



National Police Service Commission



P.O BOX 47363-00100 G.P.O. NAIROBI

Email address: info@npsc.go.ke

TENDER DOCUMENT FOR THE PROCUREMENT OF WORKS (BUILDING AND ASSOCIATED CIVIL ENGINEERING WORKS)

TENDER NUMBER: NPSC/OT/T06/2022/2023

**TENDER NAME: PROPOSED OFFICE PARTITIONING AND FIT OUT AT CBK PENSION
TOWERS**

CLOSING DATE AND TIME: 29TH NOVEMBER 2022, 10.00AM E.A.T

15TH NOVEMBER 2022

TABLE OF CONTENTS	PAGE NO.
INVITATION TO TENDER	3
PART I: TENDERING PROCEDURES	5
SECTION I: INSTRUCTIONS TO TENDERERS	6
SECTION II: TENDER DATA SHEET	24
SECTION III: EVALUATION AND QUALIFICATION CRITERIA	28
SECTION IV: TENDERING FORMS	42
PART II: CONDITIONS OF CONTRACT	85
SECTION V: GENERAL CONDITIONS	86
SECTION VI: SPECIAL CONDITIONS OF CONTRACT	147
SECTION VII: CONTRACT FORMS	150
PART III: WORKS REQUIREMENTS	165
SECTION VIII: MAIN WORKS	(SPECIFICATIONS PAGE 1-5, QUANTITIES PAGE 1-65)
SECTION IX: ELECTRICAL WORKS	(SPECIFICATIONS PAGE 1-8, QUANTITIES PAGE 1-20)
SECTION X: STRUCTURED CABLING AND CCTV	(SPECIFICATIONS PAGE 1-22, QUANTITIES PAGE 1-9)
SECTION XI: HEATING, VENTILATION AND AC	(SPECIFICATIONS PAGE 1-18, QUANTITIES PAGE 1-6)
SECTION XII: PLUMBING, DRAINAGE AND F. F.	(SPECIFICATIONS PAGE 1-41, QUANTITIES PAGE 1-16)
SECTION XIII: PRIME COST, PROVISIONAL SUMS AND GRAND SUMMARY	PGS1 - PGS2
SECTION XIV: DRAWINGS ; SEE SEPARATE FOLDER/S	

INVITATION TO TENDER

PROCURING ENTITY: NATIONAL POLICE SERVICE COMMISSION

P.O BOX 47363-00100 NAIROBI

CONTRACT NAME AND DESCRIPTION: PROPOSED PARTITIONING AND OFFICE FIT OUTS AT CBK PENSION TOWERS

1. The National police service commission invites sealed tenders for the **PROPOSED PARTITIONING AND OFFICE FITOUT**, the works consist of new finishes, partitioning of offices, electrical works, structured cabling, CCTV, access control, AC and mechanical ventilation works, plumbing works and furnishing. The intend completion date for the works shall be..... (The contractor to quote) weeks from date of possession. The site is located at Central Bank Kenya (CBK) Pension Towers, Harambee Avenue, Nairobi CBD.
2. Tendering will be conducted under open competitive method (National) using a standardized tender document. Tendering is open to all qualified and interested Tenderers.
3. Qualified and interested tenderers may obtain further information and inspect the Tender Documents during office hours (*0800hours to 1700hours*) at the address given below.
4. A complete set of tender documents may be purchased or obtained by interested tenders upon payment of a non-refundable fees of (*Kenya Shillings 1,000.00*) in cash or Banker's Cheque and payable to the address given below. Tender documents may be obtained electronically from the Website www.npsc.go.ke or the PPIP tender portal: www.tenders.go.ke. Tender documents obtained electronically will be free of charge.
5. Tender documents may be viewed and downloaded for free from the website www.npsc.go.ke or the PPIP tender portal: www.tenders.go.ke. Tenderers who download the tender document must forward their particulars immediately to procurement@npsc.go.ke 0709099000 and P.O. Box 47363-00100 to facilitate any further clarification or addendum.
6. Tenders shall be quoted be in Kenya Shillings and shall include all taxes. Tenders shall remain valid for **One Hundred and Twenty (120)** days from the date of opening of tenders.
7. All Tenders must be accompanied by a *tender security* of *Ksh 1,000,000.00 valid for 150 days starting from the date of tender closing*.
8. The Tenderer shall **chronologically serialize all pages of the tender documents** submitted.
9. Completed tenders must be delivered to the address below on or before **10.00AM, 29th November 2022**. Electronic Tenders **will not** be permitted.
10. Tenders will be opened immediately after the deadline date and time specified above or any dead line date and times pecified later. Tenders will be publicly opened in the presence of the Tenderers' designated representatives who choose to attend at the address below.

11. Late tenders will be rejected.

12. The addresses referred to above are:

A. Address for obtaining further information and for purchasing tender documents

- (1) Name of Procuring Entity: **National Police Service Commission**
 - (2) Physical address for hand Courier Delivery to an office or Tender Box: **Nairobi, Westlands, Sky Park Plaza, 2nd floor**
 - (3) Postal Address: **P.O Box 47363-00100 Nairobi.**
- B. Insert name, telephone number and e-mail address of the officer to be contacted: **Head of procurement, 0709099000** Email: **procurement@npssc.go.ke****

C. Address for Submission of Tenders.

**THE Ag. CS/ CHIEF EXECUTIVE OFFICER
NATIONAL POLICE SERVICE COMMISSION
P.O BOX 47363-00100
NAIROBI, WESTLANDS, SKY PARK PLAZA 2ND FLOOR**

D. Address for Opening of Tenders.

**NATIONAL POLICE SERVICE COMMISSION
NAIROBI, WESTLANDS
SKY PARK PLAZA, 2ND FLOOR**

**THE Ag. CS/ CHIEF EXECUTIVE OFFICER
NATIONAL POLICE SERVICE COMMISSION
P.O BOX 47363-00100
NAIROBI**

Signature _____

Date _____

PART 1: TENDERING PROCEDURES

SECTION I - INSTRUCTIONS TO TENDERERS

A **GENERAL PROVISIONS**

1.0 *Scope of tender*

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

1.2 Throughout this tendering document:

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

2.0 *Fraud and corruption*

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

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

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

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

3.0 *Eligible tenderers*

3.1 A Tenderer may be a firm that is a private entity, a state-owned enterprise or institution subject to ITT 3.8, or an individual or any combination of such entities in the form of a joint venture (JV) under an existing 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**.

- 32 Public Officers of the Procuring Entity, their Spouses, Child, Parent, Brothers or Sister. Child, Parent, Brother or Sister of a Spouse, their business associates or agents and firms/organizations in which they have a substantial or controlling interest shall not be eligible to tender or be awarded a contract. Public Officers are also not allowed to participate in any procurement proceedings.**
- 33** A Tenderer shall not have a conflict of interest. Any tenderer found to have a conflict of interest shall be disqualified. A tenderer may be considered to have a conflict of interest for the purpose of this tendering process, if the tenderer:
- a) Directly or indirectly controls, is controlled by or is under common control with an other tenderer;
 - b) Receives or has received any director indirect subsidy from another tenderer;
 - c) Has the same legal representative as an other tenderer;
 - d) Has a relationship with an other tenderer, directly or through common third parties, that puts it in a position to influence the tender of an other tenderer, or influence the decisions of the Procuring Entity regarding this tendering process;
 - e) Any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the goods or works that are the subject of the tender;
 - f) Any of its affiliates has been hired (or is proposed to be hired) by the Procuring Entity as a consultant for Contract implementation;
 - g) Would be providing goods, works, or non-consulting services resulting from or directly related to consulting services for the preparation or implementation of the contract specified in this Tender Document;
 - h) Has a close business or personal relationship with senior management or professional staff of the Procuring Entity who has the ability to influence the bidding process and:
 - i) Are directly or indirectly involved in the preparation of the Tender document or specifications of the Contract, and/or the Tender evaluation process of such contract; or
 - ii) May be involved in the implementation or supervision of such Contract unless the conflicts stemming from such relationship has been resolved in a manner acceptable to the Procuring Entity throughout the tendering process and execution of the Contract.
- 34** A tenderer shall not be involved in corrupt, coercive, obstructive or fraudulent practice. A tenderer that is proven to have been involved in any of these practices shall be automatically disqualified
- 35** A Tenderer (either individually or as a JV member) shall not participate in more than one Tender, except for permitted alternative tenders. This includes participation as a subcontractor in other Tenders. Such participation shall result in the disqualification of all Tenders in which the firm is involved. Members of a joint venture may not also make an individual tender, be a sub-contractor in a separate tender or be part of another joint venture for the purposes of the same Tender. A firm that is not a tenderer or a JV member may participate as a subcontractor in more than one tender.
- 36** A Tenderer may have the nationality of any country, subject to the restrictions pursuant to ITT 3.9. A Tenderer shall be deemed to have the nationality of a country if the Tenderer is constituted, incorporated or registered in and operates in conformity with the provisions of the laws of that country, as evidenced by its articles of incorporation (or equivalent documents of constitution or association) and its registration documents, as the case may be. This criterion also shall apply to the determination of the nationality of proposed sub-contractors or sub-consultants for any part of the Contract including related Services.
- 37** A Tenderer that has been debarred from participating in public procurement shall be ineligible to tender or be awarded a contract. The list of debarred firms and individuals is available from the website of PPRA www.ppra.go.ke.
- 38** A Tenderer that is a state-owned enterprise or a public institution in Kenya may be eligible to tender and be awarded Contract(s) only if it is determined by the Procuring Entity to meet the following conditions, i.e. if it is:

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

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

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

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

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

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

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

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

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

4.0 Eligible goods, equipment, and services

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

4.2 Any goods, works and production processes with characteristics that have been declared by the relevant national environmental protection agency or by other competent authority as harmful to human beings and to the environment shall not be eligible for procurement.

5.0 *Tenderer's responsibilities*

- 5.1** The tenderer shall bear all costs associated with the preparation and submission of his/her tender, and the Procuring Entity will in no case be responsible or liable for those costs.
- 5.2** The tenderer, at the tenderer's own responsibility and risk, is encouraged to visit and examine and inspect the Site of the Works and its surroundings and obtain all information that may be necessary for preparing the tender and entering into a contract for construction of the Works. The costs of visiting the Site shall be the tenderer's own expense.
- 5.3** The Tenderer and any of its personnel or agents will be granted permission by the Procuring Entity to enter upon its premises and lands for the purpose of such visit. The Tenderer shall indemnify the Procuring Entity against liability arising from death or personal injury, loss of or damage to property, and any other losses and expenses incurred as a result of the examination and inspection.
- 5.4** The tenderer shall provide in the Form of Tender and Qualification Information, a preliminary description of the proposed work method and schedule, including charts, as necessary or required.

B. *CONTENTS OF TENDER DOCUMENTS*

6.0 *Sections of Tender Document (IGNORE AND REFER TO CONTENTS PAGE)*

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

PART 1: Tendering Procedures

Section I – Instructions to Tenderers

Section II – Tender Data Sheet (TDS)

Section III- Evaluation and Qualification Criteria

Section IV – Tendering Forms

PART 2: Works' Requirements

Section V - Bills of Quantities

Section VI - Specifications

Section VII - Drawings

PART 3: Conditions of Contract and Contract Forms

Section VIII - General Conditions (GCC)

Section IX - Special Conditions of Contract

Section X- Contract Forms

- 6.2** The Invitation to Tender Notice issued by the Procuring Entity is not part of the Contract documents. Unless obtained directly from the Procuring Entity, the Procuring Entity is not responsible for the completeness of the Tender document, responses to requests for clarification, the minutes of a pre-arranged site visit and those of the pre-Tender meeting (if any), or Addenda to the Tender document in accordance with ITT 10. In case of any contradiction, documents obtained directly from the Procuring Entity shall prevail.
- 6.3** The Tenderer is expected to examine all instructions, forms, terms, and specifications in the Tender Document and to furnish with its Tender all information and documentation as is required by the Tender document.

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

- 71** A Tenderer requiring any clarification of the Tender Document shall contact the Procuring Entity in writing at the Procuring Entity's address specified in the **TDS** or raise its enquiries during the pre-Tender meeting if provided for in accordance with ITT 7.2. The Procuring Entity will respond in writing to any request for clarification, provided that such request is received no later than the period specified in the **TDS** prior to the deadline for submission of tenders. The Procuring Entity shall forward copies of its response to all tenderers who have acquired the Tender documents in accordance with ITT 7.4, including a description of the inquiry but without identifying its source. If so specified in the **TDS**, the Procuring Entity shall also promptly publish its response at the web page identified in the **TDS**. Should the clarification result in changes to the essential elements of the Tender Documents, the Procuring Entity shall amend the Tender Documents following the procedure under ITT 8 and ITT 22.2.
- 72** The Tenderer, at the Tenderer's own responsibility and risk, is encouraged to visit and examine and inspect the site(s) of the required contracts and obtain all information that may be necessary for preparing a tender. The costs of visiting the Site shall be at the Tenderer's own expense. The Procuring Entity shall specify in the **TDS** if a pre-arranged Site visit and or a pre-tender meeting will be held, when and where. The Tenderer's designated representative is invited to attend a pre-arranged site visit and a pre-tender meeting, as the case may be. The purpose of the site visit and the pre-tender meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.
- 73** The Tenderer is requested to submit any questions in writing, to reach the Procuring Entity not later than the period specified in the **TDS** before the meeting.
- 74** Minutes of a pre-arranged site visit and those of the pre-tender meeting, if applicable, including the text of the questions asked by Tenderers and the responses given, together with any responses prepared after the meeting, will be transmitted promptly to all Tenderers who have acquired the Tender Documents. Minutes shall not identify the source of the questions asked.
- 75** The Procuring Entity shall also promptly publish anonymized (*no names*) Minutes of the pre-arranged site visit and those of the pre-tender meeting at the web page identified in the **TDS**. Any modification to the Tender Documents that may become necessary as a result of the pre-arranged site visit and those of the pre-tender meeting shall be made by the Procuring Entity exclusively through the issue of an Addendum pursuant to ITT 8 and not through the minutes of the pre-Tender meeting. Non-attendance at the pre-arranged site visit and the pre-tender meeting will not be a cause for disqualification of a Tenderer.
- 80 Amendment of Tender Documents**
- 81** At any time prior to the deadline for submission of Tenders, the Procuring Entity may amend the Tender Documents by issuing addenda.
- 82** Any addendum issued shall be part of the Tender Documents and shall be communicated in writing to all who have obtained the Tender Documents from the Procuring Entity. The Procuring Entity shall also promptly publish the addendum on the Procuring Entity's website in accordance with ITT 7.5.
- 83** To give Tenderers reasonable time in which to take an addendum into account in preparing their Tenders, the Procuring Entity should extend the dead line for the submission of Tenders, pursuant to ITT 22.2.

C. PREPARATION OF TENDERS

9. Cost of Tendering

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

10.0 Language of Tender

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

11.0 Documents Comprising the Tender

11.1 The Tender shall comprise the following:

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

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

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

140 *Tender Prices and Discounts*

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

150 *Currencies of Tender and Payment*

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

and shown in the Schedule of Adjustment Data in the Appendix to Tender are reasonable, in which case a detailed break down of the foreign currency requirements shall be provided by Tenderers.

