



TENDER NO.:
GF-KEMSA/CONST 04/ONT4/2021/2022

**TENDER FOR PROVISION OF
LINKAGE BETWEEN WAREHOUSES,
SUNSHADING FEATURE AND
ROLLER SHUTTER DOORS**

CLOSING DATE: 19TH JULY, 2022

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INVITATION TO TENDER

INVITATION TO TENDER

PROCURING ENTITY:

Kenya Medical Supplies Authority
13, Commercial Street, Industrial Area
P.O B Box 47715-00100
Telephone No.: +254 20 3922000/+254 719033000/+254 733606600
Fax No.: +254203922400
Email: procure@kemsaco.ke

CONTRACT NAME AND DESCRIPTION: TENDER FOR PROVISION OF LINKAGE BETWEEN WAREHOUSES, SUNSHADING FEATURE AND ROLLER SHUTTER DOORS

1. The Kenya Medical Supplies Authority invites sealed tenders for the construction of linkage between warehouses, sunshading feature and roller shutter doors at KEMSA, Embakasi.
2. Tendering will be conducted under open competitive method (National) using a standardized tender document. Tendering is open to all qualified and interested Tenderers.
3. Interested eligible bidders may download a complete set of tender documents from the KEMSA website www.kemsaco.ke and/or PPIP Portal <https://tenders.go.ke>

Documents downloaded are free of charge and bidders are advised to register at the Procurement Officer or via email at procure@kemsaco.ke. (Registration form in tender document)

4. Tenders shall be quoted be in Kenya Shillings and shall include all taxes. Tenders shall remain valid for **One Hundred Twenty Six (126)** days from the date of opening of tenders.
5. All Tenders must be accompanied by a **Tender Security of Ksh.1,000,000.00 (Kenya Shillings One Million)**
6. The Tenderer shall chronologically serialize all pages of the tender documents submitted.
7. Complete serialized/paginated Bid Documents; One original and a copy in plain sealed envelopes clearly marked on top with the Tender Reference and Description and accompanied by a Bid Security of an amount as indicated should be addressed to:

**The Chief Executive Officer
Kenya Medical Supplies Authority
13, Commercial Street, Industrial Area
P.O B Box 47715-00100
Nairobi, Kenya.**

And must be deposited in **Tender Box 1 Marked GOK / WORLD BANK** at the

before **19th July, 2022 at 10.00 a.m.** Bids will be opened immediately thereafter in the presence of Bidders' and or representatives who choose to attend.

8. Bulky tenders can be handed over to **KEMSA Procurement Director's** office for registration and safe keeping till the tender opening date.
9. Late tenders will be rejected.
10. There will be a **Site visit and Pre-bid conference for all prospective bidders on 4th July, 2022 from 9.00am at KEMSA warehouse in Embakasi, Nairobi.** Thereafter there will be a pre-bid meeting for those who wish to attend.

Chief Executive Officer
Kenya Medical Supplies Authority

SECTION I: INSTRUCTIONS TO TENDERERS

SECTION I - INSTRUCTIONS TO TENDERERS

A. GENERAL PROVISIONS

1.1 Scope of tender

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

1.3 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 the Procuring Entity) with proof of receipt;
- b) if the context so requires, “singular” means “plural” and vice versa;
- c) “Day” means calendar day, unless otherwise specified as “Business Day”. A Business Day is any day that is an official working day of the Procuring Entity. It excludes official public holidays.

2.1 Fraud and corruption

2.2 The Procuring Entity requires compliance with the provisions of the Public Procurement and set 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.

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

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

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

3.1 Eligible tenderers

3.2 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 agree mentor 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**.

- 3.3 Public Officers of the Procuring Entity, their Spouses, Child, Parent, Brothers or Sister. Child, Parent, Brother or Sister of a Spouse, their business associates or agents and firms/organizations in which they have a substantial or controlling interest shall not be eligible to tender or be awarded a contract. Public Officers are also not allowed to participate in any procurement proceedings.
- 3.4 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 the Procuring Entity regarding this tendering process;
 - e) Any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the goods or works that are the subject of the tender;
 - f) Any of its affiliates has been hired (or is proposed to be hired) by the Procuring Entity as a consultant for Contract implementation;
 - g) Would be providing goods, works, or non-consulting services resulting from or directly related to consulting services for the preparation or implementation of the contract specified in this Tender Document;
 - h) Has a close business or personal relationship with senior management or professional staff of the Procuring Entity who has the ability to influence the bidding process and:
 - i) Are directly or indirectly involved in the preparation of the Tender document or specifications of the Contract, and/or the Tender evaluation process of such contract; or
 - ii) May be involved in the implementation or supervision of such Contract unless the conflict stemming from such relationship has been resolved in a manner acceptable to the Procuring Entity throughout the tendering process and execution of the Contract.
- 3.5 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
- 3.6 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.

- 3.7 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.
- 3.8 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.
- 3.9 A Tenderer that is a state-owned enterprise or a public institution in Kenya may be eligible to tender and be awarded Contract(s) only if it is determined by the Procuring Entity to meet the following conditions, i.e. if it is:
- i) A legal public entity of Government and/or public administration,
 - ii) financially autonomous and not receiving any significant subsidies or budget support from any public entity or Government, and;
 - iii) operating under commercial law and vested with legal rights and liabilities similar to any commercial enterprise to enable it compete with firms in the privates ect or on an equal basis.
- 3.10 Firms and individuals shall be ineligible if their countries of origin are:
- a) As a matter of law or official regulations, Kenya prohibits commercial relations with that country;
 - b) By an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, Kenya prohibits any import of goods or contracting of works or services from that country, or any payments to any country, person, or entity in that country. A tenderer shall provide such documentary evidence of eligibility satisfactory to the Procuring Entity, as the Procuring Entity shall reasonably request.
- 3.11 Foreign tenderers are required to source at least forty (40%) percent of their contract inputs (in supplies, local sub-contracts and labor) from citizen suppliers and contractors. To this end, a foreign tenderer shall provide in its tender documentary evidence that this requirement is met. Foreign tenderers not meeting this criterion will be automatically disqualified. Information required to enable the Procuring Entity determine if this condition is met shall be provided for this purpose in “*SECTIONI II - EVALUATION AND QUALIFICATION CRITERIA, Item 9*”.
- 3.12 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.

- 3.13 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.
- 3.14 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.

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.

4.1 Eligible goods, equipment, and services

- 4.2 Goods, equipment and services to be supplied under the Contract may have their origin in any country that is not ineligible under ITT 3.9. At the Procuring Entity's request, Tenderers may be required to provide evidence of the origin of Goods, equipment and services.
- 4.3 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.

5.1 Tenderer's responsibilities

- 5.2 The tenderer shall bear all costs associated with the preparation and submission of his/her tender, and the Procuring Entity will in no case be responsible or liable for those costs.
- 5.3 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.
- 5.4 The Tenderer and any of its personnel or agents will be granted permission by the Procuring Entity to enter upon its premises and lands for the purpose of such visit. The Tenderer shall indemnify the Procuring Entity against liability arising from death or personal injury, loss of or damage to property, and any other losses and expenses incurred as a result of the examination and inspection.

- 5.5 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

6.1 Sections of Tender Document

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

PART 1: Tendering Procedures

Section I – Instructions to Tenderers

Section II – Tender Data Sheet (TDS)

Section III- Evaluation and Qualification Criteria Section IV – Tendering Forms

PART 2: Works' Requirements Section V - Bills of Quantities Section VI - Specifications Section VII - Drawings

PART 3: Conditions of Contract and Contract Forms

Section VIII - General Conditions (GCC)

Section IX - Special Conditions of Contract

Section X- Contract Forms

- 6.3 The Invitation to Tender Notice issued by the Procuring Entity is not part of the Contract documents. Unless obtained directly from the Procuring Entity, the Procuring Entity is not responsible for the completeness of the Tender document, responses to requests for clarification, the minutes of a pre-arranged site visit and those of the pre-Tender meeting (if any), or Addenda to the Tender document in accordance with ITT 10. In case of any contradiction, documents obtained directly from the Procuring Entity shall prevail.
- 6.4 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.

7.1 Clarification of Tender Document, Site Visit, Pre-tender Meeting

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

- 7.3 The Tenderer, at the Tenderer's own responsibility and risk, is encouraged to visit and examine and inspect the site(s) of the required contracts and obtain all information that may be necessary for preparing a **tender**. The costs of visiting the Site shall be at the Tenderer's own expense. The Procuring Entity shall specify in the **TDS** if a pre-arranged Site visit and or a pre-tender meeting will be held, when and where. The Tenderer's designated representative is invited to attend a pre-arranged site visit and a pre-tender meeting, as the case may be. The purpose of the site visit and the pre-tender meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.
- 7.4 The Tenderer is requested to submit any questions in writing, to reach the Procuring Entity not later than the period specified in the **TDS** before the meeting.
- 7.5 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.
- 7.6 The Procuring Entity shall also promptly publish anonymized (*no names*) Minutes of the pre-arranged site visit and those of the pre-tender meeting at the web page identified in the **TDS**. Any modification to the Tender Documents that may become necessary as a result of the pre-arranged site visit and those of the pre-tender meeting shall be made by the Procuring Entity exclusively through the issue of an Addendum pursuant to ITT 8 and not through the minutes of the pre-Tender meeting. Non-attendance at the pre-arranged site visit and the pre-tender meeting will not be a cause for disqualification of a Tenderer.

8.1 Amendment of Tender Documents

- 8.2 At any time prior to the deadline for submission of Tenders, the Procuring Entity may amend the Tender Documents by issuing addenda.
- 8.3 Any addendum issued shall be part of the Tender Documents and shall be communicated in writing to all who have obtained the Tender Documents from the Procuring Entity. The Procuring Entity shall also promptly publish the addendum on the Procuring Entity's website in accordance with ITT 7.5.
- 8.4 To give Tenderers reasonable time in which to take an addendum into account in preparing their Tenders, the Procuring Entity should extend the dead line for the submission of Tenders, pursuant to ITT 22.2.

C. PREPARATION OF TENDERS

9. Cost of Tendering

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

10. Language of Tender

The Tender, as well as all correspondence and documents relating to the tender

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

11.1 Documents Comprising the Tender

11.2 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**.

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

12.0 Form of Tender and Schedules

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

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

13. Alternative Tenders

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

13.2 When alternative times for completion are explicitly invited, a statement to that effect will be included in the **TDS**, and the method of evaluating different alternative times for completion will be described in Section III, Evaluation and Qualification Criteria.

13.3 Except as provided under ITT 13.4 below, Tenderers wishing to offer technical alternatives to the requirements of the Tender Documents must first price the Procuring Entity's design as described in the Tender Documents and shall further provide all

information necessary for a complete evaluation of the alternative by the Procuring Entity, including drawings, design calculations, technical specifications, breakdown of prices, and proposed construction methodology and other relevant details. Only the technical alternatives, if any, of the Tenderer with the Winning Tender conforming to the basic technical requirements shall be considered by the Procuring Entity.

- 13.4 When specified in the **TDS**, Tenderers are permitted to submit alternative technical solutions for specified parts of the Works, and such parts will be identified in the **TDS**, as will the method for their evaluating, and described in Section VII, Works' Requirements.

14.1 Tender Prices and Discounts

- 14.2 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.
- 14.3 The Tenderer shall fill in rates and prices for all items of the Works described in the Bill of Quantities. Items against which no rate or price is entered by the Tenderer shall be deemed covered by the rates for other items in the Bill of Quantities and will not be paid for separately by the Procuring Entity. An item not listed in the priced Bill of Quantities shall be assumed to be not included in the Tender, and provided that the Tender is determined substantially responsive notwithstanding this omission, the average price of the item quoted by substantially responsive Tenderers will be added to the Tender price and the equivalent total cost of the Tender so determined will be used for price comparison.
- 14.4 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.
- 14.5 The Tenderer shall quote any discounts and the methodology for their application in the Form of Tender, in accordance with ITT 12.1.
- 14.6 It will be specified in the **TDS** if the rates and prices quoted by the Tenderer are or are not subject to adjustment during the performance of the Contract in accordance with the provisions of the Conditions of Contract, except in cases where the contract is subject to fluctuations and adjustments, not fixed price. In such a case, the Tenderer shall furnish the indices and weightings for the price adjustment formulae in the Schedule of Adjustment Data and the Procuring Entity may require the Tenderer to justify its proposed indices and weightings.
- 14.7 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.
- 14.8 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.

15.1 Currencies of Tender and Payment

- 15.2 The currency (ies) of the Tender and the currency (ies) of payments shall be the same.
- 15.3 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.
- 15.4 Tenderers may be required by the Procuring Entity to justify, to the Procuring Entity's satisfaction, their local and foreign currency requirements, and to substantiate that the amounts included in the unit rates and prices and shown in the Schedule of Adjustment Data in the Appendix to Tender are reasonable, in which case a detailed 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, in sufficient detail to demonstrate the adequacy of the Tenderer's proposal to meet the work's requirements and the completion time.

17.1 Documents Establishing the Eligibility and Qualifications of the Tenderer

- 17.2 Tenderers shall complete the Form of Tender, included in Section IV, Tender Forms, to establish Tenderer's eligibility in accordance with ITT 4.
- 17.3 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.
- 17.4 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.
- 17.5 Tenderers shall be asked to provide, as part of the data for qualification, such information, including details of ownership, as shall be required to determine whether, according to the classification established by the Procuring Entity, a particular contractor or group of contractors qualifies for a margin of preference. Further the information will enable the Procuring Entity identify any actual or potential conflict of interest in relation to the procurement and/or contract management processes, or a possibility of collusion

between tenderers, and thereby help to prevent any corrupt influence in relation to the procurement process or contract management.

- 17.6 The purpose of the information described **in ITT 17.4** above overrides any claims to confidentiality which a tenderer may have. There can be no circumstances in which it would be justified for a tenderer to keep information relating to its ownership and control confidential where it is tendering to undertake public sector work and receive public sector funds. Thus, confidentiality will not be accepted by the Procuring Entity as a justification for a Tenderer's failure to disclose, or failure to provide required information on its ownership and control.
- 17.7 The Tenderer shall provide further documentary proof, information or authorizations that the Procuring Entity may request in relation to ownership and control which information on any changes to the information which was provided by the tenderer under ITT 6.4. The obligations to require this information shall continue for the duration of the procurement process and contract performance and after completion of the contract, if any change to the information previously provided may reveal a conflict of interest in relation to the award or management of the contract.
- 17.8 All information provided by the tenderer pursuant to these requirements must be complete, current and accurate as at the date of provision to the Procuring Entity. In submitting the information required pursuant to these requirements, the Tenderer shall warrant that the information submitted is complete, current and accurate as at the date of submission to the Procuring Entity.
- 17.9 If a tenderer fails to submit the information required by these requirements, its tender will be rejected. Similarly, if the Procuring Entity is unable, after taking reasonable steps, to verify to a reasonable degree the information submitted by a tenderer pursuant to these requirements, then the tender will be rejected.
- 17.10 If information submitted by a tenderer pursuant to these requirements, or obtained by the Procuring Entity (whether through its own enquiries, through notification by the public or otherwise), shows any conflict of interest which could materially and improperly benefit the tenderer in relation to the procurement or contract management process, then:
- i) If the procurement process is still ongoing, the tenderer will be disqualified from the procurement process,
 - ii) if the contract has been awarded to that tenderer, the contract award will be set aside depending on the outcome of (iii),
 - iii) the tenderer will be referred to the relevant law enforcement authorities for investigation of whether the tenderer or any other person have committed any criminal offence.
- 17.11 If a tenderer submits information pursuant to these requirements that is incomplete, inaccurate or out-of-date, or attempts to obstruct the verification process, then the consequences of ITT 17.8 will ensue unless the tenderer can show to the reasonable satisfaction of the Procuring Entity that any such act was not material, or was due to genuine error which was not attributable to the intentional act, negligence or recklessness of the tenderer.

18.0 Period of Validity of Tenders

18.1 Tenders shall remain valid for the Tender Validity period specified in the **TDS**. The Tender Validity period starts from the date fixed for the Tender submission deadline (as prescribed by the Procuring Entity in accordance with ITT 22). A tender valid for a shorter period shall be rejected by the Procuring Entity as non-responsive.

18.2

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

19.1 Tender Security

19.2 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.

19.3 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.

19.4 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.

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

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

19.7 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.

- 19.8 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 thereto 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.
- 19.9 Where tender securing declaration is executed, the Procuring Entity shall recommend to the PPRA to debar the Tenderer from participating in public procurement as provided in the law.
- 19.10 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.
- 19.11 A tenderer shall not issue a tender security to guarantee itself.

20.1 Format and Signing of Tender

- 20.2 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 origin and the copies, the original shall prevail.
- 20.3 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.
- 20.4 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.
- 20.5 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.
- 20.6 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

21.1 Sealing and Marking of Tenders

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

The inner envelopes or packages or containers shall:

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

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

22.1 Deadline for Submission of Tenders

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

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

23.0 Late Tenders

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

24.1 Withdrawal, Substitution, and Modification of Tenders

- 24.2 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 the Procuring Entity prior to the deadline prescribed for submission of Tenders, in accordance with ITT 22.

24.3 Tenders requested to be withdrawn in accordance with ITT 24.1 shall be returned unopened to the Tenderers.

24.4 No Tender may be withdrawn, substituted, or modified in the interval between the deadline for submission of Tenders and the expiration of the period of Tender validity specified by the Tenderer on the Form of Tender or any extension thereof.

25. Tender Opening

25.1 Except in the cases specified in ITT 23 and ITT 24.2, the Procuring Entity shall publicly open and read out all Tenders received by the deadline, at the date, time and place specified **in the TDS**, in the presence of Tenderers' designated representatives who chooses to attend. Any specific electronic Tender opening procedures required if electronic Tendering is permitted in accordance with ITT 22.1, shall be as specified in the **TDS**.

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

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

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

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

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

by the members of the tender opening committee attending the opening.

- 25.7 At the Tender Opening, the Procuring Entity shall neither discuss the merits of any Tender nor reject any Tender (except for late Tenders, in accordance with ITT 23.1).
- 25.8 The Procuring Entity shall prepare minutes of the Tender Opening that shall include, as a minimum: -
- a) the name of the Tenderer and whether there is a withdrawal, substitution, or modification;
 - b) the Tender Price, per lot (contract) if applicable, including any discounts;
 - c) any alternative Tenders;
 - d) the presence or absence of a Tender Security, if new as required;
 - e) number of pages of each tender document submitted.
- 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 the Procuring Entity 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 the Procuring Entity on any matter related to the tendering process, it shall do so in writing.

27.1 Clarification of Tenders

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

28.1 Deviations, Reservations, and Omissions

28.2 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.

29.1 Determination of Responsiveness

29.2 The Procuring Entity's determination of a Tender's responsiveness is to be based on the contents of the tender itself, as defined in ITT 11.

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

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

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

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

30.1 Non-material Non-conformities

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

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

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

31.1 Arithmetical Errors

- 31.2 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.
- 31.3 Provided that the Tender is substantially responsive, the Procuring Entity shall handle errors on the following basis: -
- a) Any error detected if considered a major deviation that affects the substance of the tender, shall lead to disqualification of the tender as non-responsive.
 - b) Any errors in the submitted tender arising from a miscalculation of unit price, quantity, subtotal and total bid price shall be considered as a major deviation that affects the substance of the tender and shall lead to disqualification of the tender as non-responsive. and
 - c) if there is a discrepancy between words and figures, the amount in words shall prevail
- 31.4 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**.

33.1 Margin of Preference and Reservations

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

27.1 Nominated Subcontractors

- 27.2 Unless otherwise stated in the **TDS**, the Procuring Entity does not intend to execute any specific elements of the Works by subcontractors selected/nominated by the Procuring Entity. In case the Procuring Entity nominates a subcontractor, the subcontract agreement shall be signed by the Subcontractor and the Procuring Entity. The main contract shall

specify the working arrangements between the main contractor and the nominated subcontractor.

- 27.3 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.
- 27.4 Domestic subcontractor's qualifications shall not be used by the Tenderer to qualify for the Works unless their specialized parts of the Works were previously designated so by the Procuring Entity in the **TDS** a scan be met by subcontractors referred to hereafter as 'Specialized Subcontractors', in which case, the qualifications of the Specialized Subcontractors proposed by the Tenderer may be added to the qualifications of the Tenderer.

35. Evaluation of Tenders

- 35.1 The Procuring Entity shall use the criteria and methodologies listed in this ITT and Section III, Evaluation and Qualification Criteria No other evaluation criteria or methodologies shall be permitted. By applying the criteria and methodologies the Procuring Entity shall determine the Lowest Evaluated Tender in accordance with ITT 40.
- 35.2 To evaluate a Tender, the Procuring Entity shall consider the following:
- a) price adjustment in accordance with ITT 31.1 (iii); excluding provisional sums and contingencies, if any, but including Daywork items, where priced competitively;
 - b) price adjustment due to discounts offered in accordance with ITT 14.4;
 - c) converting the amount resulting from applying (a) and (b) above, if relevant, to a single currency in accordance with ITT 32;
 - d) price adjustment due to quantifiable non material non-conformities in accordance with ITT 30.3; and
 - e) any additional evaluation factors specified in the TDS and Section III, Evaluation and Qualification Criteria.
- 35.3 The estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be considered in Tender evaluation.
- 35.4 Where the tender involves multiple lots or contracts, the tenderer will be allowed to tender for one or more lots (contracts). Each lot or contract will be evaluated in accordance with ITT 35.2. The methodology to determine the lowest evaluated tenderer or tenderers base done lot (contract) or based on a combination of lots (contracts), will be specified in Section III, Evaluation and Qualification Criteria. In the case of multiple lots or contracts, tenderer will be will be required to prepare the Eligibility and Qualification Criteria Form for each Lot.

36.0 Comparison of tenders

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

37.1 Abnormally low tenders and abnormally high tenders

Abnormally Low Tenders

- 37.2 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.
- 37.3 In the event of identification of a potentially Abnormally Low Tender, the Procuring Entity shall seek written clarifications from the Tenderer, including detailed price analyses of its Tender price in relation to the subject matter of the contract, scope, proposed methodology, schedule, allocation of risks and responsibilities and any other requirements of the Tender document.
- 37.4 After evaluation of the price analyses, in the event that the Procuring Entity determines that the Tenderer has failed to demonstrate its capability to perform the Contract for the offered Tender Price, the Procuring Entity shall reject the Tender.

Abnormally high tenders

- 37.5 An abnormally high tender price is one where the tender price, in combination with other constituent elements of the Tender, appears unreasonably too high to the extent that the Procuring Entity is concerned that it (the Procuring Entity) may not be getting value for money or it may be paying too high a price for the contract compared with market prices or that genuine competition between Tenderers is compromised.
- 37.6 In case of a nab normally high price, the Procuring Entity shall make a survey of the market prices, check if the estimated cost of the contract is correct and review the Tender Documents to check if the specifications, scope of work and conditions of contract are contributory to the abnormally high tenders. The Procuring Entity may also seek written clarification from the tenderer on the reason for the high tender price. The Procuring Entity shall proceed as follows:
- i) If the tender price is abnormally high based on wrong estimated cost of the contract, the Procuring Entity may accept or not accept the tender depending on the Procuring Entity's budget considerations.
 - ii) If specifications, scope of work and/or conditions of contract are contributory to the abnormally high tender prices, the Procuring Entity shall reject all tenders and may retender for the contract based on revised estimates, specifications, scope of work and conditions of contract, as the case may be.
- 37.7 If the Procuring Entity determines that the Tender Price is abnormally too high because genuine competition between tenderers is compromised (*often due to collusion, corruption or other manipulations*), the Procuring Entity shall reject all Tenders and shall institute or cause competent Government Agencies to institute an investigation on the cause of the compromise, before retendering.

38.1 Unbalanced and/ or front-loaded tenders

- 38.2 If in the Procuring Entity's opinion, the Tender that is evaluated as the lowest evaluated price is seriously unbalanced and/or frontloaded, the Procuring Entity may require the Tenderer to provide written clarifications. Clarifications may include detailed price

analyses to demonstrate the consistency of the tender prices with the scope of works, proposed methodology, schedule and any other requirements of the Tender document.

- 38.3 After the evaluation of the information and detailed price analyses presented by the Tenderer, the Procuring Entity may as appropriate:
- a) accept the Tender;
 - b) require that the total amount of the Performance Security be increased at the expense of the Tenderer to a level not exceeding a 30% of the Contract Price;
 - c) agree on a payment mode that eliminates the inherent risk of the Procuring Entity paying too much for undelivered works;
 - d) reject the Tender,

39.1 Qualifications of the tenderer

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

39.3 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.

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

40.1 Lowest evaluated tender

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

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

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

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

F. AWARD OF CONTRACT

42.0 Award criteria

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

43.1 Notice of Intention to Enter into a Contract/Notification of Award

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

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

44.1 Stand still Period

44.2 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.

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

45.1 Debriefing by The Procuring Entity

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

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

46.0 Letter of Award

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

47.1

Signing of Contract

- 47.2 Upon the expiry of the fourteen days of the Notification of Intention to enter in to contract and upon the parties meeting their respective statutory requirements, the Procuring Entity shall send the successful Tenderer the Contract Agreement.
- 47.3 Within fourteen (14) days of receipt of the Contract Agreement, the successful Tenderer shall sign, date, and return it to the Procuring Entity.
- 47.4 The written contract shall be entered into within the period specified in the notification of award and before expiry of the tender validity period.

48.1 Performance Security

- 48.2 Within twenty-one (21) days of the receipt of the Letter of Award from the Procuring Entity, the successful Tenderer shall furnish the Performance Security and, any other documents required in the **TDS**, in accordance with the General Conditions of Contract, subject to ITT 38.2 (b), using the Performance Security and other Forms included in Section X, Contract Forms, or another form acceptable to the Procuring Entity. A foreign institution providing a bank guarantee shall have a correspondent financial institution located in Kenya, unless the Procuring Entity has agreed in writing that a correspondent bank is not required.
- 48.3 Failure of the successful Tenderer to submit the above-mentioned Performance Security and other documents required in the **TDS** or sign the Contract shall constitute sufficient grounds for the annulment of the award and forfeiture of the Tender Security. In that event the Procuring Entity may award the Contract to the Tenderer offering the next Best Evaluated Tender.
- 48.4 Performance security shall not be required for contracts estimated to cost less than the amount specified in the Regulations.

49.1 Publication of Procurement Contract

- 49.2 Within fourteen days after signing the contract, the Procuring Entity shall publish the awarded contract at its notice boards and websites; and on the Website of the Authority. At the minimum, the notice shall contain the following information:
- a) name and address of the Procuring Entity;
 - b) name and reference number of the contract being awarded, a summary of its scope and the selection method used;
 - c) the name of the successful Tenderer, the final total contract price, the contract duration;
 - d) dates of signature, commencement and completion of contract;
 - e) names of all Tenderers that submitted Tenders, and their Tender prices as readout at Tender opening.

50.0 Procurement related Complaints and Administrative Review

- 50.1 The procedures for making Procurement-related Complaints are as specified in the **TDS**.
- 50.2 A request for administrative review shall be made in the form provided under contract forms.

SECTION II: TENDER DATA SHEET (TDS)

SECTION II - TENDER DATA SHEET (TDS)

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

Reference to ITC Clause	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
A. General	
ITT 1.1	<p>The name of the contract is TENDER FOR PROVISION OF LINKAGE BETWEEN WAREHOUSES, SUNSHADING FEATURE AND ROLLER SHUTTER DOORS</p> <p>The reference number of the Contract is: TENDER NO.:GF-KEMSA/CONST 04/ONT4/2021/2022</p> <p>Bidders are advised that the tender components are one lot and should be priced as one lot and the total carried to the Form of Tender</p>
ITT 2.4	<p>The Information made available on competing firms is as follows: N/A</p>
ITT 2.4	<p>The firms that provided consulting services for the contract being tendered for are:</p> <p>MAESTRO ARCHITECTS P. O. BOX 6644 – 00100 NAIROBI.</p> <p>M & M CONSTRUCTION CONSULTANTS P. O. BOX 4677 – 00506 NAIROBI.</p> <p>KIRI CONSULT LTD. P. O. BOX 4125 – 00506 NAIROBI.</p> <p>NORKUNS INTAKES LTD P. O. BOX 605 – 00100 NAIROBI.</p>

Reference to ITC Clause	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
ITT 3.1	Maximum number of members in the Joint Venture (JV) shall be: 4
B. Contents of Tender Document	
ITT 7.1	<p>(i) The Tenderer will submit any request for clarifications in writing at the Address</p> <p>Kenya Medical Supplies Authority 13, Commercial Street, Industrial Area P. O. Box 47715 – 00100, Nairobi Telephone No.: +254 20 3922000/+254 719033000/+254 733606600 Fax No.: +254203922400 Email: procure@kemsaco.ke</p> <p>except on Public Holidays to reach the Procuring Entity not later than 8th July, 2022</p> <p>(ii) The Procuring Entity shall publish its response at the website http://www.kemsaco.ke</p>
ITT 7.2	<p>(A) A pre-arranged pretender site visit shall take place at the following date, time and place:</p> <p>Date: 4th July 2022 Time: 9.00 AM Place: KEMSA Embakasi</p> <p>(B) Pre-Tender meeting shall take place at the following date, time and place:</p> <p>Date: 4th July 2022 Time: 9.00 AM Place: KEMSA Embakasi</p>
ITT 7.3	The Tenderer will submit any questions in writing, to reach the Procuring Entity not later than Two (2) days before the meeting.
ITT 7.5	The Procuring Entity’s website where Minutes of the pre-Tender meeting and the pre-arranged pretender will be published is http://www.kemsaco.ke
ITT 9.1	<p>For Clarification of Tender purposes, for obtaining further information and for purchasing tender documents, the Procuring Entity’s address is:</p> <p>Chief Executive Officer Kenya Medical Supplies Authority 13, Commercial Street, Industrial Area P. O. Box 47715 – 00100, Nairobi Telephone No.: +254 20 3922000/+254 719033000/+254 733606600 Fax No.: +254203922400 Email: procure@kemsaco.ke</p>

Reference to ITC Clause	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
C. Preparation of Tenders	
ITT 11.1 (h)	The Tenderer shall submit the following additional documents in its Tender: <i>N/A</i>
ITT 13.1	Alternative Tenders shall NOT be considered.
ITT 13.2	Alternative times for completion shall NOT be permitted.
ITT 13.4	Alternative technical solutions shall be permitted for the following parts of the Works: <i>N/A</i>
ITT 14.5	The prices quoted by the Tenderer shall be: Fixed
ITT 15.2 (a)	Foreign currency requirements not allowed .
ITT 18.1	The Tender validity period shall be One Hundred Twenty Six (126) days .
ITT 19.1	Tender shall provide a Tender Security The type of Tender security shall be in the amount of Kenya Shillings One Million (Ksh.1,000,000.00)
ITT 20.1	In addition to the original of the Tender, the number of copies is: one (1)
ITT 20.3	The written confirmation of authorization to sign on behalf of the Tenderer shall consist of: <i>Power of Attorney for the Authorized Representative</i>
D. Submission and Opening of Tenders	
ITT 22.1	(A) <u>For Tender submission purposes only</u> , the Procuring Entity's address is: Kenya Medical Supplies Authority 13, Commercial Street, Industrial Area P. O. Box 47715-00100 Nairobi, Kenya. And must be deposited in Tender Box 1 Marked GOK / WORLD BANK at the reception on the Ground floor of KEMSA's Commercial Street Office in Nairobi on or before 19th July, 2022 at 10.00 a.m. Tenders shall not submit tenders electronically.
ITT 25.1	The Tender opening shall take place at the time and the address for Opening of Tenders provided below: Kenya Medical Supplies Authority 13, Commercial Street, Industrial Area P.O B Box 47715-00100 Nairobi, Kenya. And must be deposited in Tender Box 1 Marked GOK / WORLD BANK at the reception on the Ground floor of KEMSA's Commercial Street Office in Nairobi on or before 19th July, 2022 at 10.00 a.m. Tenders shall not submit tenders electronically.

Reference to ITC Clause	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
ITT 25.1	If Tenderers are allowed to submit Tenders electronically, they shall follow the electronic tender submission procedures specified below [<i>insert a description of the electronic Tender opening procedures</i>]: N/A
E. Evaluation, and Comparison of Tenders	
ITT 30.3	The adjustment shall be based on the average price of the item or component as quoted in other substantially responsive Tenders. If the price of the item or component cannot be derived from the price of other substantially responsive Tenders, the Procuring Entity shall use its best estimate.
TT 32.1	The currency that shall be used for Tender evaluation and comparison purposes only to convert at the selling exchange rate all Tender prices expressed in various currencies into a single currency is: Kenya Shillings The source of exchange rate shall be: The Central bank of Kenya (mean rate) The date for the exchange rate shall be: the deadline date for Submission of the Tenders.
ITT 33.2	A margin of preference shall NOT apply.
ITT 33.4	The invitation to tender is extended to the following group that qualify for Reservations _____ OPEN TO ALL
ITT 34.1	At this time, the Procuring Entity does not intend to execute certain specific parts of the Works by subcontractors selected in advance.
ITT 34.2	Clause 34.2 Is NOT applicable
ITT 34.3	<i>[Indicate N/A if not applicable]</i> The parts of the Works for which the Procuring Entity permits Tenderers to propose Specialized Subcontractors are designated as follows: _____ N/A _____ For the above-designated parts of the Works that may require Specialized Subcontractors, the relevant qualifications of the proposed Specialized Subcontractors will be added to the qualifications of the Tenderer for the purpose of evaluation.
ITT 35.2 (e)	Additional requirements apply. These are detailed in the evaluation criteria in Section III, Evaluation and Qualification Criteria.
ITT 48.1	Other documents required in addition to the Performance Security are: 1 Insurances 2 Works Program
ITT 50.1	The procedures for making a Procurement-related Complaint are detailed in the “Notice of Intention to Award the Contract” herein and are also available from the PPRA Website www.ppra.go.ke or email complaints@ppra.go.ke . If a Tenderer wishes to make a Procurement-related Complaint, the Tenderer should submit its complaint following these procedures, in writing (by the

Reference to ITC Clause	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
	<p>quickest means available, that is either by hand delivery or email to:</p> <p style="text-align: center;">Chief Executive Officer Kenya Medical Supplies Authority 13, Commercial Street, Industrial Area P. O. Box 47715 – 00100, Nairobi Telephone No.: +254 20 3922000/+254 719033000/+254 733606600 Fax No.: +254203922400 Email: procure@kemsaco.ke</p> <p>In summary, a Procurement-related Complaint may challenge any of the following (among others):</p> <p>(i) the terms of the Tender Documents; and</p> <p>(ii) the Procuring Entity’s decision to award the contract.</p>

**SECTION III: EVALUATION AND
QUALIFICATION CRITERIA**

SECTION III - EVALUATION AND QUALIFICATION CRITERIA

1.1 GENERAL PROVISIONS

- 1.2 This section contains the criteria that the Employer shall use to evaluate tender and qualify tenderers. No other factors, methods or criteria shall be used other than specified in this tender document. The Tenderer shall provide all the information requested in the forms included in Section IV, Tendering Forms. The Procuring Entity shall use **the Standard Tender Evaluation Document for Goods and Works** for evaluating Tenders.
- 1.3 Wherever a Tenderer is required to state a monetary amount, Tenderers should indicate the Kenya Shilling equivalent using the rate of exchange determined as follows:
- a) For construction turnover or financial data required for each year - Exchange rate prevailing on the last day of the respective calendar year (in which the amounts for that year is to be converted) was originally established.
 - b) Value of single contract - Exchange rate prevailing on the date of the contract signature.
 - c) Exchange rates shall be taken from the publicly available source identified in the ITT 14.3. Any error in determining the exchange rates in the Tender may be corrected by the Procuring Entity.

1.4 EVALUATION AND CONTRACT AWARD CRITERIA

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

2.0 PRELIMINARY EXAMINATION FOR DETERMINATION OF RESPONSIVENESS Preliminary examination for Determination of Responsiveness

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

Mandatory Requirements

- a) Certificate of Registration/Incorporation
- b) Valid Registration with National Construction Authority (NCA 5 and Above)
- c) Valid Tax Compliance Certificate
- d) Valid Tender Security of 156 days
- e) Pagination/Serialization of Tender Document
- f) Duly signed Form of Tender

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

4.1 MULTIPLE CONTRACTS

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

OPTION 1

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

OPTION 2

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

5.0 ALTERNATIVE TENDERS (ITT 13.1)

Alternative Tenders (ITT 13.1)

An alternative if permitted under ITT 3.1, will be evaluated as follows:

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

6.1 MARGIN OF PREFERENCE

6.2 If the TDS so specifies, the Procuring Entity will grant a margin of preference of fifteen percent (15%) to be loaded on evaluated prices of the foreign tenderers, where the percentage of shareholding of Kenyan citizens is less than fifty- one percent (51%).

- 6.3 Contractors shall be asked to provide, as part of the data for qualification, such information, including details of ownership, as shall be required to determine whether, according to the classification established by the Procuring Entity, a particular contractor or group of contractors qualifies for a margin of preference.
- 6.4 After Tenders have been received and reviewed by the Procuring Entity, responsive Tenders shall be assessed to ascertain their percentage of shareholding of Kenyan citizens. Responsive tenders shall be classified into the following groups:
- i) *Group A*: tenders offered by Kenyan Contractors and other Tenderers where Kenyan citizens hold shares of over fifty one percent (51%).
 - ii) *Group B*: tenders offered by foreign Contractors and other Tenderers where Kenyan citizens hold shares of less than fifty one percent (51%).
- 6.5 All evaluated tenders in each group shall, as a first evaluation step, be compared to determine the lowest tender, and the lowest evaluated tender in each group shall be further compared with each other. If, as a result of this comparison, a tender from Group A is the lowest, it shall be selected for the award of contract. If a tender from Group B is the lowest, an amount equal to the percentage indicated in Item 6.1 of the respective tender price, including unconditional discounts and excluding provisional sums and the cost of day works, if any, shall be added to the evaluated price offered in each tender from Group B. All tenders shall then be compared using new prices with added prices to Group B and the lowest evaluated tender from Group A. If the tender from Group A is still the lowest tender, it shall be selected for award. If not, the lowest evaluated tender from Group B based on the first evaluation price shall be selected.
- 7. Post qualification and Contract 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 Fifty Million (Ksh.50,000,000.00)
 - ii) Minimum average annual construction turnover of Kenya Shillings One Hundred Million (Ksh.100,000,000.00), equivalent calculated as total certified payments received for contracts in progress and/or completed within the last Five years.
 - iii) At least Five No. contract(s) of a similar nature executed within Kenya, or the East African Community or a broad, that have been satisfactorily and substantially completed as a prime contractor, or joint venture member or sub-contractor each of minimum value Kenya Shillings Fifty Million equivalent.
 - iv) Contractor's Representative and Key Personnel, which are specified but not limited to Directors of the firm, Foremen, Specialist Key personnel such as Engineers, Artisans with relevant trade test certificates in the relevant field.

- v) Contractors key equipment listed on the table “Contractor's Equipment” below
- vi) Other conditions depending on their seriousness.

a) **History of non-performing contracts:**

Tenderer and each member of JV in case the Tenderer is a JV, shall demonstrate that Non- performance of a contract did not occur because of the default of the Tenderer, or the member of a JV in the last Five Years. The required information shall be furnished in the appropriate form.

b) **Pending Litigation**

Financial position and prospective long-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 Ten 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 years specified. A consistent history of awards against the Tenderer or any member of a JV may result in rejection of the tender.

QUALIFICATION FORM*

1	2	3	4	5
Item No.	Qualification Subject	Qualification Requirement	<i>Document To be Completed by Tenderer</i>	<i>For Procuring Entity's Use (Qualification met or Not Met)</i>
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 2012	Form CON-2	
8	Suspension Based on Execution of Tender/Proposal Securing Declaration by the Procuring Entity	Not under suspension based on-execution of a Tender/Proposal Securing Declaration pursuant to ITT 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	
10	Litigation History	No consistent history of court/arbitral award decisions against the Tenderer since 1 st January 2012	Form CON – 2	
11	Financial Capabilities	(f) The Tenderer shall demonstrate that it has access to,	Form FIN – 3.1, with	

1 Item No.	2 Qualification Subject	3 Qualification Requirement	4 <i>Document To be Completed by Tenderer</i>	5 <i>For Procuring Entity's Use (Qualification met or Not Met)</i>
		<p>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 Fifty Million 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 the Procuring Entity, that it has adequate sources of finance to meet the cash flow requirements on works currently in progress and for future contract commitments.</p> <p>(iii) The audited balance sheets or, if not required by the laws of the Tenderer's country, other financial statements acceptable to the Procuring Entity, for the last Five years shall be submitted and must demonstrate the current soundness of the Tenderer's financial position and indicate its prospective long-term profitability.</p>	<p>attachments</p>	
12	Average Annual Construction Turnover	Minimum average annual construction turnover of Kenya Shillings One Hundred Million equivalent calculated as total certified payments received for contracts in progress and/or completed within the last Five years	Form FIN – 3.2	

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 Five years, starting 1 st January 2017	Form EXP – 4.1
14	Specific Construction & Contract Management Experience	A minimum number of FIVE 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 2017 and tender submission deadline i.e Five contracts, each of minimum value Kenya shillings Fifty Million equivalent. The works should be of similar size and nature as specified in the Bills of Quantities	Form EXP 4.2(a)

SECTION IV: TENDERING FORMS

SECTION IV - TENDERING FORMS

QUALIFICATION FORMS

1. FOREIGN TENDERERS 40%RULE

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

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

2. 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	

3. FORM PER-1: CONTRACTOR'S REPRESENTATIVE AND KEY PERSONNEL SCHEDULE

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

Contractor' Representative and Key Personnel

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

4. FORM PER-2: RESUME AND DECLARATION - CONTRACTOR'S REPRESENTATIVE AND KEY PERSONNEL

Name of Tenderer

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

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

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

Declaration

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

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

Commitment	Details
Commitment to duration of contract:	<i>[insert period (start and end dates) for which this Contractor’s Representative or Key Personnel is available to work on this contract]</i>
Time commitment:	<i>[insert period (start and end dates) for which this Contractor’s Representative or Key Personnel is available to work on this contract]</i>

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

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

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

Signature: _____

Date: (day month year): _____

Countersignature of authorized representative of the Tenderer:

Signature: _____

Date: (day month year): _____

5. TENDERERS QUALIFICATION WITHOUT PREQUALIFICATION

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

11 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: _____
<p>1. Attached are copies of original documents of</p> <p><input type="checkbox"/> Articles of Incorporation (or equivalent documents of constitution or association), and/or documents of registration of the legal entity named above, in accordance with ITT 3.6</p> <p><input type="checkbox"/> In case of JV, letter of intent to form JV or JV agreement, in accordance with ITT 3.5</p> <p><input type="checkbox"/> In case of state-owned enterprise or institution, in accordance with ITT 3.8, documents establishing:</p> <ul style="list-style-type: none"> • Legal and financial autonomy • Operation under commercial law <p>1. Establishing that the Tenderer is not under the supervision of the Procuring Entity</p> <p>2. Included are the organizational chart and a list of Board of Directors</p>

2. FORM ELI -1.2: Tenderer's JV Information Form
(to be completed for each member of Tenderer's JV)

Date: _____ ITT No. and title: _____

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

21 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			
<input type="checkbox"/> Contract non-performance did not occur since 1 st January 2012 specified in Section III, Evaluation and Qualification Criteria, Sub-Factor 2.1.			
<input type="checkbox"/> Contract(s) not performed since 1 st January 2012 specified in Section III, Evaluation and Qualification Criteria, requirement 2.1			
<input type="checkbox"/> Contract(s) withdrawn since 1 st January 2012 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 Procuring Entity: <i>[insert full name]</i> Address of Procuring Entity: <i>[insert street/city/country]</i> Reason(s) for nonperformance: <i>[indicate main reason(s)]</i>	<i>[insert amount]</i>
Pending Litigation, in accordance with Section III, Evaluation and Qualification Criteria			
<input type="checkbox"/> No pending litigation in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.3.			
<input type="checkbox"/> Pending litigation in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.3 as indicated below.			

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

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

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

5.4 FORM FIN – 3.1:

Financial Situation and Performance

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

5.4.1. Financial Data

Type of Financial information in (currency)	Historic information for previous _____ years, (amount in currency, currency, exchange rate*, USD equivalent)				
	Year 1	Year 2	Year 3	Year 4	Year 5
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

Sources of Finance

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

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

5.4.3 Financial documents

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

- (a) reflect the financial situation of the Tenderer or in case of JV member, and not an affiliated entity (such as parent company or group member).
- (b) be independently audited or certified in accordance with local legislation.
- (c) be complete, including all notes to the financial statements.
- (d) correspond to accounting periods already completed and audited.

Attached are copies of financial statements¹ for the Five years required above; and complying with the requirements

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

5.6 FORM FIN – 3.2:

Average Annual Construction Turnover

Tenderer's Name: _____

Date: _____

JV Member's Name _____

ITT No. and title: _____

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

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

5.6 FORM FIN – 3.3:

Financial Resources

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

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

5.7 FORM FIN – 3.4:

Current Contract Commitments / Works in Progress

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

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

**5.8 FORM EXP - 4.1:
General Construction Experience**

Tenderer's Name: _____

Date: _____

JV Member's Name _____

ITT No. and title: _____

Page _____ of _____ pages

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

5.9 FORM EXP - 4.2(a)

Specific Construction and Contract Management Experience

Tenderer's Name: _____

Date: _____

JV Member's Name _____

ITT No. and title: _____

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

FORM EXP - 4.2(a)**Specific Construction and Contract Management Experience**

Tenderer's Name: _____

Date: _____

JV Member's Name _____

ITT No. and title: _____

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

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

Specific Construction and Contract Management Experience (cont.)

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

5.10 FORM EXP - 4.2(b)

Construction Experience in Key Activities

Tenderer's Name: _____

Date: _____

Tenderer's JV Member Name: _____

Sub-contractor's Name² (as per ITT 34): _____

ITT No. and title: _____

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

1. Key Activity No One: _

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

² If applicable

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

2. Activity No. Two

3.

OTHER FORMS

1. FORM OF TENDER

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

INSTRUCTIONS TO TENDERERS

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

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

Tender Name and Identification: [insert identification]

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

To: [Insert complete name of Procuring Entity]

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

Request for Tender No.: [insert identification]

Name and description of Tender [Insert as per ITT]

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

To: [insert complete name of Procuring Entity]

Dear Sirs,

1. In accordance with the Conditions of Contract, Specifications, Drawings and Bills of Quantities for the execution of the above named Works, we, the undersigned offer to construct and complete the Works and remedy any defects therein for the sum³ of Kenya Shillings [[Amount in figures] _____ Kenya Shillings [amount in words]_____

The above amount includes foreign currency⁴ amount (s) of [state figure or a percentage and currency] [figures] _____ [words]

2. We undertake, if our tender is accepted, to commence the Works as soon as is reasonably possible after the receipt of the Architect notice to commence, and to complete the whole of the Works comprised in the Contract within _____ (in Words) (_____) (in Figures) Weeks.

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.

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 the Procuring Entity based on execution of a Tender-Securing or Proposal-Securing Declaration in the Procuring Entity's Country in accordance with ITT 19.8;
 - iv) Conformity: We offer to execute in conformity with the tendering documents and in accordance with the implementation and completion specified in the construction schedule, the following Works: *[insert a brief description of the Works]*;
 - v) Tender Price: The total price of our Tender, excluding any discounts offered in item 1 above is: *[Insert one of the options below as appropriate]*
 - vi) Option 1, in case of one lot: Total price is: *[insert the total price of the Tender in words and figures, indicating the various amounts and the respective currencies]*; or
Option2, in case of multiple lots:
 - (a) Total price of each lot *[insert the total price of each lot in words and figures, indicating the various amounts and the respective currencies]*; and
 - (b) Total price of all lots (sum of all lots) *[insert the total price of all lots in words and figures, indicating the various amounts and the respective currencies]*;
 - vii) Discounts: The discounts offered and the methodology for their application are:
 - (c) The discounts offered are: *[Specify in detail each discount offered.]*
 - (d) 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]*;
 - viii) 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;
 - ix) Performance Security: If our Tender is accepted, we commit to obtain a Performance Security in accordance with the Tendering document;
 - x) 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;
 - xi) 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.
 - xii) 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];

- xiii) 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.”)

- xiv) 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;
- xv) 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;
- xvi) 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
- xvii) 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.
- xviii) 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.
- xix) **Beneficial Ownership Information:** We commit to provide to the procuring entity the Beneficial Ownership Information in conformity with the Beneficial Ownership Disclosure Form upon receipt of notification of intention to enter into a contract in the event we are the successful tenderer in this subject procurement proceeding.

We, the Tenderer, have duly completed, signed and stamped the following Forms as part of our Tender:

- a) Tenderer's Eligibility; Confidential Business Questionnaire - to establish we are not in any conflict to interest.
- b) Certificate of Independent Tender Determination - to declare that we completed the tender without colluding with other tenderers.
- c) 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

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

A. TENDERER'S DETAILS

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

General and Specific Details

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

Name in full

Age

Nationality

Country of Origin

Citizenship

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

	Names of Partners	Nationality	Citizenship	% Shares owned
1				
2				
3				

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

- i) Private or public Company _____
- ii) State the nominal and issued capital of the Company _____
- iii) Nominal Kenya Shillings (Equivalent).....
Issued Kenya Shillings (Equivalent).....
- iv) Give details of Directors as follows.

