto floor bed	Sm	12		
K	Ditto manhole footing	Sm	2		
L	150mm thick suspended scum baffle walling.	Sm	8		
A	200mm thick scum baffle walling with slats	Sm	8		
B	250mm thick extenal walling	Sm	70		
C	150mm thick cover slab.	Sm	24		
	<u>Sawn formwork to:-</u>				
D	Sides and Soffites of suspended scum baffle.	Sm	8		
E	Ditto sides of baffle walling	Sm	8		
F	Sides of extenal walling	Sm	40		
G	Soffites of cover slab.	Sm	24		
H	Boxing to ditto for manhole cover(m.s) opening size 450 x 600mm.	No.	4		
I	Sides and edges of cover slab 150-225mm high.	Lm	22		
	<u>Reinforcement</u>				
J	10mm diameter bars	Kg	440		
	<i>Septic tank carried forward</i>				
	Ex 8				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Septic tank brought forward</i>				
K	20mm cement sand 1:2 floor screed, water proofed with pudlo and trowelled smooth, not exceeding 15 degrees to horizontal with sulphate resistant cement.	Sm	24		
L	Ditto to horizontal floors	Sm	12		
M	Ditto manhole bases	Sm	2		
N	Ditto to sides and soffites of suspended scum baffles.	Sm	21		
P	Sides of scum baffle walling	Sm	20		
Q	Ditto to walls.	Sm	100		
R	Ditto to top and sides of cover slab.	Sm	12		
A	Approved Heavy duty plastic manhole cover and frame size 600 x 450mm including bedding frame in cement and sand mortar 1:2 and setting cover in greese.	No.	4		
B	100mm diametre P.V.C inlet pipe with equal "Tee" 450mm long.	No.	1		
C	100mm diametre U.P.V.C out-let pipe 750mm long	No.	1		
D	Form or leave 150mm diametre hole in 250mm walling.	No.	4		
E	25mm diameter bitumen coated cast iron step bars 600mm long with 300mm long footing , sunk into concrete walling	No.	6		
	Sub total for septic tank				
	Ex 8				

PC & PROVISIONAL SUMS

ITEM	DESCRIPTION	UNIT	AMOUNT
	PROVISIONAL SUMS		
	-		
	<u>The Contractor shall include in his tender the following to be deducted in whole or in part as directed by the Project Manager.</u>		
	-		
A	Allow a provisional sum of Kenya Shillings Five hundred thousand (Kshs.500,000/=) only for contingencies.		500,000.00
PC CARRIED TO GRAND SUMMARY			500,000.00

ITEM	DESCRIPTION		AMOUNT
	<u>PROPOSED CONSTRUCTION OF SEED CENTRE FOR NYERI SUB CENTER</u>		
	<u>MAIN SUMMARY</u>	<u>PAGE</u>	
1.	PARTICULAR PRELIMINARIES		
2.	GENERAL PRELIMINARIES	-	
		-	
3.	BUILDERS WORK		
4.	MECHANICAL INSTALLATIONS WORKS		
5.	ELECTRICAL INSTALLATIONS		
6.	CIVIL WORKS		
7.	PC & PROVISIONAL SUMS		
	-		
	SUB- TOTAL		
	VAT - 16%		
	TOTAL CARRIED TO LOT 1 SUMMARY PAGE	KSHS	

RUMURUTI SUB-CENTRE

SITE 2 OF LOT 1

PARTICULAR PRELIMINARIES

ITEM	DESCRIPTION	Kshs.	Cts
<p>A</p>	<p><u>PARTICULAR PRELIMINARIES</u></p> <p>PRICING ITEMS OF PRELIMINARIES</p> <p>Prices SHALL BE INSERTED against items of “preliminaries” in the tenderer’s priced Bills of Quantities. 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. The contractor is advised to read and understand all preliminary items.</p>		
<p>B</p>	<p>DESCRIPTION OF THE WORKS</p> <p>The works to be carried out under this contract involves substructures works, walling, steel windows, timber and steel doors, terrazzo floor finishes, chipboard ceiling finishes and joinery fittings and all associated electrical, mechanical and civil works</p>		
<p>C</p>	<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 22 of the Conditions of Contract. The discrepancies shall then be treated as a variation and be dealt with in accordance with Clause 22 of the said Conditions.</p>		
<p>D</p>	<p>LOCATION OF SITE</p> <p>The sites are located at KEFRI Nyeri Seed Sub-Centre, Rumuruti Seed Sub-Centre and Baringo - Marigat Seed Sub-Centre</p>		
	<p>Carried to Collection</p>		

ITEM	DESCRIPTION	Kshs.	Cts
A	<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 claim or intent to claim notice to the PROJECT MANAGER within the contract period. No claims shall be entertained upon the expiry of the said contract period.</p>		
B	<p>PAYMENTS</p> <p>The tenderer's attention is drawn to the fact that the GOVERNMENT SHALL NOT MAKE ADVANCE PAYMENTS</p>		
C	<p>PREVENTION OF ACCIDENT, DAMAGE OR LOSS</p> <p>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 instructed to take reasonable care in the execution of the works as to prevent accidents, damage or loss and disruption of normal activities being carried out by the Client. The Contractor shall allow in his rates any expense he deems necessary by taking such care within the site.</p>		
D	<p>BID SECURITY</p> <p>The contractor shall provide a dully filled tender securing declaration form in the provided format.</p>		
Carried to Collection			

ITEM	DESCRIPTION	Kshs.	Cts
A	<p>WORKING CONDITIONS</p> <p>The Contractor shall allow in this tender for any interference that he may encounter in the course of execution 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>		
B	<p>SIGNBOARD</p> <p>Allow for providing, erecting, maintaining throughout the course of the Contract and afterwards clearing away the signboard as designed, specified and approved by the Project Manager.</p>		
C	<p>LABOUR CAMPS</p> <p>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>		
D	<p>MATERIALS FROM DEMOLITIONS</p> <p>The Contractor shall allow for a credit for salvaged materials. Any materials arising from demolitions shall not be re-used. The Contractor shall allow for carting away all demolished materials.</p>		
E	<p>PRICING RATES</p> <p>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>		
	Carried to Collection		

ITEM	DESCRIPTION	Kshs.	Cts
A	<p>URGENCY OF THE WORKS</p> <p>The Contractor is notified that these “works are urgent” and should be completed within the period stated in these Particular Preliminaries. The Contractor shall allow in this tender for any costs he deems that he/she may incur by having to complete the works within the stipulated contract period.</p>		
B	<p>PAYMENT FOR MATERIALS ON SITE</p> <p>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</p> <p>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 which may be required by the authorities concerned for the support, maintenance and protection of such services.</p>		
Carried to Collection			

ITEM	DESCRIPTION	Kshs.	Cts
A	<p>TENDER DOCUMENTS</p> <p>Tender documents are as listed in Clause 2.1 of the Instruction to Tenderer's</p>		
B	<p>DELIVERY OF TENDER</p> <p>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>		
C	<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. Notice No. 35 & 36 Dated 11th September 2003 operational from 1st October 2003, withholding VAT will be levied against the contract sum by the Employer . The contractor should therefore include this tax in the Grand Summary page as indicated herein. The tenderer is advised that in accordance with the Finance Act 2014 withholding VAT tax was reintroduced at a rate of 2% with effect from 7th November, 2019</p>		
	Carried to collection		

ITEM	DESCRIPTION	Kshs.	Cts
	<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</p> <p>Defects Liability Period</p> <p>Date for Possession</p> <p>Date for Completion</p> <p>Liquidated and Ascertained Damages</p> <p>Period of Interim Certificates</p> <p>Percentage of Certified Value Retained</p> <p>Limit of Retention Fund</p>	<p>-</p> <p>-</p> <p>3 Months from Practical Completion</p> <p>6 Months from Practical Completion</p> <p>To be agreed with the Project Manager</p> <p>32 weeks from date of Possession</p> <p>at a rate of Kshs 5,000.00 Per day or part thereof</p> <p>Monthly</p> <p>10%</p> <p>5%</p>	
	Carried to Collection		

ITEM	DESCRIPTION	Kshs.	Cts
	<p><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> <p>Brought forward from page PP/8</p>		
	<p>PARTICULAR PRELIMINARIES CARRIED TO MAIN SUMMARY</p>		

GENERAL PRELIMINARIES

ITEM	DESCRIPTION	KSHS	CTS
-	GENERAL PRELIMINARIES		
A.	PRICING OF ITEMS OF PRELIMINARIES AND PREAMBLES		
	Prices will be inserted against items of Preliminaries in the Contractor's priced Bills of Quantities and Specification.		
	The Contractor shall be deemed to have included in his prices or rates for the various items in the Bills of Quantities or Specification for all costs involved in complying with all the requirements for the proper execution of the whole of the works in the Contract.		
B.	ABBREVIATIONS		
	Throughout these Bills, units of measurement and terms are abbreviated and shall be interpreted as follows:-		
	<i>C.M.</i> Shall mean cubic metre		
	<i>S.M.</i> Shall mean square metre		
	<i>L.M.</i> Shall mean linear metre		
	<i>MM</i> Shall mean Millimetre		
	<i>Kg.</i> Shall mean Kilogramme		
	<i>No.</i> Shall mean Number		
	<i>Prs.</i> Shall mean Pairs		
	<i>B.S.</i> Shall mean the British Standard Specification Published by the British Standards Institution, 2 Park Street, London W.1., England.		
	<i>Ditto</i> Shall mean the whole of the preceding description except as qualified in the description in which it occurs.		
	<i>m.s.</i> Shall mean measured separately.		
	<i>a.b.d</i> Shall mean as before described.		
	<i>Carried to collection</i>		

ITEM	DESCRIPTION	KSHS	CTS
A.	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:-		
	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.		
	<i>Fix Only:-</i>		
	"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.		
B.	EMPLOYER		
	The "Employer" is Kenya Forestry Research Institute		
	The term "Employer" and "Government" wherever used in the contract document shall be synonymous		
C.	PROJECT MANAGER		
	The term "P.M." 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 as may be duly authorized to represent him on behalf of the Government.		

ITEM	DESCRIPTION	KSHS	CTS
D.	ARCHITECT		
	The term "Architect" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 30743, NAIROBI.		
E.	QUANTITY SURVEYOR		
	The term "Quantity Surveyor" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 30743, NAIROBI.		
	<i>Carried to collection</i>	-	
A.	ELECTRICAL ENGINEER		
	The term "Electrical Engineer" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 41191, NAIROBI.		
B.	MECHANICAL ENGINEER		
	The term "Mechanical Engineer" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 41191, NAIROBI.		

ITEM	DESCRIPTION	KSHS	CTS
C	STRUCTURAL ENGINEER		
	The term "Structural Engineer" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 41191, NAIROBI.		
D	FORM OF CONTRACT		
	The Form of Contract shall be as stipulated in the Republic of Kenya's Standard Tender Document for Procurement of Building Works(2006 Edition) included herein The Conditions of Contract are also included herein Conditions of Contract These are numbered from 1 to 37 as set out in pages 16 to 36 of these tender documents. 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		
E.	PERFORMANCE BOND.		
	The Contractor shall find and submit on the Form of Tender from an approved Bank and who will be willing to be bound the Government in an amount equal to five per cent (5%) of the Contract amount for the due performances of the Contract up to the date of completion as certified by the PROJECT MANAGER and who will when and if called upon, sign a Bond to that effect on the relevant standard form included herein. (without the addition of any limitations) on the same day as the Contract Agreement is signed, by the Government, the Contractor shall furnish within seven days another Surety to the approval of the Government.		
	<i>Carried to collection</i>		
A.	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.		

ITEM	DESCRIPTION	KSHS	CTS
B.	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.		
C.	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.		
D.	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 delivery 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		
E.	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.		
	<i>Carried to collection</i>	-	

ITEM	DESCRIPTION	KSHS	CTS
A.	SAMPLES		
	<p>The Contractor shall furnish at his own cost any samples of materials or workmanship including concrete test cubes required for the works that may be called for by the PROJECT MANAGER for his approval until such samples are approved by the PROJECT MANAGER and the PROJECT MANAGER, may reject any materials or workmanship not in his opinion to be up to approved samples. The PROJECT MANAGER shall arrange for the testing of such materials as he may at his discretion deem desirable, but the testing shall be made at the expense of the Contractor and not at the expense of the PROJECT MANAGER. The Contractor shall pay for the testing in accordance with the current scale of testing charges laid down by the State Department of Public Works, Ministry of Land, Housing and Urban Development.</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>		
B.	GOVERNMENT ACTS REGARDING WORK PEOPLE ETC.		
	<p>Allow for complying with all Government Acts, Orders and Regulations in connection with the employment of Labour and other matters related to the execution of the works. In particular the Contractor's attention is drawn to the provisions of the Factory Act 1950 and his tender must include for all costs arising or resulting from compliance with any Act, Order or Regulation relating to Insurances, pensions and holidays for workpeople or so the safety, health and welfare of the workpeople. The Contractor must make himself fully acquainted with current Acts and Regulations, including Police Regulations regarding the movement, housing, security and control of labour, labour camps , passes for transport, etc. It is most important that the Contractor, before tendering, shall obtain from the relevant Authority the fullest information regarding all such regulations and/or restrictions which may affect the information regarding all such regulations and/or restrictions which may affect the 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>		

ITEM	DESCRIPTION	KSHS	CTS
C.	SECURITY OF WORKS ETC.		
	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.		
	<i>Carried to collection</i>		
A.	PUBLIC AND PRIVATE ROADS.		
	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		
B.	EXISTING PROPERTY.		
	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		
C.	VISIT SITE AND EXAMINE DRAWINGS.		
	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.		
D.	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 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		

ITEM	DESCRIPTION	KSHS	CTS
	satisfaction of the PROJECT MANAGER		
E.	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		
	<i>Carried to collection</i>	-	
A.	OFFICE ETC. FOR THE PROJECT MANAGER		
	The Contractor shall provide and maintain where directed on site a room to be used as the site office, complete with Furniture.		
B.	WATER AND ELECTRICITY SUPPLY FOR THE WORKS		
	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.		
C.	SANITATION OF THE WORKS		
	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		
D.	SUPERVISION AND WORKING HOURS		
	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.		

ITEM	DESCRIPTION	KSHS	CTS
E.	PROVISIONAL SUMS.		
	The term "Provisional Sum" wherever used in these Bills of Quantities shall have the meaning stated in Section A item A7(i) of the Standard Method of Measurement. Such sums are net and no addition shall be made to them for profit.		
	<i>Carried to collection</i>		
A.	PRIME COST (OR P.C.) SUMS.		
	The term "Prime Cost Sum" or "P.C. Sum" wherever used in these Bills of Quantities shall have the meaning stated in Section A item A7 (ii) of the Standard Method of Measurement. Persons or firms nominated by the PROJECT MANAGER to execute work or to provide and fix materials or goods are described herein as Nominated Sub-Contractors. Persons or firms so nominated to supply goods or materials are described herein as Nominated Suppliers.		
B.	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.		
C.	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. 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.		
	<i>Carried to collection</i>		

ITEM	DESCRIPTION	KSHS	CTS
A.	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 , 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.		
B.	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 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".		
C.	DIRECT CONTRACTS		
	Notwithstanding the foregoing conditions, the Government reserves the right to place a "Direct Contract" for any goods or services required in the works which are covered by a P.C. Sum in the Bills of Quantities and to pay for the same direct. In any such instances, profit relative to the P.C. Sum in the priced Bills of Quantities will be adjusted as described for P.C. Sums is allowed.		
D.	ATTENDANCE UPON OTHER TRADESMEN, ETC.		
	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.		
	<i>Carried to collection</i>	-	

ITEM	DESCRIPTION	KSHS	CTS
A.	INSURANCE		
	<p>The Contractor shall insure as required in Conditions No. 30 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>		
B.	PROVISIONAL WORK		
	<p>All work described as "Provisional" in these Bills of Quantities is subject to re-measurement 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 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>		
C.	ALTERATIONS TO BILLS, PRICING, ETC.		
	<p>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>		
D.	BLASTING OPERATIONS		
	<p>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>		
	<i>Carried to collection</i>		

ITEM	DESCRIPTION	KSHS	CTS
A.	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.		
B.	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.		
C.	REMOVAL OF RUBBISH ETC.		
	Removal of rubbish and debris from the Buildings and site as it accumulates and at the completion of the works and remove all plant, scaffolding and unused materials at completion.		
D.	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		
	<i>Carried to collection</i>		

ITEM	DESCRIPTION	KSHS	CTS
A.	GENERAL SPECIFICATION.		
	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.		
B.	TRAINING LEVY		
	The Contractor's attention is drawn to National Industrial Training Authority Act CAP 237, which requires payment by the Contractor of a Training Levy at the rate of 50.00 per employee per month.		
C.	MATERIALS ON SITE		
	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.		
D.	HOARDING		
	The Contractor is required to take all precautions necessary for the safe custody of the works, materials, plant, public and Employer's property on the site.		
E.	CONTRACTOR'S SUPERINTENDENCE/SITE AGENT		
	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.		
	<i>Carried to Collection</i>		

BUILDERS WORK

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Main block (main works) ELEMENT NO. 1; SUBSTRUCTURES (All Provisional)				
A	Clear area of new construction of all undergrowth, small bushes, grab up all trees and remove any existing structures and obstructions as directed.	Sm	900		
B	Cut down trees girth 900mm- 1200mm, remove out tree stumps and grab out roots, dispose off as directed and refill pits	No.	4		
C	Excavate oversite to remove vegetable soil, load and cart away from site to contractor's dumping area as directed; Average 200 mm depth	Sm	350		
D	Excavate to reduce levels commencing from stripped level: not exceeding 1.5 m deep	Cm	495		
E	Excavate to reduce levels commencing from stripped level: over 1.5m not exceeding 3.0 m deep	Cm	330		
F	Excavate for strip foundation trenches commencing from reduced level: not exceeding 1.5m deep	Cm	180		
G	Ditto for column bases	Cm	8		
H	Excavating in any class of rock as described in the specifications	Cm	50		
I	Return, fill and ram selected soil in foundations	Cm	825		
	<i>Substructure carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Substructure brought forward</i>				
J	Remove surplus soil and debris from site to a place approved by local authority	Cm	100		
K	Allow for upholding and supporting sides of excavations including any necessary plunking and strutting	Item	1		
M	Allow for keep excavations free of spring, underground or running water including any necessary pumping, bailing or other approved means	Item	1		
	<u>Mass concrete mix (1:3:6):in</u>				
A	50 mm Thick blinding under strip foundations	Sm	120		
B	Ditto under column bases	Sm	24		
	<u>Vibrated reinforced insitu concrete class 25/20; with minimum cube crushing strength of 25N/mm² at 28 days; in</u>				
C	Strip foundations	Cm	50		
D	Column bases	Cm	12		
E	Columns	Cm	8		
F	Ground floor slab; 150 mm thick	Sm	290		
G	Ramps; Ditto	Sm	4		
H	Steps	Cm	4		
	<i>Substructure carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>Mesh fabric reinforcement</u>				
A	Mesh reinforcement No. A142 size 200 x 200 mm weighing 2.22 kg per square metre: in floor slab: including all necessary supports	Sm	290		
	<u>Supply and fix mild steel bar in structural concrete work including cutting, bending, hoisting, tying wire, spacing blocks and supporting all in position in foundation footing, column bases and columns</u>				
B	8 - 32 mm Bars	Kg	6000		
	<u>Sawn formwork: to</u>				
C	Vertical sides of column bases	Sm	22		
D	Sides of columns	Sm	48		
E	Sides of strip footing	Sm	120		
F	Edges of steps; cut to profile of steps	Sm	6		
G	Edges of slabs; 150 - 225 mm girth	Lm	100		
	<u>Walls</u>				
A	Medium Chisel dressed natural stone walling bedded in cement and sand mortar (1:4) with minimum stone crushing strength of 14N/mm ² ; foundations	Sm	400		
	<i>Substructure carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Substructure brought forward</i>				
	<u>Hardcore</u>				
B	300 mm thick hardcore of approved inert material: well watered and compacted in 150 mm thick (maximum) layers	Sm	290		
	<u>Blinding</u>				
C	50 mm Thick approved quality murrum blinding to surfaces of hardcore	Sm	290		
	<u>Anti-termite treatment</u>				
D	Termidor 25EC or other approved anti-termite chemical treatment to surfaces of blinded hardcore and around foundations : applied by approved professional pest control specialist: applied strictly in accordance with the manufacturer's instructions: 10 year guarantee	Sm	290		
	<u>DPM</u>				
E	Gauge 1000 polythene damp proof membrane	Sm	290		
	<u>25 mm Thick cement and sand (1:4) rendering: on concrete or stonework: wood float: to</u>				
F	Plinths: externally	Sm	60		
	<i>Substructure carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Substructure brought forward</i>				
	<u>Prepare surfaces and apply undercoat and two finishing coats black bitumastic or other equal approved water resistant paint: on rendered surfaces: to</u>				
G	Plinths: externally	Sm	60		
	<u>Substructures carried to summary page</u>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	ELEMENT NO. 2; CONCRETE WORKS				
	Sawn formwork: to				
A	Sides and soffits: ring beams and lintols	Sm	120		
B	Columns; vertical sides	Sm	66		
	<u>Supply and fix mild steel bar in structural concrete work including cutting, bending, hoisting, tying wire, spacing blocks and supporting all in position</u>				
C	8 - 32 mm Bars	Kg	6500		
	<u>Vibrated reinforced insitu concrete class 25/20; with minimum cube crushing strength of 25N/mm² at 28 days; in</u>				
D	Beams and lintols	Cm	36		
E	Columns	Cm	8		
	Concrete works carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>ELEMENT NO. 3; WALLS</u>				
	<u>External walls</u>				
	<u>Dressed natural quarry stone walling bedded in cement and sand mortar (1:3) with minimum stone crushing strength of 7N/mm²</u>				
A	200 mm Thick walls	Sm	330		
	<u>Internal</u>				
	<u>Natural stone walls: machine cut: bedded and jointed in cement and sand (1:3) mortar</u>				
B	200 mm Thick walls	Sm	130		
	<u>Bituminous felt or other equal approved damp-proof course: in cement/ sand (1:3) mortar</u>				
C	200 mm Wide	Lm	200		
D	12mm flexcell expansion joint	Sm	32		
	Walls carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>ELEMENT NO. 4: ROOF</u>				
	<u>Roof cover</u>				
A	Gauge 28 orientile shaped roof cover fixed with rubber washers to match.	Sm	450		
B	Ditto 450mm wide ridge / hip cover.	Lm	70		
C	Ditto valley gutter	Lm	20		
D	Raking and cutting roof cover at hips and valleys	Lm	70		
	<u>All in sawn celcured and well seasoned cypress:- 12mm diametre 300mm long mild steel anchor bolts with head, nut, washers and split ring cast into ring beam and bolted to wall plate(m.s) work.</u>				
E	- 150 x 50mm Tie beam	Lm	320		
F	150 x 50mm rafter, half rafters, valley & hip rafters (Rafters at 1.2m centre)	Lm	400		
G	100 x 50mm struts and king post	Lm	450		
	<u>end of trusses</u>				
H	150 x 50mm wall plate.	Lm	190		
I	75 x 50mm purlins (at 600mm centres)	Lm	800		
J	200 x 25mm wrott fascia and verge board	Lm	100		
	<u>Sundries</u>				
K	Bed wall plate(m.s) in cement sand mortar 1:3	Lm	190		
	<i>Roof carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Roof brought forward</i>				
M	Bore 12mm diameter holes through 50mm thick wall plate at 2m centres.	No.	95		
N	Knot, prime, stop and apply 3 coats super gloss oil paint to surfaces of fascia and vergeboard 200-300mm high.	Lm	100		
	<i>Rain water goods</i>				
A	150mm half diameter u.P.V.C gutters of 6lm lengths	Lm	90		
B	150mm half diameter u.P.V.C holder clips at 1.2m centre and at ends, complete with screws	No.	75		
C	Extra over ditto for connectors at joints nailed to fascia(m.s)	No.	16		
D	Extra over ditto for stoped ends	No.	8		
E	Extra over ditto swannecks	No.	5		
F	75mm diameter p.v.c downpipe to match, clipped to walls	Lm	30		
G	Extra over ditto for 600mm long shoe	No.	5		
H	Ditto bends	No.	24		

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Roof carried to summary page				
	ELEMENT NO. 5; DOORS				
	<u>Timber Doors</u>				
	<u>45 mm thick flush door: solid core; Mahogany veneered to both sides; hardwood lipped edges; refer to Architect's details</u>				
A	Single leaf door; overall size 900 x 2400 mm high; with 6 mm thick clear fanlight glazing overall size 860 x 300 mm high complete with all beadings	No	5		
	<u>Supply and fix the following mahogany glazed doors comprising of 150 x 50mm bottom rail, top rail, middle rail, transomes and stiles; 6 mm thick toughened glass and glazing infill with and including glazing beads; All as per architect's drawings and details</u>				
A	Single leaf door; overall size 900 x 2400 mm high; with 6 mm thick clear fanlight glazing overall size 860 x 300 mm high complete with all beadings	No	3		
B	Double door; overall size 1800 x 2400 mm high; with 6 mm thick clear fanlight glazing overall size 1760 x 300 mm high complete with all beadings	No	4		
	<i>Doors carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Doors brought forward</i>				
	<u>Roller shutter door</u>				
A	Supply and fix 2500mm x 2400mm galvanized roller shutter door complete with barrel, springs, hanger rings, end plates, canopy, vertical guide rails, curtain; 80mm slats, T bar or bottom rail	No	4		
	<u>Prepare surfaces and apply three coats of approved gloss oil paint to metal surfaces</u>				
B	Doors: both sides measured	Sm	50		
	<u>Wrot mahogany: prime grade; with stainless steel fixing straps; including chasing to masonry, plugging and making good</u>				
A	200 x 50 mm Door frame: twice rebated: plugged	Lm	82		
B	50 x 25 mm Architrave: splayed	Lm	66		
C	25 x 25 mm Quadrant	Lm	66		
	<u>Prepare and apply one coat of aluminium wood primer on timber surfaces in contact with concrete or masonry</u>				
D	Over 100 but not exceeding 200 mm girth	Lm	214		
	<u>Prepare surfaces: apply two coats clear pinotex spirit in clear matt varnish: on timber surfaces: to</u>				
E	Over 100 but not exceeding 200 mm girth	Lm	214		
	<i>Doors carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Doors brought forward</i>				
F	General timber surfaces: doors <u>Supply and fix: 'UNION' or other equal approved ironmongery: matching screws: locks to include a set of 3 keys: available from their authorised local dealers; brass finish to architects approval</u>	Sm	56		
A	100mm brass butt hinges	Prs	24		
B	Two lever mortice lock with handles	No	12		
C	Door closer	No	12		
D	38 mm Diameter oval rubber stop; floor or wall mounted	No	16		
	Door carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	ELEMENT NO. 6; WINDOWS				
	<u>Approved pre-cast concrete cill: bedded and jointed in cement (sand (1:3) mortar: pointed in matching coloured cement</u>				
A	250 x 50 mm Thick cill; once weathered and throated	Lm	40		
	<u>Supply and fix the following purpose made steel casement purpose made windows, including all necessary cuttings lugs, stays and bedding into walls in cement sand mortar 1:4 complete with stays, fasteners, all necessary accessories and priming once in red-oxide, to Architects approval, with minimal burglar proofing in 20mm angle line framing</u>				
A	- Window size 2500 x 750mm high. For stores	No.	2		
B	Ditto size 2500 x 1500mm high. For laboratory	No.	5		
C	Ditto size 1200 x 1500mm high.	No	2		
D	Ditto size 2000 x 1500mm high.	No.	6		
	<u>Glazing</u>				
F	4mm thick mild tinted sheet glass in panes 0.1-0.5sm fixed in steel window panes with putty.	Sm	54		

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>Painting</u> <u><i>Prepare, prime and apply 3 coats of super gloss oil paint as "crown" or any other equal and approved to surfaces of:</i></u>				
A	- Windows externally <i>Windows carried forward</i>	Sm	8		
	<u>Windows brought forward</u>				
B	Windows internally	Sm	8		
	<u>Curtain rods</u>				
A	Supply and fix 2900mm long double curtain rod for both vertical blinders and sheers with a strong chrome pipe of 28mm diameter, 2pcs finials, 2pcs end cups, 4pcs brackets, rings, screws and anchor to install	No	10		
	Window carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Element 07; Ceiling				
A	10mm thick chipboard ceiling fixed in rectangular shape	Sm	340		
B	10 x 75mm ditto cornice plugged and nailed to battens	Lm	320		
C	Extra-over ditto in access door size 450 x 600mm, including framing in 75 x 50mm sawn cypress	No.	2		
	Branding				
D	50 x 50mm sawn cypress branding	Lm	500		
E	50 x 75mm ditto.	Lm	800		
	Ceiling carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>ELEMENT 8; Fixtures and fittings</u>				
	<u>Shelving to packaging room</u>				
	<u>20 mm thick block board storage shelves supported of mild steel 25 x 25 mm frames; painted to approval; 450 mm wide</u>				
A	10000 mm long x 450 mm deep x 3000 mm high	Sm	50		
B	Ditto for cabinet below the worktop in seed lab	Sm	30		
	Ceiling carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>ELEMENT 9; FINISHES</u>				
	FLOOR FINISHES				
A	30mm thick cement sand 1:2 backing to receive ceramic floor tiles or terrazzo (s.m)/Skirting	Sm	300		
B	20mm thick polished terrazzo paving to floor and the worktop including plastic strip dividers/skirting	Sm	300		
	<u>walls internally</u>				
H	12mm thick gauged plaster cement sand lime 1:1:6 with a smooth float to walls, beams and columns internally	Sm	400		
I	Ditto to reveals and jambs.	Sm	30		
	<u>Walls Externaly</u>				
H	12mm thick gauged cement sand render 1:2 finished with a wood float to beams and columns	Sm	215		
I	Keying in cement sand 1:2, pointing in gloss oil paint and wire brushing natural machine cut stone externally	Sm	130		
	Finishes carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	ELEMENT 10; PAINTING & DECORATIONS <u><i>Prepare and apply 3 coats silk vinyle emulsion paint as "crown" or any other equal and approved paint to</i></u>				
A	Plastered walls internally	Sm	400		
B	Soffites of chip board ceiling	Sm	340		
C	Plastered walls externally	Sm	215		
	Painting carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>SUMMARY OF ELEMENTS</u>				
A	ELEMENT NO. 1 , SUBSTRUCTURE				
B	ELEMENT NO 2, R.c WORKS				
C	ELEMENT NO 3, WALLING				
D	ELEMENT NO. 4, ROOF				
E	ELEMENT NO. 5 , DOORS				
F	ELEMENT NO. 6 , WINDOWS				
G	ELEMENT NO. 7 , CEILING				
H	ELEMENT NO. 8 , FIXTURES & Fittings				
I	ELEMENT NO 9, FINISHES				
J	ELEMENT NO. 10 PAINTING & DECORATIONS				
	TOTAL FOR BUILDERS WORK CARRIED TO GRAND SUMMARY.				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>RAISED CONCRETE WATER TANK STAND 4500mm high from ground level</u>				
	Element 01: Substructure (all provisional)				
A	Clear area of new construction of all undergrowth, small bushes, grab up all trees and remove any existing structures and obstructions as directed.	Sm	16		
B	Excavate for column bases commencing from ground level level: not exceeding 1.5 m deep	Cm	14		
C	Return, fill and ram selected soil in foundations	Cm	13		
	<u>Vibrated reinforced insitu concrete class 25/20; with minimum cube crushing strength of 25N/mm² at 28 days; in</u>				
A	Column bases 200mm thick	Cm	2		
B	Sub structure and superstructure columns 400mmx400mm size	Cm	4		
	<u>Supply and fix mild steel bar in structural concrete work including cutting, bending, hoisting, tying wire, spacing blocks and supporting all in position</u>				
C	8 - 12 mm Bars for substructure columns, column bases, superstructure columns ring beams and slab	Kgs	478		
	<i>Raised conc. Water tank stand carried forward</i>				
	<i>Raised conc. Water tank stand brought forward</i>				
	<u>Sawn formwork: to</u>				
D	Vertical sides of coulumn bases	Sm	2		

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
E	Sides of columns	Sm	10		
	<u>Superstructure works</u> Sawn formwork: to				
F	Sides and soffits: beams	Sm	11		
G	Soffits and sides of suspended slab	Sm	9		
	<u>Vibrated reinforced insitu concrete class 25/20; with minimum cube crushing strength of 25N/mm² at 28 days; in</u>				
H	Slab and beams	Cm	5		
	<u>Plaster: 15 mm cement/lime putty/sand: steel trowelled: on masonry or concrete: to</u>				
I	concrete surfaces	Sm	98		
K	Purchase and instal 5,000 liters cylindrical kentank plastic water tank	Item	1		
	Sub total for construction of raised concrete water tank stand				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>SUMMARY OF ELEMENTS</u>				
A	ELEMENT NO. 1 , SUBSTRUCTURE				
B	ELEMENT NO 2, R.c WORKS				
C	ELEMENT NO 3, WALLING				
D	ELEMENT NO. 4, ROOF				
E	ELEMENT NO. 5 , DOORS				
F	ELEMENT NO. 6 , WINDOWS				
G	ELEMENT NO. 7 , CEILING				
H	ELEMENT NO. 8 , FIXTURES & Fittings				
I	ELEMENT NO 9, FINISHES				
J	ELEMENT NO. 10 PAINTING & DECORATIONS				
K	RAISED WATER TANK STAND				
	TOTAL FOR BUILDERS WORK CARRIED TO GRAND SUMMARY.				

MECHANICAL WORKS

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<p><u>MECHANICAL ENGINEERING SERVICES</u> <u>BQ</u></p> <p>Bill No1: SANITARY APPLIANCES</p> <p>Supply, 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. Note:</p> <p>(i) All sanitary fittings shall be in approved colour.</p> <p>(ii) The Model and Ref No. indicated is only a guide to the type and quality of fittings.</p> <p>(iii) Equivalent and Approved models may be acceptable.</p>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<p><u>BILL NO.2: INTERNAL WATER CONNECTION</u></p> <p>Supply and install tubing and fittings as described and shown on the drawings. Tenderers must allow for jointings, couplings etc necessary for the proper and satisfactory functioning of the system when pricing the following in PN 20 PPRC conforming to the current European standards for PPR installations and to the Engineer's approval, pipe jointing shall be by polyfusion or use of electric coupling Rates must allow for all the Metal/plastic threaded adaptors where required for the connection of sanitary fixtures, valves, sockets, sliding and fixed joints, support raceways, isolating sheaths, elastic materials, expansion arms and bends, crossovers etc</p>				
	<u>PPR Pipes</u>				
A	20mm dia pipe chased in walls/floors	Lm	30		-
B	25mm –ditto-	Lm	20		-
C	32mm –ditto-	Lm	30		-
	<u>Extra-over PPR pipework for the following:-</u>				
	<u>Bends/elbows</u>				
G	20mm dia bend	No	10		
H	25mm bend	No	10		
I	32mm bend	No	5		
L	20x1/2" dia male threaded 90o bend	No	5		
M	20x1/2" dia female threaded 90o bend	No	5		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Sanitary appliances brought forward</i>				
	<u>Tees</u>				
N	25mm diameter equal tee	No	5		
O	25x1/2" female threaded tee	No	5		
P	25x1/2" male threaded tee	No	10		
Q	32mm diameter equal tee	No	5		
R	20mm dia tee	No	10		
	<u>Unions</u>				
A	20mm dia union	No	5		
B	25mm –ditto-	No	5		
C	32mm –ditto-	No	5		
	<u>Reducers</u>				
F	25/20mm reducers	No	5		
G	32/25mm reducers	No	5		
	<u>Gate valve</u>				
J	20mm Pegler	No	3		
K	25mm –ditto-	No	3		
L	32mm –ditto-	No	2		
	<u>Flexible connectors</u>				
O	450mm chrome plated flexible connector with chrome plated angle check valve size 15mm dia including unions and sockets to connect sanitary fittings to PP-R Pipework	No	5		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Sanitary appliances brought forward</i>				
	<u>Supply, deliver and install the following vulcathene laboratory system including waste outlets, sinks, drip cups, anti-siphon traps, dilution recovery traps and associated comprehensive range of pipe and fittings for the given sizes all as vulcathene or approved equivalent</u>				
A	<p>Laboratory sink</p> <p>A sink of preferred dimensions 552mm x 400mm with a depth of 231mm having a drain of 74mm, that is extremely robust and moulded with a self draining base with its recessed outlet to accept the flange of 1 1/2" (40mm) non overflow threaded outlet but if required, an overflow assembly can be fitted. The sink to be complete with anti siphon traps that can stop the backflow of potentially harzadious fumes. All the downstream fittings to be as vulcathene.</p>	No	2		
B	<p>Three way Assay Lab Faucet in solid brass High gloss epoxy powder , resistant to most chemicals, UV fading and heat. Ceramic headwork;90 deg turn, water static pressure max 10bar. To be complete with detachable brass serrated nozzle, splash controlled water filter attacheble, ergonomic high grade PP knob and 360 deg swing gooseneck spout.</p>	No	2		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Sanitary appliances brought forward</i>				
	<u>Emergency Drencher Shower and Eye Fountain</u>				
C	Body shower with eye/face shower and bowl modular in brass and stainless steel with chemical resistant red BROEN-LAB polycoat with self-draining shower head. The shower head with a pull to open mechanism and eye wash with a footpedal opening mechanism. Eye wash with built-in FLOWFIX for regulation of water flow at14l/min. Bowl in stainless steel with integrated out with a min working pressure of 1.5bar. all as BROEN-LAB or equal and approved	No	1		
D	Emergency shower instructions Wall mounted sign and instruction card for Body and Eye Shower above	No	1		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<p><i>Sanitary appliances brought forward</i></p> <p><u>BILL NO.3 FOUL WATER INTERNAL DRAINAGE FROM THE WASHROOMS AND LABORATORY</u></p> <p>Supply and fix uPVC soil system to BS 4660 and BS 4515 and MuPVC waste systems to BS 5255 with screwed and socketed joints to BS 21. Solvent welded joints shall be as per the system's manufacturer's written instructions. 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.</p> <p><u>MuPVC and uPVC Waste and Soil pipework</u></p>				
A	150mm diameter heavy gauge grey mUPVC pipe	Lm	60		
B	100mm diameter heavy gauge grey mUPVC pipe	Lm	20		
C	50mm diameter waste pipe	Lm	50		
D	32mm diameter waste pipe	Lm	50		
	<u>Bends</u>				
E	150mm diameter access bend	No	4		
F	100mm diameter access bend	No	6		
G	150mm diameter sweep bend	No	6		
H	100mm diameter sweep bend	No	6		
I	50mm diameter sweep bend	No	6		
J	32mm diameter sweep bend	No	6		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Sanitary appliances brought forward</i>				
	<u>Tees</u>				
L	50mm diameter sweep tee	No	4		
M	32mm diameter sweep tee	No	4		
	<u>Access Caps</u>				
N	100mm diameter access cap	No	6		
P	32mm diameter access cap	No	6		
	<u>Boss Connectors</u>				
Q	150 x 100mm diameter boss connector	No	4		
R	100 x 50mm diameter boss connector	No	4		
S	50 x 32mm diameter boss connector	No	4		
	<u>Traps</u>				
D	100 x 50mm diameter floor trap and grating	No	4		
E	50 x 50mm diameter U-shaped tubular trap	No	4		
	<u>Testing and Commissioning</u>				
G	Allow for testing and commissioning of the plumbing and drainage installations to the satisfaction of the Engineer.	Item	1		
	<i>Sub total for sanitary appliances</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
C	Summary page SANITARY APPLIANCES				
	Total for sanitary appliances carried to summary page				

ELECTRICAL WORKS

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Electrical works				
A	Supply, deliver & install on site one gang one-way switches	No	6		
B	Supply, deliver & install on site one gang two-way switches	No	10		
C	Supply, deliver & install on site three gang two-way switches	No	1		
D	Supply, deliver & install on site one gang intermediate switch	No	2		
E	Supply, deliver & install on site two gang two-way switches	No	2		
F	Supply, deliver & Install 1200mm, 1x58w T26 LED fluorescent light fittings with Aluminium louvres (complete with tubes) as thorn, do wiring as appropriate using 3x1.5mm ² single core copper cables as E. African cable drawn in concealed pvc conduit. The fittings to be surface mounted on the ceiling & spaced as appropriate.	No	45		
G	Supply deliver to site, Install and do wiring of 1200mm single LED batten fluorescent fittings with prismatic diffuser (complete with tubes) wired in a 3x1.5mm ² PVC insulated single core copper cable drawn in a concealed 20mm PVC heavy gauge conduits	No	3		
H	Supply, deliver, Install & wire twin 13amps socket outlets drawn in concealed pvc conduit using 3x2.5mm ² single core copper cable in three ring circuit all terminated at the DB protected by 32Amps single pole MCB	No	22		
	Cont. electrical carried forward				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>electrical brought forward</i>				
I	Supply, deliver, Install in the processing area & wire five pin 32amps industrial socket outlets each as a final subcircuit from the DB isolated using 40Amps three pole MCB wired using 4x4.0mm ² single core copper cables as E. African cable drawn in concealed pvc conduit.	No	2		
J	Supply, deliver & install in the processing area 40Amps triple pole MCB as Schneider or equivalent as approved by project manager and housed in an enamel paint finish metal enclosure	No	2		
K	Supply, deliver & install on 32Ampsamps triple pole MCB to fit in the installed DB	No	2		
L	Supply, deliver & install on 10amps MCB to fit in the DB	No	4		
M	Supply, deliver & install single pole 32amps MCB to fit in the DB installed	No	3		
N	Supply, deliver & install 150x300mm concrete Danger Hatari tiles	No	270		
O	Excavate 250x600mm deep trench to lay the armoured cable	Cm	15		
P	Supply, deliver to site & install four core 16mm ² Armoured copper cable laid in 600mm deep trench pre-covered with "Danger Hatari" concrete tiles then back fill	Lm	80		
	<i>Cont. electrical carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>electrical brought forward</i>				
Q	Three phase 415v, 125Amps six ways distribution board as Havel's or equivalent as approved by project manager	No	1		
R	Manhole of 450x450x600mm (LxWxH) using machine cut stone and plastered on internal faces complete with top 100mm concrete cover. Allow for 100mm ducts entry	No	2		
S	Supply, deliver to site & install four pole 125Amps MCCB plus Metal housing as Havel's or equivalent as approved by project manager	No	1		
T	Supply and install concrete cable makers(UG) along the underground cable line	No	4		
	<u>SECURITY LIGHTING</u>				
A	Supply, deliver and install LED security lighting fitting 50watts as thorn or approved equivalent wired in a 3x1.5mm ² PVC insulated single copper cable drawn in a concealed 20mm PVC heavy gauge conduit	No	7		
B	Supply, deliver and install 240volts 32Amps contactor as Telemecanique or equivalent to switch on the security lights	No	1		
C	Supply, deliver and install 240volt 10amps Photo cell switch to activate the contactor "Ditto"	No	1		
D	Supply and do earthing at the building main connection point using 10mm ² single core cable and 12mmx1200mm copper earth rod	No	1		
	<i>Cont. electrical carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>electrical brought forward</i>				
E	Interconnect the item (O) above to the installed 3 phase DB using 5x16mm ² single core cables drawn in concealed pvc conduit as appropriate	No	1		
F	Supply and install <i>in situ</i> 100mm diameter heavy gauge UPVC pipe as duct (2No. Parallel ducts) from the constructed block to the rear side to receive the power cables	Lm	12		
	Sub total for electrical works carried to summary page				

CIVIL WORKS

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	FOUL DRAINAGE EXCAVATION(all provisional)				
	<u>High grade soil, waste and vent pipes as "key terr-ain" P.V.C soil waste and vent pipes including couplings and all fixing brackets. To nearest manhole</u>				
A	Excavate trench for 150mm diametre drain pipe not exceeding 1.5M deep and average 500mm deep including fitting in, compacting, grading bottoms and desposing surplus soil.	Lm	60		
B	Ditto average 750mm deep ditto.	Lm	20		
E	Extra-over for excavating in rock class "A"	Cm	10		
G	Allow for cutting trees along the line, grub out roots and despose off girth 600-900mm	No.	2		
	TOTAL FOR FOUL DRAINAGE ECAVATION CARRIED TO SUMMARY OF EXTERNAL WORKS				
	Ex 1				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	MANHOLES(all provisional)				
	The following in 12 No. Manholes class "B" All provisional				
	-				
A	Excavate manhole pit not exceeding 1.5m deep.	Cm	27		
B	Return, fill-in and consolidate excavated materials around manhole walls.	Cm	15		
C	Remove surplus excavated materials and deposit on site as directed.	Cm	12		
D	Extra-over excavation for excavating in rock class 'A'	Cm	2		
E	150mm thick mass concrete 1:3:6 in manhole base.	Sm	27		
	<u>Precast Concrete</u>				
F	100mm thick precast concrete 1:2:4 in manhole cover slab size 1380mmx1180mm, reinforced with 8mm diametre at 80mm centres both ways with rebated opening for 450x600mm cover and frame finished smooth including any necessary formwork.	Sm	12		
	<u>Benching</u>				
G	Concrete 1:3:6 in benching to bottom of manholes internal size 1000mmx800mm including haunching to a height of 200mm above channel and rendering in cement 1:2 trowelled smooth.	No.	12		
	<i>Manhole carried forward</i>				
	Ex2				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Manhole brought forward</i>				
H	Make or leave hole through 200mm concrete wall for 150mm diameter pipe (m.s) built-in and make good walls and render all round.	No.	24		
	<u>Extra-over benching to forming the following channels with external rounded angles with slopping top of benching:-</u>				
	-				
I	150mm diametre half-round section straight main channel 900mm long.	No.	12		
A	Ditto but curved 900mm long.	No.	12		
B	140mm thick masonry block walling in cement sand mortar 1:3.	Sm	72		
C	12mm thick cement sand 1:2 plaster to ditto with approved water-proofing admixture to internal sides of manholes trowelled smooth.	Sm	54		
D	Ditto but render to top and sides of cover slab and walling.	Sm	16		
E	Fiber manhole cover size 600mmx450mm and setting frame in cement sand mortar 1:3 and cover in grease.	No.	12		
F	Extra over formworks boxing to form opening for manhole cover(m.s)	No.	12		
	<i>Sub total for manhole carried to summary page</i>				
	Ex 3				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	SOAKAGE AREA(all provisional)				
	The following in french drains as per standard drawing No.(50) 5344, average 5Lm				
	-				
A	Excavate trench for french drains, not exceeding 1.5m deep starting from original ground level	Cm	4		
B	Extra-over excavation for excavating in rock class 'A'	Cm	1		
C	Cart away excavated materials from site.	Cm	2		
D	Trim sides of french drain to slope.	Sm	12		
E	20-60mm crushed stones or washed gravel.	Cm	2		
F	Back filling selected excavated soils mean thickness 350mm	Cm	1		
G	Imported 200mm thick compacted murrum	Cm	1		
H	500 gauge polythene sheet.	Sm	6		
I	150mm diameter agricultural or perforated upvc pipe laid to falls in units of 450mm lengths with 10mm open joints covered to top half with 100mm width paper.	Lm	6		
	TOTAL FOR SOAKAGE AREA CARRIED TO SUMMARY				
	Ex 4				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	1-No. SOAK- PITS(all provisional)				
	<u>The following in 1-No soakpits as per drawing No.M.o.W(50) 5345</u>				
A	Excavate pit not exceeding 1.5m deep starting from original ground level	Cm	6		
B	Ditto between 1.5m-3.0m deep.	Cm	6		
C	Ditto between 3.0m-4.5m deep.	Cm	6		
F	Extra-over excavation for excavating in rock class 'A'	Cm	8		
G	Cart away surplus excated materials from site.	Cm	20		
H	Return, fill-in and consolidate excavated materials around foundations.	Cm	6		
I	Mass concrete 1:3:6.	Cm	1		
J	100mm thick vibrated reinforced concrete 1:2:4 in cover slab.	Sm	4		
K	12mm diametre high tensile square twisted bars to B/s 4449	Kg	25		
	<u>Sawn formwork to:-</u>				
M	Soffites of suspended slab	Sm	4		
N	Edges of suspended cover slab girth 75-150mm.	Lm	8		
A	Boxing to form opening size 600x450mm in 150mm thick suspended cover slab, rebated all round.	No.	1		
	<i>Soak pit carried forward</i>				
	Ex 5				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Soak pit brought forward</i>				
B	Form or leave 150mm diametre hole in 150mm thick block walling.	No.	1		
C	Building in, 150mm diametre drain pipe through 150mm thick walling and make good in cement sand render 1:3.	No.	1		
	<u>approved machine cut walling in cement sand mortar 1:3:-</u>				
D	150mm walling coved on plain 740mm radius.	Sm	15		
E	12mm thick cement sand 1:4, rendering coved to wall radius	Sm	15		
F	Ditto but to top and edges of suspended slab.	Sm	5		
G	Fiber manhole cover size 600mmx450mm and setting frame in cement sand mortar 1:3 and cover in grease.	No.	1		
	CARRIED TO COLLECTION				
	Ex 6				

Item	Description	Unit	Qty	Rate	Amount (ksh)
	<u>SEPTIC TANK- 200 persons-45000 Its capacity as per M.O.P.W standard drawing No. (50) 5343 All provisional</u>				
A	Excavate for pit not exceeding 1.5m deep commencing from ground level.	Cm	36		
B	Ditto between 1.5-3.0m deep	Cm	36		
C	Ditto exceeding 3.0m but not exceeding 4.5m deep.	Cm	24		
D	Extra Over excavation for excavating in rock Class "A"	Cm	36		
E	Return, fill-in and ram selected excavated materials around walls and foundations.	Cm	54		
F	Load and cart away excavated materials.	Cm	78		
G	50mm thick plain concrete 1:4:8 blinding under foundation footing.	Sm	24		
H	Ditto but laid to falls not exceeding 15 degrees from horizontal.	Sm	12		
J	Ditto in benching average 200mm high, in manhole size 600 x 850mm, including forming 150mm diameter half round main channel.	No.	2		
	<i>Septic tank carried forward</i>				
	Ex 7				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Septic tank brought forward</i>				
	Vibrated reinforced concrete 1:2:4 to:-				
I	150mm floor bed laid to falls not exceeding 15 degrees from horizontal.	Sm	24		
J	Ditto floor bed	Sm	12		
K	Ditto manhole footing	Sm	2		
L	150mm thick suspended scum baffle walling.	Sm	8		
A	200mm thick scum baffle walling with slats	Sm	8		
B	250mm thick extenal walling	Sm	70		
C	150mm thick cover slab.	Sm	24		
	<u>Sawn formwork to:-</u>				
D	Sides and Soffites of suspended scum baffle.	Sm	8		
E	Ditto sides of baffle walling	Sm	8		
F	Sides of extenal walling	Sm	40		
G	Soffites of cover slab.	Sm	24		
H	Boxing to ditto for manhole cover(m.s) opening size 450 x 600mm.	No.	4		
I	Sides and edges of cover slab 150-225mm high.	Lm	22		
	<u>Reinforcement</u>				
J	10mm diameter bars	Kg	440		
	<i>Septic tank carried forward</i>				
	Ex 8				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Septic tank brought forward</i>				
K	20mm cement sand 1:2 floor screed, water proofed with pudlo and trowelled smooth, not exceeding 15 degrees to horizontal with sulphate resistant cement.	Sm	24		
L	Ditto to horizontal floors	Sm	12		
M	Ditto manhole bases	Sm	2		
N	Ditto to sides and soffites of suspended scum baffles.	Sm	21		
P	Sides of scum baffle walling	Sm	20		
Q	Ditto to walls.	Sm	100		
R	Ditto to top and sides of cover slab.	Sm	12		
A	Approved Heavy duty plastic manhole cover and frame size 600 x 450mm including bedding frame in cement and sand mortar 1:2 and setting cover in grease.	No.	4		
B	100mm diameter P.V.C inlet pipe with equal "Tee" 450mm long.	No.	1		
C	100mm diameter U.P.V.C out-let pipe 750mm long	No.	1		
D	Form or leave 150mm diameter hole in 250mm walling.	No.	4		
E	25mm diameter bitumen coated cast iron step bars 600mm long with 300mm long footing , sunk into concrete walling	No.	6		
	Sub total for septic tank				
	Ex 8				

PC & PROVISIONAL SUMS

ITEM	DESCRIPTION		AMOUNT
	PROPOSED CONSTRUCTION OF SEED CENTRE FOR RUMURUTI		
	MAIN SUMMARY	PAGE	
1.	PARTICULAR PRELIMINARIES		
2.	GENERAL PRELIMINARIES	-	
		-	
3.	BUILDERS WORK		
4.	MECHANICAL INSTALLATIONS WORKS		
5.	ELECTRICAL INSTALLATIONS		
6.	CIVIL WORKS		
7.	PC & PROVISIONAL SUMS		
	-		
	SUB- TOTAL		
	VAT - 16%		
	TOTAL CARRIED TO LOT 1 SUMMARY PAGE	KSHS	

**BARINGO – MARIGAT
SUB-CENTRE**

SITE 3 OF LOT 1

PARTICULAR PRELIMINARIES

ITEM	DESCRIPTION	Kshs.	Cts
A	<p><u>PARTICULAR PRELIMINARIES</u></p> <p>PRICING ITEMS OF PRELIMINARIES</p> <p>Prices SHALL BE INSERTED against items of “preliminaries” in the tenderer’s priced Bills of Quantities. 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. The contractor is advised to read and understand all preliminary items.</p>		
B	<p>DESCRIPTION OF THE WORKS</p> <p>The works to be carried out under this contract involves substructures works, walling, steel windows, timber and steel doors, terrazzo floor finishes, chipboard ceiling finishes and joinery fittings and all associated electrical, mechanical and civil works</p>		
C	<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 22 of the Conditions of Contract. The discrepancies shall then be treated as a variation and be dealt with in accordance with Clause 22 of the said Conditions.</p>		
D	<p>LOCATION OF SITE</p> <p>The sites are located at KEFRI Nyeri Seed Sub-Centre, Rumuruti Seed Sub-Centre and Baringo - Marigat Seed Sub-Centre</p>		
	Carried to Collection		

ITEM	DESCRIPTION	Kshs.	Cts
A	<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 claim or intent to claim notice to the PROJECT MANAGER within the contract period. No claims shall be entertained upon the expiry of the said contract period.</p>		
B	<p>PAYMENTS</p> <p>The tenderer's attention is drawn to the fact that the GOVERNMENT SHALL NOT MAKE ADVANCE PAYMENTS</p>		
C	<p>PREVENTION OF ACCIDENT, DAMAGE OR LOSS</p> <p>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 instructed to take reasonable care in the execution of the works as to prevent accidents, damage or loss and disruption of normal activities being carried out by the Client. The Contractor shall allow in his rates any expense he deems necessary by taking such care within the site.</p>		
D	<p>BID SECURITY</p> <p>The contractor shall provide a dully filled tender securing declaration form in the provided format.</p>		
Carried to Collection			

ITEM	DESCRIPTION	Kshs.	Cts
A	<p>WORKING CONDITIONS</p> <p>The Contractor shall allow in this tender for any interference that he may encounter in the course of execution 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>		
B	<p>SIGNBOARD</p> <p>Allow for providing, erecting, maintaining throughout the course of the Contract and afterwards clearing away the signboard as designed, specified and approved by the Project Manager.</p>		
C	<p>LABOUR CAMPS</p> <p>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>		
D	<p>MATERIALS FROM DEMOLITIONS</p> <p>The Contractor shall allow for a credit for salvaged materials. Any materials arising from demolitions shall not be re-used. The Contractor shall allow for carting away all demolished materials.</p>		
E	<p>PRICING RATES</p> <p>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>		
	Carried to Collection		

ITEM	DESCRIPTION	Kshs.	Cts
A	<p>URGENCY OF THE WORKS</p> <p>The Contractor is notified that these “works are urgent” and should be completed within the period stated in these Particular Preliminaries. The Contractor shall allow in this tender for any costs he deems that he/she may incur by having to complete the works within the stipulated contract period.</p>		
B	<p>PAYMENT FOR MATERIALS ON SITE</p> <p>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</p> <p>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 which may be required by the authorities concerned for the support, maintenance and protection of such services.</p>		
Carried to Collection			

ITEM	DESCRIPTION	Kshs.	Cts
A	<p>TENDER DOCUMENTS</p> <p>Tender documents are as listed in Clause 2.1 of the Instruction to Tenderer's</p>		
B	<p>DELIVERY OF TENDER</p> <p>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>		
C	<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. Notice No. 35 & 36 Dated 11th September 2003 operational from 1st October 2003, withholding VAT will be levied against the contract sum by the Employer . The contractor should therefore include this tax in the Grand Summary page as indicated herein. The tenderer is advised that in accordance with the Finance Act 2014 withholding VAT tax was reintroduced at a rate of 2% with effect from 7th November, 2019</p>		
	Carried to collection		

ITEM	DESCRIPTION	Kshs.	Cts
	<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</p> <p>Defects Liability Period</p> <p>Date for Possession</p> <p>Date for Completion</p> <p>Liquidated and Ascertained Damages</p> <p>Period of Interim Certificates</p> <p>Percentage of Certified Value Retained</p> <p>Limit of Retention Fund</p>	<p>-</p> <p>-</p> <p>3 Months from Practical Completion</p> <p>6 Months from Practical Completion</p> <p>To be agreed with the Project Manager</p> <p>26 weeks from date of Possession</p> <p>at a rate of Kshs 5,000.00 Per day or part thereof</p> <p>Monthly</p> <p>10%</p> <p>5%</p>	
	Carried to Collection		

ITEM	DESCRIPTION	Kshs.	Cts
	<u>COLLECTION</u>		
	Brought forward from page PP/1		
	Brought forward from page PP/2		
	Brought forward from page PP/3		
	Brought forward from page PP/4		
	Brought forward from page PP/5		
	Brought forward from page PP/6		
	Brought forward from page PP/7		
	Brought forward from page PP/8		
	PARTICULAR PRELIMINARIES CARRIED TO MAIN SUMMARY		

GENERAL PRELIMINARIES

ITEM	DESCRIPTION	KSHS	CTS
-	GENERAL PRELIMINARIES		
A.	PRICING OF ITEMS OF PRELIMINARIES AND PREAMBLES		
	Prices will be inserted against items of Preliminaries in the Contractor's priced Bills of Quantities and Specification.		
	The Contractor shall be deemed to have included in his prices or rates for the various items in the Bills of Quantities or Specification for all costs involved in complying with all the requirements for the proper execution of the whole of the works in the Contract.		
B.	ABBREVIATIONS		
	Throughout these Bills, units of measurement and terms are abbreviated and shall be interpreted as follows:-		
	<i>C.M.</i> Shall mean cubic metre		
	<i>S.M.</i> Shall mean square metre		
	<i>L.M.</i> Shall mean linear metre		
	<i>MM</i> Shall mean Millimetre		
	<i>Kg.</i> Shall mean Kilogramme		
	<i>No.</i> Shall mean Number		
	<i>Prs.</i> Shall mean Pairs		
	<i>B.S.</i> Shall mean the British Standard Specification Published by the British Standards Institution, 2 Park Street, London W.1., England.		
	<i>Ditto</i> Shall mean the whole of the preceding description except as qualified in the description in which it occurs.		
	<i>m.s.</i> Shall mean measured separately.		
	<i>a.b.d</i> Shall mean as before described.		
	<i>Carried to collection</i>		

ITEM	DESCRIPTION	KSHS	CTS
A.	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:-		
	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.		
	<i>Fix Only:-</i>		
	"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.		
B.	EMPLOYER		
	The "Employer" is Kenya Forestry Research Institute		
	The term "Employer" and "Government" wherever used in the contract document shall be synonymous		
C.	PROJECT MANAGER		
	The term "P.M." 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 as may be duly authorized to represent him on behalf of the Government.		

ITEM	DESCRIPTION	KSHS	CTS
D.	ARCHITECT		
	The term "Architect" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 30743, NAIROBI.		
E.	QUANTITY SURVEYOR		
	The term "Quantity Surveyor" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 30743, NAIROBI.		
	<i>Carried to collection</i>	-	
A.	ELECTRICAL ENGINEER		
	The term "Electrical Engineer" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 41191, NAIROBI.		
B.	MECHANICAL ENGINEER		
	The term "Mechanical Engineer" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 41191, NAIROBI.		

ITEM	DESCRIPTION	KSHS	CTS
C	STRUCTURAL ENGINEER		
	The term "Structural Engineer" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 41191, NAIROBI.		
D	FORM OF CONTRACT		
	The Form of Contract shall be as stipulated in the Republic of Kenya's Standard Tender Document for Procurement of Building Works(2006 Edition) included herein The Conditions of Contract are also included herein Conditions of Contract These are numbered from 1 to 37 as set out in pages 16 to 36 of these tender documents. 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		
E.	PERFORMANCE BOND.		
	The Contractor shall find and submit on the Form of Tender from an approved Bank and who will be willing to be bound the Government in an amount equal to five per cent (5%) of the Contract amount for the due performances of the Contract up to the date of completion as certified by the PROJECT MANAGER and who will when and if called upon, sign a Bond to that effect on the relevant standard form included herein. (without the addition of any limitations) on the same day as the Contract Agreement is signed, by the Government, the Contractor shall furnish within seven days another Surety to the approval of the Government.		
	<i>Carried to collection</i>		
A.	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.		

ITEM	DESCRIPTION	KSHS	CTS
B.	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.		
C.	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.		
D.	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 delivery 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		
E.	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.		
	<i>Carried to collection</i>	-	

ITEM	DESCRIPTION	KSHS	CTS
A.	SAMPLES		
	<p>The Contractor shall furnish at his own cost any samples of materials or workmanship including concrete test cubes required for the works that may be called for by the PROJECT MANAGER for his approval until such samples are approved by the PROJECT MANAGER and the PROJECT MANAGER, may reject any materials or workmanship not in his opinion to be up to approved samples. The PROJECT MANAGER shall arrange for the testing of such materials as he may at his discretion deem desirable, but the testing shall be made at the expense of the Contractor and not at the expense of the PROJECT MANAGER. The Contractor shall pay for the testing in accordance with the current scale of testing charges laid down by the State Department of Public Works, Ministry of Land, Housing and Urban Development.</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>		
B.	GOVERNMENT ACTS REGARDING WORK PEOPLE ETC.		
	<p>Allow for complying with all Government Acts, Orders and Regulations in connection with the employment of Labour and other matters related to the execution of the works. In particular the Contractor's attention is drawn to the provisions of the Factory Act 1950 and his tender must include for all costs arising or resulting from compliance with any Act, Order or Regulation relating to Insurances, pensions and holidays for workpeople or so the safety, health and welfare of the workpeople. The Contractor must make himself fully acquainted with current Acts and Regulations, including Police Regulations regarding the movement, housing, security and control of labour, labour camps , passes for transport, etc. It is most important that the Contractor, before tendering, shall obtain from the relevant Authority the fullest information regarding all such regulations and/or restrictions which may affect the information regarding all such regulations and/or restrictions which may affect the 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>		

ITEM	DESCRIPTION	KSHS	CTS
C.	SECURITY OF WORKS ETC.		
	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.		
	<i>Carried to collection</i>		
A.	PUBLIC AND PRIVATE ROADS.		
	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		
B.	EXISTING PROPERTY.		
	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		
C.	VISIT SITE AND EXAMINE DRAWINGS.		
	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.		
D.	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 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		

ITEM	DESCRIPTION	KSHS	CTS
E.	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		
	<i>Carried to collection</i>	-	
A.	OFFICE ETC. FOR THE PROJECT MANAGER		
	The Contractor shall provide and maintain where directed on site a room to be used as the site office, complete with Furniture.		
B.	WATER AND ELECTRICITY SUPPLY FOR THE WORKS		
	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.		
C.	SANITATION OF THE WORKS		
	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		
D.	SUPERVISION AND WORKING HOURS		
	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.		