16.0 Documents Comprising the Technical Proposal

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

17.0 Documents Establishing the Eligibility and Qualifications of the Tenderer

- 17.1** Tenderers shall complete the Form of Tender, included in Section IV, Tender Forms, to establish Tenderer's eligibility in accordance with ITT 4.
- 17.2** 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.
- 17.3** 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.
- 17.4** 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.
- 17.5** 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.
- 17.6** The Tenderer shall provide further documentary proof, information or authorizations that the Procuring Entity may request in relation to ownership and control which information on any changes to the information which was provided by the tenderer under ITT 6.4. The obligations to require this information shall continue for the duration of the procurement process and contract performance and after completion of the contract, if any change to the information previously provided may reveal a conflict of interest in relation to the award or management of the contract.
- 17.7** All information provided by the tenderer pursuant to these requirements must be complete, current and accurate as at the date of provision to the Procuring Entity. In submitting the information required pursuant to these requirements, the Tenderer shall warrant that the information submitted is complete, current and accurate as at the date of submission to the Procuring Entity.
- 17.8** If a tenderer fails to submit the information required by these requirements, its tender will be rejected. Similarly, if the Procuring Entity is unable, after taking reasonable steps, to verify to a reasonable degree the information submitted by a tenderer pursuant to these requirements, then the tender will be rejected.
- 17.9** If information submitted by a tenderer pursuant to these requirements, or obtained by the Procuring Entity (whether through its own enquiries, through notification by the public or otherwise), shows any conflict of interest which could materially and improperly benefit the tenderer in relation to the procurement or contract management process, then:
 - i) If the procurement process is still ongoing, the tenderer will be disqualified from the procurement process,
 - ii) if the contract has been awarded to that tenderer, the contract award will be set aside pending the outcome of (iii),

- iii) the tenderer will be referred to the relevant law enforcement authorities for investigation of whether the tenderer or any other person have committed any criminal offence.

17.10 If a tenderer submits information pursuant to these requirements that is incomplete, inaccurate or out-of-date, or attempts to obstruct the verification process, then the consequences of ITT 17.8 will ensue unless the tenderer can show to the reasonable satisfaction of the Procuring Entity that any such act was not material, or was due to genuine error which was not attributable to the intentional act, negligence or recklessness of the tenderer.

18.0 Period of Validity of Tenders

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

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

19.0 Tender Security

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

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

- i) cash;
- ii) a bank guarantee;
- iii) a guarantee by an insurance company registered and licensed by the Insurance Regulatory Authority listed by the Authority;
- (iv) a guarantee issued by a financial institution approved and licensed by the Central Bank of Kenya, from a reputable source, and an eligible country.

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

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

19.5 If a Tender Security is specified pursuant to ITT 19.1, the Tender Security of unsuccessful Tenderers shall be returned as promptly as possible upon the successful Tenderer's signing the Contract and furnishing the Performance Security and any other documents required in the **TDS**. 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.

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

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

- a) if a Tenderer withdraws its Tender during the period of Tender validity specified by the Tenderer on the Form of Tender, or any extension thereof provided by the Tenderer; or
- b) if the successful Tenderer fails to: -
 - i) sign the Contract in accordance with ITT 47; or

- ii) furnish a Performance Security and if required in the TDS, and any other documents required in the TDS.

- 198** Where tender securing declaration is executed, the Procuring Entity shall recommend to the PPRA to debar the Tenderer from participating in public procurement as provided in the law.
- 199** The Tender Security or the Tender-Securing Declaration of a JV shall be in the name of the JV that submits the Tender. If the JV has not been legally constituted into a legally enforceable JV at the time of tendering, the Tender Security or the Tender-Securing Declaration shall be in the names of all future members as named in the letter of intent referred to in ITT 4.1 and ITT 11.2.
- 1910** A tenderer shall not issue a tender security to guarantee itself.

200 *Format and Signing of Tender*

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

D. SUBMISSION AND OPENING OF TENDERS

210 *Sealing and Marking of Tenders*

- 211** The Tenderer shall deliver the Tender in a single sealed envelope, or in a single sealed package, or in a single sealed container bearing the name and Reference number of the Tender, addressed to the Procuring Entity and a warning not to open before the time and date for Tender opening date. Within the single envelope, package or container, the Tenderer shall place the following separate, sealed envelopes:
- a) in an envelope or package or container marked "ORIGINAL", all documents comprising the Tender, as described in ITT 11; and
 - b) in 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.

- 212 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.

220 *Deadline for Submission of Tenders*

- 221 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**.
- 222 The Procuring Entity may, at its discretion, extend the deadline for the submission of Tenders by amending the Tender Documents in accordance with ITT 8, in which case all rights and obligations of the Procuring Entity and Tenderers previously subject to the deadline shall there after be subject to the deadline as extended.

23.0 *Late Tenders*

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

240 *Withdrawal, Substitution, and Modification of Tenders*

- 241 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.
- 242 Tenders requested to be withdrawn in accordance with ITT 24.1 shall be returned unopened to the Tenderers.
- 243 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*

- 251 Except in the cases specified in ITT 23 and ITT 24.2, the Procuring Entity shall publicly open and read out all Tenders received by the deadline, at the date, time and place specified **in the TDS**, in the presence of Tenderers' designated representatives who chooses to attend. Any specific electronic Tender opening procedures required if electronic Tendering is permitted in accordance with ITT 22.1, shall be as specified in the **TDS**.
- 252 First, envelopes marked “WITHDRAWAL” shall be opened and read out and the envelopes with the corresponding Tender shall not be opened but returned to the Tenderer. No Tender withdrawal shall be permitted unless the corresponding withdrawal notice contains a valid authorization to request the withdrawal and is read out at Tender opening.
- 253 Next, envelopes marked “SUBSTITUTION” shall be opened and read out and exchanged with the corresponding Tender being substituted, and the substituted Tender shall not be opened, but returned to the Tenderer. No Tender substitution shall be permitted unless the corresponding substitution notice contains a valid authorization to request the substitution and is read out at Tender opening.
- 254 Next, envelopes marked “MODIFICATION” shall be opened and read out with the corresponding Tender. No Tender modification shall be permitted unless the corresponding modification notice contains a valid authorization to request the modification and is read out at Tender opening.

- 255 Next, all remaining envelopes shall be opened one at a time, reading out: the name of the Tenderer and whether there is a modification; the total Tender Price, per lot (contract) if applicable, including any discounts and alternative Tenders; the presence or absence of a Tender Security or Tender-Securing Declaration, if required; and any other details as the Procuring Entity may consider appropriate.
- 256 Only Tenders, alternative Tenders and discounts that are opened and read out at Tender opening shall be considered further for evaluation. The Form of Tender and pages of the Bill of Quantities (to be decided on by the tender opening committee) are to be initialed by the members of the tender opening committee attending the opening.
- 257 At the Tender Opening, the Procuring Entity's shall neither discuss the merits of any Tender nor reject any Tender (except for late Tenders, in accordance with ITT 23.1).
- 258 The Procuring Entity shall prepare minutes of the Tender Opening that shall include, as a minimum: -
- a) the name of the Tenderer and whether there is a withdrawal, substitution, or modification;
 - b) the Tender Price, per lot (contract) if applicable, including any discounts;
 - c) any alternative Tenders;
 - d) the presence or absence of a Tender Security, if new as required;
 - e) number of pages of each tender document submitted.
- 259 The Tenderers' representatives who are present shall be requested to sign the minutes. The omission of a Tenderer's signature on the minutes shall not invalidate the contents and effect of the minutes. A copy of the tender opening register shall be distributed to all Tenderers.

E EVALUATION AND COMPARISON OF TENDERS

26 Confidentiality

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

270 Clarification of Tenders

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

280 Deviations, Reservations, and Omissions

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

29.0 Determination of Responsiveness

- 29.1** The Procuring Entity's determination of a Tender's responsiveness is to be based on the contents of the tender itself, as defined in ITT 11.
- 29.2** A substantially responsive Tender is one that meets the requirements of the Tender document without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that, if accepted, would:
- a) Affect in any substantial way the scope, quality, or performance of the Works specified in the Contract;
 - b) limit in any substantial way, inconsistent with the tender document, the Procuring Entity's rights or the tenderer's obligations under the proposed contract;
 - c) if rectified, would unfairly affect the competitive position of other tenderers presenting substantially responsive tenders.
- 29.3** The Procuring Entity shall examine the technical aspects of the tender submitted in accordance with ITT 16, to confirm that all requirements of Section VII, Works' Requirements have been met without any material deviation, reservation or omission.
- 29.4** If a tender is not substantially responsive to the requirements of the tender document, it shall be rejected by the Procuring Entity and may not subsequently be made responsive by correction of the material deviation, reservation, or omission.

30.0 Non-material Non-conformities

- 30.1** Provided that a tender is substantially responsive, the Procuring Entity may waive any non-conformities in the tender.
- 30.2** Provided that a Tender is substantially responsive, the Procuring Entity may request that the tenderer submit the necessary information or documentation, within a reasonable period of time, to rectify non-material non-conformities in the tender related to documentation requirements. Requesting information or documentation on such non-conformities shall not be related to any aspect of the price of the tender. Failure of the tenderer to comply with the request may result in the rejection of its tender.
- 30.3** Provided that a tender is substantially responsive, the Procuring Entity shall rectify quantifiable non-material non-conformities related to the Tender Price. To this effect, the Tender Price shall be adjusted, for comparison purposes only, to reflect the price of a missing or non-conforming item or component in the manner specified in the TDS.

31.0 Arithmetical Errors

- 31.1** The tender sum as submitted and read out during the tender opening shall be absolute and final and shall not be the subject of correction, adjustment or amendment in any way by any person or entity.
- 31.2** Provided that the Tender is substantially responsive, the Procuring Entity shall handle errors on the following basis: -
- a) Any error detected if considered a major deviation that affects the substance of the tender, shall lead to disqualification of the tender as non-responsive.
 - b) Any errors in the submitted tender arising from a miscalculation of unit price, quantity, subtotal and total bid price shall be considered as a major deviation that affects the substance of the tender and shall lead to disqualification of the tender as non-responsive. and
 - c) if there is a discrepancy between words and figures, the amount in words shall prevail
- 31.3** Tenderers shall be notified of any error detected in their bid during the notification of award.

32.0 *Conversion to Single Currency*

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

330 *Margin of Preference and Reservations*

- 331 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.
- 332 A margin of preference shall not be allowed unless it is specified so in the **TDS**.
- 333 Contracts procured on basis of international competitive tendering shall not be subject to reservations exclusive to specific groups as provided in ITT 33.4.
- 334 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.

340 *Nominated Subcontractors*

- 341 Unless otherwise stated in the **TDS**, the Procuring Entity does not intend to execute any specific elements of the Works by subcontractors selected/nominated by the Procuring Entity. Incase the 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.
- 342 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.
- 343 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*

- 351 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.
- 352 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.
- 353 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.

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

36.0 Comparison of tenders

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

37.0 Abnormally low tenders and abnormally high tenders

Abnormally Low Tenders

- 371 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.
- 372 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.
- 373 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

- 374 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.
- 375 In case of a abnormally high price, the Procuring Entity shall make a survey of the market prices, check if the estimated cost of the contract is correct and review the Tender Documents to check if the specifications, scope of work and conditions of contract are contributory to the abnormally high tenders. The Procuring Entity may also seek written clarification from the tenderer on the reason for the high tender price. The Procuring Entity shall proceed as follows:
- i) If the tender price is abnormally high based on wrong estimated cost of the contract, the Procuring Entity may accept or not accept the tender depending on the Procuring Entity's budget considerations.
 - ii) If specifications, scope of work and/or conditions of contract are contributory to the abnormally high tender prices, the Procuring Entity shall reject all tenders and may retender for the contract based on revised estimates, specifications, scope of work and conditions of contract, as the case may be.
- 376 If the Procuring Entity determines that the Tender Price is abnormally too high because genuine competition between tenderers is compromised (*often due to collusion, corruption or other manipulations*), the Procuring Entity shall reject all Tenders and shall institute or cause competent Government Agencies to institute an investigation on the cause of the compromise, before retendering.

38.0 Unbalanced and/ or front-loaded tenders

- 381 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.

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

39.0 *Qualifications of the tenderer*

- 39.1 The Procuring Entity shall determine to its satisfaction whether the eligible Tenderer that is selected as having submitted the lowest evaluated cost and substantially responsive Tender, meets the qualifying criteria specified in Section III, Evaluation and Qualification Criteria.
- 39.2 The determination shall be based upon an examination of the documentary evidence of the Tenderer's qualifications submitted by the Tenderer, pursuant to ITT 17. The determination shall not take into consideration the qualifications of other firms such as the Tenderer's subsidiaries, parent entities, affiliates, subcontractors (other than Specialized Sub-contractors if permitted in the Tender document), or any other firm(s) different from the Tenderer.
- 39.3 An affirmative determination shall be a prerequisite for award of the Contract to the Tenderer. A negative determination shall result in disqualification of the Tender, in which event the Procuring Entity shall proceed to the Tenderer who offers a substantially responsive Tender with the next lowest evaluated price to make a similar determination of that Tenderer's qualifications to perform satisfactorily.

40.0 *Lowest evaluated tender*

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

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

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

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

F. AWARD OF CONTRACT

42.0 *Award criteria*

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

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

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

- a) the name and address of the Tenderer submitting the successful tender;
- b) the Contract price of the successful tender;

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

44.0 *Stand still Period*

- 44.1** The Contract shall not be signed earlier than the expiry of a Standstill Period of 14 days to allow any dissatisfied tender to launch a complaint. Where only one Tender is submitted, the Standstill Period shall not apply.
- 44.2** Where a Standstill Period applies, it shall commence when the Procuring Entity has transmitted to each Tenderer the Notification of Intention to Enter into a Contract with the successful Tenderer.

45.0 *Debriefing by The Procuring Entity*

- 45.1** On receipt of the Procuring Entity's Notification of Intention to Enter into a Contract referred to in ITT 43, an unsuccessful tenderer may make a written request to the Procuring Entity for a debriefing on specific issues or concerns regarding their tender. The Procuring Entity shall provide the debriefing within five days of receipt of the request.
- 45.2** Debriefings of unsuccessful Tenderers may be done in writing or verbally. The Tenderer shall bear its own costs of attending such a debriefing meeting.