	Names of Director	Nationality	Citizenship	% Shares owned
1				
2				
3				

B. DISCLOSURE OF INTEREST - Interest of the Firm in the Procuring Entity.

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

If yes, provide details as follows.

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

C. CONFLICT OF INTEREST DISCLOSURE

No.	Type of Conflict	Disclosure YES OR NO	If YES provide details of the relationship with Tenderer
1.	Tenderer is directly or indirectly controls, is controlled by or is under common control with another tenderer.		
2.	Tenderer receives or has received any direct or indirect subsidy from another tenderer.		
3.	Tenderer has the same legal representative as another tenderer		
4.	Tender has a relationship with another tenderer, directly or through common third parties that puts it in a position to influence the tender of another tenderer, or influence the decisions of the Procuring Entity regarding this tendering process.		
5.	Any of the Tenderer's affiliates participated as a consultant in the preparation of the design or technical specifications of the works that are the subject of the tender.		
6.	Tenderer would be providing goods, works, non-consulting services or consulting services during implementation of the contract specified in this Tender Document.		
7.	Tenderer has a close business or family relationship with a professional staff of the Procuring Entity who are directly or indirectly involved in the preparation of the Tender document or specifications of the Contract, and/or the Tender evaluation process of such contract.		
8.	Tenderer has a close business or family relationship with a professional staff of the Procuring Entity who would be involved in the implementation or supervision of the Contract.		
9.	Has the conflict stemming from such relationship stated in item 7 and 8 above been resolved in a manner acceptable to the Procuring Entity throughout the tendering process and execution of the Contract?		

Certification

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

Full Name: _____

Title or Designation: _____

(Signature)_____

(Date)_____

b) CERTIFICATE OF INDEPENDENT TENDER DETERMINATION

I, the undersigned, in submitting the accompanying Letter of Tender to the _____
[Name of Procuring Entity] for: _____ [Name and number of
tender] in response to the request for tenders made by: _____ [Name of
Tenderer] do hereby make the following statements that I certify to be true and complete in every
respect:

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

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

8. The terms of the Tender have not been, and will not be, knowingly disclosed by the Tenderer, directly or indirectly, to any competitor, prior to the date and time of the official tender opening, or of the awarding of the Contract, which ever comes first, unless otherwise required by law or as specifically disclosed pursuant to paragraph (5)(b) above.

Name: _____

Title: _____

Date: _____

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

c) SELF- DECLARATION FORMS

FORM SD1

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

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

1. THAT I am the Company Secretary/ Chief Executive/Managing Director/Principal Officer/Direct or of (*insert name of the Company*) who is a Bidder in respect of **Tender No.** for (*insert tender title/description*) for (*insert name of the Procuring entity*) and duly authorized and competent to make this statement.

2. THAT the aforesaid Bidder, its Directors and subcontractors have not been debarred from participating in procurement proceeding under Part IV of the Act.

3. THAT what is deponed to here in above is true to the best of my knowledge, information and belief.

.....
..... (Date) (Title) (Signature)

Bidder Official Stamp

FORM SD2

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

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

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

.....
(Title)

.....
(Signature)

.....
(Date)

Bidder's Official Stamp

DECLARATION AND COMMITMENT TO THE CODE OF ETHICS

I (person) on behalf of (*Name of the Business/
Company/Firm*)

..... declare that I have read and fully understood the contents of the Public Procurement & Asset Disposal Act, 2015, Regulations and the Code of Ethics for persons participating in Public Procurement and Asset Disposal and my responsibilities under the Code.

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

Name of Authorized signatory

Sign.....

Position.....

Office address.....

Telephone..... E-mail.....

Name of the Firm/Company.....

Date.....

(Company Seal/ Rubber Stamp where applicable)

Witness Name

Sign.....

Date.....

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

(Appendix 1 shall not be modified)

1. Purpose

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

2. Requirements

- 2.1 The Government of Kenya requires that all parties including Procuring Entities, Tenderers, (applicants/proposers), Consultants, Contractors and Suppliers; any Sub-contractors, Sub-consultants, Service providers or Suppliers; any Agents (whether declared or not); and any of their Personnel, involved and engaged in procurement under Kenya's Laws and Regulation, observe the highest standard of ethics during the procurement process, selection and contract execution of all contracts, and refrain from Fraud and Corruption and fully comply with Kenya's laws and Regulations as per paragraphs 1.1 above.
- 2.2 Kenya's public procurement and asset disposal act (*no. 33 of 2015*) under Section 66 describes rules to be followed and actions to be taken in dealing with Corrupt, Coercive, Obstructive, Collusive or Fraudulent practices, and Conflicts of Interest in procurement including consequences for offences committed. A few of the provisions noted below highlight Kenya's policy of no tolerance for such practices and behavior:
- 1) A person to whom this Act applies shall not be involved in any corrupt, coercive, obstructive, collusive or fraudulent practice; or conflicts of interest in any procurement or as set disposal proceeding;
 - 2) A person referred to under subsection (1) who contravenes the provisions of that subsection commits an offence;
 - 3) Without limiting the generality of the subsection (1) and (2), the person shall be:
 - a) disqualified from entering into a contract for a procurement or asset disposal proceeding; or
 - b) if a contract has already been entered into with the person, the contract shall be voidable;
 - 4) The voiding of a contract by the procuring entity under subsection (7) does not limit any legal remedy the procuring entity may have;
 - 5) An employee or agent of the procuring entity or a member of the Board or committee of the procuring entity who has a conflict of interest with respect to a procurement:
 - a) Shall not take part in the procurement proceedings;
 - b) shall not, after a procurement contract has been entered in to, take part in any decision relating to the procurement or contract; and
 - c) shall not be a subcontract or for the tender to whom was awarded contract, or a member of the group of tenderers to whom the contract was awarded, but the subcontractor appointed shall meet all the requirements of this Act.

- 6) An employee, agent or member described in subsection (1) who refrains from doing anything prohibited under that subsection, but for that subsection, would have been within his or her duties shall disclose the conflict of interest to the procuring entity;
- 7) If a person contravenes subsection (1) with respect to a conflict of interest described in subsection (5)(a) and the contract is awarded to the person or his relative or to another person in whom one of them had a direct or indirect pecuniary interest, the contract shall be terminated and all costs incurred by the public entity shall be made good by the awarding officer. Etc.

3. In compliance with Kenya's laws, regulations and policies mentioned above, the Procuring Entity:

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

"fraudulent practice" includes a misrepresentation of fact in order to influence a procurement or disposal process or the exercise of a contract to the detriment of the procuring entity or the tenderer or the contractor, and includes collusive practices amongst tenderers prior to or after tender submission designed to establish tender prices at artificial non-competitive levels and to deprive the procuring entity of the benefits of free and open competition.
- c) Rejects a proposal for 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 the Procuring Entity to address specific matters related to investigations/audits, such as evaluating the veracity of an allegation of possible Fraud and Corruption, through the appropriate mechanisms. Such activity includes but is not limited to: accessing and examining a firm's or individual's financial records and information, and making copies thereof as relevant; accessing and examining any other documents, data and information (whether in hard copy or electronic format) deemed relevant for the investigation/audit, and making copies there of as relevant; interviewing staff and other relevant individuals; performing physical inspections and site visits; and obtaining third party verification of information.

2. FORM OF TENDER SECURITY [OPTION 1: DEMAND BANK GUARANTEE]

Beneficiary: _____

Request for Tenders No: _____

Date: _____

TENDER GUARANTEE No.: _____

Guarantor: _____

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

[signature(s)]

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

3. FORMAT OF TENDER SECURITY [OPTION 2: INSURANCE GUARANTEE]

TENDER GUARANTEE No.: _____

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

Sealed with the Common Seal of the said Guarantor this ____ day of _____ 20 ____.

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

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

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

[Date]

[Signature of the Guarantor]

[Witness]

[Seal]

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

4. 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

5. APPENDIX TO TENDER

Schedule of Currency requirements

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

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

SECTION V - BILLS OF QUANTITIES

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1. GENERAL PRELIMINARIES

GENERAL PRELIMINARIES

		KSHS	CTS
A	<p><u>PRICING ITEMS OF PRELIMINARIES</u></p> <p>Prices SHALL BE INSERTED against items of “Preliminaries” in the Tenderer’s priced Bills of Quantities.</p> <p>Please note that failure to price any item of general particular preliminaries will be construed to mean that the Tenderer wishes to provide for that item free of charge.</p>		
B	<p><u>VALUE ADDED TAX, WITHHOLDING TAX, KBS LEVY, TRAINING LEVY, OTHER TAXES, DUTIES AND LEVIES IN FORCE</u></p> <p>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).</p> <p>The Contractor shall be deemed to have included in all his Preliminaries and Bills of Quantities rates; All taxes, Duties and Levies including all aspects of Value Added Tax (V.A.T); in force at the time of tender.</p> <p>Please note that from every interim and the Final payment a 6% VAT shall be deducted and paid directly to the Commissioner of Value Added Tax (VAT) to the Contractor’s account with Kenya Revenue Authority or as shall be advised from time to time</p> <p>Additionally, compliance with deduction of Withholding Tax to be paid directly to Kenya Revenue Authority shall be strictly adhered to. The Contractors attention is drawn to the Finance Bill of the year 2000/2001 on withholding tax on contractual payment section 35(7)(i)(ii) which became effective on 1st July 2000. A 3% withholding tax will be applicable to all interim payments 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.</p>		
C	<p><u>MEASUREMENTS</u></p> <p>In the event of any discrepancies arising between the Bills of Quantities and the actual works, the site measurements shall generally take precedence. However, such discrepancies between any contract documents shall immediately be referred to the “PROJECT MANAGER”</p>		
	CARRIED TO COLLECTION		

<p>A</p> <p><u>EXISTING BUILDING SERVICES</u></p> <p>Special precautions shall be required throughout the contract period to avoid damage to the existing cables, drains and other services.</p> <p>The Contractor is referred to the General Specifications for Building Works 1976 Edition Pages B1 – B2 inclusive and must allow for all costs in complying with these clauses.</p> <p>B</p> <p><u>CONTRACT COMPLETION PERIOD</u></p> <p>The Contract completion period will be in accordance with Conditions of Contract and must be strictly adhered to.</p> <p>The “PROJECT MANAGER” shall strictly monitor the Contractor’s progress in relation to the progress chart and should it be found necessary, the “PROJECT MANAGER” shall inform the Contractor in writing that his actual performance on site is not satisfactory.</p> <p>In all such cases, the Contractor shall accelerate his rate of performance, production and progress by all means such as additional labour, plant, etc and working overtime all at his cost.</p> <p>C</p> <p><u>WORKING CONDITIONS</u></p> <p>The Contractor shall allow in his rates 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.</p> <p>D</p> <p><u>LABOUR CAMPS</u></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> <p>The mode of transport must comply with the current TLB, PSV and Traffic Police requirements currently in force.</p> <p>E</p> <p><u>MATERIAL FROM DEMOLITIONS</u></p> <p>Any materials arising from demolitions and not re-used shall become the property of the Contractor. The Contractor shall allow credit for the materials from demolition.</p>		<p>KSHS</p>	<p>CTS</p>
	<p>CARRIED TO COLLECTION</p>		

<p>A</p> <p><u>PRICING RATES</u></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> <p>B</p> <p><u>URGENCY OF THE WORKS</u></p> <p>The Contractor is notified that these Works are URGENT and should be completed within the period stated in the Appendix to Conditions of Contract. The Contractor should allow for any costs he deems he may incur by completing the works within the stipulated period.</p> <p>C</p> <p><u>TELEPHONE</u></p> <p>The Contractor shall arrange for a phone on the site throughout the course of the contract. In addition, he shall provide every month for the duration of the contract 10 (ten) No. airtime cards worth Kshs.1,000.00 each for the sole use of the supervision team.</p> <p>Add: Contractor's Cost and Profit for the above _____%</p>		<p>KSHS</p>	<p>CTS</p>
<p>CARRIED TO COLLECTION</p>			
	<p><u>COLLECTION</u></p> <p>Brought forward from 86</p> <p>Brought forward from 87</p> <p>Brought forward from Above</p>	<p>KSHS</p>	<p>CTS</p>
<p>TOTAL FOR GENERAL PRELIMINARIES CARRIED TO MAIN SUMMARY</p>			

2. PARTICULAR PRELIMINARIES

PARTICULAR PRELIMINARIES

A	<p><u>THE PROJECT TEAM</u></p> <p>The “Employer”:-</p> <p>KENYA MEDICAL SUPPLIES AUTHORITY. P. O. BOX 47715 – 00100 <u>NAIROBI.</u></p> <p>The “Project Manager”:-</p> <p>WORKS SECRETARY MINISTRY OF TRANSPORT, INFRASTRUCTURE, HOUSING AND URBAN DEVELOPMENT STATE DEPARTMENT OF PUBLIC WORKS P. O. BOX 30743 – 00100 Telephone: +254 20272 3101 Facsimile: +254 202724504 Email: info@publicworks.go.ke <u>NAIROBI</u></p> <p>The “Project Architect”</p> <p>MAESTRO ARCHITECTS. P. O. BOX 6644 – 00100 TEL: +254 20 6003745 / 6004229 FAX: +254 20 6003745 <u>NAIROBI.</u></p> <p>The “Quantity Surveyor”:</p> <p>M & M CONSTRUCTION CONSULTANTS P. O. BOX 4677 – 00506 TEL: +254 20 6550188/208 Mobile: +254 701 946020 <u>NAIROBI.</u></p> <p>The “ Civil / Structural Engineers”:</p> <p>KIRI CONSULT LTD. P. O. BOX 4125 – 00506 Tel: +254 731191043 / 2714897 Fax: +254 20 2714896 <u>NAIROBI</u></p>	KSHS	CTS
	CARRIED TO COLLECTION		

		KSHS	CTS
	<p><u>THE PROJECT TEAM (CONT'D)</u></p> <p>The “Electrical / Mechanical Engineers”:</p> <p>NORKUNS INTAKES LTD. P. O. BOX 605 – 00100 <u>NAIROBI.</u></p> <p>The “Environmental Experts”:</p> <p>EMS CONSULTANTS LTD. P. O. BOX 11743 – 00100 Tel: +254 20 3746220 Mobile: +254 722 817860 <u>NAIROBI.</u></p> <p>The “Contractor” The person or persons, partnership,, firm or company whose tender (offer) for the work is accepted and who consequently enters into a written contract with the employer to carry out the works.</p>		
A	<p><u>DISCLAIMER</u></p> <p>The above information is given as a guide only. Tenderers are expected to verify all information given above from the drawings, specifications and bills of quantities. The client or his agents will not be held liable for any losses or inaccuracies arising from the use of the above information.</p>		
B	<p><u>SCOPE OF CONTRACT AND DESCRIPTION OF THE WORKS</u></p> <p>The works in this contract comprise the construction of:</p> <ul style="list-style-type: none"> • Proposed Linkage between Warehouses and Associated Civil and External Works - 681 M2 • Decorative Steel Sun shading • 6No. Roller Shutters <p>The walls are generally in machine cut stone and concrete blocks The windows are in aluminium casement windows. The Doors are generally timber, and aluminium and steel casement Wall Finishes is mainly plaster and paint internally. External finishes comprise of plaster and paint and alucobond cladding Floor Finishes are in epoxy and granite tiles.</p>		
	<p>CARRIED TO COLLECTION</p>		

		KSHS	CTS
A	<p><u>SCOPE OF CONTRACT AND DESCRIPTION OF THE WORKS (CT'D)</u></p> <p>Ceiling Finishes are gypsum ceiling Associated Electrical and Mechanical Installations Decorative sun shading is in steel and alucobond with associated steel support</p> <p>Roller shutters are in steel</p> <p><u>LOCATION OF SITE</u></p> <p>The site of the proposed Works is located on LR No. 9042/176 at Embakasi, Nairobi.</p> <p>The Contractor shall be deemed to have visited the site and satisfied himself as to:</p> <ol style="list-style-type: none"> a) the nature of the site. b) the amount of bush, rubbish or debris to be cleared away before commencement. c) the nature, current usage, proximity and size of adjoining property and buildings. d) the nature of existing communication by road or otherwise. <p>The availability of land for the erection and positioning of all temporary structures and materials necessary for the execution of the Works.</p>		
B	<p><u>ACCESS TO SITE</u></p> <p>Access to site is through the main security manned gates and no other entrance will be used by the Contractor unless expressly permitted by the Employer at his own discretion. The Contractor must allow for keeping clean at all times the existing access to the site and for hosing down the wheels of all vehicles which may use such roads. The Contractor must allow here for all costs incurred in maintaining the access to the site.</p>		
C	<p><u>DRAWINGS</u></p> <p>The Contractor will be deemed to have examined the drawings before tendering and to have satisfied himself regarding their details and regarding the nature and extent of the works and the method of construction involved. No claims rising out of misapprehension in these respects will be allowed.</p>		
	CARRIED TO COLLECTION		

<p>A</p> <p><u>FORM OF CONTRACT</u></p> <p>The Contractor Agreement in use for this contract is based on the STANDARD TENDER DOCUMENT FOR PROCUREMENT OF WORKS (BUILDING AND ASSOCIATED CIVIL ENGINEERING WORKS) issued by PUBLIC PROCUREMENT REGULATORY AUTHORITY (issued in APRIL 2021 and Updated in APRIL 2022) of the Government of the Republic of Kenya.</p> <p>The Contractor full Contract form with the citation of all the clauses is included in these bills of quantities (these index pages at the beginning of this document).</p> <p>Reference to Contract clauses appearing hereunder, is to the public procurement contract. Any deviations, deletions or additions appearing herein having been made to suit the specifics of the project and should override any contract provisions in the Standard Public Procurement Contract.</p> <p>B</p> <p><u>CLAUSES OF THE STANDARD FORM OF CONTRACT</u></p> <p>The Contractor’s attention is drawn to the clauses of the Conditions of Contract and deletions, additions and modifications thereto which shall be read as incorporated herein and he shall allow any sums which he considers necessary for the observance of such conditions. (The full contract clauses are contained elsewhere in this document)</p> <p>Clauses 1 General Provisions</p> <p>Clause 2 Procuring Entity</p> <p>Clause 3 The Engineer</p> <p>Clause 4 The Contractor</p> <p>Clause 5 Nominated Subcontractors</p> <p>Clause 6 Staff and Labour</p> <p>Clause 7 Plant, Materials and Workmanship</p>	<p>KSHS</p>	<p>CTS</p>
<p>CARRIED TO COLLECTION</p>		

		KSHS	CTS
	<p>Clause8 Commencement, Delays and Suspension</p> <p>Clause 9 Tests on Completion</p> <p>Clause10 Procuring Entity’s Taking over</p> <p>Clause 11 Defects Liability</p> <p>Clause 12 Measurement and Evaluation</p> <p>Clause 13 Variations and Adjustments</p> <p>Clause 14 Contract Price and Payment</p> <p>Clause 15 Termination by Procuring Entity</p> <p>Clause 16 Suspension and Termination by Contractor</p> <p>Clause 17 Risk and Responsibility</p> <p>Clause 18 Insurance</p> <p>Clause 19 Force Majeure</p> <p>Clause 20 Settlement of Claims and Disputes</p>		
	CARRIED TO COLLECTION		

		KSHS	CTS
A	<p><u>WORKMANSHIP</u></p> <p>The standards of workmanship and materials used are expected to be of the highest levels achievable to be commensurate with the best standards in the building industry in Kenya.</p> <p>The Employer shall have the right under this contract to hire others to carry out work falling under the contract if the contractor fails to achieve the required standards of materials and workmanship.</p>		
B	<p><u>SUFFICIENCY OF TENDER</u></p> <p>The Contractor shall be deemed to have satisfied himself before tendering to the correctness and sufficiency of his Tender for the works and of rates and prices stated in the priced Bills of Quantities, which rates and prices shall cover all his obligations under the contract and all matter and means necessary for the proper completion and maintenance of the Works. The rates and prices shall not be changed whatsoever after tender opening</p>		
C	<p><u>DEFINATIONS AND ABBREVIATIONS</u></p> <p>Abbreviations used in these Bills of Quantities shall be interpreted as follows:</p> <p>“Approved” shall mean approved by the Project Manager.</p> <p>“As directed” shall mean as directed by the Project Manager.</p> <p>“B.S” shall mean the current British Standard specifications published by the British Standard Institution, 2 Park Street, London W. 1, England.</p> <p>mm shall mean millimetres cm shall mean centimetres m shall mean metres M1 shall mean linear metres M2 shall mean square metres M3 shall mean cubic metres Kgs. shall mean kilograms NO. shall mean number Prs. shall mean pairs</p>		
	CARRIED TO COLLECTION		

		KSHS	CTS
	<p><u>DEFINATIONS AND ABBREVIATIONS (CONT'D)</u></p> <p>B.S. shall mean current British Standard Specification published by the British Standard Institution, 2 Park Street, London, WI England</p> <p>K.B.S. shall mean the current Kenya Bureau of Standards</p> <p>DITTO shall mean the whole of preceding description except as qualified in the description in which it occurs. Where it occurs in description of succeeding items it shall mean the same as in the first description of the series in which it occurs expect as qualified in the description concerned. Where it occurs in brackets it shall mean whole of the preceding description which is contained with the appropriate brackets</p> <p>A <u>SAMPLES</u></p> <p>The Contractor shall furnish at the earliest possible opportunity before the relevant section of the work commences and at his cost, any samples of material or workmanship that may be called for by the Project Manager for his approval and any further samples in the case of rejection until they are approved. Such samples, when approved shall be the minimum standard for the work to which they apply.</p> <p>B <u>EXISTING SERVICES</u></p> <p>Prior to commencement of any wok the Contractor shall ascertain from the relevant authorities and from a keen observation of the building the exact positions, depths and levels of all existing electric cables, water pipes and other services in the building and shall make whatever provisions may be necessary and those that may be required by the authorities concerned for the support and protection of such services. Any damage or disturbance caused to any service/installation shall be reported immediately to the project manager, the Employer and the relevant authority and shall be made good to their satisfaction at the Contractor's expense.</p> <p>In addition to the above requirement, the Contractor is required to program any disconnection and reconnection of services in such a manner that it shall not in any way affect the continuity of the operations of the buildings.</p>		
	CARRIED TO COLLECTION		

<p>A</p> <p><u>MATERIALS, TOOLS, PLANT AND SCAFFOLDING</u></p> <p>The Contractor shall be responsible for the provision of all materials, scaffolding, tools, plant, transport and workmen required for the works except insofar as may be stated otherwise herein.</p> <p>All materials and workmanship use in the execution of the works shall be of the best quality and description. Any materials condemned by the Project Manager shall immediately be removed from the site at the Contractor's cost</p> <p>All plant, tools and scaffolding shall comply with all regulation whether general or local which are in force throughout the period of the contract and shall be altered or adapted during the contract as may be necessary to comply with any amendments in or additions to such regulations</p> <p>B</p> <p><u>LOCAL REGULATIONS AND BY LAWS</u></p> <p>The Contractor is to comply with all local authority regulations and by-laws including serving of notices and paying of fees where applicable</p> <p>C</p> <p><u>SUPERVISION</u></p> <p>The works shall be executed under the direction and to the entire satisfaction of the Project Manager who shall, at all times, have, access to the works</p> <p>D</p> <p><u>TRANSPORT TO AND FROM THE SITE</u></p> <p>The Contractor shall allow in his rates and prices for the transport of materials, workmen etc. to and from the site for the proposed works, at such hours and by such routes and means as are permitted by the authorities.</p> <p>E</p> <p><u>FAIR WAGES</u></p> <p>The Contractor shall pay rates and wages and observe hours and conditions of labour not less favourable than the minimum rates of remuneration and minimum conditions of employment applicable within the jurisdiction of the Local Authority as stipulated y the Minister for Labour.</p> <p>The Contractor shall comply with the Regulation of Wages and Conditions of Employment Act, Building and Construction Industry Wages Council.</p>	<p>KSHS</p>	<p>CTS</p>
<p>CARRIED TO COLLECTION</p>		

		KSHS	CTS
A	<p><u>FAIR WAGES (CONT'D)</u></p> <p>Should a claim be made to the employer alleging the Contractor's default in payment of Fair Wages of any Workman employed on the Contract and if proof thereof satisfactory to the Employer is furnished by the Labour Department the Employer may, failing payment by the Contractor, pay the claim out of any money due or which may become due to the Contractor under the Contract.</p> <p>The Contractor shall furnish to the Project Manager if called upon to do so such particulars of the rates of wages, hours and conditions of labour referred to above.</p>		
B	<p><u>PUBLIC AND PRIVATE ROADS, PAVEMENTS, ETC.</u></p> <p>The Contractor shall make good at his own expense any damage he may cause to public and/or private roads and pavements in the course of executing this contract.</p>		
C	<p><u>SECURITY OF THE WORKS</u></p> <p>The Contractor shall be entirely responsible for the security of the works, materials, plant, and personnel.</p>		
D	<p><u>POLICE REGULATIONS</u></p> <p>The Contractor shall comply with all instructions and regulations of the police Authorities and shall pay any fines and costs arising from non-compliance of the same which may arise in the course of executing this Contract.</p>		
E	<p><u>PROGRESS SCHEDULE</u></p> <p>Immediately after signing the contract, the Contractor is to prepare a Time and Progress Chart showing the time and order in which he proposes to carry out the works within the total construction time stated in the Contract. The chart shall show in detail the order in which each section, element or activity of the works is to be carried out.</p> <p>At the end of each week the Contractor shall mark on the chart in a different colour the actual time taken to complete the respective stage and sections of the work. The Contractor shall also show upon the chart or on a different sheet to be made available to the Project Manager and the Employer the anticipated weekly labour strength required (divided into labourers and craftsmen) and shall similarly mark up the actual numbers employed</p>		
	CARRIED TO COLLECTION		

		KSHS	CTS
	<p><u>PROGRESS SCHEDULE (CONT'D)</u></p> <p>The Contractor shall obtain the Project Manager approval of the chart and then shall supply copies to the Project Manager, the Quantity Surveyor, the Engineer and the Employer, and he shall pin one copy upon the site where directed. He shall thereafter adhere strictly to the approved schedule. In the event of the work falling behind the approved programme or any reason whatsoever the Contractor shall, within a week of the deviation becoming apparent prepare a revised schedule showing how lost time would be made up within the overall Contract Period</p> <p>Upon commencement of the works, the Contractor shall be required, in addition to other requirements on the recording of progress contained herein, to compile and submit to the Project Manager and the Employer Site Weekly Reports upon which shall be recorded daily activities on site including the labour and machinery (if any) on site, deliveries of materials on site and the extent of work achieved at the close of the working day. The records shall e filed with the relevant parties not later than the Wednesday of the subsequent week.</p> <p>The Contractor is required to execute the work with speed and dispatch to take as short a time on the project as possible. The Contractor may arrange overtime working with the Employer to achieve this. Any overtime payments should be allowed for in the rates and prices. No extra payment beyond the Contract Sum shall be allowed in connection thereto.</p>		
A	<p><u>OVERTIME</u></p> <p>Unless overtime is directed by the Employer or the Project Manager on his behalf for reasons other than the Contractor's own interest to complete the work within the Contract period, the Contractor will be responsible for any extra cost there from.</p> <p>If overtime is worked in accordance with an explicit written instruction issued by the Project Manager, the Contractor shall be reimbursed in respect of such overtime to the extent only of the additional NET cost of productive time payable over and above the basic hourly rates as laid down by the Regulation of Wages and Conditions of Employment Act, Building and Construction Industry Wages council, and excluding any bonuses, profits and overheads.</p>		
B	<p><u>WATER FOR THE WORKS</u></p> <p>The Contractor shall provide all water required for the works at his own cost. All water shall be fresh, clean pure, and of potable quality, free of earthy, vegetable or other organic matter, acid or alkaline substance in solution or suspension</p>		
	<p>CARRIED TO COLLECTION</p>		

<p>A</p> <p><u>LIGHTING AND POWER</u></p> <p>The Contractor shall provide all temporary power as may be necessary from his own sources and at his own cost or the purpose of the works. He shall also pay all fees and costs and shall obtain all permits in connection therewith.</p> <p>B</p> <p><u>ACCESS TO SITE AND TEMPOARY ROADS</u></p> <p>The Contractor will be deemed to have inspected the site and all access means and allowed in his rates or in this clause any costs associated with this item.</p> <p>C</p> <p><u>TEMPORARY STRUCTURES AND STORAGE OF MATERIALS</u></p> <p>The Contractor shall provide adequate storage facilities of approved specification to the satisfaction of the Project Manager. The facilities shall be for his use and those of the Sub-Contractors.</p> <p>D</p> <p><u>SANITATION OF THE WORKS</u></p> <p>The Contractor shall make his own arrangements for sanitary conveniences for his workmen. Any arrangements so made shall be in conformity with the public Health requirements for such facilities. He shall be solely liable for any infringement of the requirements.</p> <p>E</p> <p><u>PROTECTING AND CLEANING THE WORK</u></p> <p>The Contractor shall cover up and protect all finished work liable to damage including provision of temporary roofs, gutters, drains, etc, as necessary until the completion of the works.</p> <p>In the event of any damage occurring to the works, materials, sewers, drains, gullies, paths or other works on the site in temporary possession of the Contractor or purpose of this Contract, either from the weather, want of proper protection, defects or insufficiency of the works or any other cause whatsoever during the progress of works, the Contractor alone shall be responsible and shall, without extra charge, make good all damage and pay all costs which may be levied.</p> <p>F</p> <p><u>PREVENTION OF NUISANCE</u></p> <p>The Contractor shall take all possible precautions to prevent any nuisance, inconvenience or injury to the occupiers/users of the building generally; users of adjacent and neighboring properties, and to the public, and shall use proper precautions to ensure the safety of all wheeled traffic and pedestrians.</p>	<p>KSHS</p>	<p>CTS</p>
	<p>CARRIED TO COLLECTION</p>	

		KSHS	CTS
	<p><u>PREVENTION OF NUISANCE (CONT'D)</u> All work operations which may produce undue levels of noise, dust, vibration, welding flushes or any other discomfort to the occupiers of the neighbouring buildings or the general public must be undertaken at suitable times which shall be determined in close liaison with the Project Manager and the Employer.</p>		
A	<p><u>PREVENTION OF NOISE</u> In addition to the above provision on nuisance, the Contractor shall keep the general noise emanating from the site operations at all times to a level that does not cause discomfort to the average person. He shall take all necessary measures to muffle the noise from his tools, equipment and workmen to the reasonable satisfaction of the Project Manager and the Employer.</p>		
B	<p><u>REMOVAL OF PLANT, RUBBISH, ETC</u> The Contractor shall, upon completion of the Works, remove and clear away all plant, rubbish, cans and unused materials, and shall leave the building and generally the whole of the site of the works in a clean and tidy state to the satisfaction of the Project Manager and the Employer. During site operations, he shall also remove from the site all rubbish and dirt as it is produced to maintain the tidiness of the premises and its immediate environ.</p>		
C	<p><u>TRAINING LEVY</u> The Contractor's attention is drawn to Legal Notice No 237 of October 1971, which requires payment by the Contractor of a Training levy on all contracts of more than Kshs. 50, 000.00 in value and he should allow in this section of these Bills of Quantities for all costs arising or resulting therefrom.</p>		
D	<p><u>NEMA FEES</u> The National Environment Management Authority (NEMA), is established under the Environmental Management and Co-ordination Act No. 8 of 1999 (EMCA) as the principal instrument of Government for the implementation of all policies relating to environment. EMCA 1999 was enacted against a backdrop of 78 sectoral laws dealing with various components of the environment, the deteriorating state of Kenya's environment, as well as increasing social and economic inequalities, the combined effect of which negatively impacted on the environment. The supreme objective underlying the enactment of EMCA 1999 was to bring harmony in the management of the country's environment.</p> <p>Allow 0.1% of the tender sum/contract sum for NEMA Fees</p>		
	CARRIED TO COLLECTION		

A	<p><u>LABOUR AND PLANT RETURNS</u></p> <p>The Contractor shall deliver to the Project Manager detailed weekly returns showing the supervisory staff and the numbers of the several classes of labour and plant employed on the Works.</p>	KSHS	CTS
B	<p><u>VISITORS BOOK AND SITE DIARY</u></p> <p>The Contractor shall keep on the site a visitors book for recording the names of all person who visit the site for the purpose of the project. He shall also maintain on site a diary in which he shall record site activities on a daily basis and particularly any occurrence which bears on the progress of the works in any way. The visitor's book and the diary shall be surrendered to the Project Manager at the completion of the project or at any other time that he may direct.</p>		
C	<p><u>SAFETY HEALTH AND WELFARE OF WORKPEOPLE</u></p> <p>The Contractor shall allow for providing for the safety, health and welfare of work people and for complying with any relevant Ordinance, Regulations and Union Agreements.</p>		
D	<p><u>WARRANTY AND PERFORMANCE STANDARDS</u></p> <p>The Contractor shall furnish the Employer with a general written warranty covering qualities of workmanship, materials and equipment, and be compelled thereby for a five year period after practical completion of the contract, except for latent defect which shall be warranted for ten years . The Contactor must make good, at his own expense, such repairs and replacements as may be required as a consequence of negligent workmanship or defective materials. The Contractor must also procure such warranties and guarantees as described in the specifications section of these Bill of Quantities and relevant codes of practice. The Contractor must also comply will all tests or materials as required and/or as directed by the Project Manager.</p>		
E	<p><u>NATIONAL INSURANCE, HEALTH INSURANCE AND PENSIONS</u></p> <p>The Contractor shall allow for making any National Social Security Fund and National Health Insurance Fund payments due in respect of work people.</p>		
F	<p><u>HOLIDAYS AND TRANSPORT FOR WORK PEOPLE</u></p> <p>The Contractor shall allow for providing holidays and transport for workpeople and for complying with any relevant Ordinance, Regulations and Union Agreements.</p>		
	<p>CARRIED TO COLLECTION</p>		

<p>A</p>	<p><u>PROTECTION OF WORKS AND PERSONS</u></p> <p>The Contractor shall allow for the protection of his own and his Sub-Contractor's work liable to damage, including provision of temporary roofs, gutters, drains, etc., if necessary and shall case-up, cover or in other suitable ways protect all finished work liable to injury, to the completion of the works, the same shall be under the entire care and control of the Contractor, who shall take all possible precautions to prevent any nuisances, inconvenience or injury to the holders or occupiers of surrounding properties and to the public in generally , and shall at all times keep all paths and roads affected by the works in a safe and clear state, and shall use proper precautions to ensure the safety of all wheeled traffic and pedestrians.</p> <p>The Contractor shall allow for providing all watching, lighting, barriers, covering open fences and protection of the works, including sub-Contractor works as may be necessary for the safety of the works and for the protection of the public and his own and Sub-Contractor's employees. In the event of any damage or loss occurring to the works or to materials or to any sewers, gullies, drains, paths, or other works on the site in temporary possession of the Contractor for the purpose of this Contract either form the weather, want of proper protection, defects, theft, insufficiency of the works or any other cause whatsoever during the progress of the works, or for any accident or damage to property or persons by reason of the said works, the Contractor alone shall be responsible and shall without extra charge, make good all damage and pay all costs incurred.</p>	<p>KSHS</p>	<p>CTS</p>
<p>B</p>	<p><u>SITE OFFICES</u></p> <p>The Contractor must allow for erecting and maintaining on the site in such position as may be directed, adequate site offices (minimum 80M² plinth area) for the use of his own site staff and removing the same at completion and making good all surfaces disturbed. The site office shall be of sufficient size and shall have sufficient furniture to permit the Project Manager to hold site meeting in it. The Contractor shall also allow for providing, erecting and maintaining where directed a lock-up hut containing a pedestal type water closet and wash basin for the sole use of the Project Manager and other consultants, including making temporary connection stop drains and water supplies and paying all charges for connections, conservancy and water consumed.</p> <p>The Contractor shall also allow for providing services of a sweeper, for keeping both office and closet in a clean and sanitary condition from the commencement to the completion of the works; and for dismantling at completion and making good all disturbed surfaces. The office and closet shall be completed before the Contractor will be permitted to commence the works.</p>		
	<p>CARRIED TO COLLECTION</p>		

		KSHS	CTS
<p>A</p>	<p><u>SHEDS FOR STORAGE OF MATERIALS</u></p> <p>The Contractor shall provide, erect and maintain on the site, in such positions as may be directed, ample temporary watertight, lock-up sheds for the proper storage and protection of cement and other materials liable to damage, and shall remove same at completion and make good all surfaces disturbed. He shall also provide space for storage accommodation which Sub-Contractors may wish to erect for themselves.</p>		
<p>B</p>	<p><u>NO WORKMEN TO BE HOUSED ON SITE</u></p> <p>No labour with the exception of a watchman may be housed on the site. The cost of transporting labour to and from the site or elsewhere will be deemed to be included in the tender.</p>		
<p>C</p>	<p><u>WORK TO BE OPENED UP AT THE REQUEST OF THE PROJECT MANAGER</u></p> <p>The Contractor shall, at the request of the Project Manager within such time as the Project Manager shall name, open of inspection any work covered up, and should the Contractor refuse or neglect to comply with such request, the Project Manager may employ workmen other than those employed by the Contractor to open up the same. If the said work has been covered up in contravention of the Project Manager instructions, or if, on being opened up, it be found not in accordance with the drawings or Bill of Quantities or the instruction of the Project Manager, the expenses of opening and covering it up again whether done by the Contractor or by the Project Manager shall be borne by and be recoverable from the Contractor or may be deducted from any monies due to the Contractor.</p> <p>If the work has not been covered up in contravention of such instructions and be found in accordance with the said drawings and Bill of Quantities , then the expenses aforesaid shall be borne by the Employer, and be added to the Contract Sum; provided always that, in the case of foundations or of any other urgent work so opened up and requiring immediate attention, the Project Manager shall within a reasonable time after the work has been opened, make or cause to be made the inspection thereof, and at the expiration of such time, if such inspection shall not have been made the Contractor may cover up the same and shall not be required to open it up again for inspection except at the expense of the Employer.</p>		
	<p>CARRIED TO COLLECTION</p>		

		KSHS	CTS
A	<p><u>HOARDING</u></p> <p>The Contractor shall allow for providing and clearing away on completion such hoarding, fencing, gates etc. as may be required for the security of the site and as instructed by the Project Manager. The exact location of these items are to be negotiated with the Local Authority by the Contractor who will also be responsible for paying any fees or taxes in respect of the hoarding, fencing or gates.</p> <p>The Contractor shall allow for thoroughly maintaining the hoarding and gates throughout the Contract and clearing away and making good disturbed ground on completion. All materials arising will remain the property of the Contractor and he should allow credit against this accordingly.</p>		
B	<p><u>SCAFFOLDING</u></p> <p>The Contractor shall allow for providing, erecting, and dismantling all general scaffolding required for the works. The Contractor must allow here or in his rates for providing all special scaffolding required by his sub-Contractor</p>		
C	<p><u>SIGNBORAD</u></p> <p>The Contractor must allow for providing, erecting and maintaining a site signboard, the size, type of construction and lettering of which shall be to the Project Manager's design. The names of the Consultants are to be in lettering 50mm high. The board is to be fixed in an elevated position on the site where indicated by the Project Manager. On completion of the works, the notice board shall be removed and making good shall be carried out as necessary.</p>		
D	<p><u>WORKS TO BE DELIVERED UP CLEAN</u></p> <p>On completion of the contract, the site and the works shall be cleared of all plant, scaffolding, rubbish and unused materials and shall be delivered up clean and in perfect condition in every respect to the satisfaction of the Project Manager, particular attention is to be paid to leaving all windows and floors clean and removing all paint and cement stains.</p>		
E	<p><u>APPROVAL OF PROJECT MANAGER FOR EMPLOYMENT OF SUB-CONTRACTORS</u></p> <p>The Contractor will be required to obtain the approval of the Project Manager/Engineer in writing before employing any of his own Sub-Contractors for any portion of the work.</p>		
	CARRIED TO COLLECTION		

<p>A</p> <p><u>EXISTING PROPERTY</u></p> <p>The Contractor shall take every precaution to avoid damage to all existing property including roads, cables, drains and other services and he will be held responsible for all damage arising from the execution of this contract to the aforementioned, and he shall make good all such damage where directed at his own expense to the satisfaction of the Project Manager.</p> <p>B</p> <p><u>TESTING</u></p> <p>Allow for all expenses in connection with the testing of materials as detailed in specifications and as required by the Project Manager including the supply and preparation of materials to be tested, the cost of materials and their packing and conveyance to the nearest approved testing laboratory, laboratory charges, etc.</p> <p>C</p> <p><u>WORK RE-MEASUREMENT</u></p> <p>All work in this contract shall be re-measured on completion and a final account of the contract prepared by the Quantity Surveyor. The Contractor will be given the opportunity to be present for all re-measurements. The final contract sum will be based on the final quantities for ordering of materials as the quantities may change in course of the contract. Neither should the Contractor use the Quantities in the Bill of Quantities for executing work on site. The use of the bills of quantities by the Contractor for the above purposes shall be at the Contractors own risk and no claims arising from any losses arising therefrom shall be accepted.</p> <p>D</p> <p><u>COPYRIGHT</u></p> <p>The copyright of these documents is vested in M & M CONSTRUCTION CONSULTANT, the QUANTITY SURVEYOR for the Project. This document may not be reproduced in whole or in part without their written permission. It shall also not be used for any other purpose other than TENDER FOR PROVISION OF LINKAGE BETWEEN WAREHOUSES, SUNSHADING FEATURE AND ROLLER SHUTTER DOORS as measured and described in these Bill of Quantities.</p>		<p>KSHS</p>	<p>CTS</p>
	<p>CARRIED TO COLLECTION</p>		

	KSHS	CTS
<u>COLLECTION</u>		
Brought forward from 90		
Brought forward from 91		
Brought forward from 92		
Brought forward from 93		
Brought forward from 94		
Brought forward from 95		
Brought forward from 96		
Brought forward from 97		
Brought forward from 98		
Brought forward from 99		
Brought forward from 100		
Brought forward from 101		
Brought forward from 102		
Brought forward from 103		
Brought forward from 104		
Brought forward from 105		
Brought forward from 106		
TOTAL FOR GENERAL PRELIMINARIES CARRIED TO MAIN SUMMARY		

3. PROPOSED LINKAGE

A. DEMOLITIONS

TENDER FOR PROVISION OF LINKAGE BETWEEN WAREHOUSES, SUNSHADING FEATURE AND ROLLER SHUTTER DOORS

ITEM	DESCRIPTION	QUANTITY	UNIT	MC RATE	MC AMOUNT
1	<p><u>DEMOLITIONS (ALL PROVISIONAL)</u></p> <p><u>Pricing Notes</u></p> <p><u>Tenderers are strongly advised to read and understand the following notes before pricing this section. Any query on the notes should be referred to the Quantity Surveyor.</u></p> <p>1 The unit of billing in this section is "item".</p> <p>2 Amounts for demolitions shall include the following in addition to what is described in the particular item.</p> <p>a) Making good i.e Re-instatement of any finishes and structure affected surfaces, and removal of the debris from site to approved dumping sites. Accumulation of debris within the site premises shall not be allowed.</p> <p>b) Clearing debris with speed on a daily basis as they arise, cleaning of affected surfaces, and removal of the debris from site to approved dumping sites. Accumulation of debris within the site premises shall not be allowed.</p> <p>3 Rates given for removal of sanitary appliances shall, in addition to the particular description, allow for the disconnection of pipe work (water and drainage) plugging, pipes, and the removal of any surface pipes and fittings.</p> <p>4 Demolition shall be carefully executed with the particular aim of preserving the items being removed and minimizing damages to adjacent finishes, structures, or components.</p> <p>5 The amounts quoted shall be deemed to be inclusive of cleaning of the removed components, handling and storage on site.</p> <p>6 Amounts given should include for any temporary support to adjacent areas while carrying out the demolition work.</p> <p>7 All materials, components and fittings arising from the demolitions work shall become the property of the Premises Owner</p> <p>8 The Architect, at his sole discretion may decide that some of the materials, components or fittings be re-used in the works. If and when this happens, the contractor shall be allowed a "fix only" rate based on this rates in the Bills of Quantities. Where no reasonable and relevant rate is available from the Bills of Quantities then the stipulations of Clause 22 shall apply. Any omissions to the contract work arising from the use of such materials shall be treated as per the provisions of Clause 22 of the Contract.</p>				
	Carried to Collection				

TENDER FOR PROVISION OF LINKAGE BETWEEN WAREHOUSES, SUNSHADING FEATURE AND ROLLER SHUTTER DOORS

ITEM	DESCRIPTION	QUANTITY	UNIT	MC RATE	MC AMOUNT
	<u>Walling</u>				
A	Carefully demolish existing 200 mm thick stone walls, make good disturbed surfaces to receive new works and cart away arising debris.	336	M2		
	<u>Beams</u>				
B	Carefully hack off existing vibrated reinforced concrete beam, including cutting of reinforcement and cart away arising debris	14	M3		
	<u>Doors</u>				
C	Carefully remove mild steel door overall size 5000 x 3600mm high complete with including associated ironmongery and set aside door for re-use.	1	NO		
	<u>Steel Tank</u>				
D	Carefully disassemble and remove mild steel tank including tower; set aside for re-use	1	NO		
	Carried to Collection				
	<u>COLLECTION</u>				
	From Page 102				
	From above				
	<u>Less:</u> Credit (See notes below)				
	<u>Notes:</u>				
	a. Selected Materials arising from demolitions as described above are to be used as backfill on site as shall be directed on site by the Architect / Engineer.				
	b. Tenderers are therefore advised to give adequate credit commensurate to the materials to be demolished and used as backfill at salvage value expressed as a percentage of total demolitions or as a lumpsum				
	Total for Demolitions to Main Summary				

B. BUILDERS WORKS

**TENDER FOR PROVISION OF LINKAGE BETWEEN WAREHOUSES, SUNSHADING
FEATURE AND ROLLER SHUTTER DOORS**

ITEM	DESCRIPTION	QTY	UNIT	MC RATE	MC AMOUNT
	<p><u>LINKAGE</u></p> <p><u>ELEMENT NO. 1</u></p> <p><u>SUBSTRUCTURES (ALL PROVISIONAL)</u></p> <p><u>Excavations have been taken net of bases and Contractors are advised to allow in their rates any working space necessary for carrying out of the works in accordance with the Standard Method of Measurement of Building and Associated Civil Works for Eastern Africa, Second Edition, Second Edition (June 2008), Published by The Architectural Association of Kenya, Quantity Surveyors Chapter, which is available for inspection at the offices of the Quantity Surveyors by appointment.</u></p> <p><u>Contractors are advised to acquaint themselves on the new classification of concrete strength in conformity to the revised BS issued of 15th August, 2005 that supercedes any other BS Standard on concrete strength. (e.g. Class 25/20 in the earlier classification meant concrete of compressive strength of 25N/mm² at 28days, while on the revised classification, concrete of compressive strength of 25N/mm² at 28days of 150mm cubes is classified as Class C20/25). (We attach an extract on pp 20 of the BS Standard in Appendix 1 for reference)</u></p>				
	<p>Carried to Collection</p>				-

**TENDER FOR PROVISION OF LINKAGE BETWEEN WAREHOUSES, SUNSHADING
FEATURE AND ROLLER SHUTTER DOORS**

ITEM	DESCRIPTION	QTY	UNIT	MC RATE	MC AMOUNT
	<u>Excavations</u>				
A	Excavate in hardcore average depth 300mm; make good disturbed surfaces; cart away arising debris	204	M3		
B	Excavate for foundation trenches n.e 1500mm deep from stripped level	124	M3		
C	Excavate for column pits n.e 1500mm deep from stripped level	41	M3		
D	Extra over all kinds of excavations for excavating in hard rock, consolidated murrum or gravel at any depth	369	M3		
	<u>Disposal of excavated materials</u>				
E	Cart away surplus excavated materials and spread as directed on site	105	M3		
	<u>Planking and Strutting</u>				
F	Allow for Planking and strutting to sides of all excavations including keeping excavations free from fallen materials		Item		
	<u>Disposal of Water</u>				
G	Allow for keeping excavation free from all water by pumping, bailing or otherwise		Item		
	<u>Hardcore filling</u>				
H	Over 300mm Thick fillings, rolled, levelled and compacted in 150mm layers to make up levels	409	M3		
I	50mm Stone dust blinding to surface of hardcore	656	M2		
	<u>Damp Proof Membrane</u>				
J	Single layer of 1000 gauge polythene sheeting laid on blinded hardcore with 150 mm side laps to receive concrete	681	M2		
	Carried to collection				

**TENDER FOR PROVISION OF LINKAGE BETWEEN WAREHOUSES, SUNSHADING
FEATURE AND ROLLER SHUTTER DOORS**

ITEM	DESCRIPTION	QTY	UNIT	MC RATE	MC AMOUNT
	<u>Anti - termite treatment</u>				
A	Treat surface of hardcore with 'Termidor 250EC' or similar approved ant-termite solution applied strictly in accordance with the manufacturer's instructions	681	M2		
	<u>Plain concrete class C12/15 achieving characteristic compressive strength of 15N/mm² at 28 days of 150mm cubes as per BS Standard of 15th August, 2005 in :-</u>				
B	50mm Concrete blinding to column bases	35	M2		
C	50mm Concrete blinding to strip foundations	76	M2		
	<u>Vibrated Reinforced concrete class C25/30 achieving characteristic compressive strength of minimum 30N/mm² at 28days of 150mm cubes as per BS Standard of 15th August, 2005 in :-</u>				
D	Column bases	9	M3		
E	Vertical columns	3	M3		
F	Strap Beam	21	M3		
G	Strip foundation	19	M3		
H	200mm Thick Landing to Engineer's approval	6	M2		
I	200mm Thick sloping slab	681	M2		
J	Steps	1	M3		
	<u>Tamped Finish</u>				
K	Tamp unset surfaces of sloping ramp slab to form 50 x 50mm grooves at 45degrees at 100mm centres radiating to the centre of slab as shown in architect's drawings	681	M2		
	Carried to collection				