ITEM	DESCRIPTION	KSHS	CTS
E.	PROVISIONAL SUMS.		
	The term "Provisional Sum" wherever used in these Bills of Quantities shall have the meaning stated in Section A item A7(i) of the Standard Method of Measurement. Such sums are net and no addition shall be made to them for profit.		
	<i>Carried to collection</i>		
A.	PRIME COST (OR P.C.) SUMS.		
	The term "Prime Cost Sum" or "P.C. Sum" wherever used in these Bills of Quantities shall have the meaning stated in Section A item A7 (ii) of the Standard Method of Measurement. Persons or firms nominated by the PROJECT MANAGER to execute work or to provide and fix materials or goods are described herein as Nominated Sub-Contractors. Persons or firms so nominated to supply goods or materials are described herein as Nominated Suppliers.		
B.	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.		
C.	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. 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.		
	<i>Carried to collection</i>		

ITEM	DESCRIPTION	KSHS	CTS
A.	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 , 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.		
B.	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 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".		
C.	DIRECT CONTRACTS		
	Notwithstanding the foregoing conditions, the Government reserves the right to place a "Direct Contract" for any goods or services required in the works which are covered by a P.C. Sum in the Bills of Quantities and to pay for the same direct. In any such instances, profit relative to the P.C. Sum in the priced Bills of Quantities will be adjusted as described for P.C. Sums is allowed.		
D.	ATTENDANCE UPON OTHER TRADESMEN, ETC.		
	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.		
	<i>Carried to collection</i>	-	

ITEM	DESCRIPTION	KSHS	CTS
A.	INSURANCE		
	<p>The Contractor shall insure as required in Conditions No. 30 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>		
B.	PROVISIONAL WORK		
	<p>All work described as "Provisional" in these Bills of Quantities is subject to re-measurement 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 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>		
C.	ALTERATIONS TO BILLS, PRICING, ETC.		
	<p>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>		
D.	BLASTING OPERATIONS		
	<p>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>		
	<i>Carried to collection</i>		

ITEM	DESCRIPTION	KSHS	CTS
A.	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.		
B.	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.		
C.	REMOVAL OF RUBBISH ETC.		
	Removal of rubbish and debris from the Buildings and site as it accumulates and at the completion of the works and remove all plant, scaffolding and unused materials at completion.		
D.	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		
	<i>Carried to collection</i>		

ITEM	DESCRIPTION	KSHS	CTS
A.	GENERAL SPECIFICATION.		
	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.		
B.	TRAINING LEVY		
	The Contractor's attention is drawn to National Industrial Training Authority Act CAP 237, which requires payment by the Contractor of a Training Levy at the rate of 50.00 per employee per month.		
C.	MATERIALS ON SITE		
	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.		
D.	HOARDING		
	The Contractor is required to take all precautions necessary for the safe custody of the works, materials, plant, public and Employer's property on the site.		
E.	CONTRACTOR'S SUPERINTENDENCE/SITE AGENT		
	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.		
	<i>Carried to Collection</i>		

BUILDERS WORK

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Main block (main works) ELEMENT NO. 1; SUBSTRUCTURES (All Provisional)				
A	Clear area of new construction of all undergrowth, small bushes, grab up all trees and remove any existing structures and obstructions as directed.	Sm	900		
B	Cut down trees girth900mm- 1200mm, remove out tree stumps and grab out roots, dispose off as directed and refill pits	No.	4		
C	Excavate oversite to remove vegetable soil, load and cart away from site to contractor's dumping area as directed; Average 200 mm depth	Sm	350		
D	Excavate to reduce levels commencing from stripped level: not exceeding 1.5 m deep	Cm	495		
E	Excavate to reduce levels commencing from stripped level: over 1.5m not exceeding 3.0 m deep	Cm	330		
F	Excavate for strip foundation trenches commencing from reduced level: not exceeding 1.5m deep	Cm	180		
G	Ditto for column bases	Cm	8		
H	Excavating in any class of rock as described in the specifications	Cm	50		
I	Return, fill and ram selected soil in foundations	Cm	825		
	<i>Substructure carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Substructure brought forward</i>				
J	Remove surplus soil and debris from site to a place approved by local authority	Cm	100		
K	Allow for upholding and supporting sides of excavations including any necessary plunking and strutting	Item	1		
M	Allow for keep excavations free of spring, underground or running water including any necessary pumping, bailing or other approved means	Item	1		
	<u>Mass concrete mix (1:3:6):in</u>				
A	50 mm Thick blinding under strip foundations	Sm	120		
B	Ditto under column bases	Sm	24		
	<u>Vibrated reinforced insitu concrete class 25/20; with minimum cube crushing strength of 25N/mm² at 28 days; in</u>				
C	Strip foundations	Cm	50		
D	Column bases	Cm	12		
E	Columns	Cm	8		
F	Ground floor slab; 150 mm thick	Sm	290		
G	Ramps; Ditto	Sm	4		
H	Steps	Cm	4		
	<i>Substructure carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>Mesh fabric reinforcement</u>				
A	Mesh reinforcement No. A142 size 200 x 200 mm weighing 2.22 kg per square metre: in floor slab: including all necessary supports	Sm	290		
	<u>Supply and fix mild steel bar in structural concrete work including cutting, bending, hoisting, tying wire, spacing blocks and supporting all in position in foundation footing, column bases and columns</u>				
B	8 - 32 mm Bars	Kg	6000		
	<u>Sawn formwork: to</u>				
C	Vertical sides of column bases	Sm	22		
D	Sides of columns	Sm	48		
E	Sides of strip footing	Sm	120		
F	Edges of steps; cut to profile of steps	Sm	6		
G	Edges of slabs; 150 - 225 mm girth	Lm	100		
	<u>Walls</u>				
A	Medium Chisel dressed natural stone walling bedded in cement and sand mortar (1:4) with minimum stone crushing strength of 14N/mm ² ; foundations	Sm	400		
	<i>Substructure carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Substructure brought forward</i>				
	<u>Hardcore</u>				
B	300 mm thick hardcore of approved inert material: well watered and compacted in 150 mm thick (maximum) layers	Sm	290		
	<u>Blinding</u>				
C	50 mm Thick approved quality murrum blinding to surfaces of hardcore	Sm	290		
	<u>Anti-termite treatment</u>				
D	Termidor 25EC or other approved anti-termite chemical treatment to surfaces of blinded hardcore and around foundations : applied by approved professional pest control specialist: applied strictly in accordance with the manufacturer's instructions: 10 year guarantee	Sm	290		
	<u>DPM</u>				
E	Gauge 1000 polythene damp proof membrane	Sm	290		
	<u>25 mm Thick cement and sand (1:4) rendering: on concrete or stonework: wood float: to</u>				
F	Plinths: externally	Sm	60		
	<i>Substructure carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Substructure brought forward</i>				
	<u>Prepare surfaces and apply undercoat and two finishing coats black bitumastic or other equal approved water resistant paint: on rendered surfaces: to</u>				
G	Plinths: externally	Sm	60		
	<u>Substructures carried to summary page</u>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	ELEMENT NO. 2; CONCRETE WORKS				
	Sawn formwork: to				
A	Sides and soffits: ring beams and lintols	Sm	120		
B	Columns; vertical sides	Sm	66		
	<u>Supply and fix mild steel bar in structural concrete work including cutting, bending, hoisting, tying wire, spacing blocks and supporting all in position</u>				
C	8 - 32 mm Bars	Kg	6500		
	<u>Vibrated reinforced insitu concrete class 25/20; with minimum cube crushing strength of 25N/mm² at 28 days; in</u>				
D	Beams and lintols	Cm	36		
E	Columns	Cm	8		
	Concrete works carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>ELEMENT NO. 3; WALLS</u>				
	<u>External walls</u>				
	<u>Dressed natural quarry stone walling bedded in cement and sand mortar (1:3) with minimum stone crushing strength of 7N/mm²</u>				
A	200 mm Thick walls	Sm	330		
	<u>Internal</u>				
	<u>Natural stone walls: machine cut: bedded and jointed in cement and sand (1:3) mortar</u>				
B	200 mm Thick walls	Sm	130		
	<u>Bituminous felt or other equal approved damp-proof course: in cement/ sand (1:3) mortar</u>				
C	200 mm Wide	Lm	200		
D	12mm flexcell expansion joint	Sm	32		
	Walls carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>ELEMENT NO. 4: ROOF</u>				
	<u>Roof cover</u>				
A	Gauge 28 orientile shaped roof cover fixed with rubber washers to match.	Sm	450		
B	Ditto 450mm wide ridge / hip cover.	Lm	70		
C	Ditto valley gutter	Lm	20		
D	Raking and cutting roof cover at hips and valleys	Lm	70		
	<u>All in sawn celcured and well seasoned cypress:- 12mm diametre 300mm long mild steel anchor bolts with head, nut, washers and split ring cast into ring beam and bolted to wall plate(m.s) work.</u>				
E	- 150 x 50mm Tie beam	Lm	320		
F	150 x 50mm rafter, half rafters, valley & hip rafters (Rafters at 1.2m centre)	Lm	400		
G	100 x 50mm struts and king post	Lm	450		
	<u>end of trusses</u>				
H	150 x 50mm wall plate.	Lm	190		
I	75 x 50mm purlins (at 600mm centres)	Lm	800		
J	200 x 25mm wrott fascia and verge board	Lm	100		
	<u>Sundries</u>				
K	Bed wall plate(m.s) in cement sand mortar 1:3	Lm	190		
	<i>Roof carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Roof brought forward</i>				
M	Bore 12mm diameter holes through 50mm thick wall plate at 2m centres.	No.	95		
N	Knot, prime, stop and apply 3 coats super gloss oil paint to surfaces of fascia and vergeboard 200-300mm high.	Lm	100		
	<i>Rain water goods</i>				
A	150mm half diameter u.P.V.C gutters of 6lm lengths	Lm	90		
B	150mm half diameter u.P.V.C holder clips at 1.2m centre and at ends, complete with screws	No.	75		
C	Extra over ditto for connectors at joints nailed to fascia(m.s)	No.	16		
D	Extra over ditto for stoped ends	No.	8		
E	Extra over ditto swannecks	No.	5		
F	75mm diameter p.v.c downpipe to match, clipped to walls	Lm	30		
G	Extra over ditto for 600mm long shoe	No.	5		
H	Ditto bends	No.	24		
	Roof carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<p>ELEMENT NO. 5; DOORS</p> <p><u>Timber Doors</u></p> <p><u>45 mm thick flush door: solid core;</u></p> <p><u>Mahogany veneered to both sides;</u></p> <p><u>hardwood lipped edges; refer to</u></p> <p><u>Architect's details</u></p>				
A	<p>Single leaf door; overall size 900 x 2400 mm high; with 6 mm thick clear fanlight glazing overall size 860 x 300 mm high complete with all beadings</p>	No	5		
	<p><u>Supply and fix the following mahogany glazed doors comprising of 150 x 50mm bottom rail, top rail, middle rail, transoms and stiles; 6 mm thick toughened glass and glazing infill with and including glazing beads; All as per architect's drawings and details</u></p>				
A	<p>Single leaf door; overall size 900 x 2400 mm high; with 6 mm thick clear fanlight glazing overall size 860 x 300 mm high complete with all beadings</p>	No	3		
B	<p>Double door; overall size 1800 x 2400 mm high; with 6 mm thick clear fanlight glazing overall size 1760 x 300 mm high complete with all beadings</p>	No	4		
	<p><i>Doors carried forward</i></p>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Doors brought forward</i>				
	<u>Roller shutter door</u>				
A	Supply and fix 2500mm x 2400mm galvanized roller shutter door complete with barrel, springs, hanger rings, end plates, canopy, vertical guide rails, curtain; 80mm slats, T bar or bottom rail	No	4		
	<u>Prepare surfaces and apply three coats of approved gloss oil paint to metal surfaces</u>				
B	Doors: both sides measured	Sm	50		
	<u>Wrot mahogany: prime grade; with stainless steel fixing straps; including chasing to masonry, plugging and making good</u>				
A	200 x 50 mm Door frame: twice rebated: plugged	Lm	82		
B	50 x 25 mm Architrave: splayed	Lm	66		
C	25 x 25 mm Quadrant	Lm	66		
	<u>Prepare and apply one coat of aluminium wood primer on timber surfaces in contact with concrete or masonry</u>				
D	Over 100 but not exceeding 200 mm girth	Lm	214		
	<u>Prepare surfaces: apply two coats clear pinotex spirit in clear matt varnish: on timber surfaces: to</u>				
E	Over 100 but not exceeding 200 mm girth	Lm	214		
	<i>Doors carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Doors brought forward</i>				
F	General timber surfaces: doors <u>Supply and fix: 'UNION' or other equal approved ironmongery: matching screws: locks to include a set of 3 keys: available from their authorised local dealers; brass finish to architects approval</u>	Sm	56		
A	100mm brass butt hinges	Prs	24		
B	Two lever mortice lock with handles	No	12		
C	Door closer	No	12		
D	38 mm Diameter oval rubber stop; floor or wall mounted	No	16		
	Door carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	ELEMENT NO. 6; WINDOWS				
	<u>Approved pre-cast concrete cill: bedded and jointed in cement (sand (1:3) mortar: pointed in matching coloured cement</u>				
A	250 x 50 mm Thick cill; once weathered and throated	Lm	40		
	<u>Supply and fix the following purpose made steel casement purpose made windows, including all necessary cuttings lugs, stays and bedding into walls in cement sand mortar 1:4 complete with stays, fasteners, all necessary accessories and priming once in red-oxide, to Architects approval, with minimal burglar proofing in 20mm angle line framing</u>				
A	- Window size 2500 x 750mm high. For stores	No.	2		
B	Ditto size 2500 x 1500mm high. For laboratory	No.	5		
C	Ditto size 1200 x 1500mm high.	No	2		
D	Ditto size 2000 x 1500mm high.	No.	6		
	<u>Glazing</u>				
F	4mm thick mild tinted sheet glass in panes 0.1-0.5sm fixed in steel window panes with putty.	Sm	54		

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>Painting</u> <u><i>Prepare, prime and apply 3 coats of super gloss oil paint as "crown" or any other equal and approved to surfaces of:</i></u>				
A	- Windows externally <i>Windows carried forward</i>	Sm	8		
	<u>Windows brought forward</u>				
B	Windows internally	Sm	8		
	<u>Curtain rods</u>				
A	Supply and fix 2900mm long double curtain rod for both vertical blinders and sheers with a strong chrome pipe of 28mm diameter, 2pcs finials, 2pcs end cups, 4pcs brackets, rings, screws and anchor to install	No	10		
	Window carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Element 07; Ceiling				
A	10mm thick chipboard ceiling fixed in rectangular shape	Sm	340		
B	10 x 75mm ditto cornice plugged and nailed to battens	Lm	320		
C	Extra-over ditto in access door size 450 x 600mm, including framing in 75 x 50mm sawn cypress	No.	2		
	Branding				
D	50 x 50mm sawn cypress branding	Lm	500		
E	50 x 75mm ditto.	Lm	800		
	Ceiling carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>ELEMENT 8; Fixtures and fittings</u>				
	<u>Shelving to packaging room</u>				
	<u>20 mm thick block board storage shelves supported of mild steel 25 x 25 mm frames; painted to approval; 450 mm wide</u>				
A	10000 mm long x 450 mm deep x 3000 mm high	Sm	50		
B	Ditto for cabinet below the worktop in seed lab	Sm	30		
	Ceiling carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>ELEMENT 9; FINISHES</u>				
	FLOOR FINISHES				
A	30mm thick cement sand 1:2 backing to receive ceramic floor tiles or terrazzo (s.m)/Skirting	Sm	300		
B	20mm thick polished terrazzo paving to floor and the worktop including plastic strip dividers/skirting	Sm	300		
	<u>walls internally</u>				
H	12mm thick gauged plaster cement sand lime 1:1:6 with a smooth float to walls, beams and columns internally	Sm	400		
I	Ditto to reveals and jambs.	Sm	30		
	<u>Walls Externaly</u>				
H	12mm thick gauged cement sand render 1:2 finished with a wood float to beams and columns	Sm	215		
I	Keying in cement sand 1:2, pointing in gloss oil paint and wire brushing natural machine cut stone externally	Sm	130		
	Finishes carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	ELEMENT 10; PAINTING & DECORATIONS <u><i>Prepare and apply 3 coats silk vinyle emulsion paint as "crown" or any other equal and approved paint to</i></u>				
A	Plastered walls internally	Sm	400		
B	Soffites of chip board ceiling	Sm	340		
C	Plastered walls externally	Sm	215		
	Painting carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>SUMMARY OF ELEMENTS</u>				
A	ELEMENT NO. 1 , SUBSTRUCTURE				
B	ELEMENT NO 2, R.c WORKS				
C	ELEMENT NO 3, WALLING				
D	ELEMENT NO. 4, ROOF				
E	ELEMENT NO. 5 , DOORS				
F	ELEMENT NO. 6 , WINDOWS				
G	ELEMENT NO. 7 , CEILING				
H	ELEMENT NO. 8 , FIXTURES & Fittings				
I	ELEMENT NO 9, FINISHES				
J	ELEMENT NO. 10 PAINTING & DECORATIONS				
	TOTAL FOR BUILDERS WORK CARRIED TO GRAND SUMMARY.				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>RAISED CONCRETE WATER TANK STAND 4500mm high from ground level</u>				
	Element 01: Substructure (all provisional)				
A	Clear area of new construction of all undergrowth, small bushes, grab up all trees and remove any existing structures and obstructions as directed.	Sm	16		
B	Excavate for column bases commencing from ground level level: not exceeding 1.5 m deep	Cm	14		
C	Return, fill and ram selected soil in foundations	Cm	13		
	<u>Vibrated reinforced insitu concrete class 25/20; with minimum cube crushing strength of 25N/mm² at 28 days; in</u>				
A	Column bases 200mm thick	Cm	2		
B	Sub structure and superstructure columns 400mmx400mm size	Cm	4		
	<u>Supply and fix mild steel bar in structural concrete work including cutting, bending, hoisting, tying wire, spacing blocks and supporting all in position</u>				
C	8 - 12 mm Bars for substructure columns, column bases, superstructure columns ring beams and slab	Kgs	478		
	<i>Raised conc. Water tank stand carried forward</i>				
	<i>Raised conc. Water tank stand brought forward</i>				
	<u>Sawn formwork: to</u>				
D	Vertical sides of coulumn bases	Sm	2		

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
E	Sides of columns	Sm	10		
	<u>Superstructure works</u> Sawn formwork: to				
F	Sides and soffits: beams	Sm	11		
G	Soffits and sides of suspended slab	Sm	9		
	<u>Vibrated reinforced insitu concrete class 25/20; with minimum cube crushing strength of 25N/mm² at 28 days; in</u>				
H	Slab and beams	Cm	5		
	<u>Plaster: 15 mm cement/lime putty/sand: steel trowelled: on masonry or concrete: to</u>				
I	concrete surfaces	Sm	98		
K	Purchase and instal 5,000 liters cylindrical kentank plastic water tank	Item	1		
	Sub total for construction of raised concrete water tank stand				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>SUMMARY OF ELEMENTS</u>				
A	ELEMENT NO. 1 , SUBSTRUCTURE				
B	ELEMENT NO 2, R.c WORKS				
C	ELEMENT NO 3, WALLING				
D	ELEMENT NO. 4, ROOF				
E	ELEMENT NO. 5 , DOORS				
F	ELEMENT NO. 6 , WINDOWS				
G	ELEMENT NO. 7 , CEILING				
H	ELEMENT NO. 8 , FIXTURES & Fittings				
I	ELEMENT NO 9, FINISHES				
J	ELEMENT NO. 10 PAINTING & DECORATIONS				
K	RAISED WATER TANK STAND				
	TOTAL FOR BUILDERS WORK CARRIED TO GRAND SUMMARY.				

MECHANICAL WORKS

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<p><u>MECHANICAL ENGINEERING SERVICES</u> <u>BQ</u></p> <p>Bill No1: SANITARY APPLIANCES</p> <p>Supply, 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. Note:</p> <p>(i) All sanitary fittings shall be in approved colour.</p> <p>(ii) The Model and Ref No. indicated is only a guide to the type and quality of fittings.</p> <p>(iii) Equivalent and Approved models may be acceptable.</p>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<p><u>BILL NO.2: INTERNAL WATER CONNECTION</u></p> <p>Supply and install tubing and fittings as described and shown on the drawings. Tenderers must allow for jointings, couplings etc necessary for the proper and satisfactory functioning of the system when pricing the following in PN 20 PPRC conforming to the current European standards for PPR installations and to the Engineer's approval, pipe jointing shall be by polyfusion or use of electric coupling Rates must allow for all the Metal/plastic threaded adaptors where required for the connection of sanitary fixtures, valves, sockets, sliding and fixed joints, support raceways, isolating sheaths, elastic materials, expansion arms and bends, crossovers etc</p>				
	<u>PPR Pipes</u>				
A	20mm dia pipe chased in walls/floors	Lm	30		-
B	25mm –ditto-	Lm	20		-
C	32mm –ditto-	Lm	30		-
	<u>Extra-over PPR pipework for the following:-</u>				
	<u>Bends/elbows</u>				
G	20mm dia bend	No	10		
H	25mm bend	No	10		
I	32mm bend	No	5		
L	20x1/2" dia male threaded 90o bend	No	5		
M	20x1/2" dia female threaded 90o bend	No	5		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Sanitary appliances brought forward</i>				
	<u>Tees</u>				
N	25mm diameter equal tee	No	5		
O	25x1/2" female threaded tee	No	5		
P	25x1/2" male threaded tee	No	10		
Q	32mm diameter equal tee	No	5		
R	20mm dia tee	No	10		
	<u>Unions</u>				
A	20mm dia union	No	5		
B	25mm –ditto-	No	5		
C	32mm –ditto-	No	5		
	<u>Reducers</u>				
F	25/20mm reducers	No	5		
G	32/25mm reducers	No	5		
	<u>Gate valve</u>				
J	20mm Pegler	No	3		
K	25mm –ditto-	No	3		
L	32mm –ditto-	No	2		
	<u>Flexible connectors</u>				
O	450mm chrome plated flexible connector with chrome plated angle check valve size 15mm dia including unions and sockets to connect sanitary fittings to PP-R Pipework	No	5		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Sanitary appliances brought forward</i>				
	<u>Supply, deliver and install the following vulcathene laboratory system including waste outlets, sinks, drip cups, anti-siphon traps, dilution recovery traps and associated comprehensive range of pipe and fittings for the given sizes all as vulcathene or approved equivalent</u>				
A	Laboratory sink A sink of preferred dimensions 552mm x 400mm with a depth of 231mm having a drain of 74mm, that is extremely robust and moulded with a self draining base with its recessed outlet to accept the flange of 1 1/2" (40mm) non overflow threaded outlet but if required, an overflow assembly can be fitted. The sink to be complete with anti siphon traps that can stop the backflow of potentially harzadious fumes. All the downstream fittings to be as vulcathene.	No	2		
B	Three way Assay Lab Faucet in solid brass High gloss epoxy powder , resistant to most chemicals, UV fading and heat. Ceramic headwork;90 deg turn, water static pressure max 10bar. To be complete with detachable brass serrated nozzle, splash controlled water filter attacheble, ergonomic high grade PP knob and 360 deg swing gooseneck spout.	No	2		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Sanitary appliances brought forward</i>				
C	<p><u>Emergency Drencher Shower and Eye Fountain</u></p> <p>Body shower with eye/face shower and bowl modular in brass and stainless steel with chemical resistant red BROEN-LAB polycoat with self-draining shower head. The shower head with a pull to open mechanism and eye wash with a footpedal opening mechanism. Eye wash with built-in FLOWFIX for regulation of water flow at14l/min. Bowl in stainless steel with integrated out with a min working pressure of 1.5bar. all as BROEN-LAB or equal and approved</p>	No	1		
D	<p>Emergency shower instructions Wall mounted sign and instruction card for Body and Eye Shower above</p>	No	1		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Sanitary appliances brought forward</i>				
	<u>BILL NO.3 FOUL WATER INTERNAL DRAINAGE FROM THE WASHROOMS AND LABORATORY</u>				
	Supply and fix uPVC soil system to BS 4660 and BS 4515 and MuPVC waste systems to BS 5255 with screwed and socketed joints to BS 21. Solvent welded joints shall be as per the system's manufacturer's written instructions. 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.				
	<u>MuPVC and uPVC Waste and Soil pipework</u>				
A	150mm diameter heavy gauge grey mUPVC pipe	Lm	60		
B	100mm diameter heavy gauge grey mUPVC pipe	Lm	20		
C	50mm diameter waste pipe	Lm	50		
D	32mm diameter waste pipe	Lm	50		
	<u>Bends</u>				
E	150mm diameter access bend	No	4		
F	100mm diameter access bend	No	6		
G	150mm diameter sweep bend	No	6		
H	100mm diameter sweep bend	No	6		
I	50mm diameter sweep bend	No	6		
J	32mm diameter sweep bend	No	6		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Sanitary appliances brought forward</i>				
	<u>Tees</u>				
L	50mm diameter sweep tee	No	4		
M	32mm diameter sweep tee	No	4		
	<u>Access Caps</u>				
N	100mm diameter access cap	No	6		
P	32mm diameter access cap	No	6		
	<u>Boss Connectors</u>				
Q	150 x 100mm diameter boss connector	No	4		
R	100 x 50mm diameter boss connector	No	4		
S	50 x 32mm diameter boss connector	No	4		
	<u>Traps</u>				
D	100 x 50mm diameter floor trap and grating	No	4		
E	50 x 50mm diameter U-shaped tubular trap	No	4		
	<u>Testing and Commissioning</u>				
G	Allow for testing and commissioning of the plumbing and drainage installations to the satisfaction of the Engineer.	Item	1		
	<i>Sub total for sanitary appliances</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
C	Summary page SANITARY APPLIANCES				
	Total for sanitary appliances carried to summary page				

ELECTRICAL WORKS

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Electrical works				
A	Supply, deliver & install on site one gang one-way switches	No	6		
B	Supply, deliver & install on site one gang two-way switches	No	10		
C	Supply, deliver & install on site three gang two-way switches	No	1		
D	Supply, deliver & install on site one gang intermediate switch	No	2		
E	Supply, deliver & install on site two gang two-way switches	No	2		
F	Supply, deliver & Install 1200mm, 1x58w T26 LED fluorescent light fittings with Aluminium louvres (complete with tubes) as thorn, do wiring as appropriate using 3x1.5mm ² single core copper cables as E. African cable drawn in concealed pvc conduit. The fittings to be surface mounted on the ceiling & spaced as appropriate.	No	45		
G	Supply deliver to site, Install and do wiring of 1200mm single LED batten fluorescent fittings with prismatic diffuser (complete with tubes) wired in a 3x1.5mm ² PVC insulated single core copper cable drawn in a concealed 20mm PVC heavy gauge conduits	No	3		
H	Supply, deliver, Install & wire twin 13amps socket outlets drawn in concealed pvc conduit using 3x2.5mm ² single core copper cable in three ring circuit all terminated at the DB protected by 32Amps single pole MCB	No	22		
	Cont. electrical carried forward				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>electrical brought forward</i>				
I	Supply, deliver, Install in the processing area & wire five pin 32amps industrial socket outlets each as a final subcircuit from the DB isolated using 40Amps three pole MCB wired using 4x4.0mm ² single core copper cables as E. African cable drawn in concealed pvc conduit.	No	2		
J	Supply, deliver & install in the processing area 40Amps triple pole MCB as Schneider or equivalent as approved by project manager and housed in an enamel paint finish metal enclosure	No	2		
K	Supply, deliver & install on 32Ampsamps triple pole MCB to fit in the installed DB	No	2		
L	Supply, deliver & install on 10amps MCB to fit in the DB	No	4		
M	Supply, deliver & install single pole 32amps MCB to fit in the DB installed	No	3		
N	Supply, deliver & install 150x300mm concrete Danger Hatari tiles	No	270		
O	Excavate 250x600mm deep trench to lay the armoured cable	Cm	15		
P	Supply, deliver to site & install four core 16mm ² Armoured copper cable laid in 600mm deep trench pre-covered with "Danger Hatari" concrete tiles then back fill	Lm	80		
	<i>Cont. electrical carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>electrical brought forward</i>				
Q	Three phase 415v, 125Amps six ways distribution board as Havels or equivalent as approved by project manager	No	1		
R	Manhole of 450x450x600mm (LxWxH)using machine cut stone and plastered on internal faces complete with top 100mm concrete cover. Allow for 100mm ducts entry	No	2		
S	Supply, deliver to site & install four pole 125Amps MCCB plus Metal housing as Havels or equivalent as approved by project manager	No	1		
T	Supply and install concrete cable makers(UG) along the underground cable line	No	4		
	<u>SECURITY LIGHTING</u>				
A	Supply, deliver and install LED security lighting fitting 50watts as thorn or approved equivalent wired in a 3x1.5mm ² PVC insulated single copper cable drawn in a concealed 20mm PVC heavy gauge conduit	No	7		
B	Supply, deliver and install 240volts 32Amps contactor as Telemecanique or equivalent to switch on the security lights	No	1		
C	Supply, deliver and install 240volt 10amps Photo cell switch to activate the contactor "Ditto"	No	1		
D	Supply and do earthing at the building main connection point using 10mm ² single core cable and 12mmx1200mm copper earth rod	No	1		
	<i>Cont. electrical carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>electrical brought forward</i>				
E	Interconnect the item (O) above to the installed 3 phase DB using 5x16mm ² single core cables drawn in concealed pvc conduit as appropriate	No	1		
F	Supply and install <i>in situ</i> 100mm diameter heavy gauge UPVC pipe as duct (2No. Parallel ducts) from the constructed block to the rear side to receive the power cables	Lm	12		
	Sub total for electrical works carried to summary page				

CIVIL WORKS

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	MANHOLES(all provisional)				
	The following in 12 No. Manholes class "B" All provisional				
	-				
A	Excavate manhole pit not exceeding 1.5m deep.	Cm	27		
B	Return, fill-in and consolidate excavated materials around manhole walls.	Cm	15		
C	Remove surplus excavated materials and deposit on site as directed.	Cm	12		
D	Extra-over excavation for excavating in rock class 'A'	Cm	2		
E	150mm thick mass concrete 1:3:6 in manhole base.	Sm	27		
	<u>Precast Concrete</u>				
F	100mm thick precast concrete 1:2:4 in manhole cover slab size 1380mmx1180mm, reinforced with 8mm diametre at 80mm centres both ways with rebated opening for 450x600mm cover and frame finished smooth including any necessary formwork.	Sm	12		
	<u>Benching</u>				
G	Concrete 1:3:6 in benching to bottom of manholes internal size 1000mmx800mm including haunching to a height of 200mm above channel and rendering in cement 1:2 trowelled smooth.	No.	12		
	<i>Manhole carried forward</i>				
	Ex2				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Manhole brought forward</i>				
H	Make or leave hole through 200mm concrete wall for 150mm diameter pipe (m.s) built-in and make good walls and render all round.	No.	24		
	<u>Extra-over benching to forming the following channels with external rounded angles with slopping top of benching:-</u>				
	-				
I	150mm diametre half-round section straight main channel 900mm long.	No.	12		
A	Ditto but curved 900mm long.	No.	12		
B	140mm thick masonry block walling in cement sand mortar 1:3.	Sm	72		
C	12mm thick cement sand 1:2 plaster to ditto with approved water-proofing admixture to internal sides of manholes trowelled smooth.	Sm	54		
D	Ditto but render to top and sides of cover slab and walling.	Sm	16		
E	Fiber manhole cover size 600mmx450mm and setting frame in cement sand mortar 1:3 and cover in grease.	No.	12		
F	Extra over formworks boxing to form opening for manhole cover(m.s)	No.	12		
	<i>Sub total for manhole carried to summary page</i>				
	Ex 3				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	SOAKAGE AREA(all provisional)				
	The following in french drains as per standard drawing No.(50) 5344, average 5Lm				
	-				
A	Excavate trench for french drains, not exceeding 1.5m deep starting from original ground level	Cm	4		
B	Extra-over excavation for excavating in rock class 'A'	Cm	1		
C	Cart away excavated materials from site.	Cm	2		
D	Trim sides of french drain to slope.	Sm	12		
E	20-60mm crushed stones or washed gravel.	Cm	2		
F	Back filling selected excavated soils mean thickness 350mm	Cm	1		
G	Imported 200mm thick compacted murrum	Cm	1		
H	500 gauge polythene sheet.	Sm	6		
I	150mm diameter agricultural or perforated upvc pipe laid to falls in units of 450mm lengths with 10mm open joints covered to top half with 100mm width paper.	Lm	6		
	TOTAL FOR SOAKAGE AREA CARRIED TO SUMMARY				
	Ex 4				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	1-No. SOAK- PITS(all provisional)				
	<u>The following in 1-No soakpits as per drawing No.M.o.W(50) 5345</u>				
A	Excavate pit not exceeding 1.5m deep starting from original ground level	Cm	6		
B	Ditto between 1.5m-3.0m deep.	Cm	6		
C	Ditto between 3.0m-4.5m deep.	Cm	6		
F	Extra-over excavation for excavating in rock class 'A'	Cm	8		
G	Cart away surplus excated materials from site.	Cm	20		
H	Return, fill-in and consolidate excavated materials around foundations.	Cm	6		
I	Mass concrete 1:3:6.	Cm	1		
J	100mm thick vibrated reinforced concrete 1:2:4 in cover slab.	Sm	4		
K	12mm diametre high tensile square twisted bars to B/s 4449	Kg	25		
	<u>Sawn formwork to:-</u>				
M	Soffites of suspended slab	Sm	4		
N	Edges of suspended cover slab girth 75-150mm.	Lm	8		
A	Boxing to form opening size 600x450mm in 150mm thick suspended cover slab, rebated all round.	No.	1		
	<i>Soak pit carried forward</i>				
	Ex 5				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Soak pit brought forward</i>				
B	Form or leave 150mm diametre hole in 150mm thick block walling.	No.	1		
C	Building in, 150mm diametre drain pipe through 150mm thick walling and make good in cement sand render 1:3.	No.	1		
	<u>approved machine cut walling in cement sand mortar 1:3:-</u>				
D	150mm walling coved on plain 740mm radius.	Sm	15		
E	12mm thick cement sand 1:4, rendering coved to wall radius	Sm	15		
F	Ditto but to top and edges of suspended slab.	Sm	5		
G	Fiber manhole cover size 600mmx450mm and setting frame in cement sand mortar 1:3 and cover in grease.	No.	1		
	CARRIED TO COLLECTION				
	Ex 6				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>SEPTIC TANK- 200 persons-45000 ltr capacity as per M.O.P.W standard drawing No. (50) 5343 All provisional</u>				
A	Excavate for pit not exceeding 1.5m deep commencing from ground level.	Cm	36		
B	Ditto between 1.5-3.0m deep	Cm	36		
C	Ditto exceeding 3.0m but not exceeding 4.5m deep.	Cm	24		
D	Extra Over excavation for excavating in rock Class "A"	Cm	36		
E	Return, fill-in and ram selected excavated materials around walls and foundations.	Cm	54		
F	Load and cart away excavated materials.	Cm	78		
G	50mm thick plain concrete 1:4:8 blinding under foundation footing.	Sm	24		
H	Ditto but laid to falls not exceeding 15 degrees from horizontal.	Sm	12		
J	Ditto in benching average 200mm high, in manhole size 600 x 850mm, including forming 150mm diametre half round main channel.	No.	2		
	<i>Septic tank carried forward</i>				
	Ex 7				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Septic tank brought forward</i>				
	Vibrated reinforced concrete 1:2:4 to:-				
I	150mm floor bed laid to falls not exceeding 15 degrees from horizontal.	Sm	24		
J	Ditto floor bed	Sm	12		
K	Ditto manhole footing	Sm	2		
L	150mm thick suspended scum baffle walling.	Sm	8		
A	200mm thick scum baffle walling with slats	Sm	8		
B	250mm thick extenal walling	Sm	70		
C	150mm thick cover slab.	Sm	24		
	<u>Sawn formwork to:-</u>				
D	Sides and Soffites of suspended scum baffle.	Sm	8		
E	Ditto sides of baffle walling	Sm	8		
F	Sides of extenal walling	Sm	40		
G	Soffites of cover slab.	Sm	24		
H	Boxing to ditto for manhole cover(m.s) opening size 450 x 600mm.	No.	4		
I	Sides and edges of cover slab 150-225mm high.	Lm	22		
	<u>Reinforcement</u>				
J	10mm diameter bars	Kg	440		
	<i>Septic tank carried forward</i>				
	Ex 8				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Septic tank brought forward</i>				
K	20mm cement sand 1:2 floor screed, water proofed with pudlo and trowelled smooth, not exceeding 15 degrees to horizontal with sulphate resistant cement.	Sm	24		
L	Ditto to horizontal floors	Sm	12		
M	Ditto manhole bases	Sm	2		
N	Ditto to sides and soffites of suspended scum baffles.	Sm	21		
P	Sides of scum baffle walling	Sm	20		
Q	Ditto to walls.	Sm	100		
R	Ditto to top and sides of cover slab.	Sm	12		
A	Approved Heavy duty plastic manhole cover and frame size 600 x 450mm including bedding frame in cement and sand mortar 1:2 and setting cover in grease.	No.	4		
B	100mm diameter P.V.C inlet pipe with equal "Tee" 450mm long.	No.	1		
C	100mm diameter U.P.V.C out-let pipe 750mm long	No.	1		
D	Form or leave 150mm diameter hole in 250mm walling.	No.	4		
E	25mm diameter bitumen coated cast iron step bars 600mm long with 300mm long footing , sunk into concrete walling	No.	6		
	Sub total for septic tank				
	Ex 8				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>SUMMARY OF EXTERNAL WORKS</u>				
A	FOUL DRAINAGE				
	-				
B	12 No. MANHOLES TYPE				
C	SOAKAGE AREA				
D	1 No. SOAKPITS				
E	SEPTIC TANK				
	TOTAL FOR DRAINAGE WORKS CARRIED TO GRAND SUMMARY				

PC & PROVISIONAL SUMS

ITEM	DESCRIPTION	UNIT	AMOUNT
	PROVISIONAL SUMS		
	-		
	<u>The Contractor shall include in his tender the following to be deducted in whole or in part as directed by the Project Manager.</u>		
	-		
A	Allow a provisional sum of Kenya Shillings Five hundred thousand (Kshs.500,000/=) only for contingencies.		500,000.00
PC CARRIED TO GRAND SUMMARY			500,000.00

ITEM	DESCRIPTION		AMOUNT
	PROPOSED CONSTRUCTION OF SEED CENTRE FOR BARINGO – MARIGAT SUB CENTER		
	<u>MAIN SUMMARY</u>	<u>PAGE</u>	
1.	PARTICULAR PRELIMINARIES		
2.	GENERAL PRELIMINARIES	-	
		-	
3.	BUILDERS WORK		
4.	MECHANICAL INSTALLATIONS WORKS		
5.	ELECTRICAL INSTALLATIONS		
6.	CIVIL WORKS		
7.	PC & PROVISIONAL SUMS		
	-		
	SUB- TOTAL		
	VAT - 16%		
	TOTAL CARRIED TO LOT 1 SUMMARY PAGE	KSHS	

ITEM	DESCRIPTION	SHS	SHS
	<u>PROPOSED CONSTRUCTION OF KEFRI SEED CENTRES FOR LOT 1(NYERI, RUMURUTI & BARINGO – MARIGAT SUB - CENTRES)</u>	FOR OFFICIAL USE	FOR CONTRACTORS USE
1	<u>LOT 1 SUMMARY</u> NYERI SUB-CENTRE	-	
2	RUMURUTI SUB-CENTRE		
3	MARIGAT SUB-CENTRE		
	- TOTAL FOR LOT 1 CARRIED TO FORM OF TENDER	KSHS	
<p>Amount in words Ksh</p> <p>.....</p> <p>CONTRACTORS NAME</p> <p>ADDRESS</p> <p>.....</p> <p>DATE</p> <p>SIGNATURE,.....</p> <p>WITNESS'S NAME</p> <p>ADDRESS</p> <p>.....</p> <p>DATE</p> <p>SIGNATURE</p>			

LOT 2:

**TIVA - KITUI SUB- CENTER, KIBWEZI
SUB- CENTER
AND
GARISSA SUB- CENTER**

TIVA - KITUI SUB-CENTRE

SITE 1 OF LOT 2

PARTICULAR PRELIMINARIES

ITEM	DESCRIPTION	Kshs.	Cts
A	<p><u>PARTICULAR PRELIMINARIES</u></p> <p>PRICING ITEMS OF PRELIMINARIES</p> <p>Prices SHALL BE INSERTED against items of “preliminaries” in the tenderer’s priced Bills of Quantities. 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. The contractor is advised to read and understand all preliminary items.</p>		
B	<p>DESCRIPTION OF THE WORKS</p> <p>The works to be carried out under this contract involves substructures works, walling, steel windows, timber and steel doors, terrazzo floor finishes, chipboard ceiling finishes and joinery fittings and all associated electrical, mechanical and civil works</p>		
C	<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 22 of the Conditions of Contract. The discrepancies shall then be treated as a variation and be dealt with in accordance with Clause 22 of the said Conditions.</p>		
D	<p>LOCATION OF SITE</p> <p>The sites are located at KEFRI Tiva Seed Sub-Centre, Kibwezi Seed Sub-Centre and Garissa Seed Sub-Centre</p>		
	Carried to Collection		

ITEM	DESCRIPTION	Kshs.	Cts
A	<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 claim or intent to claim notice to the PROJECT MANAGER within the contract period. No claims shall be entertained upon the expiry of the said contract period.</p>		
B	<p>PAYMENTS</p> <p>The tenderer's attention is drawn to the fact that the GOVERNMENT SHALL NOT MAKE ADVANCE PAYMENTS</p>		
C	<p>PREVENTION OF ACCIDENT, DAMAGE OR LOSS</p> <p>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 instructed to take reasonable care in the execution of the works as to prevent accidents, damage or loss and disruption of normal activities being carried out by the Client. The Contractor shall allow in his rates any expense he deems necessary by taking such care within the site.</p>		
D	<p>BID SECURITY</p> <p>The contractor shall provide a dully filled tender securing declaration form in the provided format.</p>		
	Carried to Collection		

ITEM	DESCRIPTION	Kshs.	Cts
A	<p>WORKING CONDITIONS</p> <p>The Contractor shall allow in this tender for any interference that he may encounter in the course of execution 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>		
B	<p>SIGNBOARD</p> <p>Allow for providing, erecting, maintaining throughout the course of the Contract and afterwards clearing away the signboard as designed, specified and approved by the Project Manager.</p>		
C	<p>LABOUR CAMPS</p> <p>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>		
D	<p>MATERIALS FROM DEMOLITIONS</p> <p>The Contractor shall allow for a credit for salvaged materials. Any materials arising from demolitions shall not be re-used. The Contractor shall allow for carting away all demolished materials.</p>		
E	<p>PRICING RATES</p> <p>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>		
	Carried to Collection		

ITEM	DESCRIPTION	Kshs.	Cts
A	<p>URGENCY OF THE WORKS</p> <p>The Contractor is notified that these “works are urgent” and should be completed within the period stated in these Particular Preliminaries. The Contractor shall allow in this tender for any costs he deems that he/she may incur by having to complete the works within the stipulated contract period.</p>		
B	<p>PAYMENT FOR MATERIALS ON SITE</p> <p>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</p> <p>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 which may be required by the authorities concerned for the support, maintenance and protection of such services.</p>		
	Carried to Collection		

ITEM	DESCRIPTION	Kshs.	Cts
A	<p>TENDER DOCUMENTS</p> <p>Tender documents are as listed in Clause 2.1 of the Instruction to Tenderer's</p>		
B	<p>DELIVERY OF TENDER</p> <p>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>		
C	<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. Notice No. 35 & 36 Dated 11th September 2003 operational from 1st October 2003, withholding VAT will be levied against the contract sum by the Employer . The contractor should therefore include this tax in the Grand Summary page as indicated herein. The tenderer is advised that in accordance with the Finance Act 2014 withholding VAT tax was reintroduced at a rate of 2% with effect from 7th November, 2019</p>		
	Carried to collection		

ITEM	DESCRIPTION	Kshs.	Cts
	<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</p> <p>Defects Liability Period</p> <p>Date for Possession</p> <p>Date for Completion</p> <p>Liquidated and Ascertained Damages</p> <p>Period of Iterim Certificates</p> <p>Percentage of Certified Value Retained</p> <p>Limit of Retention Fund</p>	<p>-</p> <p>-</p> <p>3 Months from Practical Completion</p> <p>6 Months from Practical Completion</p> <p>To be agreed with the Project Manager</p> <p>26 weeks from date of Possession</p> <p>at a rate of Kshs 5,000.00 Per day or part thereof</p> <p>Monthly</p> <p>10%</p> <p>5%</p>	
	Carried to Collection		

ITEM	DESCRIPTION	Kshs.	Cts
	<u>COLLECTION</u>		
	Brought forward from page PP/1		
	Brought forward from page PP/2		
	Brought forward from page PP/3		
	Brought forward from page PP/4		
	Brought forward from page PP/5		
	Brought forward from page PP/6		
	Brought forward from page PP/7		
	Brought forward from page PP/8		
	PARTICULAR PRELIMINARIES CARRIED TO MAIN SUMMARY		

GENERAL PRELIMINARIES

ITEM	DESCRIPTION	KSHS	CTS
-	GENERAL PRELIMINARIES		
A.	PRICING OF ITEMS OF PRELIMINARIES AND PREAMBLES		
	Prices will be inserted against items of Preliminaries in the Contractor's priced Bills of Quantities and Specification.		
	The Contractor shall be deemed to have included in his prices or rates for the various items in the Bills of Quantities or Specification for all costs involved in complying with all the requirements for the proper execution of the whole of the works in the Contract.		
B.	ABBREVIATIONS		
	Throughout these Bills, units of measurement and terms are abbreviated and shall be interpreted as follows:-		
	<i>C.M.</i> Shall mean cubic metre		
	<i>S.M.</i> Shall mean square metre		
	<i>L.M.</i> Shall mean linear metre		
	<i>MM</i> Shall mean Millimetre		
	<i>Kg.</i> Shall mean Kilogramme		
	<i>No.</i> Shall mean Number		
	<i>Prs.</i> Shall mean Pairs		
	<i>B.S.</i> Shall mean the British Standard Specification Published by the British Standards Institution, 2 Park Street, London W.I., England.		
	<i>Ditto</i> Shall mean the whole of the preceding description except as qualified in the description in which it occurs.		
	<i>m.s.</i> Shall mean measured separately.		
	<i>a.b.d</i> Shall mean as before described.		
	<i>Carried to collection</i>		

ITEM	DESCRIPTION	KSHS	CTS
A.	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:-		
	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.		
	<i>Fix Only:-</i>		
	"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.		
B.	EMPLOYER		
	The "Employer" is Kenya Forestry Research Institute		
	The term "Employer" and "Government" wherever used in the contract document shall be synonymous		
C.	PROJECT MANAGER		
	The term "P.M." 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 as may be duly authorized to represent him on behalf of the Government.		

ITEM	DESCRIPTION	KSHS	CTS
D.	ARCHITECT		
	The term "Architect" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 30743, NAIROBI.		
E.	QUANTITY SURVEYOR		
	The term "Quantity Surveyor" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 30743, NAIROBI.		
	<i>Carried to collection</i>	-	
A.	ELECTRICAL ENGINEER		
	The term "Electrical Engineer" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 41191, NAIROBI.		
B.	MECHANICAL ENGINEER		
	The term "Mechanical Engineer" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 41191, NAIROBI.		
C	STRUCTURAL ENGINEER		
	The term "Structural Engineer" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 41191, NAIROBI.		

ITEM	DESCRIPTION	KSHS	CTS
D	FORM OF CONTRACT		
	The Form of Contract shall be as stipulated in the Republic of Kenya's Standard Tender Document for Procurement of Building Works(2006 Edition) included herein The Conditions of Contract are also included herein Conditions of Contract These are numbered from 1 to 37 as set out in pages 16 to 36 of these tender documents. 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		
E.	PERFORMANCE BOND.		
	The Contractor shall find and submit on the Form of Tender from an approved Bank and who will be willing to be bound the Government in an amount equal to five per cent (5%) of the Contract amount for the due performances of the Contract up to the date of completion as certified by the PROJECT MANAGER and who will when and if called upon, sign a Bond to that effect on the relevant standard form included herein. (without the addition of any limitations) on the same day as the Contract Agreement is signed, by the Government, the Contractor shall furnish within seven days another Surety to the approval of the Government.		
	<i>Carried to collection</i>		
A.	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.		

ITEM	DESCRIPTION	KSHS	CTS
B.	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.		
C.	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.		
D.	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		
E.	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.		
	<i>Carried to collection</i>	-	

ITEM	DESCRIPTION	KSHS	CTS
A.	SAMPLES		
	<p>The Contractor shall furnish at his own cost any samples of materials or workmanship including concrete test cubes required for the works that may be called for by the PROJECT MANAGER for his approval until such samples are approved by the PROJECT MANAGER and the PROJECT MANAGER, may reject any materials or workmanship not in his opinion to be up to approved samples. The PROJECT MANAGER shall arrange for the testing of such materials as he may at his discretion deem desirable, but the testing shall be made at the expense of the Contractor and not at the expense of the PROJECT MANAGER. The Contractor shall pay for the testing in accordance with the current scale of testing charges laid down by the State Department of Public Works, Ministry of Land, Housing and Urban Development.</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>		
B.	GOVERNMENT ACTS REGARDING WORK PEOPLE ETC.		
	<p>Allow for complying with all Government Acts, Orders and Regulations in connection with the employment of Labour and other matters related to the execution of the works. In particular the Contractor's attention is drawn to the provisions of the Factory Act 1950 and his tender must include for all costs arising or resulting from compliance with any Act, Order or Regulation relating to Insurances, pensions and holidays for workpeople or so the safety, health and welfare of the workpeople. The Contractor must make himself fully acquainted with current Acts and Regulations, including Police Regulations regarding the movement, housing, security and control of labour, labour camps , passes for transport, etc. It is most important that the Contractor, before tendering, shall obtain from the relevant Authority the fullest information regarding all such regulations and/or restrictions which may affect the information regarding all such regulations and/or restrictions which may affect the organisation of the works, supply and control of labour, etc., and allow accordingly in his tender. No claim in respect of want of</p>		

ITEM	DESCRIPTION	KSHS	CTS
	knowledge in this connection will be entertained.		
C.	SECURITY OF WORKS ETC.		
	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.		
	<i>Carried to collection</i>		
A.	PUBLIC AND PRIVATE ROADS.		
	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		
B.	EXISTING PROPERTY.		
	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		
C.	VISIT SITE AND EXAMINE DRAWINGS.		
	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.		

ITEM	DESCRIPTION	KSHS	CTS
D.	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 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		
E.	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		
	<i>Carried to collection</i>	-	
A.	OFFICE ETC. FOR THE PROJECT MANAGER		
	The Contractor shall provide and maintain where directed on site a room to be used as the site office, complete with Furniture.		
B.	WATER AND ELECTRICITY SUPPLY FOR THE WORKS		
	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		

ITEM	DESCRIPTION	KSHS	CTS
	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.		
C.	SANITATION OF THE WORKS		
	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		
D.	SUPERVISION AND WORKING HOURS		
	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.		
E.	PROVISIONAL SUMS.		
	The term "Provisional Sum" wherever used in these Bills of Quantities shall have the meaning stated in Section A item A7(i) of the Standard Method of Measurement. Such sums are net and no addition shall be made to them for profit.		
	<i>Carried to collection</i>		

ITEM	DESCRIPTION	KSHS	CTS
A.	PRIME COST (OR P.C.) SUMS.		
	The term "Prime Cost Sum" or "P.C. Sum" wherever used in these Bills of Quantities shall have the meaning stated in Section A item A7 (ii) of the Standard Method of Measurement. Persons or firms nominated by the PROJECT MANAGER to execute work or to provide and fix materials or goods are described herein as Nominated Sub-Contractors. Persons or firms so nominated to supply goods or materials are described herein as Nominated Suppliers.		
B.	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.		
C.	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. 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.		
	<i>Carried to collection</i>		

ITEM	DESCRIPTION	KSHS	CTS
A.	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 , 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.		
B.	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 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".		
C.	DIRECT CONTRACTS		
	Notwithstanding the foregoing conditions, the Government reserves the right to place a "Direct Contract" for any goods or services required in the works which are covered by a P.C. Sum in the Bills of Quantities and to pay for the same direct. In any such instances, profit relative to the P.C. Sum in the priced Bills of Quantities will be adjusted as described for P.C. Sums is allowed.		
D.	ATTENDANCE UPON OTHER TRADESMEN, ETC.		
	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		

ITEM	DESCRIPTION	KSHS	CTS
	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.		
	<i>Carried to collection</i>	-	
A.	INSURANCE		
	The Contractor shall insure as required in Conditions No. 30 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.		
B.	PROVISIONAL WORK		
	All work described as "Provisional" in these Bills of Quantities is subject to re-measurement 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 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.		

ITEM	DESCRIPTION	KSHS	CTS
C.	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.		
D.	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.		
	<i>Carried to collection</i>		
A.	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.		

ITEM	DESCRIPTION	KSHS	CTS
B.	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.		
C.	REMOVAL OF RUBBISH ETC.		
	Removal of rubbish and debris from the Buildings and site as it accumulates and at the completion of the works and remove all plant, scaffolding and unused materials at completion.		
D.	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		
	<i>Carried to collection</i>		

ITEM	DESCRIPTION	KSHS	CTS
A.	GENERAL SPECIFICATION.		
	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.		
B.	TRAINING LEVY		
	The Contractor's attention is drawn to National Industrial Training Authority Act CAP 237, which requires payment by the Contractor of a Training Levy at the rate of 50.00 per employee per month.		
C.	MATERIALS ON SITE		
	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.		
D.	HOARDING		
	The Contractor is required to take all precautions necessary for the safe custody of the works, materials, plant, public and Employer's property on the site.		
E.	CONTRACTOR'S SUPERINTENDENCE/SITE AGENT		
	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.		
	<i>Carried to Collection</i>		

TIVA SUB-CENTRE

BUILDERS WORK

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Main block (Main Works)</i>				
	ELEMENT NO. 1; SUBSTRUCTURES (All Provisional)				
A	Clear area of new construction of all undergrowth, small bushes, grab up all trees and remove any existing structures and obstructions as directed.	Sm	900		
B	Cut down trees girth 900mm- 1200mm, remove out tree stumps and grab out roots, dispose off as directed and refill pits	No.	4		
C	Excavate oversite to remove vegetable soil, load and cart away from site to contractor's dumping area as directed; Average 200 mm depth	Sm	350		
D	Excavate to reduce levels commencing from stripped level: not exceeding 1.5 m deep	Cm	500		
E	Excavate to reduce levels commencing from stripped level: over 1.5m not exceeding 3.0 m deep	Cm	335		
F	Excavate for strip foundation trenches commencing from reduced level: not exceeding 1.5m deep	Cm	190		
G	Ditto for column bases	Cm	8		
H	Excavating in any class of rock as described in the specifications	Cm	50		
I	Return, fill and ram selected soil in foundations	Cm	825		
	<i>Substructure carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Substructure brought forward</i>				
J	Remove surplus soil and debris from site to a place approved by local authority	Cm	100		
K	Allow for upholding and supporting sides of excavations including any necessary plunking and strutting	Item	1		
M	Allow for keep excavations free of spring, underground or running water including any necessary pumping, bailing or other approved means	Item	1		
	<u>Mass concrete mix (1:3:6):in</u>				
A	50 mm Thick blinding under strip foundations	Sm	128		
B	Ditto under column bases	Sm	24		
	<u>Vibrated reinforced insitu concrete class 25/20; with minimum cube crushing strength of 25N/mm² at 28 days; in</u>				
C	Strip foundations	Cm	53		
D	Column bases	Cm	12		
E	Columns	Cm	8		
F	Ground floor slab; 150 mm thick	Sm	320		
G	Ramps; Ditto	Sm	4		
H	Steps	Cm	4		
	<i>Substructure carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Substructure brought forward</i>				
	Mesh fabric reinforcement				
A	Mesh reinforcement No. A142 size 200 x 200 mm weighing 2.22 kg per square metre: in floor slab: including all necessary supports	Sm	320		
	<u>Supply and fix mild steel bar in structural concrete work including cutting, bending, hoisting, tying wire, spacing blocks and supporting all in position in foundation footing, column bases and columns</u>				
B	8 - 32 mm Bars	Kg	6500		
	<u>Sawn formwork: to</u>				
C	Vertical sides of coulmn bases	Sm	22		
D	Sides of columns	Sm	48		
E	Sides of strip footing	Sm	140		
F	Edges of steps; cut to profile of steps	Sm	6		
G	Edges of slabs; 150 - 225 mm girth	Lm	115		
	<u>Walls</u>				
A	Medium Chisel dressed natural stone walling bedded in cement and sand mortar (1:4) with minimum stone crushing strength of 14N/mm ² ; foundations	Sm	450		
	<i>Substructure carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Substructure brought forward</i>				
	<u>Hardcore</u>				
B	300 mm thick hardcore of approved inert material: well watered and compacted in 150 mm thick (maximum) layers	Sm	320		
	<u>Blinding</u>				
C	50 mm Thick approved quality murrum blinding to surfaces of hardcore	Sm	320		
	<u>Anti-termite treatment</u>				
D	Termidor 25EC or other approved anti-termite chemical treatment to surfaces of blinded hardcore and around foundations : applied by approved professional pest control specialist: applied strictly in accordance with the manufacturer's instructions: 10 year guarantee	Sm	320		
	<u>DPM</u>				
E	Gauge 1000 polythene damp proof membrane	Sm	320		
	<u>25 mm Thick cement and sand (1:4) rendering: on concrete or stonework: wood float: to</u>				
F	Plinths: externally	Sm	70		
	<u>Prepare surfaces and apply undercoat and two finishing coats black bitumastic or other equal approved water resistant paint: on rendered surfaces: to</u>				
G	Plinths: externally	Sm	70		
	<u>Substructures carried to summary page</u>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Sawn formwork: to				
A	Sides and soffits: ring beams and lintols	Sm	120		
B	Columns; vertical sides	Sm	66		
	<u>Supply and fix mild steel bar in structural concrete work including cutting, bending, hoisting, tying wire, spacing blocks and supporting all in position</u>				
C	8 - 32 mm Bars	Kg	6000		
	<u>Vibrated reinforced insitu concrete class 25/20; with minimum cube crushing strength of 25N/mm² at 28 days; in</u>				
D	Beams and lintols	Cm	36		
E	Columns	Cm	8		
	Concrete works carried to summary page				

Item	Description	Unit	Qty	Rate	Amount (ksh)
	<u>ELEMENT NO. 3; WALLS</u>				
	<u>External walls</u>				
	<u>Dressed natural quarry stone walling bedded in cement and sand mortar (1:3) with minimum stone crushing strength of 7N/mm²</u>				
A	200 mm Thick walls	Sm	320		
	<u>Internal</u>				
	<u>Natural stone walls: machine cut: bedded and jointed in cement and sand (1:3) mortar</u>				
B	200 mm Thick walls	Sm	120		
	<u>Bituminous felt or other equal approved damp-proof course: in cement/ sand (1:3) mortar</u>				
C	200 mm Wide	Lm	200		
D	12mm flexcell expansion joint	Sm	32		
	Walls carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	ELEMENT NO. 4: ROOF				
	<u>Roof cover</u>				
A	Gauge 28 orientile shaped roof cover fixed with rubber washers to match.	Sm	480		
B	Ditto 450mm wide ridge / hip cover.	Lm	75		
C	Ditto valley gutter	Lm	20		
D	Raking and cutting roof cover at hips and valleys	Lm	75		
	<u>All in sawn celcured and well seasoned cypress:- 12mm diametre 300mm long mild steel anchor bolts with head, nut, washers and split ring cast into ring beam and bolted to wall plate(m.s) work.</u>				
E	150 x 50mm Tie beam	Lm	330		
F	150 x 50mm rafter, half rafters, valley & hip rafters(Rafters at 1.2m centre)	Lm	420		
G	100 x 50mm struts and king post	Lm	500		
	<u>end of trusses</u>				
H	150 x 50mm wall plate.	Lm	190		
I	75 x 50mm purlins(at 600mm centres)	Lm	860		
J	200 x 25mm wrott fascia and verge board	Lm	110		
	<u>Sundries</u>				
K	Bed wall plate(m.s) in cement sand mortar 1:3	Lm	190		
	<i>Roof carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	ELEMENT NO. 5; DOORS				
	<u>Timber Doors</u>				
	<u>45 mm thick flush door: solid core; Mahogany veneered to both sides; hardwood lipped edges; refer to Architect's details</u>				
A	Single leaf door; overall size 900 x 2400 mm high; with 6 mm thick clear fanlight glazing overall size 860 x 300 mm high complete with all beadings	No	5		
	<u>Supply and fix the following mahogany glazed doors comprising of 150 x 50mm bottom rail, top rail, middle rail, transoms and stiles; 6 mm thick toughened glass and glazing infill with and including glazing beads; All as per architect's drawings and details</u>				
A	Single leaf door; overall size 900 x 2400 mm high; with 6 mm thick clear fanlight glazing overall size 860 x 300 mm high complete with all beadings	No	2		
B	Double door; overall size 1800 x 2400 mm high; with 6 mm thick clear fanlight glazing overall size 1760 x 300 mm high complete with all beadings	No	5		
	<u>Roller shutter door</u>				
A	Supply and fix 2500mm x 2400mm galvanized roller shutter door complete with barrel, springs, hanger rings, end plates, canopy, vertical guide rails, curtain; 80mm slats, T bar or bottom rail	No	4		
	<i>Doors carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Doors brought forward</i>				
	<u>Prepare surfaces and apply three coats of approved gloss oil paint to metal surfaces</u>				
	-				
B	Doors: both sides measured	Sm	50		
	-				
	<u>Grill door for coldroom equipment room</u>				
A	1500 mm wide x 2400 mm high overall size single leaf mild steel grill door; 25 x 25 x 3 mm thick SHS internal members welded to 40 x 40 x 4 mm thick RHS frame; complete with fixing lugs and ironmongery and fixing accessories; all to architects detail	No	1		
	-				
	<u>Wrot mahogany: prime grade; with stainless steel fixing straps; including chasing to masonry, plugging and making good</u>				
A	200 x 50 mm Door frame: twice rebated: plugged	Lm	115		
B	50 x 25 mm Architrave: splayed	Lm	75		
C	25 x 25 mm Quadrant	Lm	75		
	<u>Prepare and apply one coat of aluminium wood primer on timber surfaces in contact with concrete or masonry</u>				
D	Over 100 but not exceeding 200 mm girth	Lm	265		
	<i>Doors carried forward</i>				

Item	Description	Unit	Qty	Rate	Amount (ksh)
	<i>Doors brought forward</i>				
	<u>Prepare surfaces: apply two coats clear pinotex spirit in clear matt varnish: on timber surfaces: to</u>				
E	Over 100 but not exceeding 200 mm girth	Lm	265		
F	General timber surfaces: doors	Sm	65		
	<u>Supply and fix: 'UNION' or other equal approved ironmongery: matching screws: locks to include a set of 3 keys: available from their authorised local dealers; brass finish to architects approval</u>				
A	100mm brass butt hinges	Prs	26		
B	Two lever mortice lock with handles	No	12		
C	Door closer	No	12		
D	38 mm Diameter oval rubber stop; floor or wall mounted	No	12		
	Door carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	ELEMENT NO. 6; WINDOWS				
	<u>Approved pre-cast concrete cill: bedded and jointed in cement (sand (1:3) mortar: pointed in matching coloured cement</u>				
A	250 x 50 mm Thick cill; once weathered and throated	Lm	40		
	<u>Supply and fix the following purpose made steel casement purpose made windows, including all necessary cuttings lugs, stays and bedding into walls in cement sand mortar 1:4 complete with stays, fasteners, all necessary accessories and priming once in red-oxide, to Architects approval, with minimal burglar proofing in 20mm angle line framing</u>				
	-				
A	Window size 2500 x 750mm high. For stores	No.	2		
B	Ditto size 900 x 1500mm high.	No	4		
C	Ditto size 2000 x 1500mm high.	No.	7		
D	Ditto size 2500 x 1500mm high.	No.	3		
	<u>Glazing</u>				
F	4mm thick mild tinted sheet glass in panes 0.1-0.5sm fixed in steel window panes with putty.	Sm	44		
	<u>Painting</u>				
	<u>Prepare, prime and apply 3 coats of super gloss oil paint as "crown" or any other equal and approved to surfaces of:</u>				
A	Windows externally	Sm	8		
B	Windows internally	Sm	8		
	<i>Windows carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Windows brought forward</i>				
	<u>Curtain rods</u>				
A	Supply and fix 2900mm long double curtain rod for both vertical blinders and sheers with a strong chrome pipe of 28mm diameter, 2pcs finials, 2pcs end cups, 4pcs brackets, rings, screws and anchor to install	No	10		
	Window carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>ELEMENT 8; Fixtures and fittings</u>				
	<u>Shelving to packagig room</u>				
	<u>20 mm thick blockboard storage sheleves supported of mild steel 25 x 25 mm frames; painted to approval; 450 mm wide</u>				
A	10000 mm long x 450 mm deep x 3000 mm high	Sm	50		
B	Ditto for cabinet below the worktop in seed lab	Sm	30		
	Total for fittings carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	ELEMENT 10; PAINTING & DECORATIONS				
	<i>Prepare and apply 3 coats silk vinyle emulsion paint as "crown" or any other equal and approved paint to</i>				
A	Plastered walls internally	Sm	400		
B	Soffites of chip board ceiling	Sm	340		
C	Plastered walls externally	Sm	215		
Sub-Total for Painting Works Carried to Summary Page					

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>RAISED CONCRETE WATER TANK STAND 4500mm high from ground level</u>				
	Element 01: Substructure (all provisional)				
A	Clear area of new construction of all undergrowth, small bushes, grab up all trees and remove any existing structures and obstructions as directed.	Sm	16		
B	Excavate for column bases commencing from ground level level: not exceeding 1.5 m deep	Cm	14		
C	Return, fill and ram selected soil in foundations	Cm	13		
	<u>Vibrated reinforced insitu concrete class 25/20; with minimum cube crushing strength of 25N/mm² at 28 days; in</u>				
	-				
A	Column bases 200mm thick	Cm	2		
B	Sub structure and superstructure columns 400mmx400mm size	Cm	4		
	<u>Supply and fix mild steel bar in structural concrete work including cutting, bending, hoisting, tying wire, spacing blocks and supporting all in position</u>				
	-				
C	8 - 12 mm Bars for substructure columns, column bases, superstructure columns ring beams and slab	Kgs	478		
	<i>Raised conc. Water tank stand carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Raised conc. Water tank stand brought forward</i>				
	<u>Sawn formwork: to</u>				
D	Vertical sides of coulmn bases	Sm	2		
E	Sides of columns	Sm	10		
	<u>Superstructure works</u>				
	Sawn formwork: to				
F	Sides and soffits: beams	Sm	11		
G	Soffits and sides of suspended slab	Sm	9		
	<u>Vibrated reinforced insitu concrete class 25/20; with minimum cube crushing strength of 25N/mm² at 28 days; in</u>				
H	Slab and beams	Cm	5		
	<u>Plaster: 15 mm cement/lime putty/sand: steel trowelled: on masonry or concrete: to</u>				
I	concrete surfaces	Sm	98		
K	Purchase and install 5,000 liters cylindrical kentank plastic water tank	Item	1		
	Subtotal for construction of raised concrete water tank stand				

MECHANICAL INSTALLATIONS

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Coldroom Installation				
	Evaporator Unit				
A	The evaporator unit with a cooling load to match a condensing unit of 3.0 kW complete with cooling coil, defrost heater, expansion valve, air circulating fans, guards, drip tray, drainage pipework outlet, supports etc. The unit to be complete with a power supply and to be as Thermoway Turkey Manufactured Model or equal.	No.	1		
	Evaporator Unit Support				
B	Allow for a suitable wall mounting support for the above that can match the panel used for constructing the cold room	Item	1		
	Condensing Unit				
C	An air cooled condensing unit with semi-hermetic reciprocating compressor capable of a cooling load of 3.0kw to match the evaporator unit and to be complete with fan, compressor, condenser, liquid receiver, controls, anti-vibration mountings etc. Unit to use a refrigerant that complies with the Montreal Protocol and NEMA, have a power supply and to be as Bitzer Germany Manufactured or equal.	No.	1		
	Control Panel				
D	The panel shall be complete with contactors, timers and all other accessories necessary for the automatic operation of the cold store.	No.	1		
	<i>Cold room installation carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Cold room installation brought forward</i>				
	Controls				
A	Thermostatic expansion valve	No.	1		
B	Filter drier to match refrigerant capacity that can carry the above cooling load of 3 kW to be as Danfoss or equal.	No.	1		
C	Sight glass with colour coding	No.	1		
D	Low pressure gauge	No.	1		
E	High pressure gauge	No.	1		
F	Room thermostat to cut compressor in and out, depending on the room temperature.	No.	1		
G	Dial thermometer	No.	1		
H	Solenoid valve	No.	1		
I	Low and high cut-out switch	No.	1		
	Light Fitting				
J	65 watts vapour proof light fitting	No.	6		
	Refrigerant Pipework				
K	Refrigeration pipework complete with armflex Insulation for both the liquid line and the suction line to match the evaporator unit and condensing unit. The pipework to be complete with all the necessary bends, reducers, Y's, joints, distributors, support brackets etc. a distance of 10m between the two units	Item	1		
	<i>Coldroom installation carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Coldroom installation brought forward</i>				
	Refrigerant				
L	Allow for the charging of the refrigeration system with necessary amount of refrigerant for initial testing and eventual operation of the cold store.	Item	1		
	Anti-Vibration Mountings				
M	Anti-Vibration Mountings for the condensing unit as WOODS P.N.50417 or equal.	Item	1		
A	40mm diameter class 41 uPVC condensate pipe complete with bends, tees, and access caps	LM	10		
	Room Insulation				
B	100mm thick prefabricated TSSC sandwich panels with pressure injected polyurethane foam insulation of density 42 kg/cu. M and clad with 0.5mm thick white Lacquered galvanised steel sheet panels as room insulation complete with aluminium supports. The panels should be supplied with all accessories to support all the four walls and roof in an open space	SM	120		
	Associated Electrical Works				
C	Allow for electrical works including but not limited to wiring and conduits from the local isolator provided by others within 10 metres in the machine room to the control panel, condenser and evaporator. It shall include a push and turn safety switch near the machines in the machine room for isolation during servicing and maintenance.	Item	1		
	<i>Coldroom installation carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Coldroom installation brought forward</i>				
D	Allow for as-built drawing, maintenance and operation manuals in both soft and hard copies. Three copies of the as-built drawing shall be submitted in A1 paper in a scale of 1:50	Item	1		
	Cold Room Door				
E	Cold room doors whose overall size is 2500mm high by 1000 mm wide complete with opening handles and made of 100mm TSSC sandwich panels and claded micron plasstisol coated G.I sheet with fittings and gasket TPE rubber, slab gaskets even internally. The coldroom door to have hinges that raise the door body as it opens and fall as it closes. The door handles to be able to illuminate from inside.	Set	1		
G	Storage racks. Stainless grade 316 steel 4 tier storage racks of size 1500 X 600 X 1800 MM on square tube stands with gromet fittings ,anti buckling reinforcement.	No.	4		
H	ditto for 6 tier rack	No.	4		
F	Coldroom door air curtain Single phase each with an air stream of width 1 m, air throw of 3m air volume of 1000m ³ and air velocity of 7m/s.	No.	1		
F	Allow for setting to work, testing and commissioning of the coldroom installation to the satisfaction of the Project Engineer	Item	1		
	Total for coldroom carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	MECHANICAL ENGINEERING SERVICES BQ				
	Bill No1: SANITARY APPLIANCES				
	Supply, 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. Note:				
	(i) All sanitary fittings shall be in approved colour.				
	(ii) The Model and Ref No. indicated is only a guide to the type and quality of fittings.				
	(iii) Equivalent and Approved models may be acceptable.				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>BILL NO.2: INTERNAL WATER CONNECTION</u>				
	Supply and install tubing and fittings as described and shown on the drawings. Tenderers must allow for jointings, couplings etc. necessary for the proper and satisfactory functioning of the system when pricing the following in PN 20 PPRC conforming to the current European standards for PPR installations and to the Engineer's approval, pipe jointing shall be by polyfusion or use of electric coupling Rates must allow for all the Metal/plastic threaded adaptors where required for the connection of sanitary fixtures, valves, sockets, sliding and fixed joints, support raceways, isolating sheaths, elastic materials, expansion arms and bends, crossovers etc				
	<u>PPR Pipes</u>				
A	20mm dia pipe chased in walls/floors	Lm	30		
B	25mm –ditto-	Lm	20		
C	32mm –ditto-	Lm	30		
	<u>Extra-over PPR pipework for the following:-</u>				
	<u>Bends/elbows</u>				
G	20mm dia bend	No	10		
H	25mm bend	No	10		
I	32mm bend	No	5		
L	20x1/2" dia male threaded 90o bend	No	5		
M	20x1/2" dia female threaded 90o bend	No	5		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Sanitary appliances brought forward</i>				
	<u>Tees</u>				
N	25mm diameter equal tee	No	5		
O	25x1/2" female threaded tee	No	5		
P	25x1/2" male threaded tee	No	10		
Q	32mm diameter equal tee	No	5		
R	20mm dia tee	No	10		
	<u>Unions</u>				
A	20mm dia union	No	5		
B	25mm –ditto-	No	5		
C	32mm –ditto-	No	5		
	<u>Reducers</u>				
F	25/20mm reducers	No	5		
G	32/25mm reducers	No	5		
	<u>Gate valve</u>				
J	20mm Pegler	No	3		
K	25mm –ditto-	No	3		
L	32mm –ditto-	No	2		
	<u>Flexible connectors</u>				
O	450mm chrome plated flexible connector with chrome plated angle check valve size 15mm dia including unions and sockets to connect sanitary fittings to PP-R Pipework	No	5		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Sanitary appliances brought forward</i>				
	<u>Supply, deliver and install the following vulcathene laboratory system including waste outlets, sinks, drip cups, anti-siphon traps, dilution recovery traps and associated comprehensive range of pipe and fittings for the given sizes all as vulcathene or approved equivalent</u>				
	<u>Laboratory sink</u>				
A	A sink of preferred dimensions 552mm x 400mm with a depth of 231mm having a drain of 74mm, that is extremely robust and moulded with a self draining base with its recessed outlet to accept the flange of 1 1/2" (40mm) non overflow threaded outlet but if required, an overflow assembly can be fitted. The sink to be complete with anti siphon traps that can stop the backflow of potentially hazardous fumes. All the downstream fittings to be as vulcathene.	No	2		
B	Three way Assay Lab Faucet in solid brass High gloss epoxy powder , resistant to most chemicals, UV fading and heat. Ceramic headwork;90 deg turn, water static pressure max 10bar. To be complete with detachable brass serrated nozzle, splash controlled water filter attachable, ergonomic high grade PP knob and 360 deg swing gooseneck spout.	No	2		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Sanitary appliances brought forward</i>				
	<u>Emergency Drencher Shower and Eye Fountain</u>				
C	Body shower with eye/face shower and bowl modular in brass and stainless steel with chemical resistant red BROEN-LAB polycoat with self-draining shower head. The shower head with a pull to open mechanism and eye wash with a footpedal opening mechanism. Eye wash with built-in FLOWFIX for regulation of water flow at 14l/min. Bowl in stainless steel with intergrated out with a min working prssure of 1.5bar. all as BROEN-LAB or equal and approved	No	1		
D	Emergency shower instructions Wall mounted sign and instruction card for Body and Eye Shower above	No	1		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Sanitary appliances brought forward</i>				
	<u>BILL NO.3 FOUL WATER INTERNAL DRAINAGE FROM THE WASHROOMS AND LABORATORY</u>				
	Supply and fix uPVC soil system to BS 4660 and BS 4515 and MuPVC waste systems to BS 5255 with screwed and socketed joints to BS 21. Solvent welded joints shall be as per the system's manufacturer's written instructions. 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.				
	<u>MuPVC and uPVC Waste and Soil pipework</u>				
A	150mm diameter heavy gauge grey mUPVC pipe	Lm	60		
B	100mm diameter heavy gauge grey mUPVC pipe	Lm	20		
C	50mm diameter waste pipe	Lm	50		
D	32mm diameter waste pipe	Lm	50		
	<u>Bends</u>				
E	150mm diameter access bend	No	4		
F	100mm diameter access bend	No	6		
G	150mm diameter sweep bend	No	6		
H	100mm diameter sweep bend	No	6		
I	50mm diameter sweep bend	No	6		
J	32mm diameter sweep bend	No	6		
	<i>Sanitary appliances carried forward</i>				

ELECTRICAL INSTALLATIONS

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Electrical works				
A	Supply, deliver & install on site one gang one-way switches	No	6		
B	Supply, deliver & install on site one gang two-way switches	No	10		
C	Supply, deliver & install on site three gang two-way switches	No	1		
D	Supply, deliver & install on site one gang intermediate switch	No	2		
E	Supply, deliver & install on site two gang two-way switches	No	2		
F	Supply, deliver & Install 1200mm, 1x58w T26 LED fluorescent light fittings with Aluminium louvres (complete with tubes)as thorn, do wiring as appropriate using 3x1.5mm ² single core copper cables as E. African cable drawn in concealed pvc conduit. The fittings to be surface mounted on the ceiling & spaced as appropriate.	No	45		
G	Supply deliver to site,Install and do wiring of 1200mm single LED batten fluorescent fittings with prismatic diffuser(complete with tubes) wired in a 3x1.5mm ² PVC insulated single core copper cable drawn in a concealed 20mm PVC heavy gauge conduits	No	3		
	<i>Electricals carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Electricals brought forward</i>				
H	Supply, deliver, Install & wire twin 13amps socket outlets drawn in concealed pvc conduit using 3x2.5mm ² single core copper cable in three ring circuit all terminated at the DB protected by 32Amps single pole MCB	No	22		
I	Supply, deliver, Install in the processing area & wire five pin 32amps industrial socket outlets each as a final sub-circuit from the DB isolated using 40Amps three pole MCB wired using 4x4.0mm ² single core copper cables as E. African cable drawn in concealed pvc conduit.	No	2		
J	Supply, deliver & install in the processing area 40Amps triple pole MCB as Schneider or equivalent as approved by project manager and housed in an enamel paint finish metal enclosure	No	2		
K	Supply, deliver & install on 32Ampsamps triple pole MCB to fit in the installed DB	No	2		
L	Supply, deliver & install on 10amps MCB to fit in the DB	No	4		
M	Supply, deliver & install single pole 32amps MCB to fit in the DB installed	No	3		
N	Supply, deliver & install 150x300mm concrete Danger Hatari tiles	No	270		
O	Excavate 250x600mm deep trench to lay the armoured cable	Cm	15		
	<i>Electricals carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
P	Supply, deliver to site & install four core 16mm ² Armoured copper cable laid in 600mm deep trench pre-covered with "Danger Hatari" concrete tiles then back fill	Lm	80		
Q	Three phase 415v, 125Amps six ways distribution board as Havel or equivalent as approved by project manager	No	1		
R	Manhole of 450x450x600mm (LxWxH) using machine cut stone and plastered on internal faces complete with top 100mm concrete cover. Allow for 100mm ducts entry	No	2		
S	Supply, deliver to site & install four pole 63Amps MCCB as Havel or equivalent as approved by project manager wired using 5x4.0mm ² single core copper cable drawn in concealed pvc conduit each housed in an enamel paint finish metal enclosure and terminated in the cold room equipment room	No	2		
T	Allow for future installation of sensors in the cold room by installing <i>in situ</i> 25mm diameter heavy gauge pvc conduit	No	20		
U	Supply, deliver to site & install four pole 160Amps MCCB plus Metal housing as Havel or equivalent as approved by project manager	No	1		
V	Supply and install concrete cable makers(UG) along the underground cable line	No	4		
	<i>Electricals carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Electricals brought forward				
	<u>SECURITY LIGHTING</u>				
A	Supply, deliver and install LED security lighting fitting 50watts as thorn or approved equivalent wired in a 3x1.5mm ² PVC insulated single copper cable drawn in a concealed 20mm PVC heavy gauge conduit	No	7		
B	Supply, deliver and install 240volts 32Amps contactor as Telemecanique or equivalent to switch on the security lights	No	1		
C	Supply, deliver and install 240volt 10amps Photo cell switch to activate the contactor "Ditto"	No	1		
D	Supply and do earthing at the building main connection point using 10mm ² single core cable and 12mmx1200mm copper earth rod	No	1		
E	Interconnect the item (O) above to the installed 3 phase DB using 5x16mm ² single core cables drawn in concealed pvc conduit as appropriate	No	1		
F	Supply and install <i>in situ</i> 100mm diameter heavy gauge UPVC pipe as duct (2No. Parallel ducts) from the constructed block to the rear side to receive the power cables	Lm	12		
	Total for electrical works carried to summary page				