46.0 *Letter of Award*

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

47.0 *Signing of Contract*

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

48.0 *Performance Security*

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

49.0 Publication of Procurement Contract

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

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

50.0 Procurement related Complaints and Administrative Review

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

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

Section II - Tender Data Sheet (TDS)

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

Reference to ITC Clause	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
A. General	
ITT 1.1	<p>The name of the contract is PROPOSED PARTITIONING AND OFFICE FIT OUTS</p> <p>The reference number of the Contract is NPSC/OT/T06/2022/2023</p>
ITT 2.4	<p>The Information made available on competing firms is as follows: NOT APPLICABLE</p>
ITT 2.4	<p>The firms that provided consulting services for the contract being tendered for are: JKUATES LTD</p>
ITT 3.1	<p>Maximum number of members in the Joint Venture (JV) shall be: 2 (Two).</p>
B. Contents of Tender Document	
ITT 7.1	<p>(i) The Tenderer will submit any request for clarifications in writing at the Address 0709099000 Email: procurement@npsc.go.ke or P.O. Box 47363-00100 Nairobi or hand delivered to the Administration Block, National Police Services Commission offices, Nairobi, Westlands, Sky park Plaza.</p> <p>to reach the Procuring Entity not later than: 5 days before tender opening</p> <p>(ii) The Procuring Entity shall publish it's response at the website: www.npsc.go.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: _21st NOVEMEBER 2022</p> <p>Time: 10:00AM</p> <p>Place: CBK PENSION TOWERS ALONG HARAMBEE AVENUE</p> <p>(B) Pre-Tender meeting shall not take place take place</p>

Reference to ITC Clause	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
ITT 7.3	N/A
ITT 7.5	N/A
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>(1) Name of Procuring Entity: National Police Service Commission</p> <p>(2) Physical address for hand Courier Delivery to an office or Tender Box: Nairobi, Westlands, Sky Park Plaza, 2nd Floor.</p> <p>(3) Postal Address :P. O. Box 47363-00100 Nairobi.</p> <p>(4) Insert name, telephone number and e-mail address of the officer to be contacted : Head of Procurement NPSC, Tel: 0709099000, Email: procurement@npsc.go.ke</p>
C. Preparation of Tenders	
ITT 11.1 (h)	<p>The Tenderer shall submit the following additional documents in its Tender: <i>[list any additional document not already listed in ITT 11.1 that must be submitted with the Tender. The list of additional documents should include the following:]</i></p> <p>All other documents required under “Evaluation and pre-qualification criteria” section</p>
ITT 13.1	Alternative Tenders <i>shall not be</i> considered.
ITT 13.2	Alternative times for completion <i>shall not be permitted.</i>
ITT 13.4	Alternative technical solutions <i>shall not be</i> permitted for the following parts of the Works: <i>All works except where otherwise indicated in the item description.</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 120 days
ITT 18.3	N/A
ITT 19.1	<p>Tender shall provide a Tender Security</p> <p>The type of Tender security shall be <i>an insurance or bank guarantee</i> in the amount of Kenya shillings 1,000,000.00 valid for 150 days as described in ITT.</p>

Reference to ITC Clause	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
ITT 20.1	In addition to the original of the Tender, the number of copies is: <i>1 Copy</i>
ITT 20.3	The written confirmation of authorization to sign on behalf of the Tenderer shall consist of: <i>Power of attorney</i>
D. Submission and Opening of Tenders	
ITT 22.1	<p>(A) For <u>Tender submission purposes</u> only, the Procuring Entity's address is:</p> <p>The Ag. CS/Chief Executive Officer National Police Service Commission P.O. Box 47363-00100 Sky Park Plaza, Westlands, Nairobi</p> <p>Bid document to be deposited in the Tender Box located at the NPSC offices, Sky Park Plaza.</p> <p>Date and time for submission of Tenders 29th November 2022, 10:00AM.....</p> <p>Tenders shall shall not submit tenders electronically.</p>
ITT 25.1	<p>The Tender opening shall take place at the time and the address for Opening of Tenders provided below:</p> <p>National Police Service Commission P.O BOX 47363-00100 2nd Floor, Sky Park Plaza, Westlands, Nairobi</p> <p>DATE AND TIME AS PER ITT 22.1 ABOVE</p>
ITT 25.1	<p>If Tenderers are allowed to submit Tenders electronically, they shall follow the electronic tender submission procedures specified: N/A</p> <hr/> <hr/>
E. Evaluation, and Comparison of Tenders	
ITT 30.3	<p>The adjustment shall be based on the _____ <i>“average”</i> price of the item or component as quoted in other substantially responsive Tenders. If the price of the item or component cannot be derived from the price of other substantially responsive Tenders, the Procuring Entity shall use its best estimate.</p>

Reference to ITC Clause	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
TT 32.1	<p>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: _____ <i>N/A</i></p> <p>The source of exchange rate shall be: The Central bank of Kenya (mean rate)</p> <p>The date for the exchange rate shall be: the deadline date for Submission of the Tenders.</p> <p><i>N/A</i></p>
ITT 33.2	<p>A margin of preference “<i>shall not</i>” apply.</p> <p><i>[If a margin of preference applies, the application methodology shall be defined in <u>Section III – Evaluation and Qualification Criteria.</u>]</i></p>
ITT 33.4	<p>The invitation to tender is extended to the following group that qualify for Reservations: <i>N/A</i></p>
ITT 34.1	<p>At this time, the Procuring Entity “<i>does not intend</i>” to execute certain specific parts of the Works by subcontractors selected in advance.</p>
ITT 34.2	<p>Contractor’s may propose subcontracting: Maximum percentage of subcontracting permitted is: <u>60</u> _____ % <i>of the total contract amount.</i> Tenderers planning to subcontract more than 10% of total volume of work shall specify, in the Form of Tender, the activity (ies) or parts of the Works to be subcontracted along with complete details of the subcontractors and their qualification and experience.</p>
ITT 34.3	<p>The parts of the Works for which the Procuring Entity permits Tenderers to propose Specialized Subcontractors are designated as follows: <i>N/A</i></p> <p>For the above-designated parts of the Works that may require Specialized Subcontractors, the relevant qualifications of the proposed Specialized Subcontractors will be added to the qualifications of the Tenderer for the purpose of evaluation <i>N/A</i></p>
ITT 35.2 (e)	<p>Additional requirements apply. These are detailed in the evaluation criteria in Section III, Evaluation and Qualification Criteria.</p>
ITT 48.1	<p>Other documents required in addition to the Performance Security are: <i>N/A</i></p>
ITT 50.1	<p>The procedures for making a Procurement-related Complaint are detailed in the “Notice of Intention to Award the Contract” herein and are also available from the PPRA Website www.ppra.go.ke or email complaints@ppra.go.ke.</p>

Reference to ITC Clause	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
	<p>If a Tenderer wishes to make a Procurement-related Complaint, the Tenderer should submit its complaint following these procedures, in writing (by the quickest means available, that is either by hand delivery or email to:</p> <p>For the attention: <i>The Ag. CS/ Chief Executive Officer</i></p> <p>Title/position: <i>The Ag. CS/ Chief Executive Officer</i></p> <p>Procuring Entity: <i>National Police Service Commission</i></p> <p>Email address: <i>smcopiyo@npsc.go.ke</i></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

10 GENERAL PROVISIONS

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

13 EVALUATION AND CONTRACT AWARD CRITERIA

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

2.0 PRELIMINARY EXAMINATION FOR DETERMINATION OF RESPONSIVENESS

Preliminary examination for Determination of Responsiveness

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

See the table under item 8 for the preliminary evaluation/ mandatory requirements

30 TENDER EVALUATION (ITT 35); NB-NOT APPLICABLE

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

- (i) Alternative Completion Times, if permitted under ITT 13.2, will be evaluated as follows:

.....

- (ii) Alternative Technical Solutions for specified parts of the Works, if permitted under ITT 13.4, will be evaluated as follows:.....

- (iii) Other Criteria; if permitted under ITT 35.2(j):

.....

40 MULTIPLE CONTRACTS; NB-NOT APPLICABLE

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

OPTION 1

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

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): NB- NOT APPLICABLE.**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.

60 MARGIN OF PREFERENCE: NB- NOT APPLICABLE.

- 61** If the TDS so specifies, the Procuring Entity will grant a margin of preference of fifteen percent (15%) to be loaded on evaluated prices of the foreign tenderers, where the percentage of share holding of Kenyan citizens is less than fifty- one percent (51%).
- 62** Contractors shall be asked to provide, as part of the data for qualification, such information, including details of ownership, as shall be required to determine whether, according to the classification established by the Procuring Entity, a particular contractor or group of contractors qualifies for a margin of preference.

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

7. *Post qualification and Contract award (ITT 39), more specifically: REFER TO QUALIFICATION TABLE*

IN THE NEXT PAGE

- a) In case the tender was subject to post-qualification, the contract shall be awarded to the lowest evaluated tenderer, subject to confirmation of pre-qualification data, if so required.
- b) Incase the tender was not subject to post-qualification, the tender that has been determined to be the lowest evaluated tenderer shall be considered for contract award, subject to meeting each of the following conditions.
 - i) The Tenderer shall demonstrate that it has access to, or has available, liquid assets, unencumbered real assets, lines of credit, and other financial means (independent of any contractual advance payment) sufficient to meet the construction cash flow of Kenya Shillings_____
 - ii) Minimum average annual construction turnover of Kenya Shillings_____ *[insert amount]*, equivalent calculated as total certified payments received for contracts in progress and/or completed within the last _____ *[insert of year]* years.
 - iii) At least _____ *(insert number)* of contract(s) of a similar nature executed within Kenya, or the East African Community or a broad, that have been satisfactorily and substantially completed as a prime contractor, or joint venture member or sub-contractor each of minimum value Kenya shillings _____ equivalent.
 - iv) Contractor's Representative and Key Personnel, which are specified as _____
 - v) Contractors key equipment listed on the table "Contractor's Equipment" below and more specifically listed as *[specify requirements for each lot as applicable]* _____
 - iv) Other conditions depending on their seriousness.

a) History of non-performing contracts:

Tenderer and each member of JV in case the Tenderer is a JV, shall demonstrate that Non-performance of a contract did not occur because of the default of the Tenderer, or the member of a JV in the last _____ *(specify 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 _____ (*specify 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.

8 QUALIFICATION AND EVALUATION CRITERIA

Tenders shall be evaluated in accordance with the following criteria:

1	2	3	4	5	6
PRELIMINARY EVALUATION (MANDATORY REQUIREMENTS): TENDERER'S MUST MEET ALL THE MANDATORY REQUIREMENTS TO PROCEED TO TECHNICAL EVALUATION To be deemed as responsive, tenders shall be checked for the following mandatory requirements (To be met by Main Contractor and their proposed sub-contractors respectively as listed below): NB: The proposed sub-contractors shall not be allowed to also sub-contract/ make proposals for sub-sub-contracting.					
Item No.	Qualification Subject	Qualification Requirement	Document To be Completed by Tenderer	Met or not met	For Procuring Entity's Use (Qualification met or Not Met)
A		<u>In relation to Tenderer/ Main contractor</u>			
1	Filled forms	Dully filled forms (Original): a) Form of tender, b) Confidential business questionnaire, c) Certificate of independent tender determination, d) Self-declaration forms SD1 and SD2 and e) Declaration and commitment to the code of ethics	Attach forms; filled original	<i>Must meet requirement</i>	
2	Bid security	Bid security (Tender bond) of Kshs. One Million (Kshs 1,000,000.00) (Original) Valid for <u>150 days</u> (days to start from tender opening date)	Attach original from Bank or Insurance Company approved by PPRA	<i>Must meet requirement</i>	
3	Business registration	Company certificate of registration or incorporation (Provide Copy)	Attach copy	<i>Must meet requirement</i>	
4	NCA registration	Current registration certificate and annual practicing license with National Construction Authority (NCA) for Building Works Category 3 and Above (Provide copies of Current NCA registration and annual license)	Attach copies	<i>Must meet requirement</i>	

5	Tax registration	VAT/PIN registration certificate (Copy)	Attach copy	<i>Must meet requirement</i>	Page 3
6	Power of attorney	Power of attorney of the signatory (Copy)	Attach affidavit copy	<i>Must meet requirement</i>	
7	Ownership details	Current form CR12 (for companies) and identity documents (National ID's or Passports) for the directors/proprietor (Copy)	Attach copies	<i>Must meet requirement</i>	
8	Pagination and binding	All the pages in the tender document including all attachments must be serially numbered and the document should be bound	Paginate and bind	<i>Must meet requirement</i>	
9	Pre tender visit	Pre-tender site visit form signed and stamped by authorized officer of procuring entity (Original NB. Even those who had visited earlier are required to be present on 21st November and obtain the signed form)	Attach original	<i>Must meet requirement</i>	
10	Identify proposed sub-contractors	Letter (On the tenderer's letterhead) addressed to the C.E.O/C.S. National Police Service Commission identifying the proposed sub-contractors for the four specialist works (B-E Below). Tenderers who themselves meet the required qualifications for the specialist works are allowed to submit their own documents for those works and indicate the same in the letter. The documents submitted for sub-contractors' evaluation must be for those sub-contractors identified in the letter.	Attach original letter	<i>Must meet requirement</i>	
B		<u>In relation to proposed electrical sub-contractor</u>			
1	Business registration	Company certificate of registration or incorporation (Provide Copy)	Attach Copy	<i>Must meet requirement</i>	
2	Tax compliance	Valid tax compliance certificate (Copy)	Attach copy	<i>Must meet requirement</i>	
3	Ownership details	Current form CR12 (for companies) and identity documents (National ID's or Passports) for the directors/proprietor (Copy)	Attach copies	<i>Must meet requirement</i>	

4	NCA registration	Registration certificate and annual license as a contractor in Electrical Works by National Construction Authority (NCA) category 4 and above. (Provide copy of registration and current renewal certificate) (Copies)	Attach copies	<i>Must meet requirement</i>	
5	EPRA registration	Current license from Energy and Petroleum Regulatory Authority (EPRA) (Copy)	Provide copies	<i>Must meet requirement</i>	
6	Sub-contractor's proof of experience	To have successfully carried out 3 similar projects in the last 5 years (Attach copies of completion certificates or recommendation letters) (Must be for electrical works in buildings and recommendation letters should be from either the client or consultants)	Attach copies	<i>Must meet requirement</i>	
C		<u>In relation to proposed Structured Cabling, CCTV and Access Control sub-contractor</u>			
1	Business registration	Company certificate of registration or incorporation (Provide Copy)	Attach copy	<i>Must meet requirement</i>	
2	Tax compliance	Valid tax compliance certificate (Copy)	Attach copy	<i>Must meet requirement</i>	
3	Ownership details	Current form CR12 (for companies) and identity documents (National ID's or Passports) for the directors/proprietor (Copy)	Attach copies	<i>Must meet requirement</i>	
4	NCA registration	Registration certificate and annual license as a contractor in Structured Cabling and Computer Networking Installations, Security Surveillance (CCTV) and Access Control Systems by National Construction Authority (NCA) category 4 and above. (Provide copy of registration and current renewal certificate) (Copies)	Attach copies	<i>Must meet requirement</i>	
5	CA compliance	Valid Communication Authority (CA) compliance certificate and annual license as a telecommunication contractor (Copy)	Attach copy	<i>Must meet requirement</i>	

6	Manufacturer's authorization	Manufacturers authorization form/letter for CCTV cameras; IP-PABX; Telephone Instruments and Data Switches being offered by the bidder (Copy)	Attach copy/s	<i>Must meet requirement</i>	Page 3
7	Type approvals	Type approval from CA for the IP-PABX and Telephone Instruments being offered by the bidder (Copy)	Attach copy/s	<i>Must meet requirement</i>	
8	Manufacturer's ISO	Submission of Manufacturer's ISO 9001 for the CCTV equipment/components being offered by the bidder (Copy)	Attach copy/s	<i>Must meet requirement</i>	
9	Sub-contractor's proof of experience	To have successfully carried out 3 similar projects in the last 5 years (Attach copies of completion certificates or recommendation letters) (Recommendation letters should be from either the client or consultants)	Attach copies	<i>Must meet requirement</i>	
D		<u>In relation to proposed HVAC sub-contractor</u>			
1	Business registration	Company certificate of registration or incorporation (Provide Copy)	Attach copy	<i>Must meet requirement</i>	
2	Tax compliance	Valid tax compliance certificate (Copy)	Attach copy	<i>Must meet requirement</i>	
3	Ownership details	Current form CR12 (for companies) and identity documents (National ID's or Passports) for the directors/proprietor (Copy)	Attach copies	<i>Must meet requirement</i>	
4	NCA registration	Registration certificate and annual license as a contractor Mechanical Engineering Services (Refrigeration, Cold Rooms, Air Conditioning and Ventilation) by National Construction Authority (NCA) category 4 and above. (Provide copy of registration and current renewal certificate) (Copies)	Attach copies	<i>Must meet requirement</i>	
5	Sub-contractor's proof of experience	To have successfully carried out 3 similar projects in the last 5 years (Attach copies of completion certificates or recommendation letters) (Recommendation letters should be from either the client or consultants)	Attach copies	<i>Must meet requirement</i>	