**TENDER FOR PROVISION OF LINKAGE BETWEEN WAREHOUSES, SUNSHADING
FEATURE AND ROLLER SHUTTER DOORS**

ITEM	DESCRIPTION	QTY	UNIT	MC RATE	MC AMOUNT
	<u>Supply and fix steel bar reinforcement including bending, hooking, tying wire, cutting spacers and supporting all in position</u>				
	<u>Hot rolled ribbed bars reinforcement to K.S. ISO 6935-2 :-</u>				
A	Assorted reinforcement	19,040	KG		
	<u>Wrot formwork as described to:-</u>				
B	Sides of strip foundation	86	M2		
C	Sides of vertical column bases	29	M2		
D	Sides of vertical columns	37	M2		
E	Sides of strap beams	172	M2		
F	Edges of slab 150-225mm high	130	M1		
G	Vertical edges of risers 75 - 150mm	28	M1		
H	Opening edge of string of 300 mm wide (extreme) including cutting to profile of treads and risers	10	M1		
	<u>Masonry</u>				
	<u>Medium chisel dressed natural stone walling with a minimum of 7.0 N/mm2 average compressive strength to B.S 5390; bedded in cement and sand mortar as before described including reinforcing with hoop iron ties every alternate course.</u>				
I	200mm Thick walling	237	M2		
	<u>Cement/sand (1:3)</u>				
J	12mm Thick external rendering to plinth surfaces finished smooth with a wood float	154	M2		
K	Prepare and apply two coats of bituminous paint to rendered surfaces externally	154	M2		
	Carried to collection				

**TENDER FOR PROVISION OF LINKAGE BETWEEN WAREHOUSES, SUNSHADING
FEATURE AND ROLLER SHUTTER DOORS**

ITEM	DESCRIPTION	QTY	UNIT	MC RATE	MC AMOUNT
	<u>COLLECTION</u>				
	From Page 113				
	From Page 114				
	From Page 115				
	From Page 116				
	Total for Substructure to Summary				

**TENDER FOR PROVISION OF LINKAGE BETWEEN WAREHOUSES, SUNSHADING
FEATURE AND ROLLER SHUTTER DOORS**

ITEM	DESCRIPTION	QTY	UNIT	MC RATE	MC AMOUNT
	<u>ELEMENT NO.2</u>				
	<u>R.C. SUPERSTRUCTURE</u>				
	<u>Vibrated Reinforced concrete class C25/30 achieving characteristic compressive strength of minimum 30N/mm2 at 28days of 150mm cubes as per BS Standard of 15th August, 2005 in :-</u>				
A	Columns	20	M3		
B	Beams	52	M3		
C	Lintels	2	M3		
	<u>Supply and fix steel bar reinforcement including bending, hooking, tying wire, cutting spacers and supporting all in position</u>				
	<u>Hot rolled ribbed bars reinforcement to K.S. ISO 6935-2 :-</u>				
D	Assorted reinforcement	7,400	KG		
	<u>Wrot formwork as described to:-</u>				
E	Vertical sides of columns	224	M2		
F	Sides and soffits of beams	447	M2		
G	Sides and soffits of Lintels	18	M2		
	Total R.C Superstructure to Summary				

**TENDER FOR PROVISION OF LINKAGE BETWEEN WAREHOUSES, SUNSHADING
FEATURE AND ROLLER SHUTTER DOORS**

ITEM	DESCRIPTION	QTY	UNIT	MC RATE	MC AMOUNT
	<u>ELEMENT NO. 3</u>				
	<u>EXTERNAL WALLING</u>				
	<u>Selected Machine cut natural stone walling with a minimum of 7.0 N/mm² (average) compressive strength to BS 5628-3 ; bedded and jointed in cement and sand (1:4) mortar</u>				
	<u>Note: Contractor to allow in his rates for walling spanning approximately 19m high from ground level</u>				
A	200mm Thick walling	192	M2		
	<u>Approved Clay vent blocks bedded and jointed in cement and sand (1:4) mortar including reinforcing with 25mm wide hoop iron every alternate course</u>				
B	200mm thick walling	27	M2		
	<u>Damp proof course</u>				
C	200 mm Wide Hessian based bituminous felt damp proofing course laid and bedded on cement sand (1:4) mortar	35	M1		
	<u>Stainless Steel Balustrades</u>				
D	1000mm high overall balustrade, comprising of 80 x 40mm RHS handrail, 3No. 25 x 3mm thick CHS intermediate and bottom rails, 30 x 6mm CHS balusters at 1000mm centres and 100mm high fish-tailed and fixed to concrete; all to Architects details and approval.	16	M1		
	Total for External Walling to Summary				

**TENDER FOR PROVISION OF LINKAGE BETWEEN WAREHOUSES, SUNSHADING
FEATURE AND ROLLER SHUTTER DOORS**

ITEM	DESCRIPTION	QTY	UNIT	MC RATE	MC AMOUNT
	<u>ELEMENT NO. 4</u>				
	<u>ROOFING AND RAIN WATER DISPOSAL</u>				
	<u>(All provisional)</u>				
	<u>Steel Trusses</u>				
	<u>The following in 5No. steel trusses comprising welded mild steel hollow section struts, ties, rafters, and beams and including hoisting approximately 7,800mm above ground level; all to Engineers approval. Bidder to allow in his rates for bolts, nuts, washers etc for erecting and fixing of roof trusses</u>				
A	75 x 50 x 3mm RHS rafter	332	M1		
B	50 x 50 x 3mmRHS Struts and ties	751	M1		
C	75 x 50 x 3mmRHS Tie Beam	158	M1		
D	152.4 x 50.8 x 2mm x 4.44kgs/m mild steel "Z" purlins bolted to cleats with 12 mm diameter mild steel bolts complete with head, nut and washers	583	M1		
E	12mm Diameter sagrods	25	KG		
	<u>Roof Coverings</u>				
	<u>26 Gauge IT5 prepainted roofing sheets and fixing accessories from approved manufacturers lapped and fixed on mild steel purlins (measured seperately) to slope not exceeding 45 degrees from horizontal and in accordance with manufacturers instructions.</u>				
F	Roof covering	795	M2		
G	200mm girth mild steel sheet flashing to approval	106	M1		
	Carried to Collection				

**TENDER FOR PROVISION OF LINKAGE BETWEEN WAREHOUSES, SUNSHADING
FEATURE AND ROLLER SHUTTER DOORS**

ITEM	DESCRIPTION	QTY	UNIT	MC RATE	MC AMOUNT
	<u>Sisalation Insulation</u>				
A	Approved 10mm thick sisalation insulation fixed to roofing (m/s) all to Architect's and Engineers approval	795	M2		
	<u>Wrot Cypress</u>				
B	250 x 30mm Fascia or barge board	28	M1		
	<u>Rainwater Disposal (All Provisional)</u>				
	<u>18 SWG galvanized mild steel rainwater goods primed before fixing with lapped riveted and soldered joints including all labours</u>				
C	150 x 150mm box gutter fixed to fascia board with holder bats	28	M1		
D	100 mm Diameter down pipes fixed to wall with clips	16	M1		
	<u>Extra - over for</u>				
E	100 mm Diameter outlets	2	No.		
F	Rainwater swanneck bend	2	No.		
G	Stopped ends	2	No.		
H	Rainwater anti-splash shoe	2	No.		
	<u>PAINTING AND DECORATING</u>				
	<u>Prepare and apply three coats gloss oil paint on metal work surfaces</u>				
	<u>Externally on:-</u>				
I	Rainwater gutters	13	M2		
J	Down pipes	16	M1		
K	Truss members	569	M2		
	Carried to Collection				

**TENDER FOR PROVISION OF LINKAGE BETWEEN WAREHOUSES, SUNSHADING
FEATURE AND ROLLER SHUTTER DOORS**

ITEM	DESCRIPTION	QTY	UNIT	MC RATE	MC AMOUNT
	<u>Knot, prime and prepare and apply three coats gloss exterior oil paint on wood surfaces to:</u>				
A	General surfaces of wood	28	M2		
B	Ditto not exceeding 300mm girth	28	M1		
	Carried to Collection				
	<u>COLLECTION</u>				
	From Page 120				
	From Page 121				
	From Page 122				
	Total for Roofing & Rain Water Disposal to Summary				

**TENDER FOR PROVISION OF LINKAGE BETWEEN WAREHOUSES, SUNSHADING
FEATURE AND ROLLER SHUTTER DOORS**

ITEM	DESCRIPTION	QTY	UNIT	MC RATE	MC AMOUNT
	<u>ELEMENT NO. 5</u>				
	<u>DOORS</u>				
	<u>In mild steel</u>				
	<u>Bifolding Door</u>				
A	Supply and fix bifolding door with and including sliding gear and rails to door size 5000 x 6000mm high, including associated ironmongery, grease, oil and adjust to a satisfactory working order; all to Architects details and approval	2	NO		
	<u>Timber Doors</u>				
	<u>Fire Resistant Doors</u>				
	<u>Supply and fix the following 45mm thick (finished) solid core one hour fire resistant flush door constructed with approved mineral fibre or other equal and approved infill between 6mm thick plywood panels covered all round with 45 x 50mm thick hardwood beading; all to Architects details and approval</u>				
B	45mm thick double door overall size 1500 x 2400mm high	1	NO		
	<u>Frames and Finishings</u>				
	<u>In Wrot Mahogany</u>				
C	150 x 50 mm Frame with three labours, plugged but one hour fire resistant	6	M1		
D	50 x 20 mm rounded architrave with two labours but one hour fire resistant	6	M1		
E	20 mm diameter quadrant beading but one hour fire resistant	6	M1		
	Carried to Collection				

**TENDER FOR PROVISION OF LINKAGE BETWEEN WAREHOUSES, SUNSHADING
FEATURE AND ROLLER SHUTTER DOORS**

ITEM	DESCRIPTION	QTY	UNIT	MC RATE	MC AMOUNT
	<u>Ironmongery</u>				
	<u>Supply and fix the following "union" or other and equal and approved ironmongery from an approved supplier all to Architects Instructions</u>				
A	Approved brass butt hinges	3	PRS		
B	Approved "Union" door closer	2	NO		
C	Approved rubber door stopper	2	NO		
D	Panic latch with Lock Briton 378ESE+B6SC	2	NO		
	<u>Painting and Decorating</u>				
	<u>Prepare and apply one coat aluminium primer on back of wood before fixing</u>				
E	Surfaces 200 - 300mm girth	6	M1		
	<u>Knot, prime, stop and apply four coats polyurethane clear lacquer to woodwork as described</u>				
	<u>Internally on:-</u>				
F	General surfaces of doors	105	M2		
G	Ditto 200 - 300mm girth	6	M1		
H	Ditto 0 - 100mm girth	12	M1		
	<u>Prepare and apply three coats gloss oil paint to metal surfaces</u>				
	<u>Internally on:-</u>				
I	General surfaces both sides measured	120	M2		
	Carried to Collection				

**TENDER FOR PROVISION OF LINKAGE BETWEEN WAREHOUSES, SUNSHADING
FEATURE AND ROLLER SHUTTER DOORS**

ITEM	DESCRIPTION	QTY	UNIT	MC RATE	MC AMOUNT
	<p><u>COLLECTION</u></p> <p>From Page 123</p> <p>From Page 124</p>				
	Total for Doors Carried to Summary				

**TENDER FOR PROVISION OF LINKAGE BETWEEN WAREHOUSES, SUNSHADING
FEATURE AND ROLLER SHUTTER DOORS**

ITEM	DESCRIPTION	QTY	UNIT	MC RATE	MC AMOUNT
	<u>ELEMENT NO. 6</u>				
	<u>EXTERNAL WALL FINISHES</u>				
	<u>15mm thick cement and sand (1:4) as described to:-</u>				
A	Sides of concrete or stone block surfaces	192	M2		
B	Door and window reveals 0-100mm girth	6	M1		
	<u>Painting and Decoration</u>				
	<u>Prepare and apply one undercoat and three finishing coats of exterior quality paint to approval:</u>				
C	Rendered walls	192	M2		
D	Door and window reveals 0-100mm girth	6	M1		
	Total for External Wall Finishes to Summary				

**TENDER FOR PROVISION OF LINKAGE BETWEEN WAREHOUSES, SUNSHADING
FEATURE AND ROLLER SHUTTER DOORS**

ITEM	DESCRIPTION	QTY	UNIT	MC RATE	MC AMOUNT
	<u>ELEMENT NO. 7</u>				
	<u>INTERNAL WALL FINISHES</u>				
	<u>Rub down, clean-off dirt and prepare and apply one undercoat and three coats permaplast paint to previously painted:-</u>				
A	Sides of walls and concrete surfaces	739	M2		
	<u>15mm thick gauged lime plaster (1:2:9) as described to:-</u>				
B	Sides of walls and concrete surfaces	187	M2		
C	Door and window reveals 0-100mm girth	72	M1		
	<u>Prepare and apply one undercoat and three finishing coats of interior quality paint as Crown silk vinyl emulsion or other equal and approved to:</u>				
D	Plastered walls and concrete surfaces	187	M2		
E	Door and window reveals 0-100mm girth	72	M1		
	Total for Internal Wall Finishes Carried to Summary				

**TENDER FOR PROVISION OF LINKAGE BETWEEN WAREHOUSES, SUNSHADING
FEATURE AND ROLLER SHUTTER DOORS**

ITEM	DESCRIPTION	QTY	UNIT	MC RATE	MC AMOUNT
	<u>ELEMENT NO. 8</u>				
	<u>FLOOR FINISHES</u>				
	<u>Cement and sand (1:4) screed as described in:-</u>				
A	30mm Thick to receive granite floor tiles (measured seperately)	18	M2		
	<u>Approved non-slip granite step tiles with rounded edges and non -slip strips, on screed backing (m.s) laid in straight joints and pointing in matching grout as described:-</u>				
B	250 x 250 x 10mm Thick landing	6	M2		
C	250 x 250 x 10mm Thick treads	24	M1		
D	10 x 150mm High risers	28	M1		
E	10 x 150mm High Skirting with rounded top coved at junction with paving	10	M1		
	<u>EPOXY FLOOR FINISH</u>				
	<u>4mm thick epoxy flooring of approved colour applied as per manufacturer's instructions; all to Architect's detail and approval</u>				
F	Repair existing / emerging cracks by stitching or other equal and approved method as approved by the Engineer	681	M2		
G	0.5mm thick approved epoxy primer to flooring (m/s)	681	M2		
H	Approved epoxy broadcast 3.5mm thick of approved colour and in approved Pattern; All to Architect's approval	681	M2		
	Total for Floor finishes to Summary				

**TENDER FOR PROVISION OF LINKAGE BETWEEN WAREHOUSES, SUNSHADING
FEATURE AND ROLLER SHUTTER DOORS**

ITEM	DESCRIPTION	QTY	UNIT	MC RATE	MC AMOUNT
	<p><u>ELEMENT NO. 9</u></p> <p><u>CEILING FINISHES</u></p> <p>A 12.5mm Thick gypsum ceiling with and including metal framing support at 600mm centres both ways respectively; patterned to Architect's approval</p> <p><u>Painting and decorating</u></p> <p><u>Prepare and apply one undercoat and three finishing coats of interior quality paint as Crown Solo Pure Satin emulsion or other equal and approved to:</u></p> <p>B Surfaces of gypsum ceiling</p>	<p>681</p> <p>681</p>	<p>M2</p> <p>M2</p>		
	<p>Total for Ceiling Finishes to Summary</p>				

**TENDER FOR PROVISION OF LINKAGE BETWEEN WAREHOUSES, SUNSHADING
FEATURE AND ROLLER SHUTTER DOORS**

ITEM	DESCRIPTION	QTY	UNIT	MC RATE	MC AMOUNT
	<u>LINKAGE</u>				
	<u>SUMMARY</u>				
			From Page		
1	SUBSTRUCTURES		117		
2	R.C. SUPERSTRUCTURE		118		
3	EXTERNAL WALLING		119		
4	ROOFING AND RAIN WATER DISPOSAL		122		
5	DOORS		125		
6	EXTERNAL WALL FINISHES		126		
7	INTERNAL WALL FINISHES		127		
8	FLOOR FINISHES		128		
9	CEILING FINISHES		129		
	TOTAL FOR LINKAGE TO MAIN SUMMARY				

C. PRIME COST AND PROVISIONAL SUMS

**TENDER FOR PROVISION OF LINKAGE BETWEEN WAREHOUSES, SUNSHADING
FEATURE AND ROLLER SHUTTER DOORS**

ITEM	DESCRIPTION	QTY	MC RATE	MC AMOUNT
	<u>PRIME COST & PROVISIONAL SUMS</u>			
	<u>PROVISIONAL SUMS</u>			
	<u>Electrical Installations</u>			
A	Allow for a Provisional Sum of Kenya Shillings Two Hundred Fifty Thousand (Kshs.250,000.00) only for Electrical Installations to be executed by a Nominated Sub-Contractor		Item	250,000.00
	<u>CIVIL/EXTERNAL WORKS</u>			
B	Allow for a Provisional Sum of Kenya Shillings Two Hundred Fifty Thousand (Kshs. 250,000.00) only for Civil/External Works to be expended at the discretion of the Project Manager in consultation with the client		Sum	250,000.00
	<u>MILD STEEL TANK</u>			
C	Allow for a Provisional Sum of Kenya Shillings One Million, Five Hundred Thousand (Kshs.1,500,000.00) only for Reassembly of mild steel tank		Sum	1,500,000.00
	<u>Contingency Sum</u>			
D	Allow for a Provisional Sum of Kshs.3,000,000.00 only to be expended at the discretion of the Architect		Sum	3,000,000.00
	TOTAL FOR P.C & PROVISIONAL SUMS TO MAIN SUMMARY			5,000,000.00

D. MAIN SUMMARY - LINKAGE

**TENDER FOR PROVISION OF LINKAGE BETWEEN WAREHOUSES, SUNSHADING
FEATURE AND ROLLER SHUTTER DOORS**

ITEM	DESCRIPTION	PAGE NO.	MC AMOUNT
	<u>LINKAGE</u>		
	<u>MAIN SUMMARY</u>		
1	PARTICULAR PRELIMINARIES	80	
2	GENERAL PRELIMINARIES	99	
3	DEMOLITIONS	103	
4	LINKAGE BUILDER'S WORK	122	
5	P.C AND PROVISIONAL SUMS	124	5,000,000.00
	SUB-TOTAL		
6	ADD: V.A.T AT 16%	16%	
	TOTAL FOR PROPOSED LINKAGE TO GRAND SUMMARY		

4. DECORATIVE SUNSHADING

**TENDER FOR PROVISION OF LINKAGE BETWEEN WAREHOUSES, SUNSHADING FEATURE AND
ROLLER SHUTTER DOORS**

ITEM	DESCRIPTION	QTY	UNIT	MC RATE	MC AMOUNT
	<u>DECORATIVE SUNSHADING</u>				
	<u>Laser Cut Wall feature</u>				
	<u>Approved mild steel sheet curved and laser cut to Architect's details and approval fixed appropriately to front fascade of entrance</u>				
A	Laser cut wall feature	319	M2		
	<u>Structural steel work</u>				
	<u>Allow for structural steelwork comprising of 6mm welded mild steel hollow section struts, ties, rafters, and beams and including hoisting approximately 6000mm above ground level; all to Engineers approval</u>				
B	50 x 50 x 3mm thick SHS member	492	M1		
C	76.1 x 3.25mm CHS member	394	M1		
D	48.3 x 2.9m CHS member	510	M1		
E	150 x 150 x 10mm thick mild steel plate with 4 No. holes for bolts (m/s)	48	NO		
F	12mm Diameter mild steel bolt 150mm long minimum complete with head, nuts and washers	192	NO		
	<u>Prime stop and apply:one undercoat and two finishing coats gloss spray paint to:</u>				
G	Metal surfaces externally	271	M2		
	<u>Alucobond Cladding</u>				
H	4mm thick Alucobond sheets fixed appropriately to steelwork and including 50 x 50 RHS framing all to manufacturers instructions and details and Architect's approval	345	M2		
	Carried to Collection				

5. ROLLER SHUTTERS

**TENDER FOR PROVISION OF LINKAGE BETWEEN WAREHOUSES, SUNSHADING
FEATURE AND ROLLER SHUTTER DOORS**

ITEM	DESCRIPTION	QTY	UNIT	MC RATE	MC AMOUNT
	<p><u>WAREHOUSE</u></p> <p><u>ROLLER SHUTTERS</u></p> <p>A Supply delivery and installation of a mild steel sealed roller shutter door measuring 5M Wide x 3.6M High, material CRCA. 8mm. Locking system 2 padlocks on each roller shutter with a gear/ chain driven. Painted with colour powder coating grey spray painting</p> <p>SUB-TOTAL</p> <p>ADD: 16% V.A.T</p> <p>Total for Roller Shutters</p>	6	NO		
				(Kshs)	

6. GRAND SUMMARY

**TENDER FOR PROVISION OF LINKAGE BETWEEN WAREHOUSES, SUNSHADING
FEATURE AND ROLLER SHUTTER DOORS**

ITEM	DESCRIPTION	PAGE	MC AMOUNT
	<u>ADDITIONAL WORKS</u>		
	<u>GRAND SUMMARY</u>		
1	PROPOSED LINKAGE	134	
2	FEATURE ENTRANCE	137	
3	ROLLER SHUTTERS	139	
TOTAL AMOUNT TO FORM OF TENDER			

CONTRACTOR'S NAME:.....

ADDRESS:.....

SIGNATURE:.....DATE:.....

WITNESS'S NAME:.....

ADDRESS:.....

SIGNATURE:.....DATE:.....

**SECTION VI: SPECIFICATIONS (TRADE
PREAMBLES)**

SPECIFICATIONS (TRADE PREAMBLES)

EXCAVATION AND EARTHWORK

A. The Contractor shall comply with the requirement of the following codes of Practice.

Codes of Practice

B.	Site investigations	C.P. 2001
C.	Earthworks	C.P. 2003
D.	Foundations	C.P. 2004
E.	Protection of building against water from the ground	C.P. 102

Note: The Contractor's attention is drawn to section "D" of the Standard Method of Measurements.

- F. The Contractor shall visit the site and ascertain for himself the nature of the soil to be excavated. The rates for excavation shall include excavation in any type of material or made up ground excluding rock as defined below. No claim will be allowed for want of knowledge in this respect.
- G. Setting out shall be approved before work is commenced.
- H. Generally clear the site of all shrubs and trees, grub up roots and fill the holes with red earth. Trees and shrubs shall only be cut as directed on site, and any damage caused to such trees and shrubs not directed to be made good at the Contractor's expense.
- I. Excavation for bases and strip foundation shall be to the widths, depth, and levels shown on the Architect's and/or Engineer's drawings. Rates shall be deemed to include for whatsoever alternative method the Contractor chooses to adopt.
- J. The Engineer shall be called to inspect the completed excavations. The Contractor shall keep all excavations dry and free from rain or other surface water.
- K. Excavations made below required levels shall be filled with Mass Concrete (1:3:6) at the Contractor's expense.
- L. Rates for filling or disposal of earth shall include for any double handling, except that resulting from a written order by the Architect and/or Engineer to deposit earth in temporary soil heaps pending its final disposal. Filling shall be in approved filling material to required levels in specified layers carefully rammed and consolidated. Disposal of all surplus excavated material shall be as instructed and rates shall include for loading and wheeling off the site to a pit to be provided by the Contractor.

EXCAVATION AND EARTHWORK (CTD.)

- A. Hardcore shall be stone, coarse gravel or other inert material yielding, when thoroughly consolidated, a freely porous bed and blinded with fine hardcore, ashes and similar materials shall include for all temporary retaining boards and for rolling with an 8-10 tonne roller unless otherwise described, in layers not exceeding 150mm deep.
- B. Anti-termite treatment shall be fine sprayed using an approved environmentally safe insecticide.

A guarantee of ten (10) years minimum shall be supplied.

- C. The Contractor shall at his own expense and before commencing excavations ascertain in writing from the Postal and Power Authorities, Municipal Council and other public bodies, companies and persons who may be affected, the position and depths of their respective ducts, cables, mains, or piles and appurtenances.

The Contractor shall there upon search and locate such services in order to appropriately prop, protect, underpin, alter, divert, restore and make good all pipes, cables or ducts, poles or wires and their appurtenances disturbed or damaged during the progress of the works or consequent thereof.

Such services as required to be removed or altered by virtue of the situation of the permanent work and not the manner in which the work is carried out, shall be so removed or altered at the expenses of the Employer.

- D. Rock excavation shall be deemed to mean excavating in such hard material as will necessitate the use of wedges or compressed air equipment or other special plant.
- E. Blasting will only be allowed with the prior express permission of the Architect and/or Engineer.

All blasting operations shall be carried out at the Contractor's sole risk and cost in accordance with any Government regulations in force for the time being, and any special regulations laid down by the Architect and/or Engineer governing the use and storage of explosives.

- F. 'Rates are to include also for destroying any white ants' nests found in the vicinity of the buildings, destroying queen ants, depositing cyanide lumps in hole and tunnels and filling with hardcore and murrum well rammed and sealed.

CONCRETE WORK

GENERAL

Definitions

- A. The term "ARCHITECT" or "ENGINEER" wherever used hereinafter shall have the same meaning as stated in the Preliminaries.
- B. The Engineer is authorised to act on behalf of the Architect in all relevant matters in the contract price.
- C. The terms "APPROVED", "DIRECTED" AND "SELECTED" wherever used hereinafter shall mean upon approval, direction and selection of or the Engineer, in writing, at their absolute discretion.
- D. The Engineer is authorised to act on behalf of the Architect after due consultations in all relevant matters in the contract approvals.

CONCRETE WORK SPECIFICATIONS

GENERAL

Authoritative Standards and Codes of Practice

The following authoritative standards are referred to hereinafter:

<u>B.S.</u>	<u>Date</u>	<u>Title</u>
A. 12	1989	Portland Cement (Ordinary and rapid hardening).
B. 812	1967	Methods for sampling and testing of mineral aggregates, sand and fillers.
C. 882	1983	Aggregates from natural sources for concrete (including granolithic).
D. 1881	1970/71	Methods of testing concrete.
E. 5328	1981	Methods for specifying concrete
F. 2499	1973	Hot applied joint sealants for concrete pavements.
G. 3148	1980	Tests for water making concrete.
H. 3921	1985	Clay bricks
I. 4251	1974	Truck type concrete mixers. (1980)
J. 4449	1988	Carbon steel bars for the reinforcement of concrete.
K. 4466	1981	Bending dimensions and scheduling of bars for the reinforcement of concrete (old edition).
L. 4483	1985	Steel fabric for the reinforcement of concrete.
M. 5075		Concrete Admixtures.
N. 6073:Pt.1	1981	Precast concrete blocks.

CONCRETE WORK SPECIFICATIONS (CTD)

Authoritative Standards and Codes of Practice (ctd.)

<u>B.S.</u>	<u>Date</u>	<u>Title</u>	
A.	8110:Pt.1 & 2	1985	The structural use of concrete.
B.	5950		The use of structural steel in buildings.
C.	5400:Pt.5	1979	Steel, concrete and composite Bridge.
D.	8007	1987	The structural use of concrete for retaining aqueous liquids.

American Society for Testing and Materials Standards as published by the American Society for Testing and Materials, 1916 Race St., Philadelphia pa. 19103 U.S.A. (Abbreviated in Test to ASTM).

<u>ASTM</u>	<u>Date</u>	<u>Title</u>	
E.	C88	73	Soundness of aggregates by use of Sodium sulphate
F.	C234	71	Comparing concrete on the Basis of the Bond developed with Reinforcing steel.
G.	C289	71	Potential Reactivity of Aggregates (Chemical Method).

The following codes of practice are referred to hereinafter:

British Standard Codes of Practice published by the Council for Codes of practice British Institution, 2 Park Street, London W1A 2BS, England (abbreviated in text to C.P).

<u>C.P.</u>	<u>Date</u>	<u>Title</u>	
H.	CP.117:pt.1:	1965	Composite construction in structural steel and concrete
I.	BS.3110	1972	Safe use of cranes (mobile cranes, tower cranes and derrick cranes)

CONCRETE WORK SPECIFICATIONS (CTD)

Authoritative Standards and Codes of Practice

- A. Should the contractor wish to substitute any of the authoritative standards or code of practice for any listed above he should submit details of any such together with two complete copies of the same to the Engineer for approval with his tender. Approval will only be given to the use of such standard where the Engineer considers the proposed standard or code of practice will give a quality of finished work equal to or better than specified standard.
- B. All in situ concrete shall be in accordance with BS 8110 except where superceded by this specification.
- C. All precast concrete shall be in accordance with BS 8110 except where superceded by this specification.

NOTE: The Contractor's attention is drawn to section 'F' of the standard method of measurement of building works.

Samples and Materials Generally

- D. The Contractor shall, when required, provide for approval samples of all materials to be incorporated in the works. Such samples when approved shall be retained by the Engineer and shall form the standard for all such materials incorporated. No deliveries to the site should commence before such approval is obtained.
- E. No materials of any description will be used without prior sanction by the engineer and any condemned as unfit for use in the works must be removed immediately from site by and without recompense to the Contractor.

Test Certificate

- F. The Contractor shall provide the Engineer with three copies of all test reports or certificates that are or may be required by this Specification.

Suppliers

- G. As soon as possible after the contract has been awarded and before finalising any order for materials to be incorporated in the works, the contractor shall submit the names of any proposed suppliers to the Engineers for approval.
- H. Each supplier must be willing to admit the Engineer, or his representative, to his premises during working hours for the purposes of obtaining samples of the materials in question.
- I. The information regarding the names of the suppliers may be submitted at different times, as may be convenient, but no sources of supply will be changed without proper approval.

CONCRETE WORK SPECIFICATIONS (CTD)

Drawings

- A. The Contractor should check all drawings carefully before any part of the work is carried out. Any discrepancy should be reported to the Engineer immediately for his clarification. The contractor shall be responsible for any costs arising out of his failure to report such discrepancies to the Engineer, in good time.
- B. The Contractor shall ensure that he has all relevant drawings and bar bending schedules for any part of the works, well in advance of the execution of that part of the works. Any costs arising out of the contractor's failure to ask for related drawings, or bending schedules in writing, in good time, shall be the responsibility of the contractor. The same shall hold true even if the contractor has submitted a programme of works at commencement.

C. **Bending Schedules**

The Engineer will issue bar bending schedules in accordance with B.S. 4466 (1981). The contractor should check these against the drawings before any cutting; bending or construction involving the schedules is started. Any discrepancy should be reported to the Engineer immediately for his clarification. The contractor shall be responsible for any delays or additional work caused solely by his failure to check the schedules.

Approval

- D. Well before construction commences the contractor shall supply to the Engineer for his approval details of his proposed layouts of concreting plant and on site workshop, details of formwork system and the construction devises e.g., cranes, chutes, scaffolding, which he proposes using for the structural work. The information is to be sufficiently detailed to enable the Engineer to approve or otherwise.
- E. The Contractor should note that further approvals are required by the specification before construction starts. The contractor is wholly responsible for obtaining these approvals and no claim for delays will be entertained due to the contractor's failure to obtain such approvals in adequate time.

CONCRETE WORK SPECIFICATIONS (CTD)

MATERIALS

Cement

- A. Cement, unless otherwise specified, shall be ordinary Portland cement complying with B.S. 12.
- B. The Contractor shall obtain a manufacturer's certificate of test in accordance with the appropriate standard for each consignment of cement delivered to the site and shall immediately forward copies of the same to the Engineer for his retention.
- C. Notwithstanding the manufacturer's certificate the Engineer may require that any cement delivered to the site be sampled and tested. Any batch of cement so tested which fails to comply with this specification will be rejected.
- D. All cement unless delivered in bulk, shall be stored in a weatherproof shed, the floor of which shall be raised at least 150mm above the ground to allow free air circulation. Cement delivered in bulk shall be stored in a weatherproof silo. All cement shall at all times be protected from deterioration.
- E. All cement shall be delivered to the site in the original sealed bags of the manufacturer or in approved bulk containers.
- F. Each consignment of cement shall be kept separate. Identified and used in order of delivery. No two types of cement shall be used in combination.
- G. Any cement which upon inspection is considered by the Engineer to have deteriorated in any way will be rejected.

Aggregate for Concrete

- H. Any aggregate for concrete shall, unless otherwise specified, be aggregate from natural sources complying with B.S.882. Additionally, the flakiness index when determined by the sieve method described in B.S.812 shall not exceed 35 for any size of concrete aggregate. Fine aggregate within or finer than zone 4 of B.S. 882 shall not be used.
- I. When tested for soundness in accordance with ASTM Test C88-73 the loss of weight after 5 cycles shall not exceed 5% (percent) for any aggregate.
- J. Aggregate which is potentially reactive when tested in accordance with ASTM Test C.289-71 for the alkali aggregate reaction shall not be used? The Standard for acceptance being that test results shall plot to the left of the solid line which is shown in Figure 2 of the test standard.

CONCRETE WORK SPECIFICATIONS (CTD)

MATERIALS (CTD)

Aggregate for Concrete (ctd.)

- A. Well before any concreting work, the contractor shall forward to the Engineer for approval details of his proposed source of supply of aggregates giving the aggregate group classification and typical physical properties as required by B.S.882.
- B. The Contractor shall provide the Engineer with a certificate for his retention showing that all aggregates regularly comply with the requirements of this specification.
- C. The Engineer may require that any aggregate be tested for soundness in accordance with ASTM Test C88-73 before giving approval to any proposed source of supply.
- D. The Engineer may require that any aggregate be tested for potential reactivity in accordance with ASTM Test C.289-71
- E. Notwithstanding any certificate of compliance, the Engineer may at any time require that any aggregate delivered to the site be sampled and tested. Any aggregate so tested which fails to comply with this specification will be rejected.
- F. Coarse aggregate shall be delivered ready screened or screened on site into separate nominal single sizes within limits given in B.S.882
- G. Aggregate of different sizes or typical shall be stored in different hoppers or different stockpiles on approved well drained paved areas which shall be separated from each other. Stockpiles shall be protected against contamination from any source.
- H. Any aggregate which has become contaminated or which does not conform to the above requirements may be rejected by the Engineer.

Water for use with cement.

- I. Water for use in mixing with cement or for curing concrete shall be from an approved source, clean, fresh and free from organic and other deleterious matter.
- J. The Engineer may require that any water sampled and tested by the method given in B.S.3148. Water failing the criteria given in the Appendix to B.S. 3148 will be rejected.
- K. Water for use in mixing with cement shall neither be hotter than 25deg. C (77deg.F) - or colder than 5deg. (41deg. F) at the time of mixing.

CONCRETE WORK SPECIFICATIONS (CTD)

MATERIALS (CTD.)

Steel Rod Reinforcement

A. **Steel Rod Reinforcement shall consist of:**

- a) Mild steel bars complying with B.S 4449
- b) Hot rolled high yield bars complying with B.S.4449
- c) Cold worked high yield bars complying with B.S.4449 as described in the drawings.

Where cold worked high yield bars are to be used these shall be square twisted bars formed by a torsion-controlled process.

- B. The contractor shall obtain a manufacturer's certificate of test in accordance with the appropriate standard for each steel batch relating to reinforcement delivered to site and shall immediately forward copies of the same to the Engineer for his retention.
- C. Where hot rolled high yield deformed bars are to be used, the results of bond tests to ASTM 234-71 using concrete of the same quality as that to be used in the works, shall be forwarded to the Engineer.
- D. Notwithstanding the manufacturer's certificate, the Engineer may require that any reinforcement delivered to the site be sampled and tested. Any reinforcement so sampled and tested which fails to comply with this specification will be rejected.
- E. All reinforcement shall be delivered to the site either as straight bars or ready cut and bent to shape.
- F. All reinforcement shall be stored in clean conditions in an orderly manner to the satisfaction of the Engineer such that the batch to which each piece belongs can be readily identified.

Steel Fabric Reinforcement

- G. Steel fabric reinforcement shall be electrically cross welded steel mesh reinforcement complying with B.S.4483.

Tying Wires

- H. Tying wires for fixing reinforcement shall be either:
- a) No. 16 gauge soft annealed iron wire.
- or
- b) No. 18 gauge stainless steel wire.

CONCRETE WORK SPECIFICATIONS (CTD)

MATERIALS (CTD.)

Spacers

- A. Spacer blocks required for ensuring that the reinforcement is correctly positioned shall be as small as possible consistent with their purpose, of a shape acceptable to the Engineer, and designed so that they will not overturn when the concrete is placed, unless otherwise approved they shall be made of concrete with 10mm maximum aggregate size and mix proportions to produce the same strength as the adjacent concrete S.W.G. 18 wire shall be cast in the block for the purpose of tying it to the reinforcement.
- B. Space blocks of concrete shall not be used until at least 7 days old.
- C. No admixtures or cement containing additives shall be used in concrete unless specified or approved by the Engineer. Such approval will not be given unless in the Engineer's opinion specific benefit to the density or quality of the concrete will result.
- D. **Wall Ties**

Wall ties between concrete and adjoining block or brick walling shall be "Abbey" slots and anchors as supplied Abbey Building Suppliers Limited. or similar approved. Wall ties must be provided at concrete and block or brick wall butting surface.

Joint Fillers

- E. Joint fillers unless otherwise stated shall be "Flexcell" as manufactured by Expandite Ltd. or similar approved and placed in accordance with the manufacturer's instructions.

Joint Sealants

- F. Shall be as described in the drawings and approved by the Engineer. Sealants shall be used strictly in accordance with the manufacturer's instructions.
- G. Poured joint sealing compound shall be a hot poured rubber bitumen compound complying with the requirement of B.S.2499.

Water stops

- H. Water stops unless otherwise stated shall be "Sika water bar" as manufactured by Sika International or similar approved and placed and jointed in accordance with the manufacturer's instructions. In addition, the method of holding water bar in position, while concreting, must be to the approval of the Engineer.

CONCRETE WORK SPECIFICATIONS (CTD)

REINFORCEMENT

Workmanship

- A. Reinforcement shall be bent accurately in accordance with B.S. 4466 to the shapes and dimensions shown in the schedules. All reinforcement shall be at temperatures in range of 5deg.C and 100deg. C.
- B. Cold worked or any high yield bars shall not be straightened or bent again once having been bent. When it is necessary to bend mild steel reinforcement already cast in the concrete the internal radius of such bends shall be not less than twice the diameter of the bar.
- C. No welding of reinforcement shall be carried out without the approval of the Engineer.
- D. All reinforcement shall at the time of concreting be free from mud, oil mortar droppings, loose rust, paint, grease, mill scale or other deleterious matter. Reinforcement still 'blue' from the mill shall not be used.
- E. All reinforcement shall be fixed in the position shown on the drawings by adequate use of spacers, tying wires, chairs, stools, etc. and shall be so maintained during the concreting operations.
- F. Lap in all reinforcement shall be where indicated on the drawings or approved by the Engineer. Unless otherwise indicated the minimum lap length for rod reinforcement shall be 40 diameters for mild steel and 50 diameter for high tensile twisted bars.
- G. A steel-fixer shall be in attendance at all times when concreting is in progress to correct any errors, omissions or movement in the reinforcement.
- H. In severe heat conditions reinforcement shall be shaded from direct sunlight and hosed down with clean water prior to concreting to keep the reinforcement below 25deg.C (77deg.F).
- I. Notwithstanding any inspections, approvals regarding reinforcement, it shall be the contractor's sole responsibility to ensure that the reinforcement complies exactly with the details on the Drawings or Schedule or other written instructions by the Engineer.

Composite floor slabs

- J. Concrete hollow pots for use in the composite floor slabs are to be of the sizes required as shown on the drawings and with 25mm wall thickness and are to be true to shape, free from cracks or distortion of adequate strength to support the concrete during placing and consolidation by vibration. Stocks are to be manufactured in accordance with the procedure specified in B.S.2028 and to be of mix not weaker than 1:4:8 cement; sand; stone using maximum 10mm size aggregate. Samples must be approved before incorporation into the works.

CONCRETE WORK SPECIFICATIONS (CTD)

REINFORCEMENT (CTD)

Composite floor slabs (ctd)

- A. Concrete hollow pots are to be cured for at least 28 days before use on site. During the first seven days of curing, pots are to be kept permanently damp and protected from exposure to sun and wind.
- B. Hollow clay pots where indicated for use in the composite floor slabs are to be the sizes shown on the drawings and to be of adequate strength to support the concrete during placing and consolidation by vibration. They shall be obtained from an approved manufacturer. Before any orders are placed, at least 6 sample clay blocks shall be provided for the approval of the Engineer. Any clay blocks subsequently delivered to site which in the opinion of the Engineer are not of equal standard to the approved samples shall be rejected.
- C. Rejected pots shall immediately be removed from site and shall not be used in the works. Clay blocks are to be fully cured before delivery or use on site.
- D. Defective or damaged pots are to be removed immediately from site.
- E. The hollow pot floor construction is generally to be as shown on the Engineer's drawings.
- F. Care shall be taken in planning pots to ensure that they are set out in accordance with the details shown on the Drawings and that they run truly in line without encroaching on the width of the insitu ribs.
- G. The open ends of hollow pots, if adjacent to concrete to be placed insitu, are to be plugged or stopped to prevent the concrete from flowing into the void and the contractor is to include for this in his prices.
- H. The contractor should note that slip tiles are not to be used to the soffit of ribs and he is to take this into consideration in pricing the items of formwork to the soffit of hollow pot floor construction.
- I. Before concreting is carried out the pots are to be thoroughly wetted.
- J. Care should be taken during concreting that the width of ribs between the rows of pots and the solid insitu concrete shown on the Drawings adjacent to stopping beams is not encroached upon by the pots.
- K. Where holes for service occur, the necessary holes or pockets shall be accommodated by replacing of a hollow pot by insitu concrete or the widening of a rib.
- L. Prices for such holes through hollow pots slab construction are to include for the re-arrangement or substitution of the hollow pot with solid concrete or the widening of a rib.

CONCRETE WORK SPECIFICATIONS (CTD)

REINFORCEMENT (CTD)

Composite floor slabs (ctd)

- A. The concrete topping shall be poured at the same time as the ribs between hollow pots.
- B. Reinforcement shall be positioned accurately with the specified cover in accordance with the Drawings and using the particular spacer blocks as previously described.
- C. Spacer blocks shall be provided at no more than 1.2m centres.
- D. Care must be taken during concreting that the reinforcement is not displaced.

Composite Construction of Beams and Columns

- E. The contractor shall provide a method statement for construction of concrete encased steel columns and beams. Notwithstanding the Engineer's approval of this method statement, the responsibility of producing workmanship of the specified quality shall rest entirely with the contractor. In addition the contractor shall construct a sample of a concrete encased column and beam, on site, in accordance with the method statement for approval. If approved, all composite construction for the works shall be of a similar quality. The contractor should allow for hoisting of steel beams and columns in his rates.
- F. The contractor shall maintain on site for the duration of the contract, all equipment required for modifications to 'in-position' steel beams and columns.
- G. The contractor is to note that steel grade 43 shall be used in composite beams steel grade 50 will be used in composite columns.
- H. All connections of steel beams to columns and column splice connection details shall be as specified on the structural drawings.

FORM WORK

Definition

- I. "Forms falsework or shuttering" shall include all temporary moulds forming the concrete to the required shape together with any special lining that may be required to produce the concrete finish specified.
- J. "Falsework or Centering" shall consist of furnishing, placing and removal of all temporary construction such as framing, props and struts required for the support of forms.
- K. All timber for formwork, falsework and centering shall be sound wood, well seasoned and free from loose knots, shakes, large cracks, warping and other defects. Before use on the work, it shall be properly stacked and protected from injury from any source. Any timber which becomes badly warped or cracked, prior to the placing of concrete, shall be rejected.

CONCRETE WORK SPECIFICATIONS (CTD)

REINFORCEMENT (CTD)

Form Work (ctd)

- A. If the contractor proposes to use steel shuttering, he shall submit to the Architect/Engineer dimensioned drawings of all the component parts, and give details of the manner in which he proposes to assemble or use them. Steel shuttering will only be permitted if it is sturdy in construction and if the manner of its use is approved by the Architect/Engineer.
- B. Struts and props shall, where required by the Architect, be fitted with double hardwood wedges or other approved devices so that the moulds may be adjusted as required and eased gradually when required. Wedges shall be spiked into position and any adjusting devices locked before the concrete is cast.
- C. All forms shall be wood or metal and shall be built grout-tight and of sufficient rigidity to prevent distortion due to the pressure of the concrete and other loads incident to the construction operations. Form shall be constructed and maintained so as to prevent warping and the opening of joints due to shrinkage of the timber.
- D. All formwork shall be approved by the Architect/Engineer before concrete is placed within it. The contractor shall if required by the Architect provide the latter with copies of his calculations of strength and stability of the formwork or falsework but notwithstanding the Engineer's approval of these calculations, nothing shall relieve the contractor of his responsibilities for the safety or adequacy of the formwork.

Falsework and centering

- E. Detailed plans for falsework or centering shall be supplied by the contractor to the Architect at least 14 days in advance of the time the contractor begins construction of the falsework. Notwithstanding the approval of the Architect of any designs for falsework submitted by the Contractor, the Contractor shall solely be responsible for the safety and adequacy of the falsework or centering.
- F. All falsework shall be constructed to provide the necessary rigidity and to support the loads from the weight of green concrete and shutting and incidental construction loads.
- G. Falsework or centering shall be founded upon a solid footing safe against undermining and protected from softening. Falsework which cannot be founded on satisfactory footings shall be supported on piling which shall be spaced driven and removed in a manner approved by the Architect. The Architect may require the contractor to employ screw jacks, or hard wood wedges to take up any settlement in the formwork either before or during the placing of concrete.
- H. Falsework shall be set to give the finished structure the required grade and camber shown on the Drawings.

CONCRETE WORK SPECIFICATIONS (CTD)

REINFORCEMENT (CTD)

Form of Construction Joints (ctd)

- A. Where permanent or temporary joints are to be made in horizontal or inclined members, stout stopping off boards shall be securely fixed across the mould to form a grouting joint. The form of the permanent construction joints shall be as shown on the Drawings.
- B. Where reinforcement or water stops pass through the face of construction joint the stopping off boards shall be drilled so that the bars or water stop can pass through or the board shall be made in sections with a half round indentation in the joint faces for each bar so that when placed, the board is a neat and accurate fit and not grout leaks from the concrete through the bar holes, joints, or around the water stops.
- C. The forms shall be restrained and unyielding and shall be so designed that the finished concrete will conform to the proper dimensions and contours. The design of the forms shall take into account the effect of vibration of concrete as it is placed.
- D. All sharp edges inside the forms shall be provided with 25mm by 25mm triangular fillets, unless otherwise shown on the drawings or directed by the Architect.
- E. Openings for the inspection and cleaning of the inside of shuttering for walls, piers and columns shall be formed in such a way that they can be closed conveniently before commencing to concrete.
- F. When concrete is to be deposited to a steeper slope than 15deg. to the horizontal, top forms shall be used to enable the concrete to be properly compacted.
- G. Form clamps tie bolts and anchors shall be used to fasten forms. The use of wire ties to hold forms in position during placing of concrete will not be permitted. Tie bolts and clamps shall be positive in action and of sufficient strength and number to prevent spreading or springing of the forms. They shall be of such type that no metal part shall be left within the specified concrete.
- H. The cavities shall be filled with grout or mortar and the surface left sound, smooth, even and uniform in colour. All forms for outside surfaces shall be constructed with stiff wales at right angles to the studs and all form clamps shall extend through and fasten such wales.
- I. The shapes, strength, rigidity, water tightness and surface smoothness of re-used forms shall be maintained at all times. Any warped or bulged timber must be replaced. Forms which are unsatisfactory in any respect shall not be re-used.
- J. All forms shall be treated with approved mould or similar oil or be soaked with water immediately before placing concrete to prevent adherence of concrete. Any materials which adhere to or discolour concrete shall not be used.

CONCRETE WORK SPECIFICATIONS (CTD)

REINFORCEMENT (CTD)

Form of Construction Joints C'td

- A. All forms shall be set and maintained true to the line designed until the concrete is sufficiently hardened. Forms shall remain in place for periods which shall be as specified hereinafter. When forms appears to be unsatisfactory in any way, either before or during the placing of concrete, the Architect shall order the work stopped until the defect have been corrected.

Release Agents

- B. Only approved chemical release agents, mould creams (emulsions of water in oil) or oils containing a proportion of surfactant not exceeding 2% will be permitted. Water soluble emulsion and oils without surfactant shall not be used. Oil based release agents shall be applied at a ratio of 7m²/litre 24 hours in advance of concreting, preferably by spray or roller. Chemical release agents shall be applied in accordance with the manufacturers' recommendations.
- C. The greatest care must be taken that all sawdust shavings, chips and other debris is removed from the formwork before concrete is placed in position and the necessary arrangements must be made by leaving out a board in the bottom of the formwork or otherwise as required.
- D. The erection, easing, striking and removal of all formwork must be done under the personal supervision of a competent foreman, and any damage occurring through faulty formwork or its incorrect removal shall be made good by the contractor at his own expense.
- E. All projecting fins on the concrete surfaces after removal of formwork shall be chipped off, and any voids or honeycombing to any surface made good to the requirements of the Architect.
- F. No patching of the concrete is to be done before inspection of the concrete surfaces as stripped.
- G. Traffic or loading must not be allowed on the concrete until the concrete is sufficiently matured and in no case shall traffic or loading be of such magnitude as to cause deflection or other movement in the formwork or damage to the concrete members. Where directed by the Architect/Engineer props may be required to be left in position under slabs and other members for greater period than those specified hereinafter.