CIVIL WORKS

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	CIVIL WORKS				
	-				
	paving around the building				
A	Remove vegetable top soil average depth 150mm and despose off as directed by P.M	Sm	130		
B	Provide, lay and compact 100mm thick approved murram base	Sm	130		
C	Treat the surfaces with approved herbicide, with warranty of 10 years	Sm	130		
D	Provide, lay and joint in cement sand mortar 1:3 600 x 600 x 50mm p.c paving slabs including 50mm thick sand bed.	Sm	130		
	Sub total for paving works				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>MANHOLES(all provisional)</u>				
	<u>The following in 12 No. Manholes class "B" All provisional</u>				
	-				
A	Excavate manhole pit not exceeding 1.5m deep.	Cm	27		
B	Return, fill-in and consolidate excavated materials around manhole walls.	Cm	15		
C	Remove surplus excavated materials and deposit on site as directed.	Cm	12		
D	Extra-over excavation for excavating in rock class 'A'	Cm	2		
E	150mm thick mass concrete 1:3:6 in manhole base.	Sm	27		
	<u>Precast Concrete</u>				
F	100mm thick precast concrete 1:2:4 in manhole cover slab size 1380mmx1180mm, reinforced with 8mm diameter at 80mm centers both ways with rebated opening for 450x600mm cover and frame finished smooth including any necessary formwork.	Sm	12		
	<u>Benching</u>				
G	Concrete 1:3:6 in benching to bottom of manholes internal size 1000mmx800mm including haunching to a height of 200mm above channel and rendering in cement 1:2 trowelled smooth.	No.	12		
	<i>Manhole carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Manhole brought forward</i>				
H	Make or leave hole through 200mm concrete wall for 150mm diameter pipe (m.s) built-in and make good walls and render all round.	No.	24		
	<u>Extra-over benching to forming the following channels with external rounded angles with slopping top of benching:-</u>				
	-				
I	150mm diametre half-round section straight main channel 900mm long.	No.	12		
A	Ditto but curved 900mm long.	No.	12		
B	140mm thick masonry block walling in cement sand mortar 1:3.	Sm	72		
C	12mm thick cement sand 1:2 plaster to ditto with approved waterproofing admixture to internal sides of manholes trowelled smooth.	Sm	54		
D	Ditto but render to top and sides of cover slab and walling.	Sm	16		
E	Fiber manhole cover size 600mmx450mm and setting frame in cement sand mortar 1:3 and cover in grease.	No.	12		
F	Extra over formworks boxing to form opening for manhole cover(m.s)	No.	12		
	<i>Sub total for manhole carried to summary page</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>SOAKAGE AREA(all provisional)</u>				
	<u>The following in french drains as per standard drawing No.(50) 5344, average 5Lm</u>				
A	Excavate trench for french drains, not exceeding 1.5m deep starting from original ground level	Cm	4		
B	Extra-over excavation for excavating in rock class 'A'	Cm	1		
C	Cart away excavated materials from site.	Cm	2		
D	Trim sides of french drain to slope.	Sm	12		
E	20-60mm crushed stones or washed gravel.	Cm	2		
F	Back filling selected excavated soils mean thickness 350mm	Cm	1		
G	Imported 200mm thick compacted murrum	Cm	1		
H	500 gauge polythene sheet.	Sm	6		
I	150mm diameter agricultural or perforated upvc pipe laid to falls in units of 450mm lengths with 10mm open joints covered to top half with 100mm width paper.	Lm	6		
	TOTAL FOR SOAKAGE AREA CARRIED TO SUMMARY				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>1 -No. SOAK- PITS(all provisional)</u>				
	<u>The following in 1-No soakpits as per drawing No.M.o.W(50) 5345</u>				
A	Excavate pit not exceeding 1.5m deep starting from original ground level	Cm	6		
B	Ditto between 1.5m-3.0m deep.	Cm	6		
C	Ditto between 3.0m-4.5m deep.	Cm	6		
F	Extra-over excavation for excavating in rock class 'A'	Cm	8		
G	Cart away surplus excated materials from site.	Cm	20		
H	Return, fill-in and consolidate excavated materials around foundations.	Cm	6		
I	Mass concrete 1:3:6.	Cm	1		
J	100mm thick vibrated reinforced concrete 1:2:4 in cover slab.	Sm	4		
K	12mm diametre high tensile square twisted bars to B/s 4449	Kg	25		
	<u>Sawn formwork to:-</u>				
M	Soffites of suspended slab	Sm	4		
N	Edges of suspended cover slab girth 75-150mm.	Lm	8		
A	Boxing to form opening size 600x450mm in 150mm thick suspended cover slab, rebated all round.	No.	1		
	<i>Soak pit carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Soak pit brought forward</i>				
B	Form or leave 150mm diametre hole in 150mm thick block walling.	No.	1		
C	Building in, 150mm diametre drain pipe through 150mm thick walling and make good in cement sand render 1:3.	No.	1		
	<u>approved machine cut walling in cement sand mortar 1:3:-</u>				
D	150mm walling coved on plain 740mm radius.	Sm	15		
E	12mm thick cement sand 1:4, rendering coved to wall radius	Sm	15		
F	Ditto but to top and edges of suspended slab.	Sm	5		
G	Fiber manhole cover size 600mmx450mm and setting frame in cement sand mortar 1:3 and cover in grease.	No.	1		
	SUB TOTAL FOR SOAKAGE				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	SEPTIC TANK- 200 persons-45000 lts capacity as per M.O.P.W standard drawing No. (50) 5343 All provisional				
A	Excavate for pit not exceeding 1.5m deep commencing from ground level.	Cm	36		
B	Ditto between 1.5-3.0m deep	Cm	36		
C	Ditto exceeding 3.0m but not exceeding 4.5m deep.	Cm	24		
D	Extra Over excavation for excavating in rock Class "A"	Cm	36		
E	Return, fill-in and ram selected excavated materials around walls and foundations.	Cm	54		
F	Load and cart away excavated materials.	Cm	78		
G	50mm thick plain concrete 1:4:8 blinding under foundation footing.	Sm	24		
H	Ditto but laid to falls not exceeding 15 degrees from horizontal.	Sm	12		
J	Ditto in benching average 200mm high, in manhole size 600 x 850mm, including forming 150mm diameter half round main channel.	No.	2		
	<i>Septic tank carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Septic tank brought forward</i>				
	<u>Vibrated reinforced concrete 1:2:4 to:-</u>				
I	150mm floor bed laid to falls not exceeding 15 degrees from horizontal.	Sm	24		
J	Ditto floor bed	Sm	12		
K	Ditto manhole footing	Sm	2		
L	150mm thick suspended scum baffle walling.	Sm	8		
A	200mm thick scum baffle walling with slats	Sm	8		
B	250mm thick extenal walling	Sm	70		
C	150mm thick cover slab.	Sm	24		
	<u>Sawn formwork to:-</u>				
D	Sides and Soffites of suspended scum baffle.	Sm	8		
E	Ditto sides of baffle walling	Sm	8		
F	Sides of extenal walling	Sm	40		
G	Soffites of cover slab.	Sm	24		
H	Boxing to ditto for manhole cover(m.s) opening size 450 x 600mm.	No.	4		
I	Sides and edges of cover slab 150-225mm high.	Lm	22		
	<u>Reinforcement</u>				
J	10mm diameter bars	Kg	440		
	<i>Septic tank carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Septic tank brought forward				
K	20mm cement sand 1:2 floor screed, water proofed with pudlo and trowelled smooth, not exceeding 15 degrees to horizontal with sulphate resistant cement.	Sm	24		
L	Ditto to horizontal floors	Sm	12		
M	Ditto manhole bases	Sm	2		
N	Ditto to sides and soffites of suspended scum baffles.	Sm	21		
P	Sides of scum baffle walling	Sm	20		
Q	Ditto to walls.	Sm	100		
R	Ditto to top and sides of cover slab.	Sm	12		
A	Approved Heavy duty plastic manhole cover and frame size 600 x 450mm including bedding frame in cement and sand mortar 1:2 and setting cover in greese.	No.	4		
B	100mm diameter P.V.C inlet pipe with equal "Tee" 450mm long.	No.	1		
C	100mm diameter U.P.V.C out-let pipe 750mm long	No.	1		
D	Form or leave 150mm diameter hole in 250mm walling.	No.	4		
E	25mm diameter bitumen coated cast iron step bars 600mm long with 300mm long footing , sunk into concrete walling	No.	6		
	Sub total for septic tank				

PC & PROVISIONAL SUMS

ITEM	DESCRIPTION		AMOUNT
	PROPOSED CONSTRUCTION OF SEED CENTRE FOR TIVA		
	<u>MAIN SUMMARY</u>	<u>PAGE</u>	
1.	PARTICULAR PRELIMINARIES		
2.	GENERAL PRELIMINARIES	-	
		-	
3.	BUILDERS WORK		
4.	MECHANICAL INSTALLATIONS WORKS		
5.	ELECTRICAL INSTALLATIONS		
6.	CIVIL WORKS		
7.	PC & PROVISIONAL SUMS		
	-		
	SUB- TOTAL		
	VAT - 16%		
	TOTAL CARRIED TO LOT 2 SUMMARY PAGE	KSHS	

KIBWEZI SUB-CENTRE

SITE 2 OF LOT 2

PARTICULAR PRELIMINARIES

ITEM	DESCRIPTION	Kshs.	Cts
<p>A</p>	<p><u>PARTICULAR PRELIMINARIES</u></p> <p>PRICING ITEMS OF PRELIMINARIES</p> <p>Prices SHALL BE INSERTED against items of “preliminaries” in the tenderer’s priced Bills of Quantities. 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. The contractor is advised to read and understand all preliminary items.</p>		
<p>B</p>	<p>DESCRIPTION OF THE WORKS</p> <p>The works to be carried out under this contract involves substructures works, walling, steel windows, timber and steel doors, terrazzo floor finishes, chipboard ceiling finishes and joinery fittings and all associated electrical, mechanical and civil works</p>		
<p>C</p>	<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 22 of the Conditions of Contract. The discrepancies shall then be treated as a variation and be dealt with in accordance with Clause 22 of the said Conditions.</p>		
<p>D</p>	<p>LOCATION OF SITE</p> <p>The sites are located at KEFRI Tiva Seed Sub-Centre, Kibwezi Seed Sub-Centre and Garissa Seed Sub-Centre</p>		
	<p>Carried to Collection</p>		

ITEM	DESCRIPTION	Kshs.	Cts
A	<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 claim or intent to claim notice to the PROJECT MANAGER within the contract period. No claims shall be entertained upon the expiry of the said contract period.</p>		
B	<p>PAYMENTS</p> <p>The tenderer's attention is drawn to the fact that the GOVERNMENT SHALL NOT MAKE ADVANCE PAYMENTS</p>		
C	<p>PREVENTION OF ACCIDENT, DAMAGE OR LOSS</p> <p>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 instructed to take reasonable care in the execution of the works as to prevent accidents, damage or loss and disruption of normal activities being carried out by the Client. The Contractor shall allow in his rates any expense he deems necessary by taking such care within the site.</p>		
D	<p>BID SECURITY</p> <p>The contractor shall provide a dully filled tender securing declaration form in the provided format.</p>		
Carried to Collection			

ITEM	DESCRIPTION	Kshs.	Cts
A	<p>WORKING CONDITIONS</p> <p>The Contractor shall allow in this tender for any interference that he may encounter in the course of execution 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>		
B	<p>SIGNBOARD</p> <p>Allow for providing, erecting, maintaining throughout the course of the Contract and afterwards clearing away the signboard as designed, specified and approved by the Project Manager.</p>		
C	<p>LABOUR CAMPS</p> <p>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>		
D	<p>MATERIALS FROM DEMOLITIONS</p> <p>The Contractor shall allow for a credit for salvaged materials. Any materials arising from demolitions shall not be re-used. The Contractor shall allow for carting away all demolished materials.</p>		
E	<p>PRICING RATES</p> <p>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>		
	Carried to Collection		

ITEM	DESCRIPTION	Kshs.	Cts
<p>A</p>	<p>URGENCY OF THE WORKS</p> <p>The Contractor is notified that these “works are urgent” and should be completed within the period stated in these Particular Preliminaries. The Contractor shall allow in this tender for any costs he deems that he/she may incur by having to complete the works within the stipulated contract period.</p>		
<p>B</p>	<p>PAYMENT FOR MATERIALS ON SITE</p> <p>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>		
<p>C</p>	<p>EXISTING SERVICES</p> <p>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 which may be required by the authorities concerned for the support, maintenance and protection of such services.</p>		
<p>Carried to Collection</p>			

ITEM	DESCRIPTION	Kshs.	Cts
A	<p>TENDER DOCUMENTS</p> <p>Tender documents are as listed in Clause 2.1 of the Instruction to Tenderer's</p>		
B	<p>DELIVERY OF TENDER</p> <p>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>		
C	<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. Notice No. 35 & 36 Dated 11th September 2003 operational from 1st October 2003, withholding VAT will be levied against the contract sum by the Employer . The contractor should therefore include this tax in the Grand Summary page as indicated herein. The tenderer is advised that in accordance with the Finance Act 2014 withholding VAT tax was reintroduced at a rate of 2% with effect from 7th November, 2019</p>		
	Carried to collection		

ITEM	DESCRIPTION	Kshs.	Cts
	<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</p> <p>Defects Liability Period</p> <p>Date for Possession</p> <p>Date for Completion</p> <p>Liquidated and Ascertained Damages</p> <p>Period of Interim Certificates</p> <p>Percentage of Certified Value Retained</p> <p>Limit of Retention Fund</p>	<p>-</p> <p>-</p> <p>3 Months from Practical Completion</p> <p>6 Months from Practical Completion</p> <p>To be agreed with the Project Manager</p> <p>26 weeks from date of Possession</p> <p>at a rate of Kshs 5,000.00 Per day or part thereof</p> <p>Monthly</p> <p>10%</p> <p>5%</p>	
	Carried to Collection		

ITEM	DESCRIPTION	Kshs.	Cts
	<u>COLLECTION</u>		
	Brought forward from page PP/1		
	Brought forward from page PP/2		
	Brought forward from page PP/3		
	Brought forward from page PP/4		
	Brought forward from page PP/5		
	Brought forward from page PP/6		
	Brought forward from page PP/7		
	Brought forward from page PP/8		
	PARTICULAR PRELIMINARIES CARRIED TO MAIN SUMMARY		

GENERAL PRELIMINARIES

ITEM	DESCRIPTION	KSHS	CTS
-	GENERAL PRELIMINARIES		
A.	PRICING OF ITEMS OF PRELIMINARIES AND PREAMBLES		
	Prices will be inserted against items of Preliminaries in the Contractor's priced Bills of Quantities and Specification.		
	The Contractor shall be deemed to have included in his prices or rates for the various items in the Bills of Quantities or Specification for all costs involved in complying with all the requirements for the proper execution of the whole of the works in the Contract.		
B.	ABBREVIATIONS		
	Throughout these Bills, units of measurement and terms are abbreviated and shall be interpreted as follows:-		
	<i>C.M.</i> Shall mean cubic metre		
	<i>S.M.</i> Shall mean square metre		
	<i>L.M.</i> Shall mean linear metre		
	<i>MM</i> Shall mean Millimetre		
	<i>Kg.</i> Shall mean Kilogramme		
	<i>No.</i> Shall mean Number		
	<i>Prs.</i> Shall mean Pairs		
	<i>B.S.</i> Shall mean the British Standard Specification Published by the British Standards Institution, 2 Park Street, London W.I., England.		
	<i>Ditto</i> Shall mean the whole of the preceding description except as qualified in the description in which it occurs.		
	<i>m.s.</i> Shall mean measured separately.		
	<i>a.b.d</i> Shall mean as before described.		

ITEM	DESCRIPTION	KSHS	CTS
	<i>Carried to collection</i>		
A.	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:-		
	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.		
	<i>Fix Only:-</i>		
	"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.		
B.	EMPLOYER		
	The "Employer" is Kenya Forestry Research Institute		
	The term "Employer" and "Government" wherever used in the contract document shall be synonymous		
C.	PROJECT MANAGER		
	The term "P.M." 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 as may be duly authorized to represent him on behalf of the Government.		

ITEM	DESCRIPTION	KSHS	CTS
D.	ARCHITECT		
	The term "Architect" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 30743, NAIROBI.		
E.	QUANTITY SURVEYOR		
	The term "Quantity Surveyor" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 30743, NAIROBI.		
	<i>Carried to collection</i>	-	
A.	ELECTRICAL ENGINEER		
	The term "Electrical Engineer" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 41191, NAIROBI.		
B.	MECHANICAL ENGINEER		
	The term "Mechanical Engineer" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 41191, NAIROBI.		
C	STRUCTURAL ENGINEER		
	The term "Structural Engineer" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 41191, NAIROBI.		

ITEM	DESCRIPTION	KSHS	CTS
D	FORM OF CONTRACT		
	The Form of Contract shall be as stipulated in the Republic of Kenya's Standard Tender Document for Procurement of Building Works(2006 Edition) included herein The Conditions of Contract are also included herein Conditions of Contract These are numbered from 1 to 37 as set out in pages 16 to 36 of these tender documents. 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		
E.	PERFORMANCE BOND.		
	The Contractor shall find and submit on the Form of Tender from an approved Bank and who will be willing to be bound the Government in an amount equal to five per cent (5%) of the Contract amount for the due performances of the Contract up to the date of completion as certified by the PROJECT MANAGER and who will when and if called upon, sign a Bond to that effect on the relevant standard form included herein. (without the addition of any limitations) on the same day as the Contract Agreement is signed, by the Government, the Contractor shall furnish within seven days another Surety to the approval of the Government.		
	<i>Carried to collection</i>		
A.	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.		

ITEM	DESCRIPTION	KSHS	CTS
B.	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.		
C.	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.		
D.	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		
E.	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.		

ITEM	DESCRIPTION	KSHS	CTS
	<i>Carried to collection</i>	-	
A.	SAMPLES		
	<p>The Contractor shall furnish at his own cost any samples of materials or workmanship including concrete test cubes required for the works that may be called for by the PROJECT MANAGER for his approval until such samples are approved by the PROJECT MANAGER and the PROJECT MANAGER, may reject any materials or workmanship not in his opinion to be up to approved samples. The PROJECT MANAGER shall arrange for the testing of such materials as he may at his discretion deem desirable, but the testing shall be made at the expense of the Contractor and not at the expense of the PROJECT MANAGER. The Contractor shall pay for the testing in accordance with the current scale of testing charges laid down by the State Department of Public Works, Ministry of Land, Housing and Urban Development.</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>		
B.	GOVERNMENT ACTS REGARDING WORK PEOPLE ETC.		
	<p>Allow for complying with all Government Acts, Orders and Regulations in connection with the employment of Labour and other matters related to the execution of the works. In particular the Contractor's attention is drawn to the provisions of the Factory Act 1950 and his tender must include for all costs arising or resulting from compliance with any Act, Order or Regulation relating to Insurances, pensions and holidays for workpeople or so the safety, health and welfare of the workpeople. The Contractor must make himself fully acquainted with current Acts and Regulations, including Police Regulations regarding the movement, housing, security and control of labour, labour camps , passes for transport, etc. It is most important that the Contractor, before tendering, shall obtain from the relevant Authority the fullest information regarding all such regulations and/or restrictions which may affect the information regarding all such regulations and/or restrictions which may affect the organisation of the</p>		

ITEM	DESCRIPTION	KSHS	CTS
	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.		
C.	SECURITY OF WORKS ETC.		
	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.		
	<i>Carried to collection</i>		
A.	PUBLIC AND PRIVATE ROADS.		
	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		
B.	EXISTING PROPERTY.		
	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		
C.	VISIT SITE AND EXAMINE DRAWINGS.		

ITEM	DESCRIPTION	KSHS	CTS
	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.		
D.	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 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		
E.	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		
	<i>Carried to collection</i>	-	
A.	OFFICE ETC. FOR THE PROJECT MANAGER		
	The Contractor shall provide and maintain where directed on site a room to be used as the site office, complete with Furniture.		
B.	WATER AND ELECTRICITY SUPPLY FOR THE WORKS		
	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		

ITEM	DESCRIPTION	KSHS	CTS
	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.		
C.	SANITATION OF THE WORKS		
	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		
D.	SUPERVISION AND WORKING HOURS		
	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.		
E.	PROVISIONAL SUMS.		
	The term "Provisional Sum" wherever used in these Bills of Quantities shall have the meaning stated in Section A item A7(i) of the Standard Method of Measurement. Such sums are net and no addition shall be made to them for profit.		
	<i>Carried to collection</i>		

ITEM	DESCRIPTION	KSHS	CTS
A.	PRIME COST (OR P.C.) SUMS.		
	The term "Prime Cost Sum" or "P.C. Sum" wherever used in these Bills of Quantities shall have the meaning stated in Section A item A7 (ii) of the Standard Method of Measurement. Persons or firms nominated by the PROJECT MANAGER to execute work or to provide and fix materials or goods are described herein as Nominated Sub-Contractors. Persons or firms so nominated to supply goods or materials are described herein as Nominated Suppliers.		
B.	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.		
C.	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. 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.		
	<i>Carried to collection</i>		

ITEM	DESCRIPTION	KSHS	CTS
A.	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 , 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.		
B.	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 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".		
C.	DIRECT CONTRACTS		
	Notwithstanding the foregoing conditions, the Government reserves the right to place a "Direct Contract" for any goods or services required in the works which are covered by a P.C. Sum in the Bills of Quantities and to pay for the same direct. In any such instances, profit relative to the P.C. Sum in the priced Bills of Quantities will be adjusted as described for P.C. Sums is allowed.		
D.	ATTENDANCE UPON OTHER TRADESMEN, ETC.		
	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		

ITEM	DESCRIPTION	KSHS	CTS
	PROJECT MANAGER and the work will be measured and paid for to the extent executed at rates provided in these Bills.		
	<i>Carried to collection</i>	-	
A.	INSURANCE		
	<p>The Contractor shall insure as required in Conditions No. 30 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>		
B.	PROVISIONAL WORK		
	<p>All work described as "Provisional" in these Bills of Quantities is subject to re-measurement 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 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>		

ITEM	DESCRIPTION	KSHS	CTS
C.	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.		
D.	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.		
	<i>Carried to collection</i>		
A.	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.		

ITEM	DESCRIPTION	KSHS	CTS
B.	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.		
C.	REMOVAL OF RUBBISH ETC.		
	Removal of rubbish and debris from the Buildings and site as it accumulates and at the completion of the works and remove all plant, scaffolding and unused materials at completion.		
D.	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		
	<i>Carried to collection</i>		

ITEM	DESCRIPTION	KSHS	CTS
A.	GENERAL SPECIFICATION.		
	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.		
B.	TRAINING LEVY		
	The Contractor's attention is drawn to National Industrial Training Authority Act CAP 237, which requires payment by the Contractor of a Training Levy at the rate of 50.00 per employee per month.		
C.	MATERIALS ON SITE		
	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.		
D.	HOARDING		
	The Contractor is required to take all precautions necessary for the safe custody of the works, materials, plant, public and Employer's property on the site.		
E.	CONTRACTOR'S SUPERINTENDENCE/SITE AGENT		
	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.		
	<i>Carried to Collection</i>		

BUILDERS WORK

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Main block (main works) ELEMENT NO. 1; SUBSTRUCTURES (All Provisional)				
A	Clear area of new construction of all undergrowth, small bushes, grab up all trees and remove any existing structures and obstructions as directed.	Sm	900		
B	Cut down trees girth900mm-1200mm, remove out tree stumps and grab out roots, dispose off as directed and refill pits	No.	4		
C	Excavate oversite to remove vegetable soil, load and cart away from site to contractor's dumping area as directed; Average 200 mm depth	Sm	350		
D	Excavate to reduce levels commencing from stripped level: not exceeding 1.5 m deep	Cm	495		
E	Excavate to reduce levels commencing from stripped level: over 1.5m not exceeding 3.0 m deep	Cm	330		
F	Excavate for strip foundation trenches commencing from reduced level: not exceeding 1.5m deep	Cm	180		
G	Ditto for column bases	Cm	8		
H	Excavating in any class of rock as described in the specifications	Cm	50		
I	Return, fill and ram selected soil in foundations	Cm	825		
	Substructure carried forward				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Substructure brought forward</i>				
J	Remove surplus soil and debris from site to a place approved by local authority	Cm	100		
K	Allow for upholding and supporting sides of excavations including any necessary plunking and strutting	Item	1		
M	Allow for keep excavations free of spring, underground or running water including any necessary pumping, bailing or other approved means	Item	1		
	<u>Mass concrete mix (1:3:6):in</u>				
A	50 mm Thick blinding under strip foundations	Sm	120		
B	Ditto under column bases	Sm	24		
	<u>Vibrated reinforced insitu concrete class 25/20; with minimum cube crushing strength of 25N/mm² at 28 days; in</u>				
C	Strip foundations	Cm	50		
D	Column bases	Cm	12		
E	Columns	Cm	8		
F	Ground floor slab; 150 mm thick	Sm	290		
G	Ramps; Ditto	Sm	4		
H	Steps	Cm	4		
	<i>Substructure carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>Mesh fabric reinforcement</u>				
A	Mesh reinforcement No. A142 size 200 x 200 mm weighing 2.22 kg per square metre: in floor slab: including all necessary supports	Sm	290		
	<u>Supply and fix mild steel bar in structural concrete work including cutting, bending, hoisting, tying wire, spacing blocks and supporting all in position in foundation footing, column bases and columns</u>				
B	8 - 32 mm Bars	Kg	6000		
	<u>Sawn formwork: to</u>				
C	Vertical sides of column bases	Sm	22		
D	Sides of columns	Sm	48		
E	Sides of strip footing	Sm	120		
F	Edges of steps; cut to profile of steps	Sm	6		
G	Edges of slabs; 150 - 225 mm girth	Lm	100		
	<u>Walls</u>				
A	Medium Chisel dressed natural stone walling bedded in cement and sand mortar (1:4) with minimum stone crushing strength of 14N/mm ² ; foundations	Sm	400		
	<i>Substructure carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Substructure brought forward</i>				
	<u>Hardcore</u>				
B	300 mm thick hardcore of approved inert material: well watered and compacted in 150 mm thick (maximum) layers	Sm	290		
	<u>Blinding</u>				
C	50 mm Thick approved quality murrum blinding to surfaces of hardcore	Sm	290		
	<u>Anti-termite treatment</u>				
D	Termidor 25EC or other approved anti-termite chemical treatment to surfaces of blinded hardcore and around foundations : applied by approved professional pest control specialist: applied strictly in accordance with the manufacturer's instructions: 10 year guarantee	Sm	290		
	<u>DPM</u>				
E	Gauge 1000 polythene damp proof membrane	Sm	290		
	<u>25 mm Thick cement and sand (1:4) rendering: on concrete or stonework: wood float: to</u>				
F	Plinths: externally	Sm	60		
	<i>Substructure carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Substructure brought forward</i>				
	<u>Prepare surfaces and apply undercoat and two finishing coats black bitumastic or other equal approved water resistant paint: on rendered surfaces: to</u>				
G	Plinths: externally	Sm	60		
	<u>Substructures carried to summary page</u>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	ELEMENT NO. 2; CONCRETE WORKS Sawn formwork: to				
A	Sides and soffits: ring beams and lintols	Sm	120		
B	Columns; vertical sides	Sm	66		
	<u>Supply and fix mild steel bar in structural concrete work including cutting, bending, hoisting, tying wire, spacing blocks and supporting all in position</u>				
C	8 - 32 mm Bars	Kg	6500		
	<u>Vibrated reinforced insitu concrete class 25/20; with minimum cube crushing strength of 25N/mm² at 28 days; in</u>				
D	Beams and lintols	Cm	36		
E	Columns	Cm	8		
	Concrete works carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>ELEMENT NO. 3; WALLS</u>				
	<u>External walls</u>				
	<u>Dressed natural quarry stone walling bedded in cement and sand mortar (1:3) with minimum stone crushing strength of 7N/mm²</u>				
A	200 mm Thick walls	Sm	330		
	<u>Internal</u>				
	<u>Natural stone walls: machine cut: bedded and jointed in cement and sand (1:3) mortar</u>				
B	200 mm Thick walls	Sm	130		
	<u>Bituminous felt or other equal approved damp-proof course: in cement/ sand (1:3) mortar</u>				
C	200 mm Wide	Lm	200		
D	12mm flexcell expansion joint	Sm	32		
	Walls carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>ELEMENT NO. 4: ROOF</u>				
	<u>Roof cover</u>				
A	Gauge 28 orientile shaped roof cover fixed with rubber washers to match.	Sm	450		
B	Ditto 450mm wide ridge / hip cover.	Lm	70		
C	Ditto valley gutter	Lm	20		
D	Raking and cutting roof cover at hips and valleys	Lm	70		
	<u>All in sawn celcured and well seasoned cypress:- 12mm diametre 300mm long mild steel anchor bolts with head, nut, washers and split ring cast into ring beam and bolted to wall plate(m.s) work.</u>				
E	150 x 50mm Tie beam	Lm	320		
F	150 x 50mm rafter, half rafters, valley & hip rafters(Rafters at 1.2m centre)	Lm	400		
G	100 x 50mm struts and king post	Lm	450		
	<u>end of trusses</u>				
H	150 x 50mm wall plate.	Lm	190		
I	75 x 50mm purlins(at 600mm centres)	Lm	800		
J	200 x 25mm wrott fascia and verge board	Lm	100		
	<u>Sundries</u>				
K	Bed wall plate(m.s) in cement sand mortar 1:3	Lm	190		
L		No.	95		
	<i>Roof carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Roof brought forward</i>				
M	Bore 12mm diametre holes through 50mm thick wall plate at 2m centres.	No.	95		
N	Knot, prime, stop and apply 3 coats super gloss oil paint to surfaces of fascia and vergeboard 200-300mm high.	Lm	100		
	<i>Rain water goods</i>				
A	150mm half diameter u.P.V.C gutters of 6lm lengths	Lm	90		
B	150mm half diameter u.P.V.C holder clips at 1.2m centre and at ends, complete with screws	No.	75		
C	Extra over ditto for connectors at joints nailed to fascia(m.s)	No.	16		
D	Extra over ditto for stoped ends	No.	8		
E	Extra over ditto swannecks	No.	5		
F	75mm diameter p.v.c downpipe to match, clipped to walls	Lm	30		
G	Extra over ditto for 600mm long shoe	No.	5		
H	Ditto bends	No.	24		
	Roof carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<p>ELEMENT NO. 5; DOORS</p> <p>Timber Doors</p> <p><u>45 mm thick flush door: solid core; Mahogany veneered to both sides; hardwood lipped edges; refer to Architect's details</u></p>				
A	<p>Single leaf door; overall size 900 x 2400 mm high; with 6 mm thick clear fanlight glazing overall size 860 x 300 mm high complete with all beadings</p> <p><u>Supply and fix the following mahogany glazed doors comprising of 150 x 50mm bottom rail,top rail, middle rail, transomes and stiles; 6 mm thick toughened glass and glazing infill with and including glazing beads; All as per architect's drawings and details</u></p>	No	5		
A	<p>Single leaf door; overall size 900 x 2400 mm high; with 6 mm thick clear fanlight glazing overall size 860 x 300 mm high complete with all beadings</p>	No	3		
B	<p>Double door; overall size 1800 x 2400 mm high; with 6 mm thick clear fanlight glazing overall size 1760 x 300 mm high complete with all beadings</p>	No	4		
	<i>Doors carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Doors brought forward</i>				
	<u>Roller shutter door</u>				
A	Supply and fix 2500mm x 2400mm galvanized roller shutter door complete with barrel, springs, hanger rings, end plates, canopy, vertical guide rails, curtain; 80mm slats, T bar or bottom rail	No	4		
	<u>Prepare surfaces and apply three coats of approved gloss oil paint to metal surfaces</u>				
B	Doors: both sides measured	Sm	50		
	<u>Wrot mahongany: prime grade; with stainless steel fixing straps; including chasing to masonry, plugging and making good</u>				
A	200 x 50 mm Door frame: twice rebated: plugged	Lm	82		
B	50 x 25 mm Architrave: splayed	Lm	66		
C	25 x 25 mm Quadrant	Lm	66		
	<u>Prepare and apply one coat of aluminium wood primer on timber surfaces in contact with concrete or masonry</u>				
D	Over 100 but not exceeding 200 mm girth	Lm	214		
	<u>Prepare surfaces: apply two coats clear pinotex spirit in clear matt varnish: on timber surfaces: to</u>				
E	Over 100 but not exceeding 200 mm girth	Lm	214		
	<i>Doors carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Doors brought forward</i>				
F	General timber surfaces: doors <u>Supply and fix: 'UNION' or other equal approved ironmongery: matching screws: locks to include a set of 3 keys: available from their authorised local dealers; brass finish to architects approval</u>	Sm	56		
A	100mm brass butt hinges	Prs	24		
B	Two lever mortice lock with handles	No	12		
C	Door closer	No	12		
D	38 mm Diameter oval rubber stop; floor or wall mounted	No	16		
	Door carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	ELEMENT NO. 6; WINDOWS				
	<u>Approved pre-cast concrete cill: bedded and jointed in cement (sand (1:3) mortar: pointed in matching coloured cement</u>				
A	250 x 50 mm Thick cill; once weathered and throated	Lm	40		
	<u>Supply and fix the following purpose made steel casement purpose made windows, including all necessary cuttings lugs, stays and bedding into walls in cement sand mortar 1:4 complete with stays, fasteners, all necessary accessories and priming once in red-oxide, to Architects approval, with minimal burglar proofing in 20mm angle line framing</u>				
A	- Window size 2500 x 750mm high. For stores	No.	2		
B	Ditto size 2500 x 1500mm high. For laboratory	No.	5		
C	Ditto size 1200 x 1500mm high.	No	2		
D	Ditto size 2000 x 1500mm high.	No.	6		
	<u>Glazing</u>				
F	4mm thick mild tinted sheet glass in panes 0.1-0.5sm fixed in steel window panes with putty.	Sm	54		

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>Painting</u> <u><i>Prepare, prime and apply 3 coats of super gloss oil paint as "crown" or any other equal and approved to surfaces of:</i></u>				
A	- Windows externally <i>Windows carried forward</i>	Sm	8		
	<u>Windows brought forward</u>				
B	Windows internally	Sm	8		
	<u>Curtain rods</u>				
A	Supply and fix 2900mm long double curtain rod for both vertical blinders and sheers with a strong chrome pipe of 28mm diameter, 2pcs finials, 2pcs end cups, 4pcs brackets, rings, screws and anchor to install	No	10		
	Window carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>Element 07; Ceiling</u>				
A	10mm thick chipboard ceiling fixed in rectangular shape	Sm	340		
B	10 x 75mm ditto cornice plugged and nailed to battens	Lm	320		
C	Extra-over ditto in access door size 450 x 600mm, including framing in 75 x 50mm sawn cypress	No.	2		
	<u>Branding</u>				
D	50 x 50mm sawn cypress branding	Lm	500		
E	50 x 75mm ditto.	Lm	800		
	Ceiling carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>ELEMENT 8; Fixtures and fittings</u>				
	<u>Shelving to packagig room</u>				
	<u>20 mm thick blockboard storage sheleves supported of mild steel 25 x 25 mm frames; painted to approval; 450 mm wide</u>				
A	10000 mm long x 450 mm deep x 3000 mm high	Sm	50		
B	Ditto for cabinet below the worktop in seed lab	Sm	30		
	Ceiling carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>ELEMENT 9; FINISHES</u>				
	FLOOR FINISHES				
A	30mm thick cement sand 1:2 backing to receive ceramic floor tiles or terrazzo (s.m)/Skirting	Sm	300		
B	20mm thick polished terrazzo paving to floor and the worktop including plastic strip dividers/skirting	Sm	300		
	<u>walls internally</u>				
H	12mm thick gauged plaster cement sand lime 1:1:6 with a smooth float to walls, beams and columns internally	Sm	400		
I	Ditto to reveals and jambs.	Sm	30		
	<u>Walls Externaly</u>				
H	12mm thick gauged cement sand render 1:2 finished with a wood float to beams and columns	Sm	215		
I	Keying in cement sand 1:2, pointing in gloss oil paint and wire brushing natural machine cut stone externally	Sm	130		
	Finishes carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>ELEMENT 10; PAINTING & DECORATIONS</u> <i><u>Prepare and apply 3 coats silk vinyle emulsion paint as "crown"or any other equal and approved paint to</u></i>				
A	Plastered walls internally	Sm	400		
B	Soffites of chip board ceiling	Sm	340		
C	Plastered walls externally	Sm	215		
	Painting carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>SUMMARY OF ELEMENTS</u>				
A	ELEMENT NO. 1 , SUBSTRUCTURE				
B	ELEMENT NO 2, R.c WORKS				
C	ELEMENT NO 3, WALLING				
D	ELEMENT NO. 4, ROOF				
E	ELEMENT NO. 5 , DOORS				
F	ELEMENT NO. 6 , WINDOWS				
G	ELEMENT NO. 7 , CEILING				
H	ELEMENT NO. 8 , FIXTURES & Fittings				
I	ELEMENT NO 9, FINISHES				
J	ELEMENT NO. 10 PAINTING & DECORATIONS				
	TOTAL FOR BUILDERS WORK CARRIED TO GRAND SUMMARY.				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>RAISED CONCRETE WATER TANK STAND 4500mm high from ground level</u>				
	Element 01: Substructure (all provisional)				
A	Clear area of new construction of all undergrowth, small bushes, grab up all trees and remove any existing structures and obstructions as directed.	Sm	16		
B	Excavate for column bases commencing from ground level level: not exceeding 1.5 m deep	Cm	14		
C	Return, fill and ram selected soil in foundations	Cm	13		
	<u>Vibrated reinforced insitu concrete class 25/20; with minimum cube crushing strength of 25N/mm² at 28 days; in</u>				
A	- Column bases 200mm thick	Cm	2		
B	Sub structure and superstructure columns 400mmx400mm size	Cm	4		
	<u>Supply and fix mild steel bar in structural concrete work including cutting, bending, hoisting, tying wire, spacing blocks and supporting all in position</u>				
C	- 8 - 12 mm Bars for substructure columns, column bases, superstructure columns ring beams and slab	Kgs	478		
	<i>Raised conc. Water tank stand carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Raised conc. Water tank stand brought forward</i>				
	<u>Sawn formwork: to</u>				
D	Vertical sides of coulmn bases	Sm	2		
E	Sides of columns	Sm	10		
	<u>Superstructure works</u>				
	Sawn formwork: to				
F	Sides and soffits: beams	Sm	11		
G	Soffits and sides of suspended slab	Sm	9		
	<u>Vibrated reinforced insitu concrete class 25/20; with minimum cube crushing strength of 25N/mm² at 28 days; in</u>				
H	Slab and beams	Cm	5		
	<u>Plaster: 15 mm cement/lime putty/sand: steel trowelled: on masonry or concrete: to</u>				
I	concrete surfaces	Sm	98		
K	Purchase and instal 5,000 liters cylindrical kentank plastic water tank	Item	1		
	Sub total for construction of raised concrete water tank stand				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>SUMMARY OF ELEMENTS</u>				
A	ELEMENT NO. 1 , SUBSTRUCTURE				
B	ELEMENT NO 2, R.c WORKS				
C	ELEMENT NO 3, WALLING				
D	ELEMENT NO. 4, ROOF				
E	ELEMENT NO. 5 , DOORS				
F	ELEMENT NO. 6 , WINDOWS				
G	ELEMENT NO. 7 , CEILING				
H	ELEMENT NO. 8 , FIXTURES & Fittings				
I	ELEMENT NO 9, FINISHES				
J	ELEMENT NO. 10 PAINTING & DECORATIONS				
K	RAISED WATER TANK STAND				
	TOTAL FOR BUILDERS WORK CARRIED TO GRAND SUMMARY.				

MECHANICAL WORKS

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<p><u>MECHANICAL ENGINEERING SERVICES BQ</u></p> <p>Bill No1: SANITARY APPLIANCES</p> <p>Supply, 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. Note:</p> <p>(i) All sanitary fittings shall be in approved colour.</p> <p>(ii) The Model and Ref No. indicated is only a guide to the type and quality of fittings.</p> <p>(iii) Equivalent and Approved models may be acceptable.</p>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<p><u>BILL NO.2: INTERNAL WATER CONNECTION</u></p> <p>Supply and install tubing and fittings as described and shown on the drawings. Tenderers must allow for jointings, couplings etc necessary for the proper and satisfactory functioning of the system when pricing the following in PN 20 PPRC conforming to the current European standards for PPR installations and to the Engineer's approval, pipe jointing shall be by polyfusion or use of electric coupling Rates must allow for all the Metal/plastic threaded adaptors where required for the connection of sanitary fixtures, valves, sockets, sliding and fixed joints, support raceways, isolating sheaths, elastic materials, expansion arms and bends, crossovers etc</p> <p><u>PPR Pipes</u></p>				
A	20mm dia pipe chased in walls/floors	Lm	30		-
B	25mm –ditto-	Lm	20		-
C	32mm –ditto-	Lm	30		-
	<p><u>Extra-over PPR pipework for the following:-</u></p> <p><u>Bends/elbows</u></p>				
G	20mm dia bend	No	10		
H	25mm bend	No	10		
I	32mm bend	No	5		
L	20x1/2" dia male threaded 90o bend	No	5		
M	20x1/2" dia female threaded 90o bend	No	5		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Sanitary appliances brought forward</i>				
	<u>Tees</u>				
N	25mm diameter equal tee	No	5		
O	25x1/2" female threaded tee	No	5		
P	25x1/2" male threaded tee	No	10		
Q	32mm diameter equal tee	No	5		
R	20mm dia tee	No	10		
	<u>Unions</u>				
A	20mm dia union	No	5		
B	25mm –ditto-	No	5		
C	32mm –ditto-	No	5		
	<u>Reducers</u>				
F	25/20mm reducers	No	5		
G	32/25mm reducers	No	5		
	<u>Gate valve</u>				
J	20mm Pegler	No	3		
K	25mm –ditto-	No	3		
L	32mm –ditto-	No	2		
	<u>Flexible connectors</u>				
O	450mm chrome plated flexible connector with chrome plated angle check valve size 15mm dia including unions and sockets to connect sanitary fittings to PP-R Pipework	No	5		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Sanitary appliances brought forward</i>				
	<u>Supply, deliver and install the following vulcathene laboratory system including waste outlets, sinks, drip cups, anti-siphon traps, dilution recovery traps and associated comprehensive range of pipe and fittings for the given sizes all as vulcathene or approved equivalent</u>				
	Laboratory sink				
A	A sink of preferred dimensions 552mm x 400mm with a depth of 231mm having a drain of 74mm, that is extremely robust and moulded with a self draining base with its recessed outlet to accept the flange of 1 1/2" (40mm) non overflow threaded outlet but if required, an overflow assembly can be fitted. The sink to be complete with anti siphon traps that can stop the backflow of potentially hazardous fumes. All the downstream fittings to be as vulcathene.	No	2		
B	Three way Assay Lab Faucet in solid brass High gloss epoxy powder , resistant to most chemicals, UV fading and heat. Ceramic headwork;90 deg turn, water static pressure max 10bar. To be complete with detachable brass serrated nozzle, splash controlled water filter attachable, ergonomic high grade PP knob and 360 deg swing gooseneck spout.	No	2		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Sanitary appliances brought forward</i>				
C	<u>Emergency Drencher Shower and Eye Fountain</u> Body shower with eye/face shower and bowl modular in brass and stainless steel with chemical resistant red BROEN-LAB polycoat with self-draining shower head. The shower head with a pull to open mechanism and eye wash with a footpedal opening mechanism. Eye wash with built-in FLOWFIX for regulation of water flow at14l/min. Bowl in stainless steel with integrated out with a min working pressure of 1.5bar. all as BROEN-LAB or equal and approved	No	1		
D	Emergency shower instructions Wall mounted sign and instruction card for Body and Eye Shower above	No	1		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Sanitary appliances brought forward</i>				
	<u>BILL NO.3 FOUL WATER INTERNAL DRAINAGE FROM THE WASHROOMS AND LABORATORY</u>				
	Supply and fix uPVC soil system to BS 4660 and BS 4515 and MuPVC waste systems to BS 5255 with screwed and socketed joints to BS 21. Solvent welded joints shall be as per the system's manufacturer's written instructions. 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.				
	<u>MuPVC and uPVC Waste and Soil pipework</u>				
A	150mm diameter heavy gauge grey mUPVC pipe	Lm	60		
B	100mm diameter heavy gauge grey mUPVC pipe	Lm	20		
C	50mm diameter waste pipe	Lm	50		
D	32mm diameter waste pipe	Lm	50		
	<u>Bends</u>				
E	150mm diameter access bend	No	4		
F	100mm diameter access bend	No	6		
G	150mm diameter sweep bend	No	6		
H	100mm diameter sweep bend	No	6		
I	50mm diameter sweep bend	No	6		
J	32mm diameter sweep bend	No	6		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Sanitary appliances brought forward</i>				
	<u>Tees</u>				
L	50mm diameter sweep tee	No	4		
M	32mm diameter sweep tee	No	4		
	<u>Access Caps</u>				
N	100mm diameter access cap	No	6		
P	32mm diameter access cap	No	6		
	<u>Boss Connectors</u>				
Q	150 x 100mm diameter boss connector	No	4		
R	100 x 50mm diameter boss connector	No	4		
S	50 x 32mm diameter boss connector	No	4		
	<u>Traps</u>				
D	100 x 50mm diameter floor trap and grating	No	4		
E	50 x 50mm diameter U-shaped tubular trap	No	4		
	<u>Testing and Commissioning</u>				
G	Allow for testing and commissioning of the plumbing and drainage installations to the satisfaction of the Engineer.	Item	1		
	<i>Sub total for sanitary appliances</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
C	Summary page SANITARY APPLIANCES				
	Total for sanitary appliances carried to summary page				

ELECTRICAL WORKS

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Electrical works				
A	Supply, deliver & install on site one gang one-way switches	No	6		
B	Supply, deliver & install on site one gang two-way switches	No	10		
C	Supply, deliver & install on site three gang two-way switches	No	1		
D	Supply, deliver & install on site one gang intermediate switch	No	2		
E	Supply, deliver & install on site two gang two-way switches	No	2		
F	Supply, deliver & Install 1200mm, 1x58w T26 LED fluorescent light fittings with Aluminium louvres (complete with tubes) as thorn, do wiring as appropriate using 3x1.5mm ² single core copper cables as E. African cable drawn in concealed pvc conduit. The fittings to be surface mounted on the ceiling & spaced as appropriate.	No	45		
G	Supply deliver to site, Install and do wiring of 1200mm single LED batten fluorescent fittings with prismatic diffuser (complete with tubes) wired in a 3x1.5mm ² PVC insulated single core copper cable drawn in a concealed 20mm PVC heavy gauge conduits	No	3		
H	Supply, deliver, Install & wire twin 13amps socket outlets drawn in concealed pvc conduit using 3x2.5mm ² single core copper cable in three ring circuit all terminated at the DB protected by 32Amps single pole MCB	No	22		
	Cont. electrical carried forward				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>electrical brought forward</i>				
I	Supply, deliver, Install in the processing area & wire five pin 32amps industrial socket outlets each as a final subcircuit from the DB isolated using 40Amps three pole MCB wired using 4x4.0mm ² single core copper cables as E. African cable drawn in concealed pvc conduit.	No	2		
J	Supply, deliver & install in the processing area 40Amps triple pole MCB as Schneider or equivalent as approved by project manager and housed in an enamel paint finish metal enclosure	No	2		
K	Supply, deliver & install on 32Ampsamps triple pole MCB to fit in the installed DB	No	2		
L	Supply, deliver & install on 10amps MCB to fit in the DB	No	4		
M	Supply, deliver & install single pole 32amps MCB to fit in the DB installed	No	3		
N	Supply, deliver & install 150x300mm concrete Danger Hatari tiles	No	270		
O	Excavate 250x600mm deep trench to lay the armoured cable	Cm	15		
P	Supply, deliver to site & install four core 16mm ² Armoured copper cable laid in 600mm deep trench pre-covered with "Danger Hatari" concrete tiles then back fill	Lm	80		
	<i>Cont. electrical carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>electrical brought forward</i>				
Q	Three phase 415v, 125Amps six ways distribution board as Havels or equivalent as approved by project manager	No	1		
R	Manhole of 450x450x600mm (LxWxH) using machine cut stone and plastered on internal faces complete with top 100mm concrete cover. Allow for 100mm ducts entry	No	2		
S	Supply, deliver to site & install four pole 125Amps MCCB plus Metal housing as Havels or equivalent as approved by project manager	No	1		
T	Supply and install concrete cable makers(UG) along the underground cable line	No	4		
	<u>SECURITY LIGHTING</u>				
A	Supply, deliver and install LED security lighting fitting 50watts as thorn or approved equivalent wired in a 3x1.5mm ² PVC insulated single copper cable drawn in a concealed 20mm PVC heavy gauge conduit	No	7		
B	Supply, deliver and install 240volts 32Amps contactor as Telemecanique or equivalent to switch on the security lights	No	1		
C	Supply, deliver and install 240volt 10amps Photo cell switch to activate the contactor "Ditto"	No	1		
D	Supply and do earthing at the building main connection point using 10mm ² single core cable and 12mmx1200mm copper earth rod	No	1		
	<i>Cont. electrical carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>electrical brought forward</i>				
E	Interconnect the item (O) above to the installed 3 phase DB using 5x16mm ² single core cables drawn in concealed pvc conduit as appropriate	No	1		
F	Supply and install <i>in situ</i> 100mm diameter heavy gauge UPVC pipe as duct (2No. Parallel ducts) from the constructed block to the rear side to receive the power cables	Lm	12		
	Sub total for electrical works carried to summary page				

CIVIL WORKS

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	FOUL DRAINAGE EXCAVATION(all provisional				
	High grade soil, waste and vent pipes as "key terr-ain" P.V.C soil waste and vent pipes including couplings and all fixing brackets. To nearest manhole				
A	Excavate trench for 150mm diameter drain pipe not exceeding 1.5M deep and average 500mm deep including fitting in, compacting, grading bottoms and desposing surplus soil.	Lm	60		
B	Ditto average 750mm deep ditto.	Lm	20		
E	Extra-over for excavating in rock class "A"	Cm	10		
G	Allow for cutting trees along the line, grub out roots and despose off girth 600-900mm	No.	2		
	TOTAL FOR FOUL DRAINAGE ECAVATION CARRIED TO SUMMARY OF EXTERNAL WORKS				
	Ex 1				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	MANHOLES(all provisional)				
	<u>The following in 12 No. Manholes class "B" All provisional</u>				
	-				
A	Excavate manhole pit not exceeding 1.5m deep.	Cm	27		
B	Return, fill-in and consolidate excavated materials around manhole walls.	Cm	15		
C	Remove surplus excavated materials and deposit on site as directed.	Cm	12		
D	Extra-over excavation for excavating in rock class 'A'	Cm	2		
E	150mm thick mass concrete 1:3:6 in manhole base.	Sm	27		
	<u>Precast Concrete</u>				
F	100mm thick precast concrete 1:2:4 in manhole cover slab size 1380mmx1180mm, reinforced with 8mm diameter at 80mm centres both ways with rebated opening for 450x600mm cover and frame finished smooth including any necessary formwork.	Sm	12		
	<u>Benching</u>				
G	Concrete 1:3:6 in benching to bottom of manholes internal size 1000mmx800mm including haunching to a height of 200mm above channel and rendering in cement 1:2 trowelled smooth.	No.	12		
	<i>Manhole carried forward</i>				
	Ex2				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Manhole brought forward</i>				
H	Make or leave hole through 200mm concrete wall for 150mm diameter pipe (m.s) built-in and make good walls and render all round.	No.	24		
	<u>Extra-over benching to forming the following channels with external rounded angles with sloping top of benching:-</u>				
	-				
I	150mm diametre half-round section straight main channel 900mm long.	No.	12		
A	Ditto but curved 900mm long.	No.	12		
B	140mm thick masonry block walling in cement sand mortar 1:3.	Sm	72		
C	12mm thick cement sand 1:2 plaster to ditto with approved water-proofing admixture to internal sides of manholes trowelled smooth.	Sm	54		
D	Ditto but render to top and sides of cover slab and walling.	Sm	16		
E	Fiber manhole cover size 600mmx450mm and setting frame in cement sand mortar 1:3 and cover in grease.	No.	12		
F	Extra over formworks boxing to form opening for manhole cover(m.s)	No.	12		
	<i>Sub total for manhole carried to summary page</i>				
	Ex 3				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	SOAKAGE AREA(all provisional)				
	<u>The following in french drains as per standard drawing No.(50) 5344, average 5Lm</u>				
	-				
A	Excavate trench for french drains, not exceeding 1.5m deep starting from original ground level	Cm	4		
B	Extra-over excavation for excavating in rock class 'A'	Cm	1		
C	Cart away excavated materials from site.	Cm	2		
D	Trim sides of french drain to slope.	Sm	12		
E	20-60mm crushed stones or washed gravel.	Cm	2		
F	Back filling selected excavated soils mean thickness 350mm	Cm	1		
G	Imported 200mm thick compacted murrum	Cm	1		
H	500 gauge polythene sheet.	Sm	6		
I	150mm diametre agricultural or perforated upvc pipe laid to falls in units of 450mm lengths with 10mm open joints covered to top half with 100mm width paper.	Lm	6		
	TOTAL FOR SOAKAGE AREA CARRIED TO SUMMARY				
	Ex 4				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	1 -No. SOAK- PITS(all provisional)				
	<u>The following in 1-No soakpits as per drawing No.M.o.W(50) 5345</u>				
A	Excavate pit not exceeding 1.5m deep starting from original ground level	Cm	6		
B	Ditto between 1.5m-3.0m deep.	Cm	6		
C	Ditto between 3.0m-4.5m deep.	Cm	6		
F	Extra-over excavation for excavating in rock class 'A'	Cm	8		
G	Cart away surplus excated materials from site.	Cm	20		
H	Return, fill-in and consolidate excavated materials around foundations.	Cm	6		
I	Mass concrete 1:3:6.	Cm	1		
J	100mm thick vibrated reinforced concrete 1:2:4 in cover slab.	Sm	4		
K	12mm diametre high tensile square twisted bars to B/s 4449	Kg	25		
	<u>Sawn formwork to:-</u>				
M	Soffites of suspended slab	Sm	4		
N	Edges of suspended cover slab girth 75-150mm.	Lm	8		
A	Boxing to form opening size 600x450mm in 150mm thick suspended cover slab, rebated all round.	No.	1		
	<i>Soak pit carried forward</i>				
	Ex 5				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Soak pit brought forward</i>				
B	Form or leave 150mm diametre hole in 150mm thick block walling.	No.	1		
C	Building in, 150mm diametre drain pipe through 150mm thick walling and make good in cement sand render 1:3.	No.	1		
	<u>approved machine cut walling in cement sand mortar 1:3:-</u>				
D	150mm walling coved on plain 740mm radius.	Sm	15		
E	12mm thick cement sand 1:4, rendering coved to wall radius	Sm	15		
F	Ditto but to top and edges of suspended slab.	Sm	5		
G	Fiber manhole cover size 600mmx450mm and setting frame in cement sand mortar 1:3 and cover in grease.	No.	1		
	CARRIED TO COLLECTION				
	Ex 6				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	SEPTIC TANK- 200 persons-45000 ltrs capacity as per M.O.P.W standard drawing No. (50) 5343 All provisional				
A	Excavate for pit not exceeding 1.5m deep commencing from ground level.	Cm	36		
B	Ditto between 1.5-3.0m deep	Cm	36		
C	Ditto exceeding 3.0m but not exceeding 4.5m deep.	Cm	24		
D	Extra Over excavation for excavating in rock Class "A"	Cm	36		
E	Return, fill-in and ram selected excavated materials around walls and foundations.	Cm	54		
F	Load and cart away excavated materials.	Cm	78		
G	50mm thick plain concrete 1:4:8 blinding under foundation footing.	Sm	24		
H	Ditto but laid to falls not exceeding 15 degrees from horizontal.	Sm	12		
J	Ditto in benching average 200mm high, in manhole size 600 x 850mm, including forming 150mm diameter half round main channel.	No.	2		
	<i>Septic tank carried forward</i>				
	Ex 7				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Septic tank brought forward</i>				
	<u>Vibrated reinforced concrete 1:2:4 to:-</u>				
I	150mm floor bed laid to falls not exceeding 15 degrees from horizontal.	Sm	24		
J	Ditto floor bed	Sm	12		
K	Ditto manhole footing	Sm	2		
L	150mm thick suspended scum baffle walling.	Sm	8		
A	200mm thick scum baffle walling with slats	Sm	8		
B	250mm thick external walling	Sm	70		
C	150mm thick cover slab.	Sm	24		
	<u>Sawn formwork to:-</u>				
D	Sides and Soffites of suspended scum baffle.	Sm	8		
E	Ditto sides of baffle walling	Sm	8		
F	Sides of external walling	Sm	40		
G	Soffites of cover slab.	Sm	24		
H	Boxing to ditto for manhole cover(m.s) opening size 450 x 600mm.	No.	4		
I	Sides and edges of cover slab 150-225mm high.	Lm	22		
	<u>Reinforcement</u>				
J	10mm diameter bars	Kg	440		
	<i>Septic tank carried forward</i>				
	Ex 8				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Septic tank brought forward</i>				
K	20mm cement sand 1:2 floor screed, water proofed with pudlo and trowelled smooth, not exceeding 15 degrees to horizontal with sulphate resistant cement.	Sm	24		
L	Ditto to horizontal floors	Sm	12		
M	Ditto manhole bases	Sm	2		
N	Ditto to sides and soffites of suspended scum baffles.	Sm	21		
P	Sides of scum baffle walling	Sm	20		
Q	Ditto to walls.	Sm	100		
R	Ditto to top and sides of cover slab.	Sm	12		
A	Approved Heavy duty plastic manhole cover and frame size 600 x 450mm including bedding frame in cement and sand mortar 1:2 and setting cover in greese.	No.	4		
B	100mm diametre P.V.C inlet pipe with equal "Tee" 450mm long.	No.	1		
C	100mm diametre U.P.V.C out-let pipe 750mm long	No.	1		
D	Form or leave 150mm diametre hole in 250mm walling.	No.	4		
E	25mm diameter bitumen coated cast iron step bars 600mm long with 300mm long footing , sunk into concrete walling	No.	6		
	Sub total for septic tank				
	Ex 8				

PC & PROVISIONAL SUMS

ITEM	DESCRIPTION	UNIT	AMOUNT
	<u>PROVISIONAL SUMS</u>		
	-		
	<u>The Contractor shall include in his tender the following to be deducted in whole or in part as directed by the Project Manager.</u>		
	-		
A	Allow a provisional sum of Kenya Shillings Five hundred thousand (Kshs.500,000/=) only for contingencies.		500,000.00
PC CARRIED TO GRAND SUMMARY			500,000.00

ITEM	DESCRIPTION		AMOUNT
	PROPOSED CONSTRUCTION OF SEED CENTRE FOR KIBWEZI		
	<u>MAIN SUMMARY</u>	<u>PAGE</u>	
1.	PARTICULAR PRELIMINARIES		
2.	GENERAL PRELIMINARIES	-	
		-	
3.	BUILDERS WORK		
4.	MECHANICAL INSTALLATIONS WORKS		
5.	ELECTRICAL INSTALLATIONS		
6.	CIVIL WORKS		
7.	PC & PROVISIONAL SUMS		
	-		
	SUB- TOTAL		
	VAT - 16%		
	TOTAL CARRIED TO LOT 2 SUMMARY PAGE	KSHS	

GARISSA SUB-CENTRE

SITE 3 OF LOT 2

PARTICULAR PRELIMINARIES

ITEM	DESCRIPTION	Kshs.	Cts
	<p><u>PARTICULAR PRELIMINARIES</u></p> <p>A PRICING ITEMS OF PRELIMINARIES</p> <p>Prices SHALL BE INSERTED against items of “preliminaries” in the tenderer’s priced Bills of Quantities. 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. The contractor is advised to read and understand all preliminary items.</p> <p>B DESCRIPTION OF THE WORKS</p> <p>The works to be carried out under this contract involves substructures works, walling, steel windows, timber and steel doors, terrazzo floor finishes, chipboard ceiling finishes and joinery fittings and all associated electrical, mechanical and civil works</p> <p>C 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 22 of the Conditions of Contract. The discrepancies shall then be treated as a variation and be dealt with in accordance with Clause 22 of the said Conditions.</p> <p>D LOCATION OF SITE</p> <p>The sites are located at KEFRI Tiva Seed Sub-Centre, Kibwezi Seed Sub-Centre and Garissa Seed Sub-Centre</p>		
	Carried to Collection		

ITEM	DESCRIPTION	Kshs.	Cts
A	<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 claim or intent to claim notice to the PROJECT MANAGER within the contract period. No claims shall be entertained upon the expiry of the said contract period.</p>		
B	<p>PAYMENTS</p> <p>The tenderer's attention is drawn to the fact that the GOVERNMENT SHALL NOT MAKE ADVANCE PAYMENTS</p>		
C	<p>PREVENTION OF ACCIDENT, DAMAGE OR LOSS</p> <p>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 instructed to take reasonable care in the execution of the works as to prevent accidents, damage or loss and disruption of normal activities being carried out by the Client. The Contractor shall allow in his rates any expense he deems necessary by taking such care within the site.</p>		
D	<p>BID SECURITY</p> <p>The contractor shall provide a dully filled tender securing declaration form in the provided format.</p>		
Carried to Collection			

ITEM	DESCRIPTION	Kshs.	Cts
A	<p>WORKING CONDITIONS</p> <p>The Contractor shall allow in this tender for any interference that he may encounter in the course of execution 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>		
B	<p>SIGNBOARD</p> <p>Allow for providing, erecting, maintaining throughout the course of the Contract and afterwards clearing away the signboard as designed, specified and approved by the Project Manager.</p>		
C	<p>LABOUR CAMPS</p> <p>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>		
D	<p>MATERIALS FROM DEMOLITIONS</p> <p>The Contractor shall allow for a credit for salvaged materials. Any materials arising from demolitions shall not be re-used. The Contractor shall allow for carting away all demolished materials.</p>		
E	<p>PRICING RATES</p> <p>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>		
	Carried to Collection		

ITEM	DESCRIPTION	Kshs.	Cts
A	<p>URGENCY OF THE WORKS</p> <p>The Contractor is notified that these “works are urgent” and should be completed within the period stated in these Particular Preliminaries. The Contractor shall allow in this tender for any costs he deems that he/she may incur by having to complete the works within the stipulated contract period.</p>		
B	<p>PAYMENT FOR MATERIALS ON SITE</p> <p>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</p> <p>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 which may be required by the authorities concerned for the support, maintenance and protection of such services.</p>		
Carried to Collection			

ITEM	DESCRIPTION	Kshs.	Cts
A	<p>TENDER DOCUMENTS</p> <p>Tender documents are as listed in Clause 2.1 of the Instruction to Tenderer's</p>		
B	<p>DELIVERY OF TENDER</p> <p>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>		
C	<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. Notice No. 35 & 36 Dated 11th September 2003 operational from 1st October 2003, withholding VAT will be levied against the contract sum by the Employer . The contractor should therefore include this tax in the Grand Summary page as indicated herein. The tenderer is advised that in accordance with the Finance Act 2014 withholding VAT tax was reintroduced at a rate of 2% with effect from 7th November, 2019</p>		
	Carried to collection		

ITEM	DESCRIPTION	Kshs.	Cts
	<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</p> <p>Defects Liability Period</p> <p>Date for Possession</p> <p>Date for Completion</p> <p>Liquidated and Ascertained Damages</p> <p>Period of Interim Certificates</p> <p>Percentage of Certified Value Retained</p> <p>Limit of Retention Fund</p>	<p>-</p> <p>-</p> <p>3 Months from Practical Completion</p> <p>6 Months from Practical Completion</p> <p>To be agreed with the Project Manager</p> <p>26 weeks from date of Possession</p> <p>at a rate of Kshs 5,000.00 Per day or part thereof</p> <p>Monthly</p> <p>10%</p> <p>5%</p>	
	Carried to Collection		

ITEM	DESCRIPTION	Kshs.	Cts
	<u>COLLECTION</u>		
	Brought forward from page PP/1		
	Brought forward from page PP/2		
	Brought forward from page PP/3		
	Brought forward from page PP/4		
	Brought forward from page PP/5		
	Brought forward from page PP/6		
	Brought forward from page PP/7		
	Brought forward from page PP/8		
	PARTICULAR PRELIMINARIES CARRIED TO MAIN SUMMARY		

GENERAL PRELIMINARIES

ITEM	DESCRIPTION	KSHS	CTS
-	GENERAL PRELIMINARIES		
A.	PRICING OF ITEMS OF PRELIMINARIES AND PREAMBLES		
	Prices will be inserted against items of Preliminaries in the Contractor's priced Bills of Quantities and Specification.		
	The Contractor shall be deemed to have included in his prices or rates for the various items in the Bills of Quantities or Specification for all costs involved in complying with all the requirements for the proper execution of the whole of the works in the Contract.		
B.	ABBREVIATIONS		
	Throughout these Bills, units of measurement and terms are abbreviated and shall be interpreted as follows:-		
	<i>C.M.</i> Shall mean cubic metre		
	<i>S.M.</i> Shall mean square metre		
	<i>L.M.</i> Shall mean linear metre		
	<i>MM</i> Shall mean Millimetre		
	<i>Kg.</i> Shall mean Kilogramme		
	<i>No.</i> Shall mean Number		
	<i>Prs.</i> Shall mean Pairs		
	<i>B.S.</i> Shall mean the British Standard Specification Published by the British Standards Institution, 2 Park Street, London W.1., England.		
	<i>Ditto</i> Shall mean the whole of the preceding description except as qualified in the description in which it occurs.		
	<i>m.s.</i> Shall mean measured separately.		
	<i>a.b.d</i> Shall mean as before described.		
	<i>Carried to collection</i>		

ITEM	DESCRIPTION	KSHS	CTS
A.	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:-		
	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.		
	<i>Fix Only:-</i>		
	"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.		
B.	EMPLOYER		
	The "Employer" is Kenya Forestry Research Institute		
	The term "Employer" and "Government" wherever used in the contract document shall be synonymous		
C.	PROJECT MANAGER		
	The term "P.M." 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 as may be duly authorized to represent him on behalf of the Government.		

ITEM	DESCRIPTION	KSHS	CTS
D.	ARCHITECT		
	The term "Architect" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 30743, NAIROBI.		
E.	QUANTITY SURVEYOR		
	The term "Quantity Surveyor" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 30743, NAIROBI.		
	<i>Carried to collection</i>	-	
A.	ELECTRICAL ENGINEER		
	The term "Electrical Engineer" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 41191, NAIROBI.		
B.	MECHANICAL ENGINEER		
	The term "Mechanical Engineer" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 41191, NAIROBI.		
C	STRUCTURAL ENGINEER		
	The term "Structural Engineer" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 41191, NAIROBI.		

ITEM	DESCRIPTION	KSHS	CTS
D	FORM OF CONTRACT		
	The Form of Contract shall be as stipulated in the Republic of Kenya's Standard Tender Document for Procurement of Building Works(2006 Edition) included herein The Conditions of Contract are also included herein Conditions of Contract These are numbered from 1 to 37 as set out in pages 16 to 36 of these tender documents. 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		
E.	PERFORMANCE BOND.		
	The Contractor shall find and submit on the Form of Tender from an approved Bank and who will be willing to be bound the Government in an amount equal to five per cent (5%) of the Contract amount for the due performances of the Contract up to the date of completion as certified by the PROJECT MANAGER and who will when and if called upon, sign a Bond to that effect on the relevant standard form included herein. (without the addition of any limitations) on the same day as the Contract Agreement is signed, by the Government, the Contractor shall furnish within seven days another Surety to the approval of the Government.		
	<i>Carried to collection</i>		
A.	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.		
B.	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.		

ITEM	DESCRIPTION	KSHS	CTS
C.	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.		
D.	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		
E.	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.		
	<i>Carried to collection</i>	-	

ITEM	DESCRIPTION	KSHS	CTS
A.	SAMPLES		
	<p>The Contractor shall furnish at his own cost any samples of materials or workmanship including concrete test cubes required for the works that may be called for by the PROJECT MANAGER for his approval until such samples are approved by the PROJECT MANAGER and the PROJECT MANAGER, may reject any materials or workmanship not in his opinion to be up to approved samples. The PROJECT MANAGER shall arrange for the testing of such materials as he may at his discretion deem desirable, but the testing shall be made at the expense of the Contractor and not at the expense of the PROJECT MANAGER. The Contractor shall pay for the testing in accordance with the current scale of testing charges laid down by the State Department of Public Works, Ministry of Land, Housing and Urban Development.</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>		
B.	GOVERNMENT ACTS REGARDING WORK PEOPLE ETC.		
	<p>Allow for complying with all Government Acts, Orders and Regulations in connection with the employment of Labour and other matters related to the execution of the works. In particular the Contractor's attention is drawn to the provisions of the Factory Act 1950 and his tender must include for all costs arising or resulting from compliance with any Act, Order or Regulation relating to Insurances, pensions and holidays for workpeople or so the safety, health and welfare of the workpeople. The Contractor must make himself fully acquainted with current Acts and Regulations, including Police Regulations regarding the movement, housing, security and control of labour, labour camps , passes for transport, etc. It is most important that the Contractor, before tendering, shall obtain from the relevant Authority the fullest information regarding all such regulations and/or restrictions which may affect the information regarding all such regulations and/or restrictions which may affect the 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>		

ITEM	DESCRIPTION	KSHS	CTS
C.	SECURITY OF WORKS ETC.		
	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.		
	<i>Carried to collection</i>		
A.	PUBLIC AND PRIVATE ROADS.		
	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		
B.	EXISTING PROPERTY.		
	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		
C.	VISIT SITE AND EXAMINE DRAWINGS.		
	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.		

ITEM	DESCRIPTION	KSHS	CTS
D.	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 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		
E.	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		
	<i>Carried to collection</i>	-	
A.	OFFICE ETC. FOR THE PROJECT MANAGER		
	The Contractor shall provide and maintain where directed on site a room to be used as the site office, complete with Furniture.		
B.	WATER AND ELECTRICITY SUPPLY FOR THE WORKS		
	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.		

ITEM	DESCRIPTION	KSHS	CTS
C.	SANITATION OF THE WORKS		
	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		
D.	SUPERVISION AND WORKING HOURS		
	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.		
E.	PROVISIONAL SUMS.		
	The term "Provisional Sum" wherever used in these Bills of Quantities shall have the meaning stated in Section A item A7(i) of the Standard Method of Measurement. Such sums are net and no addition shall be made to them for profit.		
	<i>Carried to collection</i>		
A.	PRIME COST (OR P.C.) SUMS.		
	The term "Prime Cost Sum" or "P.C. Sum" wherever used in these Bills of Quantities shall have the meaning stated in Section A item A7 (ii) of the Standard Method of Measurement. Persons or firms nominated by the PROJECT MANAGER to execute work or to provide and fix materials or goods are described herein as Nominated Sub-Contractors. Persons or firms so nominated to supply goods or materials are described herein as Nominated Suppliers.		
B.	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.		

ITEM	DESCRIPTION	KSHS	CTS
C.	ADJUSTMENT OF P.C. SUMS.		
	<p>In the final account all P.C. Sums shall be deducted and the amount properly expended upon the PROJECT MANAGER'S order in respect of each of them added to the Contract sum. The Contractor shall produce to the PROJECT MANAGER such quotations, invoices or bills, properly receipted, as may be necessary to show the actual details of the sums paid by the Contractor. Items of profit upon P.C. Sums shall be adjusted in the final account pro-rata to the amount paid. Items of "attendance" (as previously described) following P.C. Sums shall be adjusted pro-rata to the physical extent of the work executed (not pro-rata to the amount paid) and this shall apply even though the Contractor's priced Bill shows a percentage in the rate column in respect of them. Should the Contractor be permitted to tender and his tender be accepted of any work for which a P.C. Sum is included in these Bill of Quantities profit and attendance will be allowed at the same rate as it would be if the work were executed by a Nominated Sub-Contractor.</p>		
	<i>Carried to collection</i>		
A.	ADJUSTMENT OF PROVISIONAL SUMS.		
	<p>In the final account all Provisional Sums shall be deducted and the value of the work properly executed in respect of them upon the PROJECT MANAGER's order added to the Contract Sum. Such work shall be valued , but should any part of the work be executed by a Nominated Sub-Contractor, 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>		
B.	NOMINATED SUB-CONTRACTORS		
	<p>When any work is ordered by the PROJECT MANAGER to be executed by nominated sub-contractors, the Contractor shall enter into sub-contracts and shall thereafter be responsible for such sub-contractors in every respect. Unless otherwise described the Contractor is to provide for such Sub-Contractors any or all of the facilities described in these Preliminaries. The Contractor should price for these with the nominated Sub-contract Contractor's work concerned in the P.C. Sums under the description "add for Attendance".</p>		

ITEM	DESCRIPTION	KSHS	CTS
C.	DIRECT CONTRACTS		
	Notwithstanding the foregoing conditions, the Government reserves the right to place a "Direct Contract" for any goods or services required in the works which are covered by a P.C. Sum in the Bills of Quantities and to pay for the same direct. In any such instances, profit relative to the P.C. Sum in the priced Bills of Quantities will be adjusted as described for P.C. Sums is allowed.		
D.	ATTENDANCE UPON OTHER TRADESMEN, ETC.		
	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.		
	<i>Carried to collection</i>	-	
A.	INSURANCE		
	The Contractor shall insure as required in Conditions No. 30 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.		