E		<u>In relation to proposed Plumbing, Drainage and Fire Fighting sub-contractor</u>			Page 3
1	Business registration	Company certificate of registration or incorporation (Provide Copy)	Attach copy	<i>Must meet requirement</i>	
2	Tax compliance	Valid tax compliance certificate (Copy)	Attach copy	<i>Must meet requirement</i>	
3	Ownership details	Current form CR12 (for companies) and identity documents (National ID's or Passports) for the directors/proprietor (Copy)	Attach copies	<i>Must meet requirement</i>	
4	NCA registration	Registration certificate and annual license as a contractor Mechanical Engineering Services (Plumbing, Drainage and Fire Fighting) by National Construction Authority (NCA) category 4 and above. (Provide copy of registration and current renewal certificate) (Copies)	Attach copies	<i>Must meet requirement</i>	
5	Sub-contractor's proof of experience	To have successfully carried out 3 similar projects in the last 5 years (Attach copies of completion certificates or recommendation letters) (Recommendation letters should be from either the client or consultants)	Attach copies	<i>Must meet requirement</i>	
F		<u>Additional requirements for Main Contractor/Tenderer</u>			
1	Nationality	Nationality in accordance with ITT 3.6	Forms ELI – 1.1 and 1.2, with attachments	<i>Must meet requirement</i>	
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	<i>Must meet requirement</i>	
3	Conflict of Interest	No conflicts of interest in accordance with ITT 3.3	Form of Tender	<i>Must meet requirement</i>	
4	PPRA Eligibility	Not having been declared ineligible by the PPRA as described in ITT 3.7	Form of Tender	<i>Must meet requirement</i>	
5	State- owned Enterprise	Meets conditions of ITT 3.8	Forms ELI – 1.1 and 1.2, with attachments	<i>Must meet requirement</i>	

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	<i>Must meet requirement</i>	Page 3
7	History of Non-Performing Contracts	Non-performance of a contract did not occur as a result of contractor default since 1 st January [2017/].	Form CON-2	<i>Must meet requirement</i>	
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	<i>Must meet requirement</i>	

TECHNICAL EVALUATION: TENDERER'S MUST SCORE 70% AND ABOVE TO PASS TECHNICAL EVALUATION					
Item No.	Qualification Subject	Qualification Requirement	Document To be Completed by Tenderer	Met or not met / score	For Procuring Entity's Use (Qualification met or Not Met)
1	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	5 Points	
2	Litigation History	No consistent history of court/arbitral award decisions against the Tenderer since 1st January 2017	Form CON – 2 and attach affidavit	5 Points	
3	Financial Capabilities	<p>(i) The Tenderer shall demonstrate that it has access to, or has available, liquid assets, unencumbered real assets, lines of credit, and other financial means (independent of any contractual advance payment) sufficient to meet the construction cash flow requirements estimated as Kenya Shillings (25% of the tender sum) 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 [Three years certified and complete Audited accounts i.e 2019,2020,2021] years shall be submitted and must demonstrate the current soundness of the Tenderer's financial position and indicate its prospective long-term profitability.</p>	Form FIN – 3.1, with attachments	<p>5 Points</p> <p>2 Points</p> <p>3 points</p>	

		(should have made profits in at least two years requested above)			
4	Average Annual Construction Turnover	<p>Minimum average annual construction turnover of Kenya Shillings <i>[as a % of tender sum]</i>, equivalent calculated as total certified payments received for contracts in progress and/or completed within the last <i>[Three]</i> years, divided by <i>[Three]</i> years</p> <ul style="list-style-type: none"> • <i>None or lower turnover than 25% of tender sum ...0 points</i> • <i>25% of tender sum ----- 5 points</i> • <i>50% of tender sum ----- 10 points</i> • <i>100% of tender sum ----- 15 points</i> 	Form FIN – 3.2	15 Points	
5	General Construction Experience	<p>Experience under construction contracts in the role of prime contractor, JV member, sub-contractor, or management contractor for at least the last <i>[Three]</i> years, starting 1st January 2019.</p> <ul style="list-style-type: none"> • <i>One year experience - 3 points</i> • <i>Two years' experience - 6 points</i> • <i>Three years' experience - 10 points</i> 	Form EXP – 4.1 and attach evidence	10 Points	
6	Specific Construction & Contract Management Experience	<p>A minimum number of <i>[Three]</i> similar contracts specified below that have been satisfactorily and substantially completed as a prime contractor, joint venture member, management contractor or sub-contractor between 1st January [2019] and tender submission deadline i.e. Three (3) contracts, each of minimum value Kenya shillings.....33% of tender sum equivalent.</p> <p>The similarity of the contracts shall be based on the following: <i>(Type of work and value)</i></p> <ul style="list-style-type: none"> • <i>10 points per project</i> 	<p>Form EXP 4.2(a)</p> <p>Attach completion certificate</p> <p>or</p> <p>The contracts with recommendation letters showing satisfactory performance and completion</p>	30 Points	

7	Contractor's Equipment	<p>Schedule of contractors equipment</p> <ul style="list-style-type: none"> • <i>Transport equipment (4 points for any truck of at least 7 tons to a maximum of 1 trucks) -4 points</i> • <i>Transport equipment (3 marks for pickup of at least 1 ton to a maximum of 2 pickups)-6 points</i> 	<p>Form Equ</p> <p><i>log books for vehicles, purchase receipts for equipment or lease agreements to be attached</i></p>	10 points	Page 4
8	Contractor's Personnel	<p>Qualifications and experience of key personnel</p> <ul style="list-style-type: none"> • <i>Director of the firm/C.E.O who is a holder of degree or diploma in relevant building and/or construction discipline- 5 points</i> • <i>Site agent or site manager ditto- 6 points</i> • <i>Site foremen (at least 2) holders of diploma-2 points each</i> 	<p>FORMS PER 1 AND PER 2 with CVs and certificates attached (NB: The CVs must be signed by the proposed personnel)</p>	15 points	

Only tenders that score 70 points and above in the technical evaluation shall proceed to the next stage (determination of the lowest evaluated bidder) in accordance with ITT 36-40 in addition to due diligence/post qualification relating to confirmation of information submitted by the bidder.

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				

ITEM	Description of Work Item	Describe location of Source	COST in K. shillings	Comments, if any
E	Add any other items			
1				
2				
3				
4				
5				
6				
	TOTAL COST LOCAL CONTENT		XXXXXX	
	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	

Omit the following information for equipment owned by the Tenderer.

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

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>

	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. FORMPER - 2:

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

Name of Tenderer

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

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

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

Declaration

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

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

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

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

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

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

Signature: _____

Date: (day month year): _____

Countersignature of authorized representative of the Tenderer:

Signature: _____

Date: (day month year): _____

5. TENDERERS QUALIFICATION WITHOUT PREQUALIFICATION

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

51 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>

52 FORM ELI -1.2

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

Date: _____

ITT No. and title: _____

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

53 **FORM CON-2****Historical Contract Non-Performance, Pending Litigation and Litigation History**

Tenderer's Name: _____

Date: _____

JV Member's Name _____

ITT No. and title: _____

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

☐ Contract non-performance did not occur since 1st January *[insert year]* specified in Section III, Evaluation and Qualification Criteria, Sub-Factor 2.1.

☐ Contract(s) not performed since 1st January *[insert year]* specified in Section III, Evaluation and Qualification Criteria, requirement 2.1

☐ Contract(s) withdrawn since 1st January *[insert year]* specified in Section III, Evaluation and Qualification Criteria, requirement 2.1

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

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

☐ No pending litigation in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.3.

☐ Pending litigation in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.3 as indicated below.

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

54 **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

5.4.2 Sources of Finance

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

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

5.4.3 Financial documents

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

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

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

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

55 **FORM EN – 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.

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 EN – 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	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	Management Contractor	Sub-contractor <input type="checkbox"/>
Total Contract Amount	Kenya Shilling			
If member in a JV or sub-contractor, specify participation in total Contract amount				
Procuring Entity's Name:				
Address:				
Telephone/fax number				
E-mail:				

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

Tenderer's Name: _____

Date: _____

JV Member's Name _____

ITT No. and title: _____

Similar Contract No.	Information			
Contract Identification				
Award date				
Completion date				
Role in Contract	Prime Contractor <input type="checkbox"/>	Member in JV	Management Contractor	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	

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.

I. Key Activity No One: _

Information				
Contract Identification				
Award date				
Completion date				
Role in Contract	Prime Contractor	Member JV	in Management Contractor	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.

6. FORM OF TENDER

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

INSTRUCTIONS TO TENDERERS

- a) *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: *4th October 2022 Request* **for Tender No.:** *NPSC XX/XX /2022/2023*
Name and description of Tender *PROPOSED PARTITIONING AND OFFICE FIT OUT*

To: *NATIONAL POLICE SERVICE COMMISSION*

Dear Sirs,

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

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

2. We undertake, if our tender is accepted, to commence the Works as soon as is reasonably possible after the receipt of the Architect notice to commence, and to complete the whole of the Works comprised in the Contract within the time stated in the Special Conditions of Contract.
3. We agree to adhere by this tender until _____ *[Insert date]*, and it shall remain binding upon us and may be accepted at any time before that date.
4. We understand that you are not bound to accept the lowest or any tender you may receive.
5. We, the under signed, further declare that:
- No reservations: We have examined and have no reservations to the tender document, including Addenda issued in accordance with ITT 28;
 - Eligibility: We meet the eligibility requirements and have no conflict of interest in accordance with ITT 3 and 4;

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

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

- iii) Tender - Securing Declaration: We have not been suspended nor declared ineligible by the Procuring Entity based on execution of a Tender-Securing or Proposal-Securing Declaration in the Procuring Entity's Country in accordance with ITT 19.8;
- iv) Conformity: We offer to execute in conformity with the tendering documents and in accordance with the implementation and completion specified in the construction schedule, the following Works: *[insert a brief description of the Works]*;
- v) Tender Price: The total price of our Tender, excluding any discounts offered in item 1 above is: *[Insert one of the options below as appropriate]*
- vi) Option 1, incase of one lot: Total price is: *[insert the total price of the Tender in words and figures, indicating the various amounts and the respective currencies]*; or
- Option 2, in case of multiple lots:
- (a) Total price of each lot *[insert the total price of each lot in words and figures, indicating the various amounts and the respective currencies]*; and
- (b) Total price of all lots (sum of all lots) *[insert the total price of all lots in words and figures, indicating the various amounts and the respective currencies]*;
- vii) Discounts: The discounts offered and the methodology for their application are:
- viii) The discounts offered are: *[Specify in detail each discount offered.]*
- ix) The exact method of calculations to determine the net price after application of discounts is shown below: *[Specify in detail the method that shall be used to apply the discounts]*;
- x) Tender Validity Period: Our Tender shall be valid for the period specified in TDS 18.1 (as amended, if applicable) from the date fixed for the Tender submission deadline specified in TDS 22.1 (as amended, if applicable), and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- xi) Performance Security: If our Tender is accepted, we commit to obtain a Performance Security in accordance with the Tendering document;
- xii) One Tender Per Tender: We are not submitting any other Tender(s) as an individual Tender, and we are not participating in any other Tender(s) as a Joint Venture member or as a sub-contractor, and meet the requirements of ITT 3.4, other than alternative Tenders submitted in accordance with ITT 13.3;
- xiii) Suspension and Debarment: We, along with any of our subcontractors, suppliers, Engineer, manufacturers, or service providers for any part of the contract, are not subject to, and not controlled by any entity or individual that is subject to, a temporary suspension or a debarment imposed by the Public Procurement Regulatory Authority or any other entity of the Government of Kenya, or any international organization.
- xiv) State-owned enterprise or institution: *[select the appropriate option and delete the other]* *[We are not a state- owned enterprise or institution]/[We are a state-owned enterprise or institution but meet the requirements of ITT3.8]*;
- xv) Commissions, gratuities, fees: We have paid, or will pay the following commissions, gratuities, or fees with respect to the tender process or execution of the Contract: *[insert complete name of each Recipient, its full address, the reason for which each commission or gratuity was paid and the amount and currency of each such commission or gratuity]*.

Name of Recipient	Address	Reason	Amount

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

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

Further, we confirm that we have read and understood the full content and scope of fraud and corruption as informed in "**Appendix 1 - Fraud and Corruption**" attached to the Form of Tender.

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

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

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

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

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

Date signed _____ day of _____, _____

Notes

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

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

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

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

(a) ***Tenderer's details***

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

General and Specific Details

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

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

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

	Names of Partners	Nationality	Citizenship	% Shares owned
1				
2				
3				

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

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

Nominal Kenya Shillings (Equivalent).....

Issued Kenya Shillings (Equivalent).....

iii) Give details of Directors as follows.

	Names of Director	Nationality	Citizenship	% Shares owned
1				
2				
3				

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

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

If yes, provide details as follows.

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

	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 such Contract.		

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

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

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

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

Name _____
Title _____
Date _____

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

(c) **SELF- DECLARATION FORMS****FORM SD1****SELF DECLARATION THAT THE PERSON/TENDERER IS NOT DEBARRED IN THE MATTER OF THE PUBLIC PROCUREMENT AND ASSET DISPOSAL ACT 2015.**

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

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

.....
(Title)

.....
(Signature)

.....
(Date)

Bidder Official Stamp

FORM SD2**SELF DECLARATION THAT THE PERSON/TENDERER WILL NOT ENGAGE IN ANY CORRUPT OR FRAUDULENT PRACTICE.**

I,of P.O. Boxbeing 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 aforesaid 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 sub-section commits an offence;
 - 3) Without limiting the generality of the subsection (1) and (2), the person shall be: -
 - a) disqualified from entering into a contract for a procurement or asset disposal proceeding; or
 - b) if a contract has already been entered into with the person, the contract shall be voidable;
 - 4) The voiding of a contract by the procuring entity under subsection (7) does not limit any legal remedy the procuring entity may have;
 - 5) An employee or agent of the procuring entity or a member of the Board or committee of the procuring entity who has a conflict of interest with respect to a procurement: -
 - a) Shall not take part in the procurement proceedings;
 - b) shall not, after a procurement contract has been entered in to, take part in any decision relating to the procurement or contract; and
 - c) shall not be a 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 is representation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain financial or other benefit or to avoid an obligation;
 - iii) “collusive practice” is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party; “coercive practice” is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;
 - iv) “obstructive practice” is:
 - Deliberately destroying, falsifying, altering, or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede investigation by Public Procurement Regulatory Authority (PPRA) or any other appropriate authority appointed by Government of Kenya into allegations of a corrupt, fraudulent, coercive, or collusive practice; and/or threatening, harassing, or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or
 - acts intended to materially impede the exercise of the PPRA's or the appointed authority's inspection and audit rights provided for under paragraph 2.3 e. below.
- b) Defines more specifically, in accordance with the above procurement Act provisions set forth for fraudulent and collusive practices as follows:

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

- c) Rejects a proposal for award¹ of a contract if PPRA determines that the firm or individual recommended for award, any of its personnel, or its agents, or its sub-consultants, sub-contractors, service providers, suppliers and/ or their employees, has, directly or indirectly, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for the contract in question;
- d) Pursuant to the Kenya's above stated Acts and Regulations, may recommend to appropriate authority(ies) for sanctioning and debarment of a firm or individual, as applicable under the Acts and Regulations;
- e) Requires that a clause be included in Tender documents and Request for Proposal documents requiring(i) Tenderers (applicants/proposers), Consultants, Contractors, and Suppliers, and their Sub-contractors, Sub-consultants, Service providers, Suppliers, Agents personnel, permit the PPRA or any other appropriate authority appointed by Government of Kenya to inspect² all accounts, records and other documents relating to the procurement process, selection and/or contract execution, and to have them audited by auditors appointed by the PPRA or any other appropriate authority appointed by Government of Kenya; and
- f) Pursuant to Section 62 of the above Act, requires Applicants/Tenderers to submit along with their Applications/Tenders/Proposals a “Self-Declaration Form” as included in the procurement document declaring that they and all parties involved in the procurement process and contract execution have not engaged/will not engage in any corrupt or fraudulent practices.