CONCRETE WORK SPECIFICATIONS (CTD)

REINFORCEMENT (CTD)

Striking Times

- A. It shall be the Contractor's responsibility that no distortion, damage overloading or undue deflection is caused to the structure by the striking of formwork, but the Engineer reserves the right to delay the time of striking in the interest of the work. Formwork shall not be struck until the concrete has sufficiently hardened. Approval of the Engineer shall not relieve the Contractor of his liability to make good any concrete damage by premature removal or collapse of forms. In no circumstances shall forms be struck until the concrete reaches a cube strength of at least twice the stress to which the concrete may be subjected at the time of striking. The following times given in day (24 hours) are the absolute minimum that will be permitted:-

FORMS	ORDINARY PORTLAND CEMENT	RAPID HARDENING CEMENT
Walls, columns (unloaded), beams sides	2	2
Slabs - props left under	7	2
Beams soffites - props left under	14	5
Slabs - props	14	5
Beams - props	18	8

The time for removal of forms as set out shall not apply to slabs and beams spanning more than 10 metres. For such spans appropriate times shall be recommended or advised by the Engineer.

The periods given above based on the removal of all props and formwork using ordinary Portland cement under average weather conditions. Adverse weather conditions or different cement may cause the above periods to be increased. Should the contractor wish to make use of reduced striking times then he must satisfy the Engineer that the strength of the concrete at such time and the structural system is adequate to withstand the dead and imposed loads applied to it. Before making use of reduced striking times the Engineer's agreement must be obtained in writing.

- B. Where the structure is of multi storey construction props with head trees and braces shall be provided to distribute the imposed load below the floor being cast. This will normally be 3 storey heights below the floor being cast unless otherwise stated.

REINFORCEMENT (CTD)

Finish to Concrete Shuttered Surface

- A. **Sawn finish.** The shuttering shall consist of sawn boards, sheet metal or other suitable material to give a support to the concrete. Appearance is not of primary importance for this class of formwork. It shall be used for surface against which backfill or further concrete is to be placed. The treatment of the shuttering or concrete to provide a bond for the further surface treatment of the concrete shall be directed or approved by the Architect. Masonry or similar material used for facing concrete shall only be used as shuttering where directed by the Architect.

The Architect's approval shall be obtained to the use of blocks or slabs when used as permanent forms in foundation and other similar location.

- B. **Wrought finish.** The shuttering shall be wrought with boards arranged in a uniform pattern. Alternatively, plywood, metal panels or other approved materials may be used, subject to the Architect's approval. Joints between boards or panel shall be horizontal or vertical unless otherwise directed. This shuttering shall give a good finish to the concrete and will normally be used for all faces where a high class finish is not necessary.
- C. **Fair-faced finishing.** Standard steel panels, hardboard and boarding will not be permitted for the face of this shuttering. The shuttering shall be faced with resin-bonded plywood, faced with matt finished plastic or equivalent material in large sheets which shall be arranged in an approved uniform pattern. Wherever possible, joints between sheets shall be arranged to coincide with features such as sills, heads, jambs or changes in direction or the surface areas of formwork between features in walls, between beams in horizontal surface or other similar arrangement, shall where possible, be divided into panels of uniform dimensions, without the use of make-up pieces. All joints between panels on vertical or inclined surfaces shall be vertical or horizontal unless otherwise directed by the Architect; those on horizontal surfaces shall be at right angles and wherever possible they shall be parallel to walls and beams. The shuttering shall give a high class finish to the concrete with no lips, fins, or irregularities, and shall give a completely true and even surface which will be prominently exposed to view where good alignment is of special importance. It is for use in both in-situ and precast concrete.
- D. **Texture finish.** This is an all-over finish of high quality as may be directed by the Architect. Sample panels may be constructed on site prior to commencement of the works, to compare different textures. The shuttering shall be such that the concrete finish has not lips, fins, or irregularities and shall give a surface which will be prominently exposed to view where good appearance and alignment are of special importance.
- E. **Chisel dressed finish.** This finish consists of cutting a maximum of 10mm of concrete surfaces to expose the aggregate. This work is to be carried out after the concrete is at least 30 days old and is to be executed by hand. Mechanical means will not be permitted.

CONCRETE WORK SPECIFICATIONS (CTD)

REINFORCEMENT (CTD)

Finish to Concrete Shuttered Surface (ctd)

- A. Where other finishes, apart from the above are specified, the contractor shall provide a sample panel at least 2.4m x 1.2m in vertical surface area including a typical horizontal and vertical joint in the shuttering. The sample panel shall be constructed using the systems of shuttering and the construction techniques that the contractor proposes for the actual works. This sample when approved will form the standard for the entire works. All unsuccessful samples shall be removed from the site.

Tamped Floor Finish

- B. Where "tamped finish" is specified it will be obtained by an edge board to the Architect's approval. Board works are to be made to a true pattern and will generally be at right angles to the traffic flow. Haphazard or diagonal tamping will not be accepted.

Concrete Mixes (General)

Works Cubes

- C. For all structural concrete the following representative samples shall be taken and in accordance with B.S. 1881.

One each day on which less than 50cu.m. of concrete is being poured.

- a) Six 150mm cubes - three for test 7 days and three for test 28 days.

and

- b) Two slump test

or

- c) Two compacting factor tests.

On any day when greater quantities of concrete are being poured then six additional cube tests and two additional slump or compacting factor test shall be carried out for each 50M3 or part thereof.

- D. All cubes shall be marked with the date of casting and a reference number. For each cube a record shall be kept of the position in which the batch of concrete from which it was sampled was placed. All cubes shall be tested by an approved testing authority.
- E. The concrete cubes tested at 7 days are intended to be indicative only and the target works strengths at 7 days given in Table 1 or II are not mandatory. It should be noted however that it is unlikely that cubes failing the 7 days target will subsequently pass the 28 days cube strength.

CONCRETE WORK SPECIFICATIONS (CTD)

REINFORCEMENT (CTD)

Work cubes (ctd.)

- A. The concrete cubes tested at 28 days shall be taken to represent the concrete placed in the works. The standard of acceptance for cube strength tests shall be as follows:
- B. The cube strength shall be calculated from the maximum load sustained by the cube failure. One test result shall be the average of two test specimens taken from the same sample. The appropriate strength requirement, as given in Table 1 or 11 shall be considered to be satisfactory if:
 - a) None of the strengths of the three cubes is below the specified cube strength, or if
 - b) The average strength of three cubes is not less than the specified cube strength and the difference between the greatest and the least strengths are not more than 20% of that average.
- C. The standard of acceptance for the slumps test during the production of concrete shall be the design slump ± 25 mm.
- D. The standard of acceptance for the compacting factor test during the production of concrete shall be design compacting factor ± 0.03 .
- E. Any concrete which fails to meet the above standard of acceptance shall be either further tested or condemned at the Engineer's sole discretion. Any such tests or the removal of condemned concrete, replacement and associated costs shall be at the Contractor's expense.
- F. If the strength required are not attained or maintained throughout the contract, the contractor will also be required to redesign the mix and submit trial mixes in accordance with the specification so as to give a concrete which does comply with the requirements of this specification.

Concrete Mixes (Nominal Mixes)

- G. Mixes for each class of concrete specified or shown on the drawings shall be used by the contractor. They shall be mixed to achieve high density combined with adequate workability for the purpose.
- H. Details of any proposed mix shall be forwarded to the Engineer not less than 7 days before that class of concrete is required to be used on the works for his approval in principle.
- I. Classes of concrete will be referred to by their nominal mix proportions. Classes of concrete shall meet the criteria shown in Table I.
- J. The workability of the concrete shall be the minimum consistent with producing a dense, well compacted mass. Due regard shall be paid to the size and shape of the section together with any congestion of reinforcement.

CONCRETE WORK SPECIFICATIONS (CTD)

REINFORCEMENT (CTD)

Concrete Mixes (Design Mixes)

- A. Mixes for each class of concrete specified or shown on the drawings shall be designed by the contractor to achieve the specified minimum cube strength combined with high density and adequate workability for the purpose. In order to allow for unavoidable variation the mean design strength should exceed the specified works cube strength by twice the expected standard deviation. In the absence of previous information a standard deviation of 7N/MM² should be assumed.
- B. Details of any proposed mix design shall be forwarded to the Engineer not less than 7 days before that class of concrete is required to be used on the works for his approval in principle. The details shall include at least the following information.
- a) Source, nature and grading of coarse and fine aggregates
 - b) Source of cement.
 - c) Nominal maximum size of aggregate.
 - d) Cement content.
 - e) Aggregate/cement ratio.
 - f) Water/cement ratio.
 - g) Design density
 - h) Design slump or compacting factor,
 - i) Design strength.
- C. Classes of concrete will be referred to by the minimum 28 days work cube strength and the maximum size of aggregate. Classes of concrete shall meet the criteria shown in Table II. The maximum water/cement ratio is herein defined as the ratio of the weight of the "free" water to the available weight of the cement. The "free water" is that quantity of water available to combine with the cement. Any required to be absorbed by aggregate is excluded.
- D. The workability of the concrete shall be the minimum consistent with producing a dense well compacted mass. Due regard shall be paid to the size and shape of the section together with any congestion of reinforcement.
- E. After the Engineer has approved a design mix in principle the contractor shall prepare a trial mix on site using plant and materials intended for the works. Three batches of concrete shall be sampled and the following prepared, from each batch in accordance with B.S.1881:

CONCRETE WORK SPECIFICATIONS (CTD)

REINFORCEMENT (CTD)

Concrete Mixes (Design Mixes) (ctd)

- a) nine 150mm cube-three for test at 7 days, three for test at 14 days and three for test at 28 days, and
- b) three slump tests or where the design slump is less than 25mm then
- c) three compacting factor tests.

Concrete Mixes (General)

- A. The standard of acceptance of preliminary tests will be similar to the standard for normal cubes, slump or compacting factor, except that the minimum cube strengths required shall be those given under "minimum preliminary cube strength at 28 days" in Table I or II.
- B. No structural concrete shall be placed in the works until the Engineer has approved the preliminary tests. Thereafter the approved mix proportions shall be adhered to throughout the work and may only be varied with the prior approval of the Engineer.

CONCRETE WORK SPECIFICATIONS (CTD)

TABLE 1: PRESCRIBED WORKMANSHIP CONCRETE MIXES

Class of concrete	Minimum work cube strength of 28 days N/MM ²	Cement Kg	Fine Aggregate Cubic Metres	Coarse Aggregate Cubic Metres	Minimum Cube Strength at 28 days Preliminary N/MM ²	Minimum Target Works Cube Strength at 7 days N/MM ²
1:1:2	30	50	0.035	0.07	40	22
1:1:5:3	25	50	0.05	0.10	33	19
1:2:4	20	50	0.07	0.14	28	14

CONCRETE WORK SPECIFICATIONS (CTD)

TABLE II: DESIGN MIXES CONCRETE WORKMANSHIP CONCRETE MIXES

Class of Concrete	Minimum Work Strength of 28 days N/MM2	Maximum Size of Aggregate MM	Minimum Cement Content KG/M3	Maximum Water Cement Ratio	Maximum Cement Content KG/M3	Minimum Preliminary Cube Strength at 28 days	Minimum Target Works Strength at 7 days N/MM2
40	40	20	350	0.44	540	40	30
30/40	30	40	300	0.46	540	40	22
30/20	30	20	310	0.46	540	40	22
30/10	30	20	340	0.46	540	40	22
25/40	25	40	280	0.53	540	33	19
25/20	25	20	295	0.53	540	33	19
25/10	25	10	325	0.53	540	33	19
20/40	20	40	260	0.60	540	28	14
20/20	20	20	280	0.60	540	28	14

CONCRETE WORK SPECIFICATIONS (CTD)

Tolerance

- A. All in-situ concrete shall be dimensionally accurate to within the following non-accumulative tolerances:
- a) between the centre lines of principal members' columns or beams +/- 5mm up to 15metres c/c +/-10mm over 15metres c/c
- Note the +/- 10mm tolerance shall not be cumulative
- b) in storey height +/- 5mm floor to floor
 - c) in plumbness of columns and walls +/- 10mm on any storey or overall the structure
 - d) in level of floors + 5mm/ -3mm of the true prescribed horizontal surface level
 - e) in cross sectional dimensions of column beams and walls +5mm/- 3mm in any dimension up to 2 metres overall +10mm/ - 3mm in any dimension over 2 metres
 - f) cover to reinforcement +5 mm / - 0 of the stated covers.

Miscellaneous Items

- B. Holes chases indentations and the like shall be provided where indicated on the drawings. All such shall be formed in the concrete and not cut after the concrete has hardened.
- C. Should the contractor or any sub-contractor require additional holes or the like these requirements shall be submitted to the Engineer at least two days prior to concreting, for his approval.
- D. Pipes, conduits, fixing bolts and other such cast-in items shall be provided where indicated on the drawings.
- E. Should the contractor or any sub-contractor require additional cast-in items these requirements shall be submitted to the Engineer at least two days prior to concreting, for his approval.

Ready Mixed Concrete

- F. Ready Mixed Concrete shall be used only with the approval of the Engineer. When such approval is given it shall be supplied in accordance with B.S. 5328 except where this conflicts with this specification when this specification shall prevail.

CONCRETE WORK SPECIFICATIONS (CTD)

Ready Mixed Concrete (ctd.)

- A. Truck mixer units and their mixing and discharge performance shall comply with the requirement of B.S.4251.
- B. The use of ready mixed concrete shall not relieve the Contractor of any of his obligations and the appropriate clauses of this specification shall apply equally to the ready mixed concrete.
- C. Concrete test cubes and slump tests shall be taken on site at the point and time of discharge in accordance with this specification irrespective of any cubes that the supplier may take at his own risk.

Mixing and Transporting Concrete

- D. All materials for concrete shall be measured by weight in approved weight batching equipment. Such equipment shall be checked at weekly intervals at the Contractor's expense and shall be accurate to within 2%. Certificate of accuracy shall be submitted immediately to the Engineer.
- E. All concrete shall be mixed in approved power driven mixers of a type and capacity suitable for the work. The mixer shall be equipped with an accurate water measuring device which shall be checked at weekly intervals at the contractor's expense. Certificates of accuracy shall be submitted immediately to the Engineer.
- F. All materials shall be thoroughly mixed dry before water is added and the mixing of each batch shall continue for a period not less than two minutes after the water is added or such longer period are recommended by the manufacturer of the mixer. The mixture shall be of uniform colour and distribution on discharge and the entire contents of the mixer shall be discharged before recharging. The volume of mixed materials shall not exceed the rated capacity of the mixer.
- G. Mixers shall be all times be kept in a clean condition. prior to the first mix each day being agitated in the mixer a rich cement sand mix shall be used to coat the inside of the drum, the surplus material being emptied away and not used in the works.
- H. The moisture contents of the coarse and fine aggregate shall be checked by the contractor at frequent intervals and the amount of water added to the mix adjusted to maintain the design workability.
- I. Concrete shall be discharged from the mixer onto a clean, level watertight platform or into a clean watertight container. It shall be transported in a manner which ensures that it is of the correct quality and consistency at the point of deposition. All platforms and containers shall be cleaned of the old concrete before the fresh concrete is discharged onto them.

CONCRETE WORK SPECIFICATIONS (CTD)

Mixing and Transporting Concrete (ctd)

- A. Concrete shall not be dropped from a height, thrown or otherwise treated so that segregation, undesirable finish, or defective structural quality results. In any case concrete shall not be dropped from a height greater than 3.0m
- B. No extra water shall be added to the concrete mix after it has left the mixer.
- C. The Contractor shall take adequate precautions to protect concrete in transit from the effects of the weather.
- D. Pumping of concrete, which will require a special design mix, will only be permitted with the approval of the Engineer.
- E. Should the concreting be stopped due to mechanical malfunction, accident or other similar cause then the contractor shall inform the Engineer immediately so that necessary measures and precautions can be taken. The cost of any additional work caused by these stoppages shall be the responsibility of the Contractor.
- F. No concreting shall be commenced until the formwork and reinforcement have been inspected by the Engineer. The Contractor shall give the Engineer two clear days notice of his intention to concrete.

Placing and Compacting Concrete

- G. All concrete shall be vibrated unless otherwise specified. The vibration shall be carried out by experienced operators and with immersion type vibrations to the Engineer's satisfaction.
- H. Placing of concrete shall be carried out in layers not exceeding 500mm deep and in sequence from one end of the form to the other.
- I. Concrete in foundations and other underground work shall be protected from contamination with falling earth or rock during and after placing.
- J. Any concrete which shows signs of initial setting before or during placing shall not be used and it shall be removed at the contractor's expense.
- K. Sufficient vibrators shall be provided to correspond with the rate of deposition of concrete. The vibration shall be continuous throughout the placing of the concrete. Standby vibrators shall be on site during all concrete placing.
- L. Vibration must not be allowed to disturb any recently placed concrete that has begun to set. Any water accumulating on the surface of newly placed concrete shall be removed by approved means and no further concrete shall be placed thereon until such water is removed.

CONCRETE WORK SPECIFICATIONS (CTD)

Placing and Compacting Concrete (ctd).

- A. Suitable means shall be provided to ensure that the temperature of the concrete on placing does not exceed 30 deg.C (86 deg.F). All surface shall be thoroughly dampened immediately prior to placing fresh concrete to prevent excessive absorption of water.

Unformed finishes for Concrete

- B. Where a concrete surface is specified as suitable for receiving a further applied finish or in all cases where no other finish is specified the concrete shall be uniformly levelled and screeded to produce a ridge surface. No further work shall be applied to the surface.
- C. Where a concrete surface is specified as exposed with no further applied finish the concrete shall be uniformly levelled and screeded to produce a plain surface. After the concrete has hardened sufficiently the surface shall be hand or machine floated sufficiently only to produce a uniform surface free from screed marks.

Construction, Contraction and Expansion Joints

- D. Construction joints will be permitted only at the positions shown on the drawings and as instructed on the site by the Engineer. These joints will in general be spaced to allow a maximum plan area for any bay of 100 sq.m. maximum length of 12m in any one dimension.
- E. Vertical construction joints shall be properly made to form a vertical grout tight joint. Where reinforcement passes through the face of the joint the stopping off board shall be drilled so that the bars pass through or the board shall be made in sections with half round indentation in the joint.
- F. Under no circumstances shall concrete when being deposited be allowed to 'tail off'. Construction joints formed with expanded metal or similar or will not be permitted for reinforced concrete work.
- G. At all construction joints, both horizontal and vertical the surface of the already placed concrete shall be suitably roughened to remove laitance and by exposing the coarse aggregate to form a key for adjacent concrete. This work shall be carried out to the satisfaction of the Engineer by the following or other approved methods:
- a) After the initial set has taken place but before final set the coarse aggregate shall be exposed by the use of a water jet brushing.
 - b) After final set has taken place the laitance shall be removed and coarse aggregate shall be exposed by bush hammering or chiselling.

In both cases the surface is to be thoroughly cleaned after roughening.

CONCRETE WORK SPECIFICATIONS (CTD)

Construction, Contraction and Expansion Joints

- A. At least 72 hours shall be left between completion of concreting one bay and the start of concreting any adjacent bay if the Engineer deems fit.
- B. Construction joints shall be formed as detailed where shown on the drawings.
- C. Expansion joints shall be formed as detailed at the position on the drawings.

Curing and protecting Concrete

- D. Immediately after compacting and for 7 days thereafter concrete shall be protected against harmful effects of weather including rain rapid temperature changes and from drying out. The methods of protection used shall be subject to the approval of the Engineer. The method of curing used shall prevent loss of moisture from the concrete.
- E. During the curing period horizontal surface shall be protected by the following or other approved means:
 - a) Covering with damp hessian canvas sacks or similar absorbent materials kept constantly damp and wholly covering the exposed concrete surface or
 - b) Covering with an impermeable material raised approximately 50mm over the surface so as to prevent loss of moisture.
 - c) An approved membrane curing compound.
- F. During the curing period other surfaces shall be protected by the following or other approved means:
 - a) Formwork in close application of water preferably in the form of a mist so as not to damage the surface.
 - b) Direct and continuous application of water preferably in the form of a mist so as not to damage the surface.
 - c) Covering as described for horizontal surfaces.
- G. All concrete faces or edges, particularly those which are exposed without rendering in the final structure, shall be adequately protected from damage and discolouration at all times.
- H. Concrete structure shall be loaded until the concrete is at least 21 days old or 28 days in the case of cantilevers. With the prior approval of the Engineer the structure may be loaded before this time but in no case will loading greater than the final design loading be permitted.

CONCRETE WORK SPECIFICATIONS (CTD)

Test of Defective Concrete

- A. Additional tests may be necessary when there are physical defects in the finished concrete. These defects may be in the form of cracking while the member is still under props, excessive deflection or segregation and insufficient strength of concrete test cubes. If in the opinion of the Engineer these defects are as a result of the Contractor's bad workmanship, then the contractor will be required to carry out additional tests which the Engineer may deem necessary to establish the load carrying capacity of the member. All costs for the test or incurred thereof as a consequence of the test shall be chargeable to the contractor. Costs for tests shall be borne by the contractor immaterial of the outcome of such tests.

Concrete for Water Retaining Structures

- B. Concrete and its constituents for water retaining structures, in addition to the general and particular provisions in this specification, shall comply with the following requirements in this section.
- C. In addition to the requirements of clauses pages concrete in water retaining structures shall have a low drying shrinkage and absorption, as measured in accordance with B.S.812 or not greater than 3%.
- D. The Engineer may before approval is given to an aggregate or at any time thereafter require that the aggregate be tested for absorption in accordance with B.S.812. Any aggregate failing to comply with this specification will be rejected.
- E. In addition to the requirements of clauses page, concrete for the water retaining structures shall have a maximum cement content of 400kg/M³
- F. Blinding concrete under water retaining structures shall be a minimum of 75mm thick and shall be in class 15/40 concrete.
- G. Class 15/40 concrete shall comply with the following requirements:
- Minimum works cube strength at 28 days 15N/MM²
- Maximum size of aggregate 40mm
- Mix proportions 1 cement:2.5 fine aggregate: 5 coarse aggregate.
- This is a nominal mix and no cubes will be required to be taken.
- H. For water retaining structures the provisions of clause page are modified. The construction joints will in general be spaced to allow a maximum plan area for any bay of 40sq.m. or maximum lengths of 7.5m in any one dimension.
- I. A waterproofing additives - plastocrete DM by Sika or other similar approved shall be used for all reinforced concrete in water tank structures.

CONCRETE WORK SPECIFICATIONS (CTD)

Concrete for Water Retaining Structures (ctd.)

- A. All additives shall be incorporated into the mix according to the manufacturer's instructions.
- B. For water retaining structures the provisions of the clause are modified. At least 96 hours shall be left between completion of concreting any adjacent bay if the Engineer deems fit.
- C. A kicker of minimum height 150mm shall be cast integrally with the base slab for all water retaining structures.
- D. The surface of all concrete for water retaining structures shall not be permitted to dry out even after the 7 day curing period specified in clause.
- E. All pipes passing through concrete walls or slabs for water retaining structures shall be cast in at the time of concreting and not subsequently fitted. All such pipes shall be provided with a puddle flange fitted to form a seal against the pipe and of an outside diameter 2.00mm greater than the outside diameter of the pipes.
- F. Joint sealants shall be applied not less than 7 days after completion of the structure.
- G. On completion of water retaining structure at a time decided by the Engineer it shall be tested for water tightness in the following manner. Structures which are elevated shall be filled at a uniform rate not exceeding 1 meter rise in head per 24 hours and allowed to absorb water for 3 days. After this period the water level shall be brought up to the top water level and left for 7 days. During this period the exposed faces shall show no signs of leakage and shall remain apparently dry. Structures founded on or in the ground shall be tested prior to backfilling unless otherwise stated. The structure shall be filled as specified above. After filling to top water level no further water shall be introduced for the next 7 days. The structure will be deemed to be watertight if at the expiration of this time the total drop in surface level does not exceed 100mm after making due allowance for evaporation and absorption and no sign of leakage are observed.
- H. Water for testing shall be provided at the contractor's expense.
- I. If the structure fails the test above any defects shall be made good or such action taken to eliminate leakage as the Engineer shall direct. All such work shall be at the Contractors expense.
- J. After completion of any repairs the structure shall be tested using the procedure specified above.
- K. Swimming pool should be tested prior to applying internal finishes.

CONCRETE WORK SPECIFICATIONS (CTD)

Precast Concrete

- A. The material for precast work shall be similar to the materials for insitu work. The workmanship for precast work shall comply with C.P.116 except where this conflicts with this specification when the specification shall prevail.
- B. The contractor shall prepare for any type of Precast units, a drawing indicating his proposed formwork construction, casting methods de-moulding and handling procedure for the Engineer's approval.
- C. Moulds and formwork shall be so constructed that the dimensions of the finished concrete members are within the specified permissible tolerances given in Clause 407 of BS 8110.
- D. Where precast concrete is described as "Fair Faced" the moulds shall be metal, or are to have metal or hardboard linings, or are to be other approved moulds which will produce a smooth, dense fair face to the finished concrete and free from all shutter marks, holes, pitting, etc.
- E. Precast concrete shall be made of the mixes described on the Engineer's drawings in suitable mould, true in form of the shapes required, thoroughly tamped into the moulds and around reinforcement and vibrated.
- F. All precast work shall be carried out under cover and the period before removal from forms and the period of storing shall be determined and agreed by the Engineer and Contractor with due regard to the type of unit, i.e. load bearing or non-load bearing, difficulties of casting, projections, holes and other points which require particular attention.
- G. The method of lifting, positions of lifting points and Curing time before lifting shall be agreed with the Engineer before casting of any units.
- H. Extreme care shall be taken when handling precast units and any units damaged during transportation and/or positioning shall be replaced at the Contractor's expense.

MEASUREMENTS PREAMBLES

General

- A. Concrete work shall be measured generally in accordance with the method of measurements stated in the contract. The rates shall be deemed to include for complying with the specification in all respects. All testing and samples required by the Specification, whether covered by a particular item below or not, shall be deemed to be included within the rates or sums in the Bill of Quantities. Where the Engineer may instruct the contractor to test (such test not being mandatory) the materials or workmanship in accordance with the provisions of the Specifications the test of such costs will be borne by the employer, if the test result proves satisfactory and by the Contractor if the test result proves unsatisfactory. In either case no consequential costs or delay will be allowed, it being considered that testing covered by this Specification is of a usual or expected nature.

CONCRETE WORK SPECIFICATIONS (CTD)

Concrete

- B. The rate for concrete shall include for all costs associated with the following:
- C. Supply concrete of the required strength, manufactured with materials complying with the Specification.
- D. Mixing, transporting placing, compacting, curing and protecting the concrete all as specified.
- E. Forming construction joints and complying with the specified requirements for maximum bay size and interval between casting adjacent bays.
- E. Providing test certificates for cement and aggregates.
- F. Designing the concrete mix (where applicable) and carrying out trial mixes and preliminary tests.
- G. Carrying out routine sampling and testing of concrete and its constituents.
- H. Keeping on site sufficient cube moulds, slump cones and associated test equipment to comply with the Specification.

Mass Concrete

- I. The rate for mass concrete in blinding shall, in addition to *B* to *H* above, include, for concreting the sub base.
- J. The rate for mass concrete shall, in addition to *B* to *H* above, included for any formwork necessary unless otherwise stated in the item description.

Rod Reinforcement

- K. The rate for rod reinforcement shall include all costs associated with the following:
- L. Supply rod reinforcement complying with the Specifications.
- M. Providing test certificates
- N. Cutting, bending and fixing reinforcement including any welding where this is approved.
- O. Providing and fixing all spacers, tying wire, chairs and stools.

CONCRETE WORK SPECIFICATIONS (CTD)

MEASUREMENTS PREAMBLES (CTD)

Fabric Reinforcement

- A. The rate for fabric reinforcement shall include for all costs associated with the following:
- a) Supplying fabric reinforcement complying with the specifications.
 - b) Providing test certificates.
 - c) Cutting and fixing fabric reinforcement.
 - d) Providing and fixing all spacers, tying wire, chairs and stools.
 - e) Providing the specified laps, fabric will be measured as the net plan area.

Sawn Formwork

- B. The rate for sawn formwork shall include for all costs associated with the following:
- a) Supplying, fixing, easing and striking all temporary forms as specified together with all temporary construction required for their support.
 - b) Supplying details or calculations for formwork.
 - c) Coating with material to prevent adhesion of the concrete.
 - d) Complying with specified minimum period before removal of forms.
 - e) Back propping for multi-storey construction.

Wrought Formwork

- C. The rate for wrought formwork shall include for all costs associated with the following:
- a) Supplying, fixing, easing and striking all temporary forms as specified together with all temporary construction required for their support.
 - b) Supplying details or calculations for formwork.
 - c) Coating with material to prevent adhesion of the concrete.
 - d) Complying with specified minimum period before removal of forms.
 - e) Back propping for multi storey construction.
 - f) Providing sample panels of concrete as specified and removing on completion of the works.

CONCRETE WORK SPECIFICATIONS (CTD)

MEASUREMENTS PREAMBLES (CTD)

Precast Concrete

- A. The rate of supply of precast concrete shall include for all costs associated with the following:
- a) Supplying concrete including item on clause page.
 - b) Supplying rod reinforcement including on page above.
 - c) Supplying fabric reinforcement (if applicable) items on page above.
 - d) Supplying, fixing, easing and striking moulds and formwork as specified including replacement after multiple use.
 - e) Producing drawings and details as specified.
 - f) Coating moulds with material to prevent adhesion of the concrete.
 - g) Complying with specified minimum period before removal of forms or handling.
 - h) Providing and fixing any additional reinforcement required for lifting or handling.
 - i) All handling, lifting and fixing of precast units.

Composite floor Construction

- B. The rate for composite floor construction is to include for all moulds, materials and all unspecified items necessary for the manufacturer of hollow concrete block by the contractor.
- C. Another rate will be applicable in the vent of the contractor purchasing the block as specified from independent suppliers or manufacturers.

Waffle Floor Construction

The rate for waffle floor construction is to include for all moulds, materials and all items necessary for complying with the specification. The rate shall also be deemed to include for solid concrete margins, and bearing.

STRUCTURAL STEEL

QUALITY OF MATERIALS AND WORKMANSHIP

A. The quality of all materials and workmanship used in the execution of this Contract shall comply with the requirements of the most recent issues of the following British Standards and Codes of Practice, including all amendments to date of calling for Tenders.

- BS.4 (Part 1) - Hot Rolled Sections
- BS.4 (Part 2) - Hot Rolled Hollow Sections
- BS.449 - The use of Structural Steel in building
- BS.638 - Arc Welding plant, equipment and accessories
- BS.639 - Covered Electrodes for the Manual Metal Arc Welding of Mild Steel and Medium tensile steel
- BS.916 - Black Bolts, screws and nuts
- BS.1449 - Steel plate, sheet and strip
- BS.1775 - Steel Tubes for mechanical, Structural and General Engineering Purposes
- BS.2994 - Cold Rolled Steel Sections
- BS.4190 - ISO metric black hexagon bolts, screws and nuts
- BS.4320 - Metal Washers for general engineering purposes
- BS.4360 - Weldable structural Steel
- BS.4848 - Hot rolled structural steel sections
- BS.4872 - Approval testing of welders when welding procedure approval is not required
- BS.5135 - General requirements for the Metal Arc Welding of structural steel
- BS.5493 - Protection of iron and steel structures from corrosion

STRUCTURAL STEEL (CTD)

QUALITY OF MATERIALS AND WORKMANSHIP (CTD)

- A. The Engineer may at any time require any materials to be tested in accordance with the requirements of the Standards listed above. The cost of all successful tests shall be borne by the Client, but the Sub-Contractor shall if required promptly supply at his own expense test pieces as required by the Engineer. The costs of tests on materials failing to comply with this Standard shall be borne by the Sub-Contractor. If in the opinion of the Engineer, faulty materials and /or workmanship have been used in the Works, the Sub-Contractor may be directed to dismantle and cut out the parts concerned and remove them for examination and testing. The cost of dismantling, cutting out and making good to the approval of the Engineer shall be borne by the Sub-Contractor.

FABRICATION

B. Cutting and Bending

All members, plates, brackets, etc, shall be neatly and accurately sheared sawn or profiled to the required shape as shown on the drawings. Where steel is oxy-cut to shape, care shall be taken to preserve the full finished sizes required. If the members or plates are bent or set, the bends or sets shall be correctly made to the radii or angles specified without leaving hammer marks. The material may be heated to permit this. Material that has been heated shall be annealed to approval.

C. Punching and Drilling

Holes for black bolts shall be drilled or punched 2mm larger in diameter than the bolt used. Holes for high tensile friction grip bolts shall be drilled or sub-punched and reamed to 2mm larger in diameter than the specified bolts sizes. All drilled holes shall be parallel sided and shall be drilled with the axis of the holes perpendicular to the surface. Badly drilled holes shall either be reamed out to approval and larger bolts fitted or otherwise as directed. All rough arises shall be ground off. Holes for bolts in material thicker than 15mm must be drilled. When holes are drilled in one operation through two or more thicknesses of material, the parts shall be separated after drilling and all burrs removed before assembly. Holes for bolts shall not be formed by a gas cutting process.

D. Tolerances

All members shall be fabricated with a tolerance in length of + 0mm and -3mm, all shall not deviate from straightness by more than 1 in 400.

STRUCTURAL STEEL (CTD)

QUALITY OF MATERIALS AND WORKMANSHIP (CTD)

A Tolerances (ctd)

The allowance for angular twist shall be $(3+0.6L)$ mm where L is the length of the member under consideration in metres. Twist shall be measured by placing the member as fabricated against a flat surface measuring the difference between the two corners of the opposite end.

The above tolerances shall be adhered to unless otherwise specified on the Engineer's drawing.

FASTENING

B. Bolting

All bolts used shall be of such length that at least one full thread is exposed beyond the nut after the nut has been tightened. Where a nut or bolt head would bear on an inclined surface, a bevelled washer of the correct shape shall be interposed between the two surfaces. Bevelled washers shall not be allowed to get out of position during fabrication and erection and for this purpose may be spot welded to the steel surface. Bevelled washers for use with high tensile bolts may not be welded.

C. Black Bolts, Nuts and Washers

All black Bolts, Nuts and Washers shall comply with the requirements of BS.916 or alternatively BS.4190 ISO metric black hexagonal bolts screws and nuts.

D. High Tensile Bolts, Nuts and Washers, Friction Grip Bolts

All High Tensile steel bolts, nuts and washers used in joints shall comply with the requirements of BS.3139 and shall be used in accordance with BS.3294.

ELECTRIC WELDING

E. All welding shall be carried out in strict accordance with the requirements of BS.1856 and 938 and electrodes shall comply with BS.639.

F. Fusion faces shall be free from irregularities such as tears, fins, etc., which would interfere with the deposition of weld metal.

G. Fusion faces shall be smooth and uniform and shall be free from loose scale, slag, rust, grease, paint, and/or other deleterious material.

STRUCTURAL STEEL (CTD)

ELECTRIC WELDING (CTD)

- A. All welds shall be of acceptable types, shall be of the finished sizes specified, and shall be carried out in such sequence that minimum distortion of the parts welded results.
- B. Preparation of edges for welding shall be carried out by planning or machine flame cutting. Manual flame cutting may be permitted in certain circumstances.
- C. Parts to be welded shall be maintained in their correct relative positions during welding, preferably by jigs.
- D. Multiple run welds shall be carried out with each run closely following the previous run but allowing sufficient time for the proper removal of slag.
- E. The Sub-Contractor shall ensure that each run is inspected and any unsatisfactory weld cut out and remade to approval.
- F. Welds in material 25mm or greater in thickness shall be made by the Argon arc or similar approved process, and special precautions shall be taken to prevent weld cracking.
- G. Unless otherwise shown, the minimum size of fillet shall be 6mm.
- H. On completion, welds shall present a smooth and regular finish. Weld metal should be solid throughout with complete fusion between weld metal and parent metal and between successive runs throughout the joint.
- I. Defects shall be cut out and made good to approval in sound weld metal.
- J. The external faces of butt welds are to be ground smooth on completion and to be to the approval of the Engineer.

SHOP AND FIELD CONNECTIONS

ROLLED SECTIONS

- K. All shop connections shall be electric welded or bolted with high tensile friction grip bolts.
- L. No bolts used shall be less than 12mm diameter and no weld less than 40mm in length. At least two bolts shall be used in connections transmitting loads unless otherwise indicated by the Engineer.
- M. No weld of length less than four times the nominal fillet size shall be deemed capable of carrying a load.

STRUCTURAL STEEL (CTD)

ROLLED SECTIONS (CTD)

- A. Beam to column connections not detailed shall be on "Standard" top and bottom cleat connections with the load carried on the bottom cleat. "Standard" web connections shall be used for connecting beams to beams.
- B. Field connections shall be as detailed, i.e. bolted with high tensile or black bolts in drilled holes. Black bolts in punched holes will only be permitted for connections carrying a designed load or for connections to timber members.
- C. Structural Hollow Sections - Circular and Rectangular
- D. Hollow sections shall be connected by electric welding unless shown otherwise.
- E. The design of welds shall be in accordance with Clause 53 and 54 and Appendix C of BS.449.
- F. Butt welds shall be made with the fusion surfaces of the ends of each member properly prepared and the members properly aligned.

ASSEMBLY

Trusses and Portal Frames

- G. Trusses shall be carefully set out to the dimensions shown on the drawings.
- H. Where it is required that trusses be cambered, such camber shall be provided by bending the bottom chord to the arc of a circle.
- I. Notwithstanding any dimensioned spacing of purlin cleats, the Sub-Contractor shall ensure that purlin cleat spacing is satisfactory for the available stock lengths of roof sheeting. However, the Engineer's approval must first be obtained before any alteration is made in purlin spacing or sheeting sizes.
- J. Splices in portal and other frames shall be made where shown on the details or where indicated.

Boxed Members

- K. Abutting edges of boxed members shall be connected and scaled with a continuous weld to exclude the entrance of moisture. Where specified such welds shall be ground flush to approval.

STRUCTURAL STEEL (CTD)

Shop Assembly

- A. Such assembly of units in the shop as is specified or necessary before transporting to the site will be inspected by the Engineer before painting. The work will be laid out in the shop or yard so that all parts are accessible for inspection and testing of the work.
- B. The Sub-Contractor shall furnish all facilities for inspection and testing of the work and he must notify the Engineer on each occasion when the material is ready for inspection.

Marking

- C. All members of the structure to be site assembled shall be match marked in accordance with the shop details and marking plans submitted for approval.

ERECTION

Site Dimensions

- D. No erection shall commence before accurate Site Dimensions have been taken by the Sub-Contractor, and no claim will be considered should final dimension differ from those on the drawings. Any modifications to the structural steel required in order to comply with Site Dimensions shall be made on the ground to the Engineer's approval before erection is commenced.

- E. **General Setting Out-Tolerances**

The temporary Bench Mark (TBM) which shall be located at the Structural Ground Floor Level (S.G.F.L.) having been agreed on site between the Architect, Engineer and Main Contractor, shall be considered as the site datum.

The datum points for the setting out of the datum lines passing through the T.B.M. at all floor and roof levels; plus or minus Om.

The permissible Deviation (P.D.) from the T.B.M. and D.L. shall be as follows:

- a) Setting out on Plan at S.G.F.L.

All setting out dimensions with respect to each datum line (i.e. P.D. from "x" and "y" plan axes) plus or minus 10mm per 30 metres.

STRUCTURAL STEEL (CTD)

ERECTION (CTD.)

- b) Transfer of T.B.M. to Structural First Floor, intermediate Floors and Roof Levels.

With respect to the T.B.M. at S.G.F.L. the T.B.M. at:

First Floor Level	-	Plus or minus 5mm
Intermediate Floor Levels	-	Plus or minus 10mm
Roof Level	-	Plus or minus 15mm

- c) Setting out on Plan of Upper Floors With Respect to the Transferred T.B.M.

All setting out of dimensions with respect of each datum line plus or minus 10mm per 30 metres.

- d) The clear distance between adjacent elements at any level where accuracy is required for doors, windows, services, secondary steelwork etc.:- plus or minus 5mm.
- e) The P.D. with respect to the relevant T.B.M. of the upper or lower surface of any truss or element, taking into account specified cambers. plus or minus 10mm.
- f) The Plumb vertical members plus 10mm per storey.

A. **Equipment**

All erection shall be carried out by competent and experienced men and the Sub-Contractor shall take every care to safeguard the public, workmen, and adjoining property.

All gear used shall be of adequate strength and shall comply with all Regulations current at the time.

The Sub-Contractor shall be held responsible for all damage caused to the structure, workmen, or buildings during erection.

STRUCTURAL STEEL (CTD)

ERECTION (CTD.)

A. Storing and Handling

Steel shall be stored and handled and erected in such a manner that no member is subjected to excessive stresses which could have an adverse effect on the properties of the steel. If in the opinion of the Engineer, the steel work has been subjected to such treatment, the contractor shall remove this steel from the site and replace it at his own expense.

B. Erection Details

No member or part of a member which has been bent or distorted shall be erected in that condition. All straightening shall be done in the ground.

Columns shall be wedged to line and level on steel or cast iron wedges and checked by the Engineer. After acceptance, column bases shall be grouted to approval before wedges are removed. Unless shown on the drawing, all columns shall be left truly vertical and correct to line and level. Beams, girders, etc., shall be erected level unless otherwise shown, and correctly positioned.

Trusses and open web joists shall be carefully handled at all times and when being erected shall be lifted at such points and in such a manner as will preclude any possibility of damage from erection stresses.

Immediately after erection, each truss shall be made secure by purlins, bracing, or guys to approval.

Bracing shall be placed in position as soon as dependent work will permit.

C. Field Connections

In making connections, drifting of unfair holes will not be permitted and holes not matching properly shall either be reamed or drilled out and a larger bolt inserted or otherwise as directed.

Holes formed or enlarged by oxy-cutting will be condemned and must be filled to approval by electric welding and re-drilled.

Tightening and testing High Tensile Friction Grip Bolts.

Before assembly, the contact surface, including those adjacent to the washers, shall be descaled or carry normal tight mill scale. They shall be free from dirt, oil, loose scale, burrs, paint (except priming paint) pits and other defects that would prevent solid seating of the parts.

STRUCTURAL STEEL (CTD)

ERECTION (CTD.)

A. Field Connections C'td

Bolts shall be assembled with approved hardened flat or tapered washers as required between the bolt head and nut and the softer mild steel.

When bearing faces of the bolted parts have a slope of more than 1 in 20 with respect to a plane normal to the bolt axis, square smooth bevelled washers shall be used to compensate for the lack of parallelism.

All bolts shall be tightened by the "Turn of Nut" method. This method shall generally be as approved by the Engineer to achieve in all bolts a minimum tension equal to the proof load.

B. Grouting

Unless otherwise detailed on the drawings, a space of not less than twenty (20) mm and not more than forty (40)mm shall be provided between undersides of column base plates and footings, and between all beam and roof truss bearings and concrete pads, etc.

After each column, beam, or roof truss has been wedged up to a line and level and fixed in position to approval, the space between footing or pad and the underside of the base plates or steel member shall be grouted with a mixture of Portland cement and approved washed sand.

The Portland Cement and sand shall be thoroughly mixed to approval in equal proportions by volume with only sufficient water to produce a mixture of "damp earth" consistency and shall be used within twenty minutes of mixing. The caulking mixture shall be packed to approval into the space between base plate and foundation and protected from damage until set.

PAINTING

C. Painting Material

All paints are to be supplied by a Supplier approved in writing by the Architect.

Paints are to be delivered to the site or the Structural Contractor's works in the original containers as supplied by the Manufacturer with seals unbroken and are to be used in strict accordance with the manufacturer's instructions.

STRUCTURAL STEEL (CTD)

PAINTING (CTD.)

A. Painting Material C'td

Manufacturer's representatives are to be free to visit the site and inspect materials and workmanship, and if necessary take samples of materials for laboratory analysis.

Paints are not to be thinned unless instructed by the Engineer.

No external painting is to be carried out during rain or when rain is likely to occur before the paint has had time to dry. All surfaces are to be dry and free from moisture at the time of painting.

B. Preparation for painting

All structural steel shall be thoroughly scraped and wire brushed to remove mill scale and rust. Dirt and grease or oil shall be washed off with white spirit and the steel allowed to dry.

C. Painting process

A first coat of Red Oxide Zinc Chromate primer shall be applied in the works immediately the steel preparation has been completed. A minimum of 24 hours shall elapse before the steel is moved from its position whilst painting has been carried out. After delivery to site, the steel shall be carefully examined and all areas where the priming coat has been damaged and/or where rust has developed shall be washed with white spirit and wire brushed as necessary and a further priming coat as for the first applied to completely cover the damaged areas.

During erection, surface of steel which are to be in contact shall be painted with one further coat of primer as previously described and the surfaces brought together whilst the paint is still wet.

Bolts, Nuts, Washers, etc., shall, after erection is completed to approval, be carefully degreased with white spirit and painted as for steelwork.

Steel purlins and sheeting rails shall generally be painted as for steelwork except for purlins and rails supporting aluminium sheeting when the following specification shall be used.

1st coat - Red Oxide Zinc Chromate Primer

2nd Coat - An approved Aluminium paint

The interiors of mild steel gutters shall be prepared as previously described for structural steelwork.

WALLING

- A. Requirements of the following British Standards and Codes of practice and equivalent Kenya Bureau of Standards shall be observed:-

British Standard

- | | | |
|----|-------------------------|--|
| B. | B.S. 3921 part 2 | Bricks and blocks of fired brickwork clay or |
| C. | B.S. 1180 | Concrete bricks and fixing bricks |
| D. | B.S. 4729 | Shapes and dimensions of special bricks |
| E. | B.S. 2028, 1364 type B | Precast concrete blocks (for general use and load bearing walls above damp proof course) |
| F. | B.S. 2028 1364 type C | Precast concrete blocks (for internal non-load bearing walls) |
| G. | B.S. 1200 table 1 and 2 | Sand for mortar for plain and reinforced brickwork, block walling and masonry |
| H. | B.S. 890 part 2 | Building limes (Hydrated lime) |
| I. | B.S. 4721 | Ready Mixed lime: sand for mortar |
| J. | B.S. 4887 | Mortar plasticizers |
| K. | B.S. 4551 | Methods of testing mortars and Specification for mortar testing sand |
| L. | B.S. 743 | Materials for damp proof courses |
| M. | B.S. 1178 | Milled sheet lead and strip for building purposes |
| N. | B.S. 1243 Fig. 1 | Metal ties for cavity wall construction (vertical twist type) |

Codes of Practice

- | | | |
|----|-----------------|---|
| O. | C.P. 111 | Structural recommendations for load bearing walls |
| P. | C.P. 121 part 1 | Walling |

WALLING (CTD.)

Codes of Practice (ctd.)

- A. C.P. 121, 202 part 1 Masonry - rubble walls
- B. Walls and partitions of blocks and slabs C.P. 122
- C. **NOTE:** The contractor's attention is drawn to Section "G" of the Standard method of Measurements
- D. **WATER** Shall be as specified in "concrete work"
- E. **CEMENT** Shall be as specified in "concrete work"
- F. **SAND** Shall be as specified in "concrete work"
- G. **Lime** Shall be non-hydraulic quick lime or hydrated limes for cement/lime mortars and comply with B.S. 890, semi-hydraulic class "B" calcium limes .
- H. **Concrete blocks** shall be solid or hollow blocks to comply with the relevant standard as previously mentioned and shall be solid hard, true to size and shape and sharp arises in accordance with Ministry of Works Standard Specification for Metric sized concrete blocks for building dated September, 1972.

They shall be obtained from an approved manufacturer or manufactured on site in approved block making machines. The mix used shall be less than (1:9) by volume and maximum size of aggregate shall be 12mm size. The blocks on removal from the machine shall be laid on edge or racks under sheds erected by the Contractor and left for 3 days during which period they shall be kept constantly wet.

After this initial period they shall be placed on edge in the open racks and protected by sacking or other approved covering and kept wet for further 5 days.

Thereafter the blocks shall be left in the same position without wetting for a further 20 days. No blocks shall be used in the Works until 28 days old and until samples have been tested and approved by the Engineer.

The Contractor shall ensure that the blocks are stocked separately in their respective categories in the structure in the position shown on the drawings.

WALLING (CTD.)

- A. Stone for walling shall be good hard local stone equal in standard and quality to "Nairobi Blue Stone". Stone shall be squared, dressed and joints chisel dressed on the face. Stone to receive render, shall be so dressed to reduce dubbing-out to a minimum.

The coursed stone shall not be less than 150mm deep and 305mm long. All stones shall be laid on their natural or quarry bed lines.

MORTARS

- B. Gauged mortar shall be used for walling and shall be composed of one part Portland cement to two parts non-hydrated lime and nine parts sand. (1:2:9) measured in gauge boxes and thoroughly mixed dry preferably with an approved mechanical mixer or on a clean and approved mixing platform with water added afterwards until all parts are completely incorporated and brought to a proper consistency and used within the hour of mixing.

No partially or wholly set mortar will be allowed to be reused or re-mixed.