ITEM	DESCRIPTION	KSHS	CTS
B.	PROVISIONAL WORK		
	<p>All work described as "Provisional" in these Bills of Quantities is subject to re-measurement 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 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>		
C.	ALTERATIONS TO BILLS, PRICING, ETC.		
	<p>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>		
D.	BLASTING OPERATIONS		
	<p>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>		
	<i>Carried to collection</i>		

ITEM	DESCRIPTION	KSHS	CTS
A.	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.		
B.	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.		
C.	REMOVAL OF RUBBISH ETC.		
	Removal of rubbish and debris from the Buildings and site as it accumulates and at the completion of the works and remove all plant, scaffolding and unused materials at completion.		
D.	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		
	<i>Carried to collection</i>		

ITEM	DESCRIPTION	KSHS	CTS
A.	GENERAL SPECIFICATION.		
	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.		
B.	TRAINING LEVY		
	The Contractor's attention is drawn to National Industrial Training Authority Act CAP 237, which requires payment by the Contractor of a Training Levy at the rate of 50.00 per employee per month.		
C.	MATERIALS ON SITE		
	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.		
D.	HOARDING		
	The Contractor is required to take all precautions necessary for the safe custody of the works, materials, plant, public and Employer's property on the site.		
E.	CONTRACTOR'S SUPERINTENDENCE/SITE AGENT		
	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.		
	<i>Carried to Collection</i>		

ITEM	DESCRIPTION	KSHS	CTS
	<u>COLLECTION</u>		
	Brought Forward From Page GP/1		
	Brought Forward From Page GP/2		
	Brought Forward From Page GP/3		
	Brought Forward From Page GP/4		
	Brought Forward From Page GP/5		
	Brought Forward From Page GP/6		
	Brought Forward From Page GP/7		
	Brought Forward From Page GP/8		
	Brought Forward From Page GP/9		
	Brought Forward From Page GP/10		
	Brought Forward From Page GP/11		
	Brought Forward From Page GP/12		
	TOTAL FOR GENERAL PRELIMINARIES		
	CARRIED TO MAIN SUMMARY		

BUILDERS WORK

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Main block (main works) ELEMENT NO. 1; SUBSTRUCTURES (All Provisional)				
A	Clear area of new construction of all undergrowth, small bushes, grab up all trees and remove any existing structures and obstructions as directed.	Sm	900		
B	Cut down trees girth 900mm- 1200mm, remove out tree stumps and grab out roots, dispose off as directed and refill pits	No.	4		
C	Excavate oversite to remove vegetable soil, load and cart away from site to contractor's dumping area as directed; Average 200 mm depth	Sm	350		
D	Excavate to reduce levels commencing from stripped level: not exceeding 1.5 m deep	Cm	495		
E	Excavate to reduce levels commencing from stripped level: over 1.5m not exceeding 3.0 m deep	Cm	330		
F	Excavate for strip foundation trenches commencing from reduced level: not exceeding 1.5m deep	Cm	180		
G	Ditto for column bases	Cm	8		
H	Excavating in any class of rock as described in the specifications	Cm	50		
I	Return, fill and ram selected soil in foundations	Cm	825		
	Substructure carried forward				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Substructure brought forward				
J	Remove surplus soil and debris from site to a place approved by local authority	Cm	100		
K	Allow for upholding and supporting sides of excavations including any necessary plunking and strutting	Item	1		
M	Allow for keep excavations free of spring, underground or running water including any necessary pumping, bailing or other approved means	Item	1		
	<u>Mass concrete mix (1:3:6):in</u>				
A	50 mm Thick blinding under strip foundations	Sm	120		
B	Ditto under column bases	Sm	24		
	<u>Vibrated reinforced insitu concrete class 25/20; with minimum cube crushing strength of 25N/mm² at 28 days; in</u>				
C	Strip foundations	Cm	50		
D	Column bases	Cm	12		
E	Columns	Cm	8		
F	Ground floor slab; 150 mm thick	Sm	290		
G	Ramps; Ditto	Sm	4		
H	Steps	Cm	4		
	Substructure carried forward				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>Mesh fabric reinforcement</u>				
A	Mesh reinforcement No. A142 size 200 x 200 mm weighing 2.22 kg per square metre: in floor slab: including all necessary supports	Sm	290		
	<u>Supply and fix mild steel bar in structural concrete work including cutting, bending, hoisting, tying wire, spacing blocks and supporting all in position in foundation footing, column bases and columns</u>				
B	8 - 32 mm Bars	Kg	6000		
	<u>Sawn formwork: to</u>				
C	Vertical sides of column bases	Sm	22		
D	Sides of columns	Sm	48		
E	Sides of strip footing	Sm	120		
F	Edges of steps; cut to profile of steps	Sm	6		
G	Edges of slabs; 150 - 225 mm girth	Lm	100		
	<u>Walls</u>				
A	Medium Chisel dressed natural stone walling bedded in cement and sand mortar (1:4) with minimum stone crushing strength of 14N/mm ² ; foundations	Sm	400		
	Substructure carried forward				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Substructure brought forward				
	<u>Hardcore</u>				
B	300 mm thick hardcore of approved inert material: well watered and compacted in 150 mm thick (maximum) layers	Sm	290		
	<u>Blinding</u>				
C	50 mm Thick approved quality murrum blinding to surfaces of hardcore	Sm	290		
	<u>Anti-termite treatment</u>				
D	Termidor 25EC or other approved anti-termite chemical treatment to surfaces of blinded hardcore and around foundations : applied by approved professional pest control specialist: applied strictly in accordance with the manufacturer's instructions: 10 year guarantee	Sm	290		
	<u>DPM</u>				
E	Gauge 1000 polythene damp proof membrane	Sm	290		
	<u>25 mm Thick cement and sand (1:4) rendering: on concrete or stonework: wood float: to</u>				
F	Plinths: externally	Sm	60		
	Substructure carried forward				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Substructure brought forward				
	<u>Prepare surfaces and apply undercoat and two finishing coats black bitumastic or other equal approved water resistant paint: on rendered surfaces: to</u>				
G	Plinths: externally	Sm	60		
	<u>Substructures carried to summary page</u>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	ELEMENT NO. 2; CONCRETE WORKS				
	Sawn formwork: to				
A	Sides and soffits: ring beams and lintols	Sm	120		
B	Columns; vertical sides	Sm	66		
	<u>Supply and fix mild steel bar in structural concrete work including cutting, bending, hoisting, tying wire, spacing blocks and supporting all in position</u>				
C	8 - 32 mm Bars	Kg	6500		
	<u>Vibrated reinforced insitu concrete class 25/20; with minimum cube crushing strength of 25N/mm² at 28 days; in</u>				
D	Beams and lintols	Cm	36		
E	Columns	Cm	8		
	Concrete works carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>ELEMENT NO. 3; WALLS</u>				
	<u>External walls</u>				
	<u>Dressed natural quarry stone walling bedded in cement and sand mortar (1:3) with minimum stone crushing strength of 7N/mm²</u>				
A	200 mm Thick walls	Sm	330		
	<u>Internal</u>				
	<u>Natural stone walls: machine cut: bedded and jointed in cement and sand (1:3) mortar</u>				
B	200 mm Thick walls	Sm	130		
	<u>Bituminous felt or other equal approved damp-proof course: in cement/ sand (1:3) mortar</u>				
C	200 mm Wide	Lm	200		
D	12mm flexcell expansion joint	Sm	32		
	Walls carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>ELEMENT NO. 4: ROOF</u>				
	<u>Roof cover</u>				
A	Gauge 28 orientile shaped roof cover fixed with rubber washers to match.	Sm	450		
B	Ditto 450mm wide ridge / hip cover.	Lm	70		
C	Ditto valley gutter	Lm	20		
D	Raking and cutting roof cover at hips and valleys	Lm	70		
	<u>All in sawn celcured and well seasoned cypress:- 12mm diametre 300mm long mild steel anchor bolts with head, nut, washers and split ring cast into ring beam and bolted to wall plate(m.s) work.</u>				
E	- 150 x 50mm Tie beam	Lm	320		
F	150 x 50mm rafter, half rafters, valley & hip rafters (Rafters at 1.2m centre)	Lm	400		
G	100 x 50mm struts and king post	Lm	450		
	<u>end of trusses</u>				
H	150 x 50mm wall plate.	Lm	190		
I	75 x 50mm purlins(at 600mm centres)	Lm	800		
J	200 x 25mm wrott fascia and verge board	Lm	100		
	<u>Sundries</u>				
K	Bed wall plate(m.s) in cement sand mortar 1:3	Lm	190		

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Roof carried forward				
	Roof brought forward				
M	Bore 12mm diametre holes through 50mm thick wall plate at 2m centres.	No.	95		
N	Knot, prime, stop and apply 3 coats super gloss oil paint to surfaces of fascia and vergeboard 200-300mm high.	Lm	100		
	<u>Rain water goods</u>				
A	150mm half diameter u.P.V.C gutters of 6lm lengths	Lm	90		
B	150mm half diameter u.P.V.C holder clips at 1.2m centre and at ends, complete with screws	No.	75		
C	Extra over ditto for connectors at joints nailed to fascia(m.s)	No.	16		
D	Extra over ditto for stoped ends	No.	8		
E	Extra over ditto swannecks	No.	5		
F	75mm diameter p.v.c downpipe to match, clipped to walls	Lm	30		
G	Extra over ditto for 600mm long shoe	No.	5		
H	Ditto bends	No.	24		

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Roof carried to summary page				
	ELEMENT NO. 5; DOORS				
	<u>Timber Doors</u>				
	<u>45 mm thick flush door: solid core; Mahogany veneered to both sides; hardwood lipped edges; refer to Architect's details</u>				
A	Single leaf door; overall size 900 x 2400 mm high; with 6 mm thick clear fanlight glazing overall size 860 x 300 mm high complete with all beadings	No	5		
	<u>Supply and fix the following mahogany glazed doors comprising of 150 x 50mm bottom rail, top rail, middle rail, transomes and stiles; 6 mm thick toughened glass and glazing infill with and including glazing beads; All as per architect's drawings and details</u>				
A	Single leaf door; overall size 900 x 2400 mm high; with 6 mm thick clear fanlight glazing overall size 860 x 300 mm high complete with all beadings	No	3		
B	Double door; overall size 1800 x 2400 mm high; with 6 mm thick clear fanlight glazing overall size 1760 x 300 mm high complete with all beadings	No	4		
	Doors carried forward				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Doors brought forward				
	<u>Roller shutter door</u>				
A	Supply and fix 2500mm x 2400mm galvanized roller shutter door complete with barrel, springs, hanger rings, end plates, canopy, vertical guide rails, curtain; 80mm slats, T bar or bottom rail	No	4		
	<u>Prepare surfaces and apply three coats of approved gloss oil paint to metal surfaces</u>				
B	Doors: both sides measured	Sm	50		
	<u>Wrot mahogany: prime grade; with stainless steel fixing straps; including chasing to masonry, plugging and making good</u>				
A	200 x 50 mm Door frame: twice rebated: plugged	Lm	82		
B	50 x 25 mm Architrave: splayed	Lm	66		
C	25 x 25 mm Quadrant	Lm	66		
	<u>Prepare and apply one coat of aluminium wood primer on timber surfaces in contact with concrete or masonry</u>				
D	Over 100 but not exceeding 200 mm girth	Lm	214		
	<u>Prepare surfaces: apply two coats clear pinotex spirit in clear matt varnish: on timber surfaces: to</u>				
E	Over 100 but not exceeding 200 mm girth	Lm	214		
	Doors carried forward				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Doors brought forward				
F	General timber surfaces: doors <u>Supply and fix: 'UNION' or other equal approved ironmongery: matching screws: locks to include a set of 3 keys: available from their authorised local dealers; brass finish to architects approval</u>	Sm	56		
A	100mm brass butt hinges	Prs	24		
B	Two lever mortice lock with handles	No	12		
C	Door closer	No	12		
D	38 mm Diameter oval rubber stop; floor or wall mounted	No	16		
	Door carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	ELEMENT NO. 6; WINDOWS				
	<u>Approved pre-cast concrete cill: bedded and jointed in cement (sand (1:3) mortar: pointed in matching coloured cement</u>				
A	250 x 50 mm Thick cill; once weathered and throated	Lm	40		
	<u>Supply and fix the following purpose made steel casement purpose made windows, including all necessary cuttings lugs, stays and bedding into walls in cement sand mortar 1:4 complete with stays, fasteners, all necessary accessories and priming once in red-oxide, to Architects approval, with minimal burglar proofing in 20mm angle line framing</u>				
A	- Window size 2500 x 750mm high. For stores	No.	2		
B	Ditto size 2500 x 1500mm high. For laboratory	No.	5		
C	Ditto size 1200 x 1500mm high.	No	2		
D	Ditto size 2000 x 1500mm high.	No.	6		
	<u>Glazing</u>				
F	4mm thick mild tinted sheet glass in panes 0.1-0.5sm fixed in steel window panes with putty.	Sm	54		

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>Painting</u> <u>Prepare, prime and apply 3 coats of super gloss oil paint as "crown" or any other equal and approved to surfaces of:</u>				
A	- Windows externally Windows carried forward	Sm	8		
	<u>Windows brought forward</u>				
B	Windows internally	Sm	8		
	<u>Curtain rods</u>				
A	Supply and fix 2900mm long double curtain rod for both vertical blinders and sheers with a strong chrome pipe of 28mm diameter, 2pcs finials, 2pcs end cups, 4pcs brackets, rings, screws and anchor to install	No	10		
	Window carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Element 07; Ceiling				
A	10mm thick chipboard ceiling fixed in rectangular shape	Sm	340		
B	10 x 75mm ditto cornice plugged and nailed to battens	Lm	320		
C	Extra-over ditto in access door size 450 x 600mm, including framing in 75 x 50mm sawn cypress	No.	2		
	Branding				
D	50 x 50mm sawn cypress branding	Lm	500		
E	50 x 75mm ditto.	Lm	800		
	Ceiling carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>ELEMENT 8; Fixtures and fittings</u>				
	<u>Shelving to packagig room</u>				
	<u>20 mm thick blockboard storage sheleves supported of mild steel 25 x 25 mm frames; painted to approval; 450 mm wide</u>				
A	10000 mm long x 450 mm deep x 3000 mm high	Sm	50		
B	Ditto for cabinet below the worktop in seed lab	Sm	30		
	Ceiling carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>ELEMENT 9; FINISHES</u>				
	FLOOR FINISHES				
A	30mm thick cement sand 1:2 backing to receive ceramic floor tiles or terrazzo (s.m)/Skirting	Sm	300		
B	20mm thick polished terrazzo paving to floor and the worktop including plastic strip dividers/skirting	Sm	300		
	<u>walls internally</u>				
H	12mm thick gauged plaster cement sand lime 1:1:6 with a smooth float to walls, beams and columns internally	Sm	400		
I	Ditto to reveals and jambs.	Sm	30		
	<u>Walls Externaly</u>				
H	12mm thick gauged cement sand render 1:2 finished with a wood float to beams and columns	Sm	215		
I	Keying in cement sand 1:2, pointing in gloss oil paint and wire brushing natural machine cut stone externally	Sm	130		
	Finishes carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>ELEMENT 10; PAINTING & DECORATIONS</u> <u>Prepare and apply 3 coats silk vinyle emulsion paint as "crown"or any other equal and approved paint to</u>				
A	Plastered walls internally	Sm	400		
B	Soffites of chip board ceiling	Sm	340		
C	Plastered walls externally	Sm	215		
	Painting carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>SUMMARY OF ELEMENTS</u>				
A	ELEMENT NO. 1 , SUBSTRUCTURE				
B	ELEMENT NO 2, R.c WORKS				
C	ELEMENT NO 3, WALLING				
D	ELEMENT NO. 4, ROOF				
E	ELEMENT NO. 5 , DOORS				
F	ELEMENT NO. 6 , WINDOWS				
G	ELEMENT NO. 7 , CEILING				
H	ELEMENT NO. 8 , FIXTURES & Fittings				
I	ELEMENT NO 9, FINISHES				
J	ELEMENT NO. 10 PAINTING & DECORATIONS				
	TOTAL FOR BUILDERS WORK CARRIED TO GRAND SUMMARY.				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>RAISED CONCRETE WATER TANK STAND 4500mm high from ground level</u>				
	Element 01: Substructure (all provisional)				
A	Clear area of new construction of all undergrowth, small bushes, grab up all trees and remove any existing structures and obstructions as directed.	Sm	16		
B	Excavate for column bases commencing from ground level level: not exceeding 1.5 m deep	Cm	14		
C	Return, fill and ram selected soil in foundations	Cm	13		
	<u>Vibrated reinforced insitu concrete class 25/20; with minimum cube crushing strength of 25N/mm² at 28 days; in</u>				
A	- Column bases 200mm thick	Cm	2		
B	Sub structure and superstructure columns 400mmx400mm size	Cm	4		
	<u>Supply and fix mild steel bar in structural concrete work including cutting, bending, hoisting, tying wire, spacing blocks and supporting all in position</u>				
C	- 8 - 12 mm Bars for substructure columns, column bases, superstructure columns ring beams and slab	Kgs	478		
	Raised conc. Water tank stand carried forward				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Raised conc. Water tank stand brought forward				
	<u>Sawn formwork: to</u>				
D	Vertical sides of coulmn bases	Sm	2		
E	Sides of columns	Sm	10		
	<u>Superstructure works</u>				
	Sawn formwork: to				
F	Sides and soffits: beams	Sm	11		
G	Soffits and sides of suspended slab	Sm	9		
	<u>Vibrated reinforced insitu concrete class 25/20; with minimum cube crushing strength of 25N/mm² at 28 days; in</u>				
H	Slab and beams	Cm	5		
	<u>Plaster: 15 mm cement/lime putty/sand: steel trowelled: on masonry or concrete: to</u>				
I	concrete surfaces	Sm	98		
K	Purchase and instal 5,000 liters cylindrical kentank plastic water tank	Item	1		
	Sub total for construction of raised concrete water tank stand				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>SUMMARY OF ELEMENTS</u>				
A	ELEMENT NO. 1 , SUBSTRUCTURE				
B	ELEMENT NO 2, R.c WORKS				
C	ELEMENT NO 3, WALLING				
D	ELEMENT NO. 4, ROOF				
E	ELEMENT NO. 5 , DOORS				
F	ELEMENT NO. 6 , WINDOWS				
G	ELEMENT NO. 7 , CEILING				
H	ELEMENT NO. 8 , FIXTURES & Fittings				
I	ELEMENT NO 9, FINISHES				
J	ELEMENT NO. 10 PAINTING & DECORATIONS				
K	RAISED WATER TANK STAND				
	TOTAL FOR BUILDERS WORK CARRIED TO GRAND SUMMARY.				

MECHANICAL WORKS

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<p><u>MECHANICAL ENGINEERING SERVICES</u> <u>BQ</u></p> <p>Bill No1: SANITARY APPLIANCES</p> <p>Supply, 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. Note:</p> <p>(i) All sanitary fittings shall be in approved colour.</p> <p>(ii) The Model and Ref No. indicated is only a guide to the type and quality of fittings.</p> <p>(iii) Equivalent and Approved models may be acceptable.</p>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<p><u>BILL NO.2: INTERNAL WATER CONNECTION</u></p> <p>Supply and install tubing and fittings as described and shown on the drawings. Tenderers must allow for jointings, couplings etc necessary for the proper and satisfactory functioning of the system when pricing the following in PN 20 PPRC conforming to the current European standards for PPR installations and to the Engineer's approval, pipe jointing shall be by polyfusion or use of electric coupling Rates must allow for all the Metal/plastic threaded adaptors where required for the connection of sanitary fixtures, valves, sockets, sliding and fixed joints, support raceways, isolating sheaths, elastic materials, expansion arms and bends, crossovers etc</p>				
	<u>PPR Pipes</u>				
A	20mm dia pipe chased in walls/floors	Lm	30		-
B	25mm –ditto-	Lm	20		-
C	32mm –ditto-	Lm	30		-
	<u>Extra-over PPR pipework for the following:-</u>				
	<u>Bends/elbows</u>				
G	20mm dia bend	No	10		
H	25mm bend	No	10		
I	32mm bend	No	5		
L	20x1/2" dia male threaded 90o bend	No	5		
M	20x1/2" dia female threaded 90o bend	No	5		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Sanitary appliances brought forward</i>				
	<u>Tees</u>				
N	25mm diameter equal tee	No	5		
O	25x1/2" female threaded tee	No	5		
P	25x1/2" male threaded tee	No	10		
Q	32mm diameter equal tee	No	5		
R	20mm dia tee	No	10		
	<u>Unions</u>				
A	20mm dia union	No	5		
B	25mm –ditto-	No	5		
C	32mm –ditto-	No	5		
	<u>Reducers</u>				
F	25/20mm reducers	No	5		
G	32/25mm reducers	No	5		
	<u>Gate valve</u>				
J	20mm Pegler	No	3		
K	25mm –ditto-	No	3		
L	32mm –ditto-	No	2		
	<u>Flexible connectors</u>				
O	450mm chrome plated flexible connector with chrome plated angle check valve size 15mm dia including unions and sockets to connect sanitary fittings to PP-R Pipework	No	5		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Sanitary appliances brought forward</i>				
	<u>Supply, deliver and install the following vulcathene laboratory system including waste outlets, sinks, drip cups, anti-siphon traps, dilution recovery traps and associated comprehensive range of pipe and fittings for the given sizes all as vulcathene or approved equivalent</u>				
A	<p>Laboratory sink</p> <p>A sink of preferred dimensions 552mm x 400mm with a depth of 231mm having a drain of 74mm, that is extremely robust and moulded with a self draining base with its recessed outlet to accept the flange of 1 1/2" (40mm) non overflow threaded outlet but if required, an overflow assembly can be fitted. The sink to be complete with anti siphon traps that can stop the backflow of potentially hazardous fumes. All the downstream fittings to be as vulcathene.</p>	No	2		
B	<p>Three way Assay Lab Faucet in solid brass High gloss epoxy powder , resistant to most chemicals, UV fading and heat. Ceramic headwork;90 deg turn, water static pressure max 10bar. To be complete with detachable brass serrated nozzle, splash controlled water filter attachable, ergonomic high grade PP knob and 360 deg swing gooseneck spout.</p>	No	2		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Sanitary appliances brought forward</i>				
	<u>Emergency Drencher Shower and Eye Fountain</u>				
C	Body shower with eye/face shower and bowl modular in brass and stainless steel with chemical resistant red BROEN-LAB polycoat with self-draining shower head. The shower head with a pull to open mechanism and eye wash with a footpedal opening mechanism. Eye wash with built-in FLOWFIX for regulation of water flow at14l/min. Bowl in stainless steel with integrated out with a min working pressure of 1.5bar. all as BROEN-LAB or equal and approved	No	1		
D	Emergency shower instructions Wall mounted sign and instruction card for Body and Eye Shower above	No	1		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<p><i>Sanitary appliances brought forward</i></p> <p><u>BILL NO.3 FOUL WATER INTERNAL DRAINAGE FROM THE WASHROOMS AND LABORATORY</u></p> <p>Supply and fix uPVC soil system to BS 4660 and BS 4515 and MuPVC waste systems to BS 5255 with screwed and socketed joints to BS 21. Solvent welded joints shall be as per the system's manufacturer's written instructions. 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.</p> <p><u>MuPVC and uPVC Waste and Soil pipework</u></p>				
A	150mm diameter heavy gauge grey mUPVC pipe	Lm	60		
B	100mm diameter heavy gauge grey mUPVC pipe	Lm	20		
C	50mm diameter waste pipe	Lm	50		
D	32mm diameter waste pipe	Lm	50		
	<u>Bends</u>				
E	150mm diameter access bend	No	4		
F	100mm diameter access bend	No	6		
G	150mm diameter sweep bend	No	6		
H	100mm diameter sweep bend	No	6		
I	50mm diameter sweep bend	No	6		
J	32mm diameter sweep bend	No	6		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Sanitary appliances brought forward</i>				
	<u>Tees</u>				
L	50mm diameter sweep tee	No	4		
M	32mm diameter sweep tee	No	4		
	<u>Access Caps</u>				
N	100mm diameter access cap	No	6		
P	32mm diameter access cap	No	6		
	<u>Boss Connectors</u>				
Q	150 x 100mm diameter boss connector	No	4		
R	100 x 50mm diameter boss connector	No	4		
S	50 x 32mm diameter boss connector	No	4		
	<u>Traps</u>				
D	100 x 50mm diameter floor trap and grating	No	4		
E	50 x 50mm diameter U-shaped tubular trap	No	4		
	<u>Testing and Commissioning</u>				
G	Allow for testing and commissioning of the plumbing and drainage installations to the satisfaction of the Engineer.	Item	1		
	<i>Sub total for sanitary appliances</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
C	Summary page SANITARY APPLIANCES				
	Total for sanitary appliances carried to summary page				

ELECTRICAL WORKS

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Electrical works				
A	Supply, deliver & install on site one gang one-way switches	No	6		
B	Supply, deliver & install on site one gang two-way switches	No	10		
C	Supply, deliver & install on site three gang two-way switches	No	1		
D	Supply, deliver & install on site one gang intermediate switch	No	2		
E	Supply, deliver & install on site two gang two-way switches	No	2		
F	Supply, deliver & Install 1200mm, 1x58w T26 LED fluorescent light fittings with Aluminium louvres (complete with tubes)as thorn, do wiring as appropriate using 3x1.5mm ² single core copper cables as E. African cable drawn in concealed pvc conduit. The fittings to be surface mounted on the ceiling & spaced as appropriate.	No	45		
G	Supply deliver to site, Install and do wiring of 1200mm single LED batten fluorescent fittings with prismatic diffuser(complete with tubes) wired in a 3x1.5mm ² PVC insulated single core copper cable drawn in a concealed 20mm PVC heavy gauge conduits	No	3		
H	Supply, deliver, Install & wire twin 13amps socket outlets drawn in concealed pvc conduit using 3x2.5mm ² single core copper cable in three ring circuit all terminated at the DB protected by 32Amps single pole MCB	No	22		
	Cont. electrical carried forward				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>electrical brought forward</i>				
I	Supply, deliver, Install in the processing area & wire five pin 32amps industrial socket outlets each as a final subcircuit from the DB isolated using 40Amps three pole MCB wired using 4x4.0mm ² single core copper cables as E. African cable drawn in concealed pvc conduit.	No	2		
J	Supply, deliver & install in the processing area 40Amps triple pole MCB as Schneider or equivalent as approved by project manager and housed in an enamel paint finish metal enclosure	No	2		
K	Supply, deliver & install on 32Ampsamps triple pole MCB to fit in the installed DB	No	2		
L	Supply, deliver & install on 10amps MCB to fit in the DB	No	4		
M	Supply, deliver & install single pole 32amps MCB to fit in the DB installed	No	3		
N	Supply, deliver & install 150x300mm concrete Danger Hatari tiles	No	270		
O	Excavate 250x600mm deep trench to lay the armoured cable	Cm	15		
P	Supply, deliver to site & install four core 16mm ² Armoured copper cable laid in 600mm deep trench pre-covered with "Danger Hatari" concrete tiles then back fill	Lm	80		
	<i>Cont. electrical carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>electrical brought forward</i>				
Q	Three phase 415v, 125Amps six ways distribution board as Havels or equivalent as approved by project manager	No	1		
R	Manhole of 450x450x600mm (LxWxH)using machine cut stone and plastered on internal faces complete with top 100mm concrete cover. Allow for 100mm ducts entry	No	2		
S	Supply, deliver to site & install four pole 125Amps MCCB plus Metal housing as Havels or equivalent as approved by project manager	No	1		
T	Supply and install concrete cable makers(UG) along the underground cable line	No	4		
	<u>SECURITY LIGHTING</u>				
A	Supply, deliver and install LED security lighting fitting 50watts as thorn or approved equivalent wired in a 3x1.5mm ² PVC insulated single copper cable drawn in a concealed 20mm PVC heavy gauge conduit	No	7		
B	Supply, deliver and install 240volts 32Amps contactor as Telemechanique or equivalent to switch on the security lights	No	1		
C	Supply, deliver and install 240volt 10amps Photo cell switch to activate the contactor "Ditto"	No	1		
D	Supply and do earthing at the building main connection point using 10mm ² single core cable and 12mmx1200mm copper earth rod	No	1		
	<i>Cont. electrical carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>electrical brought forward</i>				
E	Interconnect the item (O) above to the installed 3 phase DB using 5x16mm ² single core cables drawn in concealed pvc conduit as appropriate	No	1		
F	Supply and install <i>in situ</i> 100mm diameter heavy gauge UPVC pipe as duct (2No. Parallel ducts) from the constructed block to the rear side to receive the power cables	Lm	12		
	Sub total for electrical works carried to summary page				

CIVIL WORKS

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	MANHOLES(all provisional)				
	The following in 12 No. Manholes class "B" All provisional				
	-				
A	Excavate manhole pit not exceeding 1.5m deep.	Cm	27		
B	Return, fill-in and consolidate excavated materials around manhole walls.	Cm	15		
C	Remove surplus excavated materials and deposit on site as directed.	Cm	12		
D	Extra-over excavation for excavating in rock class 'A'	Cm	2		
E	150mm thick mass concrete 1:3:6 in manhole base.	Sm	27		
	Precast Concrete				
F	100mm thick precast concrete 1:2:4 in manhole cover slab size 1380mmx1180mm, reinforced with 8mm diameter at 80mm centres both ways with rebated opening for 450x600mm cover and frame finished smooth including any necessary formwork.	Sm	12		
	Benching				
G	Concrete 1:3:6 in benching to bottom of manholes internal size 1000mmx800mm including haunching to a height of 200mm above channel and rendering in cement 1:2 trowelled smooth.	No.	12		
	Manhole carried forward				
	Ex2				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Manhole brought forward</i>				
H	Make or leave hole through 200mm concrete wall for 150mm diameter pipe (m.s) built-in and make good walls and render all round.	No.	24		
	<u>Extra-over benching to forming the following channels with external rounded angles with slopping top of benching:-</u>				
	-				
I	150mm diametre half-round section straight main channel 900mm long.	No.	12		
A	Ditto but curved 900mm long.	No.	12		
B	140mm thick masonry block walling in cement sand mortar 1:3.	Sm	72		
C	12mm thick cement sand 1:2 plaster to ditto with approved water-proofing admixture to internal sides of manholes trowelled smooth.	Sm	54		
D	Ditto but render to top and sides of cover slab and walling.	Sm	16		
E	Fiber manhole cover size 600mmx450mm and setting frame in cement sand mortar 1:3 and cover in grease.	No.	12		
F	Extra over formworks boxing to form opening for manhole cover(m.s)	No.	12		
	<i>Sub total for manhole carried to summary page</i>				
	Ex 3				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>SOAKAGE AREA(all provisional)</u>				
	<u>The following in french drains as per standard drawing No.(50) 5344, average 5Lm</u>				
	-				
A	Excavate trench for french drains, not exceeding 1.5m deep starting from original ground level	Cm	4		
B	Extra-over excavation for excavating in rock class 'A'	Cm	1		
C	Cart away excavated materials from site.	Cm	2		
D	Trim sides of french drain to slope.	Sm	12		
E	20-60mm crushed stones or washed gravel.	Cm	2		
F	Back filling selected excavated soils mean thickness 350mm	Cm	1		
G	Imported 200mm thick compacted murrum	Cm	1		
H	500 gauge polythene sheet.	Sm	6		
I	150mm diameter agricultural or perforated upvc pipe laid to falls in units of 450mm lengths with 10mm open joints covered to top half with 100mm width paper.	Lm	6		
	TOTAL FOR SOAKAGE AREA CARRIED TO SUMMARY				
	Ex 4				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	1-No. SOAK- PITS(all provisional)				
	<u>The following in 1-No soakpits as per drawing No.M.o.W(50) 5345</u>				
A	Excavate pit not exceeding 1.5m deep starting from original ground level	Cm	6		
B	Ditto between 1.5m-3.0m deep.	Cm	6		
C	Ditto between 3.0m-4.5m deep.	Cm	6		
F	Extra-over excavation for excavating in rock class 'A'	Cm	8		
G	Cart away surplus excated materials from site.	Cm	20		
H	Return, fill-in and consolidate excavated materials around foundations.	Cm	6		
I	Mass concrete 1:3:6.	Cm	1		
J	100mm thick vibrated reinforced concrete 1:2:4 in cover slab.	Sm	4		
K	12mm diametre high tensile square twisted bars to B/s 4449	Kg	25		
	<u>Sawn formwork to:-</u>				
M	Soffites of suspended slab	Sm	4		
N	Edges of suspended cover slab girth 75-150mm.	Lm	8		
A	Boxing to form opening size 600x450mm in 150mm thick suspended cover slab, rebated all round.	No.	1		
	<i>Soak pit carried forward</i>				
	Ex 5				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Soak pit brought forward</i>				
B	Form or leave 150mm diametre hole in 150mm thick block walling.	No.	1		
C	Building in, 150mm diametre drain pipe through 150mm thick walling and make good in cement sand render 1:3.	No.	1		
	<u>approved machine cut walling in cement sand mortar 1:3:-</u>				
D	150mm walling coved on plain 740mm radius.	Sm	15		
E	12mm thick cement sand 1:4, rendering coved to wall radius	Sm	15		
F	Ditto but to top and edges of suspended slab.	Sm	5		
G	Fiber manhole cover size 600mmx450mm and setting frame in cement sand mortar 1:3 and cover in grease.	No.	1		
	CARRIED TO COLLECTION				
	Ex 6				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	SEPTIC TANK- 200 persons-45000 lts capacity as per M.O.P.W standard drawing No. (50) 5343 All provisional				
A	Excavate for pit not exceeding 1.5m deep commencing from ground level.	Cm	36		
B	Ditto between 1.5-3.0m deep	Cm	36		
C	Ditto exceeding 3.0m but not exceeding 4.5m deep.	Cm	24		
D	Extra Over excavation for excavating in rock Class "A"	Cm	36		
E	Return, fill-in and ram selected excavated materials around walls and foundations.	Cm	54		
F	Load and cart away excavated materials.	Cm	78		
G	50mm thick plain concrete 1:4:8 blinding under foundation footing.	Sm	24		
H	Ditto but laid to falls not exceeding 15 degrees from horizontal.	Sm	12		
J	Ditto in benching average 200mm high, in manhole size 600 x 850mm, including forming 150mm diameter half round main channel.	No.	2		
	<i>Septic tank carried forward</i>				
	Ex 7				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Septic tank brought forward</i>				
	Vibrated reinforced concrete 1:2:4 to:-				
I	150mm floor bed laid to falls not exceeding 15 degrees from horizontal.	Sm	24		
J	Ditto floor bed	Sm	12		
K	Ditto manhole footing	Sm	2		
L	150mm thick suspended scum baffle walling.	Sm	8		
A	200mm thick scum baffle walling with slats	Sm	8		
B	250mm thick extenal walling	Sm	70		
C	150mm thick cover slab.	Sm	24		
	Sawn formwork to:-				
D	Sides and Soffites of suspended scum baffle.	Sm	8		
E	Ditto sides of baffle walling	Sm	8		
F	Sides of extenal walling	Sm	40		
G	Soffites of cover slab.	Sm	24		
H	Boxing to ditto for manhole cover(m.s) opening size 450 x 600mm.	No.	4		
I	Sides and edges of cover slab 150-225mm high.	Lm	22		
	Reinforcement				
J	10mm diameter bars	Kg	440		
	<i>Septic tank carried forward</i>				
	Ex 8				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Septic tank brought forward</i>				
K	20mm cement sand 1:2 floor screed, water proofed with pudlo and trowelled smooth, not exceeding 15 degrees to horizontal with sulphate resistant cement.	Sm	24		
L	Ditto to horizontal floors	Sm	12		
M	Ditto manhole bases	Sm	2		
N	Ditto to sides and soffites of suspended scum baffles.	Sm	21		
P	Sides of scum baffle walling	Sm	20		
Q	Ditto to walls.	Sm	100		
R	Ditto to top and sides of cover slab.	Sm	12		
A	Approved Heavy duty plastic manhole cover and frame size 600 x 450mm including bedding frame in cement and sand mortar 1:2 and setting cover in greese.	No.	4		
B	100mm diametre P.V.C inlet pipe with equal "Tee" 450mm long.	No.	1		
C	100mm diametre U.P.V.C out-let pipe 750mm long	No.	1		
D	Form or leave 150mm diametre hole in 250mm walling.	No.	4		
E	25mm diameter bitumen coated cast iron step bars 600mm long with 300mm long footing , sunk into concrete walling	No.	6		
	Sub total for septic tank				
	Ex 8				

PC & PROVISIONAL SUMS

ITEM	DESCRIPTION	UNIT	AMOUNT
	<u>PROVISIONAL SUMS</u>		
	-		
	<u>The Contractor shall include in his tender the following to be deducted in whole or in part as directed by the Project Manager.</u>		
	-		
A	Allow a provisional sum of Kenya Shillings Five hundred thousand (Kshs.500,000/=) only for contingencies.		500,000.00
PC CARRIED TO GRAND SUMMARY			500,000.00

ITEM	DESCRIPTION		AMOUNT
	PROPOSED CONSTRUCTION OF SEED CENTRE FOR GARISSA SUB-CENTER		
	MAIN SUMMARY	PAGE	
1.	PARTICULAR PRELIMINARIES		
2.	GENERAL PRELIMINARIES	-	
		-	
3.	BUILDERS WORK		
4.	MECHANICAL INSTALLATIONS WORKS		
5.	ELECTRICAL INSTALLATIONS		
6.	CIVIL WORKS		
7.	PC & PROVISIONAL SUMS		
	-		
	SUB- TOTAL		
	VAT - 16%		
	TOTAL CARRIED TO LOT 2 SUMMARY PAGE	KSHS	

ITEM	DESCRIPTION	SHS	SHS
	<u>PROPOSED CONSTRUCTION OF KEFRI SEED CENTRES FOR LOT 2 (TIVA - KITUI, KIBWEZI & GARISSA SUB - CENTRES)</u>	FOR OFFICIAL USE	FOR CONTRACTORS USE
1	<u>LOT 2 SUMMARY</u> TIVA- KITUI CENTRE	-	
2	KIBWEZI SUB-CENTRE		
3	GARISSA SUB-CENTRE		
	- TOTAL FOR LOT 2 CARRIED TO FORM OF TENDER	KSHS	
<p>Amount in words Ksh</p> <p>.....</p> <p>CONTRACTORS NAME</p> <p>ADDRESS</p> <p>.....</p> <p>DATE</p> <p>SIGNATURE,.....</p> <p>WITNESS'S NAME</p> <p>ADDRESS</p> <p>.....</p> <p>DATE</p> <p>SIGNATURE</p>			

LOT 3:

**MASENO SUB- CENTER, MIGORI
SUB- CENTER
AND
KAKAMEGA SUB- CENTER**

MASENO SUB-CENTRE

SITE 1 OF LOT 3

PARTICULAR PRELIMINARIES

ITEM	DESCRIPTION	Kshs.	Cts
	<p><u>PARTICULAR PRELIMINARIES</u></p> <p>A PRICING ITEMS OF PRELIMINARIES</p> <p>Prices SHALL BE INSERTED against items of “preliminaries” in the tenderer’s priced Bills of Quantities. 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. The contractor is advised to read and understand all preliminary items.</p> <p>B DESCRIPTION OF THE WORKS</p> <p>The works to be carried out under this contract involves substructures works, walling, steel windows, timber and steel doors, terrazzo floor finishes, chipboard ceiling finishes and joinery fittings and all associated electrical, mechanical and civil works</p> <p>C 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 22 of the Conditions of Contract. The discrepancies shall then be treated as a variation and be dealt with in accordance with Clause 22 of the said Conditions.</p> <p>D LOCATION OF SITE</p> <p>The sites are located at KEFRI Maseno Seed Centre, Migori Seed Sub-Centre and Kakamega Seed Sub-Centre</p>		
	Carried to Collection		

ITEM	DESCRIPTION	Kshs.	Cts
A	<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 claim or intent to claim notice to the PROJECT MANAGER within the contract period. No claims shall be entertained upon the expiry of the said contract period.</p>		
B	<p>PAYMENTS</p> <p>The tenderer's attention is drawn to the fact that the GOVERNMENT SHALL NOT MAKE ADVANCE PAYMENTS</p>		
C	<p>PREVENTION OF ACCIDENT, DAMAGE OR LOSS</p> <p>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 instructed to take reasonable care in the execution of the works as to prevent accidents, damage or loss and disruption of normal activities being carried out by the Client. The Contractor shall allow in his rates any expense he deems necessary by taking such care within the site.</p>		
D	<p>BID SECURITY</p> <p>The contractor shall provide a dully filled tender securing declaration form in the provided format.</p>		
Carried to Collection			

ITEM	DESCRIPTION	Kshs.	Cts
A	<p>WORKING CONDITIONS</p> <p>The Contractor shall allow in this tender for any interference that he may encounter in the course of execution 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>		
B	<p>SIGNBOARD</p> <p>Allow for providing, erecting, maintaining throughout the course of the Contract and afterwards clearing away the signboard as designed, specified and approved by the Project Manager.</p>		
C	<p>LABOUR CAMPS</p> <p>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>		
D	<p>MATERIALS FROM DEMOLITIONS</p> <p>The Contractor shall allow for a credit for salvaged materials. Any materials arising from demolitions shall not be re-used. The Contractor shall allow for carting away all demolished materials.</p>		
E	<p>PRICING RATES</p> <p>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>		
	Carried to Collection		

ITEM	DESCRIPTION	Kshs.	Cts
A	<p>URGENCY OF THE WORKS</p> <p>The Contractor is notified that these “works are urgent” and should be completed within the period stated in these Particular Preliminaries. The Contractor shall allow in this tender for any costs he deems that he/she may incur by having to complete the works within the stipulated contract period.</p>		
B	<p>PAYMENT FOR MATERIALS ON SITE</p> <p>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</p> <p>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 which may be required by the authorities concerned for the support, maintenance and protection of such services.</p>		
Carried to Collection			

ITEM	DESCRIPTION	Kshs.	Cts
A	<p>TENDER DOCUMENTS</p> <p>Tender documents are as listed in Clause 2.1 of the Instruction to Tenderer's</p>		
B	<p>DELIVERY OF TENDER</p> <p>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>		
C	<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. Notice No. 35 & 36 Dated 11th September 2003 operational from 1st October 2003, withholding VAT will be levied against the contract sum by the Employer . The contractor should therefore include this tax in the Grand Summary page as indicated herein. The tenderer is advised that in accordance with the Finance Act 2014 withholding VAT tax was reintroduced at a rate of 2% with effect from 7th November, 2019</p>		
	Carried to collection		

ITEM	DESCRIPTION	Kshs.	Cts
	<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</p> <p>Defects Liability Period</p> <p>Date for Possession</p> <p>Date for Completion</p> <p>Liquidated and Ascertained Damages</p> <p>Period of Interim Certificates</p> <p>Percentage of Certified Value Retained</p> <p>Limit of Retention Fund</p>	<p>-</p> <p>-</p> <p>3 Months from Practical Completion</p> <p>6 Months from Practical Completion</p> <p>To be agreed with the Project Manager</p> <p>26 weeks from date of Possession</p> <p>at a rate of Kshs 5,000.00 Per day or part thereof</p> <p>Monthly</p> <p>10%</p> <p>5%</p>	
	Carried to Collection		

ITEM	DESCRIPTION	Kshs.	Cts
	<u>COLLECTION</u>		
	Brought forward from page PP/1		
	Brought forward from page PP/2		
	Brought forward from page PP/3		
	Brought forward from page PP/4		
	Brought forward from page PP/5		
	Brought forward from page PP/6		
	Brought forward from page PP/7		
	Brought forward from page PP/8		
	PARTICULAR PRELIMINARIES CARRIED TO MAIN SUMMARY		

GENERAL PRELIMINARIES

ITEM	DESCRIPTION	KSHS	CTS
-	GENERAL PRELIMINARIES		
A.	PRICING OF ITEMS OF PRELIMINARIES AND PREAMBLES		
	Prices will be inserted against items of Preliminaries in the Contractor's priced Bills of Quantities and Specification.		
	The Contractor shall be deemed to have included in his prices or rates for the various items in the Bills of Quantities or Specification for all costs involved in complying with all the requirements for the proper execution of the whole of the works in the Contract.		
B.	ABBREVIATIONS		
	Throughout these Bills, units of measurement and terms are abbreviated and shall be interpreted as follows:-		
	<i>C.M.</i> Shall mean cubic metre		
	<i>S.M.</i> Shall mean square metre		
	<i>L.M.</i> Shall mean linear metre		
	<i>MM</i> Shall mean Millimetre		
	<i>Kg.</i> Shall mean Kilogramme		
	<i>No.</i> Shall mean Number		
	<i>Prs.</i> Shall mean Pairs		
	<i>B.S.</i> Shall mean the British Standard Specification Published by the British Standards Institution, 2 Park Street, London W.I., England.		
	<i>Ditto</i> Shall mean the whole of the preceding description except as qualified in the description in which it occurs.		
	<i>m.s.</i> Shall mean measured separately.		
	<i>a.b.d</i> Shall mean as before described.		
	<i>Carried to collection</i>		

ITEM	DESCRIPTION	KSHS	CTS
A.	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:-		
	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.		
	<i>Fix Only:-</i>		
	"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.		
B.	EMPLOYER		
	The "Employer" is Kenya Forestry Research Institute		
	The term "Employer" and "Government" wherever used in the contract document shall be synonymous		
C.	PROJECT MANAGER		
	The term "P.M." 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 as may be duly authorized to represent him on behalf of the Government.		

ITEM	DESCRIPTION	KSHS	CTS
D.	ARCHITECT		
	The term "Architect" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 30743, NAIROBI.		
E.	QUANTITY SURVEYOR		
	The term "Quantity Surveyor" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 30743, NAIROBI.		
	<i>Carried to collection</i>	-	
A.	ELECTRICAL ENGINEER		
	The term "Electrical Engineer" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 41191, NAIROBI.		
B.	MECHANICAL ENGINEER		
	The term "Mechanical Engineer" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 41191, NAIROBI.		
C	STRUCTURAL ENGINEER		
	The term "Structural Engineer" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 41191, NAIROBI.		

ITEM	DESCRIPTION	KSHS	CTS
D	FORM OF CONTRACT		
	The Form of Contract shall be as stipulated in the Republic of Kenya's Standard Tender Document for Procurement of Building Works(2006 Edition) included herein The Conditions of Contract are also included herein Conditions of Contract These are numbered from 1 to 37 as set out in pages 16 to 36 of these tender documents. 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		
E.	PERFORMANCE BOND.		
	The Contractor shall find and submit on the Form of Tender from an approved Bank and who will be willing to be bound the Government in an amount equal to five per cent (5%) of the Contract amount for the due performances of the Contract up to the date of completion as certified by the PROJECT MANAGER and who will when and if called upon, sign a Bond to that effect on the relevant standard form included herein. (without the addition of any limitations) on the same day as the Contract Agreement is signed, by the Government, the Contractor shall furnish within seven days another Surety to the approval of the Government.		
	<i>Carried to collection</i>		
A.	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.		

ITEM	DESCRIPTION	KSHS	CTS
B.	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.		
C.	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.		
D.	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		
E.	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.		
	<i>Carried to collection</i>	-	

ITEM	DESCRIPTION	KSHS	CTS
A.	SAMPLES		
	<p>The Contractor shall furnish at his own cost any samples of materials or workmanship including concrete test cubes required for the works that may be called for by the PROJECT MANAGER for his approval until such samples are approved by the PROJECT MANAGER and the PROJECT MANAGER, may reject any materials or workmanship not in his opinion to be up to approved samples. The PROJECT MANAGER shall arrange for the testing of such materials as he may at his discretion deem desirable, but the testing shall be made at the expense of the Contractor and not at the expense of the PROJECT MANAGER. The Contractor shall pay for the testing in accordance with the current scale of testing charges laid down by the State Department of Public Works, Ministry of Land, Housing and Urban Development.</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>		
B.	GOVERNMENT ACTS REGARDING WORK PEOPLE ETC.		
	<p>Allow for complying with all Government Acts, Orders and Regulations in connection with the employment of Labour and other matters related to the execution of the works. In particular the Contractor's attention is drawn to the provisions of the Factory Act 1950 and his tender must include for all costs arising or resulting from compliance with any Act, Order or Regulation relating to Insurances, pensions and holidays for workpeople or so the safety, health and welfare of the workpeople. The Contractor must make himself fully acquainted with current Acts and Regulations, including Police Regulations regarding the movement, housing, security and control of labour, labour camps , passes for transport, etc. It is most important that the Contractor, before tendering, shall obtain from the relevant Authority the fullest information regarding all such regulations and/or restrictions which may affect the information regarding all such regulations and/or restrictions which may affect the organisation of the works, supply and control of labour, etc., and allow accordingly in his tender. No claim in respect of want of</p>		

ITEM	DESCRIPTION	KSHS	CTS
	knowledge in this connection will be entertained.		
C.	SECURITY OF WORKS ETC.		
	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.		
	<i>Carried to collection</i>		
A.	PUBLIC AND PRIVATE ROADS.		
	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		
B.	EXISTING PROPERTY.		
	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		
C.	VISIT SITE AND EXAMINE DRAWINGS.		
	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.		

ITEM	DESCRIPTION	KSHS	CTS
D.	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 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		
E.	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		
	<i>Carried to collection</i>	-	
A.	OFFICE ETC. FOR THE PROJECT MANAGER		
	The Contractor shall provide and maintain where directed on site a room to be used as the site office, complete with Furniture.		
B.	WATER AND ELECTRICITY SUPPLY FOR THE WORKS		
	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		

ITEM	DESCRIPTION	KSHS	CTS
	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.		
C.	SANITATION OF THE WORKS		
	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		
D.	SUPERVISION AND WORKING HOURS		
	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.		
E.	PROVISIONAL SUMS.		
	The term "Provisional Sum" wherever used in these Bills of Quantities shall have the meaning stated in Section A item A7(i) of the Standard Method of Measurement. Such sums are net and no addition shall be made to them for profit.		
	<i>Carried to collection</i>		

ITEM	DESCRIPTION	KSHS	CTS
A.	PRIME COST (OR P.C.) SUMS.		
	The term "Prime Cost Sum" or "P.C. Sum" wherever used in these Bills of Quantities shall have the meaning stated in Section A item A7 (ii) of the Standard Method of Measurement. Persons or firms nominated by the PROJECT MANAGER to execute work or to provide and fix materials or goods are described herein as Nominated Sub-Contractors. Persons or firms so nominated to supply goods or materials are described herein as Nominated Suppliers.		
B.	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.		
C.	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. 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.		
	<i>Carried to collection</i>		

ITEM	DESCRIPTION	KSHS	CTS
A.	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 , 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.		
B.	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 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".		
C.	DIRECT CONTRACTS		
	Notwithstanding the foregoing conditions, the Government reserves the right to place a "Direct Contract" for any goods or services required in the works which are covered by a P.C. Sum in the Bills of Quantities and to pay for the same direct. In any such instances, profit relative to the P.C. Sum in the priced Bills of Quantities will be adjusted as described for P.C. Sums is allowed.		
D.	ATTENDANCE UPON OTHER TRADESMEN, ETC.		
	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		

ITEM	DESCRIPTION	KSHS	CTS
	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.		
	<i>Carried to collection</i>	-	
A.	INSURANCE		
	<p>The Contractor shall insure as required in Conditions No. 30 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>		
B.	PROVISIONAL WORK		
	<p>All work described as "Provisional" in these Bills of Quantities is subject to re-measurement 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. 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>		

ITEM	DESCRIPTION	KSHS	CTS
C.	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.		
D.	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.		
	<i>Carried to collection</i>		
A.	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.		

ITEM	DESCRIPTION	KSHS	CTS
B.	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.		
C.	REMOVAL OF RUBBISH ETC.		
	Removal of rubbish and debris from the Buildings and site as it accumulates and at the completion of the works and remove all plant, scaffolding and unused materials at completion.		
D.	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		
	<i>Carried to collection</i>		

ITEM	DESCRIPTION	KSHS	CTS
A.	GENERAL SPECIFICATION.		
	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.		
B.	TRAINING LEVY		
	The Contractor's attention is drawn to National Industrial Training Authority Act CAP 237, which requires payment by the Contractor of a Training Levy at the rate of 50.00 per employee per month.		
C.	MATERIALS ON SITE		
	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.		
D.	HOARDING		
	The Contractor is required to take all precautions necessary for the safe custody of the works, materials, plant, public and Employer's property on the site.		
E.	CONTRACTOR'S SUPERINTENDENCE/SITE AGENT		
	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.		
	<i>Carried to Collection</i>		

ITEM	DESCRIPTION	KSHS	CTS
	<u>COLLECTION</u>		
	Brought Forward From Page GP/1		
	Brought Forward From Page GP/2		
	Brought Forward From Page GP/3		
	Brought Forward From Page GP/4		
	Brought Forward From Page GP/5		
	Brought Forward From Page GP/6		
	Brought Forward From Page GP/7		
	Brought Forward From Page GP/8		
	Brought Forward From Page GP/9		
	Brought Forward From Page GP/10		
	Brought Forward From Page GP/11		
	Brought Forward From Page GP/12		
	TOTAL FOR GENERAL PRELIMINARIES		
	CARRIED TO MAIN SUMMARY		

TIVA SUB-CENTRE

BUILDERS WORK

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Main block (Main Works)</i>				
	ELEMENT NO. 1; SUBSTRUCTURES (All Provisional)				
A	Clear area of new construction of all undergrowth, small bushes, grab up all trees and remove any existing structures and obstructions as directed.	Sm	900		
B	Cut down trees girth 900mm- 1200mm, remove out tree stumps and grab out roots, dispose off as directed and refill pits	No.	4		
C	Excavate oversite to remove vegetable soil, load and cart away from site to contractor's dumping area as directed; Average 200 mm depth	Sm	350		
D	Excavate to reduce levels commencing from stripped level: not exceeding 1.5 m deep	Cm	500		
E	Excavate to reduce levels commencing from stripped level: over 1.5m not exceeding 3.0 m deep	Cm	335		
F	Excavate for strip foundation trenches commencing from reduced level: not exceeding 1.5m deep	Cm	190		
G	Ditto for column bases	Cm	8		
H	Excavating in any class of rock as described in the specifications	Cm	50		
I	Return, fill and ram selected soil in foundations	Cm	825		
	<i>Substructure carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Substructure brought forward</i>				
J	Remove surplus soil and debris from site to a place approved by local authority	Cm	100		
K	Allow for upholding and supporting sides of excavations including any necessary plunking and strutting	Item	1		
M	Allow for keep excavations free of spring, underground or running water including any necessary pumping, bailing or other approved means	Item	1		
	<u>Mass concrete mix (1:3:6):in</u>				
A	50 mm Thick blinding under strip foundations	Sm	128		
B	Ditto under column bases	Sm	24		
	<u>Vibrated reinforced insitu concrete class 25/20; with minimum cube crushing strength of 25N/mm² at 28 days; in</u>				
C	Strip foundations	Cm	53		
D	Column bases	Cm	12		
E	Columns	Cm	8		
F	Ground floor slab; 150 mm thick	Sm	320		
G	Ramps; Ditto	Sm	4		
H	Steps	Cm	4		
	<i>Substructure carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Substructure brought forward</i>				
	<u>Mesh fabric reinforcement</u>				
A	Mesh reinforcement No. A142 size 200 x 200 mm weighing 2.22 kg per square metre: in floor slab: including all necessary supports	Sm	320		
	<u>Supply and fix mild steel bar in structural concrete work including cutting, bending, hoisting, tying wire, spacing blocks and supporting all in position in foundation footing, column bases and columns</u>				
B	8 - 32 mm Bars	Kg	6500		
	<u>Sawn formwork: to</u>				
C	Vertical sides of coulmn bases	Sm	22		
D	Sides of columns	Sm	48		
E	Sides of strip footing	Sm	140		
F	Edges of steps; cut to profile of steps	Sm	6		
G	Edges of slabs; 150 - 225 mm girth	Lm	115		
	<u>Walls</u>				
A	Medium Chisel dressed natural stone walling bedded in cement and sand mortar (1:4) with minimum stone crushing strength of 14N/mm ² ; foundations	Sm	450		
	<i>Substructure carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Substructure brought forward</i>				
	<u>Hardcore</u>				
B	300 mm thick hardcore of approved inert material: well watered and compacted in 150 mm thick (maximum) layers	Sm	320		
	<u>Blinding</u>				
C	50 mm Thick approved quality murrum blinding to surfaces of hardcore	Sm	320		
	<u>Anti-termite treatment</u>				
D	Termidor 25EC or other approved anti-termite chemical treatment to surfaces of blinded hardcore and around foundations : applied by approved professional pest control specialist: applied strictly in accordance with the manufacturer's instructions: 10 year guarantee	Sm	320		
	<u>DPM</u>				
E	Gauge 1000 polythene damp proof membrane	Sm	320		
	<u>25 mm Thick cement and sand (1:4) rendering: on concrete or stonework: wood float: to</u>				
F	Plinths: externally	Sm	70		
	<u>Prepare surfaces and apply undercoat and two finishing coats black bitumastic or other equal approved water resistant paint: on rendered surfaces: to</u>				
G	Plinths: externally	Sm	70		
	<u>Substructures carried to summary page</u>				

Item	Description	Unit	Qty	Rate	Amount (ksh)
	Sawn formwork: to				
A	Sides and soffits: ring beams and lintols	Sm	120		
B	Columns; vertical sides	Sm	66		
	<u>Supply and fix mild steel bar in structural concrete work including cutting, bending, hoisting, tying wire, spacing blocks and supporting all in position</u>				
C	8 - 32 mm Bars	Kg	6000		
	<u>Vibrated reinforced insitu concrete class 25/20; with minimum cube crushing strength of 25N/mm² at 28 days; in</u>				
D	Beams and lintols	Cm	36		
E	Columns	Cm	8		
	Concrete works carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	ELEMENT NO. 4: ROOF				
	<u>Roof cover</u>				
A	Gauge 28 orientile shaped roof cover fixed with rubber washers to match.	Sm	480		
B	Ditto 450mm wide ridge / hip cover.	Lm	75		
C	Ditto valley gutter	Lm	20		
D	Raking and cutting roof cover at hips and valleys	Lm	75		
	<u>All in sawn celcured and well seasoned cypress:- 12mm diametre 300mm long mild steel anchor bolts with head, nut, washers and split ring cast into ring beam and bolted to wall plate(m.s) work.</u>				
E	150 x 50mm Tie beam	Lm	330		
F	150 x 50mm rafter, half rafters, valley & hip rafters(Rafters at 1.2m centre)	Lm	420		
G	100 x 50mm struts and king post	Lm	500		
	<u>end of trusses</u>				
H	150 x 50mm wall plate.	Lm	190		
I	75 x 50mm purlins(at 600mm centres)	Lm	860		
J	200 x 25mm wrott fascia and verge board	Lm	110		
	<u>Sundries</u>				
K	Bed wall plate(m.s) in cement sand mortar 1:3	Lm	190		
	<i>Roof carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Roof brought forward</i>				
M	Bore 12mm diametre holes through 50mm thick wall plate at 2m centres.	No.	95		
N	Knot, prime, stop and apply 3 coats super gloss oil paint to surfaces of fascia and vergeboard 200-300mm high.	Lm	100		
	<i>Rain water goods</i>				
A	150mm half diameter u.P.V.C gutters of 6lm lengths	Lm	100		
B	150mm half diameter u.P.V.C holder clips at 1.2m centre and at ends, complete with screws	No.	82		
C	Extra over ditto for connectors at joints nailed to fascia(m.s)	No.	17		
D	Extra over ditto for stoped ends	No.	8		
E	Extra over ditto swannecks	No.	5		
F	75mm diameter p.v.c downpipe to match, clipped to walls	Lm	30		
G	Extra over ditto for 600mm long shoe	No.	5		
H	Ditto bends	No.	24		
	Roof carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	ELEMENT NO. 5; DOORS				
	<u>Timber Doors</u>				
	<u>45 mm thick flush door: solid core; Mahogany veneered to both sides; hardwood lipped edges; refer to Architect's details</u>				
A	Single leaf door; overall size 900 x 2400 mm high; with 6 mm thick clear fanlight glazing overall size 860 x 300 mm high complete with all beadings	No	5		
	<u>Supply and fix the following mahogany glazed doors comprising of 150 x 50mm bottom rail, top rail, middle rail, transomes and stiles; 6 mm thick toughened glass and glazing infill with and including glazing beads; All as per architect's drawings and details</u>				
A	Single leaf door; overall size 900 x 2400 mm high; with 6 mm thick clear fanlight glazing overall size 860 x 300 mm high complete with all beadings	No	2		
B	Double door; overall size 1800 x 2400 mm high; with 6 mm thick clear fanlight glazing overall size 1760 x 300 mm high complete with all beadings	No	5		
	<u>Roller shutter door</u>				
A	Supply and fix 2500mm x 2400mm galvanized roller shutter door complete with barrel, springs, hanger rings, end plates, canopy, vertical guide rails, curtain; 80mm slats, T bar or bottom rail	No	4		
	<i>Doors carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Doors brought forward</i>				
	<u>Prepare surfaces and apply three coats of approved gloss oil paint to metal surfaces</u>				
	-				
B	Doors: both sides measured	Sm	50		
	-				
	<u>Grill door for coldroom equipment room</u>				
A	1500 mm wide x 2400 mm high overall size single leaf mild steel grill door; 25 x 25 x 3 mm thick SHS internal members welded to 40 x 40 x 4 mm thick RHS frame; complete with fixing lugs and ironmongery and fixing accessories; all to architects detail	No	1		
	-				
	<u>Wrot mahogany: prime grade; with stainless steel fixing straps; including chasing to masonry, plugging and making good</u>				
A	200 x 50 mm Door frame: twice rebated: plugged	Lm	115		
B	50 x 25 mm Architrave: splayed	Lm	75		
C	25 x 25 mm Quadrant	Lm	75		
	<u>Prepare and apply one coat of aluminium wood primer on timber surfaces in contact with concrete or masonry</u>				
D	Over 100 but not exceeding 200 mm girth	Lm	265		
	<i>Doors carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Doors brought forward				
	<u>Prepare surfaces: apply two coats clear pinotex spirit in clear matt varnish: on timber surfaces: to</u>				
E	Over 100 but not exceeding 200 mm girth	Lm	265		
F	General timber surfaces: doors	Sm	65		
	<u>Supply and fix: 'UNION' or other equal approved ironmongery: matching screws: locks to include a set of 3 keys: available from their authorised local dealers; brass finish to architects approval</u>				
A	100mm brass butt hinges	Prs	26		
B	Two lever mortice lock with handles	No	12		
C	Door closer	No	12		
D	38 mm Diameter oval rubber stop; floor or wall mounted	No	12		
	Door carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	ELEMENT NO. 6; WINDOWS				
	<u>Approved pre-cast concrete cill: bedded and jointed in cement (sand (1:3) mortar: pointed in matching coloured cement</u>				
A	250 x 50 mm Thick cill; once weathered and throated	Lm	40		
	<u>Supply and fix the following purpose made steel casement purpose made windows, including all necessary cuttings lugs, stays and bedding into walls in cement sand mortar 1:4 complete with stays, fasteners, all necessary accessories and priming once in red-oxide, to Architects approval, with minimal burglar proofing in 20mm angle line framing</u>				
	-				
A	Window size 2500 x 750mm high. For stores	No.	2		
B	Ditto size 900 x 1500mm high.	No	4		
C	Ditto size 2000 x 1500mm high.	No.	7		
D	Ditto size 2500 x 1500mm high.	No.	3		
	<u>Glazing</u>				
F	4mm thick mild tinted sheet glass in panes 0.1-0.5sm fixed in steel window panes with putty.	Sm	44		
	<u>Painting</u>				
	<u>Prepare, prime and apply 3 coats of super gloss oil paint as "crown" or any other equal and approved to surfaces of:</u>				
A	Windows externally	Sm	8		
B	Windows internally	Sm	8		
	<i>Windows carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Element 07; Ceiling				
A	10mm thick chipboard ceiling fixed in rectangular shape	Sm	340		
B	10 x 75mm ditto cornice plugged and nailed to battens	Lm	320		
C	Extra-over ditto in access door size 450 x 600mm, including framing in 75 x 50mm sawn cypress	No.	2		
	Branding				
D	50 x 50mm sawn cypress branding	Lm	500		
E	50 x 75mm ditto.	Lm	800		
	Total for ceiling carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	ELEMENT 8; Fixtures and fittings				
	<u>Shelving to packagig room</u>				
	<u>20 mm thick blockboard storage shelevs supported of mild steel 25 x 25 mm frames; painted to approval; 450 mm wide</u>				
A	10000 mm long x 450 mm deep x 3000 mm high	Sm	50		
B	Ditto for cabinet below the worktop in seed lab	Sm	30		
	Total for fittings carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>ELEMENT 9; FINISHES</u>				
	<u>FLOOR FINISHES</u>				
A	30mm thick cement sand 1:2 backing to receive ceramic floor tiles or terrazzo (s.m)/Skirting	Sm	320		
B	20mm thick polished terrazzo paving to floor and the worktop including plastic strip dividers/skirting	Sm	320		
	<u>walls internally</u>				
H	12mm thick gauged plaster cement sand lime 1:1:6 with a smooth float to walls, beams and columns internally	Sm	400		
I	Ditto to reveals and jambs.	Sm	30		
	<u>Walls Externaly</u>				
H	12mm thick gauged cement sand render 1:2 finished with a wood float to beams and columns	Sm	215		
I	Keying in cement sand 1:2, pointing in gloss oil paint and wire brushing natural machine cut stone externally	Sm	130		
	Total for finishes carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	ELEMENT 10; PAINTING & DECORATIONS				
	<i>Prepare and apply 3 coats silk vinyle emulsion paint as "crown"or any other equal and approved paint to</i>				
A	Plastered walls internally	Sm	400		
B	Soffites of chip board ceiling	Sm	340		
C	Plastered walls externally	Sm	215		
	Sub-Total for Painting Works Carried to Summary Page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>RAISED CONCRETE WATER TANK STAND 4500mm high from ground level</u>				
	Element 01: Substructure (all provisional)				
A	Clear area of new construction of all undergrowth, small bushes, grab up all trees and remove any existing structures and obstructions as directed.	Sm	16		
B	Excavate for column bases commencing from ground level level: not exceeding 1.5 m deep	Cm	14		
C	Return, fill and ram selected soil in foundations	Cm	13		
	<u>Vibrated reinforced insitu concrete class 25/20; with minimum cube crushing strength of 25N/mm² at 28 days; in</u>				
	-				
A	Column bases 200mm thick	Cm	2		
B	Sub structure and superstructure columns 400mmx400mm size	Cm	4		
	<u>Supply and fix mild steel bar in structural concrete work including cutting, bending, hoisting, tying wire, spacing blocks and supporting all in position</u>				
	-				
C	8 - 12 mm Bars for substructure columns, column bases, superstructure columns ring beams and slab	Kgs	478		
	<i>Raised conc. Water tank stand carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Raised conc. Water tank stand brought forward</i>				
	<u>Sawn formwork: to</u>				
D	Vertical sides of coulmn bases	Sm	2		
E	Sides of columns	Sm	10		
	<u>Superstructure works</u>				
	Sawn formwork: to				
F	Sides and soffits: beams	Sm	11		
G	Soffits and sides of suspended slab	Sm	9		
	<u>Vibrated reinforced insitu concrete class 25/20; with minimum cube crushing strength of 25N/mm² at 28 days; in</u>				
H	Slab and beams	Cm	5		
	<u>Plaster: 15 mm cement/lime putty/sand: steel trowelled: on masonry or concrete: to</u>				
I	concrete surfaces	Sm	98		
K	Purchase and install 5,000 liters cylindrical kentank plastic water tank	Item	1		
	Subtotal for construction of raised concrete water tank stand				

MECHANICAL INSTALLATIONS

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Coldroom Installation				
	Evaporator Unit				
A	The evaporator unit with a cooling load to match a condensing unit of 3.0 kW complete with cooling coil, defrost heater, expansion valve, air circulating fans, guards, drip tray, drainage pipework outlet, supports etc. The unit to be complete with a power supply and to be as Thermoway Turkey Manufactured Model or equal.	No.	1		
	Evaporator Unit Support				
B	Allow for a suitable wall mounting support for the above that can match the panel used for constructing the cold room	Item	1		
	Condensing Unit				
C	An air cooled condensing unit with semi-hermetic reciprocating compressor capable of a cooling load of 3.0kw to match the evaporator unit and to be complete with fan, compressor, condenser, liquid receiver, controls, anti-vibration mountings etc. Unit to use a refrigerant that complies with the Montreal Protocol and NEMA, have a power supply and to be as Bitzer Germany Manufactured or equal.	No.	1		
	Control Panel				
D	The panel shall be complete with contactors, timers and all other accessories necessary for the automatic operation of the cold store.	No.	1		
	<i>Cold room installation carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Cold room installation brought forward</i>				
	Controls				
A	Thermostatic expansion valve	No.	1		
B	Filter drier to match refrigerant capacity that can carry the above cooling load of 3 kW to be as Danfoss or equal.	No.	1		
C	Sight glass with colour coding	No.	1		
D	Low pressure gauge	No.	1		
E	High pressure gauge	No.	1		
F	Room thermostat to cut compressor in and out, depending on the room temperature.	No.	1		
G	Dial thermometer	No.	1		
H	Solenoid valve	No.	1		
I	Low and high cut-out switch	No.	1		
	Light Fitting				
J	65 watts vapour proof light fitting	No.	6		
	Refrigerant Pipework				
K	Refrigeration pipework complete with armflex Insulation for both the liquid line and the suction line to match the evaporator unit and condensing unit. The pipework to be complete with all the necessary bends, reducers, Y's, joints, distributors, support brackets etc. a distance of 10m between the two units	Item	1		
	<i>Coldroom installation carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Coldroom installation brought forward</i>				
	Refrigerant				
L	Allow for the charging of the refrigeration system with necessary amount of refrigerant for initial testing and eventual operation of the cold store.	Item	1		
	Anti-Vibration Mountings				
M	Anti-Vibration Mountings for the condensing unit as WOODS P.N.50417 or equal.	Item	1		
A	40mm diameter class 41 uPVC condensate pipe complete with bends, tees, and access caps	LM	10		
	Room Insulation				
B	100mm thick prefabricated TSSC sandwich panels with pressure injected polyurethane foam insulation of density 42 kg/cu. M and clad with 0.5mm thick white Lacquered galvanised steel sheet panels as room insulation complete with aluminium supports. The panels should be supplied with all accessories to support all the four walls and roof in an open space	SM	120		
	Associated Electrical Works				
C	Allow for electrical works including but not limited to wiring and conduits from the local isolator provided by others within 10 metres in the machine room to the control panel, condenser and evaporator. It shall include a push and turn safety switch near the machines in the machine room for isolation during servicing and maintenance.	Item	1		
	<i>Coldroom installation carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Coldroom installation brought forward</i>				
D	Allow for as-built drawing, maintenance and operation manuals in both soft and hard copies. Three copies of the as-built drawing shall be submitted in A1 paper in a scale of 1:50	Item	1		
	Cold Room Door				
E	Cold room doors whose overall size is 2500mm high by 1000 mm wide complete with opening handles and made of 100mm TSSC sandwich panels and claded micron plasstisol coated G.I sheet with fittings and gasket TPE rubber, slab gaskets even internally. The coldroom door to have hinges that raise the door body as it opens and fall as it closes. The door handles to be able to illuminate from inside.	Set	1		
G	Storage racks. Stainless grade 316 steel 4 tier storage racks of size 1500 X 600 X 1800 MM on square tube stands with gromet fittings ,anti buckling reinforcement.	No.	4		
H	ditto for 6 tier rack	No.	4		
F	Coldroom door air curtain Single phase each with an air stream of width 1 m, air throw of 3m air volume of 1000m ³ and air velocity of 7m/s.	No.	1		
F	Allow for setting to work, testing and commissioning of the coldroom installation to the satisfaction of the Project Engineer	Item	1		
	Total for coldroom carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	MECHANICAL ENGINEERING SERVICES BQ				
	Bill No1: SANITARY APPLIANCES				
	Supply, 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. Note:				
	(i) All sanitary fittings shall be in approved colour.				
	(ii) The Model and Ref No. indicated is only a guide to the type and quality of fittings.				
	(iii) Equivalent and Approved models may be acceptable.				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>BILL NO.2: INTERNAL WATER CONNECTION</u>				
	Supply and install tubing and fittings as described and shown on the drawings. Tenderers must allow for jointings, couplings etc. necessary for the proper and satisfactory functioning of the system when pricing the following in PN 20 PPRC conforming to the current European standards for PPR installations and to the Engineer's approval, pipe jointing shall be by polyfusion or use of electric coupling Rates must allow for all the Metal/plastic threaded adaptors where required for the connection of sanitary fixtures, valves, sockets, sliding and fixed joints, support raceways, isolating sheaths, elastic materials, expansion arms and bends, crossovers etc				
	<u>PPR Pipes</u>				
A	20mm dia pipe chased in walls/floors	Lm	30		
B	25mm –ditto-	Lm	20		
C	32mm –ditto-	Lm	30		
	<u>Extra-over PPR pipework for the following:-</u>				
	<u>Bends/elbows</u>				
G	20mm dia bend	No	10		
H	25mm bend	No	10		
I	32mm bend	No	5		
L	20x1/2" dia male threaded 90o bend	No	5		
M	20x1/2" dia female threaded 90o bend	No	5		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Sanitary appliances brought forward</i>				
	<u>Tees</u>				
N	25mm diameter equal tee	No	5		
O	25x1/2" female threaded tee	No	5		
P	25x1/2" male threaded tee	No	10		
Q	32mm diameter equal tee	No	5		
R	20mm dia tee	No	10		
	<u>Unions</u>				
A	20mm dia union	No	5		
B	25mm –ditto-	No	5		
C	32mm –ditto-	No	5		
	<u>Reducers</u>				
F	25/20mm reducers	No	5		
G	32/25mm reducers	No	5		
	<u>Gate valve</u>				
J	20mm Pegler	No	3		
K	25mm –ditto-	No	3		
L	32mm –ditto-	No	2		
	<u>Flexible connectors</u>				
O	450mm chrome plated flexible connector with chrome plated angle check valve size 15mm dia including unions and sockets to connect sanitary fittings to PP-R Pipework	No	5		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Sanitary appliances brought forward</i>				
	<u>Supply, deliver and install the following vulcathene laboratory system including waste outlets, sinks, drip cups, anti-siphon traps, dilution recovery traps and associated comprehensive range of pipe and fittings for the given sizes all as vulcathene or approved equivalent</u>				
	<u>Laboratory sink</u>				
A	A sink of preferred dimensions 552mm x 400mm with a depth of 231mm having a drain of 74mm, that is extremely robust and moulded with a self draining base with its recessed outlet to accept the flange of 1 1/2" (40mm) non overflow threaded outlet but if required, an overflow assembly can be fitted. The sink to be complete with anti siphon traps that can stop the backflow of potentially hazardous fumes. All the downstream fittings to be as vulcathene.	No	2		
B	Three way Assay Lab Faucet in solid brass High gloss epoxy powder , resistant to most chemicals, UV fading and heat. Ceramic headwork;90 deg turn, water static pressure max 10bar. To be complete with detachable brass serrated nozzle, splash controlled water filter attachable, ergonomic high grade PP knob and 360 deg swing gooseneck spout.	No	2		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Sanitary appliances brought forward</i>				
	<u>Emergency Drencher Shower and Eye Fountain</u>				
C	Body shower with eye/face shower and bowl modular in brass and stainless steel with chemical resistant red BROEN-LAB polycoat with self-draining shower head. The shower head with a pull to open mechanism and eye wash with a footpedal opening mechanism. Eye wash with built-in FLOWFIX for regulation of water flow at 14l/min. Bowl in stainless steel with intergrated out with a min working pressure of 1.5bar. all as BROEN-LAB or equal and approved	No	1		
D	Emergency shower instructions Wall mounted sign and instruction card for Body and Eye Shower above	No	1		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Sanitary appliances brought forward</i>				
	<u>BILL NO.3 FOUL WATER INTERNAL DRAINAGE FROM THE WASHROOMS AND LABORATORY</u>				
	Supply and fix uPVC soil system to BS 4660 and BS 4515 and MuPVC waste systems to BS 5255 with screwed and socketed joints to BS 21. Solvent welded joints shall be as per the system's manufacturer's written instructions. 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.				
	<u>MuPVC and uPVC Waste and Soil pipework</u>				
A	150mm diameter heavy gauge grey mUPVC pipe	Lm	60		
B	100mm diameter heavy gauge grey mUPVC pipe	Lm	20		
C	50mm diameter waste pipe	Lm	50		
D	32mm diameter waste pipe	Lm	50		
	<u>Bends</u>				
E	150mm diameter access bend	No	4		
F	100mm diameter access bend	No	6		
G	150mm diameter sweep bend	No	6		
H	100mm diameter sweep bend	No	6		
I	50mm diameter sweep bend	No	6		
J	32mm diameter sweep bend	No	6		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Sanitary appliances brought forward</i>				
	<u>Tees</u>				
L	50mm diameter sweep tee	No	4		
M	32mm diameter sweep tee	No	4		
	<u>Access Caps</u>				
N	100mm diameter access cap	No	6		
P	32mm diameter access cap	No	6		
	<u>Boss Connectors</u>				
Q	150 x 100mm diameter boss connector	No	4		
R	100 x 50mm diameter boss connector	No	4		
S	50 x 32mm diameter boss connector	No	4		
	<u>Traps</u>				
D	100 x 50mm diameter floor trap and grating	No	4		
E	50 x 50mm diameter U-shaped tubular trap	No	4		
	<u>Testing and Commissioning</u>				
G	Allow for testing and commissioning of the plumbing and drainage installations to the satisfaction of the Engineer.	Item	1		
	<i>Sub total for sanitary appliances</i>				