¹ For the avoidance of doubt, a party's 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 thereof as relevant; interviewing staff and other relevant individuals; performing physical inspections and site visits; and obtaining third party verification of information.

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

Beneficiary: _____
Request _____ **for** _____ **Tenders** _____ **No:** _____

Date: _____

TENDER GUARANTEE No.: _____

Guarantor: _____

1. We have been informed that _____ (herein after called "the Applicant") has submitted or will submit to the Beneficiary its Tender (herein after 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.

FORMAT OF TENDER SECURITY [Option 2–Insurance Guarantee]**TENDER GUARANTEE No.:** _____

1. Whereas [*Name of the tenderer*] (hereinafter called “the tenderer”) has submitted its tender dated [*Date of submission of tender*] for the [*Name and/or description of the tender*] (hereinafter called “the Tender”) for the execution of _____ under Request for Tenders No. _____ (“the ITT”).

2. KNOW ALL PEOPLE by these presents that WE of [**Name of Insurance Company**] having our registered office at (hereinafter called “the Guarantor”), are bound unto [*Name of Procuring Entity*] (hereinafter called “the Procuring Entity”) in the sum of (Currency and guarantee amount) for which payment well and truly to be made to the said Procuring Entity, the Guarantor binds itself, its successors and assigns, jointly and severally, firmly by these presents.

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

3. NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if the Applicant:
 - a) has withdrawn its Tender during the period of Tender validity set forth in the Principal's Letter of Tender (“the Tender Validity Period”), or any extension thereto provided by the Principal; or
 - b) having been notified of the acceptance of its Tender by the Procuring Entity during the Tender Validity Period or any extension thereto provided by the Principal; (i) failed to execute the Contract agreement; or (ii) has failed to furnish the Performance Security, in accordance with the Instructions to tenderers (“ITT”) of the Procuring Entity's Tendering document then the guarantee undertakes to immediately pay to the Procuring Entity up to the above amount upon receipt of the Procuring Entity's first written demand, without the Procuring Entity having to substantiate its demand, provided that in its demand the Procuring Entity shall state that the demand arises from the occurrence of any of the above events, specifying which event(s) has occurred.

4. This guarantee will expire: (a) if the Applicant is the successful Tenderer, upon our receipt of copies of the contract agreement signed by the Applicant and the Performance Security and, or (b) if the Applicant is not the successful Tenderer, upon the earlier of (i) our receipt of a copy of the Beneficiary's notification to the Applicant of the results of the Tendering process; or (ii) twenty-eight days after the end of the Tender Validity Period.

5. Consequently, any demand for payment under this guarantee must be received by us at the office indicated above on or before that date.

[Date]_____
[Signature of the Guarantor]_____
[Witness]_____
[Seal]

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

FORM OF TENDER - SECURING DECLARATION

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

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

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

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

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

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

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

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

Appendix to Tender

Schedule of Currency requirements

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

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

PROPOSED OFFICE PARTITIONING AND FIT OUT AT CBK PENSION TOWERS

PRE-TENDER SITE VISIT FORM

Date _____

This is to confirm that (name and address of tenderer)_____

_____ has attended the pre tender site visit.

_____	_____	_____
Name	Signature	Stamp

(To be signed by authorized representative of procuring entity and officially stamped)



National Police Service Commission



TENDER NO. NPSC/OT/T06/2022-2023

PROPOSED OFFICE PARTIONING AND FIT OUT AT CBK PENSION TOWERS FOR NPSC

A) PHASED IMPLEMENTATION OF THE PROJECT

Make reference in regards to Section VIII: Main works Page 19, the phase price schedule, item F. The following further details are provided regarding the phasing of the works:

A clarification is issued to Tenderers in regard to phased implantation of this project.

- i. While Tenderers will quote for the full contract price and award criteria is lowest evaluated bid; tenderers are notified that the subject work shall be awarded to the winning bidder in Phases as detailed in the schedule below and that they should take this into account in their pricing.
- ii. At every phase, a contract will be entered into which will guide contract administration. For purposes of payment, any items that relate to the entire work shall be prorated based on value of the other work in each phase.

PHASING SCHEDULE

Item	Description	Phase 1	Phase 2	Phase 3
A	MAIN WORKS			
1	Sixth Floor			
	Partitions			100%
	Windows	100%		
	Doors			100%
	Wall finishes			100%
	Floor finishes	100%		
	Ceiling finishes			100%
2	Seventh Floor			
	Partitions			100%
	Windows	100%		
	Doors			100%
	Wall finishes			100%
	Floor finishes	100%		
	Ceiling finishes			100%
3	Eighth Floor			
	Partitions		100%	

	Windows	100%		
	Doors		100%	
	Wall finishes (Drain pipe boxing to be in Phase1)	80%	20%	
	Floor finishes	100%		
	Ceiling finishes		100%	
4	Nineth Floor			
	Partitions		100%	
	Windows	100%		
	Doors		100%	
	Wall finishes (Drain pipe boxing to be in Phase1)	15%	85%	
	Floor finishes	100%		
	Ceiling finishes		100%	
5	Tenth Floor			
	Partitions	100%		
	Windows	100%		
	Doors	100%		
	Wall finishes	100%		
	Floor finishes	100%		
	Ceiling finishes	100%		
6	Builder's work ICWS	33%	33%	33%
Item	Description	Phase 1	Phase 2	Phase 3
B	ELECTRICAL WORKS			
1	Preliminaries			100%
2	Lighting and power			
	6th floor			100%
	7th floor			100%
	8th floor		100%	
	9th floor		100%	
	10th floor	100%		
3	LV switchboard and power reticulation	100%		
4	Uninterrupted power supply (10KVA)	100%		
5	Contingency on electrical works	67%	33%	
C	STRUCTURED CABLING AND CCTV			
1	Preliminaries			100%
2	6th floor structured cabling			100%
3	7th floor structured cabling			100%
4	8th floor structured cabling (Server room to be in Phase 1)	42%	58%	

5	9th floor structured cabling		100%	Page 84
6	10th floor structured cabling	100%		
7	Access control and CCTV	100%		
8	Contingency on structured cabling	33%	33%	33%
D	HVAC			
1	Preliminaries			100%
2	10th floor AC and Mech. Vent.	100%		
3	9th floor AC and Mech. Vent.		100%	
4	Server room precision cooling and AC	100%		
5	Contingency on HVAC works	67%	33%	
E	PLUMBING DRAINAGE AND FIRE FIGHTING			
1	Preliminaries			100%
2	10th floor plumbing, drainage and fire fighting	100%		
3	9th floor plumbing, drainage and fire fighting		100%	
4	8th floor fire fighting (Server RM fire fighting to be in Phase 1)	90%	10%	
5	7th floor fire fighting			100%
6	6th floor fire fighting			100%
7	Contingency on mechanical works			100%
F	Preliminaries	70%	20%	10%
G	Signage			100%
H	Reception desk and bathroom cabinets	100%		
I	General contingency	50%	30%	20%
J	Consultancy	70%	20%	10%

B) CLARIFICATION ON TENDER SECURITY

Reference is made on page 30, preliminary evaluation (mandatory requirement) item no. 2, the word Kshs One hundred thousand is replaced by Ksh One million shillings.

Dr. Silas Mc'Opiyo, PhD, EBS, OGW
 Ag. CS/CHIEF EXECUTIVE OFFICER,
NATIONAL POLICE SERVICE COMMISSION

PART II- THE CONDITIONS OF CONTRACT AND CONTRACT

SECTION V - GENERAL CONDITIONS OF CONTRACT (GCC)

PROCURING ENTITY: NATIONAL POLICE SERVICE COMMISSION

CONTRACT: PROPOSED PARTITIONING AND OFFICE FIT OUT

CONSULTANT: JKUATES LTD

P.O BOX 62000-00200

NAIROBI

General Conditions of Contract

1 GENERAL PROVISIONS

1.1 Definitions

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

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

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

“Bill of Quantities” means the priced and completed Bill of Quantities forming part of the tender.

“Completion Date” means the date of completion of the Works as certified by the Engineer.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

“Force Majeure” is defined in Clause 19 [Force Majeure].

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

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

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

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

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

“Local Currency” means the currency of Kenya.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

“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 assign the whole or any part with the prior consent of the Procuring Entity, and

- b) may, as security in favor of a bank or financial institution, assign its right to moneys due, or to become due, under the Contract.

1.8 Care and Supply of Documents

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

1.9 Timely provision of Drawings or Instructions

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

1.10 Procuring Entity's Use of Contractor's Documents

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

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

1.11 Contractor's Use of Procuring Entity's Documents

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

1.12 Confidential Details

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

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

1.13 Compliance with Laws

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

- a) The Procuring Entity shall have obtained (or shall obtain) the planning, zoning, building permit or similar permission for the Permanent Works, and any other permissions described in the Specifications as having been (or to be) obtained by the Procuring Entity; and the Procuring Entity shall indemnify and hold the Contractor harmless against and from the consequences of any failure to do so; and
- b) the Contractor shall give all notices, pay all taxes, duties and fees, and obtain all permits, licenses and approvals, as required by the Laws in relation to the execution and completion of the Works and the remedying of any defects; and the Contractor shall indemnify and hold the Procuring Entity harmless against and from the consequences of any failure to do so, unless the Contractor is impeded to accomplish these actions and shows evidence of its diligence.

1.14 Joint and Several Liability

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

- a) These persons shall be deemed to be jointly and severally liable to the Procuring Entity for the performance of the Contract;
 - b) these persons shall notify the Procuring Entity of their leader who shall have authority to bind the Contractor and each of these persons; and
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- 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 in eligibility pursuant to the Procuring Entity's prevailing sanctions procedures).

2 THE PROCURING ENTITY

21 Right of Access to the Site

- 21.1 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.
- 21.2 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].
- 21.3 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.
- 21.4 After receiving this notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.
- 21.5 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.
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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 actions similar to those which the Contractor is required to take under sub-paragraphs (a), (b) and (c) of Sub-Clause 4.8 [Safety Procedures] and under Sub-Clause 4.18 [Protection of the Environment].

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 Clause 14 [Contract Price and Payment].

3 *THE ENGINEER*

3.1 *Architect Duties and Authority*

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

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

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

3.1.4 However, whenever the Architect exercises a specified authority for which the Procuring Entity's approval is required, then (for the purposes of the Contract) the contractor shall require the Architect to provide evidence of such approval before complying with the instruction.

3.1.5 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.

3.3 *Instructions of the Engineer*

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

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

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

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

3.4 Replacement of the Engineer

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

3.5 Determinations

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

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

4 THE CONTRACTOR

4.1 Contractor's General Obligations

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

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

4.1.3 All equipment, material, and services to be incorporated in or required for the Works shall have their origin in any eligible source country.

4.1.4 The Contractor shall be responsible for the adequacy, stability and safety of all Site operations and of all methods of construction. Except to the extent specified in the Contract, the Contractor (i) shall be responsible for all Contractor's Documents, Temporary Works, and such design of each item of Plant and Materials as is required for the item to be in accordance with the Contract, and (ii) shall not otherwise be responsible for the design or specification of the Permanent Works.

4.1.5 The Contractor shall, whenever required by the Engineer, submit details of the arrangements and methods which the Contractor proposes to adopt for the execution of the Works. No significant alteration to these arrangements and methods shall be made without this having previously been notified to the Engineer.

4.1.6 If the Contract specifies that the Contractor shall design any part of the Permanent Works, then unless otherwise stated in the Special Conditions:

- a) The Contractor shall submit to the Architect the Contractor's Documents for this part in accordance with the procedures specified in the Contract;
- b) these Contractor's Documents shall be in accordance with the Specification and Drawings, shall be written in the language for communications defined in Sub-Clause 1.4 [Law and Language], and shall include additional information required by the Architect to add to the Drawings for co-ordination of each Party's designs;
- c) the Contractor shall be responsible for this part and it shall, when the Works are completed, 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.

42 *Performance Security*

- 421 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.
- 422 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.
- 423 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.
- 424 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.
- 425 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.
- 426 The Procuring Entity shall return the Performance Security to the Contractor within 14 days after receiving a copy of the Taking-Over Certificate.
- 427 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.

43 *Contractor's Representative*

- 431 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**.
- 432 Unless the Contractor's Representative **is named in the Contract**, the Contractor shall, prior to the Commencement Date, submit to the Architect for consent the name and particulars of the person the Contractor proposes to appoint as Contractor's Representative. If consent is withheld or subsequently revoked in terms of Sub-Clause 6.9 [Contractor's Personnel], or if the appointed person fails to act as Contractor's Representative, the Contractor shall similarly submit the name and particulars of an other suitable person for such appointment.
- 433 The Contractor shall not, without the prior consent of the Engineer, revoke the appointment of the Contractor's Representative or appoint a replacement.
- 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

- 441 The Contractor shall not subcontract the whole of the Works. The contractor may however subcontract the works as provided in Clause 34.2.
- 442 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].
- 443 The Contractor shall ensure that the requirements imposed on the Contractor by Sub-Clause 1.12 [Confidential Details] apply equally to each Subcontractor.
- 444 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.

46 Co-operation

- 461 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.
- 462 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.
- 463 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.
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47 *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 sub-paragraphs (a) and (b) above related to these.

48 *Safety Procedures*

The Contractor shall:

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

49 *Quality Assurance*

- 4.9.1 The Contractor shall institute a quality assurance system to demonstrate compliance with the requirements of the Contract. The system shall be in accordance with the details stated in the Contract. The Architect shall be entitled to audit any aspect of the system.
- 4.9.2 Details of all procedures and compliance documents shall be submitted to the Architect for information before each design and execution stage is commenced. When any document of a technical nature is issued to the Engineer, evidence of the prior approval by the Contractor itself shall be apparent on the document itself.

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

4.10 *Site Data*

- 4.10.1 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.
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- 4.102 To the extent which was practicable (taking account of cost and time), the Contractor shall be deemed to have obtained all necessary information as to risks, contingencies and other circumstances which may influence or affect the Tender or Works. To the same extent, the Contractor shall be deemed to have inspected and examined the Site, its surroundings, the above data and other available information, and to have been satisfied before submitting the Tender as to all relevant matters, including (without limitation):
- a) The form and nature of the Site, including sub-surface conditions,
 - b) the hydrological and climatic conditions,
 - c) the extent and nature of the work and Goods necessary for the execution and completion of the Works and the remedying of any defects,
 - d) the Laws, procedures and labour practices of Kenya, and
 - e) the Contractor's requirements for access, accommodation, facilities, personnel, power, transport, water and other services.

4.11 *Sufficiency of the Accepted Contract Amount*

- 4.11.1 The Contractor shall be deemed to:
- a) Have satisfied itself as to the correctness and sufficiency of the Accepted Contract Amount, and
 - b) have based the Accepted Contract Amount on the data, interpretations, necessary information, inspections, examinations and satisfaction as to all relevant matters referred to in Sub-Clause 4.10 [Site Data].
- 4.11.2 Unless otherwise stated in the Contract, the Accepted Contract Amount covers all the Contractor's obligations under the Contract (including those under Provisional Sums, if any) and all things necessary for the proper execution and completion of the Works and the remedying of any defects.