- C. Cement Mortar Cement mortar (1:3) shall be composed of 42.5 Kgs. of Portland Cement to 0.085 cubic metres of sand. The cement mortar (1:6) shall be composed of 42.5 Kgs of Portland cement to 0.17 cubic metres of sand measured in specially prepared gauge boxes and thoroughly mixed in an approved mechanical mixer or mixed dry until all parts are completely incorporated and brought to a proper consistency. The use of retempering of wholly or partly set mortar will not be allowed.
- D. All Stone shall be wetted before laying and the top of walling where left off, shall be wetted before re-commencing buildings, walls to be kept wet minimum 3 days after building.
- E. All blocks and walling to be kept true, plump and level with all perpend vertical and in line and work shall not rise more than three courses above the adjoining Work and all such rising are to be properly racked back.
- F. The Contractor must provide proper setting out or storey rods so that all work is coursed to cills, lintels and underside of beams thus reducing horizontal cutting to a minimum.
- G. All walling must be carefully bonded together so that no vertical joint in any one course is nearer than 10mm from the joint in the course above or below.

WALLING (CTD.)

MORTARS (CTD)

- A. All walling must be bedded in solid mortar with cross-joints well flushes up at each course as the work proceeds.
- B. To walls less than 190mm thick the reinforcement shall consist of gauge 24 "Expamet" wall reinforcement horizontally in bed joints every alternate course and lapped over "Expamet" from column where abutting same.
- C. Rates for walling are to include for reinforcement strips.
- D. Labours on stone walling stated in the Standard Method of Measurement as to be included shall be deemed to include for redressing the beds of stones on site to the minimum extent necessary to obtain uniformly of coursing and for any redressing of faces necessary to bring the thickness within the tolerance specified.
- E. Rates for walling of any description are to include for all expenses in connection with the provision and conveyance of samples of walling materials to the Ministry of Works, Materials Testing Laboratory, Kenya.

ASPHALT WORK

A. The requirements of the following British Standards shall be observed:-

British Standards

- B. B.S.1162, 1410 and 1418 Mastic asphalt for tanking and damp-proof courses (Natural rock asphalt aggregate)
- C. B.S.988, 1097, 1076 and 1451 Mastic asphalt for tanking and damp course (limestone aggregate)

Code of Practice

- D. C.P.102 Protection of building against water from ground
- E. Note: The Contractor's attention is drawn to Section "J" of the Standard Method of Measurement.

All asphalt shall comply with the requirements of subsections B.S. 1418 and 1097 and C.P. 102 specifically dealing with tanking operations.

F. **Mastic asphalt for tanking**

- (i) The Contractor shall arrange for the work to be executed by an approved Sub-Contractor. No other Sub-Contractor will then be permitted to be employed without the written authority of the Architect.
- (ii) Tropicalised Mastic Asphalt is to comply with B.S. 1097/1966 and B.S. 1418 applied in three coats, in the case of horizontal work on and including sheathing felt; in the case of vertical work without. The third and final coat is to have a polished finish. All tanking operations to comply with C.P.102.
- (iii) The Contractor is to take all necessary precautions to protect finished work, and it is his responsibility to ensure that no damage occurs to surfaces during subsequent building operations or any reasons whatsoever.
- G. For tanking to basement lay over the whole area of the basement concrete floor horizontal damp proof course in three thickness laid with 150mm laps to a course of foundations on outer face of wall to cement with vertical damp proof course with a double angle fillet.

ASPHALT WORKS (CTD.)

- A. Vertical face of basement walls shall then be covered with damp proof course applied in three thicknesses with 75mm laps to a total thickness of not less than 20mm.
- B. Vertical damp-proof course shall be carried up to a minimum height of 150mm above ground level and connected at bottom to horizontal damp-proof course in walls with double fillet formed on top of foundations to form a complete tank to basement.
- C. All junctions between horizontal and vertical asphalt shall be warmed, cleaned and properly made good with two-coat angle fillets at all internal angles.
- D. Properly made good joints between lining pits and horizontal damp-proof course to floor shall be effected and double angle fillets to all internal angles maintained.
- E. It is essential that continuity of tanking be maintained. Care must be exercised to see that such continuity is not destroyed by stanchions, pits, sumps etc.
- F. Protect asphalt by the application of loading coats immediately each section of work is complete. Pumping of any water gaining access shall be continued until not only the asphalt work is complete, but also until loading coats are thoroughly set.
- G. If the water level is near, such water level shall be maintained at not less than 0.3m below the level of the base concrete during the progress of tanking work to avoid the application of asphalt on wet surfaces and this pumping operation shall be maintained until the temporary sump has been filled and sealed.

ROOFING

BITUMEN BUILT-UP FELT ROOFING

A. **Bitumen Felt**

Bitumen felt where specified shall be to B.S. 747 part 2 and in addition shall be suitable for use on tropical conditions and from approved manufacturers. Types of bitumen felt shall be as specified on the working drawing.

B. **Fibre Base Bitumen Felt**

Shall comply to B.S. 747 part 2, Class 1, when fibre based bitumen felt is specified the roofing shall consist of two self finished bitumen felt under layers to B.S. 747, Class IC each weighing 13 Kg per 10 M2 and one mineral surfaces bitumen felt to same B.S. Class 1E weighing 36 Kg per 10 M2. All layers shall be completely bonded to one another and to the base with approved bitumen bonding compound or hot bitumen.

C. **Asbestos Base Bitumen Felts**

Asbestos base bitumen felts where specified shall comply to B.S. 747 Part 2, Class 2. Asbestos base bitumen felt when specified shall consist of two self finished bitumen asbestos under layers to B.S. 747, Part 2, Class 2C each weighing 13 Kg per 10 M2 and one mineral surfaced bitumen asbestos to same B.S. Class 2 E weighing 36 Kg per 10 M2. All layers shall be completely bitumen bonding compound or hot bitumen.

D. **Edge Trim**

Edge trims shall be of either aluminium to B.S. 1470 or 24 gauge galvanised mild steel sheet to B.S. 3033 of the sizes and patterns specified or shown on the drawings, and shall be approved gauges and manufacturer.

E. **Concrete Paving Tiles**

Concrete paving tiles shall comply to B.S. 1197, Part 2, nominal size 225 x 225 x 20mm, thick or other approved sizes. Tiles shall be bonded to built-up roofing with hot bitumen bonding compound but joints shall normally be 13mm wide, filled with hot bitumen.

F. **Cement**

As specified in the concrete section.

G. **Sand**

As specified in concrete section.

H. **Coarse Aggregate**

Shall be as specified in concrete section. However, when mineral aggregate chippings are specified, they shall be of approved colour, hard, angular and of a size to pass a 10mm sieve and be retained on a 6mm sieve.

Chipping shall be bonded over top layer of flat roofs with hot bitumen dressing compound. Chipping shall be bedded on the roof at the rate of 16Kg/M2.

ROOFING (CTD.)

BITUMEN BUILT-UP FELT ROOFING (CTD.)

A. Bitumen Primer

Bitumen primer for priming base shall be of either cut-back bitumen, maximum volatile solvent 60% by weight or bitumen emulsion of a type recommended by the manufacturer for priming purposes.

B. Bitumen Bonding Compound

Bitumen bonding compound for bitumen felt shall be to B.S. 3940m Type B and shall be of approved manufacturer.

C. Bitumen Dressing compound

Bitumen dressing compound for bedding chippings shall be cutback bitumen to B.S.D. 3690 Grade 25.

D. Approved Sub-Contractor

Bitumen felt roofing work, unless otherwise directed, shall be carried out by an approved Sub-contractor. Laying shall be carried out generally in accordance with C/P.144.101. Bitumen built up felt roofing shall be guaranteed for one year from the end of the defects Liability period and such guarantee shall be given to the Architect in an approved form.

E. Falls

Before laying bitumen felt, the Contractor shall check and certify that the roof is laid to the correct falls. Minimum falls are:-

- | | | |
|----|---------------------------------|------|
| 1. | For mineral surfaced felt roofs | 1:30 |
| 2. | For protected felt roofs | 1:60 |

F. Preparation of Base

Before laying bituminous roofing felt, the Contractor shall ensure that the base is dry and clean to the approval of the Architect. All pipes and outlets passing through the roof, formation of grooved, chases fillets and gutters must be completed and approved before any roof covering commences being laid. When reinforced wood wool slabs form roof base, all joints shall be filled flush with approved strips.

Minor movement joints shall be formed with 150mm strip of damp proof course laid over joints and bonded at edges only. Movements joints shall be formed with rubber or plastic piping inserted into joints or with twin kerbs all in general accordance with Code of Practice. 144 part 3.

ROOFING (CTD.)

A. Laying Bitumen Felt Sheet

Hot bonding compound shall not be heated to more than 220 degrees centigrade and shall be laid at 200 degrees centigrade.

B. Partial Bonding

Partial bonding shall not be allowed without prior written approval of the Architect.

C. Full Bonding

The first and subsequent layers of bituminous roofing felt shall be laid with a minimum of 50mm, side laps and 75mm end laps. The first layer shall be fully bonded with bituminous bonding compound in similar manner to the first layer and to one another. Bitumen bonding compound shall be rolled to remove any trapped air and surplus or squeezed out bonding compound shall be wiped clean.

D. Upstand and Flashings

Upstands shall be at least 150mm high and must be fully bonded to the structure. Top edges of flat flashings shall be tucked into chase, wedged at 600mm centres and fully bonded to upstand. Ends of upstands and flashings shall be lapped at least 100mm and shall be sealed and bonded with hot bonding compound. The chase shall thereafter be pointed in cement mortar (1:3)

E. Felt Eaves and Verges

When felt eaves and verges are specified on the drawings, the Contractor shall nail one edge of 225mm wide felt strip at 150mm centres to the roof base. The felt strip shall then be folded to form welt 50mm deep and sealed with bonding compound. The remainder of the felt shall be fully bonded to the base and covered with full thickness of built up roofing.

Pipes, Vent pipes, Etc., piercing the roof shall be primed with bitumen priming solution and a collar of hot bitumen shall then be formed up round them 45.deg. Roofing felt shall then be dressed over the hot bitumen collar to the pipes etc., and secured tight with stout copper wire. Such collars shall not be less than 150mm high and shall be made completely water tight.

F. Rainwater Outlets

Built up roofing felt shall be carefully dressed into all rain water outlets and sealed in hot bitumen bonding compound. The Contractor shall seal completely and make tight, all such outlets to the approval of the Architect.

G. Protection

After built up felt roofing has been complete, the Contractor, shall protect it from any damage whatsoever and no storage materials on the roof will be allowed. Mixing of concrete mortar or heating materials on the roof will not be permitted whatsoever.

ROOFING C'TD

ASPHALT ROOFING

A. **Butyl Sheet Damp Roofing**

Butyl sheet shall be laid in accordance with the manufacturers printed instructions M/S Dunlop Kenya Limited. and shall be bonded in hot bitumen

B. **Generally**

The covering shall be executed complete by an approved roofing Sub-Contractor.

C. **Asphalt Roofing**

The mastic asphalt to be used shall comply with B.S. 988/1966 Table 3 column III Tropical Mastic Asphalt laid in two coats to a total thickness of 20mm on and including black sheathing felt.

D. **Felt Underlay**

The underlay shall be impregnated flax sheathing felt complying with B.S. 747 (Type 4A) (I) and shall be supplied by the Sub-Contractor and with 75mm laps at joints.

E. **Preparation of Surfaces**

All surface to receive asphalt are to be dry and roughened, grooved or otherwise prepared and finished to the entire satisfaction of the Architect.

F. **Melting Asphalt**

Asphalt blocks shall be broken into pieces of convenient size and carefully melted in cauldron on mechanically agitated melters on the site at a temperature not exceeding 215 deg. C. Molten material may be delivered to the site in mechanically agitated mixers.

G. **Dusting of Buckets**

Buckets used for carrying molten asphalt shall be dusted with a fine inert dust. On no account shall ashes or oil be used for this purpose.

ROOFING (CTD.)

A. Laying Asphalt

Asphalt shall be laid in bays generally not exceeding 2m wide and succeeding coats shall be laid breaking joint, junctions between bays and fillets shall be properly married, the laid asphalt being heated by the application of the hot material, the whole being worked so that the joints are neatly made. Air pockets, stains on the asphalt work shall not ring hollow over any parts of its surface.

Joints in all asphalt work shall be carefully made and complete fusion obtained to make them watertight joints shall be made around pipes passing through roofs etc.

"Resincot" Pre-painted mild steel sheeting

G.C.I. Sheeting

B. Generally

Pre-painted corrugated mild steel sheeting shall be No.24 Gauge of best quality in accordance with B.S. 3083, and shall conform to Kenya Bureau of Standards KS06-02: Part II 1976.

C. laps

Sheets shall be laid with 150mm end laps and side laps of 30mm corrugations on the side away from the prevailing wind.

D. Fixing to steel and timber

The sheets shall be fixed to mild steel angle purlins with 6mm diameter pre-painted mild steel hook bolts 50mm longer in the shank than the depth of the steel purlins to which they are fixed each with one diamond shaped bitumen washer one pre-painted steel washer, and one pre-painted steel nut. The sheets shall be fixed to timber purlins by using 14 gauge drive screws with bituminous felt washer backed by a cranked diamond shaped aluminium washer.

ROOFING (CTD.)

A. **Holes**

Holes for bolts or screws shall be punched from the inside of the sheet and through the ridges of corrugations not in the hollows. A clearance of 0.80mm on the bolt or screw must be allowed.

B. **Ridges, Valleys, Flashings**

The ridges, valleys and flashing etc., shall be formed of No.24 gauge pre-painted mild steel sheeting of a quality equal to the sheeting on each side at 450mm centres maximum with 6mm diameter seam bolts 20mm long each with one diamond shaped bitumen washer one pre-painted steel washer and one pre-painted steel nut.

Ridges and valleys shall be not less than 375mm girth.

C. **Bolts and Screw**

All fixing bolts and screws shall comply with B.S. 1494.

D. **Square Abutments**

At square abutments the last two corrugations of the corrugated iron sheets next to walls shall be flattened and turned up against wall and covered with 24 gauge pre-painted sheet iron apron flashing.

E. **Bat proofing**

Bat proofing shall consist of "Perspex" or other equal and approved translucent plastic corrugated sheeting.

TILED ROOFING

F. **Concrete single-pin tiles and fittings**

Shall comply to B.S. 473 and 550: Part 2 group B. Tiles are to be 381 x 229mm nominal unless otherwise specified.

Surface coating when specified must be firmly bonded. A full range of fittings are available from the manufacturer and must match the tiles with which they are laid.

ROOFING (CTD.)

TILED ROOFING

Concrete single-pin tiles and fittings C'td

- A. Mangalore Tiles where specified they shall be interlocking clay tiles as manufactured by M/S Clay works Ltd. or other equal and approved. They shall be uniform in size, shape and colour, hard, well burnt and free from defects.

They shall be laid in accordance with the manufacturer's printed instructions.

Polythene shall conform to B.S. 3012: 500 gauge and of approved manufacture.

- B. Nails for underlay: to B.S. 1202: Part 1
- C. Tying wire - to B.S. 443, 1.6mm diameter (16 S.W.G.) iron wire.

D. HERTALAN EPDM SHEETING SYSTEM

Hertalan EPDM rubber sheeting roofing work, unless otherwise directed shall be laid by M/S Rooftech Kenya Limited P.O. BOX 75282, Nairobi, Telephone No.725697, Nairobi. Laying shall be carried out in strict adherence of manufacturer's instructions.

E. Preparation of Substrate

Before laying Hertalan EPDM sheeting, the Contractor shall ensure that the surface is cleaned of all loose particles such as stones, gravels, nails, and free of sharp-edged foreign materials etc. and that the substrate is dry and clean oil/free to the approval of the Architect. All pipes and outlets and gutters must be completed and approved before any Hertalan EPDM sheeting is laid.

When reinforced wood wool slabs form roof base, all joints shall be filled flush with approved strips.

ROOFING (CTD.)

A. Hertalan EPDM

The Hertalan EPDM sheeting shall be free from pinholes and blisters. The edges of the sheeting shall be straight with a sharply defined cut.

When rolled out on a flat horizontal surface, the sheeting shall exhibit no wrinkling. The sheeting shall show no porosity between plies. Neither shall porosity develop when sheeting is heat-aged at 121 deg. C for a period of 7 days.

The sheeting shall be such that when bonding adhesive, type KS 143 or other approved adhesive is applied to the four edges of a one square metre piece of sheeting, these edges shall not ripple or deform in any way so that a similar one square metre of sheeting, prepared in same way, can be totally bonded along all four edges without edges without the formation of "fish mouths". A period of 20 minutes (maximum) is allowed for the adhesives to dry.

B. Upstands and Flashings

Upstands shall be at least 300mm high and must be fully bonded to the structure. Top edges of EPDM flashing shall be tucked into chase, wedged at 600mm centres and fully bonded to upstand. Ends of upstands and flashings shall be lapped at least 100mm and shall be sealed and bonded. The chase shall thereafter be pointed in cement mortar (1:3).

C. Pipes, Vent Pipes, Flues etc. Piercing the Roof

Pipes, vent pipes, flues etc. piercing the roof shall be rapped with hertalan EPDM rubber using Conta adhesive and finally sealed with KS 87.

D. Rainwater Outlets

Hertalan sheeting shall be dressed around a PE-outlet-pipe with clamping tube. For details check working manual sheet No. 2.61.2.9g.

E. Protection and Painting

After the Hertalan EPDM single ply system has been installed, two coats of rubberized paint should be applied to give a grey finish. The Contractor should then protect it from any damage whatsoever and no storage of materials on the roof will be allowed. Mixing of concrete mortar or heating materials on the roof will not be permitted under any circumstances.

ROOFING (CTD.)

A. Guarantee

The Nominated Sub-Contractor shall be required to give a ten-year guarantee on Hortalan EPDM sheeting roofing.

VANDEX WATER-PROOFING

Specification for Waterproofing Concrete Structures

B. Preparatory work

All areas shall be examined for structural defects.

Shrinkage cracks exceeding 0.33mm (0.01”) in width shall be cut or chiseled out at least 10mm wide and 15mm deep and washed out. Then a slurry coat of VANDEX Super shall be applied. Following this the groove is filled with a mixture of 3 to 1 sand and cement in stiff mortar consistency.

Over-poured forms, around columns and/or inverted beams, form grooves shall be cleaned out, rinsed with water and slurry coated with Vandex super. These grooves shall then be filled flush with a mixture of 3 to 1 sand and cement.

Any honeycombed concrete found in walls and/or inverted beams/columns shall be raked out to solid concrete, washed out with water, coated with a slurry coat of Vandex Super and filled out flush with a 3 to 1 mixture of sand and cement.

C. Cleaning

Concrete surfaces must be free from all form scale, laitance, algae growth, mould, oil, curing agents and any other foreign materials. The finish of the surfaces shall be a brush finish.

All laitance (cement scum) shall be removed as soon after pouring as possible.

D. Pre watering

Concrete shall be thoroughly wetted down in order to achieve the penetration of the activated chemicals, and thereby starting the crystalline growth throughout the capillary tracts.

All free lying water must be removed from surface, leaving the concrete in a damp condition just prior to Vandex application

VANDEX WATER-PROOFING C'TD

A. Mixing

Vandex super is mixed to slurry consistency. Add approximately 0.8 parts water to 2.0 parts powder or 9 litres to 25 Kg when mixing full bags, and mix thoroughly until the mixture is free from lumps.

B. Application

The application should be as even as possible trying to avoid thick and thin spots. Areas applied too thick will not cure right and when drying cracks and subsequently peeling may form.

The second coat may be applied when the first coat has set and is not drawn off by the second coat.

C. Curing and protection

Vandex applications must be protected against sun and rain. After the application is dry to the touch, cover with polyethylene sheet (Hessian cloth) or wet sand for five days. If this is not possible, sprinkle with water several times a day for five days. Do not apply Vandex materials at temperature below 5 degrees C or on super cooled structures.

D. Additional information

When concrete is poured in sections, it is recommended that each section is keyed. After keyed form is removed and just prior to pouring the next section the construction joint shall receive a slurry coat of Vandex Super (1.5Kg/sq.m).

This does not apply to control or expansion joints.

E. Master Hyseal 501

Master Hyseal 501 chemical crystalline waterproofing to be applied strictly as directed by the Engineer.

F. Index Fidia Spun bond

Index Fidia Spun bond polyester mineral surfaces waterproofing ditto.

CARPENTRY

- A. The requirements of the following British Standards and Codes of Practice shall be observed:

British Standards

- B. B.S. 565 Glossary of terms relating to timber and woodwork
- C. B.S. 1860 part 1 Structural timber. Measurements of characteristics affecting strength (softwood)
- D. B.S. 4471 Dimensions for softwood
- E. B.S. 373 Methods of testing small clear specimens of timber
- F. B.S. 1202 part 1 Nails
- G. B.S. 1579 Connectors for timber

British Standards (ctd.)

- H. B.S. 4169 Glued laminated structural members
- I. B.S. 916 Black bolts

Codes of practice

- J. C.P. 112 The structural use of timber
- K. C.P. 98 Preservative treatment for construction timber
- L. NOTE: The Contractor's attention is drawn to Section "L" of the Standard Method of Measurement.
- M. All timber used for carpentry shall be sound, well-conditioned, properly seasoned to suit the particular use and free from defects or combination of defects rendering it unsuitable for the purpose intended.

CARPENTRY (CTD.)

- A. Timber used for carpentry shall be in accordance with the latest approved Grading Rules issued by the Government of Kenya. Timber used structurally shall comply with the requirements of the Export Grading Rules and also with B.S. 1860.
- B. The following timber shall be used:
- Podocarpus (podocarpus spp)
 - Cedar (Juniperus Procera)
 - Elgon Olive

TIMBER

- C. All timber as it arrives on site shall be inspected by the Contractor, and any timber found not to comply with the specification or not approved must be removed forthwith from the site and only timber which has been approved shall be used.
- D. Tolerances shall conform with the following extracts from the Government of Kenya Grading Rules:-
- Softwood Grading: - Strength Grades, first and second grades.
 - Undersize: All timber to be sawn by 1.6mm per 25mm of thickness and width.
 - Not more than 3mm in thickness and not more than 6mm in width.
- E. All timber shall be free of live borer beetle or other insect attack when brought upon on site. The Contractor shall be responsible to the end of maintenance period for executing at his own cost all the work necessary to eradicate insect attack of timber attacked or suspected to be attacked, notwithstanding that the timber concerned may have already been inspected and passed as fit for use.
- F. Timber shall be seasoned to a moisture content of not more than 22%.

CARPENTRY (CTD.)

TIMBER (CTD.)

- A. All carpentry timbers shall be treated with pressure impregnated "Celcure" or Tenalith" solution with a minimum wet retention of 5.46 KG. of dry salt per m³. If so required "charge sheets" issued after treatment with "Celcure" or "Tenalith" shall be submitted by the Contractor to the Architect for his retention. All out ends and other cut faces or timbers sawn after treatment shall be treated before fixing with "Celcure B" or "Wolmanol" solution brushed on.
- B. The Contractor's rates for such timber hereinafter must allow for the above treatment.
- C. All grounds shall be podocarpus or other light and approved hardwood.
- D. Nails shall comply with the relevant standard as above.
- E. Black bolts shall comply with B.S. 916. Rag bolts, coach screws and others shall comply with B.S 1494. Where used externally nails and screws shall be sherardized.
- F. Timber shall be delivered early to the site, stored under cover clear of the ground and protected from the sun and dampness.
- G. The Architect shall be given facilities and reserves the right for inspection of all works in progress whether in workshop or on site. The Contractor is to allow for testing of prototypes of special construction units and the Architect shall be at liberty to select any samples he may require for the purpose of testing i.e. for moisture content or identification, species strength etc., such tests will be carried out by the Forestry Department.
- H. The Contractor is to clear out and destroy or remove all cut ends, shavings and other wood waste from all parts of the building and the site generally, as the work proceeds and at conclusions of the work.

This is to prevent accidental borer infestation and to discourage termites and decay.
- I. All carpentry's work shall be accurately set out in strict accordance with the Drawings and shall be framed together and securely fixed in the best possible manner with properly made joints, all brads, nails, and screws etc., shall be provided as necessary directed and approved and the rates shall be deemed to allow for these.
- J. All carpenter's work shall be left with sawn faces except where specified to be wrot.

CARPENTRY (CTD.)

- A. All timber shall be as long as possible in order to minimise joints. Where joints are unavoidable surfaces shall be in contact over the whole area of the joint before fastenings are applied.

No nails, screws and bolts are to be fixed in any split end. If splitting is likely, or is encountered in the course of the work, holes for nails are to be prepared at diameter not exceeding 4/5th of the diameter of the nails. Clenched nails must be bent at right angles to the grain.

- B. Lead Holes are to be bored for all screws. When the use of bolts is specified the holes are to be bored from both sides of the timber and are to be of the diameter $D/16$ where D is the diameter of the bolt. Nuts must be brought up tight but care must be taken to avoid crushing of the timber under washers.

JOINERY

A. The requirements of the following British standards and Codes of practice shall be observed:-

British Standards

- | | | |
|----|---------------------|--|
| B. | B.S. 565 | Glossary of terms relating to timber and woodwork |
| C. | B.S. 4471 | Dimensions for softwood |
| D. | B.S. 1186 parts 1+2 | Quality of timber and workmanship in joinery |
| E. | B.S. 373 | Methods of testing small clear specimen of timber |
| F. | B.S. 4512 | Methods of test for clear plywood |
| G. | B.S. 1142 part 3 | Fibre building board (Insulation board softwood) |
| H. | B.S. 3444 | Block board and laminated board |
| I. | B.S. 459 part 1 | Pannelled and Glazed wood door |
| J. | B.S. 1455 | Plywood manufactured from tropical hardwoods |
| K. | B.S. 3794 | Decorative laminated plastics sheet |
| L. | B.S. 459 part 2 | Flush doors |
| M. | B.S. 459 part 3 | Fire check flush doors and wood and metal frame (1.5. hour and 1 hour types) |
| N. | B.S. 1567 | Wood door frame and linings |
| O. | B.S. 584 | Wood trims (softwood architraves, skirting, quadrants etc) |

British Standards

- | | | |
|----|--------------------|--|
| P. | B.S.1204 parts 1+2 | Synthetic resin adhesive (phenolic and amino-plastic) for wood
Type MR-Moisture Resistant Type INT-Interior |
|----|--------------------|--|

JOINERY (CTD.)

British Standards

- A. B.S. 1210 Wood Screws
- B. B.S. 1494 part2 Fixing accessories for building purposes (bolts, screws, staples etc.)
- C. B.S. 4174 Felt tapping screws and metallic drive screws

Codes of Practice

- D. C.P. 201 Timber flooring
- E. C.P. 201 parts 1+2 Flooring of wood and wood products
- F. C.P. 151 Doors and windows including frames and linings
- G. NOTE: The Contractor's attention is drawn to Section "M" of the Standard Method of Measurements
- H. The timber for joinery shall be as specified in the Export Timber Ordinance of 1951 and obtained from an approved sawmill. All such timber shall be Prime Grade and reasonably straight grained and shall be purchased immediately the Contract is signed and is to be open stacked for such further seasoning as may be required.

Timber which in the opinion of the Architect does not satisfy the specification in character or condition is not suitable for the requirements of the work because of the blemishes it contains shall not be used.

I. **The following timber shall be used:-**

Podocarpus
Mvuli
Cedar
Elgon Olive
Camphor
Mahogany

JOINERY (CTD.)

- A. All timber shall be wrot by machine dressing non exposed faces and machine marks shall be removed with hand plane and sanded out, unless otherwise specified.

The dimensions and thickness stated in the Bills of Quantities are the finished size (unless otherwise stated) and the Contractor will allow for all necessary waste.

- B. The joinery shall be worked strictly in accordance with detail Drawings, and is to be framed up and put together as soon as possible and stored in the drying room, for as long as possible before being wedged up. All joints and angles are to be glued and where necessary cross tongued with hardwood tongues and surfaces finished clean and smooth, with machine marks sand papered out before fixing.

Should any of the joinery work shrink, warp, wind or deflect unduly before the end of the maintenance period of the Contract, the work is to be taken down and rectified at the Contractor's sole expense.

- C. Tolerance in thickness shall conform with the following extracts from the Government of Kenya Grading Rules:

Hardwood Grading: (First and Second Grades)

The following tolerances in thickness will be admitted:-

- (i) 1.6mm over size on pieces up to 25mm in thickness
- (ii) 3mm over size on pieces over 25mm and up to 51mm in thickness.
- (iii) 6mm over size on pieces over 51mm in thickness undersize will not be permitted.

Softwood Grading: Appearance Grades (first and Second Grades)

Undersize not allowed.

Oversize: All timber to be sawn oversize by 1.6mm per 25mm of thickness and width. Not more than 3mm in thickness and not more than 6mm in width.

JOINERY (CTD.)

- A. Seasoning of timber shall be to moisture content of not more than 15%.
- B. Pressure impregnation treatment shall be as for "Carpentry".
- C. Where joinery is described as screwed this is deemed to include sinking the head of the screw and pelling with similar timber, and to grain in with the finished joinery.
- D. All hardwood joinery shall be finished for oil paint, unless otherwise stated.
- E. The rates shall be deemed to allow for all nails and screws and fixing all labour cuttings, notching, halving, morticing, tenoning and wedges except where otherwise provided.
- F. All work described as plugged shall be fixed with screws to plugs formed by drilling concrete walls, etc., with the proper tool of suitable size at 750mm spacing and filling the holes completely with "Phil plug" rawl plastic or rawl plugs in accordance with the manufacturer's instructions. Alternatively and where so agreed by the Architect, hardwood dovetailed fixing slips in preservative and cut and primed or bedded in cement mortar (1:3) may be used.
- G. The rates are to allow for all surfaces of joinery where in contact with walling or plaster, or where otherwise unexpected, being treated before fixing with two coats of approved wood preservative.
- H. Laminated plastic sheeting shall be "Formica" manufactured by Thomas de la Rue and Co. or other equal and approved, 1.6mm thick and accurately fixed with approved typed waterproof impact adhesive and in the colours selected by the Architect.
- I. Blackboard shall comply with the Standard as mentioned above.
- J. Plywood shall comply with the standard as mentioned above. Bond M.R. Birch faced both sides unless otherwise stated.
- K. Fibre board shall be 12.7 "Celotex" or other equal approved soft board.

JOINERY (CTD.)

- A. All joiner's work shall be accurately set out and framed together as soon after commencement of the building as is practicable but not to be wedged up or glued until the building is ready for fixing same. Any portions that warp, wind or develop shapes or other defects within the maintenance period shall be removed and new fixed in their place together with other work which may be affected thereby, all at Contractor's expense.

All work shall be properly mortised, tenoned, housed, shouldered, dovetailed, notched primed, bradded, etc, as directed and to the satisfaction of the Architect and all glued up with the best quality glue.

- B. Joints in joinery shall be as specified or detailed, and so designed and secured as to resist or compensate for any stresses to which they may be subjected. All nails strings, etc are to be punched and puttied. Loose joints are to be where provisions for shrinkage is necessary; glued joints where shrinkage need not be considered and where conditions may be damp must be of the resin type. For non-load-bearing joints or where dry conditions may be guaranteed resin or organic glues may be used. All exposed surfaces for joinery shall wrot and all arises "cased off" by planning and sand papering to an approved finish suitable to the specified treatment.
- C. 3mm reduction of specified sizes will be allowed to each wrot face except in members 25mm thick or less or where, described as finished sizes in which case joinery shall hold up the full dimensions.
- D. In fixing all beads, fillets and small members shall be fixed with round or oval brads or nails well punched in and stopped. All large members shall be fixed with screws. Brass screws shall be used for fixing of all hardwoods, to the heads in and pellated over with wood pellets to match the grain.
- E. Rates shall include for bedding frames, sills etc., in mortar or dressing surfaces of walls etc. in lieu.
- F. Round wood plugs shall not be used, and screws or plugs shall be spaced at 750mm centres.
- G. All fixed joinery which in the opinion of the Architect is liable to become bruised or damaged in any shall be completely cased and protected by the Contractor at his own expense until completion of works.
- H. Bottom edges of doors shall be painted or polished with two coats of approved primer before fixing.

ALUMINIUM WORKS

A. STANDARDS AND DIRECTIVES

All aluminium works are to be executed according to the valid standards, directives, government codes and building regulations, fire regulations and any other such applicable regulations as:-

DIN 107	-	Methods of testing windows; mechanical tests
DIN 1055	-	Design loads for buildings
DIN 1249	-	Flat glass for building construction
DIN 1745	-	Wrought aluminium and aluminium alloy plates, sheet and strip greater than 0.35mm thickness; properties, technical delivery conditions
DIN 1748	-	Wrought aluminium and aluminium-extruded sections; design, permissible deviations
DIN 1783	-	Strips, plates and sheets of aluminium and wrought aluminium alloys with thickness over 0.35mm, cold rolled; dimensions
DIN 4102	-	Fire behaviour of building materials and building components
DIN 4108	-	Heat insulation in buildings
DIN 4109	-	Noise control in buildings
DIN 4113	-	Aluminium constructions under predominantly static loading, static analysis and structural design
DIN 7863	-	Non-cellular elastomer glazing and panel gaskets
DIN 16935	-	Sheets of polyisobutylene used for damp-proofing
DIN 17611	-	Anodized wrought products of aluminium and aluminium alloys with layer thickness
DIN 17615	-	AlMgSi 0.5 precision profiles
DIN 18000	-	Modular co-ordination in building
DIN 18055	-	Windows; air permeability joints, water tightness and mechanical strain
DIN 18056	-	Window walls; design construction
DIN 18103	-	(Burglar resistant) Doors
DIN 18201	-	Tolerances in building; terminology, principles, application, verification
DIN 18202	-	Dimension tolerance; in building construction
DIN 18203	-	Dimension tolerance; precast /reinforced/ prestressed concrete
DIN 18335	-	Contract procedure for building works; general technical specification for steel construction works
DIN 18357	-	Contract procedure for mounting aluminium fittings
DIN 18358	-	Contract procedure for rolling shutter works
DIN 18360	-	Contract procedure for locksmith works
DIN 18361	-	Contract procedure for glazing works

ALUMINIUM WORKS (CTD.)

A. STANDARDS AND DIRECTIVES (CTD.)

- DIN 18364 - Contract procedure for works for protection against corrosion of steel and aluminium structures
- DIN 18540 - Sealing of exterior wall joints in building construction using joint sealants
- DIN 18801 - Steel construction in buildings; dimensioning, design, construction
- DIN 18808 - Steel structures consisting of hollow sections predominantly static loaded
- DIN 55928 - Protection of steel structures from corrosion by organic metallic coatings
- VDI 2719 - Sound insulation of windows or comparable British codes and standards e.g.
- CP3 - Code of basic data for the design of building
- CP 118 - The structural use of aluminium
- CP 158 - Windows and roof lighting
- DD 22 - Tolerance and fits for building
- BS 1470 - Wrought aluminium and aluminium alloys for general engineering purposes, plate, sheet and strip
- BS 1474 - Wrought aluminium and aluminium alloys for general engineering purposes, bars, extruded round tubes and sections
- BS 3987 - Specification for anodic oxide coatings on wrought aluminium for external architectural applications
- BS 4873 - Aluminium alloy windows, specification
- BS 5950 - Structural use of steelwork in building
- BS 6262 - Code of practice for glazing for buildings
- BS 6375 - Performance of windows
- BS 6496 - Specification for external architectural purposes etc.

The directives and guidelines of insulating glass suppliers. The guidelines of accident insurers for local authorities. The guidelines of window/facade system manufacturers.

ALUMINIUM WORKS (CTD.)

A. ALUMINIUM

Extruded aluminium profiles of alloy AlMgSi 0.5F22 in anodizing quality according to DIN 1748 and DIN 17615 are to be used, for anodized sheets ALMg1, for colour-coated ALMg1 or A199.5.

- 01 Special anodizing processes to be taken into account, if determined by the bill of quantities.
- 02 The aluminium system shall be capable of achieving different colours and finishes on the external/internal facade and within the same element.

B. STEEL

Steel parts for anchoring or bracing must either be non-corrosive or galvanized. During mounting all necessary welding points have to be painted with cold zinc galvanizing.

C. SELECTION OF PROFILES

All required sections are to be chosen according to foreseen application and data given by the system manufacturer. Thermally insulated outer and inner profiles must be continuously connected and shear-resistant by insulating bars.

The profiles must safely support all loads as described in DIN 1055. The effective moments of inertia given by the system manufacturer are to be considered when selecting the optimal profile. The principal of thermal break is to be respected in all points of construction. All thermally insulated profiles are determined by the groups of DIN 4108.

Ventilation and drainage of rebate base and front chamber must be foreseen in the aluminium construction system in order to drain off moisture to the outside. The insulating connection of outer and inner section must be water-proof and water-resistant without additional sealing if the connection uses the rebate or front chamber. When using insulating glass the ventilation of the rebate base is to be guaranteed as the insulating glass supplier specifies.

- 01 All minimum and maximum vent sizes and weights as listed in all B.S. profile system are binding.
- 02 The glazing guidelines of the insulating glass supplier and DIN 18056 determining the allowed deflection of mullions and transomes are to be observed.

ALUMINIUM WORKS (CTD.)

A. PROFILE CONNECTIONS

Corner cleats must have a cross section which corresponds to the interior profile contours. At the mitres a perfect sealing and gluing is required. In T-joints the seeping of water into the construction must be prevented by corresponding packing and elastic sealing.

B. VENT GASKETS

All gaskets are to be inserted in order to fulfil the specific window requirements (type, building height etc.) permanently. The gaskets are to be exchangeable.

01 Side hung, turn-tilt, bottom hung and double vent windows must have a middle gasket.

C. WIND LOADING

The system shall be so designed to suffer no permanent distortion or other damage. Deflections of longer pane edge are not to exceed 1/250 for double glazed units and 1/200 for single glazing. When subjected to positive and negative pressures as determined by and in accordance with BSCP 3 Chapter 5 part 2.

D. THERMAL MOVEMENT

The aluminium framework and glazing assemblies shall be constructed and installed in the prepared locations with sufficient tolerance and, where necessary, expansion joints incorporated within the couplings, to provide for expansion and contraction as will be caused by the climatic conditions and temperature changes, winter, summer, day to night, without buckling, distortion of joints, damage to the sealants or other detrimental effects over the temperature range - 15 deg. C. to 35 deg. C. The design shall accommodate, noiselessly, the thermal movement within the combination units and the curtain walling without distortion. Details shall be prepared based upon the dimensions at 20 deg. C. and take account of the ambient temperatures at the time of assembly and installation.

ALUMINIUM WORKS (CTD.)

A. DRAINAGE AND VENTILATION OF CONSTRUCTION

All profile rebates where water or condensate could seep in are to be drained off and ventilated by wind-protected slots or through cavities to the outside.

The system shall incorporate an integral and internal condensate collection drainage channel to remove the condensate from within the assembly to the external drainage system.

Provision for the continuity of drainage from the transome to the mullion is to be provided.

No perforation of the internal structural members within areas of drainage will be permitted.

All internal section junctions are to be adequately sealed.

Transome members within sloped glazed areas shall permit water to drain from one area to another without inhibiting the flow and creating pooling.

B. FITTINGS

Construction systems of B.S. are to be assembled or completed by compatible system fittings as specified. Other fittings may be selected but only if fulfilling DIN standards.

01 If not specified in the bill of quantities all fittings except handle and hinges are to be concealed.

02 The fittings are to be attached in its rebates tension and pressure-proof. If required because of profile wall thickness screw connections need nuts and washers.

C. GLAZING AND PANELS

Glass supply and glazing is described separately for each position of the bill of quantities.

01 The glazing is to be executed by permanently elastic, EPDM-gasket.

02 Guidelines and directives of insulating glass suppliers are to be strictly followed.

03 Supply and installation for fixed panels is always described in the position concerned.

All glass assemblies shall be tape sealed between the units and within the structural unit zone and prior to the installation of the external gasket and pressure plate.

ALUMINIUM WORKS (CTD.)

A. BUILDING DIMENSIONS

The exact measurement must be produced by the tenderer himself on site.

- 01 If the client requests the construction to be ready for mounting before the measurement on site can be carried out the tenderer shall determine the assembly dimension together with the client taking into account the tolerance of the building according to DIN.

B. WORKING DRAWINGS

After award of contract the contractor must submit working drawings for specific positions and details as requested by the architect or resident engineer.

C. INSTALLATION OF ELEMENTS

The anchoring of all aluminium elements must neutralize all movements of structure and the elements attached without loading or stress the aluminium construction.

- 01 All mounting of aluminium elements is to be executed exactly in horizontal and vertical alignment according to the measurement points provided by the client.

- 02 All attachment accessories necessary for mounting are to be calculated by the tenderer.

If described in the bill of quantities some anchor rails for attachments will be provided or will be fixed to the structure. In this case the contractor is requested to provide a location plan of required anchoring in time.

- 03 All connecting means, e.g. screws or bolts, must be non-corrosive zinc plated steel.

- 04 All attachments to neighbouring building parts are to be considered when calculating the positions in the bill of quantities.

ALUMINIUM WORKS (CTD.)

A. GASKETRY AND SEALING

Appropriate EPDM - gaskets or seals are to be inserted according to design, dimensions and its range of application. The gaskets or seals and their elasticity must fulfil all temperature requirements. The contractor shall ensure total alignment of the gasketry in all visible locations.

- 01 Permanent elastic sealing compounds on silicone or thiocol basis are to be applied for sealings. Joints within any area of the system are to be adequately bonded together to produce a watertight joint. The sealing must stick to the construction parts taking into account the shape of elements and the range of existing temperature without loosening when elements move caused by tension to be considered before. All guidelines or sealing compound suppliers are to be respected.

B. ANODIC OXIDATION

The aluminium profiles and sheets are to be anodized according to DIN 17611. Surface treatment, coating and protection is determined by the specifications as described in the bill of quantities.

- 01 After all of contract, the tone of colour is to be defined according to colour samples.
- 02 All visible fittings must suit the profile colour if available.

IRONMONGERY

A. The requirements of the following British Standards shall be observed:-

British Standards

- B. B.S. 1227 part 1A Hinges
- C. B.S. 2088 Performance test for locks
- D. B.S. 2911 Letter plates
- E. B.S.4112 Performance requirements for hardware for domestic furniture
- F. NOTE: The Contractor's attention is drawn to Section "M" of the Standard Method of Measurement.
- G. All locks and ironmongery shall be fixed with screws etc. to match, before woodwork is painted, handles shall be removed, carefully stored and refixed after completion of painting and locks oiled and left in perfect working order.
- All keys shall be labelled with the door reference on labels before handing to the Architect on completion. All ironmongery shall be carefully protected until completion of the work and any damage is to be made good at the Contractor's expense.
- H. Rates shall allow for easing and adjusting all doors etc. and for lubricating all locks, hinges etc. and leave in perfect working order.
- I. Where descriptions fixing ironmongery include catalogue numbers, such items shall be obtained from the specified manufacturers if at all possible.
- J. Rates shall include for labelling all keys with door reference as directed by the Architect.

METALWORK

A. The requirements of the following British Standards and Codes of practice shall be observed:-

British Standards

- | | | |
|----|--------------------|--|
| B. | B.S. 4 part 1 | Structural steel, Hot rolled screws |
| C. | B.S. 4 part 2 | Structural steel, Hot rolled hollow sections |
| D. | B.S. 325 | Black cup and countersunk bolts and nuts |
| E. | B.S. 916 | Black Bolts, screws and nuts |
| F. | B.S. 4174 | Self tapping screws and metallic drive screws |
| G. | B.S. 405 | Metal washers for general engineering purposes |
| H. | 1161 and | Aluminium and aluminium alloy Sections Addendum for general engineering purposes |
| I. | B.S. 938 | Metal ore welding of structural steel tubes |
| J. | B.S 1856 | Metal or welding of mild steel |
| K. | B.S. 729 part 1 | Hot dip galvanised coating iron and steel articles |
| L. | B.S. 1474 | Wrot aluminium and aluminium alloy |
| M. | B.S. 990 parts 1+2 | Steel windows (Domestic and similar buildings) |

Codes of Practice

- | | | |
|----|-----------|---|
| N. | C.P.499 | Metal railings and balustrades |
| O. | C.P.117 | Composite construction in structural steel and concrete |
| P. | C.P. 2008 | Protection or iron and steel structures from corrosion |
| Q. | C.P. 3012 | Cleaning and preparation of metal surfaces. |

NOTE: The Contractor's attention is drawn to Section "P" of the Standard Method of Measurements.

METALWORK (CTD.)

- A. Iron and steel where galvanised shall comply with the requirements of B.S 729, part 1 entirely coated with fine fabrication by complete immersion in a zinc bath in one operation and all excess carefully removed.

The finished surfaces shall be clean and uniform.

- B. All work in aluminium shall comply with the requirements of the standard mentioned above.
- C. All smithing and bending shall be soundly and neatly executed care being taken not to overheat.
- D. All strap, bolts and similar work shall be forged neat and clean from the anvil.
- E. All welded connections shall be ground to a smooth finish and rates shall be deemed to allow for this.
- F. Steel windows shall comply with the requirements of the Standard mentioned above and shall be fixed in accordance with manufacturer's instructions.
- G. All mild steel except galvanised shall be cleaned of rust and scale, painted one coat red lead priming paint before deliver to site and the rates shall include for this.

PLUMBING AND ENGINEERING INSTALLATIONS

- A. The requirements of the following British Standards and Codes of practice shall be observed:-

British Standards

- | | | |
|----|--------------------|--|
| B. | B.S 416 | Cast iron spigot and socket soil, waste and ventilating pipes (sand cast and spun) and fittings. |
| C. | B.S. 2871 part | Copper and copper alloy tubes (for water, gas and sanitation) |
| D. | B.S. 864 part | Capillary and compression fittings of copper and copper alloy |
| E. | B.S 1184 | Copper and copper alloy traps |
| F. | B.S. 4576 | Unplasticised P.V.C. rainwater goods |
| G. | B.S 3974 | Pipe supports |
| H. | B.S 1494 | Fixing accessories for building purposes (gutter bolts, pipe brackets) |
| I. | B.S. 1010 | Draw-off taps and stop valves for water services (screw down pattern) |
| J. | B.S 1212 | part 1 & 2 Ball valves (excluding floats) |
| K. | B.S 2456 | Floats for ball valves (plastic) for cold water |
| L. | B.S 1125 | W.C flushing cisterns |
| M. | B.S 417 Part 1 & 2 | Galvanised mild steel cisterns, covers tanks and cylinders |
| N. | B.S 2760 | Pitch-impregnated fibre pipes and fittings |
| O. | B.S 1387 | Steel cubes and tubulars |
| P. | B.S 4514 | Unplasticized P.V.C. soil and ventilating pipe, fittings and accessories |
| Q. | B.S 3505 | Unplasticized P.V.C. pipes for cold water services |

PLUMBING AND ENGINEERING INSTALLATIONS (CTD)

British Standards (ctd.)

- A. B.S 143 and 1256 Malleable cast iron and cast copper alloy, screwed pipe fittings
- B. B.S. 78 part 2 and Cast iron spigot and socket pipes
- C. B.S. 1130 (vertically cast) and spigot and socket fittings
- D. B.S 1010 parts 1+2 Draw-off taps and stop valves for water services

Codes of practice

- E. C.P. 304 Sanitary pipework above ground
- F. C.P. 310 Water supply
- G. C.P. 305 Sanitary appliances

NOTE 01. The Contractor's attention is drawn to Section "Q" of the Standard Method of Measurements.

02. The whole of the work shall be executed by an approved licensed Sub-Contractor.

- H. Galvanised mild steel pipes and fittings shall comply with the requirements of B.S 1387 Class "B". The pipes shall be screwed and socketed and put together in hemp and red lead.
- I. Pitched-fibre pipes shall generally comply with requirements of B.S 2760 and shall be obtained from approved manufacturers. The pipes are to be jointed with couplings and fixed to walls with clips, strictly in accordance with the manufacturer's instructions.
- J. P.V.C Pipes for soil and waste shall comply with the Standard mentioned above solvent welded together with seal ring joints where necessary to accommodate movement. Pipes shall be fixed to wall with galvanised mild steel holderbats all to the manufacturer's instructions.
- K. 'Fulbora' Rainwater outlets shall be 100mm, and 150mm diameter as manufactured by Fulbora Limited. (UK) or other equal and approved.
- L. The words "pipe" or "tube" shall be synonymous wherever used herein or in any of the Contract Documents. Pipe sizes stated herein are nominal bore.

PLUMBING AND ENGINEERING INSTALLATIONS (CTD.)

- A. Rates shall allow for holder-bats at centres not exceeding 1000mm, cutting and priming to concrete block or in situ concrete walls and making good.
- B. Rates for all tubing shall include for all joints in the running length.
- C. Rates for galvanised mild steel tubing not exceeding 20mm diameter shall include for all sockets, connectors, back nuts, plugs, caps, elbows, bonds and made bends, made springs and made effects.
- D. Rates for fittings on pipes shall include for all cutting and fitting of pipes to same.
- E. The sizes stated of reducing fittings are those of tubes which will be attached to fittings and rates shall include for any additional socket reducers necessary to obtain the stated reduction should it be impossible, to accomplish this with only one fitting.
- F. Pipes shall be fixed at least 25mm clear between socket and wall face. Cast iron holderbats shall be fixed at centres not more than 2 metres. Eared pipes must not be used.
- G. All the plumbing and engineering installation shall be tested as instructed and any work not found satisfactory shall be made good at the Contractor's expense.
- H. Where tubing is laid in trenches care shall be taken to ensure that fittings are not strained.
- I. All tubing described as chased into walls shall have the wall face neatly out and chased, the tubing wedged and fixed and plastered over.
- J. All formed bends shall be made so as to retain the full diameter of the pipe.
- K. Cast iron pipes shall be jointed with asbestos yarn and calked with another lead or jointed with special jointing compounds all to be approved.
- L. All brasswork and fittings shall conform with the requirements of the Standard mentioned above. Such fittings shall be either high or low pressure, in accordance with the recommendations of the local Authority. At commencement of the Contract the Contractor shall ask the Architect for guidance on this point.
- M. All sanitary fittings shall be properly cleaned, polished and left to the satisfaction of the Architect on completion.