ELECTRICAL INSTALLATIONS

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Electrical works				
A	Supply, deliver & install on site one gang one-way switches	No	6		
B	Supply, deliver & install on site one gang two-way switches	No	10		
C	Supply, deliver & install on site three gang two-way switches	No	1		
D	Supply, deliver & install on site one gang intermediate switch	No	2		
E	Supply, deliver & install on site two gang two-way switches	No	2		
F	Supply, deliver & Install 1200mm, 1x58w T26 LED fluorescent light fittings with Aluminium louvres (complete with tubes)as thorn, do wiring as appropriate using 3x1.5mm ² single core copper cables as E. African cable drawn in concealed pvc conduit. The fittings to be surface mounted on the ceiling & spaced as appropriate.	No	45		
G	Supply deliver to site,Install and do wiring of 1200mm single LED batten fluorescent fittings with prismatic diffuser(complete with tubes) wired in a 3x1.5mm ² PVC insulated single core copper cable drawn in a concealed 20mm PVC heavy gauge conduits	No	3		
	<i>Electricals carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Electricals brought forward</i>				
H	Supply, deliver, Install & wire twin 13amps socket outlets drawn in concealed pvc conduit using 3x2.5mm ² single core copper cable in three ring circuit all terminated at the DB protected by 32Amps single pole MCB	No	22		
I	Supply, deliver, Install in the processing area & wire five pin 32amps industrial socket outlets each as a final sub-circuit from the DB isolated using 40Amps three pole MCB wired using 4x4.0mm ² single core copper cables as E. African cable drawn in concealed pvc conduit.	No	2		
J	Supply, deliver & install in the processing area 40Amps triple pole MCB as Schneider or equivalent as approved by project manager and housed in an enamel paint finish metal enclosure	No	2		
K	Supply, deliver & install on 32Ampsamps triple pole MCB to fit in the installed DB	No	2		
L	Supply, deliver & install on 10amps MCB to fit in the DB	No	4		
M	Supply, deliver & install single pole 32amps MCB to fit in the DB installed	No	3		
N	Supply, deliver & install 150x300mm concrete Danger Hatari tiles	No	270		
O	Excavate 250x600mm deep trench to lay the armoured cable	Cm	15		
	<i>Electricals carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
P	Supply, deliver to site & install four core 16mm ² Armoured copper cable laid in 600mm deep trench pre-covered with "Danger Hatari" concrete tiles then back fill	Lm	80		
Q	Three phase 415v, 125Amps six ways distribution board as Havel or equivalent as approved by project manager	No	1		
R	Manhole of 450x450x600mm (LxWxH) using machine cut stone and plastered on internal faces complete with top 100mm concrete cover. Allow for 100mm ducts entry	No	2		
S	Supply, deliver to site & install four pole 63Amps MCCB as Havel or equivalent as approved by project manager wired using 5x4.0mm ² single core copper cable drawn in concealed pvc conduit each housed in an enamel paint finish metal enclosure and terminated in the cold room equipment room	No	2		
T	Allow for future installation of sensors in the cold room by installing <i>in situ</i> 25mm diameter heavy gauge pvc conduit	No	20		
U	Supply, deliver to site & install four pole 160Amps MCCB plus Metal housing as Havel or equivalent as approved by project manager	No	1		
V	Supply and install concrete cable makers(UG) along the underground cable line	No	4		
	<i>Electricals carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Electricals brought forward</i>				
	SECURITY LIGHTING				
A	Supply, deliver and install LED security lighting fitting 50watts as thorn or approved equivalent wired in a 3x1.5mm ² PVC insulated single copper cable drawn in a concealed 20mm PVC heavy gauge conduit	No	7		
B	Supply, deliver and install 240volts 32Amps contactor as Telemecanique or equivalent to switch on the security lights	No	1		
C	Supply, deliver and install 240volt 10amps Photo cell switch to activate the contactor "Ditto"	No	1		
D	Supply and do earthing at the building main connection point using 10mm ² single core cable and 12mmx1200mm copper earth rod	No	1		
E	Interconnect the item (O) above to the installed 3 phase DB using 5x16mm ² single core cables drawn in concealed pvc conduit as appropriate	No	1		
F	Supply and install <i>in situ</i> 100mm diameter heavy gauge UPVC pipe as duct (2No. Parallel ducts) from the constructed block to the rear side to receive the power cables	Lm	12		
	Total for electrical works carried to summary page				

CIVIL WORKS

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>FOUL DRAINAGE EXCAVATION (all provisional</u>				
	<u>High grade soil, waste and vent pipes as "key terr-ain" P.V.C soil waste and vent pipes including couplings and all fixing brackets. To nearest manhole</u>				
A	Excavate trench for 150mm diameter drain pipe not exceeding 1.5M deep and average 500mm deep including fitting in, compacting, grading bottoms and desposing surplus soil.	Lm	60		
B	Ditto average 750mm deep ditto.	Lm	20		
E	Extra-over for excavating in rock class "A"	Cm	10		
G	Allow for cutting trees along the line, grub out roots and despose off girth 600-900mm	No.	2		

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	SUB TOTAL FOR FOUL DRAINAGE EXCAVATION CARRIED TO SUMMARY OF EXTERNAL WORKS				
	<u>MANHOLES(all provisional)</u>				
	<u>The following in 12 No. Manholes class "B" All provisional</u>				
	-				
A	Excavate manhole pit not exceeding 1.5m deep.	Cm	27		
B	Return, fill-in and consolidate excavated materials around manhole walls.	Cm	15		
C	Remove surplus excavated materials and deposit on site as directed.	Cm	12		
D	Extra-over excavation for excavating in rock class 'A'	Cm	2		
E	150mm thick mass concrete 1:3:6 in manhole base.	Sm	27		
	<u>Precast Concrete</u>				
F	100mm thick precast concrete 1:2:4 in manhole cover slab size 1380mmx1180mm, reinforced with 8mm diameter at 80mm centers both ways with rebated opening for 450x600mm cover and frame finished smooth including any necessary formwork.	Sm	12		
	<u>Benching</u>				
G	Concrete 1:3:6 in benching to bottom of manholes internal size 1000mmx800mm including haunching to a height of 200mm above channel and rendering in cement 1:2 trowelled smooth.	No.	12		
	<i>Manhole carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Manhole brought forward</i>				
H	Make or leave hole through 200mm concrete wall for 150mm diameter pipe (m.s) built-in and make good walls and render all round.	No.	24		
	<u>Extra-over benching to forming the following channels with external rounded angles with slopping top of benching:-</u>				
	-				
I	150mm diametre half-round section straight main channel 900mm long.	No.	12		
A	Ditto but curved 900mm long.	No.	12		
B	140mm thick masonry block walling in cement sand mortar 1:3.	Sm	72		
C	12mm thick cement sand 1:2 plaster to ditto with approved waterproofing admixture to internal sides of manholes trowelled smooth.	Sm	54		
D	Ditto but render to top and sides of cover slab and walling.	Sm	16		
E	Fiber manhole cover size 600mmx450mm and setting frame in cement sand mortar 1:3 and cover in grease.	No.	12		
F	Extra over formworks boxing to form opening for manhole cover(m.s)	No.	12		
	<i>Sub total for manhole carried to summary page</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	SOAKAGE AREA(all provisional)				
	The following in french drains as per standard drawing No.(50) 5344, average 5Lm				
A	Excavate trench for french drains, not exceeding 1.5m deep starting from original ground level	Cm	4		
B	Extra-over excavation for excavating in rock class 'A'	Cm	1		
C	Cart away excavated materials from site.	Cm	2		
D	Trim sides of french drain to slope.	Sm	12		
E	20-60mm crushed stones or washed gravel.	Cm	2		
F	Back filling selected excavated soils mean thickness 350mm	Cm	1		
G	Imported 200mm thick compacted murrum	Cm	1		
H	500 gauge polythene sheet.	Sm	6		
I	150mm diameter agricultural or perforated upvc pipe laid to falls in units of 450mm lengths with 10mm open joints covered to top half with 100mm width paper.	Lm	6		
	TOTAL FOR SOAKAGE AREA CARRIED TO SUMMARY				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>1 -No. SOAK- PITS(all provisional)</u>				
	<u>The following in 1-No soakpits as per drawing No.M.o.W(50) 5345</u>				
A	Excavate pit not exceeding 1.5m deep starting from original ground level	Cm	6		
B	Ditto between 1.5m-3.0m deep.	Cm	6		
C	Ditto between 3.0m-4.5m deep.	Cm	6		
F	Extra-over excavation for excavating in rock class 'A'	Cm	8		
G	Cart away surplus excated materials from site.	Cm	20		
H	Return, fill-in and consolidate excavated materials around foundations.	Cm	6		
I	Mass concrete 1:3:6.	Cm	1		
J	100mm thick vibrated reinforced concrete 1:2:4 in cover slab.	Sm	4		
K	12mm diametre high tensile square twisted bars to B/s 4449	Kg	25		
	<u>Sawn formwork to:-</u>				
M	Soffites of suspended slab	Sm	4		
N	Edges of suspended cover slab girth 75-150mm.	Lm	8		
A	Boxing to form opening size 600x450mm in 150mm thick suspended cover slab, rebated all round.	No.	1		
	<i>Soak pit carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	SEPTIC TANK- 200 persons-45000 lts capacity as per M.O.P.W standard drawing No. (50) 5343 All provisional				
A	Excavate for pit not exceeding 1.5m deep commencing from ground level.	Cm	36		
B	Ditto between 1.5-3.0m deep	Cm	36		
C	Ditto exceeding 3.0m but not exceeding 4.5m deep.	Cm	24		
D	Extra Over excavation for excavating in rock Class "A"	Cm	36		
E	Return, fill-in and ram selected excavated materials around walls and foundations.	Cm	54		
F	Load and cart away excavated materials.	Cm	78		
G	50mm thick plain concrete 1:4:8 blinding under foundation footing.	Sm	24		
H	Ditto but laid to falls not exceeding 15 degrees from horizontal.	Sm	12		
J	Ditto in benching average 200mm high, in manhole size 600 x 850mm, including forming 150mm diameter half round main channel.	No.	2		
	<i>Septic tank carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Septic tank brought forward</i>				
	<u>Vibrated reinforced concrete 1:2:4 to:-</u>				
I	150mm floor bed laid to falls not exceeding 15 degrees from horizontal.	Sm	24		
J	Ditto floor bed	Sm	12		
K	Ditto manhole footing	Sm	2		
L	150mm thick suspended scum baffle walling.	Sm	8		
A	200mm thick scum baffle walling with slats	Sm	8		
B	250mm thick extenal walling	Sm	70		
C	150mm thick cover slab.	Sm	24		
	<u>Sawn formwork to:-</u>				
D	Sides and Soffites of suspended scum baffle.	Sm	8		
E	Ditto sides of baffle walling	Sm	8		
F	Sides of extenal walling	Sm	40		
G	Soffites of cover slab.	Sm	24		
H	Boxing to ditto for manhole cover(m.s) opening size 450 x 600mm.	No.	4		
I	Sides and edges of cover slab 150-225mm high.	Lm	22		
	<u>Reinforcement</u>				
J	10mm diameter bars	Kg	440		
	<i>Septic tank carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Septic tank brought forward				
K	20mm cement sand 1:2 floor screed, water proofed with pudlo and trowelled smooth, not exceeding 15 degrees to horizontal with sulphate resistant cement.	Sm	24		
L	Ditto to horizontal floors	Sm	12		
M	Ditto manhole bases	Sm	2		
N	Ditto to sides and soffites of suspended scum baffles.	Sm	21		
P	Sides of scum baffle walling	Sm	20		
Q	Ditto to walls.	Sm	100		
R	Ditto to top and sides of cover slab.	Sm	12		
A	Approved Heavy duty plastic manhole cover and frame size 600 x 450mm including bedding frame in cement and sand mortar 1:2 and setting cover in greese.	No.	4		
B	100mm diameter P.V.C inlet pipe with equal "Tee" 450mm long.	No.	1		
C	100mm diameter U.P.V.C out-let pipe 750mm long	No.	1		
D	Form or leave 150mm diameter hole in 250mm walling.	No.	4		
E	25mm diameter bitumen coated cast iron step bars 600mm long with 300mm long footing , sunk into concrete walling	No.	6		
	Sub total for septic tank				

PC & PROVISIONAL SUMS

ITEM	DESCRIPTION		AMOUNT
	PROPOSED CONSTRUCTION OF SEED CENTRE FOR MASENO		
	<u>MAIN SUMMARY</u>	<u>PAGE</u>	
1.	PARTICULAR PRELIMINARIES		
2.	GENERAL PRELIMINARIES	-	
		-	
3.	BUILDERS WORK		
4.	MECHANICAL INSTALLATIONS WORKS		
5.	ELECTRICAL INSTALLATIONS		
6.	CIVIL WORKS		
7.	PC & PROVISIONAL SUMS		
	-		
	SUB- TOTAL		
	VAT - 16%		
	TOTAL CARRIED TO LOT 3 SUMMARY PAGE	KSHS	

MIGORI SUB-CENTRE

SITE 2 OF LOT 3

PARTICULAR PRELIMINARIES

ITEM	DESCRIPTION	Kshs.	Cts
<p data-bbox="236 353 260 383">A</p>	<p data-bbox="316 277 767 306"><u>PARTICULAR PRELIMINARIES</u></p> <p data-bbox="316 353 852 383">PRICING ITEMS OF PRELIMINARIES</p> <p data-bbox="316 432 997 752">Prices SHALL BE INSERTED against items of “preliminaries” in the tenderer’s priced Bills of Quantities. 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. The contractor is advised to read and understand all preliminary items.</p>		
<p data-bbox="236 837 260 866">B</p>	<p data-bbox="316 837 767 866">DESCRIPTION OF THE WORKS</p> <p data-bbox="316 916 997 1122">The works to be carried out under this contract involves substructures works, walling, steel windows, timber and steel doors, terrazzo floor finishes, chipboard ceiling finishes and joinery fittings and all associated electrical, mechanical and civil works</p>		
<p data-bbox="236 1173 260 1202">C</p>	<p data-bbox="316 1173 576 1202">MEASUREMENTS</p> <p data-bbox="316 1252 997 1572">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 22 of the Conditions of Contract. The discrepancies shall then be treated as a variation and be dealt with in accordance with Clause 22 of the said Conditions.</p>		
<p data-bbox="236 1644 260 1673">D</p>	<p data-bbox="316 1644 608 1673">LOCATION OF SITE</p> <p data-bbox="316 1722 997 1818">The sites are located at KEFRI Maseno Seed Centre, Migori Seed Sub-Centre and Kakamega Seed Sub-Centre</p>		
	<p data-bbox="512 1980 799 2009">Carried to Collection</p>		

ITEM	DESCRIPTION	Kshs.	Cts
A	<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 claim or intent to claim notice to the PROJECT MANAGER within the contract period. No claims shall be entertained upon the expiry of the said contract period.</p>		
B	<p>PAYMENTS</p> <p>The tenderer's attention is drawn to the fact that the GOVERNMENT SHALL NOT MAKE ADVANCE PAYMENTS</p>		
C	<p>PREVENTION OF ACCIDENT, DAMAGE OR LOSS</p> <p>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 instructed to take reasonable care in the execution of the works as to prevent accidents, damage or loss and disruption of normal activities being carried out by the Client. The Contractor shall allow in his rates any expense he deems necessary by taking such care within the site.</p>		
D	<p>BID SECURITY</p> <p>The contractor shall provide a dully filled tender securing declaration form in the provided format.</p>		
Carried to Collection			

ITEM	DESCRIPTION	Kshs.	Cts
A	<p>WORKING CONDITIONS</p> <p>The Contractor shall allow in this tender for any interference that he may encounter in the course of execution 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>		
B	<p>SIGNBOARD</p> <p>Allow for providing, erecting, maintaining throughout the course of the Contract and afterwards clearing away the signboard as designed, specified and approved by the Project Manager.</p>		
C	<p>LABOUR CAMPS</p> <p>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>		
D	<p>MATERIALS FROM DEMOLITIONS</p> <p>The Contractor shall allow for a credit for salvaged materials. Any materials arising from demolitions shall not be re-used. The Contractor shall allow for carting away all demolished materials.</p>		
E	<p>PRICING RATES</p> <p>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>		
	Carried to Collection		

ITEM	DESCRIPTION	Kshs.	Cts
A	<p>URGENCY OF THE WORKS</p> <p>The Contractor is notified that these “works are urgent” and should be completed within the period stated in these Particular Preliminaries. The Contractor shall allow in this tender for any costs he deems that he/she may incur by having to complete the works within the stipulated contract period.</p>		
B	<p>PAYMENT FOR MATERIALS ON SITE</p> <p>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</p> <p>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 which may be required by the authorities concerned for the support, maintenance and protection of such services.</p>		
Carried to Collection			

ITEM	DESCRIPTION	Kshs.	Cts
A	<p>TENDER DOCUMENTS</p> <p>Tender documents are as listed in Clause 2.1 of the Instruction to Tenderer's</p>		
B	<p>DELIVERY OF TENDER</p> <p>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>		
C	<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. Notice No. 35 & 36 Dated 11th September 2003 operational from 1st October 2003, withholding VAT will be levied against the contract sum by the Employer . The contractor should therefore include this tax in the Grand Summary page as indicated herein. The tenderer is advised that in accordance with the Finance Act 2014 withholding VAT tax was reintroduced at a rate of 2% with effect from 7th November, 2019</p>		
	Carried to collection		

ITEM	DESCRIPTION	Kshs.	Cts
	<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</p> <p>Defects Liability Period</p> <p>Date for Possession</p> <p>Date for Completion</p> <p>Liquidated and Ascertained Damages</p> <p>Period of Interim Certificates</p> <p>Percentage of Certified Value Retained</p> <p>Limit of Retention Fund</p>	<p>-</p> <p>-</p> <p>3 Months from Practical Completion</p> <p>6 Months from Practical Completion</p> <p>To be agreed with the Project Manager</p> <p>26 weeks from date of Possession</p> <p>at a rate of Kshs 5,000.00 Per day or part thereof</p> <p>Monthly</p> <p>10%</p> <p>5%</p>	
	Carried to Collection		

ITEM	DESCRIPTION	Kshs.	Cts
	<u>COLLECTION</u>		
	Brought forward from page PP/1		
	Brought forward from page PP/2		
	Brought forward from page PP/3		
	Brought forward from page PP/4		
	Brought forward from page PP/5		
	Brought forward from page PP/6		
	Brought forward from page PP/7		
	Brought forward from page PP/8		
	PARTICULAR PRELIMINARIES CARRIED TO MAIN SUMMARY		

GENERAL PRELIMINARIES

ITEM	DESCRIPTION	KSHS	CTS
-	GENERAL PRELIMINARIES		
A.	PRICING OF ITEMS OF PRELIMINARIES AND PREAMBLES		
	Prices will be inserted against items of Preliminaries in the Contractor's priced Bills of Quantities and Specification.		
	The Contractor shall be deemed to have included in his prices or rates for the various items in the Bills of Quantities or Specification for all costs involved in complying with all the requirements for the proper execution of the whole of the works in the Contract.		
B.	ABBREVIATIONS		
	Throughout these Bills, units of measurement and terms are abbreviated and shall be interpreted as follows:-		
	<i>C.M.</i> Shall mean cubic metre		
	<i>S.M.</i> Shall mean square metre		
	<i>L.M.</i> Shall mean linear metre		
	<i>MM</i> Shall mean Millimetre		
	<i>Kg.</i> Shall mean Kilogramme		
	<i>No.</i> Shall mean Number		
	<i>Prs.</i> Shall mean Pairs		
	<i>B.S.</i> Shall mean the British Standard Specification Published by the British Standards Institution, 2 Park Street, London W.I., England.		
	<i>Ditto</i> Shall mean the whole of the preceding description except as qualified in the description in which it occurs.		
	<i>m.s.</i> Shall mean measured separately.		
	<i>a.b.d</i> Shall mean as before described.		
	<i>Carried to collection</i>		

ITEM	DESCRIPTION	KSHS	CTS
A.	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:-		
	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.		
	<i>Fix Only:-</i>		
	"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.		
B.	EMPLOYER		
	The "Employer" is Kenya Forestry Research Institute		
	The term "Employer" and "Government" wherever used in the contract document shall be synonymous		
C.	PROJECT MANAGER		
	The term "P.M." 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 as may be duly authorized to represent him on behalf of the Government.		

ITEM	DESCRIPTION	KSHS	CTS
D.	ARCHITECT		
	The term "Architect" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 30743, NAIROBI.		
E.	QUANTITY SURVEYOR		
	The term "Quantity Surveyor" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 30743, NAIROBI.		
	<i>Carried to collection</i>	-	
A.	ELECTRICAL ENGINEER		
	The term "Electrical Engineer" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 41191, NAIROBI.		
B.	MECHANICAL ENGINEER		
	The term "Mechanical Engineer" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 41191, NAIROBI.		
C	STRUCTURAL ENGINEER		
	The term "Structural Engineer" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 41191, NAIROBI.		

ITEM	DESCRIPTION	KSHS	CTS
D	FORM OF CONTRACT		
	The Form of Contract shall be as stipulated in the Republic of Kenya's Standard Tender Document for Procurement of Building Works(2006 Edition) included herein The Conditions of Contract are also included herein Conditions of Contract These are numbered from 1 to 37 as set out in pages 16 to 36 of these tender documents. 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		
E.	PERFORMANCE BOND.		
	The Contractor shall find and submit on the Form of Tender from an approved Bank and who will be willing to be bound the Government in an amount equal to five per cent (5%) of the Contract amount for the due performances of the Contract up to the date of completion as certified by the PROJECT MANAGER and who will when and if called upon, sign a Bond to that effect on the relevant standard form included herein. (without the addition of any limitations) on the same day as the Contract Agreement is signed, by the Government, the Contractor shall furnish within seven days another Surety to the approval of the Government.		
	<i>Carried to collection</i>		
A.	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.		

ITEM	DESCRIPTION	KSHS	CTS
B.	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.		
C.	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.		
D.	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		
E.	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.		
	<i>Carried to collection</i>	-	

ITEM	DESCRIPTION	KSHS	CTS
A.	SAMPLES		
	<p>The Contractor shall furnish at his own cost any samples of materials or workmanship including concrete test cubes required for the works that may be called for by the PROJECT MANAGER for his approval until such samples are approved by the PROJECT MANAGER and the PROJECT MANAGER, may reject any materials or workmanship not in his opinion to be up to approved samples. The PROJECT MANAGER shall arrange for the testing of such materials as he may at his discretion deem desirable, but the testing shall be made at the expense of the Contractor and not at the expense of the PROJECT MANAGER. The Contractor shall pay for the testing in accordance with the current scale of testing charges laid down by the State Department of Public Works, Ministry of Land, Housing and Urban Development.</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>		
B.	GOVERNMENT ACTS REGARDING WORK PEOPLE ETC.		
	<p>Allow for complying with all Government Acts, Orders and Regulations in connection with the employment of Labour and other matters related to the execution of the works. In particular the Contractor's attention is drawn to the provisions of the Factory Act 1950 and his tender must include for all costs arising or resulting from compliance with any Act, Order or Regulation relating to Insurances, pensions and holidays for workpeople or so the safety, health and welfare of the workpeople. The Contractor must make himself fully acquainted with current Acts and Regulations, including Police Regulations regarding the movement, housing, security and control of labour, labour camps , passes for transport, etc. It is most important that the Contractor, before tendering, shall obtain from the relevant Authority the fullest information regarding all such regulations and/or restrictions which may affect the information regarding all such regulations and/or restrictions which may affect the organisation of the works, supply and control of labour, etc., and allow accordingly in his tender. No claim in respect of want of</p>		

ITEM	DESCRIPTION	KSHS	CTS
	knowledge in this connection will be entertained.		
C.	SECURITY OF WORKS ETC.		
	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.		
	<i>Carried to collection</i>		
A.	PUBLIC AND PRIVATE ROADS.		
	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		
B.	EXISTING PROPERTY.		
	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		
C.	VISIT SITE AND EXAMINE DRAWINGS.		
	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.		

ITEM	DESCRIPTION	KSHS	CTS
D.	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 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		
E.	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		
	<i>Carried to collection</i>	-	
A.	OFFICE ETC. FOR THE PROJECT MANAGER		
	The Contractor shall provide and maintain where directed on site a room to be used as the site office, complete with Furniture.		
B.	WATER AND ELECTRICITY SUPPLY FOR THE WORKS		
	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		

ITEM	DESCRIPTION	KSHS	CTS
	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.		
C.	SANITATION OF THE WORKS		
	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		
D.	SUPERVISION AND WORKING HOURS		
	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.		
E.	PROVISIONAL SUMS.		
	The term "Provisional Sum" wherever used in these Bills of Quantities shall have the meaning stated in Section A item A7(i) of the Standard Method of Measurement. Such sums are net and no addition shall be made to them for profit.		
	<i>Carried to collection</i>		

ITEM	DESCRIPTION	KSHS	CTS
A.	PRIME COST (OR P.C.) SUMS.		
	The term "Prime Cost Sum" or "P.C. Sum" wherever used in these Bills of Quantities shall have the meaning stated in Section A item A7 (ii) of the Standard Method of Measurement. Persons or firms nominated by the PROJECT MANAGER to execute work or to provide and fix materials or goods are described herein as Nominated Sub-Contractors. Persons or firms so nominated to supply goods or materials are described herein as Nominated Suppliers.		
B.	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.		
C.	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. 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.		
	<i>Carried to collection</i>		

ITEM	DESCRIPTION	KSHS	CTS
A.	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 , 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.		
B.	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 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".		
C.	DIRECT CONTRACTS		
	Notwithstanding the foregoing conditions, the Government reserves the right to place a "Direct Contract" for any goods or services required in the works which are covered by a P.C. Sum in the Bills of Quantities and to pay for the same direct. In any such instances, profit relative to the P.C. Sum in the priced Bills of Quantities will be adjusted as described for P.C. Sums is allowed.		
D.	ATTENDANCE UPON OTHER TRADESMEN, ETC.		
	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		

ITEM	DESCRIPTION	KSHS	CTS
	PROJECT MANAGER and the work will be measured and paid for to the extent executed at rates provided in these Bills.		
	<i>Carried to collection</i>	-	
A.	INSURANCE		
	The Contractor shall insure as required in Conditions No. 30 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.		
B.	PROVISIONAL WORK		
	All work described as "Provisional" in these Bills of Quantities is subject to re-measurement 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 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.		
C.	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		

ITEM	DESCRIPTION	KSHS	CTS
	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.		
D.	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.		
	<i>Carried to collection</i>		
A.	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.		
B.	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.		
C.	REMOVAL OF RUBBISH ETC.		
	Removal of rubbish and debris from the Buildings and site as it accumulates and at the completion of the works and		

ITEM	DESCRIPTION	KSHS	CTS
	remove all plant, scaffolding and unused materials at completion.		
D.	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		
	<i>Carried to collection</i>		
A.	GENERAL SPECIFICATION.		
	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.		
B.	TRAINING LEVY		

BUILDERS WORK

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Main block (main works) ELEMENT NO. 1; SUBSTRUCTURES (All Provisional)				
A	Clear area of new construction of all undergrowth, small bushes, grab up all trees and remove any existing structures and obstructions as directed.	Sm	900		
B	Cut down trees girth900mm-1200mm, remove out tree stumps and grab out roots, dispose off as directed and refill pits	No.	4		
C	Excavate oversite to remove vegetable soil, load and cart away from site to contractor's dumping area as directed; Average 200 mm depth	Sm	350		
D	Excavate to reduce levels commencing from stripped level: not exceeding 1.5 m deep	Cm	495		
E	Excavate to reduce levels commencing from stripped level: over 1.5m not exceeding 3.0 m deep	Cm	330		
F	Excavate for strip foundation trenches commencing from reduced level: not exceeding 1.5m deep	Cm	180		
G	Ditto for column bases	Cm	8		
H	Excavating in any class of rock as described in the specifications	Cm	50		
I	Return, fill and ram selected soil in foundations	Cm	825		
	<i>Substructure carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Substructure brought forward</i>				
J	Remove surplus soil and debris from site to a place approved by local authority	Cm	100		
K	Allow for upholding and supporting sides of excavations including any necessary plunking and strutting	Item	1		
M	Allow for keep excavations free of spring, underground or running water including any necessary pumping, bailing or other approved means	Item	1		
	<u>Mass concrete mix (1:3:6):in</u>				
A	50 mm Thick blinding under strip foundations	Sm	120		
B	Ditto under column bases	Sm	24		
	<u>Vibrated reinforced insitu concrete class 25/20; with minimum cube crushing strength of 25N/mm² at 28 days; in</u>				
C	Strip foundations	Cm	50		
D	Column bases	Cm	12		
E	Columns	Cm	8		
F	Ground floor slab; 150 mm thick	Sm	290		
G	Ramps; Ditto	Sm	4		
H	Steps	Cm	4		
	<i>Substructure carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>Mesh fabric reinforcement</u>				
A	Mesh reinforcement No. A142 size 200 x 200 mm weighing 2.22 kg per square metre: in floor slab: including all necessary supports	Sm	290		
	<u>Supply and fix mild steel bar in structural concrete work including cutting, bending, hoisting, tying wire, spacing blocks and supporting all in position in foundation footing, column bases and columns</u>				
B	8 - 32 mm Bars	Kg	6000		
	<u>Sawn formwork: to</u>				
C	Vertical sides of column bases	Sm	22		
D	Sides of columns	Sm	48		
E	Sides of strip footing	Sm	120		
F	Edges of steps; cut to profile of steps	Sm	6		
G	Edges of slabs; 150 - 225 mm girth	Lm	100		
	<u>Walls</u>				
A	Medium Chisel dressed natural stone walling bedded in cement and sand mortar (1:4) with minimum stone crushing strength of 14N/mm ² ; foundations	Sm	400		
	<i>Substructure carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Substructure brought forward</i>				
	<u>Hardcore</u>				
B	300 mm thick hardcore of approved inert material: well watered and compacted in 150 mm thick (maximum) layers	Sm	290		
	<u>Blinding</u>				
C	50 mm Thick approved quality murrum blinding to surfaces of hardcore	Sm	290		
	<u>Anti-termite treatment</u>				
D	Termidor 25EC or other approved anti-termite chemical treatment to surfaces of blinded hardcore and around foundations : applied by approved professional pest control specialist: applied strictly in accordance with the manufacturer's instructions: 10 year guarantee	Sm	290		
	<u>DPM</u>				
E	Gauge 1000 polythene damp proof membrane	Sm	290		
	<u>25 mm Thick cement and sand (1:4) rendering: on concrete or stonework: wood float: to</u>				
F	Plinths: externally	Sm	60		
	<i>Substructure carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Substructure brought forward</i>				
	<u>Prepare surfaces and apply undercoat and two finishing coats black bitumastic or other equal approved water resistant paint: on rendered surfaces: to</u>				
G	Plinths: externally	Sm	60		
	<u>Substructures carried to summary page</u>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	ELEMENT NO. 2; CONCRETE WORKS Sawn formwork: to				
A	Sides and soffits: ring beams and lintols	Sm	120		
B	Columns; vertical sides	Sm	66		
	<u>Supply and fix mild steel bar in structural concrete work including cutting, bending, hoisting, tying wire, spacing blocks and supporting all in position</u>				
C	8 - 32 mm Bars	Kg	6500		
	<u>Vibrated reinforced insitu concrete class 25/20; with minimum cube crushing strength of 25N/mm² at 28 days; in</u>				
D	Beams and lintols	Cm	36		
E	Columns	Cm	8		
	Concrete works carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>ELEMENT NO. 3; WALLS</u>				
	<u>External walls</u>				
	<u>Dressed natural quarry stone walling bedded in cement and sand mortar (1:3) with minimum stone crushing strength of 7N/mm²</u>				
A	200 mm Thick walls	Sm	330		
	<u>Internal</u>				
	<u>Natural stone walls: machine cut: bedded and jointed in cement and sand (1:3) mortar</u>				
B	200 mm Thick walls	Sm	130		
	<u>Bituminous felt or other equal approved damp-proof course: in cement/ sand (1:3) mortar</u>				
C	200 mm Wide	Lm	200		
D	12mm flexcell expansion joint	Sm	32		
	Walls carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>ELEMENT NO. 4: ROOF</u>				
	<u>Roof cover</u>				
A	Gauge 28 orientile shaped roof cover fixed with rubber washers to match.	Sm	450		
B	Ditto 450mm wide ridge / hip cover.	Lm	70		
C	Ditto valley gutter	Lm	20		
D	Raking and cutting roof cover at hips and valleys	Lm	70		
	<u>All in sawn celcured and well seasoned cypress:- 12mm diametre 300mm long mild steel anchor bolts with head, nut, washers and split ring cast into ring beam and bolted to wall plate(m.s) work.</u>				
E	150 x 50mm Tie beam	Lm	320		
F	150 x 50mm rafter, half rafters, valley & hip rafters(Rafters at 1.2m centre)	Lm	400		
G	100 x 50mm struts and king post	Lm	450		
	<u>end of trusses</u>				
H	150 x 50mm wall plate.	Lm	190		
I	75 x 50mm purlins(at 600mm centres)	Lm	800		
J	200 x 25mm wrott fascia and verge board	Lm	100		
	<u>Sundries</u>				
K	Bed wall plate(m.s) in cement sand mortar 1:3	Lm	190		
	<i>Roof carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Roof brought forward</i>				
M	Bore 12mm diameter holes through 50mm thick wall plate at 2m centres.	No.	95		
N	Knot, prime, stop and apply 3 coats super gloss oil paint to surfaces of fascia and vergeboard 200-300mm high.	Lm	100		
	<i>Rain water goods</i>				
A	150mm half diameter u.P.V.C gutters of 6m lengths	Lm	90		
B	150mm half diameter u.P.V.C holder clips at 1.2m centre and at ends, complete with screws	No.	75		
C	Extra over ditto for connectors at joints nailed to fascia(m.s)	No.	16		
D	Extra over ditto for stoped ends	No.	8		
E	Extra over ditto swannecks	No.	5		
F	75mm diameter p.v.c downpipe to match, clipped to walls	Lm	30		
G	Extra over ditto for 600mm long shoe	No.	5		
H	Ditto bends	No.	24		
	Roof carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<p>ELEMENT NO. 5; DOORS</p> <p>Timber Doors</p> <p><u>45 mm thick flush door: solid core; Mahogany veneered to both sides; hardwood lipped edges; refer to Architect's details</u></p>				
A	<p>Single leaf door; overall size 900 x 2400 mm high; with 6 mm thick clear fanlight glazing overall size 860 x 300 mm high complete with all beadings</p> <p><u>Supply and fix the following mahogany glazed doors comprising of 150 x 50mm bottom rail,top rail, middle rail, transomes and stiles; 6 mm thick toughened glass and glazing infill with and including glazing beads; All as per architect's drawings and details</u></p>	No	5		
A	<p>Single leaf door; overall size 900 x 2400 mm high; with 6 mm thick clear fanlight glazing overall size 860 x 300 mm high complete with all beadings</p>	No	3		
B	<p>Double door; overall size 1800 x 2400 mm high; with 6 mm thick clear fanlight glazing overall size 1760 x 300 mm high complete with all beadings</p>	No	4		
	<i>Doors carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Doors brought forward</i>				
	<u>Roller shutter door</u>				
A	Supply and fix 2500mm x 2400mm galvanized roller shutter door complete with barrel, springs, hanger rings, end plates, canopy, vertical guide rails, curtain; 80mm slats, T bar or bottom rail	No	4		
	<u>Prepare surfaces and apply three coats of approved gloss oil paint to metal surfaces</u>				
B	Doors: both sides measured	Sm	50		
	<u>Wrot mahongany: prime grade; with stainless steel fixing straps; including chasing to masonry, plugging and making good</u>				
A	200 x 50 mm Door frame: twice rebated: plugged	Lm	82		
B	50 x 25 mm Architrave: splayed	Lm	66		
C	25 x 25 mm Quadrant	Lm	66		
	<u>Prepare and apply one coat of aluminium wood primer on timber surfaces in contact with concrete or masonry</u>				
D	Over 100 but not exceeding 200 mm girth	Lm	214		
	<u>Prepare surfaces: apply two coats clear pinotex spirit in clear matt varnish: on timber surfaces: to</u>				
E	Over 100 but not exceeding 200 mm girth	Lm	214		
	<i>Doors carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Doors brought forward</i>				
F	General timber surfaces: doors <u>Supply and fix: 'UNION' or other equal approved ironmongery: matching screws: locks to include a set of 3 keys: available from their authorised local dealers; brass finish to architects approval</u>	Sm	56		
A	100mm brass butt hinges	Prs	24		
B	Two lever mortice lock with handles	No	12		
C	Door closer	No	12		
D	38 mm Diameter oval rubber stop; floor or wall mounted	No	16		
	Door carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	ELEMENT NO. 6; WINDOWS				
	<u>Approved pre-cast concrete cill: bedded and jointed in cement (sand (1:3) mortar: pointed in matching coloured cement</u>				
A	250 x 50 mm Thick cill; once weathered and throated	Lm	40		
	<u>Supply and fix the following purpose made steel casement purpose made windows, including all necessary cuttings lugs, stays and bedding into walls in cement sand mortar 1:4 complete with stays, fasteners, all necessary accessories and priming once in red-oxide, to Architects approval, with minimal burglar proofing in 20mm angle line framing</u>				
A	- Window size 2500 x 750mm high. For stores	No.	2		
B	Ditto size 2500 x 1500mm high. For laboratory	No.	5		
C	Ditto size 1200 x 1500mm high.	No	2		
D	Ditto size 2000 x 1500mm high.	No.	6		
	<u>Glazing</u>				
F	4mm thick mild tinted sheet glass in panes 0.1-0.5sm fixed in steel window panes with putty.	Sm	54		

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>Painting</u> <u><i>Prepare, prime and apply 3 coats of super gloss oil paint as "crown" or any other equal and approved to surfaces of:</i></u>				
A	- Windows externally <i>Windows carried forward</i>	Sm	8		
	<u>Windows brought forward</u>				
B	Windows internally	Sm	8		
	<u>Curtain rods</u>				
A	Supply and fix 2900mm long double curtain rod for both vertical blinders and sheers with a strong chrome pipe of 28mm diameter, 2pcs finials, 2pcs end cups, 4pcs brackets, rings, screws and anchor to install	No	10		
	Window carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>Element 07; Ceiling</u>				
A	10mm thick chipboard ceiling fixed in rectangular shape	Sm	340		
B	10 x 75mm ditto cornice plugged and nailed to battens	Lm	320		
C	Extra-over ditto in access door size 450 x 600mm, including framing in 75 x 50mm sawn cypress	No.	2		
	<u>Branding</u>				
D	50 x 50mm sawn cypress branding	Lm	500		
E	50 x 75mm ditto.	Lm	800		
	Ceiling carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>ELEMENT 8; Fixtures and fittings</u>				
	<u>Shelving to packagig room</u>				
	<u>20 mm thick blockboard storage sheleves supported of mild steel 25 x 25 mm frames; painted to approval; 450 mm wide</u>				
A	10000 mm long x 450 mm deep x 3000 mm high	Sm	50		
B	Ditto for cabinet below the worktop in seed lab	Sm	30		
	Ceiling carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>ELEMENT 9; FINISHES</u>				
	FLOOR FINISHES				
A	30mm thick cement sand 1:2 backing to receive ceramic floor tiles or terrazzo (s.m)/Skirting	Sm	300		
B	20mm thick polished terrazzo paving to floor and the worktop including plastic strip dividers/skirting	Sm	300		
	<u>walls internally</u>				
H	12mm thick gauged plaster cement sand lime 1:1:6 with a smooth float to walls, beams and columns internally	Sm	400		
I	Ditto to reveals and jambs.	Sm	30		
	<u>Walls Externaly</u>				
H	12mm thick gauged cement sand render 1:2 finished with a wood float to beams and columns	Sm	215		
I	Keying in cement sand 1:2, pointing in gloss oil paint and wire brushing natural machine cut stone externally	Sm	130		
	Finishes carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>ELEMENT 10; PAINTING & DECORATIONS</u> <i><u>Prepare and apply 3 coats silk vinyle emulsion paint as "crown"or any other equal and approved paint to</u></i>				
A	Plastered walls internally	Sm	400		
B	Soffites of chip board ceiling	Sm	340		
C	Plastered walls externally	Sm	215		
	Painting carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>SUMMARY OF ELEMENTS</u>				
A	ELEMENT NO. 1 , SUBSTRUCTURE				
B	ELEMENT NO 2, R.c WORKS				
C	ELEMENT NO 3, WALLING				
D	ELEMENT NO. 4, ROOF				
E	ELEMENT NO. 5 , DOORS				
F	ELEMENT NO. 6 , WINDOWS				
G	ELEMENT NO. 7 , CEILING				
H	ELEMENT NO. 8 , FIXTURES & Fittings				
I	ELEMENT NO 9, FINISHES				
J	ELEMENT NO. 10 PAINTING & DECORATIONS				
	TOTAL FOR BUILDERS WORK CARRIED TO GRAND SUMMARY.				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>RAISED CONCRETE WATER TANK STAND 4500mm high from ground level</u>				
	Element 01: Substructure (all provisional)				
A	Clear area of new construction of all undergrowth, small bushes, grab up all trees and remove any existing structures and obstructions as directed.	Sm	16		
B	Excavate for column bases commencing from ground level level: not exceeding 1.5 m deep	Cm	14		
C	Return, fill and ram selected soil in foundations	Cm	13		
	<u>Vibrated reinforced insitu concrete class 25/20; with minimum cube crushing strength of 25N/mm² at 28 days; in</u>				
A	- Column bases 200mm thick	Cm	2		
B	Sub structure and superstructure columns 400mmx400mm size	Cm	4		
	<u>Supply and fix mild steel bar in structural concrete work including cutting, bending, hoisting, tying wire, spacing blocks and supporting all in position</u>				
C	- 8 - 12 mm Bars for substructure columns, column bases, superstructure columns ring beams and slab	Kgs	478		
	<i>Raised conc. Water tank stand carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Raised conc. Water tank stand brought forward</i>				
	<u>Sawn formwork: to</u>				
D	Vertical sides of coulmn bases	Sm	2		
E	Sides of columns	Sm	10		
	<u>Superstructure works</u>				
	Sawn formwork: to				
F	Sides and soffits: beams	Sm	11		
G	Soffits and sides of suspended slab	Sm	9		
	<u>Vibrated reinforced insitu concrete class 25/20; with minimum cube crushing strength of 25N/mm² at 28 days; in</u>				
H	Slab and beams	Cm	5		
	<u>Plaster: 15 mm cement/lime putty/sand: steel trowelled: on masonry or concrete: to</u>				
I	concrete surfaces	Sm	98		
K	Purchase and instal 5,000 liters cylindrical kentank plastic water tank	Item	1		
	Sub total for construction of raised concrete water tank stand				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>SUMMARY OF ELEMENTS</u>				
A	ELEMENT NO. 1 , SUBSTRUCTURE				
B	ELEMENT NO 2, R.c WORKS				
C	ELEMENT NO 3, WALLING				
D	ELEMENT NO. 4, ROOF				
E	ELEMENT NO. 5 , DOORS				
F	ELEMENT NO. 6 , WINDOWS				
G	ELEMENT NO. 7 , CEILING				
H	ELEMENT NO. 8 , FIXTURES & Fittings				
I	ELEMENT NO 9, FINISHES				
J	ELEMENT NO. 10 PAINTING & DECORATIONS				
K	RAISED WATER TANK STAND				
	TOTAL FOR BUILDERS WORK CARRIED TO GRAND SUMMARY.				

MECHANICAL WORKS

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<p><u>MECHANICAL ENGINEERING SERVICES BQ</u></p> <p>Bill No1: SANITARY APPLIANCES</p> <p>Supply, 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. Note:</p> <p>(i) All sanitary fittings shall be in approved colour.</p> <p>(ii) The Model and Ref No. indicated is only a guide to the type and quality of fittings.</p> <p>(iii) Equivalent and Approved models may be acceptable.</p>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<p><u>BILL NO.2: INTERNAL WATER CONNECTION</u></p> <p>Supply and install tubing and fittings as described and shown on the drawings. Tenderers must allow for jointings, couplings etc necessary for the proper and satisfactory functioning of the system when pricing the following in PN 20 PPRC conforming to the current European standards for PPR installations and to the Engineer's approval, pipe jointing shall be by polyfusion or use of electric coupling Rates must allow for all the Metal/plastic threaded adaptors where required for the connection of sanitary fixtures, valves, sockets, sliding and fixed joints, support raceways, isolating sheaths, elastic materials, expansion arms and bends, crossovers etc</p>				
	<u>PPR Pipes</u>				
A	20mm dia pipe chased in walls/floors	Lm	30		-
B	25mm –ditto-	Lm	20		-
C	32mm –ditto-	Lm	30		-
	<u>Extra-over PPR pipework for the following:-</u>				
	<u>Bends/elbows</u>				
G	20mm dia bend	No	10		
H	25mm bend	No	10		
I	32mm bend	No	5		
L	20x1/2" dia male threaded 90o bend	No	5		
M	20x1/2" dia female threaded 90o bend	No	5		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Sanitary appliances brought forward</i>				
	<u>Tees</u>				
N	25mm diameter equal tee	No	5		
O	25x1/2" female threaded tee	No	5		
P	25x1/2" male threaded tee	No	10		
Q	32mm diameter equal tee	No	5		
R	20mm dia tee	No	10		
	<u>Unions</u>				
A	20mm dia union	No	5		
B	25mm –ditto-	No	5		
C	32mm –ditto-	No	5		
	<u>Reducers</u>				
F	25/20mm reducers	No	5		
G	32/25mm reducers	No	5		
	<u>Gate valve</u>				
J	20mm Pegler	No	3		
K	25mm –ditto-	No	3		
L	32mm –ditto-	No	2		
	<u>Flexible connectors</u>				
O	450mm chrome plated flexible connector with chrome plated angle check valve size 15mm dia including unions and sockets to connect sanitary fittings to PP-R Pipework	No	5		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Sanitary appliances brought forward</i>				
	<u>Supply, deliver and install the following vulcathene laboratory system including waste outlets, sinks, drip cups, anti-siphon traps, dilution recovery traps and associated comprehensive range of pipe and fittings for the given sizes all as vulcathene or approved equivalent</u>				
	Laboratory sink				
A	A sink of preferred dimensions 552mm x 400mm with a depth of 231mm having a drain of 74mm, that is extremely robust and moulded with a self draining base with its recessed outlet to accept the flange of 1 1/2" (40mm) non overflow threaded outlet but if required, an overflow assembly can be fitted. The sink to be complete with anti siphon traps that can stop the backflow of potentially hazardous fumes. All the downstream fittings to be as vulcathene.	No	2		
B	Three way Assay Lab Faucet in solid brass High gloss epoxy powder , resistant to most chemicals, UV fading and heat. Ceramic headwork;90 deg turn, water static pressure max 10bar. To be complete with detachable brass serrated nozzle, splash controlled water filter attachable, ergonomic high grade PP knob and 360 deg swing gooseneck spout.	No	2		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Sanitary appliances brought forward</i>				
C	<u>Emergency Drencher Shower and Eye Fountain</u> Body shower with eye/face shower and bowl modular in brass and stainless steel with chemical resistant red BROEN-LAB polycoat with self-draining shower head. The shower head with a pull to open mechanism and eye wash with a footpedal opening mechanism. Eye wash with built-in FLOWFIX for regulation of water flow at14l/min. Bowl in stainless steel with integrated out with a min working pressure of 1.5bar. all as BROEN-LAB or equal and approved	No	1		
D	Emergency shower instructions Wall mounted sign and instruction card for Body and Eye Shower above	No	1		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Sanitary appliances brought forward</i>				
	<u>BILL NO.3 FOUL WATER INTERNAL DRAINAGE FROM THE WASHROOMS AND LABORATORY</u>				
	Supply and fix uPVC soil system to BS 4660 and BS 4515 and MuPVC waste systems to BS 5255 with screwed and socketed joints to BS 21. Solvent welded joints shall be as per the system's manufacturer's written instructions. 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.				
	<u>MuPVC and uPVC Waste and Soil pipework</u>				
A	150mm diameter heavy gauge grey mUPVC pipe	Lm	60		
B	100mm diameter heavy gauge grey mUPVC pipe	Lm	20		
C	50mm diameter waste pipe	Lm	50		
D	32mm diameter waste pipe	Lm	50		
	<u>Bends</u>				
E	150mm diameter access bend	No	4		
F	100mm diameter access bend	No	6		
G	150mm diameter sweep bend	No	6		
H	100mm diameter sweep bend	No	6		
I	50mm diameter sweep bend	No	6		
J	32mm diameter sweep bend	No	6		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Sanitary appliances brought forward</i>				
	<u>Tees</u>				
L	50mm diameter sweep tee	No	4		
M	32mm diameter sweep tee	No	4		
	<u>Access Caps</u>				
N	100mm diameter access cap	No	6		
P	32mm diameter access cap	No	6		
	<u>Boss Connectors</u>				
Q	150 x 100mm diameter boss connector	No	4		
R	100 x 50mm diameter boss connector	No	4		
S	50 x 32mm diameter boss connector	No	4		
	<u>Traps</u>				
D	100 x 50mm diameter floor trap and grating	No	4		
E	50 x 50mm diameter U-shaped tubular trap	No	4		
	<u>Testing and Commissioning</u>				
G	Allow for testing and commissioning of the plumbing and drainage installations to the satisfaction of the Engineer.	Item	1		
	<i>Sub total for sanitary appliances</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
C	Summary page SANITARY APPLIANCES				
	Total for sanitary appliances carried to summary page				

ELECTRICAL WORKS

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Electrical works				
A	Supply, deliver & install on site one gang one-way switches	No	6		
B	Supply, deliver & install on site one gang two-way switches	No	10		
C	Supply, deliver & install on site three gang two-way switches	No	1		
D	Supply, deliver & install on site one gang intermediate switch	No	2		
E	Supply, deliver & install on site two gang two-way switches	No	2		
F	Supply, deliver & Install 1200mm, 1x58w T26 LED fluorescent light fittings with Aluminium louvres (complete with tubes)as thorn, do wiring as appropriate using 3x1.5mm ² single core copper cables as E. African cable drawn in concealed pvc conduit. The fittings to be surface mounted on the ceiling & spaced as appropriate.	No	45		
G	Supply deliver to site, Install and do wiring of 1200mm single LED batten fluorescent fittings with prismatic diffuser(complete with tubes) wired in a 3x1.5mm ² PVC insulated single core copper cable drawn in a concealed 20mm PVC heavy gauge conduits	No	3		
H	Supply, deliver, Install & wire twin 13amps socket outlets drawn in concealed pvc conduit using 3x2.5mm ² single core copper cable in three ring circuit all terminated at the DB protected by 32Amps single pole MCB	No	22		
	Cont. electrical carried forward				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>electrical brought forward</i>				
I	Supply, deliver, Install in the processing area & wire five pin 32amps industrial socket outlets each as a final subcircuit from the DB isolated using 40Amps three pole MCB wired using 4x4.0mm ² single core copper cables as E. African cable drawn in concealed pvc conduit.	No	2		
J	Supply, deliver & install in the processing area 40Amps triple pole MCB as Schneider or equivalent as approved by project manager and housed in an enamel paint finish metal enclosure	No	2		
K	Supply, deliver & install on 32Ampsamps triple pole MCB to fit in the installed DB	No	2		
L	Supply, deliver & install on 10amps MCB to fit in the DB	No	4		
M	Supply, deliver & install single pole 32amps MCB to fit in the DB installed	No	3		
N	Supply, deliver & install 150x300mm concrete Danger Hatari tiles	No	270		
O	Excavate 250x600mm deep trench to lay the armoured cable	Cm	15		
P	Supply, deliver to site & install four core 16mm ² Armoured copper cable laid in 600mm deep trench pre-covered with "Danger Hatari" concrete tiles then back fill	Lm	80		
	<i>Cont. electrical carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>electrical brought forward</i>				
Q	Three phase 415v, 125Amps six ways distribution board as Havels or equivalent as approved by project manager	No	1		
R	Manhole of 450x450x600mm (LxWxH) using machine cut stone and plastered on internal faces complete with top 100mm concrete cover. Allow for 100mm ducts entry	No	2		
S	Supply, deliver to site & install four pole 125Amps MCCB plus Metal housing as Havels or equivalent as approved by project manager	No	1		
T	Supply and install concrete cable makers(UG) along the underground cable line	No	4		
	<u>SECURITY LIGHTING</u>				
A	Supply, deliver and install LED security lighting fitting 50watts as thorn or approved equivalent wired in a 3x1.5mm ² PVC insulated single copper cable drawn in a concealed 20mm PVC heavy gauge conduit	No	7		
B	Supply, deliver and install 240volts 32Amps contactor as Telemecanique or equivalent to switch on the security lights	No	1		
C	Supply, deliver and install 240volt 10amps Photo cell switch to activate the contactor "Ditto"	No	1		
D	Supply and do earthing at the building main connection point using 10mm ² single core cable and 12mmx1200mm copper earth rod	No	1		
	<i>Cont. electrical carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>electrical brought forward</i>				
E	Interconnect the item (O) above to the installed 3 phase DB using 5x16mm ² single core cables drawn in concealed pvc conduit as appropriate	No	1		
F	Supply and install <i>in situ</i> 100mm diameter heavy gauge UPVC pipe as duct (2No. Parallel ducts) from the constructed block to the rear side to receive the power cables	Lm	12		
	Sub total for electrical works carried to summary page				

CIVIL WORKS

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	CIVIL WORKS				
	Paving around the building				
B	Remove vegetable top soil average depth 150mm and dispose off as directed by P.M	Sm	120		
C	Provide, lay and compact 100mm thick approved murram base	Sm	120		
D	Treat the surfaces with approved herbicide, with warranty of 10 years	Sm	120		
E	Provide, lay and joint in cement sand mortar 1:3 600 x 600 x 50mm p.c paving slabs including 50mm thick sand bed.	Sm	120		
	TOTAL FOR PAVING CARRIED TO GRAND SUMMARY				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	MANHOLES(all provisional)				
	<u>The following in 12 No. Manholes class "B" All provisional</u>				
	-				
A	Excavate manhole pit not exceeding 1.5m deep.	Cm	27		
B	Return, fill-in and consolidate excavated materials around manhole walls.	Cm	15		
C	Remove surplus excavated materials and deposit on site as directed.	Cm	12		
D	Extra-over excavation for excavating in rock class 'A'	Cm	2		
E	150mm thick mass concrete 1:3:6 in manhole base.	Sm	27		
	<u>Precast Concrete</u>				
F	100mm thick precast concrete 1:2:4 in manhole cover slab size 1380mmx1180mm, reinforced with 8mm diameter at 80mm centres both ways with rebated opening for 450x600mm cover and frame finished smooth including any necessary formwork.	Sm	12		
	<u>Benching</u>				
G	Concrete 1:3:6 in benching to bottom of manholes internal size 1000mmx800mm including haunching to a height of 200mm above channel and rendering in cement 1:2 trowelled smooth.	No.	12		
	<i>Manhole carried forward</i>				
	Ex2				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Manhole brought forward</i>				
H	Make or leave hole through 200mm concrete wall for 150mm diameter pipe (m.s) built-in and make good walls and render all round.	No.	24		
	<u>Extra-over benching to forming the following channels with external rounded angles with sloping top of benching:-</u>				
	-				
I	150mm diametre half-round section straight main channel 900mm long.	No.	12		
A	Ditto but curved 900mm long.	No.	12		
B	140mm thick masonry block walling in cement sand mortar 1:3.	Sm	72		
C	12mm thick cement sand 1:2 plaster to ditto with approved water-proofing admixture to internal sides of manholes trowelled smooth.	Sm	54		
D	Ditto but render to top and sides of cover slab and walling.	Sm	16		
E	Fiber manhole cover size 600mmx450mm and setting frame in cement sand mortar 1:3 and cover in grease.	No.	12		
F	Extra over formworks boxing to form opening for manhole cover(m.s)	No.	12		
	<i>Sub total for manhole carried to summary page</i>				
	Ex 3				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	SOAKAGE AREA(all provisional)				
	<u>The following in french drains as per standard drawing No.(50) 5344, average 5Lm</u>				
	-				
A	Excavate trench for french drains, not exceeding 1.5m deep starting from original ground level	Cm	4		
B	Extra-over excavation for excavating in rock class 'A'	Cm	1		
C	Cart away excavated materials from site.	Cm	2		
D	Trim sides of french drain to slope.	Sm	12		
E	20-60mm crushed stones or washed gravel.	Cm	2		
F	Back filling selected excavated soils mean thickness 350mm	Cm	1		
G	Imported 200mm thick compacted murrum	Cm	1		
H	500 gauge polythene sheet.	Sm	6		
I	150mm diametre agricultural or perforated upvc pipe laid to falls in units of 450mm lengths with 10mm open joints covered to top half with 100mm width paper.	Lm	6		
	TOTAL FOR SOAKAGE AREA CARRIED TO SUMMARY				
	Ex 4				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	1 -No. SOAK- PITS(all provisional)				
	<u>The following in 1-No soakpits as per drawing No.M.o.W(50) 5345</u>				
A	Excavate pit not exceeding 1.5m deep starting from original ground level	Cm	6		
B	Ditto between 1.5m-3.0m deep.	Cm	6		
C	Ditto between 3.0m-4.5m deep.	Cm	6		
F	Extra-over excavation for excavating in rock class 'A'	Cm	8		
G	Cart away surplus excated materials from site.	Cm	20		
H	Return, fill-in and consolidate excavated materials around foundations.	Cm	6		
I	Mass concrete 1:3:6.	Cm	1		
J	100mm thick vibrated reinforced concrete 1:2:4 in cover slab.	Sm	4		
K	12mm diametre high tensile square twisted bars to B/s 4449	Kg	25		
	<u>Sawn formwork to:-</u>				
M	Soffites of suspended slab	Sm	4		
N	Edges of suspended cover slab girth 75-150mm.	Lm	8		
A	Boxing to form opening size 600x450mm in 150mm thick suspended cover slab, rebated all round.	No.	1		
	<i>Soak pit carried forward</i>				
	Ex 5				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Soak pit brought forward</i>				
B	Form or leave 150mm diametre hole in 150mm thick block walling.	No.	1		
C	Building in, 150mm diametre drain pipe through 150mm thick walling and make good in cement sand render 1:3.	No.	1		
	<u>approved machine cut walling in cement sand mortar 1:3:-</u>				
D	150mm walling covered on plain 740mm radius.	Sm	15		
E	12mm thick cement sand 1:4, rendering covered to wall radius	Sm	15		
F	Ditto but to top and edges of suspended slab.	Sm	5		
G	Fiber manhole cover size 600mmx450mm and setting frame in cement sand mortar 1:3 and cover in grease.	No.	1		
	CARRIED TO COLLECTION				
	Ex 6				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>SEPTIC TANK- 200 persons-45000 lts capacity as per M.O.P.W standard drawing No. (50) 5343 All provisional</u>				
A	Excavate for pit not exceeding 1.5m deep commencing from ground level.	Cm	36		
B	Ditto between 1.5-3.0m deep	Cm	36		
C	Ditto exceeding 3.0m but not exceeding 4.5m deep.	Cm	24		
D	Extra Over excavation for excavating in rock Class "A"	Cm	36		
E	Return, fill-in and ram selected excavated materials around walls and foundations.	Cm	54		
F	Load and cart away excavated materials.	Cm	78		
G	50mm thick plain concrete 1:4:8 blinding under foundation footing.	Sm	24		
H	Ditto but laid to falls not exceeding 15 degrees from horizontal.	Sm	12		
J	Ditto in benching average 200mm high, in manhole size 600 x 850mm, including forming 150mm diameter half round main channel.	No.	2		
	<i>Septic tank carried forward</i>				
	Ex 7				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Septic tank brought forward</i>				
	<u>Vibrated reinforced concrete 1:2:4 to:-</u>				
I	150mm floor bed laid to falls not exceeding 15 degrees from horizontal.	Sm	24		
J	Ditto floor bed	Sm	12		
K	Ditto manhole footing	Sm	2		
L	150mm thick suspended scum baffle walling.	Sm	8		
A	200mm thick scum baffle walling with slats	Sm	8		
B	250mm thick external walling	Sm	70		
C	150mm thick cover slab.	Sm	24		
	<u>Sawn formwork to:-</u>				
D	Sides and Soffites of suspended scum baffle.	Sm	8		
E	Ditto sides of baffle walling	Sm	8		
F	Sides of external walling	Sm	40		
G	Soffites of cover slab.	Sm	24		
H	Boxing to ditto for manhole cover(m.s) opening size 450 x 600mm.	No.	4		
I	Sides and edges of cover slab 150-225mm high.	Lm	22		
	<u>Reinforcement</u>				
J	10mm diameter bars	Kg	440		
	<i>Septic tank carried forward</i>				
	Ex 8				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Septic tank brought forward</i>				
K	20mm cement sand 1:2 floor screed, water proofed with pudlo and trowelled smooth, not exceeding 15 degrees to horizontal with sulphate resistant cement.	Sm	24		
L	Ditto to horizontal floors	Sm	12		
M	Ditto manhole bases	Sm	2		
N	Ditto to sides and soffites of suspended scum baffles.	Sm	21		
P	Sides of scum baffle walling	Sm	20		
Q	Ditto to walls.	Sm	100		
R	Ditto to top and sides of cover slab.	Sm	12		
A	Approved Heavy duty plastic manhole cover and frame size 600 x 450mm including bedding frame in cement and sand mortar 1:2 and setting cover in greese.	No.	4		
B	100mm diametre P.V.C inlet pipe with equal "Tee" 450mm long.	No.	1		
C	100mm diametre U.P.V.C out-let pipe 750mm long	No.	1		
D	Form or leave 150mm diametre hole in 250mm walling.	No.	4		
E	25mm diameter bitumen coated cast iron step bars 600mm long with 300mm long footing , sunk into concrete walling	No.	6		
	Sub total for septic tank				
	Ex 8				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>SUMMARY OF EXTERNAL WORKS</u>				
A	FOUL DRAINAGE				
B	12 No. MANHOLES TYPE				
C	SOAKAGE AREA				
D	1 No. SOAKPITS				
E	SEPTIC TANK				
	TOTAL FOR DRAINAGE WORKS CARRIED TO GRAND SUMMARY				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>SUMMARY OF EXTERNAL WORKS</i>				
A	PAVING -				
B	FOUL DRAINAGE -				
C	12 No. MANHOLES TYPE				
D	SOAKAGE AREA				
E	1 No. SOAKPITS				
F	SEPTIC TANK				
	TOTAL FOR DRAINAGE WORKS CARRIED TO GRAND SUMMARY				

PC & PROVISIONAL SUMS

ITEM	DESCRIPTION	UNIT	AMOUNT
	<u>PROVISIONAL SUMS</u>		
	-		
	<u>The Contractor shall include in his tender the following to be deducted in whole or in part as directed by the Project Manager.</u>		
	-		
A	Allow a provisional sum of Kenya Shillings Five hundred thousand (Kshs.500,000/=) only for contingencies.		500,000.00
PC CARRIED TO GRAND SUMMARY			500,000.00

ITEM	DESCRIPTION		AMOUNT
	PROPOSED CONSTRUCTION OF SEED CENTRE FOR MIGORI		
	<u>MAIN SUMMARY</u>	<u>PAGE</u>	
1.	PARTICULAR PRELIMINARIES		
2.	GENERAL PRELIMINARIES	-	
		-	
3.	BUILDERS WORK		
4.	MECHANICAL INSTALLATIONS WORKS		
5.	ELECTRICAL INSTALLATIONS		
6.	CIVIL WORKS		
7.	PC & PROVISIONAL SUMS		
	-		
	SUB- TOTAL		
	VAT - 16%		
	TOTAL CARRIED TO LOT 3 SUMMARY PAGE	KSHS	

KAKAMEGA SUB-CENTRE

SITE 3 OF LOT 3

PARTICULAR PRELIMINARIES

ITEM	DESCRIPTION	Kshs.	Cts
<p data-bbox="236 353 260 383">A</p>	<p data-bbox="316 275 767 304"><u>PARTICULAR PRELIMINARIES</u></p> <p data-bbox="316 353 852 383">PRICING ITEMS OF PRELIMINARIES</p> <p data-bbox="316 432 997 752">Prices SHALL BE INSERTED against items of “preliminaries” in the tenderer’s priced Bills of Quantities. 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. The contractor is advised to read and understand all preliminary items.</p>		
<p data-bbox="236 837 260 866">B</p>	<p data-bbox="316 837 767 866">DESCRIPTION OF THE WORKS</p> <p data-bbox="316 916 997 1122">The works to be carried out under this contract involves substructures works, walling, steel windows, timber and steel doors, terrazzo floor finishes, chipboard ceiling finishes and joinery fittings and all associated electrical, mechanical and civil works</p>		
<p data-bbox="236 1173 260 1202">C</p>	<p data-bbox="316 1173 576 1202">MEASUREMENTS</p> <p data-bbox="316 1252 997 1572">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 22 of the Conditions of Contract. The discrepancies shall then be treated as a variation and be dealt with in accordance with Clause 22 of the said Conditions.</p>		
<p data-bbox="236 1644 260 1673">D</p>	<p data-bbox="316 1644 608 1673">LOCATION OF SITE</p> <p data-bbox="316 1722 997 1818">The sites are located at KEFRI Maseno Seed Centre, Migori Seed Sub-Centre and Kakamega Seed Sub-Centre</p>		
	<p data-bbox="512 1980 799 2009">Carried to Collection</p>		

ITEM	DESCRIPTION	Kshs.	Cts
A	<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 claim or intent to claim notice to the PROJECT MANAGER within the contract period. No claims shall be entertained upon the expiry of the said contract period.</p>		
B	<p>PAYMENTS</p> <p>The tenderer's attention is drawn to the fact that the GOVERNMENT SHALL NOT MAKE ADVANCE PAYMENTS</p>		
C	<p>PREVENTION OF ACCIDENT, DAMAGE OR LOSS</p> <p>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 instructed to take reasonable care in the execution of the works as to prevent accidents, damage or loss and disruption of normal activities being carried out by the Client. The Contractor shall allow in his rates any expense he deems necessary by taking such care within the site.</p>		
D	<p>BID SECURITY</p> <p>The contractor shall provide a dully filled tender securing declaration form in the provided format.</p>		
Carried to Collection			

ITEM	DESCRIPTION	Kshs.	Cts
A	<p>WORKING CONDITIONS</p> <p>The Contractor shall allow in this tender for any interference that he may encounter in the course of execution 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>		
B	<p>SIGNBOARD</p> <p>Allow for providing, erecting, maintaining throughout the course of the Contract and afterwards clearing away the signboard as designed, specified and approved by the Project Manager.</p>		
C	<p>LABOUR CAMPS</p> <p>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>		
D	<p>MATERIALS FROM DEMOLITIONS</p> <p>The Contractor shall allow for a credit for salvaged materials. Any materials arising from demolitions shall not be re-used. The Contractor shall allow for carting away all demolished materials.</p>		
E	<p>PRICING RATES</p> <p>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>		
	Carried to Collection		

ITEM	DESCRIPTION	Kshs.	Cts
A	<p>URGENCY OF THE WORKS</p> <p>The Contractor is notified that these “works are urgent” and should be completed within the period stated in these Particular Preliminaries. The Contractor shall allow in this tender for any costs he deems that he/she may incur by having to complete the works within the stipulated contract period.</p>		
B	<p>PAYMENT FOR MATERIALS ON SITE</p> <p>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</p> <p>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 which may be required by the authorities concerned for the support, maintenance and protection of such services.</p>		
Carried to Collection			

ITEM	DESCRIPTION	Kshs.	Cts
A	<p>TENDER DOCUMENTS</p> <p>Tender documents are as listed in Clause 2.1 of the Instruction to Tenderer's</p>		
B	<p>DELIVERY OF TENDER</p> <p>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>		
C	<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. Notice No. 35 & 36 Dated 11th September 2003 operational from 1st October 2003, withholding VAT will be levied against the contract sum by the Employer . The contractor should therefore include this tax in the Grand Summary page as indicated herein. The tenderer is advised that in accordance with the Finance Act 2014 withholding VAT tax was reintroduced at a rate of 2% with effect from 7th November, 2019</p>		
Carried to collection			

ITEM	DESCRIPTION	Kshs.	Cts
	<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</p> <p>Defects Liability Period</p> <p>Date for Possession</p> <p>Date for Completion</p> <p>Liquidated and Ascertained Damages</p> <p>Period of Interim Certificates</p> <p>Percentage of Certified Value Retained</p> <p>Limit of Retention Fund</p>	<p>-</p> <p>-</p> <p>3 Months from Practical Completion</p> <p>6 Months from Practical Completion</p> <p>To be agreed with the Project Manager</p> <p>26 weeks from date of Possession</p> <p>at a rate of Kshs 5,000.00 Per day or part thereof</p> <p>Monthly</p> <p>10%</p> <p>5%</p>	
	Carried to Collection		

ITEM	DESCRIPTION	Kshs.	Cts
	<u>COLLECTION</u>		
	Brought forward from page PP/1		
	Brought forward from page PP/2		
	Brought forward from page PP/3		
	Brought forward from page PP/4		
	Brought forward from page PP/5		
	Brought forward from page PP/6		
	Brought forward from page PP/7		
	Brought forward from page PP/8		
	PARTICULAR PRELIMINARIES CARRIED TO MAIN SUMMARY		

GENERAL PRELIMINARIES

ITEM	DESCRIPTION	KSHS	CTS
-	GENERAL PRELIMINARIES		
A.	PRICING OF ITEMS OF PRELIMINARIES AND PREAMBLES		
	Prices will be inserted against items of Preliminaries in the Contractor's priced Bills of Quantities and Specification.		
	The Contractor shall be deemed to have included in his prices or rates for the various items in the Bills of Quantities or Specification for all costs involved in complying with all the requirements for the proper execution of the whole of the works in the Contract.		
B.	ABBREVIATIONS		
	Throughout these Bills, units of measurement and terms are abbreviated and shall be interpreted as follows:-		
	<i>C.M.</i> Shall mean cubic metre		
	<i>S.M.</i> Shall mean square metre		
	<i>L.M.</i> Shall mean linear metre		
	<i>MM</i> Shall mean Millimetre		
	<i>Kg.</i> Shall mean Kilogramme		
	<i>No.</i> Shall mean Number		
	<i>Prs.</i> Shall mean Pairs		
	<i>B.S.</i> Shall mean the British Standard Specification Published by the British Standards Institution, 2 Park Street, London W.1., England.		
	<i>Ditto</i> Shall mean the whole of the preceding description except as qualified in the description in which it occurs.		
	<i>m.s.</i> Shall mean measured separately.		
	<i>a.b.d</i> Shall mean as before described.		
	<i>Carried to collection</i>		

ITEM	DESCRIPTION	KSHS	CTS
A.	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:-		
	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.		
	<i>Fix Only:-</i>		
	"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.		
B.	EMPLOYER		
	The "Employer" is Kenya Forestry Research Institute		
	The term "Employer" and "Government" wherever used in the contract document shall be synonymous		
C.	PROJECT MANAGER		
	The term "P.M." 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 as may be duly authorized to represent him on behalf of the Government.		