4.12 *Unforeseeable Physical Conditions*

- 4.12.1 In this Sub-Clause, "physical conditions" means natural physical conditions and man-made and other physical obstructions and pollutants, which the Contractor encounters at the Site when executing the Works, including sub-surface and hydrological conditions but excluding climatic conditions.
- 4.12.2 If the Contractor encounters adverse physical conditions which he considers to have been Unforeseeable, the Contractor shall give notice to the Architect as soon as practicable.
- 4.12.3 This notice shall describe the physical conditions, so that they can be inspected by the Architect and shall set out the reasons why the Contractor considers them to be Unforeseeable. The Contractor shall continue executing the Works, using such proper and reasonable measures as are appropriate for the physical conditions, and shall comply with any instructions which the Architect may give. If an instruction constitutes a Variation, Clause 13 [Variations and Adjustments] shall apply.
- 4.12.4 If and to the extent that the Contractor encounters physical conditions which are Unforeseeable, gives such a notice, and suffers delay and/or incurs Cost due to these conditions, the Contractor shall be entitled subject to notice under Sub-Clause 20.1 [Contractor's Claims] to:
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- 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.

4.152 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.

416 *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.

417 *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.

418 *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.

419 *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.

4.192 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.

4.193 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.

420 *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's shall be responsible for the Procuring Entity's Equipment, except that
- b) the Contractor shall be responsible for each item of Procuring Entity's Equipment whilst any of the Contractor's Personnel is operating it, driving it, directing it or in possession or control of it.

4.20.1 The appropriate quantities and the amounts due (at such stated prices) for the use of Procuring Entity's Equipment shall be agreed or determined by the Architect in accordance with Sub-Clause 2.5 [Procuring Entity's Claims] and Sub-Clause 3.5 [Determinations]. The Contractor shall pay these amounts to the Procuring Entity.

4.20.2 The Procuring Entity shall supply, free of charge, the "free-issue materials" (if any) in accordance with the details stated in the Specification. The Procuring Entity shall, at his risk and cost, provide these materials at the time and place specified in the Contract. The Contractor shall then visually inspect them and shall promptly give notice to the Architect of any shortage, defect or default in these materials. Unless otherwise agreed by both Parties, the Procuring Entity shall immediately rectify the notified shortage, defect or default.

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

421 *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 Sub-contractors]),

- 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.

422 *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.

423 *Contractor's Operations on Site*

423.1 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.

423.2 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.

423.3 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.

424 *Fossils*

424.1 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.

4242 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].

54 Evidence of Payments

- 54.1 Before issuing a Payment Certificate which includes an amount payable to a nominated Subcontractor, the Architect may request the Contractor to supply reasonable evidence that the nominated Subcontractor has received all amounts due in accordance with previous Payment Certificates, less applicable deductions for retention or otherwise. Unless the Contractor:
- (a) Submits this reasonable evidence to the Engineer, or
 - (b) i) Satisfies the Architect in writing that the Contractor is reasonably entitled to withhold or refuse to pay these amounts, and
 - ii) Submits to the Architect reasonable evidence that the nominated Subcontractor has been notified of the Contractor's entitlement, then the Procuring Entity may (at his sole discretion) pay, 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

61 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.

62 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.

63 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.

64 Lab or Laws

The Contractor shall comply with all the relevant labour Laws applicable to the Contractor's Personnel, including Laws relating to their employment, employment of children, health, safety, welfare, immigration

and emigration, and shall allow them all their legal rights. The Contractor shall require his employees to obey all applicable Laws, including those concerning safety at work.

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.
 - 68.2 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.
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69 Contractor's Personnel

- 69.1 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.
- 69.2 If appropriate, the Contractor shall then appoint (or cause to be appointed) a suitable replacement person.

610 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.

611 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.

612 Foreign Personnel

- 612.1 The Contractor shall not employ foreign personnel unless the contractor demonstrates that there are no Kenyans with the required skills.
- 612.2 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.

613 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.

614 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.

615 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, retirement, and discipline.

7 PLANT, MATERIALS AND WORKMANSHIP**7.1 Manner of Execution**

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

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

7.2 Samples

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

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

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

7.3 Inspection

- 7.3.1 The Procuring Entity's Personnel shall at all reasonable times:
 - a) Have full access to all parts of the Site and to all places from which natural Materials are being obtained, and
 - b) during production, manufacture and construction (at the Site and elsewhere), be entitled to examine, inspect, measure and test the materials and workmanship, and to check the progress of manufacture of Plant and production and manufacture of Materials.
- 7.3.2 The Contractor shall give the Procuring Entity's Personnel full opportunity to carry out these activities, including providing access, facilities, permissions and safety equipment. No such activity shall relieve the Contractor from any obligation or responsibility.
- 7.3.3 The Contractor shall give notice to the Architect whenever any work is ready and before it is covered up, put out of sight, or packaged for storage or transport. The Architect shall then either carry out the examination, inspection, measurement or testing without unreasonable delay, or promptly give notice to the Contractor that the Architect does not require to do so. If the Contractor fails to give the notice, he shall, if and when required by the Engineer, uncover the work and there after reinstate and make good, all at the Contractor's cost.

7.4 Testing

- 7.4.1 This Sub-Clause shall apply to all tests specified in the Contract.
 - 7.4.2 Except as otherwise specified in the Contract, the Contractor shall provide all apparatus, assistance, documents and other information, electricity, equipment, fuel, consumables, instruments, labor, materials, and suitably qualified and experienced staff, as are necessary to carry out the specified tests efficiently. The Contractor shall agree, with the Engineer, the time and place for the specified testing of any Plant, Materials and other parts of the Works.
 - 7.4.3 The Architect may, under Clause 13 [Variations and Adjustments], vary the location or details of specified tests, or instruct the Contractor to carry out additional tests. If these varied or additional tests show that the tested Plant, Materials or workmanship is not in accordance with the Contract, the cost of carrying out this Variation shall be borne by the Contractor, notwithstanding other provisions of the Contract.
 - 7.4.4 The Architect shall give the Contractor not less than 24 hours' notice of the Architect intention to attend the tests. If the Architect does not attend at the time and place agreed, the Contractor may proceed with the tests, unless otherwise instructed by the Engineer, and the tests shall then be deemed to have been made in the Architect presence.
 - 7.4.5 If the Contractor suffers delay and/ or incurs Cost from complying with these instructions or as a result of a delay for which the Procuring Entity is responsible, the Contractor shall give notice to the Architect and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:
 - a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and
 - b) payment of any such Cost-plus profit, which shall be included in the Contract Price.
 - 7.4.6 After receiving this notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.
 - 7.4.7 The Contractor shall promptly forward to the Architect duly certified reports of the tests. When the specified tests have been passed, the Architect shall endorse the Contractor's test certificate, or issue a certificate to him, to that effect. If the Architect has not attended the tests, he shall be deemed to have accepted the readings as accurate.
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7.5 Rejection

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

7.6 Remedial Work

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

7.7 Ownership of Plant and Materials

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

- a) When it is incorporated in the Works;
- b) when the Contractor is paid the corresponding value of the Plant and Materials under Sub-Clause 8.10 [Payment for Plant and Materials in Event of Suspension].

7.8 Royalties

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

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

8 COMMENCEMENT, DELAYS AND SUSPENSION**8.1 Commencement of Works**

- 8.1.1 Except as otherwise specified in the Special Conditions of Contract, the Commencement Date shall be the date at which the following precedent condition shave all been fulfilled and the Architect notification

recording the agreement of both Parties on such fulfilment and instructing to commence the Work is received by the Contractor:

- a) Signature of the Contract Agreement by both Parties, and if required, approval of the Contract by relevant authorities of Kenya;
 - b) except if otherwise specified in the Special Conditions of Contract, effective access to and possession of the Site given to the Contractor together with such permission(s) under (a) of Sub-Clause 1.13 [Compliance with Laws] as required for the commencement of the Works.
 - c) Receipt by the Contractor of the Advance Payment under Sub-Clause 14.2 [Advance Payment] provided that the corresponding bank guarantee has been delivered by the Contractor.
- 8.12 If the said Architect instruction is not received by the Contractor within 180 days from his receipt of the Letter of Acceptance, the Contractor shall be entitled to terminate the Contract under Sub-Clause 16.2 [Termination by Contractor].
- 8.13 The Contractor shall commence the execution of the Works as soon as is reasonably practicable after the Commencement Date and shall then proceed with the Works with due expedition and without delay.

8.2 Time for Completion

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

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

8.3 Programme

- 8.3.1 The Contractor shall submit a detailed time programme to the Architect within 14 days after receiving the notice under Sub-Clause 8.1 [Commencement of Works]. The Contractor shall also submit a revised programme whenever the previous programme is inconsistent with actual progress or with the Contractor's obligations. Each programme shall include:
- a) The order in which the Contractor intends to carry out the Works, including the anticipated timing of each stage of design (if any), Contractor's Documents, procurement, manufacture of Plant, delivery to Site, construction, erection and testing,
 - b) each of these stages for work by each nominated Subcontractor (as defined in Clause 5 [Nominated Subcontractors]),
 - c) the sequence and timing of inspections and tests specified in the Contract, and
 - d) a supporting report which includes:
 - i) a general description of the methods which the Contractor intends to adopt, and of the major stages, in the execution of the Works, and
 - ii) details showing the Contractor's reasonable estimate of the number of each class of Contractor's Personnel and of each type of Contractor's Equipment, required on the Site for each major stage.

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

84 *Extension of Time for Completion*

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

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*

- 861 If, at anytime:
- a) Actual progress is too slow to complete within the Time for Completion, and/or
 - b) Progress has fallen (or will fall) behind the current programme under Sub-Clause 8.3 [Programme], other than as a result of a cause listed in Sub-Clause 8.4 [Extension of Time for Completion], then the Architect may instruct the Contractor to submit, under Sub-Clause 8.3 [Programme], a revised programme and supporting report describing the revised methods which the Contractor proposes to adopt in order to expedite progress and complete within the Time for Completion.
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862 Unless the Architect notifies otherwise, the Contractor shall adopt these revised methods, which may require increases in the working hours and/or in the numbers of Contractor's Personnel and/or Goods, at the risk and cost of the Contractor. If these revised methods cause the Procuring Entity to incur additional costs, the Contractor shall subject to notice under Sub-Clause 2.5 [Procuring Entity's Claims] pay these costs to the Procuring Entity, in addition to delay damages (if any) under Sub-Clause 8.7 below.

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

87 *Delay Damages*

87.1 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.

87.2 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.

88 *Suspension of Work*

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

88.2 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.

89 *Consequences of Suspension*

89.1 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.

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

89.3 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].

810 *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.

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

8.12 *Resumption of Work*

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

9 *TESTS ON COMPLETION*

9.1 *Contractor's Obligations*

- 9.1.1 The Contractor shall carry out the Tests on Completion in accordance with this Clause and Sub-Clause 7.4 [Testing], after providing the documents in accordance with sub-paragraph (d) of Sub-Clause 4.1 [Contractor's General Obligations].
- 9.1.2 The Contractor shall give to the Architect not less than 21 days' notice of the date after which the Contractor will be ready to carry out each of the Tests on Completion. Unless otherwise agreed, Tests on Completion shall be carried out within 14 days after this date, on such day or days as the Architect shall instruct.
- 9.1.3 In considering the results of the Tests on Completion, the Architect shall make allowances for the effect of any use of the Works by the Procuring Entity on the performance or other characteristics of the Works. As soon as the Works, or a Section, have passed any Tests on Completion, the Contractor shall submit a certified report of the results of these Tests to the Engineer.

9.2 *Delayed Tests*

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

9.3 *Retesting of related works*

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

9.4 *Failure to Pass Tests on Completion*

- 9.4.1 If the Works, or a Section, fail to pass the Tests on Completion repeated under Sub-Clause 9.3 [Retesting], the Architect shall be entitled to:
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- 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 1.4 [Failure to Remedy Defects].

10 PROCURING ENTITY'S TAKING OVER

10.1 Taking Over of the Works and Sections

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

10.2 Taking Over of Parts of the Works

- 10.2.1 The Architect may, at the sole discretion of the Procuring Entity, issue a Taking-Over Certificate for any part of the Permanent Works.
 - 10.2.2 The Procuring Entity shall not use any part of the Works (other than as a temporary measure which is either specified in the Contract or agreed by both Parties) unless and until the Architect has issued a Taking-Over Certificate for this part. However, if the Procuring Entity does use any part of the Works before the Taking-Over Certificate is issued:
 - a) The part which is used shall be deemed to have been taken over as from the date on which it is used,
 - b) the Contractor shall cease to be liable for the care of such part as from this date, when responsibility shall pass to the Procuring Entity, and
 - c) if requested by the Contractor, the Architect shall issue a Taking-Over Certificate for this part.
 - 10.2.3 After the Architect has issued a Taking-Over Certificate for a part of the Works, the Contractor shall be given the earliest opportunity to take such steps as may be necessary to carry out any outstanding Tests on Completion. The Contractor shall carry out these Tests on Completion as soon as practicable before the expiry date of the relevant Defects Notification Period.
 - 10.2.4 If the Contractor incurs Cost as a result of the Procuring Entity taking over and/or using a part of the Works, other than such use as is specified in the Contract agreed by the Contractor, the Contractor shall (i) give notice to the Architect and (ii) be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to payment of any such accrued costs, which shall be included in the Contract Price. After receiving this notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine this accrued cost.
 - 10.2.5 If a Taking-Over Certificate has been issued for a part of the Works (other than a Section), the delay damages there after for completion of the remainder of the Works shall be reduced. Similarly, the delay damages for the remainder of the Section (if any) in which this part is included shall also be reduced. For any period of delay after the date stated in this Taking-Over Certificate, the proportional reduction in these delay damages
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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.
- 103.3 If the Contractor suffers delay and/or incurs Cost as a result of this delay in carrying out the Tests on Completion, the Contractor shall give notice to the Architect and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:
- a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and
 - b) payment of any such accrued costs, which shall be included in the Contract Price.
- 103.4 After receiving this notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.

104 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.

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

11.2 Cost of Remedying Defects

- 11.2.1 All work referred to in sub-paragraph (b) of Sub-Clause 11.1 [Completion of Outstanding Work and Remedying Defects] shall be executed at the risk and cost of the Contractor, if and to the extent that the work is attributable to:
- a) Any design for which the Contractor is responsible,
 - b) Plant, Materials or workmanship not being in accordance with the Contract, or

c) Failure by the Contractor to comply with any other obligation.

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

11.3 Extension of Defects Notification Period

11.3.1 The Procuring Entity shall be entitled subject to Sub-Clause 2.5 [Procuring Entity's Claims] to an extension of the Defects Notification Period for the Works or a Section if and to the extent that the Works, Section or a major item of Plant (as the case may be, and after taking over) cannot be used for the purposes for which they are intended by reason of a defect or by reason of damage attributable to the Contractor. However, a Defects Notification Period shall not be extended by more than two years.

11.3.2 If delivery and/ or erection of Plant and/ or Materials was suspended under Sub-Clause 8.8 [Suspension of Work] or Sub-Clause 16.1 [Contractor's Entitlement to Suspend Work], the Contractor's obligations under this Clause shall not apply to any defects or damage occurring more than two years after the Defects Notification Period for the Plant and/ or Materials would otherwise have expired.

11.4 Failure to Remedy Defects

11.4.1 If the Contractor fails to remedy any defect or damage within a reasonable time, a date may be fixed by the Engineer, on or by which the defect or damage is to be remedied. The Contractor shall be given reasonable notice of this date.

11.4.2 If the Contractor fails to remedy the defect or damage by this notified date and this remedial work was to be executed at the cost of the Contractor under Sub-Clause 11.2 [Cost of Remedying Defects], the Procuring Entity may (at his option):

- (a) Carry out the work itself or by others, in a reasonable manner and at the Contractor's cost, but the Contractor shall have no responsibility for this work; and the Contractor shall subject to Sub-Clause 2.5 [Procuring Entity's Claims] pay to the Procuring Entity the costs reasonably incurred by the Procuring Entity in remedying the defect or damage;
- (b) Require the Architect to agree or determine a reasonable reduction in the Contract Price in accordance with Sub-Clause 3.5 [Determinations]; or
- (c) if the defect or damage deprives the Procuring Entity of substantially the whole benefit of the Works or any major part of the Works, terminate the Contract as a whole, or in respect of such major part which cannot be put to the intended use. Without prejudice to any other rights, under the Contract otherwise, the Procuring Entity shall then be entitled to recover all sums paid for the Works or for such part (as the case may be), plus financing costs and the cost of dismantling the same, clearing the Site and returning Plant and Materials to the Contractor.