ELECTRICAL INSTALLATION

NOTE:The Contractor's attention is drawn to Section "R" of the Standard Method of Measurement.

- A. All electrical work shall be carried out under close supervision of a licenced operative of an approved firm of registered Electrical Contractors.
- B. All electrical work shall be executed in strict accordance with the latest editions of the British Standards and other Government Regulations.
- C. The main Contractor shall at all time co-ordinate his own work and that of all Sub-Contractors with the work of the Electrical Sub-Contractor.
- D. Special care shall be executed to ensure that all necessary cable trenches are completed before other subsequent floors, paths etc. including the provision of cable ducts, chases, sinking and the like.
- E. No patching up of floors, pavings, plasterwork etc. will be permitted and where, work has to be rebuilt or re-executed due to lack of planning of Sub-Contractor's work, the Contractor will be held responsible for all costs and expenses arising there from.

FLOOR, WALL AND CEILING FINISHES

- A. The Contractor's attention is drawn to Section "S" of the Standard Method of Measurement and the requirements of the following British Standards and Codes of Practice shall be observed:-

British Standards

- | | | |
|----|-------------------|---|
| B. | B.S. 1191 Part 1 | Gypsum building plaster (excluding Class B premixed light weight plasters) |
| C. | B.S. 1193 | Sands for internal plastering with gypsum plasters |
| D. | B.S. 1199 Table 1 | Sands for external renderings, internal plastering with lime and Portland Cement, and floor screeds |
| E. | B.S. 1201 | Aggregate for granolithic concrete floor finishes |
| F. | B.S. 1281 | Glazed ceramic tiles and tile fittings for internal walls |
| G. | B.S. 1369 | Metal lathing (steel for plastering) |
| H. | B.S. 890 Class A | Building limes |
| I. | B.S. 1187 | Wood Block for floors |

Codes of Practice

- | | | |
|----|---------------------|---|
| J. | C.P. 211 | Internal plastering |
| K. | C.P. 221 | External rendered finishes |
| L. | C.P. 204 | In-situ floor finishes |
| M. | C.P. 202 | Tile flooring and slab flooring |
| N. | C.P. 203 | Sheet and tile flooring (cock, linoleum, plastics and rubber) |
| O. | C.P. 212 part 1 + 2 | Wall tiling |
| P. | C.P. 209 | Care and maintenance of floor surface |

FLOOR, WALL AND CEILING FINISHES (CTD.)

Materials and workmanship

- A. Cement shall be as described in "Concrete"
- B. Sand shall comply with the requirements of the Standards mentioned earlier.
- C. Lime shall be non-hydraulic lime to satisfy the Standards mentioned above. It shall be obtained from an approved source. It must be freshly burnt and shall be slaked at least one month before being used by drenching with water, well broken up and mixed and the wet mixture shall be passed through a sieve of 10 meshes to the square centimetre. Lime putty shall consist of freshly slaked lime as described above saturated with water until semi-fluid and passed through a fine sieve, it shall then be allowed to stand until superfluous water has evaporated and it has become of consistency of thick paste, in no case for a shorter period of one month before being used during which it must be kept damp and clean and no portion of it allowed to become dry.

Alternatively, hydrated lime with 70% average calcium oxide content may be used and it must be protected from damp until required for use. It shall be soaked to a putty at least 24 hours before use.

- D. All concrete beds or slabs shall be thoroughly brushed clean, hatched if necessary and well wetted and flushed over with a cement and sand (1:1) grout immediately before screeds or paving are laid.

Screeds and cement paving shall be laid in accordance with the relevant British Standards and/or Code of Practice and in alternate bays generally not exceeding 3.0m during any period of dry hours with neat butt joints and shall be damp cured with sand or sawdust and kept damp for at least 7 days after laying.

As bays are formed batten strips must be used retain the exposed edge of the screed.

Thicknesses and mixes of screeds are adjusted to suit the various top dressing and the Contractor must first ascertain what finish is intended to each specific area before the work of the laying screeds is put in hand.

Screeds shall be finished with a wood float for wood blocks and steel trowel for thermoplastic and similar tiles.

- E. All surface to be plastered must be brushed clean and well wetted before plaster is applied. Joints of walling shall be raked and concrete hacked to form a key. Care shall be taken to see that paving and plastering do not dry out prematurely. Adequate time intervals must be left between successive coats in two coat work in order that the drying shrinkage of the undercoat may be substantially complete.

FLOOR, WALL AND CEILING FINISHES (CTD.)

A. Internal Lime Plaster

- i. To be applied in minimum two coats to finish not less than 12mm total thickness. The rendering coat shall be in the proportion of cement and sand (1:4) and the finishing coat not less than 1.50mm thick shall consist of fine sieved lime putty with 10% of cement thoroughly incorporated immediately before use, trowel led hard and smooth with a steel trowel and sprinkled with water during the process.
- ii. The first coat must be well scored to form a key and at least fourteen days must elapse the completion of any portion of the rendering coat and application of the finishing coat.

B. External cement and sand rendering shall consist of cement and sand (1:4) applied in two coats and finished with a wood float.

C. If required the Contractor shall prepare samples of the screeds, pavings and plastering as directed until the quality, texture and finish required is obtained and approved by the Architect, after which all work executed shall conform with the respective approved samples.

D. All screeds and pavings shall be finished smooth, even and truly level, unless otherwise specified and paving shall be steel trowel led.

E. Rendering and plastering shall be finished plumb, square, smooth, hard and even and junctions between surfaces shall be perfectly true straight and square.

All work not found to be of satisfactory standard shall be hacked away and made good at the Contractor's expense.

F. Partially or wholly set materials will not be allowed to be used or re-mixed. The plaster etc., mixes must be used within two hours of being combined with water.

G. Granolithic topping is to be in two layers to the total thickness shown on the Drawings and the topping shall consist of one part coloured cement to two parts aggregate shall be 70% black trap and remainder approved local coloured stones.

Colours shall be as selected by the Architect.

Paving shall be rolled and trowel led to a dense even surface and rubbed down at completion, to a grit finished surface free from holes and blemishes. The paving shall be laid in squares divided by plastic strips anchored securely in the screed and having their top edge truly level with the finished floor surface. The granolithic work shall be laid and polished complete to the approval of the Architect.

FLOOR, WALL AND CEILING FINISHES (CTD.)

- A. Wood block flooring shall comply with the requirements of B.S.1187 mentioned above and shall be dipped in a cold latex bitumen emulsion adhesive before laying. Any one package or bundle shall contain wood blocks of a single species, thickness, width length and type of manufacture only. The pattern shall be approved by the Architect.
- B. Wood parquet flooring shall comply with relevant standards and shall be laid using an approved adhesive in accordance with manufacturer's instructions.
- C. P.V.C. coverings shall satisfy the Standard mentioned above and shall be obtained from an approved manufacturer's agent. Floor tiles shall be Dunlop or other equal and approved. Rates shall include for two of an approved emulsion floor polish or other protective coating.
- D. Glazed wall tiles shall be cushion edged and satisfy the relevant Standard as mentioned earlier. Tiles shall be well soaked in water laid with straight horizontal and vertical joints painted in white cement and cleared down at completion.

Tiles joints of 2mm width shall be formed and filled with the redding mix but using very fine, well screened sand, care shall be taken that tiles are not over soaked and water sheen shall be avoided during fixing.

The fixed tiles shall be kept damp for 4 days. Tiles as splash backs to lavatory basins, sinks, and baths shall be fixed with necessary rounded-edge and corner tiles.

Rates for linear items shall allow for all special fittings and cutting at angles and intersections.

- E. Rates for insitu work shall allow for raking out joints walling or hacking of treating with an approved bonding fluid, hacking concrete to form key, dubbing out irregular surfaces of base to provide a finished surface in the same plane as the surrounding surface, cutting out cracks, making good and leaving the whole of the work sound and perfect on completion.
- F. Rates shall also allow for fair edges, whether square, splayed or rounded, arrises, chamfered external angles not exceeding 25mm wide, rounded external angles not exceeding 25mm radius coved internal angles not exceeding 25mm radius, intersections to groins and the like, and for making good around pipe, brackets, floor spring boxes and all other items of a like nature.
- G. Rates for all linear items shall allow for all short lengths, angles, end and arrises, metres and intersections and the like.

FLOOR, WALL AND CEILING FINISHES (CTD.)

- A. Rates for all paving shall allow for adequate covering protection during the progress of the works to ensure that the floors are handed over in perfect condition on completion.
- B. Rates for external rendering shall allow for work at any height and for any scaffolding, ladders. Cradles etc. required.
- C. Terrazzo pavings: Aggregate for terrazzo shall be good quality marble or other natural stone of similar characteristics, hard angular in shape, free from clay, iron oxide and other foreign matter, graded from 10mm to 6mm unless otherwise specified and without excessive content of fines or dust. The source of supply and the colour are to be approved by the Architect before bulk ordering.

Terrazzo flooring must be laid and finished by an approved specialist Sub-Contractor.

All base surfaces must be thoroughly cleaned to remove dust, dirt, rust, oil and loose material.

Terrazzo shall be laid in two courses as follows:

- (a) Base course: cement- sand screed 1:3, not less than 20mm thick, followed immediately by
- (b) Topping terrazzo mix as specified, not less than 20mm finished thickness.
- (c) Skirtings are to be 6mm thick on a screed not less than 10mm thick.

Terrazzo bays shall not be more than 1M2 and joints shall be formed with plastic or aluminium strips set out to an approved pattern. Strips must be carried through the backings screed and finish flush with the floor surface.

Tamp lightly immediately after laying and compaction trowel lightly, taking care to avoid excessive laitance on the surface. Not less than 3 days after laying, rough polish by an approved mechanical means using water. Grout with a fine mix reserved from the initial mix. Not less than 8 days after grouting, fine polish by an approved mechanical means using water to a texture approved by the Architect.

FLOOR, WALL AND CEILING FINISHES (CTD.)

- A. Terrazzo floor tiles shall be to B.S. 4131 of approved manufacturer. The faces of tiles must be free from projections, depressions, flakes and crazes. The overall colour must be practically uniform in any one delivery. The facing level must not be less than 6mm thick after grinding.

Unless otherwise specified or approved by the Architect, tiles are to be 197mm x 197mm x 22mm.

- B. Mosaic finishes: Mosaic finishes shall comply with the requirements of B.S Code of practice CP 212 part 2.
- C. Quarry tile finishes: Quarry tile finishes shall comply with the requirements of B.S 1286
- D. Granite cladding and flooring: Granite cladding and flooring shall be strictly in accordance with the requirements of CP 202 and CP 298.

Flooring granite shall have an abrasion factor not higher than 11%.

The exposed surfaces shall be finished in accordance with an approved sample at each situation.

GLAZING

- A. The Contractor's attention is drawn to Section "T" of the Standard Method of Measurements and the requirements of the following British Standards and Code of Practice shall be observed:-

British Standard

- B. B.S 952 Glass for glazing
C. B.S. 544 Linseed oil putty for use in wooden frames

Codes of Practice

- D. C.P. 152 Glazing and fixing of glass for buildings
- E. The whole of the glass shall be of the best quality and be free from bubbles, specks, waves, flaws or any other defects and shall comply with the requirements of the standard mentioned above.
- F. All glass is to be accurately cut to fit easily into rebates. Glass shall be well puttied and sprigged with copper springs.
- G. Glazing to wood frames shall be secured with glazing beads fixed with brass caps and screws and wash leather or approved "Neoprene" beading strips. Putty for glazing in wood frames shall be composed of pure linseed oil and powdered whiting, free from grittiness all in accordance with the standard mentioned above.
- H. Glazing to metal frames shall be with clips, glass shall be properly back puttied and the front putty finished neatly and cleanly.

Putty for glazing in metal frames shall be quick hard setting tropical putty specially manufactured for use with steel windows.

Rebates of metal frames receiving glass shall be prepared and treated with primer for putty prior to glazing and putty shall be primed 10 days after glazing.

- I. Rates for glazing Georgian wired glass shall include for aligning lines in adjoining panes both ways.
- J. Glass panes shall be cut to sizes to fit the openings with not more than 1.6mm play all round. Clear sheet shall be ordinary glazing (O Q) quality and polished plate shall be (GG) quality.

GLAZING (CTD.)

A. **Mirrors**

To be selected glazing (S.G) quality plate glass mirrors of approved manufacturer with bevelled edge and fixed at all corners to walls with rawl plugs and brass screws with removable chromium plated dome heads.

- B. Cut out all cracked or broken glass re-glazed to match and leave perfect on completion. On no account shall windows be cleaned by scraping with glass.

PAINTING AND DECORATING

- A. The Contractor's attention is drawn to Section "U" of the Standard Method of Measurement and the requirements of the following British Standards and Codes of Practice shall be observed:-

British Standards

- B. B.S 2521 + 2523 Lead based joint
- C. B.S. 3698 Calcium plumbate priming paints
- D. B.S. 4756 Ready mixed aluminium priming paints for woodwork
- E. B.S. 1336 Knotting
- F. B.S. 3842 Treatment of plywood with preservatives
- G. B.S 4800 Paint colours for building purposes
- H. B.S. 2660 Colours for building and decorative paints
- I. B.S. 2524 Red-Oxide-Linseed oil priming paint
- J. B.S. 2525-7 Undercoating and finishing paints
- K. B.S. 1215 Oil stains

Codes of Practice

- L. C.P. 231 Painting for buildings
- M. C.P. 3012 Cleaning and preparations of metal surfaces
- N. All work under this trade must be executed by an approved specialist unless otherwise permitted.
- O. The Contractor's Programme in this area shall be so arranged that all other trades are completed and away from the area to be painted prior to the commencement of painting. Before painting the Contractor must remove all concrete and mortar droppings and the like from all work to be decorated and remove all strains from and obtain uniform colour to work to be oiled and polished.

PAINING AND DECORATING (CTD.)

- A. All plaster, metal, wood or other surfaces which are to receive finishes of paint, stain, polish, distemper or paint work of any description are to be carefully inspected by the Contractor before he allows any of his painters to commence work. The Contractor will be held solely responsible for all defective work as a result of his painters' failure to insist on receiving from the other trades surfaces in the proper condition to allow first class finishes to the various kinds specified being applied to them.
- B. All painting and decorating schemes shall be carried out in colours selected by the Architects.
- C. Paints shall be ready mixed, oil based priming paint shall comply with the requirements of the relevant standards mentioned earlier.
- D. The oil shall comply with the requirements of B.S 1215.
- E. All materials shall be of the best quality and shall be of an approved proprietary brand selected from the latest Schedule of Approved Paints issued by the Ministry of Works.
- F. Materials to be applied externally shall be of exterior quality and/or recommended by the manufacturers for external use.
- G. Materials shall be delivered to site intact in the original sealed drums or tins and shall be mixed and applied strictly in accordance with the manufacturer's instructions and to the approval of the Architect.

Unless specifically instructed or approved by the Architect, no paints, distemper etc. are to be thinned or otherwise adulterated, but are to be used as supplied by the manufacturers and direct from the tins.

- H. If required by the Architect the Contractor shall provide at his own expense samples of paints etc. with containers and cases to be forwarded, carriage paid, by the Contractor for analysis to a laboratory.
- I. The priming, undercoat, and finishing coats shall each be of differing tints, and the priming and undercoat shall be the correct brands and tins to suit the respective finishing coats, in accordance with the manufacturer's instructions. All finishing coats shall be of colours and tints selected by the Architect. Each coat must be approved by the Architect before the next coat is applied.
- J. Each coat shall be properly dry and in the case of oil or enamel paints shall be well rubbed down with fine glass paper before the next is applied. The paintwork shall be finished smooth and free from brush marks.

PAINING AND DECORATING (CTD.)

- A. Colour cards of all paints etc. shall be submitted t, and samples prepared for approval of the Architect before laying on, and such samples, when approved, shall become the standard for the works.
- B. All paints, emulsion paints, and distempers shall be applied by means of a brush or spray gun or rollers of an approved type, where so agreed by the Architect.
- C. No painting is to be done in wet weather or on surfaces which are not thoroughly dry.
- D. Woodwork to be painted shall be rubbed down and all knots and resin pockets shall be scorched back and coated with knotting. After priming all nail holes and other imperfections shall be stopped and the whole surface be rubbed down and all dust brushed off. The surface of woodwork shall be lightly sand prepared between the coats.
- E. All woodwork in contact with walling or plaster shall be treated after cutting and preparations but before assembly or fixing with one coat of "Timside" wood preservative manufactured by Timsales, P.O. BOX 18080, Nairobi. the solution is to be brushed on all faces of all timbers, unless exposed to view and painted. The Contractor shall note that this solution is poisonous and shall take all necessary precautions and instruct his workmen accordingly.
- F. Wax polish shall be furniture polish of an approved brand, and wood surfaces shall be clean smooth free from oil or grease or any other blemishes. A minimum of two coats shall be applied to approval.
- G. Plaster surfaces shall be perfectly smooth free from defects and ready for decorations. All such surfaces shall be allowed to dry a minimum period of six weeks, stopped with approved plaster compound stopping and rubbed down flush as necessary, and then thoroughly, immediately prior to decorating.
- H. Plaster Surfaces which are to be finished with emulsion, oil or enamel paint, shall be primed with an alkali resisting primer complying with the particular paint manufacturer's specifications and applied in accordance with their instructions.
- I. Fibre board or similar surfaces shall be lightly brushed down to remove all dirt, dust and loose particles and have all nail holes or other defects stopped with an approved plaster compound stopping rubbed down flush and left with a texture to match surrounding materials and shall receive one coat petrifying liquid at last or two coats polyurethane or clear lacquer.

PAINTING AND DECORATING (CTD.)

- A. All metal surfaces shall be thoroughly brushed down with wire brushes and scraped where necessary to remove all scale, rust etc. immediately prior to decorating. Where severe rust exists and if approved by the Architect a proprietary de-rusting solution may be used in accordance with the manufacturer's instructions.
- B. Shop primed and unprimed surfaces shall be given one coat of metal chromate primer.
- C. Galvanised surfaces shall be treated before painting with an approved proprietary or de-greasing solution before priming.
- D. Coated surfaces already treated with bituminous solution shall be scrapped to remove soft parts and then receive two isolating coats of aluminium primer or other approved anti-tar primer.
- E. Existing painted and decorated surfaces shall be prepared as described above. Painted plaster, metal or wood surfaces shall then be rubbed down to expose the material beneath and old paint burnt off with blow torches if necessary in the Architect's opinion.
- F. Emulsion paint on ceilings and all undercoats of emulsions paint and complete oil painting on walls shall be completed before PVC floorings are laid. Final coats of emulsion paints on walls shall be applied after such flooring has been laid complete.
- G. Three coats of emulsion paints shall be applied to receiving surfaces using a thinning medium or water only if and as recommended by the manufacturer. An approved plaster primer tinted to match may be substituted for the first coat.
- H. Enamel paint shall be applied in two undercoats and one finishing coat after preparation and priming as specified above.
- I. All ironmongery shall be removed from joinery steel windows and louvre before painting is commenced and shall be cleaned and renovated if necessary and refixed after completion of painting.
- J. Rates for painting shall be deemed to include for preparing and priming surfaces above described.
- K. Rates for paints, distemper etc. shall allow for covering up all floors, fittings, etc with dust sheets when executing the work and for removing, covering when no longer required and for cleaning off, touching up and leaving perfect at completion.

DRAINAGE

- A. The contractor's attention is drawn to Section "V" of the Standard Method of Measurement and the requirements of the following British Standards and Codes of Practice shall be observed:-

British Standards

- B. B.S 556 Parts 1+2 Concrete cylindrical pipes and fittings (including manholes, inspection chambers and street gullies)
- C. B.S. 4101 Concrete unreinforced tubes and fittings (with ogee joints for surface water drainage)
- D. B.S. 437 part 1 Cast iron spigot and socket drain pipes and fittings
- E. B.S. 1247 Manhole step irons (in malleable cast iron)
- F. B.S. 2760 Pitch-impregnated fibre drainage pipes and fittings
- G. B.S 1211 Centrifugally cast (spun) iron pressure pipes for water, gas and sewage
- H. B.S. 1130 Cast iron drain fittings

Codes of practice

- I. C.P.301 Building drainage
- J. C.P. 2005 Sewerage
- K. C.P. 2010 Pipelines
- L. The preambles and other clauses as directed to "Excavating" "concreting" "Walling" and paving are to apply where relevant to the items of this Bill.
- M. Cast iron drain pipes shall be coated cast spigot and socket pipes conforming with B.S 437 in all respects and with fittings of B.S 1130 referred to above. Pipes shall be jointed with asbestos yarn and caulked with molten lead or jointed with special jointing compound all to approval.
- N. Concrete drain pipes shall be spigot and socket pipes of approved local manufacturer and complying with the requirements of the relevant Standard mentioned above. Pipes shall be jointed with tarred spun yarn and cement and sand (1:2) neatly haunched.

DRAINAGE (CTD.)

- A. Pitch-impregnated fibre pipes shall comply with the requirements of B.S 2760 and of approved manufacturer. Joints shall be made with straight couplings in accordance with the Standard and the laying, cutting and jointing shall be carried out, strictly in accordance with manufacturer's printed instructions.

The pipes are obtainable from Key Terrain Limited. (UK) or Crown Paints Limited, Nairobi.

- B. Drainpipes have been measured over all bends, junctions and other fittings and the Contractor shall include in his prices for all joints, short lengths, cutting and waste. Rates for bends, junctions etc. shall include for the extra joints, cutting and waste and any labour required.
- C. Lines of drains shall be accurately set out and trenches excavated and bottom trimmed to accurate gradients to approval before pipe laying commences.
- D. Generally the drainage is to be executed in suitable sections to cause the minimum interference to the continual use of any existing drains. The location and depths of any existing drains shall be ascertained before other work is commenced and the rates are to include for all costs of complying with this requirement.
- E. Excavations for drain trenches shall be not less than 300mm wider than the external diameter of the pipes and rates shall include for grading ground under beds, carefully filling in earth to avoid damaging pipes, ramming and carting away surplus excavated material, keeping excavations free from water, if necessary executing such works and installing such pumps as may be required to keep the excavations dry at all times, and any necessary planking and strutting.
- F. No subsoil water shall be discharged into the sewers without the written permission of the architect.
- G. Excavations shall be made to such depths and dimensions as may be required by the Architect to obtain proper falls and firm foundations. No permanent construction shall be commenced on any bottom until the excavation has been examined and approved by the architect. Should Contractor in error or without the instructions of the Architect, make any excavation below the required level of the drain or bed, as the case be, he will be required to refill such excavation to the correct levels with concrete (1:4:8 - 38mm gauge).

Rates shall include for excavating in all materials met with and for trimming bottoms to the necessary falls and working space.

DRAINAGE (CTD.)

- A. The first back filling of pipe trenches is to be soft material free from stone and shall be watered and carefully tamped over and around the pipes in 300mm layers until they are covered to a depth of 600mm. Subsequent filling is to be in 150mm layers watered and rammed, only materials approved by the Architect are to be used as backfilling.
- B. Where hardcore is used for backfilling it is not to exceed 150mm gauge and all interstices shall be properly filled with small pieces and fine binder. Surplus excavated materials are to be removed from site.

If in the opinion of the Architect care has not been exercised in refilling trenches, he may order a fresh test to be made on the drain. In the event of the drain failing to pass the test the contractor will be required to remedy the fault at his expense.

- C. Concrete beds and surrounds shall be of concrete 1:3:6 - 20mm gauge to the thickness falls, and widths specified. Hollows shall be left to receive the collar of the pipe, so that the pipes sufficiently wide to form hard-holds to permit the joining of pipes, and after resting drains shall be haunched to both sides to half the diameter of the pipe in similar concrete.

Where pipes are specified to be surrounded, the concrete shall be carried up from the bed in a square section with a minimum of 150mm in thickness over the barrel of the pipe.

- D. Rates for beds and surrounds shall include for forming recesses and filling with concrete, for mortar layer etc. and for any necessary formwork.
- E. Each pipe shall be carefully examined on arrival, any defective pipes shall be removed immediately from the site and not used in the works. Minor damage to the protective coating of cast iron pipes shall be made good by painting with hot tar; if major defects in the coating exists such pipes shall be rejected and removed from the site.
- F. Drains are to be laid in a straight line from point to point and each pipe is to be properly bowed in so that the invert is a true and even gradient in order to achieve a fall giving a self cleansing velocity. The Contractor shall provide suitable equipment and set up and maintain all sight rails, bowing rods, and bench marks etc. necessary for the purpose.
- G. All drains shall be kept free from earth Debris, superfluous cement and other obstructions or water during laying and until completion of the Contract when they shall be handed over in a clean condition.

DRAINAGE (CTD.)

- A. Pipes shall be laid with sockets leading uphill and shall rest on solid and even foundations for the full lengths of the barrel, socket recesses shall be formed in the foundations, as short as practicable but sufficiently deep to allow the pipe jointer room to work right round the pipe. Such recesses shall be filled with cement mortar (1:4) on completion of laying.
- B. All joints are to be accurately made by butting the pipes together, caulking with tarred rope neat cement finished externally with a bold fillet neatly pointed. As each pipe is laid it is to be drawn with a badger and left free of all obstructions.
- C. Rates of bends junctions and other fittings in drains shall include all cutting and waste and extra joints.
- D. The testing of drains shall be done at completion and before the trenches are filled in. They shall be tested in the presence of the Architect and a representative of the Local Authority by filling with water having a head not less than 1.5m at the highest point of the section under test. A second and similar test may be applied, after the drain trenches are filled in and the work complete.
- E. Manholes shall be constructed in the positions indicated on the Drawings or as required by the Architects. Such chambers shall be to the depths required to obtain even gradients in the drain and of sufficient size to contain the requisite main channel and any branches thereto and all the entire satisfaction of the Architect and Local Authority.
- F. Rendering to manholes shall be trowelled smooth coved at all internal angles and rounded at arrises.
- G. Manholes are to be tested for water- tightness in the same way as to drains by filling with water but not exceeding 1.5m head. The contractor shall supply all testing apparatus and materials necessary for these tests and provide all labour and assistance required. Any failure whatsoever in the drainage system to withstand the specified tests and any defects appearing are to be made good and the drains re-tested to the satisfaction of the Architect and Local Authority.
- H. For connections to public drainage the Contractor shall make all arrangements with the Local Authority and pay all fees that may be required for connections to main sewers.

EXTERNAL WORKS

- A. Contractor's attention is drawn to the requirements of the following British Standards and shall be observed:-

British Standards

- B. B.S 1621 Bitumen Macadam (with crushed rock or slag aggregate)
- C. B.S. 340 Precast concrete kerbs, channels, edgings and quadrants.
- D. B.S. 368 Precast Concrete flags
- E. B.S. 4428 General Landscape operations (excluding hard surfaces)
- F. B.S. 3882 Recommendations and classification for top soil
- G. B.S 3936 Nursery stock
- H. B.S 3998 Recommendations for tree work
- I. Preamble to preceding trades where applicable shall apply equally to the work contained herein.

SECTION VII - DRAWINGS

SECTION VIII - GENERAL CONDITIONS OF CONTRACT (GCC)

SECTION VIII - GENERAL CONDITIONS OF CONTRACT (GCC)

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 the Procuring Entity and the Contractor as recorded in the Agreement Form and signed by the parties including all attachments and appendices thereto and all documents incorporated by reference therein to execute, complete, and maintain the Works.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

“Final Statement” means the statement defined in Sub-Clause 14.11 [Application for Final Payment Certificate]. **“Force Majeure”** is defined in Clause 19 [Force Majeure].

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

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

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

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

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

“Local Currency” means the currency of Kenya.

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

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

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

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

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

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

“Performance Security” means the security (or securities, if any) under Sub-Clause 4.2 [Performance Security].

“Permanent Works” means the permanent works to be executed by the Contractor under the Contract.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

“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 the Procuring Entity.

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

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

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

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

1.2 Interpretation

In the Contract, except where the context requires otherwise:

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

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

1.3 Communications

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

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

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

1.4 Law and Language

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

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

1.5 Priority of Documents

The documents forming the Contract are to be taken as mutually explanatory of one another. For the purposes of interpretation, the priority of the documents shall be in accordance with the following sequence:

- a) The Contract Agreement,
- b) The Letter of Acceptance,
- c) The Special Conditions – Part A,
- d) the Special Conditions – Part B
- e) the General Conditions of Contract
- f) the Form of Tender,
- g) the Specifications and Bills of Quantities
- h) the Drawings, and
- i) the Schedules and any other documents forming part of the Contract.

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

1.6 Contract Agreement

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

1.7 Assignment

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

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

1.8 Care and Supply of Documents

1.8.1 The Specifications and Drawings shall be in the custody and care of the Procuring Entity. Unless otherwise stated in the Contract, two copies of the Contract and of each subsequent Drawings and Bills of Quantities shall be supplied to the Contractor, who may make or request further copies at the cost of the Contractor.

1.8.2 Each of the Contractor's Documents shall be in the custody and care of the Contractor, unless and until taken over by the Procuring Entity. Unless otherwise stated in the Contract, the Contractor shall supply to the Architect two copies of each of the Contractor's Documents.

1.8.3 The Contractor shall keep, on the Site, a copy of the Contract, publications named in the Specification, the Contractor's Documents (if any), the Drawings and Variations and other communications given under the Contract. The Procuring Entity's Personnel shall have the right of access to all these documents at all reasonable times.

1.84 If a Party becomes aware of an error or defect in a document which was prepared for use in executing the Works, the Party shall promptly give notice to the other Party of such error or defect.

1.9 Timely provision of Drawings or Instructions

1.91 The Contractor shall give notice to the Architect whenever the Works are likely to be delayed or disrupted if any necessary drawing or instruction is not issued to the Contractor within a particular time, which shall be reasonable. The notice shall include details of the necessary drawing or instruction, details of why and by when it should be issued, and the nature and amount of the delay or disruption likely to be suffered if it is late.

1.92 If the Contractor suffers delay and/or incurs Cost as a result of a failure of the Architect to issue the notified drawing or instruction within a time which is reasonable and is specified in the notice with supporting details, the Contractor shall give a further notice to the Architect and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:

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

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

1.94 However, if and to the extent that the Architect failure was caused by any error or delay by the Contractor, including an error in, or delay in the submission of, any of the Contractor's Documents, the Contractor shall not be entitled to such extension of time, or costs accrued.

1.10 Procuring Entity's Use of Contractor's Documents

1.101 As agreed between the Parties, the Contractor shall retain the copyright and other intellectual property rights in the Contractor's Documents and other design documents made by (or on behalf of) the Contractor.

1.102 The Contractor shall be deemed (by signing the Contract) to give to the Procuring Entity a non-terminable transferable non-exclusive royalty-free license to copy, use and communicate the Contractor's Documents, including making and using modifications of them. This license shall:

- a) apply throughout the actual or intended working life (whichever is longer) of the relevant parts of the Works,
- b) entitle any person in proper possession of the relevant part of the Works to copy, use and communicate the Contractor's Documents for the purposes of completing, operating, maintaining, altering, adjusting, repairing and demolishing the Works, and
- c) in the case of Contractor's Documents which are in the form of computer programs and other software, permit their use on any computer on the Site and other places as envisaged by the Contract, including replacements of any computers supplied by the Contractor.

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

permitted under Sub-Clause 1.10.2.

1.11 Contractor's Use of Procuring Entity's Documents

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

1.12 Confidential Details

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

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

1.13 Compliance with Laws

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

- a) The Procuring Entity shall have obtained (or shall obtain) the planning, zoning, building permit or similar permission for the Permanent Works, and any other permissions described in the Specifications as having been (or to be) obtained by the Procuring Entity; and the Procuring Entity shall indemnify and hold the Contractor harmless against and from the consequences of any failure to do so; and
- b) the Contractor shall give all notices, pay all taxes, duties and fees, and obtain all permits, licenses and approvals, as required by the Laws in relation to the execution and completion of the Works and the remedying of any defects; and the Contractor shall indemnify and hold the Procuring Entity harmless against and from the consequences of any failure to do so, unless the Contractor is impeded to accomplish these actions and shows evidence of its diligence.

1.14 Joint and Several Liability

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

- a) These persons shall be deemed to be jointly and severally liable to the Procuring Entity for the performance of the Contract;
- b) these persons shall notify the Procuring Entity of their leader who shall have authority to bind the Contractor and each of these persons; and

- c) the Contractor shall not alter its composition or legal status without the prior consent of the Procuring Entity.

1.15 Inspections and Audit by the Procuring Entity

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

2 THE PROCURING ENTITY

2.1 Right of Access to the Site

- 2.1.1 The Procuring Entity shall give the Contractor right of access to, and possession of, all parts of the Site within the time (or times) stated in the **Special Conditions of Contract**. The right and possession may not be exclusive to the Contractor. If, under the Contract, the Procuring Entity is required to give (to the Contractor) possession of any foundation, structure, plant or means of access, the Procuring Entity shall do so in the time and manner stated in the Specification. However, the Procuring Entity may withhold any such right or possession until the Performance Security has been received.
- 2.1.2 If no such time is stated in the Special Conditions of Contract, the Procuring Entity shall give the Contractor right of access to, and possession of, the Site within such times as required to enable the Contractor to proceed without disruption in accordance with the programme submitted under Sub-Clause 8.3 [Programme].
- 2.1.3 If the Contractor suffers delay and/or incurs Cost as a result of a failure by the Procuring Entity to give any such right or possession within such time, the Contractor shall give notice to the Architect and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:
 - a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and
 - b) payment of any such Cost-plus profit, which shall be included in the Contract Price.
- 2.1.4 After receiving this notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.
- 2.1.5 However, if and to the extent that the Procuring Entity's failure was caused by any error or delay by the Contractor, including an error in, or delay in the submission of, any of the Contractor's Documents, the Contractor shall not be entitled to such extension of time, Cost or profit.

22 Permits, Licenses or Approvals

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

23 Procuring Entity's Personnel

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

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

24 Procuring Entity's Financial Arrangements

The Procuring Entity shall make and maintain all necessary financial arrangements which will enable the Procuring Entity to pay the Contract Price punctually (as estimated at that time) in accordance with Clause14 [Contract Price and Payment].

3 THE ENGINEER

3.1 Architect Duties and Authority

- 3.1.1 The Procuring Entity shall appoint the Architect who shall carry out the duties as signed to him in the Contract. The Architect staff shall include suitably qualified Assistants and other professionals who are competent to carry out these duties. The Architect Name and Address shall be provided in the **Special Conditions of Contract**.
- 3.1.2 The Architect shall have no authority to amend the Contract.
- 3.1.3 The Architect May exercise the authority attributable to the Architect as specified in or necessarily to be implied from the Contract. If the Architect is required to obtain the approval of the Procuring Entity before exercising a specified authority, the requirements shall be as stated in the **Special Conditions of Contract**. The Procuring Entity shall promptly inform the Contractor of any change to the authority attributed to the Engineer.
- 3.1.4 However, whenever the Architect exercises a specified authority for which the Procuring Entity's approval is required, then (for the purposes of the Contract) the contractor shall require the Architect to provide evidence of such approval before complying with the instruction.
- 3.1.5 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 the Procuring Entity before taking action under the following Sub-Clauses of these Conditions:

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

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

3.2 Delegation by the Engineer

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

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

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

33 Instructions of the Engineer

- 33.1 The Architect may issue to the Contractor (at any time) instructions and additional or modified Drawings which may be necessary for the execution of the Works and the remedying of any defects, all in accordance with the Contract. The Contractor shall only take instructions from the Engineer, or from an assistant to whom the appropriate authority has been delegated under Clause 3.2.1.
- 33.2 The Contractor shall comply with the instructions given by the Architect or delegated assistant, on any matter related to the Contract. Whenever practicable, their instructions shall be given in writing. If the Architect or a delegated assistant:
- a) Gives an oral instruction,
 - b) receives a written confirmation of the instruction, from (or on behalf of) the Contractor, within two working days after giving the instruction, and
 - c) does not reply by issuing a written rejection and/or instruction within two working days after receiving the confirmation,

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

34 Replacement of the Engineer

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

35 Determinations

- 35.1 Whenever these Conditions provide that the Architect shall proceed in accordance with this Sub-Clause 3.5 to agree or determine any matter, the Architect shall consult with each Party in an endeavor to reach agreement. If agreement is not achieved, the Architect shall make a fair determination in accordance with the Contract, taking due regard of all relevant circumstances.
- 35.2 The Architect shall give notice to both Parties of each agreement or determination, with supporting particulars, within 30 days from the receipt of the corresponding claim or request except when otherwise specified. Each Party shall give effect to each agreement or determination unless and until revised under Clause 20 [Claims, Disputes and Arbitration].

4 THE CONTRACTOR

4.1 Contractor's General Obligations

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

4.2 Performance Security

- 4.2.1 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 the

Procuring Entity. 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 the Procuring Entity within 30 days after receiving the Notification of Award and shall send a copy to the Engineer. The Performance Security shall be issued by a reputable bank selected by the Contractor and shall be in the form annexed to the Special Conditions, as stipulated by the Procuring Entity in the Special Conditions of Contract, or in another form approved by the Procuring Entity.
- 4.2.3 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 The Procuring Entity shall not make a claim under the Performance Security, except for amounts to which the Procuring Entity is entitled under the Contract.
- 4.2.5 The Procuring Entity shall indemnify and hold the Contractor harmless against and from all damages, losses and expenses (including legal fees and expenses) resulting from a claim under the Performance Security to the extent to which the Procuring Entity was not entitled to make the claim.
- 4.2.6 The Procuring Entity 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 another 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 another person.

- 434 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.
- 435 The Contractor's Representative shall, on behalf of the Contractor, receive instructions under Sub-Clause 3.3 [Instructions of the Engineer].
- 436 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.
- 437 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.

44 Sub-contractors

- 44.1 The Contractor shall not subcontract the whole of the Works. The contractor may however subcontract the works as provided in Clause 34.2.
- 44.2 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 the Procuring Entity shall be obtained to other proposed Subcontractors;
 - c) the Contractor shall give the Procuring Entity not less than 14 days' notice of the intended date of the commencement of each Subcontractor's work, and of the commencement of such work on the Site; and
 - d) each subcontract shall include provisions which would entitle the Procuring Entity to require the subcontract to be assigned to the Procuring Entity under Sub-Clause 4.5 [Assignment of Benefit of Subcontract] (if or when applicable) or in the event of termination under Sub-Clause 15.2 [Termination by Procuring Entity].
- 44.3 The Contractor shall ensure that the requirements imposed on the Contractor by Sub-Clause 1.12 [Confidential Details] apply equally to each Subcontractor.
- 44.4 Where practicable, the Contractor shall give fair and reasonable opportunity for contractors from Kenya to be appointed as Subcontractors.

45 Assignment of Benefit of Subcontract

If a Subcontractor's obligations extend beyond the expiry date of the relevant Defects Notification Period and the Engineer, prior to this date, instructs the Contractor to assign the benefit of such obligations to the Procuring Entity, then the Contractor shall do so.

Unless otherwise stated in the assignment, the Contractor shall have no liability to the Procuring Entity for the work carried out by the Subcontractor after the assignment takes effect.

4.6 Co-operation

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

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

4.6.2 Any such instruction shall constitute a Variation if and to the extent that it causes the Contractor to suffer delays and/or 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, the Procuring Entity is required to give to the Contractor possession of any foundation, structure, plant or means of access in accordance with Contractor's Documents, the Contractor shall submit such documents to the Architect in the time and manner stated in the Specification.

4.7 Setting Out of the Works

4.7.1 The Contractor shall set out the Works in relation to original points, lines and levels of reference specified in the 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 The Procuring Entity shall be responsible for any errors in these specified or notified items of reference, but the Contractor shall use reasonable efforts to verify their accuracy before they are used.

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

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

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

4.8 Safety Procedures

The Contractor shall:

- a) Comply with all applicable safety regulations,

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

49 Quality Assurance

- 49.1 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.
- 49.2 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 The Procuring Entity shall have made available to the Contractor for his information, prior to the Base Date, all relevant data in the Procuring Entity's possession on sub-surface and hydrological conditions at the Site, including environmental aspects. The Procuring Entity shall similarly make available to the Contractor all such data which come into the Procuring Entity's possession after the Base Date. The Contractor shall be responsible for interpreting all such data.
- 4.10.2 To the extent which was practicable (taking account of cost and time), the Contractor shall be deemed to have obtained all necessary information as to risks, contingencies and other circumstances which may influence or affect the Tender or Works. To the same extent, the Contractor shall be deemed to have inspected and examined the Site, its surroundings, the above data and other available information, and to have been satisfied before submitting the Tender as to all relevant matters, including (without limitation):
 - a) The form and nature of the Site, including sub-surface conditions,
 - b) the hydrological and climatic conditions,
 - c) the extent and nature of the work and Goods necessary for the execution and completion of the Works and the remedying of any defects,
 - d) the Laws, procedures and labour practices of Kenya, and
 - e) the Contractor's requirements for access, accommodation, facilities, personnel, power, transport, water and other services.

4.11 Sufficiency of the Accepted Contract Amount

- 4.11.1 The Contractor shall be deemed to:
 - a) Have satisfied itself as to the correctness and sufficiency of the Accepted Contract Amount, and

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

4.112 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

4.121 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 Contractor when submitting the Tender, which shall be made available by the Contractor, but shall not be bound by the Contractor's interpretation of any such evidence.

4.13 Rights of Way and Facilities

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

4.14 Avoidance of Interference

- 4.14.1 The Contractor shall not interfere unnecessarily or improperly with:
- a) The convenience of the public, or
 - b) The access to and use and occupation of all roads and foot paths, irrespective of whether they are public or in the possession of the Procuring Entity or of others.
- 4.14.2 The Contractor shall indemnify and hold the Procuring Entity harmless against and from all damages, losses and expenses (including legal fees and expenses) resulting from any such unnecessary or improper interference.

4.15 Access Route

- 4.15.1 The Contractor shall be deemed to have been satisfied as to the suitability and availability of access routes to the Site at Base Date. The Contractor shall use reasonable efforts to prevent any road or bridge from being damaged by the Contractor's traffic or by the Contractor's Personnel. These efforts shall include the proper use of appropriate vehicles and routes.
- 4.15.2 Except as otherwise stated in these Conditions:
- a) The Contractor shall (as between the Parties) be responsible for any maintenance which may be required for his use of access routes;
 - b) the Contractor shall provide all necessary signs or directions along access routes, and shall obtain any permission which may be required from the relevant authorities for his use of routes, signs and directions;
 - c) the Procuring Entity shall not be responsible for any claims which may arise from the use or otherwise of any access route;
 - d) the Procuring Entity does not guarantee the suitability or availability of particular access routes; and
 - e) Costs due to non-suitability or non-availability, for the use required by the Contractor, of access routes shall be borne by the Contractor.

4.16 Transport of Goods

Unless otherwise stated in the Special Conditions:

- a) the Contractor shall give the Architect not less than 21 days' notice of the date on which any Plant or a major item of other Goods will be delivered to the Site;
- b) the Contractor shall be responsible for packing, loading, transporting, receiving, unloading, storing and protecting all Goods and other things required for the Works;

- and
- c) the Contractor shall indemnify and hold the Procuring Entity harmless against and from all damages, losses and expenses (including legal fees and expenses) resulting from the transport of Goods and shall negotiate and pay all claims arising from their transport.

4.17 Contractor's Equipment

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

4.18 Protection of the Environment

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

4.19 Electricity, Water and Gas

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

4.20 Procuring Entity's Equipment and Free-Issue Materials

- 4.20.1 The Procuring Entity shall make the Procuring Entity's Equipment (if any) available for the use of the Contractor in the execution of the Works in accordance with the details, arrangements and prices stated in the Specification. Unless otherwise stated in the Specification:
 - a) The Procuring Entity shall be responsible for the Procuring Entity's Equipment, except that

- b) the Contractor shall be responsible for each item of Procuring Entity's Equipment whilst any of the Contractor's Personnel is operating it, driving it, directing it or in possession or control of it.
- 4.202 The appropriate quantities and the amounts due (at such stated prices) for the use of Procuring Entity's Equipment shall be agreed or determined by the Architect in accordance with Sub-Clause 2.5 [Procuring Entity's Claims] and Sub-Clause 3.5 [Determinations]. The Contractor shall pay these amounts to the Procuring Entity.
- 4.203 The Procuring Entity shall supply, free of charge, the "free-issue materials" (if any) in accordance with the details stated in the Specification. The Procuring Entity shall, at his risk and cost, provide these materials at the time and place specified in the Contract. The Contractor shall then visually inspect them and shall promptly give notice to the Architect of any shortage, defect or default in these materials. Unless otherwise agreed by both Parties, the Procuring Entity shall immediately rectify the notified shortage, defect or default.
- 4.204 After this visual inspection, the free-issue materials shall come under the care, custody and control of the Contractor. The Contractor's obligations of inspection, care, custody and control shall not relieve the Procuring Entity of liability for any shortage, defect or default not apparent from a visual inspection.

4.21 Progress Reports

- 4.21.1 Unless otherwise stated in the Special Conditions, monthly progress reports shall be prepared by the Contractor and submitted to the Architect in six copies. The first report shall cover the period up to the end of the first calendar month following the Commencement Date. Reports shall be submitted monthly thereafter, each within 7 days after the last day of the period to which it relates.
- 4.21.2 Reporting shall continue until the Contractor has completed all work which is known to be outstanding at the completion date stated in the Taking-Over Certificate for the Works. Each report shall include:
- a) charts and detailed descriptions of progress, including each stage of design (if any), Contractor's Documents, procurement, manufacture, delivery to Site, construction, erection and testing; and including these stages for work by each nominated Subcontractor (as defined in Clause 5 [Nominated Subcontractors]),
 - b) photographs showing the status of manufacture and of progress on the Site;
 - c) for the manufacture of each main item of Plant and Materials, the name of the manufacturer, manufacture location, percentage progress, and the actual or expected dates of:
 - i) commencement of manufacture,
 - ii) Contractor's inspections,
 - iii) tests, and
 - iv) shipment and arrival at the Site;
 - d) the details described in Sub-Clause 6.10 [Records of Contractor's Personnel and Equipment];
 - e) copies of quality assurance documents, test results and certificates of Materials;
 - f) list of notices given under Sub-Clause 2.5 [Procuring Entity's Claims] and notices given under Sub-Clause 20.1 [Contractor's Claims];
 - g) safety statistics, including details of any hazardous incidents and activities relating

- to environmental aspects and public relations; and
- h) comparison so factual and planned progress, with details of any events or circumstances which may jeopardize the completion in accordance with the Contract, and the measures being (or to be) adopted to overcome delays.

4.22 Security of the Site

Unless otherwise stated in the Special Conditions:

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

4.23 Contractor's Operations on Site

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

4.24 Fossils

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

5 NOMINATED SUBCONTRACTORS

5.1 Definition of “nominated Subcontractor”

In this Contract, “nominated Subcontractor” means a Subcontractor:

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

5.2 Objection to Nomination

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

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

5.3 Payments to nominated Subcontractors

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

5.4 Evidence of Payments

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

- 54.2 Unless the Contractor:
- (a) Submits this reasonable evidence to the Engineer, or
 - (b)
 - i) Satisfies the Architect in writing that the Contractor is reasonably entitled to withhold or refuse to pay these amounts, and
 - ii) Submits to the Architect reasonable evidence that the nominated Subcontractor has been notified of the Contractor's entitlement, then the Procuring Entity may (at his sole discretion) pay, 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 the Procuring Entity, the amount which the nominated Subcontractor was directly paid by the Procuring Entity.

6 STAFF AND LABOR

6.1 Engagement of Staff and Labor

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

6.2 Rates of Wages and Conditions of Labor

- 62.1 The Contractor shall pay rates of wages, and observe conditions of labor, which are not lower than those established for the trade or industry where the work is carried out. If no established rates or conditions are applicable, the Contractor shall pay rates of wages and observe conditions which are not lower than the general level of wages and conditions observed locally by Procuring Entity's whose trade or industry is similar to that of the Contractor.
- 62.2 The Contractor shall inform the Contractor's Personnel about their liability to pay personal income taxes in Kenya in respect of such of their salaries, wages, allowances and any benefits as are subject to tax under the Laws of Kenya for the time being in force, and the Contractor shall perform such duties in regard to such deductions there of as may be imposed on him by such Laws.

6.3 Persons in the Service of Procuring Entity

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

6.4 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.

65 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.

66 Facilities for Staff and Labor

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

67 Health and Safety

- 67.1 The Contractor shall at all times take all reasonable precautions to maintain the health and safety of the Contractor's Personnel. In collaboration with local health authorities, the Contractor shall ensure that medical staff, first aid facilities, sick bay and ambulance service are available at all times at the Site and at any accommodation for Contractor's and Procuring Entity's Personnel, and that suitable arrangements are made for all necessary welfare and hygiene requirements and for the prevention of epidemics.
- 67.2 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.
- 67.3 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.
- 67.4 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.