ITEM	DESCRIPTION	KSHS	CTS
D.	ARCHITECT		
	The term "Architect" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 30743, NAIROBI.		
E.	QUANTITY SURVEYOR		
	The term "Quantity Surveyor" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 30743, NAIROBI.		
	<i>Carried to collection</i>	-	
A.	ELECTRICAL ENGINEER		
	The term "Electrical Engineer" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 41191, NAIROBI.		
B.	MECHANICAL ENGINEER		
	The term "Mechanical Engineer" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 41191, NAIROBI.		
C	STRUCTURAL ENGINEER		
	The term "Structural Engineer" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 41191, NAIROBI.		

ITEM	DESCRIPTION	KSHS	CTS
D	FORM OF CONTRACT		
	The Form of Contract shall be as stipulated in the Republic of Kenya's Standard Tender Document for Procurement of Building Works(2006 Edition) included herein The Conditions of Contract are also included herein Conditions of Contract These are numbered from 1 to 37 as set out in pages 16 to 36 of these tender documents. 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		
E.	PERFORMANCE BOND.		
	The Contractor shall find and submit on the Form of Tender from an approved Bank and who will be willing to be bound the Government in an amount equal to five per cent (5%) of the Contract amount for the due performances of the Contract up to the date of completion as certified by the PROJECT MANAGER and who will when and if called upon, sign a Bond to that effect on the relevant standard form included herein. (without the addition of any limitations) on the same day as the Contract Agreement is signed, by the Government, the Contractor shall furnish within seven days another Surety to the approval of the Government.		
	<i>Carried to collection</i>		
A.	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.		
B.	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.		

ITEM	DESCRIPTION	KSHS	CTS
C.	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.		
D.	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		
E.	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.		
	<i>Carried to collection</i>	-	

ITEM	DESCRIPTION	KSHS	CTS
A.	SAMPLES		
	<p>The Contractor shall furnish at his own cost any samples of materials or workmanship including concrete test cubes required for the works that may be called for by the PROJECT MANAGER for his approval until such samples are approved by the PROJECT MANAGER and the PROJECT MANAGER, may reject any materials or workmanship not in his opinion to be up to approved samples. The PROJECT MANAGER shall arrange for the testing of such materials as he may at his discretion deem desirable, but the testing shall be made at the expense of the Contractor and not at the expense of the PROJECT MANAGER. The Contractor shall pay for the testing in accordance with the current scale of testing charges laid down by the State Department of Public Works, Ministry of Land, Housing and Urban Development.</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>		
B.	GOVERNMENT ACTS REGARDING WORK PEOPLE ETC.		
	<p>Allow for complying with all Government Acts, Orders and Regulations in connection with the employment of Labour and other matters related to the execution of the works. In particular the Contractor's attention is drawn to the provisions of the Factory Act 1950 and his tender must include for all costs arising or resulting from compliance with any Act, Order or Regulation relating to Insurances, pensions and holidays for workpeople or so the safety, health and welfare of the workpeople. The Contractor must make himself fully acquainted with current Acts and Regulations, including Police Regulations regarding the movement, housing, security and control of labour, labour camps , passes for transport, etc. It is most important that the Contractor, before tendering, shall obtain from the relevant Authority the fullest information regarding all such regulations and/or restrictions which may affect the information regarding all such regulations and/or restrictions which may affect the 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>		

ITEM	DESCRIPTION	KSHS	CTS
C.	SECURITY OF WORKS ETC.		
	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.		
	<i>Carried to collection</i>		
A.	PUBLIC AND PRIVATE ROADS.		
	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		
B.	EXISTING PROPERTY.		
	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		
C.	VISIT SITE AND EXAMINE DRAWINGS.		
	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.		

ITEM	DESCRIPTION	KSHS	CTS
D.	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 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		
E.	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		
	<i>Carried to collection</i>	-	
A.	OFFICE ETC. FOR THE PROJECT MANAGER		
	The Contractor shall provide and maintain where directed on site a room to be used as the site office, complete with Furniture.		
B.	WATER AND ELECTRICITY SUPPLY FOR THE WORKS		
	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.		

ITEM	DESCRIPTION	KSHS	CTS
C.	SANITATION OF THE WORKS		
	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		
D.	SUPERVISION AND WORKING HOURS		
	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.		
E.	PROVISIONAL SUMS.		
	The term "Provisional Sum" wherever used in these Bills of Quantities shall have the meaning stated in Section A item A7(i) of the Standard Method of Measurement. Such sums are net and no addition shall be made to them for profit.		
	<i>Carried to collection</i>		
A.	PRIME COST (OR P.C.) SUMS.		
	The term "Prime Cost Sum" or "P.C. Sum" wherever used in these Bills of Quantities shall have the meaning stated in Section A item A7 (ii) of the Standard Method of Measurement. Persons or firms nominated by the PROJECT MANAGER to execute work or to provide and fix materials or goods are described herein as Nominated Sub-Contractors. Persons or firms so nominated to supply goods or materials are described herein as Nominated Suppliers.		
B.	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.		

ITEM	DESCRIPTION	KSHS	CTS
C.	ADJUSTMENT OF P.C. SUMS.		
	<p>In the final account all P.C. Sums shall be deducted and the amount properly expended upon the PROJECT MANAGER'S order in respect of each of them added to the Contract sum. The Contractor shall produce to the PROJECT MANAGER such quotations, invoices or bills, properly receipted, as may be necessary to show the actual details of the sums paid by the Contractor. Items of profit upon P.C. Sums shall be adjusted in the final account pro-rata to the amount paid. Items of "attendance" (as previously described) following P.C. Sums shall be adjusted pro-rata to the physical extent of the work executed (not pro-rata to the amount paid) and this shall apply even though the Contractor's priced Bill shows a percentage in the rate column in respect of them. Should the Contractor be permitted to tender and his tender be accepted of any work for which a P.C. Sum is included in these Bill of Quantities profit and attendance will be allowed at the same rate as it would be if the work were executed by a Nominated Sub-Contractor.</p>		
	<i>Carried to collection</i>		
A.	ADJUSTMENT OF PROVISIONAL SUMS.		
	<p>In the final account all Provisional Sums shall be deducted and the value of the work properly executed in respect of them upon the PROJECT MANAGER's order added to the Contract Sum. Such work shall be valued , but should any part of the work be executed by a Nominated Sub-Contractor, 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>		
B.	NOMINATED SUB-CONTRACTORS		
	<p>When any work is ordered by the PROJECT MANAGER to be executed by nominated sub-contractors, the Contractor shall enter into sub-contracts and shall thereafter be responsible for such sub-contractors in every respect. Unless otherwise described the Contractor is to provide for such Sub-Contractors any or all of the facilities described in these Preliminaries. The Contractor should price for these with the nominated Sub-contract Contractor's work concerned in the P.C. Sums under the description "add for Attendance".</p>		

ITEM	DESCRIPTION	KSHS	CTS
C.	DIRECT CONTRACTS		
	Notwithstanding the foregoing conditions, the Government reserves the right to place a "Direct Contract" for any goods or services required in the works which are covered by a P.C. Sum in the Bills of Quantities and to pay for the same direct. In any such instances, profit relative to the P.C. Sum in the priced Bills of Quantities will be adjusted as described for P.C. Sums is allowed.		
D.	ATTENDANCE UPON OTHER TRADESMEN, ETC.		
	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.		
	<i>Carried to collection</i>	-	
A.	INSURANCE		
	The Contractor shall insure as required in Conditions No. 30 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.		

ITEM	DESCRIPTION	KSHS	CTS
B.	PROVISIONAL WORK		
	<p>All work described as "Provisional" in these Bills of Quantities is subject to re-measurement 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 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>		
C.	ALTERATIONS TO BILLS, PRICING, ETC.		
	<p>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>		
D.	BLASTING OPERATIONS		
	<p>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>		
	<i>Carried to collection</i>		

ITEM	DESCRIPTION	KSHS	CTS
A.	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.		
B.	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.		
C.	REMOVAL OF RUBBISH ETC.		
	Removal of rubbish and debris from the Buildings and site as it accumulates and at the completion of the works and remove all plant, scaffolding and unused materials at completion.		
D.	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		
	<i>Carried to collection</i>		

ITEM	DESCRIPTION	KSHS	CTS
A.	GENERAL SPECIFICATION.		
	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.		
B.	TRAINING LEVY		
	The Contractor's attention is drawn to National Industrial Training Authority Act CAP 237, which requires payment by the Contractor of a Training Levy at the rate of 50.00 per employee per month.		
C.	MATERIALS ON SITE		
	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.		
D.	HOARDING		
	The Contractor is required to take all precautions necessary for the safe custody of the works, materials, plant, public and Employer's property on the site.		
E.	CONTRACTOR'S SUPERINTENDENCE/SITE AGENT		
	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.		
	<i>Carried to Collection</i>		

BUILDERS WORK

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Main block (main works) ELEMENT NO. 1; SUBSTRUCTURES (All Provisional)				
A	Clear area of new construction of all undergrowth, small bushes, grab up all trees and remove any existing structures and obstructions as directed.	Sm	900		
B	Cut down trees girth 900mm- 1200mm, remove out tree stumps and grab out roots, dispose off as directed and refill pits	No.	4		
C	Excavate oversite to remove vegetable soil, load and cart away from site to contractor's dumping area as directed; Average 200 mm depth	Sm	350		
D	Excavate to reduce levels commencing from stripped level: not exceeding 1.5 m deep	Cm	495		
E	Excavate to reduce levels commencing from stripped level: over 1.5m not exceeding 3.0 m deep	Cm	330		
F	Excavate for strip foundation trenches commencing from reduced level: not exceeding 1.5m deep	Cm	180		
G	Ditto for column bases	Cm	8		
H	Excavating in any class of rock as described in the specifications	Cm	50		
I	Return, fill and ram selected soil in foundations	Cm	825		
	Substructure carried forward				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Substructure brought forward				
J	Remove surplus soil and debris from site to a place approved by local authority	Cm	100		
K	Allow for upholding and supporting sides of excavations including any necessary plunking and strutting	Item	1		
M	Allow for keep excavations free of spring, underground or running water including any necessary pumping, bailing or other approved means	Item	1		
	<u>Mass concrete mix (1:3:6):in</u>				
A	50 mm Thick blinding under strip foundations	Sm	120		
B	Ditto under column bases	Sm	24		
	<u>Vibrated reinforced insitu concrete class 25/20; with minimum cube crushing strength of 25N/mm² at 28 days; in</u>				
C	Strip foundations	Cm	50		
D	Column bases	Cm	12		
E	Columns	Cm	8		
F	Ground floor slab; 150 mm thick	Sm	290		
G	Ramps; Ditto	Sm	4		
H	Steps	Cm	4		
	Substructure carried forward				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>Mesh fabric reinforcement</u>				
A	Mesh reinforcement No. A142 size 200 x 200 mm weighing 2.22 kg per square metre: in floor slab: including all necessary supports	Sm	290		
	<u>Supply and fix mild steel bar in structural concrete work including cutting, bending, hoisting, tying wire, spacing blocks and supporting all in position in foundation footing, column bases and columns</u>				
B	8 - 32 mm Bars	Kg	6000		
	<u>Sawn formwork: to</u>				
C	Vertical sides of column bases	Sm	22		
D	Sides of columns	Sm	48		
E	Sides of strip footing	Sm	120		
F	Edges of steps; cut to profile of steps	Sm	6		
G	Edges of slabs; 150 - 225 mm girth	Lm	100		
	<u>Walls</u>				
A	Medium Chisel dressed natural stone walling bedded in cement and sand mortar (1:4) with minimum stone crushing strength of 14N/mm ² ; foundations	Sm	400		
	Substructure carried forward				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Substructure brought forward				
	<u>Hardcore</u>				
B	300 mm thick hardcore of approved inert material: well watered and compacted in 150 mm thick (maximum) layers	Sm	290		
	<u>Blinding</u>				
C	50 mm Thick approved quality murrum blinding to surfaces of hardcore	Sm	290		
	<u>Anti-termite treatment</u>				
D	Termidor 25EC or other approved anti-termite chemical treatment to surfaces of blinded hardcore and around foundations : applied by approved professional pest control specialist: applied strictly in accordance with the manufacturer's instructions: 10 year guarantee	Sm	290		
	<u>DPM</u>				
E	Gauge 1000 polythene damp proof membrane	Sm	290		
	<u>25 mm Thick cement and sand (1:4) rendering: on concrete or stonework: wood float: to</u>				
F	Plinths: externally	Sm	60		
	Substructure carried forward				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Substructure brought forward				
	<u>Prepare surfaces and apply undercoat and two finishing coats black bitumastic or other equal approved water resistant paint: on rendered surfaces: to</u>				
G	Plinths: externally	Sm	60		
	<u>Substructures carried to summary page</u>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	ELEMENT NO. 2; CONCRETE WORKS				
	Sawn formwork: to				
A	Sides and soffits: ring beams and lintols	Sm	120		
B	Columns; vertical sides	Sm	66		
	<u>Supply and fix mild steel bar in structural concrete work including cutting, bending, hoisting, tying wire, spacing blocks and supporting all in position</u>				
C	8 - 32 mm Bars	Kg	6500		
	<u>Vibrated reinforced insitu concrete class 25/20; with minimum cube crushing strength of 25N/mm² at 28 days; in</u>				
D	Beams and lintols	Cm	36		
E	Columns	Cm	8		
	Concrete works carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>ELEMENT NO. 3; WALLS</u>				
	<u>External walls</u>				
	<u>Dressed natural quarry stone walling bedded in cement and sand mortar (1:3) with minimum stone crushing strength of 7N/mm²</u>				
A	200 mm Thick walls	Sm	330		
	<u>Internal</u>				
	<u>Natural stone walls: machine cut: bedded and jointed in cement and sand (1:3) mortar</u>				
B	200 mm Thick walls	Sm	130		
	<u>Bituminous felt or other equal approved damp-proof course: in cement/ sand (1:3) mortar</u>				
C	200 mm Wide	Lm	200		
D	12mm flexcell expansion joint	Sm	32		
	Walls carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>ELEMENT NO. 4: ROOF</u>				
	<u>Roof cover</u>				
A	Gauge 28 orientile shaped roof cover fixed with rubber washers to match.	Sm	450		
B	Ditto 450mm wide ridge / hip cover.	Lm	70		
C	Ditto valley gutter	Lm	20		
D	Raking and cutting roof cover at hips and valleys	Lm	70		
	<u>All in sawn celcured and well seasoned cypress:- 12mm diametre 300mm long mild steel anchor bolts with head, nut, washers and split ring cast into ring beam and bolted to wall plate(m.s) work.</u>				
E	- 150 x 50mm Tie beam	Lm	320		
F	150 x 50mm rafter, half rafters, valley & hip rafters (Rafters at 1.2m centre)	Lm	400		
G	100 x 50mm struts and king post	Lm	450		
	<u>end of trusses</u>				
H	150 x 50mm wall plate.	Lm	190		
I	75 x 50mm purlins(at 600mm centres)	Lm	800		
J	200 x 25mm wrott fascia and verge board	Lm	100		
	<u>Sundries</u>				
K	Bed wall plate(m.s) in cement sand mortar 1:3	Lm	190		
	Roof carried forward				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Roof brought forward				
M	Bore 12mm diametre holes through 50mm thick wall plate at 2m centres.	No.	95		
N	Knot, prime, stop and apply 3 coats super gloss oil paint to surfaces of fascia and vergeboard 200-300mm high.	Lm	100		
	<u>Rain water goods</u>				
A	150mm half diameter u.P.V.C gutters of 6lm lengths	Lm	90		
B	150mm half diameter u.P.V.C holder clips at 1.2m centre and at ends, complete with screws	No.	75		
C	Extra over ditto for connectors at joints nailed to fascia(m.s)	No.	16		
D	Extra over ditto for stoped ends	No.	8		
E	Extra over ditto swannecks	No.	5		
F	75mm diameter p.v.c downpipe to match, clipped to walls	Lm	30		
G	Extra over ditto for 600mm long shoe	No.	5		
H	Ditto bends	No.	24		
	Roof carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<p>ELEMENT NO. 5; DOORS</p> <p><u>Timber Doors</u></p> <p><u>45 mm thick flush door: solid core;</u> <u>Mahogany veneered to both sides;</u> <u>hardwood lipped edges; refer to</u> <u>Architect's details</u></p>				
A	<p>Single leaf door; overall size 900 x 2400 mm high; with 6 mm thick clear fanlight glazing overall size 860 x 300 mm high complete with all beadings</p> <p><u>Supply and fix the following mahogany glazed doors comprising of 150 x 50mm bottom rail, top rail, middle rail, transomes and stiles; 6 mm thick toughened glass and glazing infill with and including glazing beads; All as per architect's drawings and details</u></p>	No	5		
A	<p>Single leaf door; overall size 900 x 2400 mm high; with 6 mm thick clear fanlight glazing overall size 860 x 300 mm high complete with all beadings</p>	No	3		
B	<p>Double door; overall size 1800 x 2400 mm high; with 6 mm thick clear fanlight glazing overall size 1760 x 300 mm high complete with all beadings</p>	No	4		
	Doors carried forward				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Doors brought forward				
	<u>Roller shutter door</u>				
A	Supply and fix 2500mm x 2400mm galvanized roller shutter door complete with barrel, springs, hanger rings, end plates, canopy, vertical guide rails, curtain; 80mm slats, T bar or bottom rail	No	4		
	<u>Prepare surfaces and apply three coats of approved gloss oil paint to metal surfaces</u>				
B	Doors: both sides measured	Sm	50		
	<u>Wrot mahogany: prime grade; with stainless steel fixing straps; including chasing to masonry, plugging and making good</u>				
A	200 x 50 mm Door frame: twice rebated: plugged	Lm	82		
B	50 x 25 mm Architrave: splayed	Lm	66		
C	25 x 25 mm Quadrant	Lm	66		
	<u>Prepare and apply one coat of aluminium wood primer on timber surfaces in contact with concrete or masonry</u>				
D	Over 100 but not exceeding 200 mm girth	Lm	214		
	<u>Prepare surfaces: apply two coats clear pinotex spirit in clear matt varnish: on timber surfaces: to</u>				
E	Over 100 but not exceeding 200 mm girth	Lm	214		
	Doors carried forward				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Doors brought forward				
F	General timber surfaces: doors <u>Supply and fix: 'UNION' or other equal approved ironmongery: matching screws: locks to include a set of 3 keys: available from their authorised local dealers; brass finish to architects approval</u>	Sm	56		
A	100mm brass butt hinges	Prs	24		
B	Two lever mortice lock with handles	No	12		
C	Door closer	No	12		
D	38 mm Diameter oval rubber stop; floor or wall mounted	No	16		
	Door carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	ELEMENT NO. 6; WINDOWS				
	<u>Approved pre-cast concrete cill: bedded and jointed in cement (sand (1:3) mortar: pointed in matching coloured cement</u>				
A	250 x 50 mm Thick cill; once weathered and throated	Lm	40		
	<u>Supply and fix the following purpose made steel casement purpose made windows, including all necessary cuttings lugs, stays and bedding into walls in cement sand mortar 1:4 complete with stays, fasteners, all necessary accessories and priming once in red-oxide, to Architects approval, with minimal burglar proofing in 20mm angle line framing</u>				
A	- Window size 2500 x 750mm high. For stores	No.	2		
B	Ditto size 2500 x 1500mm high. For laboratory	No.	5		
C	Ditto size 1200 x 1500mm high.	No	2		
D	Ditto size 2000 x 1500mm high.	No.	6		
	<u>Glazing</u>				
F	4mm thick mild tinted sheet glass in panes 0.1-0.5sm fixed in steel window panes with putty.	Sm	54		

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>Painting</u> <u>Prepare, prime and apply 3 coats of super gloss oil paint as "crown" or any other equal and approved to surfaces of:</u>				
A	- Windows externally Windows carried forward	Sm	8		
	<u>Windows brought forward</u>				
B	Windows internally	Sm	8		
	<u>Curtain rods</u>				
A	Supply and fix 2900mm long double curtain rod for both vertical blinders and sheers with a strong chrome pipe of 28mm diameter, 2pcs finials, 2pcs end cups, 4pcs brackets, rings, screws and anchor to install	No	10		
	Window carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Element 07; Ceiling				
A	10mm thick chipboard ceiling fixed in rectangular shape	Sm	340		
B	10 x 75mm ditto cornice plugged and nailed to battens	Lm	320		
C	Extra-over ditto in access door size 450 x 600mm, including framing in 75 x 50mm sawn cypress	No.	2		
	Branding				
D	50 x 50mm sawn cypress branding	Lm	500		
E	50 x 75mm ditto.	Lm	800		
	Ceiling carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>ELEMENT 8; Fixtures and fittings</u>				
	<u>Shelving to packagig room</u>				
	<u>20 mm thick blockboard storage sheleves supported of mild steel 25 x 25 mm frames; painted to approval; 450 mm wide</u>				
A	10000 mm long x 450 mm deep x 3000 mm high	Sm	50		
B	Ditto for cabinet below the worktop in seed lab	Sm	30		
	Ceiling carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>ELEMENT 9; FINISHES</u>				
	FLOOR FINISHES				
A	30mm thick cement sand 1:2 backing to receive ceramic floor tiles or terrazzo (s.m)/Skirting	Sm	300		
B	20mm thick polished terrazzo paving to floor and the worktop including plastic strip dividers/skirting	Sm	300		
	<u>walls internally</u>				
H	12mm thick gauged plaster cement sand lime 1:1:6 with a smooth float to walls, beams and columns internally	Sm	400		
I	Ditto to reveals and jambs.	Sm	30		
	<u>Walls Externaly</u>				
H	12mm thick gauged cement sand render 1:2 finished with a wood float to beams and columns	Sm	215		
I	Keying in cement sand 1:2, pointing in gloss oil paint and wire brushing natural machine cut stone externally	Sm	130		
	Finishes carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	ELEMENT 10; PAINTING & DECORATIONS				
	<u>Prepare and apply 3 coats silk vinyle emulsion paint as "crown"or any other equal and approved paint to</u>				
A	Plastered walls internally	Sm	400		
B	Soffites of chip board ceiling	Sm	340		
C	Plastered walls externally	Sm	215		
	Painting carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>SUMMARY OF ELEMENTS</u>				
A	ELEMENT NO. 1 , SUBSTRUCTURE				
B	ELEMENT NO 2, R.c WORKS				
C	ELEMENT NO 3, WALLING				
D	ELEMENT NO. 4, ROOF				
E	ELEMENT NO. 5 , DOORS				
F	ELEMENT NO. 6 , WINDOWS				
G	ELEMENT NO. 7 , CEILING				
H	ELEMENT NO. 8 , FIXTURES & Fittings				
I	ELEMENT NO 9, FINISHES				
J	ELEMENT NO. 10 PAINTING & DECORATIONS				
	TOTAL FOR BUILDERS WORK CARRIED TO GRAND SUMMARY.				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>RAISED CONCRETE WATER TANK STAND 4500mm high from ground level</u>				
	Element 01: Substructure (all provisional)				
A	Clear area of new construction of all undergrowth, small bushes, grab up all trees and remove any existing structures and obstructions as directed.	Sm	16		
B	Excavate for column bases commencing from ground level level: not exceeding 1.5 m deep	Cm	14		
C	Return, fill and ram selected soil in foundations	Cm	13		
	<u>Vibrated reinforced insitu concrete class 25/20; with minimum cube crushing strength of 25N/mm² at 28 days; in</u>				
A	- Column bases 200mm thick	Cm	2		
B	Sub structure and superstructure columns 400mmx400mm size	Cm	4		
	<u>Supply and fix mild steel bar in structural concrete work including cutting, bending, hoisting, tying wire, spacing blocks and supporting all in position</u>				
C	- 8 - 12 mm Bars for substructure columns, column bases, superstructure columns ring beams and slab	Kgs	478		
	Raised conc. Water tank stand carried forward				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Raised conc. Water tank stand brought forward				
	<u>Sawn formwork: to</u>				
D	Vertical sides of coulmn bases	Sm	2		
E	Sides of columns	Sm	10		
	<u>Superstructure works</u>				
	Sawn formwork: to				
F	Sides and soffits: beams	Sm	11		
G	Soffits and sides of suspended slab	Sm	9		
	<u>Vibrated reinforced insitu concrete class 25/20; with minimum cube crushing strength of 25N/mm² at 28 days; in</u>				
H	Slab and beams	Cm	5		
	<u>Plaster: 15 mm cement/lime putty/sand: steel trowelled: on masonry or concrete: to</u>				
I	concrete surfaces	Sm	98		
K	Purchase and instal 5,000 liters cylindrical kentank plastic water tank	Item	1		
	Sub total for construction of raised concrete water tank stand				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>SUMMARY OF ELEMENTS</u>				
A	ELEMENT NO. 1 , SUBSTRUCTURE				
B	ELEMENT NO 2, R.c WORKS				
C	ELEMENT NO 3, WALLING				
D	ELEMENT NO. 4, ROOF				
E	ELEMENT NO. 5 , DOORS				
F	ELEMENT NO. 6 , WINDOWS				
G	ELEMENT NO. 7 , CEILING				
H	ELEMENT NO. 8 , FIXTURES & Fittings				
I	ELEMENT NO 9, FINISHES				
J	ELEMENT NO. 10 PAINTING & DECORATIONS				
K	RAISED WATER TANK STAND				
	TOTAL FOR BUILDERS WORK CARRIED TO GRAND SUMMARY.				

MECHANICAL WORKS

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<p><u>MECHANICAL ENGINEERING SERVICES</u> <u>BQ</u></p> <p>Bill No1: SANITARY APPLIANCES</p> <p>Supply, 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. Note:</p> <p>(i) All sanitary fittings shall be in approved colour.</p> <p>(ii) The Model and Ref No. indicated is only a guide to the type and quality of fittings.</p> <p>(iii) Equivalent and Approved models may be acceptable.</p>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<p><u>BILL NO.2: INTERNAL WATER CONNECTION</u></p> <p>Supply and install tubing and fittings as described and shown on the drawings. Tenderers must allow for jointings, couplings etc necessary for the proper and satisfactory functioning of the system when pricing the following in PN 20 PPRC conforming to the current European standards for PPR installations and to the Engineer's approval, pipe jointing shall be by polyfusion or use of electric coupling Rates must allow for all the Metal/plastic threaded adaptors where required for the connection of sanitary fixtures, valves, sockets, sliding and fixed joints, support raceways, isolating sheaths, elastic materials, expansion arms and bends, crossovers etc</p>				
	<u>PPR Pipes</u>				
A	20mm dia pipe chased in walls/floors	Lm	30		-
B	25mm –ditto-	Lm	20		-
C	32mm –ditto-	Lm	30		-
	<u>Extra-over PPR pipework for the following:-</u>				
	<u>Bends/elbows</u>				
G	20mm dia bend	No	10		
H	25mm bend	No	10		
I	32mm bend	No	5		
L	20x1/2" dia male threaded 90o bend	No	5		
M	20x1/2" dia female threaded 90o bend	No	5		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Sanitary appliances brought forward</i>				
	<u>Tees</u>				
N	25mm diameter equal tee	No	5		
O	25x1/2" female threaded tee	No	5		
P	25x1/2" male threaded tee	No	10		
Q	32mm diameter equal tee	No	5		
R	20mm dia tee	No	10		
	<u>Unions</u>				
A	20mm dia union	No	5		
B	25mm –ditto-	No	5		
C	32mm –ditto-	No	5		
	<u>Reducers</u>				
F	25/20mm reducers	No	5		
G	32/25mm reducers	No	5		
	<u>Gate valve</u>				
J	20mm Pegler	No	3		
K	25mm –ditto-	No	3		
L	32mm –ditto-	No	2		
	<u>Flexible connectors</u>				
O	450mm chrome plated flexible connector with chrome plated angle check valve size 15mm dia including unions and sockets to connect sanitary fittings to PP-R Pipework	No	5		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Sanitary appliances brought forward</i>				
	<u>Supply, deliver and install the following vulcathene laboratory system including waste outlets, sinks, drip cups, anti-siphon traps, dilution recovery traps and associated comprehensive range of pipe and fittings for the given sizes all as vulcathene or approved equivalent</u>				
A	<p>Laboratory sink</p> <p>A sink of preferred dimensions 552mm x 400mm with a depth of 231mm having a drain of 74mm, that is extremely robust and moulded with a self draining base with its recessed outlet to accept the flange of 1 1/2" (40mm) non overflow threaded outlet but if required, an overflow assembly can be fitted. The sink to be complete with anti siphon traps that can stop the backflow of potentially hazardous fumes. All the downstream fittings to be as vulcathene.</p>	No	2		
B	<p>Three way Assay Lab Faucet in solid brass High gloss epoxy powder , resistant to most chemicals, UV fading and heat. Ceramic headwork;90 deg turn, water static pressure max 10bar. To be complete with detachable brass serrated nozzle, splash controlled water filter attachable, ergonomic high grade PP knob and 360 deg swing gooseneck spout.</p>	No	2		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Sanitary appliances brought forward</i>				
	<u>Emergency Drencher Shower and Eye Fountain</u>				
C	Body shower with eye/face shower and bowl modular in brass and stainless steel with chemical resistant red BROEN-LAB polycoat with self-draining shower head. The shower head with a pull to open mechanism and eye wash with a footpedal opening mechanism. Eye wash with built-in FLOWFIX for regulation of water flow at14l/min. Bowl in stainless steel with integrated out with a min working pressure of 1.5bar. all as BROEN-LAB or equal and approved	No	1		
D	Emergency shower instructions Wall mounted sign and instruction card for Body and Eye Shower above	No	1		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<p><i>Sanitary appliances brought forward</i></p> <p><u>BILL NO.3 FOUL WATER INTERNAL DRAINAGE FROM THE WASHROOMS AND LABORATORY</u></p> <p>Supply and fix uPVC soil system to BS 4660 and BS 4515 and MuPVC waste systems to BS 5255 with screwed and socketed joints to BS 21. Solvent welded joints shall be as per the system's manufacturer's written instructions. 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.</p> <p><u>MuPVC and uPVC Waste and Soil pipework</u></p>				
A	150mm diameter heavy gauge grey mUPVC pipe	Lm	60		
B	100mm diameter heavy gauge grey mUPVC pipe	Lm	20		
C	50mm diameter waste pipe	Lm	50		
D	32mm diameter waste pipe	Lm	50		
	<u>Bends</u>				
E	150mm diameter access bend	No	4		
F	100mm diameter access bend	No	6		
G	150mm diameter sweep bend	No	6		
H	100mm diameter sweep bend	No	6		
I	50mm diameter sweep bend	No	6		
J	32mm diameter sweep bend	No	6		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Sanitary appliances brought forward</i>				
	<u>Tees</u>				
L	50mm diameter sweep tee	No	4		
M	32mm diameter sweep tee	No	4		
	<u>Access Caps</u>				
N	100mm diameter access cap	No	6		
P	32mm diameter access cap	No	6		
	<u>Boss Connectors</u>				
Q	150 x 100mm diameter boss connector	No	4		
R	100 x 50mm diameter boss connector	No	4		
S	50 x 32mm diameter boss connector	No	4		
	<u>Traps</u>				
D	100 x 50mm diameter floor trap and grating	No	4		
E	50 x 50mm diameter U-shaped tubular trap	No	4		
	<u>Testing and Commissioning</u>				
G	Allow for testing and commissioning of the plumbing and drainage installations to the satisfaction of the Engineer.	Item	1		
	<i>Sub total for sanitary appliances</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
C	Summary page SANITARY APPLIANCES				
	Total for sanitary appliances carried to summary page				

ELECTRICAL WORKS

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Electrical works				
A	Supply, deliver & install on site one gang one-way switches	No	6		
B	Supply, deliver & install on site one gang two-way switches	No	10		
C	Supply, deliver & install on site three gang two-way switches	No	1		
D	Supply, deliver & install on site one gang intermediate switch	No	2		
E	Supply, deliver & install on site two gang two-way switches	No	2		
F	Supply, deliver & Install 1200mm, 1x58w T26 LED fluorescent light fittings with Aluminium louvres (complete with tubes) as thorn, do wiring as appropriate using 3x1.5mm ² single core copper cables as E. African cable drawn in concealed pvc conduit. The fittings to be surface mounted on the ceiling & spaced as appropriate.	No	45		
G	Supply deliver to site, Install and do wiring of 1200mm single LED batten fluorescent fittings with prismatic diffuser (complete with tubes) wired in a 3x1.5mm ² PVC insulated single core copper cable drawn in a concealed 20mm PVC heavy gauge conduits	No	3		
H	Supply, deliver, Install & wire twin 13amps socket outlets drawn in concealed pvc conduit using 3x2.5mm ² single core copper cable in three ring circuit all terminated at the DB protected by 32Amps single pole MCB	No	22		
	Cont. electrical carried forward				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>electrical brought forward</i>				
I	Supply, deliver, Install in the processing area & wire five pin 32amps industrial socket outlets each as a final subcircuit from the DB isolated using 40Amps three pole MCB wired using 4x4.0mm ² single core copper cables as E. African cable drawn in concealed pvc conduit.	No	2		
J	Supply, deliver & install in the processing area 40Amps triple pole MCB as Schneider or equivalent as approved by project manager and housed in an enamel paint finish metal enclosure	No	2		
K	Supply, deliver & install on 32Ampsamps triple pole MCB to fit in the installed DB	No	2		
L	Supply, deliver & install on 10amps MCB to fit in the DB	No	4		
M	Supply, deliver & install single pole 32amps MCB to fit in the DB installed	No	3		
N	Supply, deliver & install 150x300mm concrete Danger Hatari tiles	No	270		
O	Excavate 250x600mm deep trench to lay the armoured cable	Cm	15		
P	Supply, deliver to site & install four core 16mm ² Armoured copper cable laid in 600mm deep trench pre-covered with "Danger Hatari" concrete tiles then back fill	Lm	80		
	<i>Cont. electrical carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>electrical brought forward</i>				
Q	Three phase 415v, 125Amps six ways distribution board as Havel's or equivalent as approved by project manager	No	1		
R	Manhole of 450x450x600mm (LxWxH) using machine cut stone and plastered on internal faces complete with top 100mm concrete cover. Allow for 100mm ducts entry	No	2		
S	Supply, deliver to site & install four pole 125Amps MCCB plus Metal housing as Havel's or equivalent as approved by project manager	No	1		
T	Supply and install concrete cable makers(UG) along the underground cable line	No	4		
	<u>SECURITY LIGHTING</u>				
A	Supply, deliver and install LED security lighting fitting 50watts as thorn or approved equivalent wired in a 3x1.5mm ² PVC insulated single copper cable drawn in a concealed 20mm PVC heavy gauge conduit	No	7		
B	Supply, deliver and install 240volts 32Amps contactor as Telemecanique or equivalent to switch on the security lights	No	1		
C	Supply, deliver and install 240volt 10amps Photo cell switch to activate the contactor "Ditto"	No	1		
D	Supply and do earthing at the building main connection point using 10mm ² single core cable and 12mmx1200mm copper earth rod	No	1		
	<i>Cont. electrical carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>electrical brought forward</i>				
E	Interconnect the item (O) above to the installed 3 phase DB using 5x16mm ² single core cables drawn in concealed pvc conduit as appropriate	No	1		
F	Supply and install <i>in situ</i> 100mm diameter heavy gauge UPVC pipe as duct (2No. Parallel ducts) from the constructed block to the rear side to receive the power cables	Lm	12		
	Sub total for electrical works carried to summary page				

CIVIL WORKS

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	MANHOLES(all provisional)				
	The following in 12 No. Manholes class "B"				
	All provisional				
	-				
A	Excavate manhole pit not exceeding 1.5m deep.	Cm	27		
B	Return, fill-in and consolidate excavated materials around manhole walls.	Cm	15		
C	Remove surplus excavated materials and deposit on site as directed.	Cm	12		
D	Extra-over excavation for excavating in rock class 'A'	Cm	2		
E	150mm thick mass concrete 1:3:6 in manhole base.	Sm	27		
	Precast Concrete				
F	100mm thick precast concrete 1:2:4 in manhole cover slab size 1380mmx1180mm, reinforced with 8mm diameter at 80mm centres both ways with rebated opening for 450x600mm cover and frame finished smooth including any necessary formwork.	Sm	12		
	Benching				
G	Concrete 1:3:6 in benching to bottom of manholes internal size 1000mmx800mm including haunching to a height of 200mm above channel and rendering in cement 1:2 trowelled smooth.	No.	12		
	Manhole carried forward				
	Ex2				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Manhole brought forward				
H	Make or leave hole through 200mm concrete wall for 150mm diameter pipe (m.s) built-in and make good walls and render all round.	No.	24		
	<u>Extra-over benching to forming the following channels with external rounded angles with slopping top of benching:-</u>				
	-				
I	150mm diameter half-round section straight main channel 900mm long.	No.	12		
A	Ditto but curved 900mm long.	No.	12		
B	140mm thick masonry block walling in cement sand mortar 1:3.	Sm	72		
C	12mm thick cement sand 1:2 plaster to ditto with approved water-proofing admixture to internal sides of manholes trowelled smooth.	Sm	54		
D	Ditto but render to top and sides of cover slab and walling.	Sm	16		
E	Fiber manhole cover size 600mmx450mm and setting frame in cement sand mortar 1:3 and cover in grease.	No.	12		
F	Extra over formworks boxing to form opening for manhole cover(m.s)	No.	12		
	<i>Sub total for manhole carried to summary page</i>				
	Ex 3				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	SOAKAGE AREA(all provisional)				
	<u>The following in french drains as per standard drawing No.(50) 5344, average 5Lm</u>				
	-				
A	Excavate trench for french drains, not exceeding 1.5m deep starting from original ground level	Cm	4		
B	Extra-over excavation for excavating in rock class 'A'	Cm	1		
C	Cart away excavated materials from site.	Cm	2		
D	Trim sides of french drain to slope.	Sm	12		
E	20-60mm crushed stones or washed gravel.	Cm	2		
F	Back filling selected excavated soils mean thickness 350mm	Cm	1		
G	Imported 200mm thick compacted murrum	Cm	1		
H	500 gauge polythene sheet.	Sm	6		
I	150mm diametre agricultural or perforated upvc pipe laid to falls in units of 450mm lengths with 10mm open joints covered to top half with 100mm width paper.	Lm	6		
	TOTAL FOR SOAKAGE AREA CARRIED TO SUMMARY				
	Ex 4				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	1-No. SOAK- PITS(all provisional)				
	<u>The following in 1-No soakpits as per drawing No.M.o.W(50) 5345</u>				
A	Excavate pit not exceeding 1.5m deep starting from original ground level	Cm	6		
B	Ditto between 1.5m-3.0m deep.	Cm	6		
C	Ditto between 3.0m-4.5m deep.	Cm	6		
F	Extra-over excavation for excavating in rock class 'A'	Cm	8		
G	Cart away surplus excated materials from site.	Cm	20		
H	Return, fill-in and consolidate excavated materials around foundations.	Cm	6		
I	Mass concrete 1:3:6.	Cm	1		
J	100mm thick vibrated reinforced concrete 1:2:4 in cover slab.	Sm	4		
K	12mm diametre high tensile square twisted bars to B/s 4449	Kg	25		
	<u>Sawn formwork to:-</u>				
M	Soffites of suspended slab	Sm	4		
N	Edges of suspended cover slab girth 75-150mm.	Lm	8		
A	Boxing to form opening size 600x450mm in 150mm thick suspended cover slab, rebated all round.	No.	1		
	<i>Soak pit carried forward</i>				
	Ex 5				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	SEPTIC TANK- 200 persons-45000 ltr capacity as per M.O.P.W standard drawing No. (50) 5343 All provisional				
A	Excavate for pit not exceeding 1.5m deep commencing from ground level.	Cm	36		
B	Ditto between 1.5-3.0m deep	Cm	36		
C	Ditto exceeding 3.0m but not exceeding 4.5m deep.	Cm	24		
D	Extra Over excavation for excavating in rock Class "A"	Cm	36		
E	Return, fill-in and ram selected excavated materials around walls and foundations.	Cm	54		
F	Load and cart away excavated materials.	Cm	78		
G	50mm thick plain concrete 1:4:8 blinding under foundation footing.	Sm	24		
H	Ditto but laid to falls not exceeding 15 degrees from horizontal.	Sm	12		
J	Ditto in benching average 200mm high, in manhole size 600 x 850mm, including forming 150mm diameter half round main channel.	No.	2		
	<i>Septic tank carried forward</i>				
	Ex 7				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Septic tank brought forward</i>				
	Vibrated reinforced concrete 1:2:4 to:-				
I	150mm floor bed laid to falls not exceeding 15 degrees from horizontal.	Sm	24		
J	Ditto floor bed	Sm	12		
K	Ditto manhole footing	Sm	2		
L	150mm thick suspended scum baffle walling.	Sm	8		
A	200mm thick scum baffle walling with slats	Sm	8		
B	250mm thick extenal walling	Sm	70		
C	150mm thick cover slab.	Sm	24		
	<u>Sawn formwork to:-</u>				
D	Sides and Soffites of suspended scum baffle.	Sm	8		
E	Ditto sides of baffle walling	Sm	8		
F	Sides of extenal walling	Sm	40		
G	Soffites of cover slab.	Sm	24		
H	Boxing to ditto for manhole cover(m.s) opening size 450 x 600mm.	No.	4		
I	Sides and edges of cover slab 150-225mm high.	Lm	22		
	<u>Reinforcement</u>				
J	10mm diameter bars	Kg	440		
	<i>Septic tank carried forward</i>				
	Ex 8				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Septic tank brought forward</i>				
K	20mm cement sand 1:2 floor screed, water proofed with pudlo and trowelled smooth, not exceeding 15 degrees to horizontal with sulphate resistant cement.	Sm	24		
L	Ditto to horizontal floors	Sm	12		
M	Ditto manhole bases	Sm	2		
N	Ditto to sides and soffites of suspended scum baffles.	Sm	21		
P	Sides of scum baffle walling	Sm	20		
Q	Ditto to walls.	Sm	100		
R	Ditto to top and sides of cover slab.	Sm	12		
A	Approved Heavy duty plastic manhole cover and frame size 600 x 450mm including bedding frame in cement and sand mortar 1:2 and setting cover in greese.	No.	4		
B	100mm diametre P.V.C inlet pipe with equal "Tee" 450mm long.	No.	1		
C	100mm diametre U.P.V.C out-let pipe 750mm long	No.	1		
D	Form or leave 150mm diametre hole in 250mm walling.	No.	4		
E	25mm diameter bitumen coated cast iron step bars 600mm long with 300mm long footing , sunk into concrete walling	No.	6		
	Sub total for septic tank				
	Ex 8				

PC & PROVISIONAL SUMS

ITEM	DESCRIPTION	UNIT	AMOUNT
	PROVISIONAL SUMS		
	-		
	<u>The Contractor shall include in his tender the following to be deducted in whole or in part as directed by the Project Manager.</u>		
	-		
A	Allow a provisional sum of Kenya Shillings Five hundred thousand (Kshs.500,000/=) only for contingencies.		500,000.00
PC CARRIED TO GRAND SUMMARY			500,000.00

ITEM	DESCRIPTION		AMOUNT
	<u>PROPOSED CONSTRUCTION OF SEED CENTRE FOR KAKAMEGA SUB-CENTER</u>		
	<u>MAIN SUMMARY</u>	<u>PAGE</u>	
1.	PARTICULAR PRELIMINARIES		
2.	GENERAL PRELIMINARIES	-	
		-	
3.	BUILDERS WORK		
4.	MECHANICAL INSTALLATIONS WORKS		
5.	ELECTRICAL INSTALLATIONS		
6.	CIVIL WORKS		
7.	PC & PROVISIONAL SUMS		
	-		
	SUB- TOTAL		
	VAT - 16%		
	TOTAL CARRIED TO LOT 3 SUMMARY PAGE	KSHS	

ITEM	DESCRIPTION	SHS	SHS
	<u>PROPOSED CONSTRUCTION OF KEFRI SEED CENTRES FOR LOT 3 (MASENO, MIGORI & KAKAMEGA SUB - CENTRES)</u>	FOR OFFICIAL USE	FOR CONTRACTORS USE
1	<u>LOT 3 SUMMARY</u> MASENO - CENTRE		
2	MIGORI SUB - CENTRE		
3	KAKAMEGA SUB - CENTRE		
	- TOTAL FOR LOT 3 CARRIED TO FORM OF TENDER	KSHS	
<p>Amount in words Ksh</p> <p>.....</p> <p>CONTRACTORS NAME</p> <p>ADDRESS</p> <p>.....</p> <p>DATE</p> <p>SIGNATURE,.....</p> <p>WITNESS'S NAME</p> <p>ADDRESS</p> <p>.....</p> <p>DATE</p> <p>SIGNATURE</p>			

LOT 4:

GEDE CENTER

AND

TAITA TAVETA SUB- CENTER

GEDE CENTRE

SITE 1 OF LOT 4

PARTICULAR PRELIMINARIES

ITEM	DESCRIPTION	Kshs.	Cts
	<p><u>PARTICULAR PRELIMINARIES</u></p> <p>A PRICING ITEMS OF PRELIMINARIES</p> <p>Prices SHALL BE INSERTED against items of “preliminaries” in the tenderer’s priced Bills of Quantities. 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. The contractor is advised to read and understand all preliminary items.</p> <p>B DESCRIPTION OF THE WORKS</p> <p>The works to be carried out under this contract involves substructures works, walling, steel windows, timber and steel doors, terrazzo floor finishes, chipboard ceiling finishes and joinery fittings and all associated electrical, mechanical and civil works</p> <p>C 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 22 of the Conditions of Contract. The discrepancies shall then be treated as a variation and be dealt with in accordance with Clause 22 of the said Conditions.</p> <p>D LOCATION OF SITE</p> <p>The sites are located at KEFRI Gede Seed Centre and and Taita Taveta Seed Sub-Centre</p>		
	Carried to Collection		

ITEM	DESCRIPTION	Kshs.	Cts
A	<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 claim or intent to claim notice to the PROJECT MANAGER within the contract period. No claims shall be entertained upon the expiry of the said contract period.</p>		
B	<p>PAYMENTS</p> <p>The tenderer's attention is drawn to the fact that the GOVERNMENT SHALL NOT MAKE ADVANCE PAYMENTS</p>		
C	<p>PREVENTION OF ACCIDENT, DAMAGE OR LOSS</p> <p>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 instructed to take reasonable care in the execution of the works as to prevent accidents, damage or loss and disruption of normal activities being carried out by the Client. The Contractor shall allow in his rates any expense he deems necessary by taking such care within the site.</p>		
D	<p>BID SECURITY</p> <p>The contractor shall provide a dully filled tender securing declaration form in the provided format.</p>		
Carried to Collection			

ITEM	DESCRIPTION	Kshs.	Cts
A	<p>WORKING CONDITIONS</p> <p>The Contractor shall allow in this tender for any interference that he may encounter in the course of execution 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>		
B	<p>SIGNBOARD</p> <p>Allow for providing, erecting, maintaining throughout the course of the Contract and afterwards clearing away the signboard as designed, specified and approved by the Project Manager.</p>		
C	<p>LABOUR CAMPS</p> <p>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>		
D	<p>MATERIALS FROM DEMOLITIONS</p> <p>The Contractor shall allow for a credit for salvaged materials. Any materials arising from demolitions shall not be re-used. The Contractor shall allow for carting away all demolished materials.</p>		
E	<p>PRICING RATES</p> <p>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>		
	Carried to Collection		

ITEM	DESCRIPTION	Kshs.	Cts
A	<p>URGENCY OF THE WORKS</p> <p>The Contractor is notified that these “works are urgent” and should be completed within the period stated in these Particular Preliminaries. The Contractor shall allow in this tender for any costs he deems that he/she may incur by having to complete the works within the stipulated contract period.</p>		
B	<p>PAYMENT FOR MATERIALS ON SITE</p> <p>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</p> <p>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 which may be required by the authorities concerned for the support, maintenance and protection of such services.</p>		
Carried to Collection			

ITEM	DESCRIPTION	Kshs.	Cts
A	<p>TENDER DOCUMENTS</p> <p>Tender documents are as listed in Clause 2.1 of the Instruction to Tenderer's</p>		
B	<p>DELIVERY OF TENDER</p> <p>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>		
C	<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. Notice No. 35 & 36 Dated 11th September 2003 operational from 1st October 2003, withholding VAT will be levied against the contract sum by the Employer . The contractor should therefore include this tax in the Grand Summary page as indicated herein. The tenderer is advised that in accordance with the Finance Act 2014 withholding VAT tax was reintroduced at a rate of 2% with effect from 7th November, 2019</p>		
	Carried to collection		

ITEM	DESCRIPTION	Kshs.	Cts
	<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</p> <p>Defects Liability Period</p> <p>Date for Possession</p> <p>Date for Completion</p> <p>Liquidated and Ascertained Damages</p> <p>Period of Interim Certificates</p> <p>Percentage of Certified Value Retained</p> <p>Limit of Retention Fund</p>	<p>-</p> <p>-</p> <p>3 Months from Practical Completion</p> <p>6 Months from Practical Completion</p> <p>To be agreed with the Project Manager</p> <p>26 weeks from date of Possession</p> <p>at a rate of Kshs 5,000.00 Per day or part thereof</p> <p>Monthly</p> <p>10%</p> <p>5%</p>	
	Carried to Collection		

ITEM	DESCRIPTION	Kshs.	Cts
	<u>COLLECTION</u>		
	Brought forward from page PP/1		
	Brought forward from page PP/2		
	Brought forward from page PP/3		
	Brought forward from page PP/4		
	Brought forward from page PP/5		
	Brought forward from page PP/6		
	Brought forward from page PP/7		
	Brought forward from page PP/8		
	PARTICULAR PRELIMINARIES CARRIED TO MAIN SUMMARY		

GENERAL PRELIMINARIES

ITEM	DESCRIPTION	KSHS	CTS
-	GENERAL PRELIMINARIES		
A.	PRICING OF ITEMS OF PRELIMINARIES AND PREAMBLES		
	Prices will be inserted against items of Preliminaries in the Contractor's priced Bills of Quantities and Specification.		
	The Contractor shall be deemed to have included in his prices or rates for the various items in the Bills of Quantities or Specification for all costs involved in complying with all the requirements for the proper execution of the whole of the works in the Contract.		
B.	ABBREVIATIONS		
	Throughout these Bills, units of measurement and terms are abbreviated and shall be interpreted as follows:-		
	<i>C.M.</i> Shall mean cubic metre		
	<i>S.M.</i> Shall mean square metre		
	<i>L.M.</i> Shall mean linear metre		
	<i>MM</i> Shall mean Millimetre		
	<i>Kg.</i> Shall mean Kilogramme		
	<i>No.</i> Shall mean Number		
	<i>Prs.</i> Shall mean Pairs		
	<i>B.S.</i> Shall mean the British Standard Specification Published by the British Standards Institution, 2 Park Street, London W.I., England.		
	<i>Ditto</i> Shall mean the whole of the preceding description except as qualified in the description in which it occurs.		
	<i>m.s.</i> Shall mean measured separately.		
	<i>a.b.d</i> Shall mean as before described.		
	<i>Carried to collection</i>		

ITEM	DESCRIPTION	KSHS	CTS
A.	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:-		
	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.		
	<i>Fix Only:-</i>		
	"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.		
B.	EMPLOYER		
	The "Employer" is Kenya Forestry Research Institute		
	The term "Employer" and "Government" wherever used in the contract document shall be synonymous		
C.	PROJECT MANAGER		
	The term "P.M." 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 as may be duly authorized to represent him on behalf of the Government.		

ITEM	DESCRIPTION	KSHS	CTS
D.	ARCHITECT		
	The term "Architect" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 30743, NAIROBI.		
E.	QUANTITY SURVEYOR		
	The term "Quantity Surveyor" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 30743, NAIROBI.		
	<i>Carried to collection</i>	-	
A.	ELECTRICAL ENGINEER		
	The term "Electrical Engineer" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 41191, NAIROBI.		
B.	MECHANICAL ENGINEER		
	The term "Mechanical Engineer" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 41191, NAIROBI.		
C	STRUCTURAL ENGINEER		
	The term "Structural Engineer" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 41191, NAIROBI.		

ITEM	DESCRIPTION	KSHS	CTS
D	FORM OF CONTRACT		
	The Form of Contract shall be as stipulated in the Republic of Kenya's Standard Tender Document for Procurement of Building Works(2006 Edition) included herein The Conditions of Contract are also included herein Conditions of Contract These are numbered from 1 to 37 as set out in pages 16 to 36 of these tender documents. 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		
E.	PERFORMANCE BOND.		
	The Contractor shall find and submit on the Form of Tender from an approved Bank and who will be willing to be bound the Government in an amount equal to five per cent (5%) of the Contract amount for the due performances of the Contract up to the date of completion as certified by the PROJECT MANAGER and who will when and if called upon, sign a Bond to that effect on the relevant standard form included herein. (without the addition of any limitations) on the same day as the Contract Agreement is signed, by the Government, the Contractor shall furnish within seven days another Surety to the approval of the Government.		
	<i>Carried to collection</i>		
A.	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.		

ITEM	DESCRIPTION	KSHS	CTS
B.	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.		
C.	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.		
D.	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		
E.	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.		
	<i>Carried to collection</i>	-	

ITEM	DESCRIPTION	KSHS	CTS
A.	SAMPLES		
	<p>The Contractor shall furnish at his own cost any samples of materials or workmanship including concrete test cubes required for the works that may be called for by the PROJECT MANAGER for his approval until such samples are approved by the PROJECT MANAGER and the PROJECT MANAGER, may reject any materials or workmanship not in his opinion to be up to approved samples. The PROJECT MANAGER shall arrange for the testing of such materials as he may at his discretion deem desirable, but the testing shall be made at the expense of the Contractor and not at the expense of the PROJECT MANAGER. The Contractor shall pay for the testing in accordance with the current scale of testing charges laid down by the State Department of Public Works, Ministry of Land, Housing and Urban Development.</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>		
B.	GOVERNMENT ACTS REGARDING WORK PEOPLE ETC.		
	<p>Allow for complying with all Government Acts, Orders and Regulations in connection with the employment of Labour and other matters related to the execution of the works. In particular the Contractor's attention is drawn to the provisions of the Factory Act 1950 and his tender must include for all costs arising or resulting from compliance with any Act, Order or Regulation relating to Insurances, pensions and holidays for workpeople or so the safety, health and welfare of the workpeople. The Contractor must make himself fully acquainted with current Acts and Regulations, including Police Regulations regarding the movement, housing, security and control of labour, labour camps , passes for transport, etc. It is most important that the Contractor, before tendering, shall obtain from the relevant Authority the fullest information regarding all such regulations and/or restrictions which may affect the information regarding all such regulations and/or restrictions which may affect the organisation of the works, supply and control of labour, etc., and allow accordingly in his tender. No claim in respect of want of</p>		

ITEM	DESCRIPTION	KSHS	CTS
	knowledge in this connection will be entertained.		
C.	SECURITY OF WORKS ETC.		
	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.		
	<i>Carried to collection</i>		
A.	PUBLIC AND PRIVATE ROADS.		
	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		
B.	EXISTING PROPERTY.		
	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		
C.	VISIT SITE AND EXAMINE DRAWINGS.		
	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.		

ITEM	DESCRIPTION	KSHS	CTS
D.	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 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		
E.	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		
	<i>Carried to collection</i>	-	
A.	OFFICE ETC. FOR THE PROJECT MANAGER		
	The Contractor shall provide and maintain where directed on site a room to be used as the site office, complete with Furniture.		
B.	WATER AND ELECTRICITY SUPPLY FOR THE WORKS		
	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		

ITEM	DESCRIPTION	KSHS	CTS
	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.		
C.	SANITATION OF THE WORKS		
	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		
D.	SUPERVISION AND WORKING HOURS		
	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.		
E.	PROVISIONAL SUMS.		
	The term "Provisional Sum" wherever used in these Bills of Quantities shall have the meaning stated in Section A item A7(i) of the Standard Method of Measurement. Such sums are net and no addition shall be made to them for profit.		
	<i>Carried to collection</i>		

ITEM	DESCRIPTION	KSHS	CTS
A.	PRIME COST (OR P.C.) SUMS.		
	The term "Prime Cost Sum" or "P.C. Sum" wherever used in these Bills of Quantities shall have the meaning stated in Section A item A7 (ii) of the Standard Method of Measurement. Persons or firms nominated by the PROJECT MANAGER to execute work or to provide and fix materials or goods are described herein as Nominated Sub-Contractors. Persons or firms so nominated to supply goods or materials are described herein as Nominated Suppliers.		
B.	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.		
C.	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. 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.		
	<i>Carried to collection</i>		

ITEM	DESCRIPTION	KSHS	CTS
A.	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 , 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.		
B.	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 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".		
C.	DIRECT CONTRACTS		
	Notwithstanding the foregoing conditions, the Government reserves the right to place a "Direct Contract" for any goods or services required in the works which are covered by a P.C. Sum in the Bills of Quantities and to pay for the same direct. In any such instances, profit relative to the P.C. Sum in the priced Bills of Quantities will be adjusted as described for P.C. Sums is allowed.		
D.	ATTENDANCE UPON OTHER TRADESMEN, ETC.		
	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		

ITEM	DESCRIPTION	KSHS	CTS
	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.		
	<i>Carried to collection</i>	-	
A.	INSURANCE		
	<p>The Contractor shall insure as required in Conditions No. 30 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>		
B.	PROVISIONAL WORK		
	<p>All work described as "Provisional" in these Bills of Quantities is subject to re-measurement 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. 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>		

ITEM	DESCRIPTION	KSHS	CTS
C.	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.		
D.	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.		
	<i>Carried to collection</i>		
A.	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.		

ITEM	DESCRIPTION	KSHS	CTS
B.	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.		
C.	REMOVAL OF RUBBISH ETC.		
	Removal of rubbish and debris from the Buildings and site as it accumulates and at the completion of the works and remove all plant, scaffolding and unused materials at completion.		
D.	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		
	<i>Carried to collection</i>		

ITEM	DESCRIPTION	KSHS	CTS
A.	GENERAL SPECIFICATION.		
	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.		
B.	TRAINING LEVY		
	The Contractor's attention is drawn to National Industrial Training Authority Act CAP 237, which requires payment by the Contractor of a Training Levy at the rate of 50.00 per employee per month.		
C.	MATERIALS ON SITE		
	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.		
D.	HOARDING		
	The Contractor is required to take all precautions necessary for the safe custody of the works, materials, plant, public and Employer's property on the site.		
E.	CONTRACTOR'S SUPERINTENDENCE/SITE AGENT		
	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.		
	<i>Carried to Collection</i>		

GEDE-CENTRE

BUILDERS WORK

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Main block (Main Works)				
	ELEMENT NO. 1; SUBSTRUCTURES (All Provisional)				
A	Clear area of new construction of all undergrowth, small bushes, grab up all trees and remove any existing structures and obstructions as directed.	Sm	900		
B	Cut down trees girth 900mm- 1200mm, remove out tree stumps and grab out roots, dispose off as directed and refill pits	No.	4		
C	Excavate oversite to remove vegetable soil, load and cart away from site to contractor's dumping area as directed; Average 200 mm depth	Sm	350		
D	Excavate to reduce levels commencing from stripped level: not exceeding 1.5 m deep	Cm	500		
E	Excavate to reduce levels commencing from stripped level: over 1.5m not exceeding 3.0 m deep	Cm	335		
F	Excavate for strip foundation trenches commencing from reduced level: not exceeding 1.5m deep	Cm	190		
G	Ditto for column bases	Cm	8		
H	Excavating in any class of rock as described in the specifications	Cm	50		
I	Return, fill and ram selected soil in foundations	Cm	825		
	Substructure carried forward				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Substructure brought forward</i>				
J	Remove surplus soil and debris from site to a place approved by local authority	Cm	100		
K	Allow for upholding and supporting sides of excavations including any necessary plunking and strutting	Item	1		
M	Allow for keep excavations free of spring, underground or running water including any necessary pumping, bailing or other approved means	Item	1		
	<u>Mass concrete mix (1:3:6):in</u>				
A	50 mm Thick blinding under strip foundations	Sm	128		
B	Ditto under column bases	Sm	24		
	<u>Vibrated reinforced insitu concrete class 25/20; with minimum cube crushing strength of 25N/mm² at 28 days; in</u>				
C	Strip foundations	Cm	53		
D	Column bases	Cm	12		
E	Columns	Cm	8		
F	Ground floor slab; 150 mm thick	Sm	320		
G	Ramps; Ditto	Sm	4		
H	Steps	Cm	4		
	<i>Substructure carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Substructure brought forward</i>				
	<u>Mesh fabric reinforcement</u>				
A	Mesh reinforcement No. A142 size 200 x 200 mm weighing 2.22 kg per square metre: in floor slab: including all necessary supports	Sm	320		
	<u>Supply and fix mild steel bar in structural concrete work including cutting, bending, hoisting, tying wire, spacing blocks and supporting all in position in foundation footing, column bases and columns</u>				
B	8 - 32 mm Bars	Kg	6500		
	<u>Sawn formwork: to</u>				
C	Vertical sides of coulumn bases	Sm	22		
D	Sides of columns	Sm	48		
E	Sides of strip footing	Sm	140		
F	Edges of steps; cut to profile of steps	Sm	6		
G	Edges of slabs; 150 - 225 mm girth	Lm	115		
	<u>Walls</u>				
A	Medium Chisel dressed natural stone walling bedded in cement and sand mortar (1:4) with minimum stone crushing strength of 14N/mm ² ; foundations	Sm	450		
	<i>Substructure carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Substructure brought forward</i>				
	<u>Hardcore</u>				
B	300 mm thick hardcore of approved inert material: well watered and compacted in 150 mm thick (maximum) layers	Sm	320		
	<u>Blinding</u>				
C	50 mm Thick approved quality murrum blinding to surfaces of hardcore	Sm	320		
	<u>Anti-termite treatment</u>				
D	Termidor 25EC or other approved anti-termite chemical treatment to surfaces of blinded hardcore and around foundations : applied by approved professional pest control specialist: applied strictly in accordance with the manufacturer's instructions: 10 year guarantee	Sm	320		
	<u>DPM</u>				
E	Gauge 1000 polythene damp proof membrane	Sm	320		
	<u>25 mm Thick cement and sand (1:4) rendering: on concrete or stonework: wood float: to</u>				
F	Plinths: externally	Sm	70		
	<u>Prepare surfaces and apply undercoat and two finishing coats black bitumastic or other equal approved water resistant paint: on rendered surfaces: to</u>				
G	Plinths: externally	Sm	70		
	<u>Substructures carried to summary page</u>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Sawn formwork: to				
A	Sides and soffits: ring beams and lintols	Sm	120		
B	Columns; vertical sides	Sm	66		
	<u>Supply and fix mild steel bar in structural concrete work including cutting, bending, hoisting, tying wire, spacing blocks and supporting all in position</u>				
C	8 - 32 mm Bars	Kg	6000		
	<u>Vibrated reinforced insitu concrete class 25/20; with minimum cube crushing strength of 25N/mm² at 28 days; in</u>				
D	Beams and lintols	Cm	36		
E	Columns	Cm	8		
	Concrete works carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	ELEMENT NO. 4: ROOF				
	<u>Roof cover</u>				
A	Gauge 28 orientile shaped roof cover fixed with rubber washers to match.	Sm	480		
B	Ditto 450mm wide ridge / hip cover.	Lm	75		
C	Ditto valley gutter	Lm	20		
D	Raking and cutting roof cover at hips and valleys	Lm	75		
	<u>All in sawn celcured and well seasoned cypress:- 12mm diametre 300mm long mild steel anchor bolts with head, nut, washers and split ring cast into ring beam and bolted to wall plate(m.s) work.</u>				
E	150 x 50mm Tie beam	Lm	330		
F	150 x 50mm rafter, half rafters, valley & hip rafters(Rafters at 1.2m centre)	Lm	420		
G	100 x 50mm struts and king post	Lm	500		
	<u>end of trusses</u>				
H	150 x 50mm wall plate.	Lm	190		
I	75 x 50mm purlins(at 600mm centres)	Lm	860		
J	200 x 25mm wrott fascia and verge board	Lm	110		
	<u>Sundries</u>				
K	Bed wall plate(m.s) in cement sand mortar 1:3	Lm	190		
	<i>Roof carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	ELEMENT NO. 5; DOORS				
	<u>Timber Doors</u>				
	<u>45 mm thick flush door: solid core; Mahogany veneered to both sides; hardwood lipped edges; refer to Architect's details</u>				
A	Single leaf door; overall size 900 x 2400 mm high; with 6 mm thick clear fanlight glazing overall size 860 x 300 mm high complete with all beadings	No	5		
	<u>Supply and fix the following mahogany glazed doors comprising of 150 x 50mm bottom rail, top rail, middle rail, transomes and stiles; 6 mm thick toughened glass and glazing infill with and including glazing beads; All as per architect's drawings and details</u>				
A	Single leaf door; overall size 900 x 2400 mm high; with 6 mm thick clear fanlight glazing overall size 860 x 300 mm high complete with all beadings	No	2		
B	Double door; overall size 1800 x 2400 mm high; with 6 mm thick clear fanlight glazing overall size 1760 x 300 mm high complete with all beadings	No	5		
	<u>Roller shutter door</u>				
A	Supply and fix 2500mm x 2400mm galvanized roller shutter door complete with barrel, springs, hanger rings, end plates, canopy, vertical guide rails, curtain; 80mm slats, T bar or bottom rail	No	4		
	<i>Doors carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Doors brought forward</i>				
	<u>Prepare surfaces and apply three coats of approved gloss oil paint to metal surfaces</u>				
	-				
B	Doors: both sides measured	Sm	50		
	-				
	<u>Grill door for coldroom equipment room</u>				
A	1500 mm wide x 2400 mm high overall size single leaf mild steel grill door; 25 x 25 x 3 mm thick SHS internal members welded to 40 x 40 x 4 mm thick RHS frame; complete with fixing lugs and ironmongery and fixing accessories; all to architects detail	No	1		
	-				
	<u>Wrot mahogany: prime grade; with stainless steel fixing straps; including chasing to masonry, plugging and making good</u>				
A	200 x 50 mm Door frame: twice rebated: plugged	Lm	115		
B	50 x 25 mm Architrave: splayed	Lm	75		
C	25 x 25 mm Quadrant	Lm	75		
	<u>Prepare and apply one coat of aluminium wood primer on timber surfaces in contact with concrete or masonry</u>				
D	Over 100 but not exceeding 200 mm girth	Lm	265		
	<i>Doors carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Doors brought forward</i>				
	<u>Prepare surfaces: apply two coats clear pinotex spirit in clear matt varnish: on timber surfaces: to</u>				
E	Over 100 but not exceeding 200 mm girth	Lm	265		
F	General timber surfaces: doors	Sm	65		
	<u>Supply and fix: 'UNION' or other equal approved ironmongery: matching screws: locks to include a set of 3 keys: available from their authorised local dealers; brass finish to architects approval</u>				
A	100mm brass butt hinges	Prs	26		
B	Two lever mortice lock with handles	No	12		
C	Door closer	No	12		
D	38 mm Diameter oval rubber stop; floor or wall mounted	No	12		
	Door carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	ELEMENT NO. 6; WINDOWS				
	<u>Approved pre-cast concrete cill: bedded and jointed in cement (sand (1:3) mortar: pointed in matching coloured cement</u>				
A	250 x 50 mm Thick cill; once weathered and throated	Lm	40		
	<u>Supply and fix the following purpose made steel casement purpose made windows, including all necessary cuttings lugs, stays and bedding into walls in cement sand mortar 1:4 complete with stays, fasteners, all necessary accessories and priming once in red-oxide, to Architects approval, with minimal burglar proofing in 20mm angle line framing</u>				
	-				
A	Window size 2500 x 750mm high. For stores	No.	2		
B	Ditto size 900 x 1500mm high.	No	4		
C	Ditto size 2000 x 1500mm high.	No.	7		
D	Ditto size 2500 x 1500mm high.	No.	3		
	<u>Glazing</u>				
F	4mm thick mild tinted sheet glass in panes 0.1-0.5sm fixed in steel window panes with putty.	Sm	44		
	<u>Painting</u>				
	<u>Prepare, prime and apply 3 coats of super gloss oil paint as "crown" or any other equal and approved to surfaces of:</u>				
A	Windows externally	Sm	8		
B	Windows internally	Sm	8		
	<i>Windows carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>RAISED CONCRETE WATER TANK STAND 4500mm high from ground level</u>				
	Element 01: Substructure (all provisional)				
A	Clear area of new construction of all undergrowth, small bushes, grab up all trees and remove any existing structures and obstructions as directed.	Sm	16		
B	Excavate for column bases commencing from ground level level: not exceeding 1.5 m deep	Cm	14		
C	Return, fill and ram selected soil in foundations	Cm	13		
	<u>Vibrated reinforced insitu concrete class 25/20; with minimum cube crushing strength of 25N/mm² at 28 days; in</u>				
	-				
A	Column bases 200mm thick	Cm	2		
B	Sub structure and superstructure columns 400mmx400mm size	Cm	4		
	<u>Supply and fix mild steel bar in structural concrete work including cutting, bending, hoisting, tying wire, spacing blocks and supporting all in position</u>				
	-				
C	8 - 12 mm Bars for substructure columns, column bases, superstructure columns ring beams and slab	Kgs	478		
	<i>Raised conc. Water tank stand carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Raised conc. Water tank stand brought forward</i>				
	<u>Sawn formwork: to</u>				
D	Vertical sides of coulmn bases	Sm	2		
E	Sides of columns	Sm	10		
	<u>Superstructure works</u>				
	Sawn formwork: to				
F	Sides and soffits: beams	Sm	11		
G	Soffits and sides of suspended slab	Sm	9		
	<u>Vibrated reinforced insitu concrete class 25/20; with minimum cube crushing strength of 25N/mm² at 28 days; in</u>				
H	Slab and beams	Cm	5		
	<u>Plaster: 15 mm cement/lime putty/sand: steel trowelled: on masonry or concrete: to</u>				
I	concrete surfaces	Sm	98		
K	Purchase and install 5,000 liters cylindrical kentank plastic water tank	Item	1		
	Subtotal for construction of raised concrete water tank stand				