11.5 Removal of Defective Work

If the defect or damage cannot be remedied expeditiously on the Site and the Procuring Entity gives consent, the Contractor may remove from the Site for the purposes of repair such items of Plant as are defective or damaged. This consent may require the Contractor to increase the amount of the Performance Security by the full replacement cost of these items, or to provide other appropriate security.

11.6 Further Tests

11.6.1 If the work of remedying of any defect or damage may affect the performance of the Works, the Architect may require the repetition of any of the tests described in the Contract. The requirement shall be made by notice within 14 days after the defect or damage is remedied.

11.6.2 These tests shall be carried out in accordance with the terms applicable to the previous tests, except that they shall be carried out at the risk and cost of the Party liable, under Sub-Clause 11.2 [Cost of Remedying Defects], for the cost of the remedial work.

Until the Completion Certificate has been issued, the Contractor shall have such right of access to the Works as is reasonably required in order to comply with this Clause, except as may be inconsistent with the Procuring Entity's reasonable security restrictions.

11.8 Contractor to Search

The Contractor shall, if required by the Engineer, search for the cause of any defect on parts of the works that have already accepted, under the direction of the Engineer. Unless the defect is to be remedied at the cost of the Contractor under Sub-Clause 11.2 [Cost of Remedying Defects], the Cost of the search plus profit shall be agreed or determined by the Architect in accordance with Sub-Clause 3.5 [Determinations] and shall be included in the Contract Price.

11.9 Completion Certificate

- 11.9.1 Performance of the Contractor's obligations shall not be considered to have been completed until the Architect has issued the Completion Certificate to the Contractor, stating the date on which the Contractor completed his obligations under the Contract.
- 11.9.2 The Architect shall issue the Completion Certificate within 30 days after the latest of the expiry dates of the Defects Liability Period, or as soon thereafter as the Contractor has supplied all the Contractor's Documents and completed and tested all the Works, including remedying any defects. A copy of the Completion Certificate shall be issued to the Procuring Entity.
- 11.9.3 Only the Completion Certificate shall be deemed to constitute acceptance of the Works.

11.10 Unfulfilled Obligations

After the Completion Certificate has been issued, each Party shall remain liable for the fulfilment of any obligation which remains unperformed at that time. For the purposes of determining the nature and extent of unperformed obligations, the Contract shall be deemed to remain in force.

11.11 Clearance of Site

- 11.11.1 Upon receiving the Completion Certificate, the Contractor shall remove any remaining Contractor's Equipment, surplus material, wreckage, rubbish and Temporary Works from the Site.
- 11.11.2 If all these items have not been removed within 30 days after receipt by the Contractor of the Completion Certificate, the Procuring Entity may sell or otherwise dispose of any remaining items. The Procuring Entity shall be entitled to be paid the costs incurred in connection with, or attributable to, such sale or disposal and restoring the Site.
- 11.11.3 Any balance of the moneys from the sale shall be paid to the Contractor. If these moneys are less than the Procuring Entity's costs, the Contractor shall pay the outstanding balance to the Procuring Entity.

12 MEASUREMENT AND EVALUATION

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.

12.3.2 For each item of work, the appropriate rate or price for the item shall be the rate or price specified for such item in the Contractor, if there is no such item, specified for similar work.

12.3.3 Any item of work included in the Bill of Quantities for which no rate or price was specified shall be considered as included in other rates and prices in the Bill of Quantities and will not be paid for separately.

12.3.4 However, for a new item of work, a new rate or price shall be appropriate for such item of work if:

- a) The work is instructed under Clause 13 [Variations and Adjustments],
- b) no rate or price is specified in the Contract for this item, and
- c) no specified rate or price is appropriate because the item of work is not of similar character, or is not executed under similar conditions, as any item in the Contract.

12.3.5 Each new rate or price shall be derived from any relevant rates or prices in the Contract. If no rates or prices are relevant for the new item of work, it shall be derived from the reasonable Cost of executing such work, prevailing market rates, together with profit, taking account of any other relevant matters.

12.3.6 Until such time as an appropriate rate or price is agreed or determined, the Architect shall determine a provisional rate or price for the purposes of Interim Payment Certificates as soon as the concerned work commences.

12.3.7 Where the contract price is different from the corrected tender price, in order to ensure the contractor is not paid less or more relative to the contract price (*which would be the tender price*), payment valuation certificates and variation orders on omissions and additions valued based on rates in the Bill of Quantities or schedule of rates in the Tender, will be adjusted by a plus or minus percentage. The percentage already worked out during tender evaluation is worked out as follows: $(\text{corrected tender price} - \text{tender price}) / \text{tender price} \times 100$.

12.4 Omissions

Whenever the omission of any work forms part (or all) of a Variation, the value of which has not been agreed, if:

- a) The Contractor will incur (or has incurred) cost which, if the work had not been omitted, would have been deemed to be covered by a sum forming part of the Accepted Contract Amount;

- b) The omission of the work will result (or has resulted) in this sum not forming part of the Contract Price, and
- c) this cost is not deemed to be included in the evaluation of any substituted work; then the Contractor shall give notice to the Architect accordingly, with supporting particulars. Upon receiving this notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine this cost, which shall be included in the Contract Price.

B VARIATIONS AND ADJUSTMENTS

13.1 Right to Vary

- 13.1.1 Variations may be initiated by the Architect at any time prior to issuing the Taking-Over Certificate for the Works, either by an instruction or by a request for the Contractor to submit a proposal. No Variation instructed by the Architect under this Clause shall in any way vitiate or invalidate the Contract.
- 13.1.2 The Contractor shall execute and be bound by each Variation, unless the Contractor promptly gives notice to the Architect stating (with supporting particulars) that (i) the Contractor cannot readily obtain the Goods required for the Variation, or (ii) such Variation triggers a substantial change in the sequence or progress of the Works. Upon receiving this notice, the Architect shall cancel, confirm or vary the instruction.
- 13.1.3 Each Variation may include:
 - a) changes to the quantities of any item of work included in the Contract (however, such changes do not necessarily constitute a Variation),
 - b) changes to the quality and other characteristics of any item of work,
 - c) changes to the levels, positions and/ or dimensions of any part of the Works,
 - d) omission of any work unless it is to be carried out by others,
 - e) any additional work, Plant, Materials or services necessary for the Permanent Works, including any associated Tests on Completion, boreholes and other testing and exploratory work, or
 - f) changes to the sequence or timing of the execution of the Works.
- 13.1.4 The Contractor shall not make any alteration and/or modification of the Permanent Works, unless and until the Architect instructs after obtaining approval of the Procuring Entity.

13.2 Variation Order Procedure

- 13.2.1 Prior to any Variation Order under Sub-Clause 13.1.4 the Architect shall notify the Contractor of the nature and form of such variation. As soon as possible after having received such notice, the Contractor shall submit to the Engineer:
 - a) A description of work, if any, to be performed and a programme for its execution, and
 - b) the Contractor's proposals for any necessary modifications to the Programme according to Sub-Clause 8.3 or to any of the Contractor's obligations under the Contract, and
 - c) the Contractor's proposals for adjustment to the Contract Price.

Following the receipt of the Contractor's submission the Architect shall, after due consultation with the Employer and the Contractor, decide as soon as possible whether or not the variation shall be carried out. If the Architect decides that the variation shall be carried out, he shall issue a Variation Order clearly identified as such in accordance with the Contractor's submission or as modified by agreement.

If the Architect and the Contractor are unable to agree the adjustment of the Contract Price, the provisions of Sub-Clause 13.2.2 shall apply.

13.2.2 Disagreement on Adjustment of the Contract Price

If the Contractor and the Architect are unable to agree on the adjustment of the Contract Price, the adjustment shall be determined in accordance with the rates specified in the Bills of Materials or Schedule of Daywork Prices. If the rates contained in the Bills of Materials or Daywork Prices are not directly applicable to the specific work in question, suitable rates shall be established by the Architect reflecting the level of pricing in

the 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.

13.2.3 Contractor to Proceed

On receipt of a Variation Order, the Contractor shall forth with proceed to carry out the variation and be bound to these Conditions in so doing as if such variation was stated in the Contract. The work shall not be delayed pending the granting of an extension of the Time for Completion or an adjustment to the Contract Price under Sub-Clause 31.3.

13.3 Value Engineering

- 13.3.1 The Contractor may, at anytime, submit to the Architect written proposal which (in the Contractor's opinion) will, if adopted, (i) accelerate completion, (ii) reduce the cost to the Procuring Entity of executing, maintaining or operating the Works, (iii) improve the efficiency or value to the Procuring Entity of the completed Works, or
- (iv) otherwise be of benefit to the Procuring Entity.
- 13.3.2 The proposal shall be prepared at the cost of the Contractor and shall include the items listed in Sub-Clause 13.3 [Variation Procedure].
- 13.2.3 If a proposal, which is approved by the Engineer, includes a change in the design of part of the Permanent Works, then unless otherwise agreed by both Parties:
- a) The Contractor shall design this part,
 - b) sub-paragraphs (a) to (d) of Sub-Clause 4.1 [Contractor's General Obligations] shall apply, and
 - c) if this change results in a reduction in the contract value of this part, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine a fee, which shall be included in the Contract Price. This fee shall be (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 if the amount established in item 13.2.3 (c) (i) is more than amount established in item 13.2.3 (c) (ii), it shall result in a price variation to the Procuring Entity.

- 13.4.1 If the Architect requests a proposal, prior to instructing a Variation, the Contractor shall respond in writing as soon as practicable, either by giving reasons why he cannot comply (if this is the case) or by submitting:
- a) A description of the proposed work to be performed and a programme for its execution,
 - b) the Contractor's proposal for any necessary modifications to the programme according to Sub-Clause 8.3 [Programme] and to the Time for Completion, and
 - c) the Contractor's proposal for evaluation of the Variation.
- 13.4.2 The Architect shall, as soon as practicable after receiving such proposal (under Sub-Clause 13.2 [Value Project Engineering] or otherwise), respond with approval, disapproval or comments. The Contractor shall not delay any work whilst a waiting a response.
- 13.4.3 Each instruction to execute a Variation, with any requirements for the recording of Costs, shall be issued by the Architect to the Contractor, who shall acknowledge receipt.
- 13.4.4 Each Variation shall be evaluated in accordance with Clause 12 [Measurement and Evaluation], unless the Architect instructs or approves otherwise in accordance with this Clause.

13.5 *Payment in Applicable Currencies*

If the Contract provides for payment of the Contract Price in more than one currency, then whenever an adjustment is agreed, approved or determined as stated above, the amount payable in each of the applicable currencies shall be specified. For this purpose, reference shall be made to the actual or expected currency proportions of the Cost of the varied work, and to the proportions of various currencies specified for payment of the Contract Price.

13.6 *Provisional Sums*

- 13.6.1 Each Provisional Sum shall only be used, in whole or in part, in accordance with the Architect instructions, and the Contract Price shall be adjusted accordingly. The total sum paid to the Contractor shall include only such amounts, for the work, supplies or services to which the Provisional Sum relates, as the Architect shall have instructed. For each Provisional Sum, the Architect May instruct:
- a) Work to be executed (including Plant, Materials or services to be supplied) by the Contractor and valued under Sub-Clause 13.3 [Variation Procedure]; and/or
 - b) Plant, Materials or services to be purchased by the Contractor, from a nominated Subcontractor (as defined in Clause 5 [Nominated Subcontractors]) or otherwise; and for which there shall be included in the Contract Price:
 - i) The actual amounts paid (or due to be paid) by the Contractor, and
 - ii) a sum for overhead charges and profit, calculated as a percentage of these actual amounts by applying the relevant percentage rate (if any) stated in the appropriate Schedule. If there is no such rate, the percentage rate stated in **the Special Conditions of Contract** shall be applied.
- 13.6.2 The Contractor shall, when required by the Engineer, produce quotations, invoices, vouchers and accounts or receipts in substantiation.

13.7 *Dayworks*

- 13.7.1 For work of a minor or incidental nature, the Architect may instruct that a Variation shall be executed on a daywork basis. The work shall then be valued in accordance with the Daywork Schedule included in the Contract, and the following procedure shall apply. If a Daywork Schedule is not included in the Contract, this Sub-Clause shall not apply.
- 13.7.2 Before ordering Goods for the work, the Contractor shall submit quotations to the Engineer. When applying for payment, the Contractor shall submit invoices, vouchers and accounts or receipts for any Goods.
- 13.7.3 Except for any items for which the Daywork Schedule specifies that payment is not due, the Contractor shall deliver each day to the Architect accurate statements induplicate which shall include the following details of the resources used in executing the previous day's work:
-

- a) The names, occupations and time of Contractor's Personnel,
- b) the identification, type and time of Contractor's Equipment and Temporary Works, and
- c) the quantities and types of Plant and Materials used.

137.4 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].

138 *Adjustments for Changes in Legislation*

138.1 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.

138.2 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.

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

138.4 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 amounts 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:

$$P = A + B \frac{I_m}{I_o}$$

where:

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

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

I_m is the index prevailing at the end of the month being invoiced and **I_o** is the index prevailing 30 days before Bid opening for inputs payable.

NOTE: The sum of the two coefficients A and B should be 1 (one) in the formula for each currency. Normally, both coefficients shall be the same in the formulae for all currencies, since coefficient A, for the non adjustable portion of the payments, is a very approximate figure (usually 0.15) to take account of fixed cost elements or other nonadjustable components. The sum of the adjustments for each currency are added to the Contract Price.

- 1394 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.
- 1395 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.
- 1396 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.
- 1397 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.
- 1398 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**.
- 14.2.2 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.
- 14.2.3 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.
- 14.2.4 The Contractor shall ensure that the guarantee is valid and enforceable until the advance payment has been repaid, but its amount shall be progressively reduced by the amount repaid by the Contractor as indicated in the Payment Certificates. If the terms of the guarantee specify its expiry date, and the advance payment has not been repaid by the date 30 days prior to the expiry date, the Contractor shall extend the validity of the guarantee until the advance payment has been repaid.
- 14.2.5 Unless stated otherwise in **the Special Conditions of Contract**, the advance payment shall be repaid through percentage deductions from the interim payments determined by the Architect in accordance with Sub-Clause 14.6 [Issue of Interim Payment Certificates], as follows:
- a) Deductions shall commence in the next interim Payment Certificate following that in which the total of all certified interim payments (excluding the advance payment and deductions and repayments of retention) exceeds 30 percent (30%) of the Accepted Contract Amount less Provisional Sums; and
 - b) deductions shall be made at the amortization rate stated in the **Special Conditions of Contract** of the amount of each Interim Payment Certificate (excluding the advance payment and deductions for its repayments as well as deductions for retention money) in the currencies and proportions of the advance

payment until such time as the advance payment has been repaid; provided that the advance payment shall be completely repaid prior to the time when 90 percent (90%) of the Accepted Contract Amount less Provisional Sums has been certified for payment.

- 14.2.6 If the advance payment has not been repaid prior to the issue of the Taking-Over Certificate for the Works or prior to termination under Clause 15 [Termination by 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 the report on 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

1442 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.

145 *Plant and Materials intended for the Works*

145.1 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].

1452 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.

1453 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.

1454 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.