68 Contractor's Superintendence

- 68.1 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 an adequate supply of drinking and other water for the use of the Contractor's Personnel.

6.14 Measures against Insect and Pest Nuisance

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

6.15 Alcoholic Liquor or Drugs

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

6.16 Prohibition of Forced or Compulsory Labour

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

6.17 Prohibition of Harmful Child Labor

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

6.18 Employment Records of Workers

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

6.19 Workers' Organizations

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

6.20 Non-Discrimination and Equal Opportunity

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

7. PLANT, MATERIALS AND WORKMANSHIP

7.1 Manner of Execution

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

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

7.2 Samples

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

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

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

7.3 Inspection

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

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

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

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

7.4 Testing

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

7.4.2 Except as otherwise specified in the Contract, the Contractor shall provide all apparatus, assistance, documents and other information, electricity, equipment, fuel, consumables, instruments, labor, materials, and suitably qualified and experienced staff, as are necessary to carry out the specified tests efficiently. The Contractor shall agree, with the

Engineer, the time and place for the specified testing of any Plant, Materials and other parts of the Works.

- 74.3 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.
- 74.4 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.
- 74.5 If the Contractor suffers delay and/ or incurs Cost from complying with these instructions or as a result of a delay for which the Procuring Entity is responsible, the Contractor shall give notice to the Architect and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:
- a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and
 - b) payment of any such Cost-plus profit, which shall be included in the Contract Price.
- 74.6 After receiving this notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.
- 74.7 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.

75 Rejection

- 75.1 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.
- 75.2 If the Architect requires this Plant, Materials or workmanship to be retested, the tests shall be repeated under the same terms and conditions. If the rejection and retesting cause the Procuring Entity to incur additional costs, the Contractor shall subject to Sub-Clause 2.5 [Procuring Entity's Claims] pay these costs to the Procuring Entity.

7.6 Remedial Work

- 7.6.1 Notwithstanding any previous test or certification, the Architect may instruct the Contractor to:
- a) Remove from the Site and replace any Plant or Materials which is not in accordance with the Contract,
 - b) remove and re-execute any other work which is not in accordance with the Contract, and
 - c) execute any work which is urgently required for the safety of the Works, whether

because of an accident, unforeseen 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, the Procuring Entity shall be entitled to employ and pay other persons to carry out the work. Except to the extent that the Contractor would have been entitled to payment for the work, the Contractor shall subject to Sub-Clause 2.5 [Procuring Entity's Claims] pay to the Procuring Entity all costs arising from this failure.
- 7.64 If the contractor repeatedly delivers defective work, the Procuring Entity may consider termination in accordance with Clause 15.

7.7 Ownership of Plant and Materials

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

- a) When it is incorporated in the Works;
- b) when the Contractor is paid the corresponding value of the Plant and Materials under Sub-Clause 8.10 [Payment for Plant and Materials in Event of Suspension].

7.8 Royalties

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

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

8 COMMENCEMENT, DELAYS AND SUSPENSION

8.1 Commencement of Works

- 8.1.1 Except as otherwise specified in the Special Conditions of Contract, the Commencement Date shall be the date at which the following precedent condition shall have all been fulfilled and the Architect notification recording the agreement of both Parties on such fulfilment and instructing to commence the Work is received by the Contractor:
- a) Signature of the Contract Agreement by both Parties, and if required, approval of the Contract by relevant authorities of Kenya;
 - b) except if otherwise specified in the Special Conditions of Contract, effective access to and possession of the Site given to the Contractor together with such permission(s) under (a) of Sub-Clause 1.13 [Compliance with Laws] as required for the commencement of the Works.
 - c) Receipt by the Contractor of the Advance Payment under Sub-Clause 14.2 [Advance Payment] provided that the corresponding bank guarantee has been delivered by the Contractor.

- 8.1.2 If the said Architect instruction is not received by the Contractor within 180 days from his receipt of the Letter of Acceptance, the Contractor shall be entitled to terminate the Contract under Sub-Clause 6.2 [Termination by Contractor].
- 8.1.3 The Contractor shall commence the execution of the Works as soon as is reasonably practicable after the Commencement Date and shall then proceed with the Works with due expedition and without delay.

82 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].

83 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. The Procuring Entity's Personnel shall be entitled to rely upon the programme when planning their activities.
- 8.3.3 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.
- 8.3.4 If, at any time, 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.

84 Extension of Time for Completion

- 84.1 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 the Procuring Entity, the Procuring Entity's Personnel, or the Procuring Entity's other contractors.
- 84.2 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.

85 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].

86 Rate of Progress

- 86.1 If, at any time:
- 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.
- 86.2 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 the Procuring Entity to incur additional costs, the Contractor shall subject to notice under Sub-Clause 2.5 [Procuring Entity's Claims] pay these costs to the Procuring Entity, in addition to delay damages (if any) under Sub-Clause 8.7 below.

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

8.7 Delay Damages

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

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

8.8 Suspension of Work

8.8.1 The Architect may at any time 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.

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

8.9 Consequences of Suspension

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

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

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

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

8.10 Payment for Plant and Materials in Event of Suspension

The Contractor shall be entitled to payment of the value (as at the date of suspension) of

Plant and/ or Materials which have not been delivered to Site, if:

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

8.11 Prolonged Suspension

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

8.12 Resumption of Work

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

9 TESTS ON COMPLETION

9.1 Contractor's Obligations

- 9.1.1 The Contractor shall carry out the Tests on Completion in accordance with this Clause and Sub-Clause 7.4 [Testing], after providing the documents in accordance with subparagraph (d) of Sub-Clause 4.1 [Contractor's General Obligations].
- 9.1.2 The Contractor shall give to the Architect not less than 21 days' notice of the date after which the Contractor will be ready to carry out each of the Tests on Completion. Unless otherwise agreed, Tests on Completion shall be carried out within 14 days after this date, on such day or days as the Architect shall instruct.
- 9.1.3 In considering the results of the Tests on Completion, the Architect shall make allowances for the effect of any use of the Works by the Procuring Entity on the performance or other characteristics of the Works. As soon as the Works, or a Section, have passed any Tests on Completion, the Contractor shall submit a certified report of the results of these Tests to the Engineer.

9.2 Delayed Tests

- 9.2.1 If the Tests on Completion are being unduly delayed by the Procuring Entity, Sub-Clause 7.4 [Testing] (fifth paragraph) and/ or Sub-Clause 10.3 [Interference with Tests on Completion] shall be applicable.
- 9.2.2 If the Tests on Completion are being unduly delayed by the Contractor, the Architect may by notice require the Contractor to carry out the Tests within 21 days after receiving the notice. The Contractor shall carry out the Tests on such day or days within that period as the Contractor may fix and of which he shall give notice to the Engineer.

92.3 If the Contractor fails to carry out the Tests on Completion within the period of 21 days, the Procuring Entity's Personnel may proceed with the Test at the risk and cost of the Contractor. The Tests on Completion shall then be deemed to have been carried out in the presence of the Contractor and the results of the Tests shall be accepted as accurate.

93 Retesting of related works

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

94 Failure to Pass Tests on Completion

94.1 If the Works, or a Section, fail to pass the Tests on Completion repeated under Sub-Clause 9.3 [Retesting], the Architect shall be entitled to:

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

10. PROCURING ENTITY'S TAKING OVER

10.1 Taking Over of the Works and Sections

10.1.1 Except as stated in Sub-Clause 9.4 [Failure to Pass Tests on Completion], the Works shall be taken over by the Procuring Entity when (i) the Works have been completed in accordance with the Contract, including the matters described in Sub-Clause 8.2 [Time for Completion] and except as allowed in sub-paragraph (a) below, and (ii) a Taking-Over Certificate for the Works has been issued, or is deemed to have been issued in accordance with this Sub-Clause.

10.1.2 The Contractor may apply by notice to the Architect for a Taking-Over Certificate not earlier than 14 days before the Works will, in the Contractor's opinion, be complete and ready for taking over. If the Works are divided into Sections, the Contract or may similarly apply for a Taking-Over Certificate for each Section.

10.1.3 The Architect shall, within 30 days after receiving the Contractor's application:

- a) Issue the Taking-Over Certificate to the 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.

102 Taking Over of Parts of the Works

- 102.1 The Architect may, at the sole discretion of the Procuring Entity, issue a Taking-Over Certificate for any part of the Permanent Works.
- 102.2 The Procuring Entity shall not use any part of the Works (other than as a temporary measure which is either specified in the Contract or agreed by both Parties) unless and until the Architect has issued a Taking-Over Certificate for this part. However, if the Procuring Entity does use any part of the Works before the Taking-Over Certificate is issued:
- a) The part which is used shall be deemed to have been taken over as from the date on which it is used,
 - b) the Contractor shall cease to be liable for the care of such part as from this date, when responsibility shall pass to the Procuring Entity, and
 - c) if requested by the Contractor, the Architect shall issue a Taking-Over Certificate for this part.
- 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 the Procuring Entity 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 thereafter 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.

103 Interference with Tests on Completion

- 103.1 If the Contractor is prevented, for more than 14 days, from carrying out the Tests on Completion by a cause for which the Procuring Entity is responsible, the Procuring Entity shall be deemed to have taken over the Works or Section (as the case may be) on the date when the Tests on Completion would otherwise have been completed.
- 103.2 The Architect shall then issue a Taking-Over Certificate accordingly, and the Contractor shall carry out the Tests on Completion as soon as practicable, before the expiry date of

the Defects Notification Period. The Architect shall require the Tests on Completion to be carried out by giving 14 days' notice and in accordance with the relevant provisions of the Contract.

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

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

11.2 Cost of Remedying Defects

- 11.2.1 All work referred to in sub-paragraph (b) of Sub-Clause 11.1 [Completion of Outstanding Work and Remedying Defects] shall be executed at the risk and cost of the Contractor, if and to the extent that the work is attributable to:
- a) Any design for which the Contractor is responsible,
 - b) Plant, Materials or workmanship not being in accordance with the Contract, or
 - c) Failure by the Contractor to comply with any other obligation.
- 11.2.2 If and to the extent that such work is attributable to any other cause, the Contractor shall be notified promptly by (or on behalf of) the Procuring Entity, and Sub-Clause 13.3 [Variation Procedure] shall apply.

11.3 Extension of Defects Notification Period

- 11.3.1 The Procuring Entity shall be entitled subject to Sub-Clause 2.5 [Procuring Entity's Claims] to an extension of the Defects Notification Period for the Works or a Section if and to the extent that the Works, Section or a major item of Plant (as the case may be, and after taking over) cannot be used for the purposes for which they are intended by reason of a defect or by reason of damage attributable to the Contractor. However, a Defects Notification Period shall not be extended by more than two years.
- 11.3.2 If delivery and/ or erection of Plant and/ or Materials was suspended under Sub-Clause 8.8 [Suspension of Work] or Sub-Clause 16.1 [Contractor's Entitlement to Suspend Work], the Contractor's obligations under this Clause shall not apply to any defects or damage occurring more than two years after the Defects Notification Period for the Plant and/ or Materials would otherwise have expired.

11.4 Failure to Remedy Defects

- 11.4.1 If the Contractor fails to remedy any defect or damage within a reasonable time, a date may be fixed by the Engineer, on or by which the defect or damage is to be remedied. The Contractor shall be given reasonable notice of this date.
- 11.4.2 If the Contractor fails to remedy the defect or damage by this notified date and this remedial work was to be executed at the cost of the Contractor under Sub-Clause 11.2[Cost of Remedying Defects], the Procuring Entity may (at his option):
- (a) Carry out the work itself or by others, in a reasonable manner and at the Contractor's cost, but the Contractor shall have no responsibility for this work; and the Contractor shall subject to Sub-Clause 2.5 [Procuring Entity's Claims] pay to the Procuring Entity the costs reasonably incurred by the Procuring Entity in remedying the defect or damage;
 - (b) Require the Architect to agree or determine a reasonable reduction in the Contract Price in accordance with Sub-Clause 3.5 [Determinations]; or
 - (c) if the defect or damage deprives the Procuring Entity of substantially the whole benefit of the Works or any major part of the Works, terminate the Contract as a whole, or in respect of such major part which cannot be put to the intended use. Without prejudice to any other rights, under the Contractor otherwise, the Procuring Entity shall then be entitled to recover all sums paid for the Works or for such part (as the case may be), plus financing costs and the cost of dismantling the same, clearing the Site and returning Plant and Materials to the Contractor.

11.5 Removal of Defective Work

If the defector damage cannot be remedied expeditiously on the Site and the Procuring Entity gives consent, the Contractor may remove from the Site for the purposes of repair such items of Plant as are defective or damaged. This consent may require the Contractor to increase the amount of the Performance Security by the full replacement cost of these items, or to provide other appropriate security.

11.6 Further Tests

- 11.6.1 If the work of remedying of any defector damage may affect the performance of the Works, the Architect may require the repetition of any of the tests described in the

Contract. The requirement shall be made by notice within 14 days after the defect or damage is remedied.

- 11.62 These tests shall be carried out in accordance with the terms applicable to the previous tests, except that they shall be carried out at the risk and cost of the Party liable, under Sub-Clause 11.2 [Cost of Remedying Defects], for the cost of the remedial work.

11.7 Right of Access

Until the Completion Certificate has been issued, the Contractor shall have such right of access to the Works as is reasonably required in order to comply with this Clause, except as may be inconsistent with the Procuring Entity's reasonable security restrictions.

11.8 Contractor to Search

The Contractor shall, if required by the Engineer, search for the cause of any defect on parts of the works that have already accepted, under the direction of the Engineer. Unless the defect is to be remedied at the cost of the Contractor under Sub-Clause 11.2 [Cost of Remedying Defects], the Cost of the search plus profit shall be agreed or determined by the Architect in accordance with Sub-Clause 3.5 [Determinations] and shall be included in the Contract Price.

11.9 Completion Certificate

- 11.91 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.

- 11.92 The Architect shall issue the Completion Certificate within 30 days after the latest of the expiry dates of the Defects Liability Period, or as soon thereafter as the Contractor has supplied all the Contractor's Documents and completed and tested all the Works, including remedying any defects. A copy of the Completion Certificate shall be issued to the Procuring Entity.

- 11.93 Only the Completion Certificate shall be deemed to constitute acceptance of the Works.

11.10 Unfulfilled Obligations

After the Completion Certificate has been issued, each Party shall remain liable for the fulfilment of any obligation which remains unperformed at that time. For the purposes of determining the nature and extent of unperformed obligations, the Contract shall be deemed to remain in force.

11.11 Clearance of Site

- 11.11.1 Upon receiving the Completion Certificate, the Contractor shall remove any remaining Contractor's Equipment, surplus material, wreckage, rubbish and Temporary Works from the Site.

- 11.11.2 If all these items have not been removed within 30 days after receipt by the Contractor of the Completion Certificate, the Procuring Entity may sell or otherwise dispose of any remaining items. The Procuring Entity shall be entitled to be paid the costs incurred in connection with, or attributable to, such sale or disposal and restoring the Site.

11.11.3 Any balance of the moneys from the sale shall be paid to the Contractor. If these moneys are less than the Procuring Entity's costs, the Contractor shall pay the outstanding balance to the Procuring Entity.

12 MEASUREMENT 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 the records with the Engineer, and shall sign the same when agreed. If the Contractor does not attend, the records shall be accepted as accurate.

12.1.5 If the Contractor examines and disagrees the records, and/ or does not sign them as agreed, then the Contractor shall give notice to the Architect of the respects in which the records are asserted to be inaccurate. After receiving this notice, the Architect shall review the records and either confirm or vary them and certify the payment of the undisputed part. If the Contractor does not so give notice to the Architect within 14 days after being requested to examine the records, they shall be accepted as accurate.

12.2 Method of Measurement

Except as otherwise stated in the Contract:

- a) Measurement shall be made of the net actual quantity of each item of the Permanent Works, and
- b) the method of measurement shall be in accordance with the Bill of Quantities or other applicable Schedules.

12.3 Evaluation

12.3.1 Except as otherwise stated in the Contract, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine the value of work done by evaluating each item of work, applying the measurement agreed or determined in accordance with the above Sub-Clauses 12.1 and 12.2 and the appropriate rate or price for the item.

- 12.32 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.
- 12.33 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.
- 12.34 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.
- 12.35 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.
- 12.36 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.
- 12.37 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.

- 13.12 The Contractor shall execute and be bound by each Variation, unless the Contractor promptly gives notice to the Architect stating (with supporting particulars) that (i) the Contractor cannot readily obtain the Goods required for the Variation, or (ii) such Variation triggers a substantial change in the sequence or progress of the Works. Upon receiving this notice, the Architect shall cancel, confirm or vary the instruction.
- 13.13 Each Variation may include:
- a) changes to the quantities of any item of work included in the Contract (however, such changes do not necessarily constitute a Variation),
 - b) changes to the quality and other characteristics of any item of work,
 - c) changes to the levels, positions and/ or dimensions of any part of the Works,
 - d) omission of any work unless it is to be carried out by others,
 - e) any additional work, Plant, Materials or services necessary for the Permanent Works, including any associated Tests on Completion, boreholes and other testing and exploratory work, or
 - f) changes to the sequence or timing of the execution of the Works.
- 13.14 The Contractor shall not make any alteration and/or modification of the Permanent Works, unless and until the Architect instructs after obtaining approval of the Procuring Entity.

132 Variation Order Procedure

- 13.21 Prior to any Variation Order under Sub-Clause 13.1.4 the Architect shall notify the Contractor of the nature and form of such variation. As soon as possible after having received such notice, the Contractor shall submit to the Engineer:
- a) A description of work, if any, to be performed and a programme for its execution, and
 - b) the Contractor's proposals for any necessary modifications to the Programme according to Sub-Clause 8.3 or to any of the Contractor's obligations under the Contract, and
 - c) the Contractor's proposals for adjustment to the Contract Price.

Following the receipt of the Contractor's submission the Architect shall, after due consultation with the Employer and the Contractor, decide as soon as possible whether or not the variation shall be carried out. If the Architect decides that the variation shall be carried out, he shall issue a Variation Order clearly identified as such in accordance with the Contractor's submission or as modified by agreement.

If the Architect and the Contractor are unable to agree the adjustment of the Contract Price, the provisions of Sub-Clause 13.2.2 shall apply.

13.2.2 Disagreement on Adjustment of the Contract Price

If the Contractor and the 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 Works 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.

1323 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.

1324 Value Engineering

13.3.1 The Contractor may, at any time, submit to the Architect written proposal which (in the Contractor's opinion) will, if adopted, (i) accelerate completion, (ii) reduce the cost to the Procuring Entity of executing, maintaining or operating the Works, (iii) improve the efficiency or value to the Procuring Entity of the completed Works, or (iv) otherwise be of benefit to the Procuring Entity.

13.3.2 The proposal shall be prepared at the cost of the Contractor and shall include the items listed in Sub-Clause 13.3 [Variation Procedure].

13.3.3 If a proposal, which is approved by the Engineer, includes a change in the design of part of the Permanent Works, then unless otherwise agreed by both Parties:

- a) The Contractor shall design this part,
- b) sub-paragraphs (a) to (d) of Sub-Clause 4.1 [Contractor's General Obligations] shall apply, and
- c) if this change results in a reduction in the contract value of this part, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine a fee, which shall be included in the Contract Price. This fee shall be half (50%) of the difference between the following amounts:
 - i) such reduction in contract value, resulting from the change, excluding adjustments under Sub-Clause 13.8 [Adjustments for Changes in Legislation] and Sub-Clause 13.8 [Adjustments for Changes in Cost], and
 - ii) the reduction (if any) in the value to the Procuring Entity of the varied works, taking account of any improvement in quality, anticipated life or operational efficiencies.

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

13.2.3 (c) (i) is more than amount established in item 13.2.3 (c) (ii), it shall result in a price variation to the Procuring Entity.

134 Variation Procedure for Value Engineering proposal

- 134.1 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.
- 134.2 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 awaiting a response.
- 134.3 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.
- 134.4 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.

135 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.

136 Provisional Sums

- 136.1 Each Provisional Sum shall only be used, in whole or in part, in accordance with the Architect instructions, and the Contract Price shall be adjusted accordingly. The total sum paid to the Contractor shall include only such amounts, for the work, supplies or services to which the Provisional Sum relates, as the Architect shall have instructed. For each Provisional Sum, the Architect May instruct:
- a) Work to be executed (including Plant, Materials or services to be supplied) by the Contractor and valued under Sub-Clause 13.3 [Variation Procedure]; and/or
 - b) Plant, Materials or services to be purchased by the Contractor, from a nominated Subcontractor (as defined in Clause 5 [Nominated Subcontractors]) or otherwise; and for which there shall be included in the Contract Price:
 - i) The actual amounts paid (or due to be paid) by the Contractor, and
 - ii) a sum for overhead charges and profit, calculated as a percentage of these actual amounts by applying the relevant percentage rate (if any) stated in the appropriate Schedule. If there is no such rate, the percentage rate stated in **the Special Conditions of Contract** shall be applied.

13.6.2 The Contractor shall, when required by the Engineer, produce quotations, invoices, vouchers and accounts or receipts in substantiation.

13.7 Dayworks

13.7.1 For work of a minor or incidental nature, the Architect may instruct that a Variation shall be executed on a daywork basis. The work shall then be valued in accordance with the Daywork Schedule included in the Contract, and the following procedure shall apply. If a Daywork Schedule is not included in the Contract, this Sub-Clause shall not apply.

13.7.2 Before ordering Goods for the work, the Contractor shall submit quotations to the Engineer. When applying for payment, the Contractor shall submit invoices, vouchers and accounts or receipts for any Goods.

13.7.3 Except for any items for which the Daywork Schedule specifies that payment is not due, the Contractor shall deliver each day to the Architect accurate statements induplicate which shall include the following details of the resources used in executing the previous day's work:

- a) The names, occupations and time of Contractor's Personnel,
- b) the identification, type and time of Contractor's Equipment and Temporary Works, and
- c) the quantities and types of Plant and Materials used.

13.7.4 One copy of each statement will, if correct, or when agreed, be signed by the Architect and returned to the Contractor. The Contractor shall then submit priced statements of these resources to the Engineer, prior to their inclusion in the next Statement under Sub-Clause 14.3 [Application for Interim Payment Certificates].

13.8 Adjustments for Changes in Legislation

13.8.1 The Contract Price shall be adjusted to take account of any increase or decrease in Cost resulting from a change in the Laws of Kenya (including the introduction of new Laws and the repeal or modification of existing Laws) or in the judicial or official governmental interpretation of such Laws, made after the Base Date, which affect the Contractor in the performance of obligations under the Contract.

13.8.2 If the Contractor suffers (or will suffer) delay and/or incurs (or will incur) additional Cost as a result of these changes in the Laws or in such interpretations, made after the Base Date, the Contractor shall give notice to the Architect and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:

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

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

13.8.4 Notwithstanding the foregoing, the Contractor shall not be entitled to an extension of time if the relevant delay has already been taken into account in the determination of a previous extension of time and such Cost shall not be separately paid if the same shall already have been taken into account in the indexing of any inputs to the table of adjustment data in accordance with the provisions of Sub-Clause 13.8 [Adjustments for

Changes in Cost].

139 Adjustments for Changes in Cost

- 139.1 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.
- 139.2 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.
- 139.3 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:

$$P = A + B \text{ Im/Io}$$

where:

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

A and **B** a recoefficients **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 **Ioc** is the index prevailing 30 days before Bid opening for inputs payable.

NOTE: The sum of the two coefficients A and B should be 1 (one) in the formula for each currency. Normally, both coefficients shall be the same in the formulae for all currencies, since coefficient A, for the non-adjustable portion of the payments, is a very approximate figure (usually 0.15) to take account of fixed cost elements or other nonadjustable components. The sum of the adjustments for each currency are added to the Contract Price.

- 139.4 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.
- 139.5 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.

- 139.6 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.
- 139.7 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 the Procuring Entity.
- 139.8 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 in applicable, as a result of Variations.

14 CONTRACT PRICE AND PAYMENT

14.1 The Contract Price

14.1.1 Unless otherwise stated in the Special Conditions:

- a) The value of the payment certificate shall be agreed or determined under Sub-Clause 12.3 [Evaluation] and be subject to adjustments in accordance with the Contract;
- b) the Contractor shall pay all taxes, duties and fees required to be paid by him under the Contract, and the Contract Price shall not be adjusted for any of these costs except as stated in Sub-Clause 13.7 [Adjustments for Changes in Legislation];
- c) any quantities which may be set out in the Bill of Quantities or other Schedule are estimated quantities and are not to be taken as the actual and correct quantities:
 - i) of the Works which the Contractor is required to execute, or
 - ii) for the purposes of Clause 12 [Measurement and Evaluation]; and
- d) the Contractor shall submit to the Engineer, within 30 days after the Commencement Date, a proposed breakdown of each lump sum price in the Schedules. The Architect may take account of the break down when preparing Payment Certificates but shall not be bound by it.

14.1.2 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 The Procuring Entity shall make an advance payment, as an interest-free loan for mobilization and cashflow support, when the Contractor submits a guarantee in accordance with this Clause. The total advance payment, the number and timing of instalments (if more than one), and the applicable currencies and proportions, shall be as stated in the **Special Conditions of Contract**.

- 14.22 Unless and until the Procuring Entity receives this guarantee, or if the total advance payment is not stated in the Special Conditions of Contract, this Sub-Clause shall not apply.
- 14.23 The Architect shall deliver to the Procuring Entity and to the Contractor an Interim Payment Certificate for the advance payment or its first instalment after receiving a Statement (under Sub-Clause 14.3 [Application for Interim Payment Certificates]) and after the Procuring Entity receives (i) the Performance Security in accordance with Sub-Clause 4.2 [Performance Security] and (ii) a guarantee in amounts and currencies equal to the advance payment. This guarantee shall be issued by a reputable bank or financial institutions elected by the Contractor and shall be in the form annexed to the Special Conditions or in another form approved by the Procuring Entity.
- 14.24 The Contractor shall ensure that the guarantee is valid and enforceable until the advance payment has been repaid, but its amount shall be progressively reduced by the amount repaid by the Contractor as indicated in the Payment Certificates. If the terms of the guarantee specify its expiry date, and the advance payment has not been repaid by the date 30 days prior to the expiry date, the Contractor shall extend the validity of the guarantee until the advance payment has been repaid.
- 14.25 Unless stated otherwise in **the Special Conditions of Contract**, the advance payment shall be repaid through percentage deductions from the interim payments determined by the Architect in accordance with Sub-Clause 14.6 [Issue of Interim Payment Certificates], as follows:
- a) Deductions shall commence in the next interim Payment Certificate following that in which the total of all certified interim payments (excluding the advance payment and deductions and repayments of retention) exceeds 30 percent (30%) of the Accepted Contract Amount less Provisional Sums; and
 - b) deductions shall be made at the amortization rate stated in the **Special Conditions of Contract** of the amount of each Interim Payment Certificate (excluding the advance payment and deductions for its repayments as well as deductions for retention money) in the currencies and proportions of the advance payment until such time as the advance payment has been repaid; provided that the advance payment shall be completely repaid prior to the time when 90 percent (90%) of the Accepted Contract Amount less Provisional Sums has been certified for payment.
- 14.26 If the advance payment has not been repaid prior to the issue of the Taking-Over Certificate for the Works or prior to termination under Clause 15 [Termination by Procuring Entity], Clause 16 [Suspension and Termination by Contractor] or Clause 19 [Force Majeure] (as the case may be), the whole of the balance then outstanding shall immediately become due and in case of termination under Clause 15 [Termination by Procuring Entity], except for Sub-Clause 14.2.7 [Procuring Entity's Entitlement to Termination for Convenience], payable by the Contractor to the Procuring Entity.

14.3 Application for Interim Payment Certificates

- 14.3.1 The Contractor shall submit a Statement (in number of copies indicated in the **Special Conditions of Contract**) to the Architect after the end of each month, in a form approved by the Engineer, showing in detail the amounts to which the Contractor considers itself to be entitled, together with supporting documents which shall include there portion the progress during this month in accordance with Sub-Clause 4.21 [Progress Reports].

- 14.3.2 The Statement shall include the following items, as applicable, which shall be expressed in the various currencies in which the Contract Price is payable, in the sequence listed:
- a) the estimated contract value of the Works executed and the Contractor's Documents produced up to the end of the month (including Variations but excluding items described in sub-paragraphs (b) to (g) below);
 - b) any amounts to be added and deducted for changes in legislation and changes in cost, in accordance with Sub-Clause 13.7 [Adjustments for Changes in Legislation] and Sub-Clause 13.8 [Adjustments for Changes in Cost];
 - c) any amount to be deducted for retention, calculated by applying the percentage of retention stated in **the Special Conditions of Contract** to the total of the above amounts, until the amount so retained by the Procuring Entity reaches the limit of Retention Money (if any) stated **in the Special Conditions of Contract**;
 - d) any amounts to be added for the advance payment and (if more than one instalment) and to be deducted for its repayments in accordance with Sub-Clause 14.2 [Advance Payment];
 - e) any amounts to be added and deducted for Plant and Materials in accordance with Sub-Clause 14.5 [Plant and Materials intended for the Works];
 - f) any other additions or deductions which may have become due under the Contractor otherwise, including those under Clause 20 [Claims, Disputes and Arbitration]; and
 - g) the deduction of amounts certified in all previous Payment Certificates.

14.4 Schedule of Payments

- 14.4.1 If the Contract includes a schedule of payments specifying the instalments in which the Contract Price will be paid, then unless otherwise stated in this schedule:
- a) The instalments quoted in this schedule of payments shall be the estimated contract values for the purposes of sub-paragraph (a) of Sub-Clause 14.3 [Application for Interim Payment Certificates];
 - b) Sub-Clause 14.5 [Plant and Materials intended for the Works] shall not apply; and
 - c) If these instalments are not defined by reference to the actual progress achieved in executing the Works, and if actual progress is found to be less or more than that on which this schedule of payments was based, then the Architect may proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine revised instalments, which shall take account of the extent to which progress is less or more than that on which the instalments were previously based.
- 14.4.2 If the Contract does not include a schedule of payments, the Contractor shall submit non-binding estimates of the payments which he expects to become due during each quarterly period. The first estimate shall be submitted within 42 days after the Commencement Date. Revised estimates shall be submitted at quarterly intervals, until the Taking-Over Certificate has been issued for the Works.

14.5 Plant and Materials intended for the Works

- 14.5.1 If this Sub-Clause applies, Interim Payment Certificates shall include, under sub-paragraph (e) of Sub-Clause 14.3, (i) an amount for Plant and Materials which have been sent to the Site for incorporation in the Permanent Works, and (ii) a reduction when the contract value of such Plant and Materials is included as part of the Permanent Works under sub-paragraph (a) of Sub-Clause 14.3 [Application for Interim Payment Certificates].

- 14.52 If the lists referred to in sub-paragraphs (b)(i) or (c)(i) below are not included in the Schedules, this Sub-Clause shall not apply.
- 14.53 The Architect shall determine and certify each addition if the following conditions are satisfied:
- a) The Contractor has:
 - i) kept satisfactory records (including the orders, receipts, Costs and use of Plant and Materials) which are available for inspection, and
 - ii) submitted statement of the Cost of acquiring and delivering the Plant and Materials to the Site, supported by satisfactory evidence; and either:
 - b) the relevant Plant and Materials:
 - i) are those listed in the Schedules for payment when shipped,
 - ii) have been shipped to Kenya, enroute to the Site, in accordance with the Contract; and
 - iii) are described in a clean shipped bill of lading or other evidence of shipment, which has been submitted to the Architect together with evidence of payment of freight and insurance, any other documents reasonably required, and a bank guarantee in a form and issued by an entity approved by the Procuring Entity in amounts and currencies equal to the amount due under this Sub-Clause: this guarantee may be in a similar form to the form referred to in Sub-Clause 14.2 [Advance Payment] and shall be valid until the Plant and Materials are properly stored on Site and protected against loss, damage or deterioration; or
 - c) the relevant Plant and Materials:
 - i) are those listed in the Schedules for payment when delivered to the Site, and
 - ii) have been delivered to and are properly stored on the Site, are protected against loss, damage or deterioration and appear to be in accordance with the Contract.
- 14.54 The additional amount to be certified shall be the equivalent of eighty percent (80%) of the Architect determination of the cost of the Plant and Materials (including delivery to Site), taking account of the documents mentioned in this Sub-Clause and of the contract value of the Plant and Materials.
- 14.55 The currencies for this additional amount shall be the same as those in which payment will become due when the contract value is included under sub-paragraph (a) of Sub-Clause 14.3 [Application for Interim Payment Certificates]. At that time, the Payment Certificate shall include the applicable reduction which shall be equivalent to, and in the same currencies and proportions as, this additional amount for the relevant Plant and Materials.

14.6 Issue of Interim Payment Certificates

- 14.61 No amount will be certified or paid until the Procuring Entity has received and approved the Performance Security. Thereafter, the Architect shall, within 30 days after receiving a Statement and supporting documents, deliver to the Procuring Entity and to the Contractor an Interim Payment Certificate which shall state the amount which the Architect fairly determines to be due, with all supporting particulars for any reduction or withholding made by the Architect on the Statement if any.
- 14.62 However, prior to issuing the Taking-Over Certificate for the Works, the Architect shall not be bound to issue an Interim Payment Certificate in an amount which would (after retention and other deductions) be less than the minimum amount of Interim Payment

Certificates (if any) stated **in the Special Conditions of Contract**. In this event, the Architect shall give notice to the Contractor accordingly.

- 14.63 An Interim Payment Certificate shall not be withheld for any other reason, although:
- a) if anything supplied or work done by the Contractor is not in accordance with the Contract, the cost of rectification or replacement may be withheld until rectification or replacement has been completed; and/or
 - b) if the Contractor was or is failing to perform any work or obligation in accordance with the Contract, and had been so notified by the Engineer, the value of this work or obligation may be withheld until the work or obligation has been performed.
- 14.64 The Architect may in any Payment Certificate make any correction or modification that should properly be made to any previous Payment Certificate. A Payment Certificate shall not be deemed to indicate the Architect acceptance, approval, consent or satisfaction.

14.7 Payment

- 14.7.1 The Procuring Entity shall pay to the Contractor:
- a) The advance payment shall be paid within 60 days after signing of the contract by both parties or within 60 days after receiving the documents in accordance with Sub-Clause 4.2 [Performance Security] and Sub- Clause 14.2 [Advance Payment], whichever is later;
 - b) The amount certified in each Interim Payment Certificate within 60 days after the Architect Issues Interim Payment Certificate; and
 - c) the amount certified in the Final Payment Certificate within 60 days after the Procuring Entity Issues Interim Payment Certificate; or after determination of any disputed amount shown in the Final Statement in accordance with Sub-Clause 16.2 [Termination by Contractor].
- 14.7.2 Payment of the amount due in each currency shall be made into the bank account, nominated by the Contractor, in the payment country (forth is currency) specified in the Contract.

14.8 Delayed Payment

- 14.8.1 If the Contractor does not receive payment in accordance with Sub-Clause 14.7 [Payment], the Contractor shall be entitled to receive financing charges (simple interest) monthly on the amount unpaid during the period of delay. This period shall be deemed to commence on the date for payment specified in Sub-Clause 14.7 [Payment], irrespective (in the case of its sub-paragraph (b) of the date on which any Interim Payment Certificate is issued.
- 14.8.2 These financing charges shall be calculated at the annual rate of three percentage points above the mean rate of the Central Bank in Kenya of the currency of payment, or if not available, the interbank offered rate, and shall be paid in such currency.
- 14.8.3 The Contractor shall be entitled to this payment without formal notice and certification, and without prejudice to any other right or remedy.

14.9 Payment of Retention Money

- 14.9.1 When the Taking-Over Certificate has been issued for the Works, the first half of the Retention Money shall be certified by the Architect for payment to the Contractor. If a Taking-Over Certificate is issued for a Section or part of the Works, a proportion of the Retention Money shall be certified and paid. This proportion shall be half (50%) of the proportion calculated by dividing the estimated contract value of the Section or part, by the estimated final Contract Price.
- 14.9.2 Promptly after the latest of the expiry dates of the Defects Liability Periods, the outstanding balance of the Retention Money shall be certified by the Architect for payment to the Contractor. If a Taking-Over Certificate was issued for a Section, a proportion of the second half of the Retention Money shall be certified and paid promptly after the expiry date of the Defects Notification Period for the Section. This proportion shall be half (50%) of the proportion calculated by dividing the estimated contract value of the Section by the estimated final Contract Price.
- 14.9.3 However, if any work remains to be executed under Clause 11 [Defects Liability], the Architects shall be entitled to withhold certification of the estimated cost of this work until it has been executed.
- 14.9.4 When calculating these proportions, no account shall be taken of any adjustments under Sub-Clause 13.7 [Adjustments for Changes in Legislation] and Sub-Clause 13.8 [Adjustments for Changes in Cost].
- 14.9.5 Unless otherwise stated in the Special Conditions, when the Taking-Over Certificate has been issued for the Works and the first half of the Retention Money has been certified for payment by the Engineer, the Contractor shall be entitled to substitute a Retention Money Security guarantee, in the form annexed to the Special Conditions or in another form approved by the Procuring Entity and issued by a reputable bank or financial institution selected by the Contractor, for the second half of the Retention Money.
- 14.9.6 The Procuring Entity shall return the Retention Money Security guarantee to the Contractor within 14 days after receiving a copy of the Completion Certificate.

14.10 Statement at Completion

- 14.10.1 Within 84 days after receiving the Taking-Over Certificate for the Works, the Contractor shall submit to the Architect three copies of a Statement at completion with supporting documents, in accordance with Sub-Clause 14.3 [Application for Interim Payment Certificates], showing:
- a) the value of all work done in accordance with the Contract up to the date stated in the Taking-Over Certificate for the Works,
 - b) any further sums which the Contractor considers to be due, and
 - c) an estimate of any other amounts which the Contractor considers will become due to him under the Contract. Estimated amounts shall be shown separately in this Statement at completion.
- 14.10.2 The Architect shall then certify in accordance with Sub-Clause 14.6 [Issue of Interim Payment Certificates].

14.11 Application for Final Payment Certificate

- 14.11.1 Within 60 days after receiving the Completion Certificate, the Contractor shall submit, to the Engineer, six copies of a draft final statement with supporting documents showing in detail in a form approved by the Engineer:
- a) The value of all work done in accordance with the Contract, and
 - b) Any further sums which the Contractor considers to be due to him under the Contract otherwise.
- 14.11.2 If the Architect disagrees with or cannot verify any part of the draft final statement, the Contractor shall submit such further information as the Architect may reasonably require within 30 days from receipt of said draft and shall make such changes in the draft as may be agreed between them. The Contractor shall then prepare and submit to the Architect the final statement as agreed. This agreed statement is referred to in these Conditions as the "Final Statement".
- 14.11.3 However, if, following discussions between the Architect and the Contractor and any changes to the draft final statement which are agreed, it becomes evident that a dispute exists, the Architect shall deliver to the Procuring Entity (with a copy to the Contractor) an Interim Payment Certificate for the agreed parts of the draft final statement. Thereafter, if the dispute is finally resolved under Sub-Clause 20.4 [Obtaining Dispute Board's Decision] or Sub-Clause 20.5 [Amicable Settlement], the Contractor shall then prepare and submit to the Procuring Entity (with a copy to the Engineer) a Final Statement.

14.12 Discharge

When submitting the Final Statement, the Contractor shall submit a discharge which confirms that the total of the Final Statement represents full and final settlement of all moneys due to the Contractor under or in connection with the Contract. This discharge may state that it becomes effective when the Contractor has received the Performance Security and the outstanding balance of this total, in which event the discharge shall be effective on such date.

14.13 Issue of Final Payment Certificate

- 14.13.1 Within 30 days after receiving the Final Statement and discharge in accordance with Sub-Clause 14.11 [Application for Final Payment Certificate] and Sub-Clause 14.12 [Discharge], the Architect shall deliver, to the Procuring Entity and to the Contractor, the Final Payment Certificate which shall state:
- a) The amount which he fairly determines is finally due, and
 - b) After giving credit to the Procuring Entity for all amounts previously paid by the Procuring Entity and for all sums to which the Procuring Entity is entitled, the balance (if any) due from the Procuring Entity to the Contractor or from the Contractor to the Procuring Entity, as the case may be.
- 14.13.2 If the Contractor has not applied for a Final Payment Certificate in accordance with Sub-Clause 14.11 [Application for Final Payment Certificate] and Sub-Clause 14.12 [Discharge], the Architect shall request the Contractor to do so. If the Contractor fails to submit an application within a period of 30 days, the Architect shall issue the Final Payment Certificate for such amount as he fairly determines to be due.

14.14 Cessation of Procuring Entity's Liability

- 14.14.1 The Procuring Entity shall not be liable to the Contractor for any matter or thing under or in connection with the Contract or execution of the Works, except to the extent that the Contractor shall have included an amount expressly for it:
- a) in the Final Statement and also,
 - b) (except for matters or things arising after the issue of the Taking-Over Certificate for the Works) in the Statement at completion described in Sub-Clause 14.10 [Statement at Completion].
- 14.14.2 However, this Sub-Clause shall not limit the Procuring Entity's liability under his indemnification obligations, or the Procuring Entity's liability in any case of fraud, deliberate default or reckless misconduct by the Procuring Entity.

14.15 Currencies of Payment

The Contract Price shall be paid in the currency or currencies named in the Schedule of Payment Currencies. If more than one currency is so named, payments shall be made as follows:

- a) If the Accepted Contract Amount was expressed in Local Currency only:
 - i) the proportions or amounts of the Local and Foreign Currencies, and the fixed rates of exchange to be used for calculating the payments, shall be as stated in the Schedule of Payment Currencies, except as otherwise agreed by both Parties;
 - ii) payments and deductions under Sub-Clause 13.5 [Provisional Sums] and Sub-Clause 13.7 [Adjustments for Changes in Legislation] shall be made in the applicable currencies and proportions; and
 - iii) other payments and deductions under sub-paragraphs (a) to (d) of Sub-Clause 14.3 [Application for Interim Payment Certificates] shall be made in the currencies and proportions specified in sub-paragraph (a) (i) above;
- b) payment of the damages specified in the Special Conditions of Contract, shall be made in the currencies and proportions specified in the Schedule of Payment Currencies;
- c) other payments to the Procuring Entity by the Contractor shall be made in the currency in which the sum was expended by the Procuring Entity, or in such currency as may be agreed by both Parties;
- d) if any amount payable by the Contractor to the Procuring Entity in a particular currency exceeds the sum payable by the Procuring Entity to the Contractor in that currency, the Procuring Entity may recover the balance of this amount from the sums otherwise payable to the Contractor in other currencies; and
- e) if no rates of exchange are stated in the Schedule of Payment Currencies, they shall be those prevailing on the Base Date and determined by the Central Bank of Kenya.

15 TERMINATION BY PROCURING ENTITY

15.1 Notice to correct any defects or failures

If the Contractor fails to carry out any obligation under the Contract, the Architect may by notice require the Contractor to make good the failure and to remedy it within 30 days.

152 Termination by Procuring Entity

15.2.1 The Procuring Entity shall be entitled to terminate the Contract if the Contractor breaches the contract based on following circumstances which shall include but not limited to:

- a) fails to comply with Sub-Clause 4.2 [Performance Security] or with a notice under Sub-Clause 15.1 [Notice to Correct],
- b) abandons the Works or otherwise plainly demonstrates the intention not to continue performance of his obligations under the Contract,
- c) without reasonable excuse fails:
 - i) to proceed with the Works in accordance with Clause 8 [Commencement, Delays and Suspension], or
 - ii) to comply with a notice issued under Sub-Clause 7.5 [Rejection] or Sub-Clause 7.6 [Remedial Work], within 30 days after receiving it,
- d) subcontracts the major part or whole of the Works or assigns the Contract without the consent of the Procuring Entity,
- e) becomes bankrupt or insolvent, goes into liquidation, has a receiving or administration order made against him, compounds with his creditors, or carries on business under a receiver, trustee or manager for the benefit of his creditors, or if any act is done or event occurs which (under applicable Laws) has a similar effect to any of these acts or events, or
- f) gives or offers to give (directly or indirectly) to any person any bribe, gift, gratuity, commission or other thing of value, as an induce mentor reward:
 - i) for doing or for bearing to do any action in relation to the Contract, or
 - ii) for showing or for bearing to show favor or disfavor to any person in relation to the Contract, or
 - iii) if any of the Contractor's Personnel, agents or Subcontractors gives or offers to give (directly or indirectly) to any person any such induce mentor reward as is described in this sub-paragraph (f). However, lawful inducements and rewards to Contractor's Personnel shall not entitle termination, or
- g) If the contract or repeatedly fails to remedy delivers defective work,
- h) based on reasonable evidence, has engaged in Fraud and Corruption as defined in paragraph 2.2 of the Appendix B to these General Conditions, in competing for or in executing the Contract.

15.2.2 In any of these events or circumstances, the Procuring Entity may, upon giving 14 days' notice to the Contractor, terminate the Contract and expel the Contractor from the Site. However, in the case of sub- paragraph (e) or (f) or (g) or (h), the Procuring Entity may by notice terminate the Contract immediately.

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

15.2.4 The Contractor shall then leave the Site and deliver any required Goods, all Contractor's Documents, and other design documents made by or for him, to the Engineer. However,

the Contractor shall use his best efforts to comply immediately with any reasonable instructions included in the notice (i) for the assignment of any subcontract, and (ii) for the protection of life or property or for the safety of the Works.

- 15.25 After termination, the Procuring Entity may complete the Works and/ or arrange for any other entities to do so. The Procuring Entity and these entities may then use any Goods, Contractor's Documents and other design documents made by or on behalf of the Contractor.
- 15.26 The Procuring Entity shall then give notice that the Contractor's Equipment and Temporary Works will be released to the Contractor at or near the Site. The Contractor shall promptly arrange their removal, at the risk and cost of the Contractor. However, if by this time the Contractor has failed to make a payment due to the Procuring Entity, these items may be sold by the Procuring Entity in order to recover this payment. Any balance of the proceeds shall then be paid to the Contractor.

153 Valuation at Date of Termination

As soon as practicable after a notice of termination under Sub-Clause 15.2 [Termination by Procuring Entity] has taken effect, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine the value of the Works, Goods and Contractor's Documents, and any other sums due to the Contractor for work executed in accordance with the Contract.

154 Payment after Termination

After a notice of termination under Sub-Clause 15.2 [Termination by Procuring Entity] has taken effect, the Procuring Entity may:

- a) Proceed in accordance with Sub-Clause 2.5 [Procuring Entity's Claims],
- b) withhold further payments to the Contractor until the costs of execution, completion and remedying of any defects, damages for delay in completion (if any), and all other costs incurred by the Procuring Entity, have been established, and/ or
- c) recover from the Contractor any losses and damages incurred by the Procuring Entity and any extra costs of completing the Works, after allowing for any sum due to the Contractor under Sub-Clause 15.3 [Valuation at Date of Termination]. After recovering any such losses, damages and extra costs, the Procuring Entity shall pay any balance to the Contractor.

155 Procuring Entity's Entitlement to Termination for Convenience

The Procuring Entity shall be entitled to terminate the Contract, at any time at the Procuring Entity's convenience, by giving notice of such termination to the Contractor. The termination shall take effect 30 days after the later of the dates on which the Contractor receives this notice or the Procuring Entity returns the Performance Security. The Procuring Entity shall not terminate the Contract under this Sub-Clause in order to execute the Works itself or to arrange for the Works to be executed by another contractor or to avoid a termination of the Contract by the Contractor under Clause 16.2 [Termination by Contractor]. After this termination, the Contractor shall proceed in accordance with Sub-Clause 16.3 [Cessation of Work and Removal of Contractor's Equipment] and shall be paid in accordance with Sub-Clause 16.4 [Payment on Termination].

15.6 Fraud and Corruption

The Contractor shall ensure compliance with the Kenya Government's Anti-Corruption Laws and its prevailing sanctions.

15.7 Corrupt gifts and payments of commission

15.7.1 The Contractor shall not;

- a) Offer or give or agree to give to any person in the service of the Procuring Entity any gift or consideration of any kind as an inducement or reward for doing or for bearing to door for having done or for borne to do any act in relation to the obtaining or execution of this or any other Contract for the Procuring Entity or for showing or for bearing to show favor or disfavor to any person in relation to this or any other contract for the Procuring Entity.
- b) Enter into this or any other contract with the Procuring Entity in connection with which commission has been paid or agreed to be paid by him or on his behalf or to his knowledge, unless before the Contract is made particulars of any such commission and of the terms and conditions of any agreement for the payment there of have been disclosed in writing to the Procuring Entity.

15.7.2 Any breach of this Condition by the Contractor or by anyone employed by him or acting on his behalf (whether with or without the knowledge of the Contractor) shall be an offence under the provisions of the Public Procurement and Asset Disposal Act (2015) and the Anti-Corruption and Economic Crimes Act (2003) of the Laws of Kenya.

16 SUSPENSION AND TERMINATION BY CONTRACTOR

16.1 Contractor's Entitlement to Suspend Work

16.1.1 If the Architect fails to certify in accordance with Sub-Clause 14.6 [Issue of Interim Payment Certificates] or Sub-Clause 14.7 [Payment], or not receiving instructions that would enable the contractor to proceed with the works in accordance with the program, the Contractor may, after giving not less than 30 days' notice to the Procuring Entity, suspend work (or reduce the rate of work) unless and until the Contractor has received the Payment Certificate, reasonable evidence or payment, as the case may be and as described in the notice.