MECHANICAL INSTALLATIONS

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Coldroom Installation				
	Evaporator Unit				
A	The evaporator unit with a cooling load to match a condensing unit of 3.0 kW complete with cooling coil, defrost heater, expansion valve, air circulating fans, guards, drip tray, drainage pipework outlet, supports etc. The unit to be complete with a power supply and to be as Thermoway Turkey Manufactured Model or equal.	No.	1		
	Evaporator Unit Support				
B	Allow for a suitable wall mounting support for the above that can match the panel used for constructing the cold room	Item	1		
	Condensing Unit				
C	An air cooled condensing unit with semi-hermetic reciprocating compressor capable of a cooling load of 3.0kw to match the evaporator unit and to be complete with fan, compressor, condenser, liquid receiver, controls, anti-vibration mountings etc. Unit to use a refrigerant that complies with the Montreal Protocol and NEMA, have a power supply and to be as Bitzer Germany Manufactured or equal.	No.	1		
	Control Panel				
D	The panel shall be complete with contactors, timers and all other accessories necessary for the automatic operation of the cold store.	No.	1		
	<i>Cold room installation carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Cold room installation brought forward</i>				
	Controls				
A	Thermostatic expansion valve	No.	1		
B	Filter drier to match refrigerant capacity that can carry the above cooling load of 3 kW to be as Danfoss or equal.	No.	1		
C	Sight glass with colour coding	No.	1		
D	Low pressure gauge	No.	1		
E	High pressure gauge	No.	1		
F	Room thermostat to cut compressor in and out, depending on the room temperature.	No.	1		
G	Dial thermometer	No.	1		
H	Solenoid valve	No.	1		
I	Low and high cut-out switch	No.	1		
	Light Fitting				
J	65 watts vapour proof light fitting	No.	6		
	Refrigerant Pipework				
K	Refrigeration pipework complete with armflex Insulation for both the liquid line and the suction line to match the evaporator unit and condensing unit. The pipework to be complete with all the necessary bends, reducers, Y's, joints, distributors, support brackets etc. a distance of 10m between the two units	Item	1		
	<i>Coldroom installation carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Coldroom installation brought forward</i>				
	Refrigerant				
L	Allow for the charging of the refrigeration system with necessary amount of refrigerant for initial testing and eventual operation of the cold store.	Item	1		
	Anti-Vibration Mountings				
M	Anti-Vibration Mountings for the condensing unit as WOODS P.N.50417 or equal.	Item	1		
A	40mm diameter class 41 uPVC condensate pipe complete with bends, tees, and access caps	LM	10		
	Room Insulation				
B	100mm thick prefabricated TSSC sandwich panels with pressure injected polyurethane foam insulation of density 42 kg/cu. M and clad with 0.5mm thick white Lacquered galvanised steel sheet panels as room insulation complete with aluminium supports. The panels should be supplied with all accessories to support all the four walls and roof in an open space	SM	120		
	Associated Electrical Works				
C	Allow for electrical works including but not limited to wiring and conduits from the local isolator provided by others within 10 metres in the machine room to the control panel, condenser and evaporator. It shall include a push and turn safety switch near the machines in the machine room for isolation during servicing and maintenance.	Item	1		
	<i>Coldroom installation carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Coldroom installation brought forward</i>				
D	Allow for as-built drawing, maintenance and operation manuals in both soft and hard copies. Three copies of the as-built drawing shall be submitted in A1 paper in a scale of 1:50	Item	1		
	Cold Room Door				
E	Cold room doors whose overall size is 2500mm high by 1000 mm wide complete with opening handles and made of 100mm TSSC sandwich panels and clad micron plasstisol coated G.I sheet with fittings and gasket TPE rubber, slab gaskets even internally. The coldroom door to have hinges that raise the door body as it opens and fall as it closes. The door handles to be able to illuminate from inside.	Set	1		
G	Storage racks. Stainless grade 316 steel 4 tier storage racks of size 1500 X 600 X 1800 MM on square tube stands with gromet fittings ,anti buckling reinforcement.	No.	4		
H	ditto for 6 tier rack	No.	4		
F	Coldroom door air curtain Single phase each with an air stream of width 1 m, air throw of 3m air volume of 1000m ³ and air velocity of 7m/s.	No.	1		
F	Allow for setting to work, testing and commissioning of the coldroom installation to the satisfaction of the Project Engineer	Item	1		
	Total for coldroom carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>BILL NO.2: INTERNAL WATER CONNECTION</u>				
	Supply and install tubing and fittings as described and shown on the drawings. Tenderers must allow for jointings, couplings etc. necessary for the proper and satisfactory functioning of the system when pricing the following in PN 20 PPRC conforming to the current European standards for PPR installations and to the Engineer's approval, pipe jointing shall be by polyfusion or use of electric coupling Rates must allow for all the Metal/plastic threaded adaptors where required for the connection of sanitary fixtures, valves, sockets, sliding and fixed joints, support raceways, isolating sheaths, elastic materials, expansion arms and bends, crossovers etc				
	<u>PPR Pipes</u>				
A	20mm dia pipe chased in walls/floors	Lm	30		
B	25mm –ditto-	Lm	20		
C	32mm –ditto-	Lm	30		
	<u>Extra-over PPR pipework for the following:-</u>				
	<u>Bends/elbows</u>				
G	20mm dia bend	No	10		
H	25mm bend	No	10		
I	32mm bend	No	5		
L	20x1/2" dia male threaded 90o bend	No	5		
M	20x1/2" dia female threaded 90o bend	No	5		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Sanitary appliances brought forward</i>				
	<u>Supply, deliver and install the following vulcathene laboratory system including waste outlets, sinks, drip cups, anti-siphon traps, dilution recovery traps and associated comprehensive range of pipe and fittings for the given sizes all as vulcathene or approved equivalent</u>				
	<u>Laboratory sink</u>				
A	A sink of preferred dimensions 552mm x 400mm with a depth of 231mm having a drain of 74mm, that is extremely robust and moulded with a self draining base with its recessed outlet to accept the flange of 1 1/2" (40mm) non overflow threaded outlet but if required, an overflow assembly can be fitted. The sink to be complete with anti siphon traps that can stop the backflow of potentially hazardous fumes. All the downstream fittings to be as vulcathene.	No	2		
B	Three way Assay Lab Faucet in solid brass High gloss epoxy powder , resistant to most chemicals, UV fading and heat. Ceramic headwork;90 deg turn, water static pressure max 10bar. To be complete with detachable brass serrated nozzle, splash controlled water filter attachable, ergonomic high grade PP knob and 360 deg swing gooseneck spout.	No	2		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Sanitary appliances brought forward</i>				
	<u>BILL NO.3 FOUL WATER INTERNAL DRAINAGE FROM THE WASHROOMS AND LABORATORY</u>				
	Supply and fix uPVC soil system to BS 4660 and BS 4515 and MuPVC waste systems to BS 5255 with screwed and socketed joints to BS 21. Solvent welded joints shall be as per the system's manufacturer's written instructions. 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.				
	<u>MuPVC and uPVC Waste and Soil pipework</u>				
A	150mm diameter heavy gauge grey mUPVC pipe	Lm	60		
B	100mm diameter heavy gauge grey mUPVC pipe	Lm	20		
C	50mm diameter waste pipe	Lm	50		
D	32mm diameter waste pipe	Lm	50		
	<u>Bends</u>				
E	150mm diameter access bend	No	4		
F	100mm diameter access bend	No	6		
G	150mm diameter sweep bend	No	6		
H	100mm diameter sweep bend	No	6		
I	50mm diameter sweep bend	No	6		
J	32mm diameter sweep bend	No	6		
	<i>Sanitary appliances carried forward</i>				

ELECTRICAL INSTALLATIONS

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Electrical works				
A	Supply, deliver & install on site one gang one-way switches	No	6		
B	Supply, deliver & install on site one gang two-way switches	No	10		
C	Supply, deliver & install on site three gang two-way switches	No	1		
D	Supply, deliver & install on site one gang intermediate switch	No	2		
E	Supply, deliver & install on site two gang two-way switches	No	2		
F	Supply, deliver & Install 1200mm, 1x58w T26 LED fluorescent light fittings with Aluminium louvres (complete with tubes)as thorn, do wiring as appropriate using 3x1.5mm ² single core copper cables as E. African cable drawn in concealed pvc conduit. The fittings to be surface mounted on the ceiling & spaced as appropriate.	No	45		
G	Supply deliver to site,Install and do wiring of 1200mm single LED batten fluorescent fittings with prismatic diffuser(complete with tubes) wired in a 3x1.5mm ² PVC insulated single core copper cable drawn in a concealed 20mm PVC heavy gauge conduits	No	3		
	<i>Electricals carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Electricals brought forward</i>				
H	Supply, deliver, Install & wire twin 13amps socket outlets drawn in concealed pvc conduit using 3x2.5mm ² single core copper cable in three ring circuit all terminated at the DB protected by 32Amps single pole MCB	No	22		
I	Supply, deliver, Install in the processing area & wire five pin 32amps industrial socket outlets each as a final sub-circuit from the DB isolated using 40Amps three pole MCB wired using 4x4.0mm ² single core copper cables as E. African cable drawn in concealed pvc conduit.	No	2		
J	Supply, deliver & install in the processing area 40Amps triple pole MCB as Schneider or equivalent as approved by project manager and housed in an enamel paint finish metal enclosure	No	2		
K	Supply, deliver & install on 32Ampsamps triple pole MCB to fit in the installed DB	No	2		
L	Supply, deliver & install on 10amps MCB to fit in the DB	No	4		
M	Supply, deliver & install single pole 32amps MCB to fit in the DB installed	No	3		
N	Supply, deliver & install 150x300mm concrete Danger Hatari tiles	No	270		
O	Excavate 250x600mm deep trench to lay the armoured cable	Cm	15		
	<i>Electricals carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
P	Supply, deliver to site & install four core 16mm ² Armoured copper cable laid in 600mm deep trench pre-covered with "Danger Hatari" concrete tiles then back fill	Lm	80		
Q	Three phase 415v, 125Amps six ways distribution board as Havel or equivalent as approved by project manager	No	1		
R	Manhole of 450x450x600mm (LxWxH) using machine cut stone and plastered on internal faces complete with top 100mm concrete cover. Allow for 100mm ducts entry	No	2		
S	Supply, deliver to site & install four pole 63Amps MCCB as Havel or equivalent as approved by project manager wired using 5x4.0mm ² single core copper cable drawn in concealed pvc conduit each housed in an enamel paint finish metal enclosure and terminated in the cold room equipment room	No	2		
T	Allow for future installation of sensors in the cold room by installing <i>in situ</i> 25mm diameter heavy gauge pvc conduit	No	20		
U	Supply, deliver to site & install four pole 160Amps MCCB plus Metal housing as Havel or equivalent as approved by project manager	No	1		
V	Supply and install concrete cable makers(UG) along the underground cable line	No	4		
	<i>Electricals carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Electricals brought forward</i>				
	SECURITY LIGHTING				
A	Supply, deliver and install LED security lighting fitting 50watts as thorn or approved equivalent wired in a 3x1.5mm ² PVC insulated single copper cable drawn in a concealed 20mm PVC heavy gauge conduit	No	7		
B	Supply, deliver and install 240volts 32Amps contactor as Telemecanique or equivalent to switch on the security lights	No	1		
C	Supply, deliver and install 240volt 10amps Photo cell switch to activate the contactor "Ditto"	No	1		
D	Supply and do earthing at the building main connection point using 10mm ² single core cable and 12mmx1200mm copper earth rod	No	1		
E	Interconnect the item (O) above to the installed 3 phase DB using 5x16mm ² single core cables drawn in concealed pvc conduit as appropriate	No	1		
F	Supply and install <i>in situ</i> 100mm diameter heavy gauge UPVC pipe as duct (2No. Parallel ducts) from the constructed block to the rear side to receive the power cables	Lm	12		
	Total for electrical works carried to summary page				

CIVIL WORKS

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	FOUL DRAINAGE EXCAVATION (all provisional)				
	High grade soil, waste and vent pipes as "key terr-ain" P.V.C soil waste and vent pipes including couplings and all fixing brackets. To nearest manhole				
A	Excavate trench for 150mm diameter drain pipe not exceeding 1.5M deep and average 500mm deep including fitting in, compacting, grading bottoms and desposing surplus soil.	Lm	60		
B	Ditto average 750mm deep ditto.	Lm	20		
E	Extra-over for excavating in rock class "A"	Cm	10		
G	Allow for cutting trees along the line, grub out roots and despose off girth 600-900mm	No.	2		
	SUB TOTAL FOR FOUL DRAINAGE EXCAVATION CARRIED TO SUMMARY OF EXTERNAL WORKS				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>MANHOLES(all provisional)</u>				
	<u>The following in 12 No. Manholes class "B" All provisional</u>				
	-				
A	Excavate manhole pit not exceeding 1.5m deep.	Cm	27		
B	Return, fill-in and consolidate excavated materials around manhole walls.	Cm	15		
C	Remove surplus excavated materials and deposit on site as directed.	Cm	12		
D	Extra-over excavation for excavating in rock class 'A'	Cm	2		
E	150mm thick mass concrete 1:3:6 in manhole base.	Sm	27		
	<u>Precast Concrete</u>				
F	100mm thick precast concrete 1:2:4 in manhole cover slab size 1380mmx1180mm, reinforced with 8mm diameter at 80mm centers both ways with rebated opening for 450x600mm cover and frame finished smooth including any necessary formwork.	Sm	12		
	<u>Benching</u>				
G	Concrete 1:3:6 in benching to bottom of manholes internal size 1000mmx800mm including haunching to a height of 200mm above channel and rendering in cement 1:2 trowelled smooth.	No.	12		
	<i>Manhole carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Manhole brought forward</i>				
H	Make or leave hole through 200mm concrete wall for 150mm diameter pipe (m.s) built-in and make good walls and render all round.	No.	24		
	<u>Extra-over benching to forming the following channels with external rounded angles with slopping top of benching:-</u>				
	-				
I	150mm diametre half-round section straight main channel 900mm long.	No.	12		
A	Ditto but curved 900mm long.	No.	12		
B	140mm thick masonry block walling in cement sand mortar 1:3.	Sm	72		
C	12mm thick cement sand 1:2 plaster to ditto with approved water-proofing admixture to internal sides of manholes trowelled smooth.	Sm	54		
D	Ditto but render to top and sides of cover slab and walling.	Sm	16		
E	Fiber manhole cover size 600mmx450mm and setting frame in cement sand mortar 1:3 and cover in grease.	No.	12		
F	Extra over formworks boxing to form opening for manhole cover(m.s)	No.	12		
	<i>Sub total for manhole carried to summary page</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	SOAKAGE AREA(all provisional)				
	The following in french drains as per standard drawing No.(50) 5344, average 5Lm				
A	Excavate trench for french drains, not exceeding 1.5m deep starting from original ground level	Cm	4		
B	Extra-over excavation for excavating in rock class 'A'	Cm	1		
C	Cart away excavated materials from site.	Cm	2		
D	Trim sides of french drain to slope.	Sm	12		
E	20-60mm crushed stones or washed gravel.	Cm	2		
F	Back filling selected excavated soils mean thickness 350mm	Cm	1		
G	Imported 200mm thick compacted murrum	Cm	1		
H	500 gauge polythene sheet.	Sm	6		
I	150mm diameter agricultural or perforated upvc pipe laid to falls in units of 450mm lengths with 10mm open joints covered to top half with 100mm width paper.	Lm	6		
	TOTAL FOR SOAKAGE AREA CARRIED TO SUMMARY				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	1 -No. SOAK- PITS(all provisional)				
	<u>The following in 1-No soakpits as per drawing No.M.o.W(50) 5345</u>				
A	Excavate pit not exceeding 1.5m deep starting from original ground level	Cm	6		
B	Ditto between 1.5m-3.0m deep.	Cm	6		
C	Ditto between 3.0m-4.5m deep.	Cm	6		
F	Extra-over excavation for excavating in rock class 'A'	Cm	8		
G	Cart away surplus excated materials from site.	Cm	20		
H	Return, fill-in and consolidate excavated materials around foundations.	Cm	6		
I	Mass concrete 1:3:6.	Cm	1		
J	100mm thick vibrated reinforced concrete 1:2:4 in cover slab.	Sm	4		
K	12mm diametre high tensile square twisted bars to B/s 4449	Kg	25		
	<u>Sawn formwork to:-</u>				
M	Soffites of suspended slab	Sm	4		
N	Edges of suspended cover slab girth 75-150mm.	Lm	8		
A	Boxing to form opening size 600x450mm in 150mm thick suspended cover slab, rebated all round.	No.	1		
	<i>Soak pit carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	SEPTIC TANK- 200 persons-45000 Its capacity as per M.O.P.W standard drawing No. (50) 5343 All provisional				
A	Excavate for pit not exceeding 1.5m deep commencing from ground level.	Cm	36		
B	Ditto between 1.5-3.0m deep	Cm	36		
C	Ditto exceeding 3.0m but not exceeding 4.5m deep.	Cm	24		
D	Extra Over excavation for excavating in rock Class "A"	Cm	36		
E	Return, fill-in and ram selected excavated materials around walls and foundations.	Cm	54		
F	Load and cart away excavated materials.	Cm	78		
G	50mm thick plain concrete 1:4:8 blinding under foundation footing.	Sm	24		
H	Ditto but laid to falls not exceeding 15 degrees from horizontal.	Sm	12		
J	Ditto in benching average 200mm high, in manhole size 600 x 850mm, including forming 150mm diameter half round main channel.	No.	2		
	<i>Septic tank carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Septic tank brought forward</i>				
	<u>Vibrated reinforced concrete 1:2:4 to:-</u>				
I	150mm floor bed laid to falls not exceeding 15 degrees from horizontal.	Sm	24		
J	Ditto floor bed	Sm	12		
K	Ditto manhole footing	Sm	2		
L	150mm thick suspended scum baffle walling.	Sm	8		
A	200mm thick scum baffle walling with slats	Sm	8		
B	250mm thick extenal walling	Sm	70		
C	150mm thick cover slab.	Sm	24		
	<u>Sawn formwork to:-</u>				
D	Sides and Soffites of suspended scum baffle.	Sm	8		
E	Ditto sides of baffle walling	Sm	8		
F	Sides of extenal walling	Sm	40		
G	Soffites of cover slab.	Sm	24		
H	Boxing to ditto for manhole cover(m.s) opening size 450 x 600mm.	No.	4		
I	Sides and edges of cover slab 150-225mm high.	Lm	22		
	<u>Reinforcement</u>				
J	10mm diameter bars	Kg	440		
	<i>Septic tank carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Septic tank brought forward				
K	20mm cement sand 1:2 floor screed, water proofed with pudlo and trowelled smooth, not exceeding 15 degrees to horizontal with sulphate resistant cement.	Sm	24		
L	Ditto to horizontal floors	Sm	12		
M	Ditto manhole bases	Sm	2		
N	Ditto to sides and soffites of suspended scum baffles.	Sm	21		
P	Sides of scum baffle walling	Sm	20		
Q	Ditto to walls.	Sm	100		
R	Ditto to top and sides of cover slab.	Sm	12		
A	Approved Heavy duty plastic manhole cover and frame size 600 x 450mm including bedding frame in cement and sand mortar 1:2 and setting cover in greese.	No.	4		
B	100mm diameter P.V.C inlet pipe with equal "Tee" 450mm long.	No.	1		
C	100mm diameter U.P.V.C out-let pipe 750mm long	No.	1		
D	Form or leave 150mm diameter hole in 250mm walling.	No.	4		
E	25mm diameter bitumen coated cast iron step bars 600mm long with 300mm long footing , sunk into concrete walling	No.	6		
	Sub total for septic tank				

PC & PROVISIONAL SUMS

ITEM	DESCRIPTION		AMOUNT
	PROPOSED CONSTRUCTION OF SEED CENTRE FOR GEDE		
	<u>MAIN SUMMARY</u>	<u>PAGE</u>	
1.	PARTICULAR PRELIMINARIES		
2.	GENERAL PRELIMINARIES	-	
		-	
3.	BUILDERS WORK		
4.	MECHANICAL INSTALLATIONS WORKS		
5.	ELECTRICAL INSTALLATIONS		
6.	CIVIL WORKS		
7.	PC & PROVISIONAL SUMS		
	-		
	SUB- TOTAL		
	VAT - 16%		
	TOTAL CARRIED TO LOT 4 SUMMARY PAGE	KSHS	

**TAITA TAVETA
SUB-CENTRE**

SITE 2 OF LOT 4

PARTICULAR PRELIMINARIES

ITEM	DESCRIPTION	Kshs.	Cts
<p data-bbox="236 349 260 383">A</p>	<p data-bbox="316 275 767 309"><u>PARTICULAR PRELIMINARIES</u></p> <p data-bbox="316 349 852 383">PRICING ITEMS OF PRELIMINARIES</p> <p data-bbox="316 432 997 752">Prices SHALL BE INSERTED against items of “preliminaries” in the tenderer’s priced Bills of Quantities. 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. The contractor is advised to read and understand all preliminary items.</p>		
<p data-bbox="236 835 260 869">B</p>	<p data-bbox="316 835 770 869">DESCRIPTION OF THE WORKS</p> <p data-bbox="316 913 997 1122">The works to be carried out under this contract involves substructures works, walling, steel windows, timber and steel doors, terrazzo floor finishes, chipboard ceiling finishes and joinery fittings and all associated electrical, mechanical and civil works</p>		
<p data-bbox="236 1171 260 1205">C</p>	<p data-bbox="316 1171 576 1205">MEASUREMENTS</p> <p data-bbox="316 1249 997 1570">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 22 of the Conditions of Contract. The discrepancies shall then be treated as a variation and be dealt with in accordance with Clause 22 of the said Conditions.</p>		
<p data-bbox="236 1641 260 1675">D</p>	<p data-bbox="316 1641 608 1675">LOCATION OF SITE</p> <p data-bbox="316 1765 997 1832">The sites are located at KEFRI Gede Seed Centre and and Taita Taveta Seed Sub-Centre</p>		
	<p data-bbox="512 1984 799 2018">Carried to Collection</p>		

ITEM	DESCRIPTION	Kshs.	Cts
A	<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 claim or intent to claim notice to the PROJECT MANAGER within the contract period. No claims shall be entertained upon the expiry of the said contract period.</p>		
B	<p>PAYMENTS</p> <p>The tenderer's attention is drawn to the fact that the GOVERNMENT SHALL NOT MAKE ADVANCE PAYMENTS</p>		
C	<p>PREVENTION OF ACCIDENT, DAMAGE OR LOSS</p> <p>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 instructed to take reasonable care in the execution of the works as to prevent accidents, damage or loss and disruption of normal activities being carried out by the Client. The Contractor shall allow in his rates any expense he deems necessary by taking such care within the site.</p>		
D	<p>BID SECURITY</p> <p>The contractor shall provide a dully filled tender securing declaration form in the provided format.</p>		
Carried to Collection			

ITEM	DESCRIPTION	Kshs.	Cts
A	<p>WORKING CONDITIONS</p> <p>The Contractor shall allow in this tender for any interference that he may encounter in the course of execution 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>		
B	<p>SIGNBOARD</p> <p>Allow for providing, erecting, maintaining throughout the course of the Contract and afterwards clearing away the signboard as designed, specified and approved by the Project Manager.</p>		
C	<p>LABOUR CAMPS</p> <p>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>		
D	<p>MATERIALS FROM DEMOLITIONS</p> <p>The Contractor shall allow for a credit for salvaged materials. Any materials arising from demolitions shall not be re-used. The Contractor shall allow for carting away all demolished materials.</p>		
E	<p>PRICING RATES</p> <p>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>		
	Carried to Collection		

ITEM	DESCRIPTION	Kshs.	Cts
A	<p>URGENCY OF THE WORKS</p> <p>The Contractor is notified that these “works are urgent” and should be completed within the period stated in these Particular Preliminaries. The Contractor shall allow in this tender for any costs he deems that he/she may incur by having to complete the works within the stipulated contract period.</p>		
B	<p>PAYMENT FOR MATERIALS ON SITE</p> <p>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</p> <p>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 which may be required by the authorities concerned for the support, maintenance and protection of such services.</p>		
Carried to Collection			

ITEM	DESCRIPTION	Kshs.	Cts
A	<p>TENDER DOCUMENTS</p> <p>Tender documents are as listed in Clause 2.1 of the Instruction to Tenderer's</p>		
B	<p>DELIVERY OF TENDER</p> <p>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>		
C	<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. Notice No. 35 & 36 Dated 11th September 2003 operational from 1st October 2003, withholding VAT will be levied against the contract sum by the Employer . The contractor should therefore include this tax in the Grand Summary page as indicated herein. The tenderer is advised that in accordance with the Finance Act 2014 withholding VAT tax was reintroduced at a rate of 2% with effect from 7th November, 2019</p>		
	Carried to collection		

ITEM	DESCRIPTION	Kshs.	Cts
	<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</p> <p>Defects Liability Period</p> <p>Date for Possession</p> <p>Date for Completion</p> <p>Liquidated and Ascertained Damages</p> <p>Period of Interim Certificates</p> <p>Percentage of Certified Value Retained</p> <p>Limit of Retention Fund</p>	<p>-</p> <p>-</p> <p>3 Months from Practical Completion</p> <p>6 Months from Practical Completion</p> <p>To be agreed with the Project Manager</p> <p>26 weeks from date of Possession</p> <p>at a rate of Kshs 5,000.00 Per day or part thereof</p> <p>Monthly</p> <p>10%</p> <p>5%</p>	
	Carried to Collection		

ITEM	DESCRIPTION	Kshs.	Cts
	<u>COLLECTION</u>		
	Brought forward from page PP/1		
	Brought forward from page PP/2		
	Brought forward from page PP/3		
	Brought forward from page PP/4		
	Brought forward from page PP/5		
	Brought forward from page PP/6		
	Brought forward from page PP/7		
	Brought forward from page PP/8		
	PARTICULAR PRELIMINARIES CARRIED TO MAIN SUMMARY		

GENERAL PRELIMINARIES

ITEM	DESCRIPTION	KSHS	CTS
-	GENERAL PRELIMINARIES		
A.	PRICING OF ITEMS OF PRELIMINARIES AND PREAMBLES		
	Prices will be inserted against items of Preliminaries in the Contractor's priced Bills of Quantities and Specification.		
	The Contractor shall be deemed to have included in his prices or rates for the various items in the Bills of Quantities or Specification for all costs involved in complying with all the requirements for the proper execution of the whole of the works in the Contract.		
B.	ABBREVIATIONS		
	Throughout these Bills, units of measurement and terms are abbreviated and shall be interpreted as follows:-		
	<i>C.M.</i> Shall mean cubic metre		
	<i>S.M.</i> Shall mean square metre		
	<i>L.M.</i> Shall mean linear metre		
	<i>MM</i> Shall mean Millimetre		
	<i>Kg.</i> Shall mean Kilogramme		
	<i>No.</i> Shall mean Number		
	<i>Prs.</i> Shall mean Pairs		
	<i>B.S.</i> Shall mean the British Standard Specification Published by the British Standards Institution, 2 Park Street, London W.I., England.		
	<i>Ditto</i> Shall mean the whole of the preceding description except as qualified in the description in which it occurs.		
	<i>m.s.</i> Shall mean measured separately.		
	<i>a.b.d</i> Shall mean as before described.		
	<i>Carried to collection</i>		

ITEM	DESCRIPTION	KSHS	CTS
A.	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:-		
	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.		
	<i>Fix Only:-</i>		
	"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.		
B.	EMPLOYER		
	The "Employer" is Kenya Forestry Research Institute		
	The term "Employer" and "Government" wherever used in the contract document shall be synonymous		
C.	PROJECT MANAGER		
	The term "P.M." 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 as may be duly authorized to represent him on behalf of the Government.		

ITEM	DESCRIPTION	KSHS	CTS
D.	ARCHITECT		
	The term "Architect" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 30743, NAIROBI.		
E.	QUANTITY SURVEYOR		
	The term "Quantity Surveyor" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 30743, NAIROBI.		
	<i>Carried to collection</i>	-	
A.	ELECTRICAL ENGINEER		
	The term "Electrical Engineer" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 41191, NAIROBI.		
B.	MECHANICAL ENGINEER		
	The term "Mechanical Engineer" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 41191, NAIROBI.		
C	STRUCTURAL ENGINEER		
	The term "Structural Engineer" shall be deemed to mean "The Project Manager." as defined above whose address unless otherwise notified is State Department of Public Works, Ministry of Land, Housing and Urban Development, P.O. Box 41191, NAIROBI.		

ITEM	DESCRIPTION	KSHS	CTS
D	FORM OF CONTRACT		
	The Form of Contract shall be as stipulated in the Republic of Kenya's Standard Tender Document for Procurement of Building Works(2006 Edition) included herein The Conditions of Contract are also included herein Conditions of Contract These are numbered from 1 to 37 as set out in pages 16 to 36 of these tender documents. 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		
E.	PERFORMANCE BOND.		
	The Contractor shall find and submit on the Form of Tender from an approved Bank and who will be willing to be bound the Government in an amount equal to five per cent (5%) of the Contract amount for the due performances of the Contract up to the date of completion as certified by the PROJECT MANAGER and who will when and if called upon, sign a Bond to that effect on the relevant standard form included herein. (without the addition of any limitations) on the same day as the Contract Agreement is signed, by the Government, the Contractor shall furnish within seven days another Surety to the approval of the Government.		
	<i>Carried to collection</i>		
A.	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.		

ITEM	DESCRIPTION	KSHS	CTS
B.	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.		
C.	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.		
D.	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		
E.	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.		
	<i>Carried to collection</i>	-	

ITEM	DESCRIPTION	KSHS	CTS
A.	SAMPLES		
	<p>The Contractor shall furnish at his own cost any samples of materials or workmanship including concrete test cubes required for the works that may be called for by the PROJECT MANAGER for his approval until such samples are approved by the PROJECT MANAGER and the PROJECT MANAGER, may reject any materials or workmanship not in his opinion to be up to approved samples. The PROJECT MANAGER shall arrange for the testing of such materials as he may at his discretion deem desirable, but the testing shall be made at the expense of the Contractor and not at the expense of the PROJECT MANAGER. The Contractor shall pay for the testing in accordance with the current scale of testing charges laid down by the State Department of Public Works, Ministry of Land, Housing and Urban Development.</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>		
B.	GOVERNMENT ACTS REGARDING WORK PEOPLE ETC.		
	<p>Allow for complying with all Government Acts, Orders and Regulations in connection with the employment of Labour and other matters related to the execution of the works. In particular the Contractor's attention is drawn to the provisions of the Factory Act 1950 and his tender must include for all costs arising or resulting from compliance with any Act, Order or Regulation relating to Insurances, pensions and holidays for workpeople or so the safety, health and welfare of the workpeople. The Contractor must make himself fully acquainted with current Acts and Regulations, including Police Regulations regarding the movement, housing, security and control of labour, labour camps , passes for transport, etc. It is most important that the Contractor, before tendering, shall obtain from the relevant Authority the fullest information regarding all such regulations and/or restrictions which may affect the information regarding all such regulations and/or restrictions which may affect the organisation of the works, supply and control of labour, etc., and allow accordingly in his tender. No claim in respect of want of</p>		

ITEM	DESCRIPTION	KSHS	CTS
	knowledge in this connection will be entertained.		
C.	SECURITY OF WORKS ETC.		
	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.		
	<i>Carried to collection</i>		
A.	PUBLIC AND PRIVATE ROADS.		
	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		
B.	EXISTING PROPERTY.		
	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		
C.	VISIT SITE AND EXAMINE DRAWINGS.		
	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.		

ITEM	DESCRIPTION	KSHS	CTS
D.	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 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		
E.	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		
	<i>Carried to collection</i>	-	
A.	OFFICE ETC. FOR THE PROJECT MANAGER		
	The Contractor shall provide and maintain where directed on site a room to be used as the site office, complete with Furniture.		
B.	WATER AND ELECTRICITY SUPPLY FOR THE WORKS		
	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		

ITEM	DESCRIPTION	KSHS	CTS
A.	PRIME COST (OR P.C.) SUMS.		
	The term "Prime Cost Sum" or "P.C. Sum" wherever used in these Bills of Quantities shall have the meaning stated in Section A item A7 (ii) of the Standard Method of Measurement. Persons or firms nominated by the PROJECT MANAGER to execute work or to provide and fix materials or goods are described herein as Nominated Sub-Contractors. Persons or firms so nominated to supply goods or materials are described herein as Nominated Suppliers.		
B.	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.		
C.	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. 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.		
	<i>Carried to collection</i>		

ITEM	DESCRIPTION	KSHS	CTS
A.	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 , 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.		
B.	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 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".		
C.	DIRECT CONTRACTS		
	Notwithstanding the foregoing conditions, the Government reserves the right to place a "Direct Contract" for any goods or services required in the works which are covered by a P.C. Sum in the Bills of Quantities and to pay for the same direct. In any such instances, profit relative to the P.C. Sum in the priced Bills of Quantities will be adjusted as described for P.C. Sums is allowed.		
D.	ATTENDANCE UPON OTHER TRADESMEN, ETC.		
	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		

ITEM	DESCRIPTION	KSHS	CTS
	PROJECT MANAGER and the work will be measured and paid for to the extent executed at rates provided in these Bills.		
	<i>Carried to collection</i>	-	
A.	INSURANCE		
	The Contractor shall insure as required in Conditions No. 30 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.		
B.	PROVISIONAL WORK		
	All work described as "Provisional" in these Bills of Quantities is subject to re-measurement 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 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.		
C.	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		

ITEM	DESCRIPTION	KSHS	CTS
	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.		
D.	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.		
	<i>Carried to collection</i>		
A.	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.		
B.	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.		

ITEM	DESCRIPTION	KSHS	CTS
C.	REMOVAL OF RUBBISH ETC.		
	Removal of rubbish and debris from the Buildings and site as it accumulates and at the completion of the works and remove all plant, scaffolding and unused materials at completion.		
D.	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		
	<i>Carried to collection</i>		
A.	GENERAL SPECIFICATION.		
	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.		

ITEM	DESCRIPTION	KSHS	CTS
	<u>COLLECTION</u>		
	Brought Forward From Page GP/1		
	Brought Forward From Page GP/2		
	Brought Forward From Page GP/3		
	Brought Forward From Page GP/4		
	Brought Forward From Page GP/5		
	Brought Forward From Page GP/6		
	Brought Forward From Page GP/7		
	Brought Forward From Page GP/8		
	Brought Forward From Page GP/9		
	Brought Forward From Page GP/10		
	Brought Forward From Page GP/11		
	Brought Forward From Page GP/12		
	TOTAL FOR GENERAL PRELIMINARIES		
	CARRIED TO MAIN SUMMARY		

BUILDERS WORK

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Main block (main works) ELEMENT NO. 1; SUBSTRUCTURES (All Provisional)				
A	Clear area of new construction of all undergrowth, small bushes, grab up all trees and remove any existing structures and obstructions as directed.	Sm	900		
B	Cut down trees girth900mm-1200mm, remove out tree stumps and grab out roots, dispose off as directed and refill pits	No.	4		
C	Excavate oversite to remove vegetable soil, load and cart away from site to contractor's dumping area as directed; Average 200 mm depth	Sm	350		
D	Excavate to reduce levels commencing from stripped level: not exceeding 1.5 m deep	Cm	495		
E	Excavate to reduce levels commencing from stripped level: over 1.5m not exceeding 3.0 m deep	Cm	330		
F	Excavate for strip foundation trenches commencing from reduced level: not exceeding 1.5m deep	Cm	180		
G	Ditto for column bases	Cm	8		
H	Excavating in any class of rock as described in the specifications	Cm	50		
I	Return, fill and ram selected soil in foundations	Cm	825		
	<i>Substructure carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Substructure brought forward</i>				
J	Remove surplus soil and debris from site to a place approved by local authority	Cm	100		
K	Allow for upholding and supporting sides of excavations including any necessary plunking and strutting	Item	1		
M	Allow for keep excavations free of spring, underground or running water including any necessary pumping, bailing or other approved means	Item	1		
	<u>Mass concrete mix (1:3:6):in</u>				
A	50 mm Thick blinding under strip foundations	Sm	120		
B	Ditto under column bases	Sm	24		
	<u>Vibrated reinforced insitu concrete class 25/20; with minimum cube crushing strength of 25N/mm² at 28 days; in</u>				
C	Strip foundations	Cm	50		
D	Column bases	Cm	12		
E	Columns	Cm	8		
F	Ground floor slab; 150 mm thick	Sm	290		
G	Ramps; Ditto	Sm	4		
H	Steps	Cm	4		
	<i>Substructure carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>Mesh fabric reinforcement</u>				
A	Mesh reinforcement No. A142 size 200 x 200 mm weighing 2.22 kg per square metre: in floor slab: including all necessary supports	Sm	290		
	<u>Supply and fix mild steel bar in structural concrete work including cutting, bending, hoisting, tying wire, spacing blocks and supporting all in position in foundation footing, column bases and columns</u>				
B	8 - 32 mm Bars	Kg	6000		
	<u>Sawn formwork: to</u>				
C	Vertical sides of column bases	Sm	22		
D	Sides of columns	Sm	48		
E	Sides of strip footing	Sm	120		
F	Edges of steps; cut to profile of steps	Sm	6		
G	Edges of slabs; 150 - 225 mm girth	Lm	100		
	<u>Walls</u>				
A	Medium Chisel dressed natural stone walling bedded in cement and sand mortar (1:4) with minimum stone crushing strength of 14N/mm ² ; foundations	Sm	400		
	<i>Substructure carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Substructure brought forward</i>				
	<u>Hardcore</u>				
B	300 mm thick hardcore of approved inert material: well watered and compacted in 150 mm thick (maximum) layers	Sm	290		
	<u>Blinding</u>				
C	50 mm Thick approved quality murrum blinding to surfaces of hardcore	Sm	290		
	<u>Anti-termite treatment</u>				
D	Termidor 25EC or other approved anti-termite chemical treatment to surfaces of blinded hardcore and around foundations : applied by approved professional pest control specialist: applied strictly in accordance with the manufacturer's instructions: 10 year guarantee	Sm	290		
	<u>DPM</u>				
E	Gauge 1000 polythene damp proof membrane	Sm	290		
	<u>25 mm Thick cement and sand (1:4) rendering: on concrete or stonework: wood float: to</u>				
F	Plinths: externally	Sm	60		
	<i>Substructure carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Substructure brought forward</i>				
	<u>Prepare surfaces and apply undercoat and two finishing coats black bitumastic or other equal approved water resistant paint: on rendered surfaces: to</u>				
G	Plinths: externally	Sm	60		
	<u>Substructures carried to summary page</u>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	ELEMENT NO. 2; CONCRETE WORKS Sawn formwork: to				
A	Sides and soffits: ring beams and lintols	Sm	120		
B	Columns; vertical sides	Sm	66		
	<u>Supply and fix mild steel bar in structural concrete work including cutting, bending, hoisting, tying wire, spacing blocks and supporting all in position</u>				
C	8 - 32 mm Bars	Kg	6500		
	<u>Vibrated reinforced insitu concrete class 25/20; with minimum cube crushing strength of 25N/mm² at 28 days; in</u>				
D	Beams and lintols	Cm	36		
E	Columns	Cm	8		
	Concrete works carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>ELEMENT NO. 3; WALLS</u>				
	<u>External walls</u>				
	<u>Dressed natural quarry stone walling bedded in cement and sand mortar (1:3) with minimum stone crushing strength of 7N/mm²</u>				
A	200 mm Thick walls	Sm	330		
	<u>Internal</u>				
	<u>Natural stone walls: machine cut: bedded and jointed in cement and sand (1:3) mortar</u>				
B	200 mm Thick walls	Sm	130		
	<u>Bituminous felt or other equal approved damp-proof course: in cement/ sand (1:3) mortar</u>				
C	200 mm Wide	Lm	200		
D	12mm flexcell expansion joint	Sm	32		
	Walls carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>ELEMENT NO. 4: ROOF</u>				
	<u>Roof cover</u>				
A	Gauge 28 orientile shaped roof cover fixed with rubber washers to match.	Sm	450		
B	Ditto 450mm wide ridge / hip cover.	Lm	70		
C	Ditto valley gutter	Lm	20		
D	Raking and cutting roof cover at hips and valleys	Lm	70		
	<u>All in sawn celcured and well seasoned cypress:- 12mm diametre 300mm long mild steel anchor bolts with head, nut, washers and split ring cast into ring beam and bolted to wall plate(m.s) work.</u>				
E	150 x 50mm Tie beam	Lm	320		
F	150 x 50mm rafter, half rafters, valley & hip rafters(Rafters at 1.2m centre)	Lm	400		
G	100 x 50mm struts and king post	Lm	450		
	<u>end of trusses</u>				
H	150 x 50mm wall plate.	Lm	190		
I	75 x 50mm purlins(at 600mm centres)	Lm	800		
J	200 x 25mm wrott fascia and verge board	Lm	100		
	<u>Sundries</u>				
K	Bed wall plate(m.s) in cement sand mortar 1:3	Lm	190		
	<i>Roof carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Roof brought forward</i>				
M	Bore 12mm diametre holes through 50mm thick wall plate at 2m centres.	No.	95		
N	Knot, prime, stop and apply 3 coats super gloss oil paint to surfaces of fascia and vergeboard 200-300mm high.	Lm	100		
	<i>Rain water goods</i>				
A	150mm half diameter u.P.V.C gutters of 6lm lengths	Lm	90		
B	150mm half diameter u.P.V.C holder clips at 1.2m centre and at ends, complete with screws	No.	75		
C	Extra over ditto for connectors at joints nailed to fascia(m.s)	No.	16		
D	Extra over ditto for stoped ends	No.	8		
E	Extra over ditto swannecks	No.	5		
F	75mm diameter p.v.c downpipe to match, clipped to walls	Lm	30		
G	Extra over ditto for 600mm long shoe	No.	5		
H	Ditto bends	No.	24		
	Roof carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<p>ELEMENT NO. 5; DOORS</p> <p>Timber Doors</p> <p><u>45 mm thick flush door: solid core; Mahogany veneered to both sides; hardwood lipped edges; refer to Architect's details</u></p>				
A	<p>Single leaf door; overall size 900 x 2400 mm high; with 6 mm thick clear fanlight glazing overall size 860 x 300 mm high complete with all beadings</p> <p><u>Supply and fix the following mahogany glazed doors comprising of 150 x 50mm bottom rail,top rail, middle rail, transomes and stiles; 6 mm thick toughened glass and glazing infill with and including glazing beads; All as per architect's drawings and details</u></p>	No	5		
A	<p>Single leaf door; overall size 900 x 2400 mm high; with 6 mm thick clear fanlight glazing overall size 860 x 300 mm high complete with all beadings</p>	No	3		
B	<p>Double door; overall size 1800 x 2400 mm high; with 6 mm thick clear fanlight glazing overall size 1760 x 300 mm high complete with all beadings</p>	No	4		
	<i>Doors carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Doors brought forward</i>				
	<u>Roller shutter door</u>				
A	Supply and fix 2500mm x 2400mm galvanized roller shutter door complete with barrel, springs, hanger rings, end plates, canopy, vertical guide rails, curtain; 80mm slats, T bar or bottom rail	No	4		
	<u>Prepare surfaces and apply three coats of approved gloss oil paint to metal surfaces</u>				
B	Doors: both sides measured	Sm	50		
	<u>Wrot mahongany: prime grade; with stainless steel fixing straps; including chasing to masonry, plugging and making good</u>				
A	200 x 50 mm Door frame: twice rebated: plugged	Lm	82		
B	50 x 25 mm Architrave: splayed	Lm	66		
C	25 x 25 mm Quadrant	Lm	66		
	<u>Prepare and apply one coat of aluminium wood primer on timber surfaces in contact with concrete or masonry</u>				
D	Over 100 but not exceeding 200 mm girth	Lm	214		
	<u>Prepare surfaces: apply two coats clear pinotex spirit in clear matt varnish: on timber surfaces: to</u>				
E	Over 100 but not exceeding 200 mm girth	Lm	214		
	<i>Doors carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Doors brought forward</i>				
F	General timber surfaces: doors <u>Supply and fix: 'UNION' or other equal approved ironmongery: matching screws: locks to include a set of 3 keys: available from their authorised local dealers; brass finish to architects approval</u>	Sm	56		
A	100mm brass butt hinges	Prs	24		
B	Two lever mortice lock with handles	No	12		
C	Door closer	No	12		
D	38 mm Diameter oval rubber stop; floor or wall mounted	No	16		
	Door carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	ELEMENT NO. 6; WINDOWS				
	<u>Approved pre-cast concrete cill: bedded and jointed in cement (sand (1:3) mortar: pointed in matching coloured cement</u>				
A	250 x 50 mm Thick cill; once weathered and throated	Lm	40		
	<u>Supply and fix the following purpose made steel casement purpose made windows, including all necessary cuttings lugs, stays and bedding into walls in cement sand mortar 1:4 complete with stays, fasteners, all necessary accessories and priming once in red-oxide, to Architects approval, with minimal burglar proofing in 20mm angle line framing</u>				
A	- Window size 2500 x 750mm high. For stores	No.	2		
B	Ditto size 2500 x 1500mm high. For laboratory	No.	5		
C	Ditto size 1200 x 1500mm high.	No	2		
D	Ditto size 2000 x 1500mm high.	No.	6		
	<u>Glazing</u>				
F	4mm thick mild tinted sheet glass in panes 0.1-0.5sm fixed in steel window panes with putty.	Sm	54		

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>Painting</u> <u><i>Prepare, prime and apply 3 coats of super gloss oil paint as "crown" or any other equal and approved to surfaces of:</i></u>				
A	- Windows externally <i>Windows carried forward</i>	Sm	8		
	<u>Windows brought forward</u>				
B	Windows internally	Sm	8		
	<u>Curtain rods</u>				
A	Supply and fix 2900mm long double curtain rod for both vertical blinders and sheers with a strong chrome pipe of 28mm diameter, 2pcs finials, 2pcs end cups, 4pcs brackets, rings, screws and anchor to install	No	10		
	Window carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>Element 07; Ceiling</u>				
A	10mm thick chipboard ceiling fixed in rectangular shape	Sm	340		
B	10 x 75mm ditto cornice plugged and nailed to battens	Lm	320		
C	Extra-over ditto in access door size 450 x 600mm, including framing in 75 x 50mm sawn cypress	No.	2		
	<u>Branding</u>				
D	50 x 50mm sawn cypress branding	Lm	500		
E	50 x 75mm ditto.	Lm	800		
	Ceiling carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>ELEMENT 8; Fixtures and fittings</u>				
	<u>Shelving to packagig room</u>				
	<u>20 mm thick blockboard storage sheleves supported of mild steel 25 x 25 mm frames; painted to approval; 450 mm wide</u>				
A	10000 mm long x 450 mm deep x 3000 mm high	Sm	50		
B	Ditto for cabinet below the worktop in seed lab	Sm	30		
	Ceiling carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>ELEMENT 9; FINISHES</u>				
	FLOOR FINISHES				
A	30mm thick cement sand 1:2 backing to receive ceramic floor tiles or terrazzo (s.m)/Skirting	Sm	300		
B	20mm thick polished terrazzo paving to floor and the worktop including plastic strip dividers/skirting	Sm	300		
	<u>walls internally</u>				
H	12mm thick gauged plaster cement sand lime 1:1:6 with a smooth float to walls, beams and columns internally	Sm	400		
I	Ditto to reveals and jambs.	Sm	30		
	<u>Walls Externaly</u>				
H	12mm thick gauged cement sand render 1:2 finished with a wood float to beams and columns	Sm	215		
I	Keying in cement sand 1:2, pointing in gloss oil paint and wire brushing natural machine cut stone externally	Sm	130		
	Finishes carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>ELEMENT 10; PAINTING & DECORATIONS</u> <i><u>Prepare and apply 3 coats silk vinyle emulsion paint as "crown" or any other equal and approved paint to</u></i>				
A	Plastered walls internally	Sm	400		
B	Soffites of chip board ceiling	Sm	340		
C	Plastered walls externally	Sm	215		
	Painting carried to summary page				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>SUMMARY OF ELEMENTS</u>				
A	ELEMENT NO. 1 , SUBSTRUCTURE				
B	ELEMENT NO 2, R.c WORKS				
C	ELEMENT NO 3, WALLING				
D	ELEMENT NO. 4, ROOF				
E	ELEMENT NO. 5 , DOORS				
F	ELEMENT NO. 6 , WINDOWS				
G	ELEMENT NO. 7 , CEILING				
H	ELEMENT NO. 8 , FIXTURES & Fittings				
I	ELEMENT NO 9, FINISHES				
J	ELEMENT NO. 10 PAINTING & DECORATIONS				
	TOTAL FOR BUILDERS WORK CARRIED TO GRAND SUMMARY.				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>RAISED CONCRETE WATER TANK STAND 4500mm high from ground level</u>				
	Element 01: Substructure (all provisional)				
A	Clear area of new construction of all undergrowth, small bushes, grab up all trees and remove any existing structures and obstructions as directed.	Sm	16		
B	Excavate for column bases commencing from ground level level: not exceeding 1.5 m deep	Cm	14		
C	Return, fill and ram selected soil in foundations	Cm	13		
	<u>Vibrated reinforced insitu concrete class 25/20; with minimum cube crushing strength of 25N/mm² at 28 days; in</u>				
A	- Column bases 200mm thick	Cm	2		
B	Sub structure and superstructure columns 400mmx400mm size	Cm	4		
	<u>Supply and fix mild steel bar in structural concrete work including cutting, bending, hoisting, tying wire, spacing blocks and supporting all in position</u>				
C	- 8 - 12 mm Bars for substructure columns, column bases, superstructure columns ring beams and slab	Kgs	478		
	<i>Raised conc. Water tank stand carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Raised conc. Water tank stand brought forward</i>				
	<u>Sawn formwork: to</u>				
D	Vertical sides of coulmn bases	Sm	2		
E	Sides of columns	Sm	10		
	<u>Superstructure works</u>				
	Sawn formwork: to				
F	Sides and soffits: beams	Sm	11		
G	Soffits and sides of suspended slab	Sm	9		
	<u>Vibrated reinforced insitu concrete class 25/20; with minimum cube crushing strength of 25N/mm² at 28 days; in</u>				
H	Slab and beams	Cm	5		
	<u>Plaster: 15 mm cement/lime putty/sand: steel trowelled: on masonry or concrete: to</u>				
I	concrete surfaces	Sm	98		
K	Purchase and instal 5,000 liters cylindrical kentank plastic water tank	Item	1		
	Sub total for construction of raised concrete water tank stand				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<u>SUMMARY OF ELEMENTS</u>				
A	ELEMENT NO. 1 , SUBSTRUCTURE				
B	ELEMENT NO 2, R.c WORKS				
C	ELEMENT NO 3, WALLING				
D	ELEMENT NO. 4, ROOF				
E	ELEMENT NO. 5 , DOORS				
F	ELEMENT NO. 6 , WINDOWS				
G	ELEMENT NO. 7 , CEILING				
H	ELEMENT NO. 8 , FIXTURES & Fittings				
I	ELEMENT NO 9, FINISHES				
J	ELEMENT NO. 10 PAINTING & DECORATIONS				
K	RAISED WATER TANK STAND				
	TOTAL FOR BUILDERS WORK CARRIED TO GRAND SUMMARY.				

MECHANICAL WORKS

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<p><u>MECHANICAL ENGINEERING SERVICES BQ</u></p> <p>Bill No1: SANITARY APPLIANCES</p> <p>Supply, 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. Note:</p> <p>(i) All sanitary fittings shall be in approved colour.</p> <p>(ii) The Model and Ref No. indicated is only a guide to the type and quality of fittings.</p> <p>(iii) Equivalent and Approved models may be acceptable.</p>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<p><u>BILL NO.2: INTERNAL WATER CONNECTION</u></p> <p>Supply and install tubing and fittings as described and shown on the drawings. Tenderers must allow for jointings, couplings etc necessary for the proper and satisfactory functioning of the system when pricing the following in PN 20 PPRC conforming to the current European standards for PPR installations and to the Engineer's approval, pipe jointing shall be by polyfusion or use of electric coupling Rates must allow for all the Metal/plastic threaded adaptors where required for the connection of sanitary fixtures, valves, sockets, sliding and fixed joints, support raceways, isolating sheaths, elastic materials, expansion arms and bends, crossovers etc</p> <p><u>PPR Pipes</u></p>				
A	20mm dia pipe chased in walls/floors	Lm	30		-
B	25mm –ditto-	Lm	20		-
C	32mm –ditto-	Lm	30		-
	<p><u>Extra-over PPR pipework for the following:-</u></p> <p><u>Bends/elbows</u></p>				
G	20mm dia bend	No	10		
H	25mm bend	No	10		
I	32mm bend	No	5		
L	20x1/2" dia male threaded 90o bend	No	5		
M	20x1/2" dia female threaded 90o bend	No	5		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Sanitary appliances brought forward</i>				
	<u>Tees</u>				
N	25mm diameter equal tee	No	5		
O	25x1/2" female threaded tee	No	5		
P	25x1/2" male threaded tee	No	10		
Q	32mm diameter equal tee	No	5		
R	20mm dia tee	No	10		
	<u>Unions</u>				
A	20mm dia union	No	5		
B	25mm –ditto-	No	5		
C	32mm –ditto-	No	5		
	<u>Reducers</u>				
F	25/20mm reducers	No	5		
G	32/25mm reducers	No	5		
	<u>Gate valve</u>				
J	20mm Pegler	No	3		
K	25mm –ditto-	No	3		
L	32mm –ditto-	No	2		
	<u>Flexible connectors</u>				
O	450mm chrome plated flexible connector with chrome plated angle check valve size 15mm dia including unions and sockets to connect sanitary fittings to PP-R Pipework	No	5		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Sanitary appliances brought forward</i>				
	<u>Supply, deliver and install the following vulcathene laboratory system including waste outlets, sinks, drip cups, anti-siphon traps, dilution recovery traps and associated comprehensive range of pipe and fittings for the given sizes all as vulcathene or approved equivalent</u>				
	Laboratory sink				
A	A sink of preferred dimensions 552mm x 400mm with a depth of 231mm having a drain of 74mm, that is extremely robust and moulded with a self draining base with its recessed outlet to accept the flange of 1 1/2" (40mm) non overflow threaded outlet but if required, an overflow assembly can be fitted. The sink to be complete with anti siphon traps that can stop the backflow of potentially hazardous fumes. All the downstream fittings to be as vulcathene.	No	2		
B	Three way Assay Lab Faucet in solid brass High gloss epoxy powder , resistant to most chemicals, UV fading and heat. Ceramic headwork;90 deg turn, water static pressure max 10bar. To be complete with detachable brass serrated nozzle, splash controlled water filter attachable, ergonomic high grade PP knob and 360 deg swing gooseneck spout.	No	2		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Sanitary appliances brought forward</i>				
C	<u>Emergency Drencher Shower and Eye Fountain</u> Body shower with eye/face shower and bowl modular in brass and stainless steel with chemical resistant red BROEN-LAB polycoat with self-draining shower head. The shower head with a pull to open mechanism and eye wash with a footpedal opening mechanism. Eye wash with built-in FLOWFIX for regulation of water flow at14l/min. Bowl in stainless steel with integrated out with a min working pressure of 1.5bar. all as BROEN-LAB or equal and approved	No	1		
D	Emergency shower instructions Wall mounted sign and instruction card for Body and Eye Shower above	No	1		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Sanitary appliances brought forward</i>				
	<u>BILL NO.3 FOUL WATER INTERNAL DRAINAGE FROM THE WASHROOMS AND LABORATORY</u>				
	Supply and fix uPVC soil system to BS 4660 and BS 4515 and MuPVC waste systems to BS 5255 with screwed and socketed joints to BS 21. Solvent welded joints shall be as per the system's manufacturer's written instructions. 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.				
	<u>MuPVC and uPVC Waste and Soil pipework</u>				
A	150mm diameter heavy gauge grey mUPVC pipe	Lm	60		
B	100mm diameter heavy gauge grey mUPVC pipe	Lm	20		
C	50mm diameter waste pipe	Lm	50		
D	32mm diameter waste pipe	Lm	50		
	<u>Bends</u>				
E	150mm diameter access bend	No	4		
F	100mm diameter access bend	No	6		
G	150mm diameter sweep bend	No	6		
H	100mm diameter sweep bend	No	6		
I	50mm diameter sweep bend	No	6		
J	32mm diameter sweep bend	No	6		
	<i>Sanitary appliances carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Sanitary appliances brought forward</i>				
	<u>Tees</u>				
L	50mm diameter sweep tee	No	4		
M	32mm diameter sweep tee	No	4		
	<u>Access Caps</u>				
N	100mm diameter access cap	No	6		
P	32mm diameter access cap	No	6		
	<u>Boss Connectors</u>				
Q	150 x 100mm diameter boss connector	No	4		
R	100 x 50mm diameter boss connector	No	4		
S	50 x 32mm diameter boss connector	No	4		
	<u>Traps</u>				
D	100 x 50mm diameter floor trap and grating	No	4		
E	50 x 50mm diameter U-shaped tubular trap	No	4		
	<u>Testing and Commissioning</u>				
G	Allow for testing and commissioning of the plumbing and drainage installations to the satisfaction of the Engineer.	Item	1		
	<i>Sub total for sanitary appliances</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
C	Summary page SANITARY APPLIANCES				
	Total for sanitary appliances carried to summary page				

ELECTRICAL WORKS

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	Electrical works				
A	Supply, deliver & install on site one gang one-way switches	No	6		
B	Supply, deliver & install on site one gang two-way switches	No	10		
C	Supply, deliver & install on site three gang two-way switches	No	1		
D	Supply, deliver & install on site one gang intermediate switch	No	2		
E	Supply, deliver & install on site two gang two-way switches	No	2		
F	Supply, deliver & Install 1200mm, 1x58w T26 LED fluorescent light fittings with Aluminium louvres (complete with tubes)as thorn, do wiring as appropriate using 3x1.5mm ² single core copper cables as E. African cable drawn in concealed pvc conduit. The fittings to be surface mounted on the ceiling & spaced as appropriate.	No	45		
G	Supply deliver to site, Install and do wiring of 1200mm single LED batten fluorescent fittings with prismatic diffuser(complete with tubes) wired in a 3x1.5mm ² PVC insulated single core copper cable drawn in a concealed 20mm PVC heavy gauge conduits	No	3		
H	Supply, deliver, Install & wire twin 13amps socket outlets drawn in concealed pvc conduit using 3x2.5mm ² single core copper cable in three ring circuit all terminated at the DB protected by 32Amps single pole MCB	No	22		
	Cont. electrical carried forward				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>electrical brought forward</i>				
I	Supply, deliver, Install in the processing area & wire five pin 32amps industrial socket outlets each as a final subcircuit from the DB isolated using 40Amps three pole MCB wired using 4x4.0mm ² single core copper cables as E. African cable drawn in concealed pvc conduit.	No	2		
J	Supply, deliver & install in the processing area 40Amps triple pole MCB as Schneider or equivalent as approved by project manager and housed in an enamel paint finish metal enclosure	No	2		
K	Supply, deliver & install on 32Ampsamps triple pole MCB to fit in the installed DB	No	2		
L	Supply, deliver & install on 10amps MCB to fit in the DB	No	4		
M	Supply, deliver & install single pole 32amps MCB to fit in the DB installed	No	3		
N	Supply, deliver & install 150x300mm concrete Danger Hatari tiles	No	270		
O	Excavate 250x600mm deep trench to lay the armoured cable	Cm	15		
P	Supply, deliver to site & install four core 16mm ² Armoured copper cable laid in 600mm deep trench pre-covered with "Danger Hatari" concrete tiles then back fill	Lm	80		
	<i>Cont. electrical carried forward</i>				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>electrical brought forward</i>				
Q	Three phase 415v, 125Amps six ways distribution board as Havels or equivalent as approved by project manager	No	1		
R	Manhole of 450x450x600mm (LxWxH) using machine cut stone and plastered on internal faces complete with top 100mm concrete cover. Allow for 100mm ducts entry	No	2		
S	Supply, deliver to site & install four pole 125Amps MCCB plus Metal housing as Havels or equivalent as approved by project manager	No	1		
T	Supply and install concrete cable makers(UG) along the underground cable line	No	4		
	<u>SECURITY LIGHTING</u>				
A	Supply, deliver and install LED security lighting fitting 50watts as thorn or approved equivalent wired in a 3x1.5mm ² PVC insulated single copper cable drawn in a concealed 20mm PVC heavy gauge conduit	No	7		
B	Supply, deliver and install 240volts 32Amps contactor as Telemechanique or equivalent to switch on the security lights	No	1		
C	Supply, deliver and install 240volt 10amps Photo cell switch to activate the contactor "Ditto"	No	1		
D	Supply and do earthing at the building main connection point using 10mm ² single core cable and 12mmx1200mm copper earth rod	No	1		
	<i>Cont. electrical carried forward</i>				

CIVIL WORKS

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	MANHOLES(all provisional)				
	<u>The following in 12 No. Manholes class "B" All provisional</u>				
	-				
A	Excavate manhole pit not exceeding 1.5m deep.	Cm	27		
B	Return, fill-in and consolidate excavated materials around manhole walls.	Cm	15		
C	Remove surplus excavated materials and deposit on site as directed.	Cm	12		
D	Extra-over excavation for excavating in rock class 'A'	Cm	2		
E	150mm thick mass concrete 1:3:6 in manhole base.	Sm	27		
	<u>Precast Concrete</u>				
F	100mm thick precast concrete 1:2:4 in manhole cover slab size 1380mmx1180mm, reinforced with 8mm diameter at 80mm centres both ways with rebated opening for 450x600mm cover and frame finished smooth including any necessary formwork.	Sm	12		
	<u>Benching</u>				
G	Concrete 1:3:6 in benching to bottom of manholes internal size 1000mmx800mm including haunching to a height of 200mm above channel and rendering in cement 1:2 trowelled smooth.	No.	12		
	<i>Manhole carried forward</i>				
	Ex2				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Manhole brought forward</i>				
H	Make or leave hole through 200mm concrete wall for 150mm diameter pipe (m.s) built-in and make good walls and render all round.	No.	24		
	<u>Extra-over benching to forming the following channels with external rounded angles with sloping top of benching:-</u>				
	-				
I	150mm diametre half-round section straight main channel 900mm long.	No.	12		
A	Ditto but curved 900mm long.	No.	12		
B	140mm thick masonry block walling in cement sand mortar 1:3.	Sm	72		
C	12mm thick cement sand 1:2 plaster to ditto with approved water-proofing admixture to internal sides of manholes trowelled smooth.	Sm	54		
D	Ditto but render to top and sides of cover slab and walling.	Sm	16		
E	Fiber manhole cover size 600mmx450mm and setting frame in cement sand mortar 1:3 and cover in grease.	No.	12		
F	Extra over formworks boxing to form opening for manhole cover(m.s)	No.	12		
	<i>Sub total for manhole carried to summary page</i>				
	Ex 3				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	SOAKAGE AREA(all provisional)				
	<u>The following in french drains as per standard drawing No.(50) 5344, average 5Lm</u>				
	-				
A	Excavate trench for french drains, not exceeding 1.5m deep starting from original ground level	Cm	4		
B	Extra-over excavation for excavating in rock class 'A'	Cm	1		
C	Cart away excavated materials from site.	Cm	2		
D	Trim sides of french drain to slope.	Sm	12		
E	20-60mm crushed stones or washed gravel.	Cm	2		
F	Back filling selected excavated soils mean thickness 350mm	Cm	1		
G	Imported 200mm thick compacted murrum	Cm	1		
H	500 gauge polythene sheet.	Sm	6		
I	150mm diametre agricultural or perforated upvc pipe laid to falls in units of 450mm lengths with 10mm open joints covered to top half with 100mm width paper.	Lm	6		
	TOTAL FOR SOAKAGE AREA CARRIED TO SUMMARY				
	Ex 4				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	1 -No. SOAK- PITS(all provisional)				
	<u>The following in 1-No soakpits as per drawing No.M.o.W(50) 5345</u>				
A	Excavate pit not exceeding 1.5m deep starting from original ground level	Cm	6		
B	Ditto between 1.5m-3.0m deep.	Cm	6		
C	Ditto between 3.0m-4.5m deep.	Cm	6		
F	Extra-over excavation for excavating in rock class 'A'	Cm	8		
G	Cart away surplus excated materials from site.	Cm	20		
H	Return, fill-in and consolidate excavated materials around foundations.	Cm	6		
I	Mass concrete 1:3:6.	Cm	1		
J	100mm thick vibrated reinforced concrete 1:2:4 in cover slab.	Sm	4		
K	12mm diametre high tensile square twisted bars to B/s 4449	Kg	25		
	<u>Sawn formwork to:-</u>				
M	Soffites of suspended slab	Sm	4		
N	Edges of suspended cover slab girth 75-150mm.	Lm	8		
A	Boxing to form opening size 600x450mm in 150mm thick suspended cover slab, rebated all round.	No.	1		
	<i>Soak pit carried forward</i>				
	Ex 5				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Septic tank brought forward</i>				
	<u>Vibrated reinforced concrete 1:2:4 to:-</u>				
I	150mm floor bed laid to falls not exceeding 15 degrees from horizontal.	Sm	24		
J	Ditto floor bed	Sm	12		
K	Ditto manhole footing	Sm	2		
L	150mm thick suspended scum baffle walling.	Sm	8		
A	200mm thick scum baffle walling with slats	Sm	8		
B	250mm thick external walling	Sm	70		
C	150mm thick cover slab.	Sm	24		
	<u>Sawn formwork to:-</u>				
D	Sides and Soffites of suspended scum baffle.	Sm	8		
E	Ditto sides of baffle walling	Sm	8		
F	Sides of external walling	Sm	40		
G	Soffites of cover slab.	Sm	24		
H	Boxing to ditto for manhole cover(m.s) opening size 450 x 600mm.	No.	4		
I	Sides and edges of cover slab 150-225mm high.	Lm	22		
	<u>Reinforcement</u>				
J	10mm diameter bars	Kg	440		
	<i>Septic tank carried forward</i>				
	Ex 8				

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Qty</i>	<i>Rate</i>	<i>Amount (ksh)</i>
	<i>Septic tank brought forward</i>				
K	20mm cement sand 1:2 floor screed, water proofed with pudlo and trowelled smooth, not exceeding 15 degrees to horizontal with sulphate resistant cement.	Sm	24		
L	Ditto to horizontal floors	Sm	12		
M	Ditto manhole bases	Sm	2		
N	Ditto to sides and soffites of suspended scum baffles.	Sm	21		
P	Sides of scum baffle walling	Sm	20		
Q	Ditto to walls.	Sm	100		
R	Ditto to top and sides of cover slab.	Sm	12		
A	Approved Heavy duty plastic manhole cover and frame size 600 x 450mm including bedding frame in cement and sand mortar 1:2 and setting cover in greese.	No.	4		
B	100mm diametre P.V.C inlet pipe with equal "Tee" 450mm long.	No.	1		
C	100mm diametre U.P.V.C out-let pipe 750mm long	No.	1		
D	Form or leave 150mm diametre hole in 250mm walling.	No.	4		
E	25mm diameter bitumen coated cast iron step bars 600mm long with 300mm long footing , sunk into concrete walling	No.	6		
	Sub total for septic tank				
	Ex 8				

PC & PROVISIONAL SUMS

ITEM	DESCRIPTION		AMOUNT
	PROPOSED CONSTRUCTION OF SEED CENTRE FOR TAITA TAVETA		
	<u>MAIN SUMMARY</u>	<u>PAGE</u>	
1.	PARTICULAR PRELIMINARIES		
2.	GENERAL PRELIMINARIES	-	
		-	
3.	BUILDERS WORK		
4.	MECHANICAL INSTALLATIONS WORKS		
5.	ELECTRICAL INSTALLATIONS		
6.	CIVIL WORKS		
7.	PC & PROVISIONAL SUMS		
	-		
	SUB- TOTAL		
	VAT - 16%		
	TOTAL CARRIED TO LOT 4 SUMMARY PAGE	KSHS	

ITEM	DESCRIPTION	SHS	SHS
	<u>PROPOSED CONSTRUCTION OF KEFRI SEED CENTRES FOR LOT 4 (GEDE & TAITA TAVETA SUB - CENTRES)</u>	FOR OFFICIAL USE	FOR CONTRACTORS USE
1	<u>LOT 4 SUMMARY</u> GEDE - CENTRE	-	
2	TAITA TAVETA SUB - CENTRE		
	- TOTAL FOR LOT 4 CARRIED TO FORM OF TENDER	KSHS	
<p>Amount in words Ksh</p> <p>.....</p> <p>CONTRACTORS NAME</p> <p>ADDRESS</p> <p>.....</p> <p>DATE</p> <p>SIGNATURE,.....</p> <p>WITNESS'S NAME</p> <p>ADDRESS</p> <p>.....</p> <p>DATE</p> <p>SIGNATURE</p>			

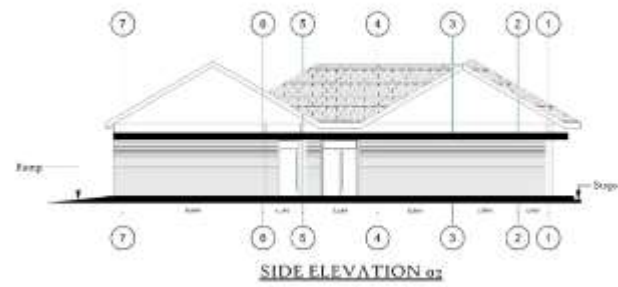
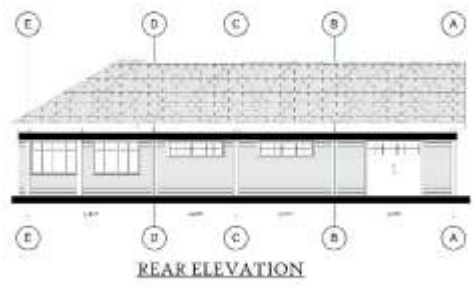
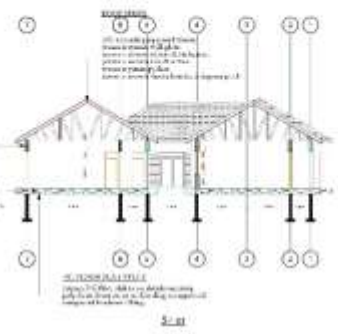
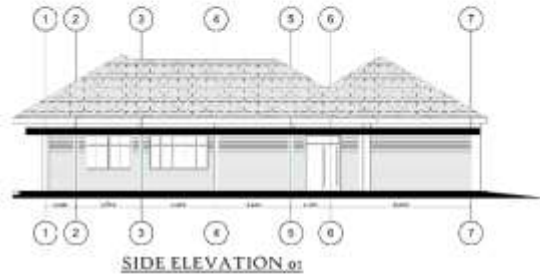
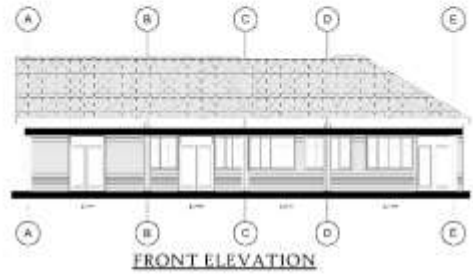
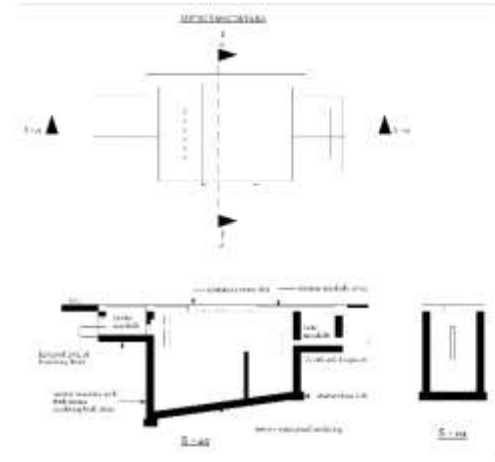
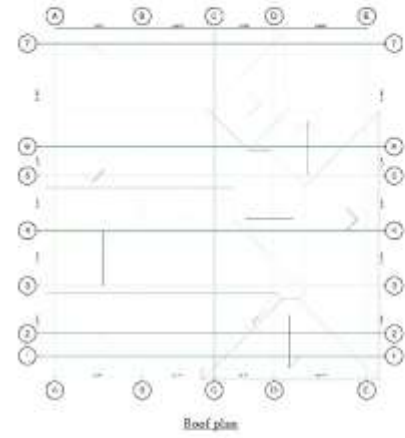
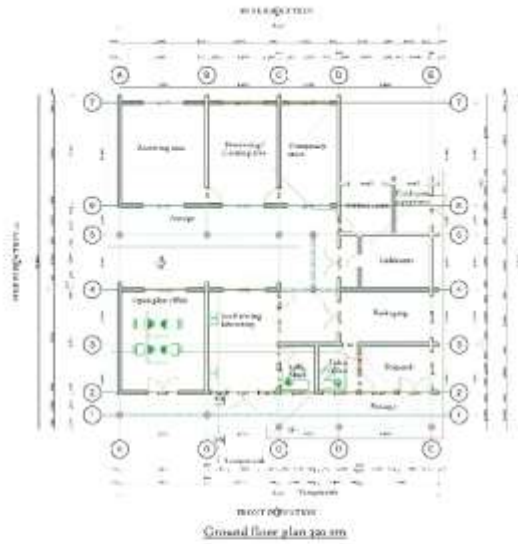
SECTION VI - SPECIFICATIONS

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 KEFRI 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. KEFRI 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. KEFRI 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 KEFRI, 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 KEFRI each on its own merits and independently of whether the tenderer has priced the item as described in KEFRI's design included with the tender documents.