16.1.2 The Contractor's action shall not prejudice his entitlements to financing charges under Sub-Clause 14.8 [Delayed Payment] and to termination under Sub-Clause 16.2 [Termination by Contractor]

16.1.3 If the Contractor subsequently receives such Payment Certificate, evidence or payment (as described in the relevant Sub-Clause and in the above notice) before giving a notice of termination, the Contractor shall resume normal working as soon as is reasonably practicable.

16.1.4 If the Contractor suffers delay and/or incurs Cost as a result of suspending work (or reducing the rate of work) in accordance with this Sub-Clause, the Contractor shall give notice to the Architect and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:

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

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

163 Termination by Contractor

163.1 The Contractor shall be entitled to terminate the Contract if:

- a) the Architect fails, within 60 days after receiving a Statement and supporting documents, to issue the relevant Payment Certificate,
- b) the Contractor does not receive the amount due under an Interim Payment Certificate within 90 days after the expiry of the time stated in Sub-Clause 4.7 [Payment] within which payment is to be made (except for deductions in accordance with Sub-Clause 2.5 [Procuring Entity's Claims]),
- c) the Procuring Entity substantially fails to perform his obligations under the Contract in such manner as to materially and adversely affect the economic balance of the Contract and/or the ability of the Contractor to perform the Contract,
- d) a prolonged suspension affects the whole of the Works as described in Sub-Clause 8.11 [Prolonged Suspension], or
- e) the Procuring Entity becomes bankrupt or insolvent, goes into liquidation, has a receiving or administration order made against him, compounds with his creditors, or carries on business under a receiver, trustee or manager for the benefit of his creditors, or if any act is done or event occurs which (under applicable Laws) has a similar effect to any of these acts or events.
- f) the Contractor does not receive the Architect instruction recording the agreement of both Parties on the fulfilment of the conditions for the Commencement of Works under Sub-Clause 8.1 [Commencement of Works].

163.2 In any of these events or circumstances, the Contractor may, upon giving 14 days' notice to the Procuring Entity, terminate the Contract. However, in the case of sub-paragraph (f) or (g), the Contractor may by notice terminate the Contract immediately.

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

164 Cessation of Work and Removal of Contractor's Equipment

After a notice of termination under Sub-Clause 15.5 [Procuring Entity's Entitlement to Termination for Convenience], Sub-Clause 16.2 [Termination by Contractor] or Sub-Clause 19.6 [Optional Termination, Payment and Release] has taken effect, the Contractor shall promptly:

- a) cease all further work, except for such work as may have been instructed by the Architect for the protection of life or property or for the safety of the Works,
- b) hand over Contractor's Documents, Plant, Materials and other work, for which the Contractor has received payment, and
- c) remove all other Goods from the Site, except as necessary for safety, and leave the Site.

165 Payment on Termination

After a notice of termination under Sub-Clause 16.2 [Termination by Contractor] has taken effect, the Procuring Entity shall promptly:

- a) Return the Performance Security to the Contractor,
- b) pay the Contractor in accordance with Sub-Clause 19.6 [Optional Termination, Payment and Release], and
- c) pay to the Contractor the amount of any loss or damage sustained by the Contractor as a result of this termination.

17. RISK AND RESPONSIBILITY

17.1 Indemnities

17.1.1 The Contractor shall indemnify and hold harmless the Procuring Entity, the Procuring Entity's Personnel, and their respective agents, against and from all claims, damages, losses and expenses (including legal fees and expenses) in respect of:

- a) Bodily injury, sickness, disease or death, of any person what so ever arising out of or in the course of or by reason of the Contractor's design (if any), the execution and completion of the Works and the remedying of any defects, unless attributable to any negligence, willful actor breach of the Contract by the Procuring Entity, the Procuring Entity's Personnel, or any of their respective agents, and
- b) damage to or loss of any property, real or personal (other than the Works), to the extent that such damage or loss arises out of or in the course of or by reason of the Contractor's design (if any), the execution and completion of the Works and the remedying of any defects, unless and to the extent that any such damage or loss is attributable to any negligence, willful act or breach of the Contract by the Procuring Entity, the Procuring Entity's Personnel, their respective agents, or anyone directly or indirectly employed by any of them.

17.1.2 The Procuring Entity shall indemnify and hold harmless the Contractor, the Contractor's Personnel, and their respective agents, against and from all claims, damages, losses and expenses (including legal fees and expenses) in respect of (1) bodily injury, sickness, disease or death, which is attributable to any negligence, willful act or breach of the Contract by the Procuring Entity, the Procuring Entity's Personnel, or any of their respective agents, and (2) the matters for which liability may be excluded from insurance cover, as described in sub-paragraphs (d)(i), (ii) and (iii) of Sub-Clause 18.3 [Insurance Against Injury to Persons and Damage to Property], unless and to the extent that any such damage or loss is attributable to any negligence, willful actor breach of the Contract by the contractor, the contractor's Personnel, their respective agents, or anyone directly or indirectly employed by any of them.

17.2 Contractor's Care of the Works

17.2.1 The Contractor shall take full responsibility for the care of the Works and Goods from the Commencement Date until the Taking-Over Certificate is issued (or is deemed to be issued under Sub-Clause 10.1 [Taking Over of the Works and Sections]) for the Works, when responsibility for the care of the Works shall pass to the Procuring Entity. If a Taking-Over Certificate is issued (or is so deemed to be issued) for any Section or part of the Works, responsibility for the care of the Section or part shall then pass to the Procuring Entity.

- 17.22 After responsibility has accordingly passed to the Procuring Entity, the Contractor shall take responsibility for the care of any work which is outstanding on the date stated in a Taking-Over Certificate, until this outstanding work has been completed.
- 17.23 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.
- 17.24 The Contractor shall be liable for any loss or damage caused by any actions performed by the Contractor after a Taking-Over Certificate has been issued. The Contractor shall also be liable for any loss or damage which occurs after a Taking-Over Certificate has been issued and which arose from a previous event for which the Contractor was liable.

17.3 Procuring Entity's Risks

The risks referred to in Sub-Clause 17.4 [Consequences of Procuring Entity's Risks] below, in so far as they directly affect the execution of the Works in Kenya, are:

- a) War hostilities (whether war be declared or not),
- b) rebellion, riot, commotion or disorder, terrorism, sabotage by persons other than the Contractor's Personnel,
- c) explosive materials, ionizing gradiation or contamination by radio-activity, except as may be attributable to the Contractor's use of such explosives, radiation or radio-activity,
- d) pressure waves caused by aircraft or other aerial devices traveling at sonic or supersonic speeds,
- e) use or occupation by the Procuring Entity of any part of the Permanent Works, except as may be specified in the Contract,
- f) design of any part of the Works by the Procuring Entity's Personnel or by others for whom the Procuring Entity is responsible, and
- g) any operation of the forces of nature which is Unforeseeable or against which an experienced contractor could not reasonably have been expected to have taken adequate preventive precautions.

17.4 Consequences of Procuring Entity's Risks

- 17.4.1 If and to the extent that any of the risks listed in Sub-Clause 17.3 above results in loss or damage to the Works, Goods or Contractor's Documents, the Contractor shall promptly give notice to the Architect and shall rectify this loss or damage to the extent required by the Engineer.
- 17.4.2 If the Contractor suffers delay and/ or incurs Cost from rectifying this loss or damage, the Contractor shall give a further notice to the Architect and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:
- (a) An extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of 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.

17.43 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

17.51 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.

17.52 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.

17.53 The Procuring Entity 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 the Procuring Entity:
 - i) for a purpose other than that indicated by, or reasonably to be inferred from, the Contract, or
 - ii) in conjunction with anything not supplied by the Contractor, unless such use was disclosed to the Contractor prior to the Base Date or is stated in the Contract.

17.54 The Contractor shall indemnify and hold the Procuring Entity 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.

17.55 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.

17.56 For operation and maintenance of any plant or equipment installed, the contractor shall grant a non-exclusive and non-transferable license to the Procuring Entity under the patent, utility models, or other intellectual rights owned by the contractor or a third party from whom the contractor has received the rights to grant sub-licenses and shall also grant to the Procuring Entity 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 contractor or under the contract. Nothing contained here-in shall be construed as transferring ownership of any patent, utility model, trademark, design, copyright, know-how or other intellectual rights from the contractor or any other third party to the Procuring Entity.

17.6 Limitation of Liability

17.61 Neither Party shall be liable to the other Party for loss of use of any Works, loss of profit, loss of any contractor for any indirect consequential loss or damage which may be suffered by the other Party in connection with the Contract, other than as specifically provided in Sub-Clause 8.7 [Delay Damages]; Sub-Clause 11.2 [Cost of Remedying

Defects]; Sub-Clause 15.4 [Payment after Termination]; Sub-Clause 16.4 [Payment on Termination]; Sub-Clause 17.1 [Indemnities]; Sub-Clause 17.4(b) [Consequences of Procuring Entity's Risks] and Sub-Clause 17.5 [Intellectual and Industrial Property Rights].

17.62 The total liability of the Contractor to the Procuring Entity, under or in connection with the Contract other than under Sub-Clause 4.19 [Electricity, Water and Gas], Sub-Clause 4.20 [Procuring Entity's Equipment and Free- Issue Materials], Sub-Clause 17.1 [Indemnities] and Sub-Clause 17.5 [Intellectual and Industrial Property Rights], shall not exceed the sum resulting from the application of a multiplier (less or greater than one) to the Accepted Contract Amount, as stated in **the Special Conditions of Contract**, or (if such multiplier or other sum is not so stated) the Accepted Contract Amount.

17.63 This Sub-Clause shall not limit liability in any case of fraud, deliberate default or reckless misconduct by the defaulting Party.

17.7 Use of Procuring Entity's Accommodation/Facilities

17.7.1 The Contractor shall take full responsibility for the care of the Procuring Entity provided accommodation and facilities, if any, as detailed in the Specification, from the respective dates of hand-over to the Contractor until cessation of occupation (where hand-over or cessation of occupation may take place after the date stated in the Taking-Over Certificate for the Works).

17.7.2 If any loss or damage happens to any of the above items while the Contractor is responsible for their care arising from any cause whatsoever other than those for which the Procuring Entity is liable, the Contractor shall, at his own cost, rectify the loss or damage to the satisfaction of the Engineer.

18 INSURANCE

18.1 General Requirements for Insurances

18.1.1 In this Clause, “insuring Party” means, for each type of insurance, the Party responsible for effecting and maintaining the insurance specified in the relevant Sub-Clause.

18.1.2 Wherever the Contractor is the insuring Party, each insurance shall be effected with insurers and in terms approved by the Procuring Entity. These terms shall be consistent with any terms agreed by both Parties before the date of the Letter of Acceptance. This agreement of terms shall take precedence over the provisions of this Clause.

18.1.3 Wherever the Procuring Entity is the insuring Party, each insurance shall be effected with insurers and in terms acceptable to the Contractor. These terms shall be consistent with any terms agreed by both Parties before the date of the Letter of Acceptance. This agreement of terms shall take precedence over the provisions of this Clause.

18.1.4 If a policy is required to indemnify joint insured, the cover shall apply separately to each insured as though a separate policy had been issued for each of the joint insured. If a policy indemnifies additional joint insured, namely in addition to the insured specified in this Clause, (i) the Contractor shall act under the policy on behalf of these additional joint insured except that the Procuring Entity shall act for Procuring Entity's Personnel, (ii) additional joint insured shall not be entitled to receive payments directly from the insurer

or to have any other direct dealings with the insurer, and (iii) the insuring Party shall require all additional joint insured to comply with the conditions stipulated in the policy.

- 18.15 Each policy insuring against loss or damage shall provide for payments to be made in the currencies required to rectify the loss or damage. Payments received from insurers shall be used for the rectification of the loss or damage.
- 18.16 The relevant insuring Party shall, within the respective periods stated in **the Special Conditions of Contract** (calculated from the Commencement Date), submit to the other Party:
- a) Evidence that the insurances described in this Clause have been affected, and
 - b) copies of the policies for the insurances described in Sub-Clause 18.2 [Insurance for Works and Contractor's Equipment] and Sub-Clause 18.3 [Insurance against Injury to Persons and Damage to Property].
- 18.17 When each premium is paid, the insuring Party shall submit evidence of payment to the other Party. Whenever evidence or policies are submitted, the insuring Party shall also give notice to the Engineer.
- 18.18 Each Party shall comply with the conditions stipulated in each of the insurance policies. The insuring Party shall keep the insurers informed of any relevant changes to the execution of the Works and ensure that insurance is maintained in accordance with this Clause.
- 18.19 Neither Party shall make any material alteration to the terms of any insurance without the prior approval of the other Party. If an insurer makes (or at attempts to make) any alteration, the Party first notified by the insurer shall promptly give notice to the other Party.
- 18.1.10 If the insuring Party fails to effect and keep in force any of the insurances it is required to effect and maintain under the Contractor fails to provide satisfactory evidence and copies of policies in accordance with this Sub- Clause, the other Party may (at its option and without prejudice to any other right or remedy) effect insurance for the relevant coverage and pay the premiums due. The insuring Party shall pay the amount of these premiums to the other Party, and the Contract Price shall be adjusted accordingly.
- 18.1.11 Nothing in this Clause limits the obligations, liabilities or responsibilities of the Contractor or the Procuring Entity, under the other terms of the Contract otherwise. Any amounts not insured or not recovered from the insurers shall be borne by the Contractor and/or the Procuring Entity.
- 18.1.12 Procuring Entity in accordance with these obligations, liabilities or responsibilities. However, if the insuring Party fails to effect and keep in force an insurance which is available and which it is required to effect and maintain under the Contract, and the other Party neither approves the omission nor effects insurance for the coverage relevant to this default, any moneys which should have been recoverable under this insurance shall be paid by the insuring Party.
- 18.1.13 Payments by one Party to the other Party shall be subject to Sub-Clause 2.5 [Procuring Entity's Claims] or Sub- Clause 20.1 [Contractor's Claims], as applicable.

18.1.14 The Contractor shall be entitled to place all insurance relating to the Contract (including, but not limited to the insurance referred to Clause 18) with insurers from any eligible source country.

18.2 Insurance for Works and Contractor's Equipment

18.2.1 The insuring Party shall insure the Works, Plant, Material and Contractor's Documents for not less than the full reinstatement cost including the costs of demolition, removal of debris and professional fees and profit. This insurance shall be effective from the date by which the evidence is to be submitted under sub-paragraph (a) of Sub-Clause 18.1 [General Requirements for Insurances], until the date of issue of the Taking-Over Certificate for the Works.

18.2.2 The insuring Party shall maintain this insurance to provide cover until the date of issue of the Performance Certificate, for loss or damage for which the Contractor is liable arising from a cause occurring prior to the issue of the Taking-Over Certificate, and for loss or damage caused by the Contractor in the course of any other operations (including those under Clause 11 [Defects Liability]).

18.2.3 The insuring Party shall insure the Contractor's Equipment for not less than the full replacement value, including delivery to Site. For each item of Contractor's Equipment, the insurance shall be effective while it is being transported to the Site and until it is no longer required as Contractor's Equipment.

18.2.4 Unless otherwise stated in the Special Conditions, insurances under this Sub-Clause:

- a) Shall be effected and maintained by the Contractor as insuring Party,
- b) shall be in the joint names of the Parties, who shall be jointly entitled to receive payments from the insurers, payments being held or allocated to the Party actually bearing the costs of rectifying the loss or damage,
- c) shall cover all loss and damage from any cause not listed in Sub-Clause 17.3 [Procuring Entity's Risks],
- d) shall also cover, to the extent specifically required in the tendering documents of the Contract, loss or damage to a part of the Works which is attributable to the use or occupation by the Procuring Entity of another part of the Works, and loss or damage from the risks listed in sub-paragraphs (c), (g) and (h) of Sub-Clause 17.3 [Procuring Entity's Risks], excluding (in each case) risks which are not insurable at commercially reasonable terms, with deductibles per occurrence of not more than the amount stated **in the Special Conditions** of Contract (if an amount is not so stated, this sub-paragraph (d) shall not apply), and
- e) may however exclude loss of, damage to, and reinstatement of:
 - i) a part of the Works which is in a defective condition due to a defect in its design, materials or workmanship (but cover shall include any other parts which are lost or damaged as a direct result of this defective condition and not as described in sub-paragraph (ii) below),
 - ii) a part of the Works which is lost or damaged in order to reinstate any other part of the Works if this other part is in a defective condition due to a defect in its design, materials or workmanship,
 - iii) a part of the Works which has been taken over by the Procuring Entity, except to the extent that the Contractor is liable for the loss or damage, and
 - iv) Goods while they are not in Kenya, subject to Sub-Clause 14.5 [Plant and Materials intended for the Works].

18.25 If, more than one year after the Base Date, the cover described in sub-paragraph (d) above ceases to be available at commercially reasonable terms, the Contractor shall (as insuring Party) give notice to the Procuring Entity, with supporting particulars. The Procuring Entity shall then (i) be entitled subject to Sub-Clause 2.5 [Procuring Entity's Claims] to payment of an amount equivalent to such commercially reasonable terms as the Contractor should have expected to have paid for such cover, and (ii) be deemed, unless he obtains the cover at commercially reasonable terms, to have approved the omission under Sub-Clause 18.1 [General Requirements for Insurances].

18.3 Insurance against Injury to Persons and Damage to Property

18.31 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.

18.32 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.

18.33 Unless otherwise stated in the Special Conditions, the insurances specified in this Sub-Clause:

- a) Shall be effected and maintained by the Contractor as insuring Party,
- b) shall be in the joint names of the Parties,
- c) shall be extended to cover liability for all loss and damage to the Procuring Entity's property (except things insured under Sub-Clause 18.2) arising out of the Contractor's performance of the Contract, and
- d) may however exclude liability to the extent that it arises from:
 - i) the Procuring Entity's right to have the Permanent Works executed on, over, under, in or
 - ii) through any land, and to occupy this land for the Permanent Works,
 - iii) damage which is an unavoidable result of the Contractor's obligations to execute the
 - iv) Works and remedy any defects, and
 - v) a cause listed in Sub-Clause 17.3 [Procuring Entity's Risks], except to the extent that cover is available at commercially reasonable terms.

18.4 Insurance for Contractor's Personnel

18.41 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.

18.42 The insurance shall cover the Procuring Entity and the Architect against liability for claims, damages, losses and expenses (including legal fees and expenses) arising from

injury, sickness, disease or death of any person employed by the Contractor or any other of the Contractor's Personnel, except that this insurance may exclude losses and claims to the extent that they arise from any act or neglect of the Procuring Entity or of the Procuring Entity's Personnel.

- 18.43 The insurance shall be maintained in full force and effect during the whole time that these personnel are assisting in the execution of the Works. For a Subcontractor's employees, the insurance may be effected by the Subcontractor, but the Contractor shall be responsible for compliance with this Clause.

19. FORCE MAJEURE

19.1 Definition of Force Majeure

- 19.1.1 In this Clause, "Force Majeure" means an exceptional event or circumstance:
- a) Which is beyond a Party's control,
 - b) Which such Party could not reasonably have provided against before entering into the Contract,
 - c) which, having arisen, such Party could not reasonably have avoided or overcome, and
 - d) which is not substantially attributable to the other Party.

- 19.1.2 Force Majeure may include, but is not limited to, exceptional events or circumstances of the kind listed below, so long as conditions (a) to (d) above are satisfied:
- a) war, hostilities (whether war be declared or not), invasion, act of foreign enemies,
 - b) rebellion, terrorism, sabotage by persons other than the Contractor's Personnel, revolution, insurrection, military or usurped power, or civil war,
 - c) riot, commotion, disorder, strike or lock out by persons other than the Contractor's Personnel,
 - d) munitions of war, explosive materials, ionizing radiation or contamination by radio-activity, except as may be attributable to the Contractor's use of such munitions, explosives, radiation or radio-activity, and
 - e) natural catastrophes such as earthquake, hurricane, typhoon or volcanic activity.

19.2 Notice of Force Majeure

- 19.2.1 If a Party is or will be prevented from performing its substantial obligations under the Contract by Force Majeure, then it shall give notice to the other Party of the event or circumstances constituting the Force Majeure and shall specify the obligations, the performance of which is or will be prevented. The notice shall be given within 14 days after the Party became aware, or should have become aware, of the relevant event or circumstance constituting Force Majeure.
- 19.2.2 The Party shall, having given notice, be excused performance of its obligations for so long as such Force Majeure prevents it from performing them.
- 19.2.3 Notwithstanding any other provision of this Clause, Force Majeure shall not apply to obligations of either Party to make payments to the other Party under the Contract.

19.3 Duty to Minimize Delay

Each Party shall at all times use all reasonable endeavors to minimize any delay in the performance of the Contract as a result of Force Majeure. A Party shall give notice to the

other Party when it ceases to be affected by the Force Majeure.

194 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.

195 Force Majeure Affecting Subcontractor

If any Subcontractor is entitled under any contract or agreement relating to the Works to relief from force majeure on terms additional to or broader than those specified in this Clause, such additional or broader force majeure events or circumstances shall not excuse the Contractor's non-performance or entitle him to relief under this Clause.

196 Optional Termination, Payment and Release

- 19.6.1 If the execution of substantially all the Works in progress is prevented for a continuous period of 84 days by reason of Force Majeure of which notice has been given under Sub-Clause 19.2 [Notice of Force Majeure], or for multiple periods which total more than 140 days due to the same notified Force Majeure, then either Party may give to the other Party a notice of termination of the Contract. In this event, the termination shall take effect 7 days after the notice is given, and the Contractor shall proceed in accordance with Sub-Clause 16.3 [Cessation of Work and Removal of Contractor's Equipment].
- 19.6.2 Upon such termination, the Architect shall determine the value of the work done and issue a Payment Certificate which shall include:
- a) the amount payable for any work carried out for which a price is stated in the Contract;
 - b) the Cost of Plant and Materials ordered for the Works which have been delivered to the Contractor, or of which the Contractor is liable to accept delivery: this Plant and Materials shall become the property of (and be at the risk of) the Procuring Entity when paid for by the Procuring Entity, and the Contractor shall place the same at the Procuring Entity's disposal;
 - c) other Cost or liabilities which in the circumstances were reasonably and necessarily incurred by the Contractor in the expectation of completing the Works;
 - d) the Cost of removal of Temporary Works and Contractor's Equipment from the Site and the return of these items to the Contractor's works in his country (or to any other destination at no greater cost); and
 - e) the Cost of repatriation of the Contractor's staff and lab or employed wholly in

connection with the Works at the date of termination.

19.7 Release from Performance

Notwithstanding any other provision of this Clause, if any event or circumstance outside the control of the Parties (including, but not limited to, Force Majeure) arises which makes it impossible or unlawful for either or both Parties to fulfil its or their contractual obligations or which, under the law governing the Contract, entitles the Parties to be released from further performance of the Contract, then upon notice by either Party to the other Party of such event or circumstance:

- a) The Parties shall be discharged from further performance, without prejudice to the rights of either Party in respect of any previous breach of the Contract, and
- b) The sum payable by the Procuring Entity to the Contractor shall be the same as would have been payable under Sub-Clause 19.6 [Optional Termination, Payment and Release] if the Contract had been terminated under Sub-Clause 19.6.

20. SETTLEMENT OF CLAIMS AND DISPUTES

20.1 Contractor's Claims

- 20.1.1 If the Contractor considers itself to be entitled to any extension of the Time for Completion and/or any additional payment, under any Clause of these Conditions or otherwise in connection with the Contract, the Contractor shall give Notice to the Engineer, describing the event or circumstance giving rise to the claim. The notice shall be given as soon as practicable, and not later than 30 days after the Contractor became aware, or should have become aware, of the event or circumstance.
- 20.1.2 If the Contractor fails to give notice of a claim within such period of 30 days, the Time for Completion shall not be extended, the Contractor shall not be entitled to additional payment, and the Procuring Entity shall be discharged from all liability in connection with the claim. Otherwise, the following provisions of this Sub-Clause shall apply.
- 20.1.3 The Contractor shall also submit any other notices which are required by the Contract, and supporting particulars for the claim, all as relevant to such event or circumstance.
- 20.1.4 The Contractor shall keep such contemporary records as may be necessary to substantiate any claim, either on the Site or at another location acceptable to the Engineer. Without admitting the Procuring Entity's liability, the Architect may, after receiving any notice under this Sub-Clause, monitor the record-keeping and/ or instruct the Contractor to keep further contemporary records. The Contractor shall permit the Architect to inspect all these records and shall (if instructed) submit copies to the Engineer.
- 20.1.5 Within 42 days after the Contractor became aware (or should have become aware) of the event or circumstance giving rise to the claim, or within such other period as may be proposed by the Contractor and approved by the Engineer, the Contractor shall send to the Architect fully detailed claim which includes full supporting particulars of the basis of the claim and of the extension of time and/ or additional payment claimed. If the event or circumstance giving rise to the claim has a continuing effect:
 - a) This fully detailed claim shall be considered as interim;
 - b) The Contractor shall send further interim claims at monthly intervals, giving the accumulated delay and/ or amount claimed, and such further particulars as the Architect may reasonably require; and

- c) The Contractor shall send a final claim within 30 days after the end of the effects resulting from the event or circumstance, or within such other period as may be proposed by the Contractor and approved by the Engineer.
- 20.16 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 the Procuring Entity considers itself to be entitled to any payment under any Clause of these Conditions or otherwise in connection with the Contract, and/or to any extension of the Defects Notification Period, the Procuring Entity or the Architect shall give notice and particulars to the Contractor. However, notice is not required for payments due under Sub-Clause 4.19 [Electricity, Water and Gas], under Sub-Clause 4.20 [Procuring Entity's Equipment and Free-Issue Materials], or for other services requested by the Contractor.
- 20.2.2 The notice shall be given as soon as practicable and no longer than 30 days after the Procuring Entity became aware, or should have become aware, of the event or circumstances giving rise to the claim. A notice relating to any extension of the Defects Notification Period shall be given before the expiry of such period.
- 20.2.3 The particulars shall specify the Clause or other basis of the claim and shall include substantiation of the amount and/or extension to which the Procuring Entity considers itself to be entitled in connection with the Contract. The Architect shall then proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine (i) the amount (if

any) which the Procuring Entity is entitled to be paid by the Contractor, and/ or (ii) the extension (if any) of the Defects Notification Period in accordance with Sub-Clause 11.3 [Extension of Defects Notification Period].

- 20.24 This amount may be included as a deduction in the Contract Price and Payment Certificates. The Procuring Entity shall only be entitled to set off against or make any deduction from an amount certified in a Payment Certificate, or to otherwise claim against the Contractor, in accordance with this Sub-Clause.

20.3 Amicable Settlement

Where a notice of a claim has been given, both Parties shall attempt to settle the dispute amicably before the commencement of arbitration. However, unless both Parties agree otherwise, the Party giving a notice of a claim in accordance with Sub-Clause 20.1 above should move to commence arbitration after 60 days from the day on which a notice of a claim was given, even if no attempt at an amicable settlement has been made.

20.4 Matters that may be referred to arbitration

Notwithstanding anything stated herein the following matters may be referred to arbitration before the practical completion of the Works or abandonment of the Works or termination of the Contract by either party:

- a) Whether or not the issue of an instruction by the Architect is empowered by these Conditions.
- b) Whether or not a certificate has been improperly withheld or is not in accordance with these Conditions.
- c) Any dispute arising in respect risks arising from matters referred to in Clause 17.3 and Clause 19.
- d) All other matters shall only be referred to arbitration after the completion or alleged completion of the Works or termination or alleged termination of the Contract, unless the Procuring Entity and the Contractor agree otherwise in writing.

20.5 Arbitration

- 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.

- 20.55 The Arbitrator shall, without prejudice to the generality of his powers, have powers to open up, review and revise any certificate, opinion, decision, requirement or notice and to determine all matters in dispute which shall be submitted to him in the same manner as if no such certificate, opinion, decision require mentor notice had been given.
- 20.56 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.
- 20.57 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.
- 20.58 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.
- 20.59 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

- 20.61 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
- 20.62 The institution written to first by the aggrieved party shall take precedence over all other institutions.

20.7 Arbitration with Foreign Contractors

- 20.63 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.
- 20.64 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

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

209.2 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,

20.10.1 the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; and

20.10.2 the Procuring Entity shall pay the Contractor any monies due the Contractor.

SECTION IX: SPECIAL CONDITIONS OF CONTRACT

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	Kenya Medical Supplies Authority 13, Commercial Street, Industrial Area P.O B Box 47715-00100 Telephone No.: +254 20 3922000 / +254 719033000/+254 733606600 Fax No.: +254203922400 Email: procure@kemsaco.ke
Name and Reference No. of the Contract	Heading and 1.1	Tender No.: GF-KEMSA/CONST 04/ONT4/2021/2022 Tender for Provision of Linkage between Warehouses, Sun shading Feature and Roller Shutter Doors
Engineers Name and address	Heading and 3.1.1	MAESTRO ARCHITECTS P. O. BOX 6644 – 00100 NAIROBI. M & M CONSTRUCTION CONSULTANTS P. O. BOX 4677 – 00506 NAIROBI. KIRI CONSULT LTD. P. O. BOX 4125 – 00506 NAIROBI. NORKUNS INTAKES LTD P. O. BOX 605 – 00100 NAIROBI.
Contractor's Representative's name	4.3.1	<i>[TO BE AGREED]</i>
Key Personnel names	16.9.1	<i>[TO BE AGREED]</i>
Time for Completion	1.1.	AS PER THE FORM OF TENDER
Defects Notification Period	1.1	365 days
Sections	1.1	N/A
Electronic transmission systems	1.3	TO BE AGREED
Time for the Parties entering into a Contract Agreement	1.6	Within 30days
Commencement Date	8.1.1	TO BE AGREED
Time for access to the Site	2.1.1	No later than the Commencement Date, and not

Conditions	Sub-Clause	Data
Architect Duties and Authority	3.1.6 (b) (ii)	later than 14 days after Commencement Date Variations resulting in an increase of the Accepted Contract Amount in excess of 25% shall require approval of the Procuring Entity.
Performance Security	4.2.1	The performance security will be in the form of a Performance bond in the amount(s) of ten percent (10%) of the Accepted Contract Amount and in the same currency (ies) of the Accepted Contract Amount.
Normal working hours	6.5	8A.M – 5P.M
Delay damages for the Works	8.7 & 14.15(b)	0.1 % of the Contract Price per day. N/A
Maximum amount of delay damages	8.7.1	10 % of the final Contract Price.
Provisional Sums	13.6. (b)(ii)	N/A
Adjustments for Changes in Cost	13.9	N/A
Total advance payment	14.2.1	Substitute “The Procuring Entity shall.... ” with “The Procuring Entity may... ” 20% Percentage of the Accepted Contract Amount payable in the currencies and proportions in which the Accepted Contract Amount is payable
Repayment amortization rate of advance payment	14.2.5 (b)	The amount to be repaid by way of successive deductions shall be calculated by means of the formula: $R = \frac{A(x^1 - x^{11})}{90 - 30}$ <u>Where:</u> <i>R</i> =the amount to be reimbursed <i>A</i> =the amount of the advance which has been granted <i>X</i> ¹ = the amount of proposed cumulative payments as a percentage of the original amount of the Contract. This figure will exceed 30% but not exceed 90%. <i>X</i> ¹¹ = the amount of the previous cumulative payments as a percentage of the original amount of the Contract. This figure will be below 90%but not less than 30%.
Percentage of Retention	14.3.2 (c)	10%
Limit of Retention Money	14.3.2 (c)	5% of the Accepted Contract Amount
Plant and Materials	14.5.3(b) (i)	If Sub-Clause 14.5 applies: Plant and Materials for payment Free on Board _____N/A_____ [list].

Conditions	Sub- Clause	Data
	14.5.3(c)(i))	Plant and Materials for payment when delivered to the Site _____ N/A _____ <i>[list]</i> .
Minimum Amount of Interim Payment Certificates	14.6.2	N/A
Publishing source of commercial interest rates for financial charges in case of delayed payment	14.8	three percentage points above the mean rate of the Central Bank in Kenya of the currency of payment
Maximum total liability of the Contractor to the Procuring Entity	17.6.2	Full Contract Amount including any approved Variations
Periods for submission of insurance: a. evidence of insurance. b. relevant policies	18.1.6	21 days from commencement date 21 days from commencement date
Maximum amount of deductibles for insurance of the Procuring Entity's risks	18.2.4 (d)	<i>[Insert maximum amount of deductibles]</i>
Minimum amount of third-party insurance	18.3.2	The minimum insurance covers shall be; 1. The minimum cover for insurance of the Works and of plant and Materials in respect of the Contractor's faulty design is:10% CONTRACT SUM 2. The minimum cover for loss or damage to Equipment is:10% CONTRACT SUM 3. The minimum for insurance of other property is:10% CONTRACT SUM 4. The minimum cover for personal injury or death insurance 5. For the Contractor's employees: AS PER WORKMAN'S COMPENSATION 6. And for other people is:5% CONTRACT SUM
The place of arbitration	20.7.2	Nairobi, KENYA

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 Procuring Entity]*
 - ii) Project: *[insert name of project]*
 - iii) Contract title: *[insert the name of the contract]*
 - iv) ITT No: *[insert ITT reference number from Procurement Plan]*

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.

No	Name of Tender	Tender Price as read out	Tender's evaluated price (Note a)	One Reason Why Not Evaluated
1				
2				
3				
4				
5				

(Note a) State NE if not evaluated

5. How to request a debriefing

- a) DEADLINE: The dead line to request a debriefing expires at midnight on [*insert date*] (*local time*).
- b) You may request a debriefing in relation to the results of the evaluation of your Tender. If you decide to request a debriefing your written request must be made within three (5) Business Days of receipt of this Notification of Intention to Award.
- c) Provide the contract name, reference number, name of the Tenderer, contact details; and address the request for debriefing as follows:
 - i) Attention: [*insert full name of person, if applicable*]
 - ii) Title/position: [*insert title/position*]
 - iii) Agency: [*insert name of Procuring Entity*]
 - iv) Email address: [*insert email address*]
- d) If your request for a debriefing is received within the 3 Days deadline, we will provide the debriefing within five (3) Business Days of receipt of your request. If we are unable to provide the debriefing within this period, the Standstill Period shall be extended by five (3) Days after the date that the debriefing is provided. If this happens, we will notify you and confirm the date that the extended Standstill Period will end.
- e) The debriefing may be in writing, by phone, video conference call or in person. We shall promptly advise you in writing how the debriefing will take place and confirm the date and time.
- f) If the deadline to request a debriefing has expired, you may still request a debriefing. In this case, we will provide the debriefing as soon as practicable, and normally no later than fifteen (15) Days from the date of publication of the Contract Award Notice.

6. How to make a complaint

- a) Period: Procurement-related Complaint challenging the decision to award shall be submitted by midnight, [*insert date*] (*local time*).
- b) Provide the contract name, reference number, name of the Tenderer, contact details; and address the Procurement-related Complaint as follows:
 - i) Attention: [*insert full name of person, if applicable*]
 - ii) Title/position: [*insert title/ position*]
 - iii) Agency: [*insert name of Procuring Entity*]
 - iv) Email address: [*insert email address*]
- c) At this point in the procurement process, you may submit a Procurement-related Complaint challenging the decision to award the contract. You do not need to have requested, or received, a debriefing before making this complaint. Your complaint must be submitted within the Standstill Period and received by us before the Standstill Period ends.
- d) Further information: For more information refer to the Public Procurement and Disposals Act 2015 and its Regulations available from the Website www.ppra.go.ke.

You should read these documents before preparing and submitting your complaint.

- e) There are four essential requirements:
 - i) You must be an 'interested party'. In this case, that means a Tenderer who submitted a Tender in this tendering process and is the recipient of a Notification of Intention to Award.
 - ii) The complaint can only challenge the decision to award the contract.
 - iii) You must submit the complaint within the period stated above.
 - iv) You must include, in your complaint, all of the information required to support your complaint.

7. Standstill Period

- i) **DEADLINE:** The Standstill Period is due to end at midnight on [*insert date*] (local time).
- ii) The Standstill Period lasts ten (14) Days after the date of transmission of this Notification of Intention to Award.
- iii) The Standstill Period may be extended as stated in paragraph Section 5(d) above.

If you have any questions regarding this Notification please do not hesitate to contact us.

On behalf of the Procuring Entity:

Signature: _____

Name: _____

Title/position: _____

Telephone: _____

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 the Procuring Entity 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 the Procuring Entity]

[date]

To: *[name and address of the Contractor]*

This is to notify you that your Tender dated *[date]* for execution of the *[name of the Contract and identification number, as given in the Contract Data]* for the Accepted Contract Amount *[amount in numbers and words] [name of currency]*, as corrected and modified in accordance with the Instructions to Tenderers, is here by accepted by..... *(name of Procuring Entity)*.

You are requested to furnish the Performance Security within in accordance with the Conditions of Contract, using, for that purpose, one of the Performance Security Forms included in Section VIII, Contract Forms, of the Tender Document.

Authorized Signature:

Name and Title of Signatory:

Name of Procuring Entity:

Attachment: *Contract Agreement:*

FORM NO.4: CONTRACT AGREEMENT

THIS AGREEMENT made the day of..... 20.....,

between.....of.....

..... (hereinafter “the Procuring Entity”), of the one part, and of
.....(hereinafter “the Contractor”), of the other part:

WHEREAS the Procuring Entity desires that the Works known as _____ should be

The Procuring Entity and the Contractor agree as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Contract documents referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement. This Agreement shall prevail over all other Contract documents.
 - a) 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 the Procuring Entity to the Contractor as specified in this Agreement, the Contractor here by covenants with the Procuring Entity to execute the Works and to remedy defects therein in conformity in all respects with the provisions of the Contract.
4. The Procuring Entity here by covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects there in, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

INWITNESS where of the parties here to have caused this Agreement to be executed in accordance with the Laws of Kenya on the day, month and year specified above.

Signed and sealed by _____(for the Procuring Entity)

Signed and sealed by _____(for the Contractor).

FORM NO.5: PERFORMANCE SECURITY

[Option 1 - Unconditional Demand Bank Guarantee]

[Guarantor letterhead]

Beneficiary: *[insert name and Address of Procuring Entity]*

Date: _____ *[Insert date of issue]*

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

1. We have been informed that _____ (hereinafter called "the Contractor") has entered into Contract No. _____ dated _____ with (name of Procuring Entity)(the Procuring Entity as the Beneficiary), for the execution of _____ (hereinafter called "the Contract").
2. Furthermore, we understand that, according to the conditions of the Contract, a performance guarantee is required.
3. At the request of the Contractor, we as Guarantor, here by irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of ___ (in words),¹ such sum being payable in the types and proportions of currencies in which the Contract Price is payable, upon receipt by us of the Beneficiary's complying demand supported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating that the Applicant is in breach of its obligation(s) under the Contract, without the Beneficiary needing to prove or to show grounds for your demand or the sum specified therein.
4. This guarantee shall expire, no later than the.....Day of.....,2.....², and any demand for payment under it must be received by us at the office indicated above on or before that date.
5. The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed [six months] [one year], in response to the Beneficiary's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee.”
.....

[Name of Authorized Official, signature(s) and seals/stamps]

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

¹The 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.

²Insert the date twenty-eight days after the expected completion date as described in GC Clause 11.9. The Procuring Entity should note that in the event of an extension of this date for completion of the Contract, the Procuring Entity would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee.

FORM NO.6: PERFORMANCE SECURITY

[Option 2– Performance Bond]

[Note: Procuring Entities are advised to use Performance Security – Unconditional Demand Bank Guarantee 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 “the Procuring Entity”) in the amount of _____ for the payment of which sum well and truly to be made in the types and proportions of currencies in which the Contract Price is payable, the Contractor and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.
2. WHEREAS the Contractor has entered into a written Agreement with the Procuring Entity dated the _____ day of _____, 20____, for _____ in accordance with the documents, plans, specifications, and amendments there to, which to the extent here in provided for, are by reference made part here of and are here in after referred to as the Contract.
3. NOW, THEREFORE, the Condition of this Obligation is such that, if the Contractor shall promptly and faithfully perform the said Contract (including any amendments thereto), then this obligation shall be null and void; otherwise, it shall remain in full force and effect. Whenever the Contractor shall be, and declared by the Procuring Entity to be, in default under the Contract, the Procuring Entity having performed the Procuring Entity's obligations there under, the Surety may promptly remedy the default, or shall promptly:
 - a) Complete the Contract in accordance with its terms and conditions; or
 - b) Obtain a tender or tenders from qualified tenderers for submission to the Procuring Entity for completing the Contract in accordance with its terms and conditions, and upon determination by the Procuring Entity and the Surety of the lowest responsive Tenderers, arrange for a Contract between such Tenderer, and Procuring Entity and make available as work progresses (even though there should be a default or a succession of defaults under the Contract or Contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the Balance of the Contract Price; but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof. The term “Balance of the Contract Price,” as used in this paragraph, shall mean the total amount payable by Procuring Entity to Contractor under the Contract, less the amount properly paid by Procuring Entity to Contractor; or

- c) Pay the Procuring Entity the amount required by Procuring Entity to complete the Contract in accordance with its terms and conditions upto a total not exceeding the amount of this Bond.
- 4. The Surety shall not be liable for a greater sum than the specified penalty of this Bond.
- 5. Any suit under this Bond must be instituted before the expiration of one year from the date of the issuing of the Taking-Over Certificate. No right of action shall accrue on this Bond to or for the use of any person or corporation other than the Procuring Entity named here in or the heirs, executors, administrators, successors, and assigns of the Procuring Entity.
- 6. In testimony whereof, the Contractor has here unto set his hand and affixed his seal, and the Surety has caused these presents to be sealed with his corporate seal duly at tested by the signature of his legal representative, this day _____ of 20.

SIGNED ON _____ on behalf of _____

By _____ in the capacity of _____

In the presence of _____

SIGNED ON _____ on behalf of _____

By _____ in the capacity of _____

In the presence of _____

FORM NO.7: ADVANCE PAYMENT SECURITY
[Demand Bank Guarantee]

[Guarantor letterhead]

Beneficiary: _____ [Insert name and Address of Procuring Entity]

Date: _____ [Insert date of issue]

ADVANCE PAYMENT GUARANTEE No.: _____ [Insert guarantee reference number]

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

1. We have been informed that _____ (hereinafter called "the Contractor") has entered into Contract No. _____ dated _____ with the Beneficiary, for the execution of _____ (hereinafter called "the Contract").
2. Furthermore, we understand that, according to the conditions of the Contract, an advance payment in the sum _____ (in words) is to be made against an advance payment guarantee.
3. At the request of the Contractor, we as Guarantor, here by irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of _____ (in words)¹ upon receipt by us of the Beneficiary's complying demand supported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating either that the Applicant:
 - a) Has used the advance payment for purposes other than the costs of mobilization in respect of the Works; or
 - b) Has failed to repay the advance payment in accordance with the Contract conditions, specifying the amount which the Applicant has failed to repay.
4. A demand under this guarantee may be presented as from the presentation to the Guarantor of a certificate from the Beneficiary's bank stating that the advance payment referred to above has been credited to the Contractor on its account number at _____.
5. The maximum amount of this guarantee shall be progressively reduced by the amount of the advance payment repaid by the Contractor as specified in copies of interim statements or payment certificates which shall be presented to us. This guarantee shall expire, at the latest, upon our receipt of a copy of the interim payment certificate indicating that ninety (90) percent of the Accepted Contract Amount, less provisional sums, has been certified for payment, or on the day of _____, 2nd, 2nd 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.*

¹The 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.

²Insert the expected expiration date of the Time for Completion. The Procuring Entity should note that in the event of an extension of the time for completion of the Contract, the Procuring Entity would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee.

FORM NO.8: RETENTION MONEY SECURITY

[Demand Bank Guarantee]

[Guarantor letterhead]

Beneficiary: _____ *[Insert name and Address of Procuring Entity]*

Date: _____ *[Insert date of issue]*

Advance payment guarantee no. *[Insert guarantee reference number]*

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

1. We have been informed that _____ *[insert name of Contractor, which in the case of a joint venture shall be the name of the joint venture]* (hereinafter called "the Contractor") has entered into Contract No. _____ *[insert reference number of the contract]* dated _____ with the Beneficiary, for the execution of _____ *[insert name of contract and brief description of Works]* (hereinafter called "the Contract").
2. Furthermore, we understand that, according to the conditions of the Contract, the Beneficiary retains moneys upto the limit set forth in the Contract ("the Retention Money"), and that when the Taking-Over Certificate has been issued under the Contract and the first half of the Retention Money has been certified for payment, and payment of *[insert the second half of the Retention Money]* is to be made against a Retention Money guarantee.
3. At the request of the Contractor, we, as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of *[insert amount in figures]* _____ *([insert amount in words_____])¹* upon receipt by us of the Beneficiary's complying 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. The Procuring Entity should note that in the event of an extension of this date for completion of the Contract, the Procuring Entity would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee.*

FORM NO.9: BENEFICIAL OWNERSHIP DISCLOSURE FORM
(Amended and issued pursuant to PPRA CIRCULAR No. 02/2022)

INSTRUCTIONS TO TENDERERS: DELETE THIS BOX ONCE YOU HAVE COMPLETED THE FORM

This Beneficial Ownership Disclosure Form ("Form") is to be completed by the successful tenderer pursuant to Regulation 13 (2A) and 13 (6) of the Companies (Beneficial Ownership Information) Regulations, 2020. In case of joint venture, the tenderer must submit a separate Form for each member. The beneficial ownership information to be submitted in this Form shall be current as of the date of its submission.

For the purposes of this Form, a Beneficial Owner of a Tenderer is any natural person who ultimately owns or controls the legal person (tenderer) or arrangements or a natural person on whose behalf a transaction is conducted, and includes those persons who exercise ultimate effective control over a legal person (Tenderer) or arrangement.

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

In response to the requirement in your notification of award dated _____ [insert date of notification of award] to furnish additional information on beneficial ownership: _____ [select one option as applicable and delete the options that are not applicable]

I) We here by provide the following beneficial ownership information.

Details of Beneficial ownership

	Details of all Beneficial Owners	% of shares a person holds in the company Directly or indirectly	% of voting rights a person holds in the company	Whether a person directly or indirectly holds a right to appoint or remove a member of the board of directors of the company or an equivalent governing body of the Tenderer (Yes / No)	Whether a person directly or indirectly exercises significant influence or control over the Company (tenderer) (Yes / No)
1.	Full Name	Directly---- ----- % of shares	Directly... % of voting rights	1. Having the right to appoint a majority of the board of the directors or an equivalent governing body of the Tenderer: Yes -----No----	1. Exercises significant influence or control over the Company body of the Company (tenderer) Yes -----No----
	National identity card number or Passport number				
	Personal Identification Number (where applicable)	Indirectly-- ----- % of shares	Indirectly-- -----% of voting rights	2. Is this right held directly or indirectly?:	2. Is this influence or control exercised
	Nationality				
	Date of birth [dd/mm/yyyy]				
	Postal address				
	Residential				

	Details of all Beneficial Owners		% of shares a person holds in the company Directly or indirectly	% of voting rights a person holds in the company	Whether a person directly or indirectly holds a right to appoint or remove a member of the board of directors of the company or an equivalent governing body of the Tenderer (Yes / No)	Whether a person directly or indirectly exercises significant influence or control over the Company (tenderer) (Yes / No)
	address				Direct.....	directly or indirectly?
	Telephone number					Direct.....
	Email address				Indirect.....	Indirect.....
	Occupation or profession					
2.	Full Name		Directly---- ----- % of shares	Directly... % of voting rights	1. Having the right to appoint a majority of the board of the directors or an equivalent governing body of the Tenderer: Yes ----No----	1. Exercises significant influence or control over the Company body of the Company (tenderer) Yes ----No----
	National identity card number or Passport number				2. Is this right held directly or indirectly?:	2. Is this influence or control exercised directly or indirectly?
	Personal Identification Number (where applicable)		Indirectly-- ----- % of shares	Indirectly-- -----% of voting rights	Direct.....	Direct.....
	Nationality(ies)				Indirect.....	Indirect.....
	Date of birth [dd/mm/yyyy]					
	Postal address					
	Residential address					
	Telephone number					
	Email address					
	Occupation or profession					
3.						
e.						
t.						
c						

- II) Am fully aware that beneficial ownership information above shall be reported to the Public Procurement Regulatory Authority together with other details in relation to contract awards and shall be maintained in the Government Portal, published and made publicly available pursuant to Regulation 13(5) of the Companies (Beneficial Ownership Information) Regulations, 2020.(Notwithstanding this paragraph Personally Identifiable Information in line with the Data Protection Act shall not be published or made public). *Note that Personally Identifiable Information (PII) is defined as any information that can be used to distinguish one person from another and can be used to deanonymize previously anonymous data. This information includes National identity card number or Passport number, Personal Identification Number, Date of birth, Residential address, email address and Telephone number.*
- III) In determining who meets the threshold of who a beneficial owner is, the Tenderer must consider a natural person who in relation to the company:
- (a) holds at least ten percent of the issued shares in the company either directly or indirectly;
 - (b) exercises at least ten percent of the voting rights in the company either directly or indirectly;
 - (c) holds a right, directly or indirectly, to appoint or remove a director of the company; or
 - (d) exercises significant influence or control, directly or indirectly, over the company.
- IV) What is stated to herein above is true to the best of my knowledge, information and belief.

Name of the Tenderer:[insert complete name of the Tenderer]_____*

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

Designation of the person signing the Tender: [insert complete title of the person signing the Tender]

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

Date this [insert date of signing] day of..... [Insert month], [insert year]

Bidder Official Stamp