SECTION VII - DRAWINGS

**DRAWING FOR
TIVA-KITUI CENTER,
MASENO CENTER
AND
GEDE CENTER**



Keterangan	
1	Atap
2	Dinding
3	Lantai
4	Pintu
5	Jendela
6	Langit-langit
7	Tiang
8	Langka
9	Plafond
10	Langka
11	Langka
12	Langka
13	Langka
14	Langka
15	Langka
16	Langka
17	Langka
18	Langka
19	Langka
20	Langka
21	Langka
22	Langka
23	Langka
24	Langka
25	Langka
26	Langka
27	Langka
28	Langka
29	Langka
30	Langka
31	Langka
32	Langka
33	Langka
34	Langka
35	Langka
36	Langka
37	Langka
38	Langka
39	Langka
40	Langka
41	Langka
42	Langka
43	Langka
44	Langka
45	Langka
46	Langka
47	Langka
48	Langka
49	Langka
50	Langka

DRAWING FOR

NYERI SUB-CENTER,

RUMURUTI SUB-CENTER,

BARINGO-MARIGAT SUB-CENTER,

KIBWEZI SUB-CENTER,

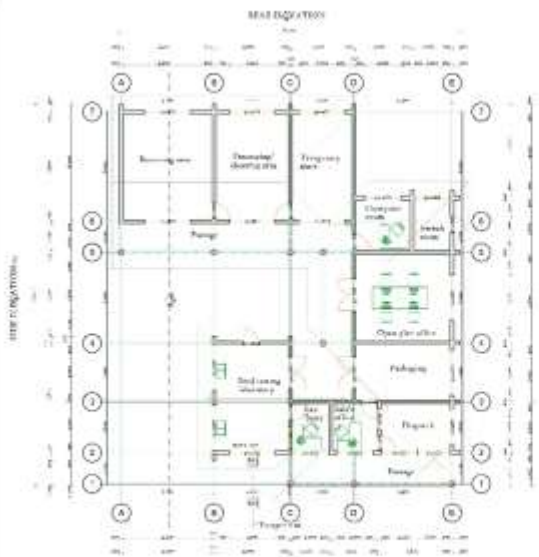
GARISSA SUB-CENTER,

MIGORI SUB-CENTER,

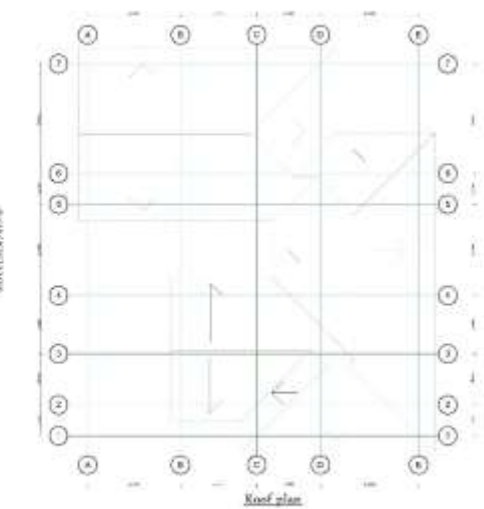
KAKAMEGA SUB-CENTER,

AND

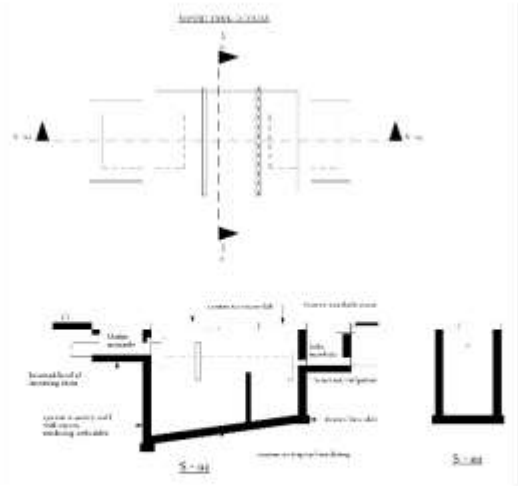
TAITA TAVETA SUB-CENTER,



Ground floor plan 1:50



Roof plan



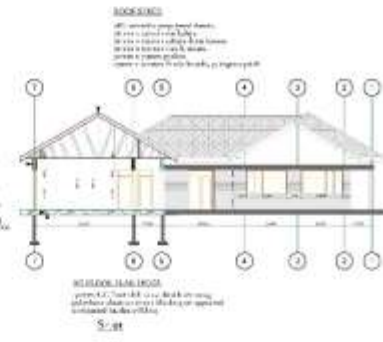
- NOTES**
1. All dimensions are to the center of the element unless stated.
 2. The owner is responsible for obtaining all necessary permits and approvals from the relevant authorities.
 3. All materials and workmanship must conform to the relevant standards and specifications.
 4. The contractor is responsible for ensuring that all work is completed in accordance with the approved drawings and specifications.
 5. All dimensions are to the center of the element unless stated.
 6. The contractor is responsible for ensuring that all work is completed in accordance with the approved drawings and specifications.
 7. All dimensions are to the center of the element unless stated.
- REVISIONS**
- | No. | Date | Description |
|-----|------------|------------------|
| 1 | 10/10/2024 | Issue for tender |



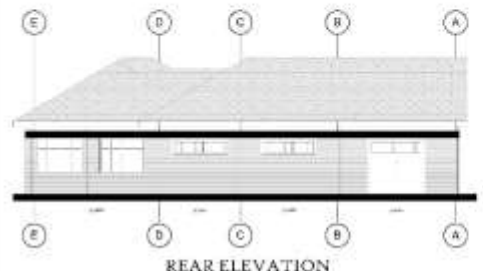
FRONT ELEVATION



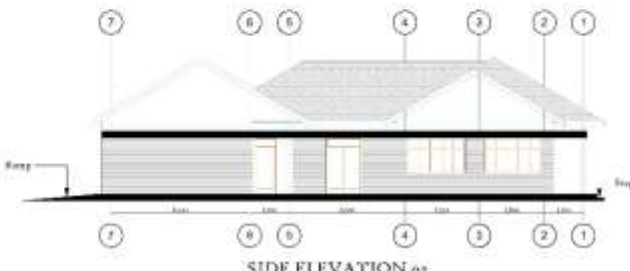
SIDE ELEVATION 01



SECTION 3-3



REAR ELEVATION



SIDE ELEVATION 02

NOTES

1. All dimensions are to the center of the element unless stated.

2. The contractor is responsible for ensuring that all work is completed in accordance with the approved drawings and specifications.

3. All dimensions are to the center of the element unless stated.

NOTES

1. All dimensions are to the center of the element unless stated.

2. The contractor is responsible for ensuring that all work is completed in accordance with the approved drawings and specifications.

3. All dimensions are to the center of the element unless stated.

REVISIONS

No.	Date	Description
1	10/10/2024	Issue for tender

WATER MARK

Drawn by: [Name]

Checked by: [Name]

Scale: 1:50

Date: 10/10/2024

Project: [Project Name]

SECTION VIII - GENERAL CONDITIONS OF CONTRACT (GCC)

[Name of KEFRI]

[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 thereafter as adjusted in accordance with the provisions of the Contract.

“Contract” means the agreement entered into between KEFRI 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, KEFRI'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 KEFRI.

“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 (as the case maybe) 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) KEFRI 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 KEFRI, 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 KEFRI entitled Special Conditions of Contract which constitute Part A of the Special Conditions.

“Party” means KEFRI 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 KEFRI 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 KEFRI.

“Procuring Entity's Personnel” means the Engineer, the Engineer, the assistants and all other staff, labor and other employees of the Architect and of KEFRI; and any other personnel notified to the Contractor, by KEFRI or the Engineer, as KEFRI'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 KEFRI 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 KEFRI 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 KEFRI 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 KEFRI 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 are actual and interpretative about the surface and sub-surface condition at 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 KEFRI.

“Tests on 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 KEFRI.

“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 KEFRI 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 KEFRI.

1.7 Assignment

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

- a) May assign the whole or any part with the prior consent of KEFRI, 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 KEFRI. 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 KEFRI. 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. KEFRI'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

- 1.10.1 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.
- 1.10.2 The Contractor shall be deemed (by signing the Contract) to give to KEFRI 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.
- 1.10.3 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) KEFRI for purposes other than those permitted under Sub-Clause 1.10.2.

1.11 Contractor's Use of KEFRI's Documents

As agreed between the Parties, KEFRI shall retain the copyright and other intellectual property rights in the Specification, the Drawings and other documents made by (or on behalf of) KEFRI. The Contractor may, at his cost, copy, use, and obtain communication of these documents for the purposes of the Contract. They shall not, without KEFRI'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

- 1.12.1 The Contractor's and KEFRI'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 KEFRI'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) KEFRI 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 KEFRI; and KEFRI 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 KEFRI 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 KEFRI for the performance of the Contract;
- b) these persons shall notify KEFRI 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 KEFRI.

1.15 Inspections and Audit by KEFRI

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, KEFRI 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 KEFRI if requested by KEFRI. 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 KEFRI's inspection and audit rights constitute a prohibited practice subject to contract termination (as well as to a determination of ineligibility pursuant to KEFRI's prevailing sanctions procedures).

2 KEFRI

2.1 Right of Access to the Site

- 2.1.1 KEFRI 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, KEFRI is required to give (to the Contractor) possession of any foundation, structure, plant or means of access, KEFRI shall do so in the time and manner stated in the Specification. However, KEFRI 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, KEFRI 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 KEFRI 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.
- 2.1.5 However, if and to the extent that KEFRI'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

- 2.2.1 KEFRI 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

- ii) [Compliance with Laws], 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

KEFRI shall be responsible for ensuring that KEFRI's Personnel and KEFRI's other contractors on the Site:

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

2.4 Procuring Entity's Financial Arrangements

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

3. THE ENGINEER

3.1 Architect Duties and Authority

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

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

3.1.3 The Architect May exercise the authority attributable to the Architect as specified in or necessarily to be implied from the Contract. If the Architect is required to obtain the approval of KEFRI before exercising a specified authority, the requirements shall be as stated in the **Special Conditions of Contract**. KEFRI 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 KEFRI's approval is required, then (for the purposes of the Contract) the contractor shall require the Architect to provide evidence of such approval before complying with the instruction.

3.1.5 Except as otherwise stated in these Conditions:

- a) Whenever carrying out duties or exercising authority, specified in or implied by the Contract, the Architect shall be deemed to act for the

Procuring Entity;

- b) the Architect has no authority to relieve either Party of any duties, obligations or responsibilities under the Contract;
- c) any approval, check, certificate, consent, examination, inspection, instruction, notice, proposal, request, test, or similar act by the Architect (including absence of disapproval) shall not relieve the Contractor from any responsibility he has under the Contract, including responsibility for errors, omissions, discrepancies and non-compliances; and
- d) any act by the Architect in response to a Contractor's request shall be notified in writing to the Contractor within 14 days of receipt.

3.1.6 The following provisions shall apply:

The Architect shall obtain the specific approval of KEFRI 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 KEFRI, 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 KEFRI.

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, KEFRI 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 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 coordination of each Party's designs;
 - c) the Contractor shall be responsible for this part and it shall, when the Works are completed, befit for such purposes for which the part is intended as are specified in the Contract; and

- d) prior to the commencement of the Tests on Completion, the Contractor shall submit to the Architect the “as-built” documents and, if applicable, operation and maintenance manuals in accordance with the Specification and in sufficient detail for KEFRI 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

- 4.2.1 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 KEFRI. If an amount is not stated in the Special Conditions of Contract, this Sub-Clause shall not apply.
- 4.2.2 The Contractor shall deliver the Performance Security to KEFRI 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 KEFRI in the Special Conditions of Contract, or in another form approved by KEFRI.
- 4.2.3 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.
- 4.2.4 KEFRI shall not make a claim under the Performance Security, except for amounts to which KEFRI is entitled under the Contract.
- 4.2.5 KEFRI 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 KEFRI was not entitled to make the claim.
- 4.2.6 KEFRI shall return the Performance Security to the Contractor within 14 days after receiving a copy of the Taking-Over Certificate.
- 4.2.7 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

- 4.3.1 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**.
- 4.3.2 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.
- 4.3.3 The Contractor shall not, without the prior consent of the Engineer, revoke the appointment of the Contractor's Representative or appoint a replacement.
- 4.3.4 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.
- 4.3.5 The Contractor's Representative shall, on behalf of the Contractor, receive instructions under Sub-Clause 3.3 [Instructions of the Engineer].
- 4.3.6 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.
- 4.3.7 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 interpreters available during all working hours in a number deemed sufficient by the Engineer.

4.4 Sub-contractors

- 4.4.1 The Contractor shall not subcontract the whole of the Works. The contractor may however subcontract the works as provided in Clause 34.2.
- 4.4.2 The Contractor shall be responsible for the acts or defaults of any Subcontractor, his agents or employees, as if they were the 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 KEFRI shall be obtained to other proposed

Subcontractors;

- c) the Contractor shall give KEFRI 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 KEFRI to require the subcontract to be assigned to KEFRI 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 KEFRI].

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

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

4.5 Assignment of Benefit of Subcontract

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

4.6 Co-operation

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

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

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

4.6.3 If, under the Contract, KEFRI 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 Contractor 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 KEFRI shall be responsible for any errors in these specified or notified items of reference, but the Contractor shall use reasonable efforts to verify their accuracy before they are used.
- 4.7.3 If the Contractor suffers delay and/or incurs Cost from executing work which was necessitated by an error in these items of reference, and an experienced contractor could not reasonably have discovered such error and avoided this delay and/ or Cost, the Contractor shall give notice to the Architect and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:
- a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and
 - b) payment of any such costs accrued, which shall be included in the Contract Price.
- 4.7.4 After receiving this notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine (i) whether and (if so) to what extent the error could not reasonably have been discovered, and (ii) the matters described in sub-paragraphs (a) and (b) above related to this.

48 Safety Procedures

The Contractor shall:

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

49 Quality Assurance

- 4.9.1 The Contractor shall institute a quality assurance system to demonstrate compliance with the requirements of the Contract. The system shall be in accordance with the details stated in the Contract. The Architect shall be entitled to audit any aspect of the system.
- 4.9.2 Details of all procedures and compliance documents shall be submitted to the Architect for 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 KEFRI shall have made available to the Contractor for his information, prior to the Base Date, all relevant data in KEFRI's possession on sub-surface and hydrological conditions at the Site, including environmental aspects. KEFRI shall similarly make available to the Contractor all such data which come into KEFRI'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.

- 4.122 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.
- 4.123 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.
- 4.124 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.
- 4.125 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.
- 4.126 However, before additional Cost is finally agreed or determined under sub-paragraph (ii), the Architect may also review whether other physical conditions in similar parts of the Works (if any) were more favorable than could reasonably have been foreseen when the Contractor submitted the Tender. If and to the extent that these more favorable conditions were encountered, the Architect may proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine the reductions in Cost which were due to these conditions, which may be included (as deductions) in the Contract Price and Payment Certificates. However, the net effect of all adjustments under sub-paragraph (b) and all these reductions, for all the physical conditions encountered in similar parts of the Works, shall not result in a net reduction in the Contract Price.
- 4.127 The Architect shall take account of any evidence of the physical conditions foreseen by the Contract or 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 KEFRI 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 KEFRI or of others.

4.14.2 The Contractor shall indemnify and hold KEFRI 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) KEFRI shall not be responsible for any claims which may arise from the use or otherwise of any access route;
- d) KEFRI does not guarantee the suitability or availability of particular access routes; and
- e) Costs due to non-suitability or non-availability, for the use required by the Contractor, of access routes shall be borne by the Contractor.

4.16 Transport of Goods

Unless otherwise stated in the Special Conditions:

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

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

4.17 Contractor's Equipment

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

4.18 Protection of the Environment

4.18.1 The contractor shall comply with the applicable environmental laws, regulations and policies.

4.18.2 The Contractor shall take all reasonable steps to protect the environment (both on and off the Site) and to limit damage and nuisance to people and property resulting from pollution, noise and other results of his operations.

4.18.3 The Contractors shall ensure that emissions, surfaced is charges and effluent from the Contractor's activities shall not exceed the values stated in the Specification or prescribed by applicable Laws.

4.19 Electricity, Water and Gas

4.19.1 The Contractor shall, except as stated below, be responsible for the provision of all power, water and other services he may require for his construction activities and to the extent defined in the Specifications, for the tests.

4.19.2 The Contractor shall be entitled to use for the purposes of the Works such supplies of electricity, water, gas and other services as may be available on the Site and of which details and prices are given in the Specifications. The Contractor shall, at his risk and cost, provide any apparatus necessary for his use of these services and for measuring the quantities consumed.

4.19.3 The quantities consumed and the amounts due (at these prices) for such services shall be agreed or determined by the Architect in accordance with Sub-Clause 2.5 [Procuring Entity's Claims] and Sub-Clause 3.5 [Determinations]. The Contractor shall pay these amounts to KEFRI.

4.20 Procuring Entity's Equipment and Free-Issue Materials

4.20.1 KEFRI shall make KEFRI'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) KEFRIs shall be responsible for KEFRI's Equipment, except that
- b) the Contractor shall be responsible for each item of KEFRI's Equipment

whilst any of the Contractor's Personnel is operating it, driving it, directing it or in possession or control of it.

- 4.201 The appropriate quantities and the amounts due (at such stated prices) for the use of KEFRI'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 KEFRI.
- 4.202 KEFRI shall supply, free of charge, the "free-issue materials" (if any) in accordance with the details stated in the Specification. KEFRI 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, KEFRI shall immediately rectify the notified shortage, defect or default.
- 4.203 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 KEFRI 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 KEFRI's Personnel; and to any other personnel notified to the Contractor, by KEFRI or the Engineer, as authorized personnel of KEFRI's other contractors on the Site.

4.23 Contractor's Operations on Site

4.23.1 The Contractor shall confine his operations to the Site, and to any additional areas which may be obtained by the Contractor and agreed by the Architect as additional working areas. The Contractor shall take all necessary precautions to keep Contractor's Equipment and Contractor's Personnel within the Site and these additional areas, and to keep them off adjacent land.

4.23.2 During the execution of the Works, the Contractor shall keep the Site free from all unnecessary obstruction and shall store or dispose of any Contractor's Equipment or surplus materials. The Contractor shall clear away and remove from the Site any wreckage, rubbish and Temporary Works which are no longer required.

4.23.3 Upon the issue of a Taking-Over Certificate, the Contractor shall clear away and remove, from that part of the Site and Works to which the Taking-Over Certificate refers, all Contractor's Equipment, surplus material, wreckage, rubbish and Temporary Works. The Contractor shall leave that part of the Site and the Works in a clean and safe condition. However, the Contractor may retain on Site, during the Defects Notification Period, such Goods as are required for the Contractor to fulfil obligations under the Contract.

4.24 Fossils

4.24.1 All fossils, coins, articles of value or antiquity, and structures and other remains or items of geological or archaeological interest found on the Site shall be placed under the care and authority of KEFRI. 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 KEFRI, 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 KEFRI 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 KEFRI 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 KEFRI 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 KEFRI may (at his sole discretion) pay, direct 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 KEFRI, the amount which the nominated Subcontractor was directly paid by KEFRI.

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 KEFRI'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 KEFRI

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

6.4 Labor 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

No work 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 KEFRI'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 KEFRI'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 whatever 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 superintendence 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 Contractor's 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 and 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 KEFRI'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 KEFRI'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 KEFRI 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 KEFRI to incur additional costs, the Contractor shall subject to Sub-Clause 2.5 [Procuring Entity's Claims] pay these costs to KEFRI.

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 able event or otherwise.

- 7.62 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).
- 7.63 If the Contractor fails to comply with the instruction, KEFRI 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 KEFRI all costs arising from this failure.
- 7.64 If the contractor repeatedly delivers defective work, KEFRI 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 KEFRI 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 shave 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.

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

8.13 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 4 days after receiving the notice under Sub-Clause 8.1 [Commencement of Works]. The Contractor shall also submit a revised programme whenever the previous programme is inconsistent with actual progress or with the Contractor's obligations. Each programme shall include:

- a) The order in which the Contractor intends to carry out the Works, including the anticipated timing of each stage of design (if any), Contractor's Documents, procurement, manufacture of Plant, delivery to Site, construction, erection and testing,
- b) each of these stages for work by each nominated Subcontractor (as defined in Clause 5 [Nominated Subcontractors]),
- c) the sequence and timing of inspections and tests specified in the Contract, and
- d) a supporting report which includes:
 - i) a general description of the methods which the Contractor intends to adopt, and of the major stages, in the execution of the Works, and
 - ii) details showing the Contractor's reasonable estimate of the number of each class of Contractor's Personnel and of each type of Contractor's Equipment, required on the Site for each major stage.

8.3.2 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. KEFRI'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

- 8.4.1 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 KEFRI, KEFRI's Personnel, or KEFRI's other contractors.
- 8.4.2 If the Contractor considers itself to be entitled to an extension of the Time for Completion, the Contractor shall give notice to the Architect in accordance with Sub-Clause 20.1 [Contractor's Claims]. When determining each extension of time under Sub-Clause 20.1, the Architect shall review previous determinations and may increase, but shall not decrease, the total extension of time.

8.5 Delays Caused by Authorities

If the following conditions apply, namely:

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

8.6 Rate of Progress

8.6.1 If, at anytime:

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

8.6.2 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 KEFRI to incur additional costs, the Contractor shall subject to notice under Sub-Clause 2.5 [Procuring Entity's Claims] pay these costs to KEFRI, 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 KEFRI, 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 KEFRI 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 KEFRI] 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 against any deterioration, loss or damage.

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

8.9 Consequences of Suspension

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

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

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

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

102.3 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.

102.4 If the Contractor incurs Cost as a result of KEFRI taking over and/or using a part of the Works, other than such use as is specified in the Contractor 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.

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

10.3 Interference with Tests on Completion

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

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

10.3.3 If the Contractor suffers delay and/or incurs Cost as a result of this delay in carrying out the Tests on Completion, the Contractor shall give notice to the Architect and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims]

to:

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

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

10.4 Surfaces Requiring Reinstatement

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

11. DEFECTS LIABILITY

11.1 Completion of Outstanding Work and Remedying Defects

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

- a) complete any work which is outstanding on the date stated in a Taking-Over Certificate, within such reasonable time as is instructed by the Engineer, and
- b) execute all work required to remedy defects or damage, as may be notified by (or on behalf of) KEFRI 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) KEFRI, and Sub-Clause 13.3 [Variation Procedure] shall apply.

11.3 Extension of Defects Notification Period

11.3.1 KEFRI shall be entitled subject to Sub-Clause 2.5 [Procuring Entity's Claims] to

an extension of the Defects Notification Period for the Works or a Section if and to the extent that the Works, Section or a major item of Plant (as the case may be, and after taking over) cannot be used for the purposes for which they are intended by reason of a defect or by reason of damage attributable to the Contractor. However, a Defects Notification Period shall not be extended by more than two years.

- 11.3.2 If delivery and/ or erection of Plant and/ or Materials was suspended under Sub-Clause 8.8 [Suspension of Work] or Sub-Clause 16.1 [Contractor's Entitlement to Suspend Work], the Contractor's obligations under this Clause shall not apply to any defect or damage occurring more than two years after the Defects Notification Period for the Plant and/ or Materials would otherwise have expired.

11.4 Failure to Remedy Defects

- 11.4.1 If the Contractor fails to remedy any defect or damage within a reasonable time, a date may be fixed by the Engineer, on or by which the defect or damage is to be remedied. The Contractor shall be given reasonable notice of this date.

- 11.4.2 If the Contractor fails to remedy the defect or damage by this notified date and this remedial work was to be executed at the cost of the Contractor under Sub-Clause 11.2 [Cost of Remedying Defects], KEFRI 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 KEFRI the costs reasonably incurred by KEFRI 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 KEFRI 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, KEFRI shall then be entitled to recover all sums paid for the Works or for such part (as the case may be), plus financing costs and the cost of dismantling the same, clearing the Site and returning Plant and Materials to the Contractor.

11.5 Removal of Defective Work

If the defect or damage cannot be remedied expeditiously on the Site and KEFRI gives consent, the Contractor may remove from the Site for the purposes of repair such items of Plant as are defective or damaged. This consent may require the Contractor to increase the amount of the Performance Security by the full replacement cost of these items, or to provide other appropriate security.

11.6 Further Tests

- 11.6.1 If the work of remedying of any defect or damage may affect the performance of the Works, the Architect may require the repetition of any of the tests

described in the Contract. The requirement shall be made by notice within 14 days after the defect or damage is remedied.

- 11.6.2 These tests shall be carried out in accordance with the terms applicable to the previous tests, except that they shall be carried out at the risk and cost of the Party liable, under Sub-Clause 11.2 [Cost of Remedying Defects], for the cost of the remedial work.

11.7 Right of Access

Until the Completion Certificate has been issued, the Contractor shall have such right of access to the Works as is reasonably required in order to comply with this Clause, except as may be inconsistent with KEFRI'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 KEFRI.

- 11.9.3 Only the Completion Certificate shall be deemed to constitute acceptance of the Works.

11.10 Unfulfilled Obligations

After the Completion Certificate has been issued, each Party shall remain liable for the fulfilment of any obligation which remains unperformed at that time. For the purposes of determining the nature and extent of unperformed obligations, the Contract shall be deemed to remain in force.

11.11 Clearance of Site

- 11.11.1 Upon receiving the Completion Certificate, the Contractor shall remove any remaining Contractor's Equipment, surplus material, wreckage, rubbish and

Temporary Works from the Site.

- 11.11.2 If all these items have not been removed within 30 days after receipt by the Contractor of the Completion Certificate, KEFRI may sell or otherwise dispose of any remaining items. KEFRI shall be entitled to be paid the costs incurred in connection with, or attributable to, such sale or disposal and restoring the Site.
- 11.11.3 Any balance of the moneys from the sale shall be paid to the Contractor. If these moneys are less than KEFRI's costs, the Contractor shall pay the outstanding balance to KEFRI.

12 MEASUREMENT AN DEVALUATION

12.1 Works to be Measured

- 12.1.1 The Works shall be measured, and valued for payment, in accordance with this Clause. The Contractor shall show in each application under Sub-Clauses 14.3 [Application for Interim Payment Certificates], 14.10 [Statement on Completion] and 14.11 [Application for Final Payment Certificate] the quantities and other particulars detailing the amounts which he considers to be entitled under the Contract.
- 12.1.2 Whenever the Architect requires any part of the Works to be measured, reasonable notice shall be given to the Contractor's Representative, who shall:
- a) promptly either attend or send another qualified representative to assist the Architect in making the measurement, and
 - b) supply any particulars requested by the Engineer.
- 12.1.3 If the Contractor fails to attend or send a representative, the measurement made by the Architect shall be accepted as accurate.
- 12.1.4 Except as otherwise stated in the Contract, wherever any Permanent Works are to be measured from records, these shall be prepared by the Engineer. The Contractor shall, as and when requested, attend to examine and agree her records with the Engineer, and shall sign the same when agreed. If the Contractor does not attend, the records shall be accepted as accurate.
- 12.1.5 If the Contractor examines and disagrees the records, and/ or does not sign them as agreed, then the Contractor shall give notice to the Architect of the respects in which the records are asserted to be inaccurate. After receiving this notice, the Architect shall review the records and either confirm or vary them and certify the payment of the undisputed part. If the Contractor does not so give notice to the Architect within 14 days after being requested to examine the records, they shall be accepted as accurate.

12.2 Method of Measurement

Except as otherwise stated in the Contract:

- a) Measurement shall be made of the net actual quantity of each item of the Permanent Works, and
- b) the method of measurement shall be in accordance with the Bill of

Quantities or other applicable Schedules.

12.3 Evaluation

- 12.3.1 Except as otherwise stated in the Contract, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine the value of work one by evaluating each item of work, applying the measurement agreed or determined in accordance with the above Sub-Clauses 12.1 and 12.2 and the appropriate rate or price for the item.
- 12.3.2 For each item of work, the appropriate rate or price for the item shall be the rate or price specified for such item in the Contractor, if there is no such item, specified for similar work.
- 12.3.3 Any item of work included in the Bill of Quantities for which no rate or price was specified shall be considered as included in other rates and prices in the Bill of Quantities and will not be paid for separately.
- 12.3.4 However, for a new item of work, a new rate or price shall be appropriate for such item of work if:
- a) The work is instructed under Clause 13 [Variations and Adjustments],
 - b) no rate or price is specified in the Contract for this item, and
 - c) no specified rate or price is appropriate because the item of work is not of similar character, or is not executed under similar conditions, as any item in the Contract.
- 12.3.5 Each new rate or price shall be derived from any relevant rates or prices in the Contract. If no rates or prices are relevant for the new item of work, it shall be derived from the reasonable Cost of executing such work, prevailing market rates, together with profit, taking account of any other relevant matters.
- 12.3.6 Until such time as an appropriate rate or price is agreed or determined, the Architect shall determine a provisional rate or price for the purposes of Interim Payment Certificates as soon as the concerned work commences.
- 12.3.7 Where the contract price is different from the corrected tender price, in order to ensure the contractor is not paid less or more relative to the contract price (*which would be the tender price*), payment valuation certificates and variation orders on omissions and additions valued based on rates in the Bill of Quantities or schedule of rates in the Tender, will be adjusted by a plus or minus percentage. The percentage already worked out during tender evaluation is worked out as follows: $(\text{corrected tender price} - \text{tender price}) / \text{tender price} \times 100$.

12.4 Omissions

Whenever the omission of any work forms part (or all) of a Variation, the value of which has not been agreed, if:

- a) The Contractor will incur (or has incurred) cost which, if the work had not been omitted, would have been deemed to be covered by a sum forming part of the Accepted Contract Amount;

- b) The omission of the work will result (or has resulted) in this sum not forming part of the Contract Price; and
- c) this cost is not deemed to be included in the evaluation of any substituted work; then the Contractor shall give notice to the Architect accordingly, with supporting particulars. Upon receiving this notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine this cost, which shall be included in the Contract Price.

13. VARIATIONS AND ADJUSTMENTS

13.1 Right to Vary

13.1.1 Variations may be initiated by the Architect at any time prior to issuing the Taking-Over Certificate for the Works, either by an instruction or by a request for the Contractor to submit a proposal. No Variation instructed by the Architect under this Clause shall in any way vitiate or invalidate the Contract.

13.1.2 The Contractor shall execute and be bound by each Variation, unless the Contractor promptly gives notice to the Architect stating (with supporting particulars) that (i) the Contractor cannot readily obtain the Goods required for the Variation, or (ii) such Variation triggers a substantial change in the sequence or progress of the Works. Upon receiving this notice, the Architect shall cancel, confirm or vary the instruction.

13.1.3 Each Variation may include:

- a) changes to the quantities of any item of work included in the Contract (however, such changes do not necessarily constitute a Variation),
- b) changes to the quality and other characteristics of any item of work,
- c) changes to the levels, positions and/ or dimensions of any part of the Works,
- d) omission of any work unless it is to be carried out by others,
- e) any additional work, Plant, Materials or services necessary for the Permanent Works, including any associated Tests on Completion, boreholes and other testing and exploratory work, or
- f) changes to the sequence or timing of the execution of the Works.

13.1.4 The Contractor shall not make any alteration and/or modification of the Permanent Works, unless and until the Architect instructs after obtaining approval of KEFRI.

13.2 Variation Order Procedure

13.2.1 Prior to any Variation Order under Sub-Clause 13.1.4 the Architect shall notify the Contractor of the nature and form of such variation. As soon as possible after having received such notice, the Contractor shall submit to the Engineer:

- a) A description of work, if any, to be performed and a programme for its execution, and
- b) the Contractor's proposals for any necessary modifications to the Programme according to Sub-Clause 8.3 or to any of the Contractor's obligations under the Contract, and

- c) the Contractor's proposals for adjustment to the Contract Price.

Following the receipt of the Contractor's submission the Architect shall, after due consultation with the Employer and the Contractor, decide as soon as possible whether or not the variation shall be carried out. If the Architect decides that the variation shall be carried out, he shall issue a Variation Order clearly identified as such in accordance with the Contractor's submission or as modified by agreement.

If the Architect and the Contractor are unable to agree the adjustment of the Contract Price, the provisions of Sub-Clause 13.2.2 shall apply.

13.2.2 Disagreement on Adjustment of the Contract Price

If the Contractor and the Architecture unable to agree on the adjustment of the Contract Price, the adjustment shall be determined in accordance with the rates specified in the Bills of Quantities or Schedule of Daywork Prices. If the rates contained in the Bills of Quantities or Dayworks Prices are not directly applicable to the specific work in question, suitable rates shall be established by the Architect reflecting the level of pricing in the Dayworks Prices. Where rates are not contained in the said Prices, the amount shall be such as is in all the circumstances reasonable, reflecting a market price. Due account shall be taken of any over-or under-recovery of overheads by the Contractor in consequence of the variation. The Contractor shall also be entitled to be paid:

- a) The cost of any partial execution of the Work rendered useless by any such variation,
- b) The cost of making necessary alterations to Plant already manufactured or in the course of manufacture or of any work done that has to be altered in consequence of such a variation,
- c) any additional costs incurred by the Contractor by the disruption of the progress of the Works as detailed in the Programme, and
- d) the net effect of the Contractor's 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 KEFRI of executing, maintaining or operating the Works, (iii) improve the efficiency or value to KEFRI of the completed Works, or

(iv) otherwise be of benefit to KEFRI.

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].

13.2.3 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 KEFRI 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 KEFRI.

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 in duplicate 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 mounts 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:

$$P = A + B I_m/I_o$$

where:

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

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

I_m is the index prevailing at the end of the month being invoiced and **I_o** 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.

13.9.4 The cost indices or reference prices stated in the table of adjustment data shall be used. If their source is in doubt, it shall be determined by the Engineer. Forth is purpose, reference shall be made to the values of the indices at stated dates (quoted in the fourth and fifth columns respectively of the table) for the purposes of clarification of the source; although these dates (and thus these values) may not correspond to the base cost indices.

13.9.5 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.

13.9.6 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.

13.9.7 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 KEFRI.

13.9.8 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.

14.1.2 Notwithstanding the provisions of subparagraph (b), Contractor's Equipment, including essential spare parts there for, imported by the Contractor for the sole purpose of executing the Contract shall not be exempt from the payment of import duties and taxes upon importation.

14.2 Advance Payment

14.2.1 KEFRI 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**.

14.2.2 Unless and until KEFRI receives this guarantee, or if the total advance payment is not stated in the Special Conditions of Contract, this Sub-Clause shall not apply.

- 14.2.3 The Architect shall deliver to KEFRI 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 KEFRI 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 KEFRI.
- 14.2.4 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.
- 14.2.5 Unless stated otherwise in **the Special Conditions of Contract**, the advance payment shall be repaid through percentage deductions from the interim payments determined by the Architect in accordance with Sub-Clause 14.6 [Issue of Interim Payment Certificates], as follows:
- a) Deductions shall commence in the next interim Payment Certificate following that in which the total of all certified interim payments (excluding the advance payment and deductions and repayments of retention) exceeds 30 percent (30%) of the Accepted Contract Amount less Provisional Sums; and
 - b) deductions shall be made at the amortization rate stated in the **Special Conditions of Contract** of the amount of each Interim Payment Certificate (excluding the advance payment and deductions for its repayments as well as deductions for retention money) in the currencies and proportions of the advance payment until such time as the advance payment has been repaid; provided that the advance payment shall be completely repaid prior to the time when 90 percent (90%) of the Accepted Contract Amount less Provisional Sums has been certified for payment.
- 14.2.6 If the advance payment has not been repaid prior to the issue of the Taking-Over Certificate for the Works or prior to termination under Clause 15 [Termination by KEFRI], 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 KEFRI], except for Sub-Clause 14.2.7 [Procuring Entity's Entitlement to Termination for Convenience], payable by the Contractor to KEFRI.

14.3 Application for Interim Payment Certificates

- 14.3.1 The Contractor shall submit a Statement (in number of copies indicated in the **Special Conditions of Contract**) to the Architect after the end of each month, in

aform approved by the Engineer, showing in detail the amounts to which the Contractor considers itself to be entitled, together with supporting documents which shall include there portion the progress during this month in accordance with Sub-Clause4.21 [Progress Reports].

- 14.32 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 KEFRI reaches the limit of Retention Money (if any) stated **in the Special Conditions of Contract**;
 - d) any amounts to be added for the advance payment and (if more than one instalment) and to be deducted for its repayments in accordance with Sub-Clause 14.2 [Advance Payment];
 - e) any amounts to be added and deducted for Plant and Materials in accordance with Sub-Clause 14.5 [Plant and Materials intended for the Works];
 - f) any other additions or deductions which may have become due under the Contractor otherwise, including those under Clause 20 [Claims, Disputes and Arbitration]; and
 - g) the deduction of amounts certified in all previous Payment Certificates.

14.4 Schedule of Payments

- 14.41 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.

14.42 If the Contract does not include a schedule of payments, the Contractor shall submit non-binding estimates of the payments which he expects to become due during each quarterly period. The first estimate shall be submitted within 42 days after the Commencement Date. Revised estimates shall be submitted at quarterly intervals, until the Taking-Over Certificate has been issued for the Works.

14.5 Plant and Materials intended for the Works

14.5.1 If this Sub-Clause applies, Interim Payment Certificates shall include, under sub-paragraph (e) of Sub-Clause 14.3, (i) an amount for Plant and Materials which have been sent to the Site for incorporation in the Permanent Works, and (ii) a reduction when the contract value of such Plant and Materials is included as part of the Permanent Works under sub-paragraph (a) of Sub-Clause 14.3 [Application for Interim Payment Certificates].

14.5.2 If the lists referred to in sub-paragraphs (b)(i) or (c)(i) below are not included in the Schedules, this Sub-Clause shall not apply.

14.5.3 The Architect shall determine and certify each addition if the following conditions are satisfied:

- a) The Contractor has:
 - i) kept satisfactory records (including the orders, receipts, Costs and use of Plant and Materials) which are available for inspection, and
 - (ii) Submitted statement of the Cost of acquiring and delivering the Plant and Materials to the Site, supported by satisfactory evidence; and either:
- b) the relevant Plant and Materials:
 - i) are those listed in the Schedules for payment when shipped,
 - ii) have been shipped to Kenya, enroute to the Site, in accordance with the Contract; and
 - iii) are described in a clean shipped bill of lading or other evidence of shipment, which has been submitted to the Architect together with evidence of payment of freight and insurance, any other documents reasonably required, and a bank guarantee in a form and issued by an entity approved by KEFRI in amounts and currencies equal to the amount due under this Sub-Clause: this guarantee may be in a similar form to the form referred to in Sub-Clause 14.2 [Advance Payment] and shall be valid until the Plant and Materials are properly stored on Site and protected against loss, damage or deterioration; or
- c) the relevant Plant and Materials:
 - i) are those listed in the Schedules for payment when delivered to the Site, and
 - ii) have been delivered to and are properly stored on the Site, are protected against loss, damage or deterioration and appear to be in accordance with the Contract.

14.5.4 The additional amount to be certified shall be the equivalent of eighty percent (80%) of the Architect determination of the cost of the Plant and Materials (including delivery to Site), taking account of the documents mentioned in this Sub-Clause and of the contract value of the Plant and Materials.

14.5.5 The currencies for this additional amount shall be the same as those in which payment will become due when the contract value is included under subparagraph (a) of Sub-Clause 14.3 [Application for Interim Payment Certificates]. At that time, the Payment Certificate shall include the applicable reduction which shall be equivalent to, and in the same currencies and proportions as, this additional amount for the relevant Plant and Materials.

14.6 Issue of Interim Payment Certificates

14.6.1 No amount will be certified or paid until KEFRI has received and approved the Performance Security. Thereafter, the Architect shall, within 30 days after receiving a Statement and supporting documents, deliver to KEFRI and to the Contractor an Interim Payment Certificate which shall state the amount which the Architect fairly determines to be due, with all supporting particulars for any reduction or withholding made by the Architect on the Statement if any.

14.6.2 However, prior to issuing the Taking-Over Certificate for the Works, the Architect shall not be bound to issue an Interim Payment Certificate in an amount which would (after retention and other deductions) be less than the minimum amount of Interim Payment Certificates (if any) stated **in the Special Conditions of Contract**. In this event, the Architect shall give notice to the Contractor accordingly.

14.6.3 An Interim Payment Certificate shall not be withheld for any other reason, although:

- a) if anything supplied or work done by the Contractor is not in accordance with the Contract, the cost of rectification or replacement may be withheld until rectification or replacement has been completed; and/or
- b) if the Contractor was or is failing to perform any work or obligation in accordance with the Contract, and had been so notified by the Engineer, the value of this work or obligation may be withheld until the work or obligation has been performed.

4.6.4 The Architect may in any Payment Certificate make any correction or modification that should properly be made to any previous Payment Certificate. A Payment Certificate shall not be deemed to indicate the Architect acceptance, approval, consent or satisfaction.

14.7 Payment

14.7.1 KEFRI 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 KEFRI 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.

- 14.94 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].
- 14.95 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 KEFRI and issued by a reputable bank or financial institution selected by the Contractor, for the second half of the Retention Money.
- 14.96 KEFRI 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 KEFRI (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 KEFRI (with a copy to the Engineer) a Final Statement.

14.12 Discharge

When submitting the Final Statement, the Contractor shall submit a discharge which confirms that the total of the Final Statement represents full and final settlement of all moneys due to the Contractor under or in connection with the Contract. This discharge may state that it becomes effective when the Contractor has received the Performance Security and the outstanding balance of this total, in which event the discharge shall be effective on such date.

14.13 Issue of Final Payment Certificate

14.13.1 Within 30 days after receiving the Final Statement and discharge in accordance with Sub-Clause 14.11 [Application for Final Payment Certificate] and Sub-Clause 14.12 [Discharge], the Architect shall deliver, to KEFRI 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 KEFRI for all amounts previously paid by KEFRI and for all sums to which KEFRI is entitled, the balance (if any) due from KEFRI to the Contractor or from the Contractor to KEFRI, 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 KEFRI's Liability

14.14.1 KEFRI 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 KEFRI's liability under his indemnification obligations, or KEFRI's liability in any case of fraud, deliberate default or reckless misconduct by KEFRI.

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 KEFRI by the Contractor shall be made in the currency in which the sum was expended by KEFRI, or in such currency as may be agreed by both Parties;
- d) if any amount payable by the Contractor to KEFRI in a particular currency exceeds the sum payable by KEFRI to the Contractor in that currency, KEFRI 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 KEFRI

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 KEFRI

15.2.1 KEFRI 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 KEFRI,
- 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, in competing for or in executing the Contract.

1522 In any of these events or circumstances, KEFRI 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), KEFRI may by notice terminate the Contract immediately.

1523 KEFRI's election to terminate the Contract shall not prejudice any other rights of KEFRI, 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, KEFRI may complete the Works and/ or arrange for any other entities to do so. KEFRI and these entities may then use any Goods, Contractor's Documents and other design documents made by or on behalf of the Contractor.

15.2.6 KEFRI 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 KEFRI, these items may be sold by KEFRI in order to recover this payment. Any balance of the proceeds shall then be paid to the Contractor.

15.3 Valuation at Date of Termination

As soon as practicable after a notice of termination under Sub-Clause 15.2 [Termination by KEFRI] has taken effect, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine the value of the Works, Goods and Contractor's Documents, and any other sums due to the Contractor for work executed in accordance with the Contract.

15.4 Payment after Termination

After a notice of termination under Sub-Clause 15.2 [Termination by KEFRI] has taken effect, KEFRI 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 KEFRI, have been established, and/ or
- c) recover from the Contractor any losses and damages incurred by KEFRI 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, KEFRI shall pay any balance to the Contractor.

15.5 Procuring Entity's Entitlement to Termination for Convenience

KEFRI shall be entitled to terminate the Contract, at any time at KEFRI'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 KEFRI returns the Performance Security. KEFRI 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 KEFRI 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 KEFRI or for showing or for bearing to show favor or disfavor to any person in relation to this or any other contract for KEFRI.
- b) Enter into this or any other contract with KEFRI 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 KEFRI.

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 KEFRI, suspend work (or reduce the rate of work) unless and until the Contractor has received the Payment Certificate, reasonable evidence or payment, as the case may be and as described in the notice.

16.1.2 The Contractor's action shall not prejudice his entitlements to financing charges under Sub-Clause 14.8 [Delayed Payment] and to termination under Sub-Clause 16.2 [Termination by Contractor].

16.1.3 If the Contractor subsequently receives such Payment Certificate, evidence or payment (as described in the relevant Sub-Clause and in the above notice) before giving a notice of termination, the Contractor shall resume normal working as soon as is reasonably practicable.

16.1.4 If the Contractor suffers delay and/or incurs Cost as a result of suspending work (or reducing the rate of work) in accordance with this Sub-Clause, the Contractor shall give notice to the Architect and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:

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

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

16.3 Termination by Contractor

16.3.1 The Contractor shall be entitled to terminate the Contract if:

- a) the Architect fails, within 60 days after receiving a Statement and supporting documents, to issue the relevant Payment Certificate,
- b) the Contractor does not receive the amount due under an Interim Payment Certificate within 90 days after the expiry of the time stated in Sub-Clause 4.7 [Payment] within which payment is to be made (except for deductions in accordance with Sub-Clause 2.5 [Procuring Entity's Claims]),
- c) KEFRI 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) KEFRI becomes bankrupt or insolvent, goes into liquidation, has a receiving or administration order made against him, compounds with his creditors, or carries on business under a receiver, trustee or manager for the benefit of his creditors, or if any act is done or event occurs which (under applicable Laws) has a similar effect to any of these acts or events.
- f) the Contractor does not receive the Architect instruction recording the agreement of both Parties on the fulfilment of the conditions for the Commencement of Works under Sub-Clause 8.1 [Commencement of Works].

16.3.2 In any of these events or circumstances, the Contractor may, upon giving 14 days' notice to KEFRI, terminate the Contract. However, in the case of subparagraph (f) or (g), the Contractor may by notice terminate the Contract immediately.

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

16.4 Cessation of Work and Removal of Contractor's Equipment

After a notice of termination under Sub-Clause 15.5 [Procuring Entity's Entitlement to Termination for Convenience], Sub-Clause 16.2 [Termination by Contractor] or Sub-Clause 19.6 [Optional Termination, Payment and Release] has taken effect, the Contractor shall promptly:

- a) cease all further work, except for such work as may have been instructed by the Architect for the protection of life or property or for the safety of the Works,
- b) hand over Contractor's Documents, Plant, Materials and other work, for which the Contractor has received payment, and
- c) remove all other Goods from the Site, except as necessary for safety, and leave the Site.

16.5 Payment on Termination

After a notice of termination under Sub-Clause 16.2 [Termination by Contractor] has taken effect, KEFRI 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 KEFRI, KEFRI'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 o for 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 KEFRI, KEFRI'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 KEFRI, KEFRI's Personnel, their respective agents, or anyone directly or indirectly employed by any of them.

17.1.2 KEFRI 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 KEFRI, KEFRI'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 KEFRI. 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 KEFRI.

- 17.2.2 After responsibility has accordingly passed to KEFRI, 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 KEFRI'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 KEFRI of any part of the Permanent Works, except as may be specified in the Contract,
- f) design of any part of the Works by KEFRI's Personnel or by others for whom KEFRI is responsible, and
- g) any operation of the forces of nature which is Unforeseeable or against which an experienced contractor could not reasonably have been expected to have taken adequate preventive precautions.

17.4 Consequences of KEFRI's Risks

- 17.4.1 If and to the extent that any of the risks listed in Sub-Clause 17.3 above results in loss or damage to the Works, Goods or Contractor's Documents, the Contractor shall promptly give notice to the Architect and shall rectify this loss or damage to the extent required by the Engineer.
- 17.4.2 If the Contractor suffers delay and/ or incurs Cost from rectifying this loss or damage, the Contractor shall give a further notice to the Architect and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:

- (a) An extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and
- (b) Payment of any such Cost, which shall be included in the Contract Price. In the case of sub-paragraphs (e) and (g) of Sub-Clause 17.3 [Procuring Entity's Risks], Accrued Costs shall be payable.

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

17.5 Intellectual and Industrial Property Rights

17.5.1 In this Sub-Clause, "infringement" shall refer to an infringement (or alleged infringement) of any patent, registered design, copyright, trade mark, trade name, trade secret or other intellectual or industrial property right relating to the Works; and "claim" shall refer to a claim (or proceedings pursuing a claim) alleging an infringement.

17.5.2 Whenever a Party does not give notice to the other Party of any claim within 30 days of receiving the claim, the first Party shall be deemed to have waived any right to indemnity under this Sub-Clause.

17.5.3 KEFRI shall indemnify and hold the Contractor harmless against and from any claim alleging an infringement which is or was:

- a) An unavoidable result of the Contractor's compliance with the Contract, or
- b) A result of any Works being used by KEFRI:
 - i) for a purpose other than that indicated by, or reasonably to be inferred from, the Contract, or
 - ii) in conjunction with anything not supplied by the Contractor, unless such use was disclosed to the Contractor prior to the Base Date or is stated in the Contract.

17.5.4 The Contractor shall indemnify and hold KEFRI harmless against and 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 KEFRI under the patent, utility models, or other intellectual rights owned by the contractor or a third party from whom the contractor has received the rights to grant sub-licenses and shall also grant to KEFRI a non-exclusive and non-transferable license (without the rights to sub-license) to use the know-how and

other technical information disclosed to the contract or under the contract. Nothing contained here-in shall be construed as transferring ownership of any patent, utility model, trademark, design, copy right, know-how or other intellectual rights from the contractor or any other third party to KEFRI.

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 in director 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 KEFRI's Risks] and Sub-Clause 17.5 [Intellectual and Industrial Property Rights].
- 17.6.2 The total liability of the Contractor to KEFRI, 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 KEFRI's Accommodation/Facilities

- 17.7.1 The Contractor shall take full responsibility for the care of KEFRI 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 KEFRI is liable, the Contractor shall, at his own cost, rectify the loss or damage to the satisfaction of the Engineer.

18. INSURANCE

18.1 General Requirements for Insurances

- 18.1.1 In this Clause, “insuring Party” means, for each type of insurance, the Party responsible for effecting and maintaining the insurance specified in the relevant Sub-Clause.
- 18.1.2 Wherever the Contractor is the insuring Party, each insurance shall be effected with insurers and in terms approved by KEFRI. These terms shall be consistent

with any terms agreed by both Parties before the date of the Letter of Acceptance. This agreement of terms shall take precedence over the provisions of this Clause.

- 18.1.3 Wherever KEFRI is the insuring Party, each insurance shall be effected with insurers and in terms acceptable to the Contractor. These terms shall be consistent with any terms agreed by both Parties before the date of the Letter of Acceptance. This agreement of terms shall take precedence over the provisions of this Clause.
- 18.1.4 If a policy is required to indemnify joint insured, the cover shall apply separately to each insured as though a separate policy had been issued for each of the joint insured. If a policy indemnifies additional joint insured, namely in addition to the insured specified in this Clause, (i) the Contractor shall act under the policy on behalf of these additional joint insured except that KEFRI shall act for KEFRI's Personnel, (ii) additional joint insured shall not be entitled to receive payments directly from the insurer or to have any other direct dealings with the insurer, and (iii) the insuring Party shall require all additional joint insured to comply with the conditions stipulated in the policy.
- 18.1.5 Each policy insuring against loss or damage shall provide for payments to be made in the currencies required to rectify the loss or damage. Payments received from insurers shall be used for the rectification of the loss or damage.
- 18.1.6 The relevant insuring Party shall, within the respective periods stated in **the Special Conditions of Contract** (calculated from the Commencement Date), submit to the other Party:
- a) Evidence that the insurances described in this Clause have been affected, and
 - b) copies of the policies for the insurances described in Sub-Clause 18.2 [Insurance for Works and Contractor's Equipment] and Sub-Clause 18.3 [Insurance against Injury to Persons and Damage to Property].
- 18.1.7 When each premium is paid, the insuring Party shall submit evidence of payment to the other Party. Whenever evidence or policies are submitted, the insuring Party shall also give notice to the Engineer.
- 18.1.8 Each Party shall comply with the conditions stipulated in each of the insurance policies. The insuring Party shall keep the insurers informed of any relevant changes to the execution of the Works and ensure that insurance is maintained in accordance with this Clause.
- 18.1.9 Neither Party shall make any material alteration to the terms of any insurance without the prior approval of the other Party. If an insurer makes (or attempts to make) any alteration, the Party first notified by the insurer shall promptly give notice to the other Party.
- 18.1.10 If the insuring Party fails to effect and keep in force any of the insurances it is required to effect and maintain under the Contractor fails to provide satisfactory evidence and copies of policies in accordance with this Sub- Clause,

the other Party may (at its option and without prejudice to any other right or remedy) effect insurance for the relevant coverage and pay the premiums due. The insuring Party shall pay the amount of these premiums to the other Party, and the Contract Price shall be adjusted accordingly.

- 18.1.11 Nothing in this Clause limits the obligations, liabilities or responsibilities of the Contractor or KEFRI, under the other terms of the Contractor otherwise. Any amounts not insured or not recovered from the insurers shall be borne by the Contractor and/or KEFRI.
- 18.1.12 Procuring Entity in accordance with these obligations, liabilities or responsibilities. However, if the insuring Party fails to effect and keep in force an insurance which is available and which it is required to effect and maintain under the Contract, and the other Party neither approves the omission nor effects insurance for the coverage relevant to this default, any moneys which should have been recoverable under this insurance shall be paid by the insuring Party.
- 18.1.13 Payments by one Party to the other Party shall be subject to Sub-Clause 2.5 [Procuring Entity's Claims] or Sub- Clause 20.1 [Contractor's Claims], as applicable.
- 18.1.14 The Contractor shall be entitled to place all insurance relating to the Contract (including, but not limited to the insurance referred to Clause 18) with insurers from any eligible source country.

18.2 Insurance for Works and Contractor's Equipment

- 18.2.1 The insuring Party shall insure the Works, Plant, Material and Contractor's Documents for not less than the full reinstatement cost including the costs of demolition, removal of debris and professional fees and profit. This insurance shall be effective from the date by which the evidence is to be submitted under sub-paragraph (a) of Sub-Clause 18.1 [General Requirements for Insurances], until the date of issue of the Taking-Over Certificate for the Works.
- 18.2.2 The insuring Party shall maintain this insurance to provide cover until the date of issue of the Performance Certificate, for loss or damage for which the Contractor is liable arising from a cause occurring prior to the issue of the Taking-Over Certificate, and for loss or damage caused by the Contractor in the course of any other operations (including those under Clause 11 [Defects Liability]).
- 18.2.3 The insuring Party shall insure the Contractor's Equipment for not less than the full replacement value, including delivery to Site. For each item of Contractor's Equipment, the insurance shall be effective while it is being transported to the Site and until it is no longer required as Contractor's Equipment.
- 18.2.4 Unless otherwise stated in the Special Conditions, insurances under this Sub-Clause:
 - a) Shall be effected and maintained by the Contractor as insuring Party,

- b) shall be in the joint names of the Parties, who shall be jointly entitled to receive payments from the insurers, payments being held or allocated to the Party actually bearing the costs of rectifying the loss or damage,
- c) shall cover all loss and damage from any cause not listed in Sub-Clause 17.3 [Procuring Entity's Risks],
- d) shall also cover, to the extent specifically required in the tendering documents of the Contract, loss or damage to a part of the Works which is attributable to the use or occupation by KEFRI of another part of the Works, and loss or damage from the risks listed in sub-paragraphs (c), (g) and (h) of Sub-Clause 17.3 [Procuring Entity's Risks], excluding (in each case) risks which are not insurable at commercially reasonable terms, with deductibles per occurrence of not more than the amount stated in the **Special Conditions** of Contract (if an amount is not so stated, this sub-paragraph (d) shall not apply), and
- e) may however exclude loss of, damage to, and reinstatement of:
 - i) a part of the Works which is in a defective condition due to a defect in its design, materials or workmanship (but cover shall include any other parts which are lost or damaged as a direct result of this defective condition and not as described in sub-paragraph (ii) below),
 - ii) a part of the Works which is lost or damaged in order to reinstate any other part of the Works if this other part is in a defective condition due to a defect in its design, materials or workmanship,
 - iii) a part of the Works which has been taken over by KEFRI, 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].

18.2.5 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 KEFRI, with supporting particulars. KEFRI 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].

18.3 Insurance against Injury to Persons and Damage to Property

18.3.1 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.

18.3.2 This insurance shall be for a limit per occurrence of not less than the amount stated in the **Special Conditions of Contract**, with no limit on the number of occurrences. If an amount is not stated in the **Special Conditions of Contract**,

this Sub-Clause shall not apply.

18.3.3 Unless otherwise stated in the Special Conditions, the insurances specified in this Sub-Clause:

- a) Shall be effected and maintained by the Contractor as insuring Party,
- b) shall be in the joint names of the Parties,
- c) shall be extended to cover liability for all loss and damage to KEFRI'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) KEFRI'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.

18.4 Insurance for Contractor's Personnel

18.4.1 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.

18.4.2 The insurance shall cover KEFRI 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 KEFRI or of KEFRI's Personnel.

18.4.3 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 lockout by persons other than the Contractor's Personnel,
 - d) munitions of war, explosive materials, ionizing radiation or contamination by radio-activity, except as may be attributable to the Contractor's use of such munitions, explosives, radiation or radio-activity, and
 - e) natural catastrophes such as earthquake, hurricane, typhoon or volcanic activity.

19.2 Notice of Force Majeure

- 19.2.1 If a Party is or will be prevented from performing its substantial obligations under the Contract by Force Majeure, then it shall give notice to the other Party of the event or circumstances constituting the Force Majeure and shall specify the obligations, the performance of which is or will be prevented. The notice shall be given within 14 days after the Party became aware, or should have become aware, of the relevant event or circumstance constituting Force Majeure.
- 19.2.2 The Party shall, having given notice, be excused performance of its obligations for so long as such Force Majeure prevents it from performing them.
- 19.2.3 Notwithstanding any other provision of this Clause, Force Majeure shall not apply to obligations of either Party to make payments to the other Party under the Contract.

19.3 Duty to Minimize Delay

Each Party shall at all times use all reasonable endeavors to minimize any delay in the performance of the Contract as a result of Force Majeure. A Party shall give notice to the other Party when it ceases to be affected by the Force Majeure.

19.4 Consequences of Force Majeure

- 19.4.1 If the Contractor is prevented from performing his substantial obligations under the Contract by Force Majeure of which notice has been given under Sub-Clause 19.2 [Notice of Force Majeure], and suffers delay and/ or incurs Cost by reason of such Force Majeure, the Contractor shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:
- a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and
 - b) if the event or circumstance is of the kind described in sub-paragraphs (i) to (iv) of Sub-Clause 19.1 [Definition of Force Majeure] and, in sub-paragraphs (ii) to (iv), occurs in Kenya, payment of any such Cost, including the costs of rectifying or replacing the Works and/or Goods damaged or destroyed

by Force Majeure, to the extent they are not indemnified through the insurance policy referred to in Sub- Clause 18.2 [Insurance for Works and Contractor's Equipment].

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

19.5 Force Majeure Affecting Subcontractor

If any Subcontractor is entitled under any contract or agreement relating to the Works to relief from force majeure on terms additional to or broader than those specified in this Clause, such additional or broader force majeure events or circumstances shall not excuse the Contractor's non-performance or entitle him to relief under this Clause.

19.6 Optional Termination, Payment and Release

19.6.1 If the execution of substantially all the Works in progress is prevented for a continuous period of 84 days by reason of Force Majeure of which notice has been given under Sub-Clause 19.2 [Notice of Force Majeure], or for multiple periods which total more than 140 days due to the same notified Force Majeure, then either Party may give to the other Party a notice of termination of the Contract. In this event, the termination shall take effect 7 days after the notice is given, and the Contractor shall proceed in accordance with Sub-Clause 16.3 [Cessation of Work and Removal of Contractor's Equipment].

19.6.2 Upon such termination, the Architect shall determine the value of the work done and issue a Payment Certificate which shall include:

- a) the amount payable for any work carried out for which a price is stated in the Contract;
- b) the Cost of Plant and Materials ordered for the Works which have been delivered to the Contractor, or of which the Contractor is liable to accept delivery: this Plant and Materials shall become the property of (and be at the risk of) KEFRI when paid for by KEFRI, and the Contractor shall place the same at KEFRI's disposal;
- c) other Cost or liabilities which in the circumstances were reasonably and necessarily incurred by the Contractor in the expectation of completing the Works;
- d) the Cost of removal of Temporary Works and Contractor's Equipment from the Site and the return of these items to the Contractor's works in his country (or to any other destination at no greater cost); and
- e) the Cost of repatriation of the Contractor's staff and lab or employed wholly in connection with the Works at the date of termination.

19.7 Release from Performance

Notwithstanding any other provision of this Clause, if any event or circumstance outside the control of the Parties (including, but not limited to, Force Majeure) arises which makes it impossible or unlawful for either or both Parties to fulfil its or their contractual obligations or which, under the law

governing the Contract, entitles the Parties to be released from further performance of the Contract, then upon notice by either Party to the other Party of such event or circumstance:

- a) The Parties shall be discharged from further performance, without prejudice to the rights of either Party in respect of any previous breach of the Contract, and
- b) The sum payable by KEFRI 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 KEFRI 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 KEFRI'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 42days 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.
- 20.16 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.
- 20.17 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.
- 20.18 Each Payment Certificate shall include such additional payment for any claim as has been reasonably substantiated as due under the relevant provision of the Contract. Unless and until the particulars supplied are sufficient to substantiate the whole of the claim, the Contractor shall only be entitled to payment for such part of the claim as he has been able to substantiate.
- 20.19 If the Architect does not respond within the time frame defined in this Clause, either Party may consider that the claim is rejected by the Architect and any of the Parties may refer the dispute for amicable settlement in accordance with Clause 20.3.
- 20.1.10 The requirements of this Sub-Clause are in addition to those of any other Sub-Clause which may apply to a claim. If the Contractor fails to comply with this or another Sub-Clause in relation to any claim, any extension of time and/ or additional payment shall take account of the extent (if any) to which the failure has prevented or prejudiced proper investigation of the claim, unless the claim is excluded under the second paragraph of this Sub-Clause 20.3.

20.2 Procuring Entity's Claims

- 20.2.1 If KEFRI 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, KEFRI or the Architect shall give notice and particulars to the Contractor. However, notice is not required for payments due under Sub-Clause 4.19 [Electricity, Water and Gas], under Sub-Clause 4.20 [Procuring Entity's Equipment and Free-Issue Materials], or for other services requested by the Contractor.
- 20.2.2 The notice shall be given as soon as practicable and no longer than 30 days

after KEFRI 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 KEFRI 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 KEFRI 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. KEFRI shall only be entitled to set off against or make any deduction from an amount certified in a Payment Certificate, or to otherwise claim against the Contractor, in accordance with this Sub-Clause.

20.3 Amicable Settlement

Where a notice of a claim has been given, both Parties shall attempt to settle the dispute amicably before the commencement of arbitration. However, unless both Parties agree otherwise, the Party giving a notice of a claim in accordance with Sub-Clause 20.1 above should move to commence arbitration after 60 days from the day on which a notice of a claim was given, even if no attempt at an amicable settlement has been made.

20.4 Matters that may be referred to arbitration

Notwithstanding anything stated herein the following matters may be referred to arbitration before the practical completion of the Works or abandonment of the Works or termination of the Contract by either party:

- a) Whether or not the issue of an instruction by the Architect is empowered by these Conditions.
- b) Whether or not a certificate has been improperly withheld or is not in accordance with these Conditions.
- c) Any dispute arising in respect risks arising from matters referred to in Clause 17.3 and Clause 19.
- e) All other matters shall only be referred to arbitration after the completion or alleged completion of the Works or termination or alleged termination of the Contract, unless KEFRI and the Contractor agree otherwise in writing.

20.5 Arbitration

20.5.1 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.

20.5.2 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.

- 20.5.3 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.
- 20.5.4 The Arbitrator shall, without prejudice to the generality of his powers, have powers to direct such measurements, computations, tests or valuations as may in his opinion be desirable in order to determine the rights of the parties and assess and award any sums which ought to have been the subject of or included in any certificate.
- 20.5.5 The Arbitrator shall, without prejudice to the generality of his powers, have powers to open up, review and revise any certificate, opinion, decision, requirement or notice and to determine all matters in dispute which shall be submitted to him in the same manner as if no such certificate, opinion, decision require prior notice had been given.
- 20.5.6 The arbitrators shall have full power to open up, review and revise any certificate, determination, instruction, opinion or valuation of the Engineer, relevant to the dispute. Nothing shall disqualify representatives of the Parties and the Architect from being called as a witness and giving evidence before the arbitrators on any matter whatsoever relevant to the dispute.
- 20.5.7 Neither Party shall be limited in the proceedings before the arbitrators to the evidence, or to the reasons for dissatisfaction given in its Notice of Dissatisfaction.
- 20.5.7 Arbitration may be commenced prior to or after completion of the Works. The obligations of the Parties, and the Architect shall not be altered by reason of any arbitration being conducted during the progress of the Works.
- 20.5.8 The terms of the remuneration of each or all the members of Arbitration shall be mutually agreed upon by the Parties when agreeing the terms of appointment. Each Party shall be responsible for paying one-half of this remuneration.

20.6 Arbitration with National Contractors

- 20.6.1 If the Contract is with national contractors, arbitration proceedings will be conducted in accordance with the Arbitration Laws of Kenya. In case of any claim or dispute, such claim or dispute shall be notified in writing by either party to the other with a request to submit it to arbitration and to concur in the appointment of an Arbitrator within thirty days of the notice. The dispute shall be referred to the arbitration and final decision of a person to be agreed between the parties. Failing agreement to concur in the appointment of an Arbitrator, the Arbitrator shall be appointed, on the request of the applying party, by the Chairman or Vice Chairman of any of the following professional institutions;
- i) Architectural Association of Kenya

- ii) Institute of Quantity Surveyors of Kenya
- iii) Association of Consulting Engineers of Kenya
- iv) Chartered Institute of Arbitrators (Kenya Branch)
- v) Institution of Engineers of Kenya

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

20.7 Arbitration with Foreign Contractors

20.7.1 Arbitration with foreign contractors shall be conducted in accordance with the arbitration rules of the United Nations Commission on International Trade Law (UNCITRAL); or with proceedings administered by the International Chamber of Commerce (ICC) and conducted under the ICC Rules of Arbitration; by one or more arbitrators appointed in accordance with said arbitration rules.

20.7.2 The place of arbitration shall be a location specified in the **SCC**; and the arbitration shall be conducted in the language for communications defined in Sub-Clause 1.4 [Law and Language].

20.8 Alternative Arbitration Proceedings

Alternatively, the Parties may refer the matter to the Nairobi Centre for International Arbitration (NCIA) which offers a neutral venue for the conduct of national and international arbitration with commitment to providing institutional support to the arbitral process.

20.9 Failure to Comply with Arbitrator's Decision

20.9.1 The award of such Arbitrator shall be final and binding upon the parties.

20.9.2 In the event that a Party fails to comply with a final and binding Arbitrator's decision, then the other Party may, without prejudice to any other rights it may have, refer the matter to a competent court of law.

20.10 Contract operations to continue

Notwithstanding any reference to arbitration herein,

1.1.1 the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; and

1.1.2 KEFRI 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	<i>Insert</i>
Name and Reference No. of the Contract	Heading and 1.1	<i>Insert</i>
Engineers Name and address	Heading and 3.1.1	<i>Insert</i>
Contractor's Representative's name	4.3.1	<i>[insert the name of the Contractor's Representative agreed by KEFRI prior to Contract signature]</i>
Key Personnel names	16.9.1	<i>[insert the name of each Key Personnel agreed by KEFRI prior to Contract signature]</i>
Time for Completion	1.1.	_____days <i>If Sections are to be used, refer to Table: Summary of Sections below</i>
Defects Notification Period	1.1	_____days
Sections	1.1	<i>If Sections are to be used, refer to Table: Summary of Sections below</i>
Electronic transmission systems	1.3	
Time for the Parties entering into a Contract Agreement	1.6	Within 30days
Commencement Date	8.1.1	
Time for access to the Site	2.1.1	No later than the Commencement Date, and not later than _____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 ____% shall require approval of KEFRI.
Performance Security	4.2.1	The performance security will be in the form of a ____ <i>[insert either one of "demand guarantee" or "performance bond"]</i> in the amount(s) of <i>[insert related figure(s)]</i> percent of the Accepted Contract Amount and in the same currency(ies) of the Accepted Contract Amount.
Normal working hours	6.5	Specify

Conditions	Sub-Clause	Data
Delay damages for the Works	8.7 & 14.15(b)	_____ % of the Contract Price per day. <i>If Sections are to be used, refer to Table: Summary of Sections below</i>
Maximum amount of delay damages	8.7.1	_____ % 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> _____ %
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	___% Percentage of the Accepted Contract Amount payable in the currencies and proportions in which the Accepted Contract Amount is payable <i>[Insert number and timing of installments if applicable]</i>
Repayment amortization rate of advance payment	14.2.5 (b)	_____ %
Percentage of Retention	14.3.2 (c)	_____ %
Limit of Retention Money	14.3.2 (c)	_____ % 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 _____ <i>[list]</i> .
	14.5.3(c)(i)	Plant and Materials for payment when delivered to the Site _____ <i>[list]</i> .
Minimum Amount of Interim Payment Certificates	14.6.2	_____ % of the Accepted Contract Amount.
Publishing source of commercial interest rates for financial charges in case of delayed payment	14.8	Specify _____ % rate per month of delayed payment.
Maximum total liability of the Contractor to KEFRI	17.6.2	<i>[Select one of the two options below as appropriate]</i> The product of _____ <i>[insert a multiplier less or greater than one]</i> times the Accepted Contract Amount, <i>or</i> _____ <i>[insert amount of the maximum total liability]</i>

Conditions	Sub- Clause	Data
Periods for submission of insurance:	18.1.6	<i>[Insert period for submission of evidence of insurance and policy. Period may be from 14 days to 30days.]</i>
a. evidence of insurance.		_____ days
b. relevant policies		_____ days
Maximum amount of deductibles for insurance of KEFRI's risks	18.2.4 (d)	<i>[Insert maximum amount of deductibles]</i>
Minimum amount of third-party insurance	18.3.2	<i>[Insert amount of third-party insurance]</i>
The place of arbitration	20.7.2	<i>Insert city and Country</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) Other Tenderers

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 KEFR*]
 - 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 KEFR*]
 - 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 KEFRI:

Signature:

Name:

Title/position:

Telephone:

Email:

FORM NO. 2- REQUEST FOR REVIEW

FORM FOR REVIEW (r.203(1))

PUBLIC PROCUREMENT ADMINISTRATIVE REVIEW BOARD

APPLICATION NO.....OF.....20.....

BETWEEN

.....**APPLICANT**

AND

.....**RESPONDENT (Procuring Entity)**

Request for review of the decision of the..... (Name of KEFRI ofdated the...day of20.....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/orders 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 of20.....

SIGNED

Board Secretary

FORM NO 3: LETTER OF AWARD

letterhead paper of KEFRI

[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 KEFRI)*.

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 KEFRI:

Attachment: *Contract Agreement*:

FORM NO 4: CONTRACT AGREEMENT

THIS AGREEMENT made the day of..... 20....., betweenof..... (hereinafter “the Procuring Entity”), of the one part, and _____ of _____ (hereinafter “the Contractor”), of the other part:

WHEREAS KEFRI desires that the Works known as _____

should be executed by the Contractor, and has accepted a Tender by the Contractor for the execution and completion of these Works and the remedying of any defects there in,

KEFRI 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) The Notification 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 KEFRI to the Contractor as specified in this Agreement, the Contractor here by covenants with KEFRI to execute the Works and to remedy defects therein in conformity in all respects with the provisions of the Contract.
4. KEFRI 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 KEFRI)

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 KEFRI]*

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 KEFRI) _____ (KEFRI as the Beneficiary), for the execution of
_____ (herein after 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 it self 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, 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. KEFRI should note that in the event of an extension of this date for completion of the Contract, KEFRI 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 instead of Performance Bond due to difficulties involved in calling Bond holder to action]

[Guarantor letterhead or SWIFT identifier code] **Beneficiary:** *[insert name and Address of Procuring Entity]* **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 “ KEFRI”) 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 KEFRI 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 KEFRI to be, in default under the Contract, KEFRI having performed KEFRI'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 KEFRI for completing the Contract in accordance with its terms and conditions, and upon determination by KEFRI and the Surety of the lowest responsive Tenderers, arrange for a Contract between such Tenderer, and KEFRI and make 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 KEFRI to Contractor under the Contract, less the amount properly paid by KEFRI to Contractor; or

- c) Pay KEFRI the amount required by KEFRI to complete the Contract in accordance with its terms and conditions up to 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 KEFRI named here in or the heirs, executors, administrators, successors, and assigns of KEFRI.
- 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 _____, ² _____, 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. KEFRI should note that in the event of an extension of the time for completion of the Contract, KEFRI 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 KEFRI]*

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 up to 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 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 Contractor is in breach of its obligation(s) under the Contract, without your needing to prove or showgrounds 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. KEFRI should note that in the event of an extension of this date for completion of the Contract, KEFRI 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 KEFRI]*

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)
<i>[include full name (last, middle, first), nationality, country of residence]</i>			

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 year]