1455 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.

146 Issue of Interim Payment Certificates

146.1 No amount will be certified or paid until the Procuring Entity has received and approved the Performance Security. Thereafter, the Architect shall, within 30 days after receiving a Statement and supporting documents, deliver to the Procuring Entity and to the Contractor an Interim Payment Certificate which shall state the amount which the Architect fairly determines to be due, with all supporting particulars for any reduction or withholding made by the Architect on the Statement if any.

146.2 However, prior to issuing the Taking-Over Certificate for the Works, the Architect shall not be bound to issue an Interim Payment Certificate in an amount which would (after retention and other deductions) be less than the minimum amount of Interim Payment Certificates (if any) stated **in the Special Conditions of Contract**. In this event, the Architect shall give notice to the Contractor accordingly.

146.3 An Interim Payment Certificate shall not be withheld for any other reason, although:

- a) if anything supplied or work done by the Contractor is not in accordance with the Contract, the cost of rectification or replacement may be withheld until rectification or replacement has been completed; and/or
- b) if the Contractor was or is failing to perform any work or obligation in accordance with the Contract, and had been so notified by the Engineer, the value of this work or obligation may be withheld until the work or obligation has been performed.

4.6.4 The Architect may in any Payment Certificate make any correction or modification that should properly be made to any previous Payment Certificate. A Payment Certificate shall not be deemed to indicate the Architect acceptance, approval, consent or satisfaction.

147 Payment

147.1 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].

147.2 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.

148 Delayed Payment

- 148.1 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.
- 148.2 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.
- 148.3 The Contractor shall be entitled to this payment without formal notice and certification, and without prejudice to any other right or remedy.

149 *Payment of Retention Money*

- 149.1 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.
- 149.2 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.
- 149.3 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.
- 149.4 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].
- 149.5 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.
- 149.6 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.

14.132 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

14.141 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].

14.142 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.
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15 TERMINATION BY PROCURING ENTITY

15.1 Notice to correct any defects or failures

If the Contractor fails to carry out any obligation under the Contract, the Architect may by notice require the Contractor to make good the failure and to remedy it within 30 days.

15.2 Termination by Procuring Entity

- 152.1 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.
- 152.2 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.
- 152.3 The Procuring Entity's election to terminate the Contract shall not prejudice any other rights of the Procuring Entity, under the Contractor otherwise.
- 152.4 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.
- 152.5 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.
- 152.6 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

15.3 Valuation at Date of Termination

As soon as practicable after a notice of termination under Sub-Clause 15.2 [Termination by Procuring Entity] has taken effect, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine the value of the Works, Goods and Contractor's Documents, and any other sums due to the Contractor for work executed in accordance with the Contract.

15.4 Payment after Termination

After a notice of termination under Sub-Clause 15.2 [Termination by Procuring Entity] has taken effect, the Procuring Entity may:

- a) Proceed in accordance with Sub-Clause 2.5 [Procuring Entity's Claims],
- b) withhold further payments to the Contractor until the costs of execution, completion and remedying of any defects, damages for delay in completion (if any), and all other costs incurred by the Procuring Entity, have been established, and/ or
- c) recover from the Contractor any losses and damages incurred by the Procuring Entity and any extra costs of completing the Works, after allowing for any sum due to the Contractor under Sub-Clause 15.3 [Valuation at Date of Termination]. After recovering any such losses, damages and extra costs, the Procuring Entity shall pay any balance to the Contractor.

15.5 Procuring Entity's Entitlement to Termination for Convenience

The Procuring Entity shall be entitled to terminate the Contract, at any time at the Procuring Entity's convenience, by giving notice of such termination to the Contractor. The termination shall take effect 30 days after the later of the dates on which the Contractor receives this notice or the Procuring Entity returns the Performance Security. The Procuring Entity shall not terminate the Contract under this Sub-Clause in order to execute the Works itself or to arrange for the Works to be executed by another contractor or to avoid a termination of the Contract by the Contractor under Clause 16.2 [Termination by Contractor]. After this termination, the Contractor shall proceed in accordance with Sub-Clause 16.3 [Cessation of Work and Removal of Contractor's Equipment] and shall be paid in accordance with Sub-Clause 16.4 [Payment on Termination].

15.6 Fraud and Corruption

The Contractor shall ensure compliance with the Kenya Government's Anti-Corruption Laws and its prevailing sanctions.

15.7 Corrupt gifts and payments of commission

15.7.1 The Contractor shall not;

- a) Offer or give or agree to give to any person in the service of the Procuring Entity any gift or consideration of any kind as an inducement or reward for doing or for bearing to 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.
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- 15.72 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:
- 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
 - payment of any such Cost-plus profit, which shall be included in the Contract Price.
- 16.2** After receiving this notice, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.

16.3 Termination by Contractor

- 16.3.1 The Contractor shall be entitled to terminate the Contract if:
- the Architect fails, within 60 days after receiving a Statement and supporting documents, to issue the relevant Payment Certificate,
 - 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 14.7 [Payment] within which payment is to be made (except for deductions in accordance with Sub-Clause 2.5 [Procuring Entity's Claims]),
 - 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,
 - a prolonged suspension affects the whole of the Works as described in Sub-Clause 8.11 [Prolonged Suspension], or
 - 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.
 - the Contractor does not receive the Architect instruction recording the agreement of both Parties on the fulfilment of the conditions for the Commencement of Works under Sub-Clause 8.1 [Commencement of Works].
- 16.3.2 In any of these events or circumstances, the Contractor may, upon giving 14 days' notice to the Procuring Entity, terminate the Contract. However, in the case of sub-paragraph (f) or (g), the Contractor may by notice terminate the Contract immediately.
- 16.3.3 The Contractor's election to terminate the Contract shall not prejudice any other rights of the Contractor, under the Contract otherwise.

After a notice of termination under Sub-Clause 15.5 [Procuring Entity's Entitlement to Termination for Convenience], Sub-Clause 16.2 [Termination by Contractor] or Sub-Clause 19.6 [Optional Termination, Payment and Release] has taken effect, the Contractor shall promptly:

- a) cease all further work, except for such work as may have been instructed by the Architect for the protection of life or property or for the safety of the Works,
- b) hand over Contractor's Documents, Plant, Materials and other work, for which the Contractor has received payment, and
- c) remove all other Goods from the Site, except as necessary for safety, and leave the Site.

16.5 *Payment on Termination*

After a notice of termination under Sub-Clause 16.2 [Termination by Contractor] has taken effect, the Procuring Entity shall promptly:

- a) Return the Performance Security to the Contractor,
- b) pay the Contractor in accordance with Sub-Clause 19.6 [Optional Termination, Payment and Release], and
- c) pay to the Contractor the amount of any loss or damage sustained by the Contractor as a result of this termination.

17. *RISK AND RESPONSIBILITY*

17.1 *Indemnities*

17.1.1 The Contractor shall indemnify and hold harmless the Procuring Entity, the Procuring Entity's Personnel, and their respective agents, against and from all claims, damages, losses and expenses (including legal fees and expenses) in respect of:

- a) Bodily injury, sickness, disease or death, of any person 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.

1722 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.

1723 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.

1724 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.

173 *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 radiation or contamination by radio-activity, except as may be attributable to the Contractor's use of such explosives, radiation or radio-activity,
- d) pressure waves caused by aircraft or other aerial devices traveling at sonic or supersonic speeds,
- e) use or occupation by the Procuring Entity of any part of the Permanent Works, except as may be specified in the Contract,
- f) design of any part of the Works by the Procuring Entity's Personnel or by others for whom the Procuring Entity is responsible, and
- g) any operation of the forces of nature which is Unforeseeable or against which an experienced contractor could not reasonably have been expected to have taken adequate preventive precautions.

174 *Consequences of Procuring Entity's Risks*

174.1 If and to the extent that any of the risks listed in Sub-Clause 17.3 above results in loss or damage to the Works, Goods or Contractor's Documents, the Contractor shall promptly give notice to the Architect and shall rectify this loss or damage to the extent required by the Engineer.

174.2 If the Contractor suffers delay and/ or incurs Cost from rectifying this loss or damage, the Contractor shall give a further notice to the Architect and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:

- (a) An extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of 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.

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

175 *Intellectual and Industrial Property Rights*

175.1 In this Sub-Clause, "infringement" shall refer to an infringement (or alleged infringement) of any patent, registered design, copyright, trade mark, trade name, trade secret or other intellectual or industrial property

right relating to the Works; and “claim” shall refer to a claim (or proceedings pursuing a claim) alleging an infringement.

- 1752 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.
- 1753 The Procuring Entity shall indemnify and hold the Contractor harmless against and from any claim alleging an infringement which is or was:
- a) An un avoidable result of the Contractor's compliance with the Contract, or
 - b) A result of any Works 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.
- 1754 The Contractor shall indemnify and hold the Procuring Entity harmless again stand from any other claim which arises out of or in relation to (i) the manufacture, use, sale or import of any Goods, or (ii) any design for which the Contractor is responsible.
- 1755 If a Party is entitled to be indemnified under this Sub-Clause, the indemnifying Party may (at its cost) conduct negotiations for the settlement of the claim, and any litigation or arbitration which may arise from it. The other Party shall, at the request and cost of the indemnifying Party, assist in contesting the claim. This other Party (and its Personnel) shall not make any admission which might be prejudicial to the indemnifying Party, unless the indemnifying Party failed to take over the conduct of any negotiations, litigation or arbitration upon being requested to do so by such other Party.
- 1756 For operation and maintenance of any plant or equipment installed, the contractor shall grant a non-exclusive and non-transferable license to the Procuring Entity under the patent, utility models ,or other intellectual rights owned by the contractor or a third party from whom the contract or has received the rights to grant sub-licenses and shall also grant to the Procuring Entity a non-exclusive and non-transferable rights (without the rights to sub-license) to use the know how and other technical information disclosed to the contract or under the contract. Nothing contained here-in shall be construed as transferring ownership of any patent, utility model, trademark, design, copy right, know-how or other intellectual rights from the contractor or any other third party to the Procuring Entity.

17.6 Limitation of Liability

- 176.1 Neither Party shall be liable to the other Party for loss of use of any Works, loss of profit, loss of any contractor for any in director consequential loss or damage which may be suffered by the other Party in connection with the Contract, other than as specifically provided in Sub-Clause 8.7 [Delay Damages]; Sub-Clause 11.2 [Cost of Remedying Defects]; Sub-Clause 15.4 [Payment after Termination]; Sub-Clause 16.4 [Payment on Termination]; Sub-Clause 17.1 [Indemnities]; Sub-Clause 17.4(b) [Consequences of Procuring Entity's Risks] and Sub-Clause 17.5 [Intellectual and Industrial Property Rights].
- 176.2 The total liability of the Contractor to the Procuring Entity, under or in connection with the Contract other than under Sub-Clause 4.19 [Electricity, Water and Gas], Sub-Clause 4.20 [Procuring Entity's Equipment and Free- Issue Materials], Sub-Clause 17.1 [Indemnities] and Sub-Clause 17.5 [Intellectual and Industrial Property Rights], shall not exceed the sum resulting from the application of a multiplier (less or greater than one) to the Accepted Contract Amount, as stated in **the Special Conditions of Contract**, or (if such multiplier or other sum is not so stated) the Accepted Contract Amount.
- 176.3 This Sub-Clause shall not limit liability in any case of fraud, deliberate default or reckless misconduct by the defaulting Party.

17.7 Use of Procuring Entity's Accommodation/Facilities

- 177.1 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 them, arising from any cause whatsoever other than those for which the Procuring Entity is liable, the Contractor shall, at his own cost, rectify the loss or damage to the satisfaction of the Engineer.

18 INSURANCE

18.1 General Requirements for Insurances

- 18.1.1 In this Clause, “insuring Party” means, for each type of insurance, the Party responsible for effecting and maintaining the insurance specified in the relevant Sub-Clause.
- 18.1.2 Wherever the Contractor is the insuring Party, each insurance shall be effected with insurers and in terms approved by the Procuring Entity. These terms shall be consistent with any terms agreed by both Parties before the date of the Letter of Acceptance. This agreement of terms shall take precedence over the provisions of this Clause.
- 18.1.3 Wherever the Procuring Entity is the insuring Party, each insurance shall be effected with insurers and in terms acceptable to the Contractor. These terms shall be consistent with any terms agreed by both Parties before the date of the Letter of Acceptance. This agreement of terms shall take precedence over the provisions of this Clause.
- 18.1.4 If a policy is required to indemnify joint insured, the cover shall apply separately to each insured as though a separate policy had been issued for each of the joint insured. If a policy indemnifies additional joint insured, namely in addition to the insured specified in this Clause, (i) the Contractor shall act under the policy on behalf of these additional joint insured except that the Procuring Entity shall act for Procuring Entity's Personnel, (ii) additional joint insured shall not be entitled to receive payments directly from the insurer or to have any other direct dealings with the insurer, and (iii) the insuring Party shall require all additional joint insured to comply with the conditions stipulated in the policy.
- 18.1.5 Each policy insuring against loss or damage shall provide for payments to be made in the currencies required to rectify the loss or damage. Payments received from insurers shall be used for the rectification of the loss or damage.
- 18.1.6** The relevant insuring Party shall, within the respective periods stated in **the Special Conditions of Contract** (calculated from the Commencement Date), submit to the other Party:
- a) Evidence that the insurances described in this Clause have been effected, and
 - b) copies of the policies for the insurances described in Sub-Clause 18.2 [Insurance for Works and Contractor's Equipment] and Sub-Clause 18.3 [Insurance against Injury to Persons and Damage to Property].
- 18.1.7 When each premium is paid, the insuring Party shall submit evidence of payment to the other Party. Whenever evidence or policies are submitted, the insuring Party shall also give notice to the Engineer.
- 18.1.8 Each Party shall comply with the conditions stipulated in each of the insurance policies. The insuring Party shall keep the insurers informed of any relevant changes to the execution of the Works and ensure that insurance is maintained in accordance with this Clause.
- 18.1.9 Neither Party shall make any material alteration to the terms of any insurance without the prior approval of the other Party. If an insurer makes (or attempts to make) any alteration, the Party first notified by the insurer shall promptly give notice to the other Party.
- 18.1.10 If the insuring Party fails to effect and keep in force any of the insurances it is required to effect and maintain under the Contractor fails to provide satisfactory evidence and copies of policies in accordance with this Sub-Clause, the other Party may (at its option and without prejudice to any other right or remedy) effect insurance for the relevant coverage and pay the premiums due. The insuring Party shall pay the amount of these premiums to the other Party, and the Contract Price shall be adjusted accordingly.
- 18.1.11 Nothing in this Clause limits the obligations, liabilities or responsibilities of the Contractor or the Procuring Entity, under the other terms of the Contract otherwise. Any amounts not insured or not recovered from the insurers shall be borne by the Contractor and/or the Procuring Entity.
- 18.1.12 Procuring Entity in accordance with these obligations, liabilities or responsibilities. However, if the insuring Party fails to effect and keep in force an insurance which is available and which it is required to effect and

maintain under the Contract, and the other Party neither approves the omission nor effects insurance for the coverage relevant to this default, any moneys which should have been recoverable under this insurance shall be paid by the insuring Party.

- 18.1.13 Payments by one Party to the other Party shall be subject to Sub-Clause 2.5 [Procuring Entity's Claims] or Sub-Clause 20.1 [Contractor's Claims], as applicable.
- 18.1.14 The Contractor shall be entitled to place all insurance relating to the Contract (including, but not limited to the insurance referred to Clause 18) with insurers from any eligible source country.

18.2 Insurance for Works and Contractor's Equipment

- 18.2.1 The insuring Party shall insure the Works, Plant, Material and Contractor's Documents for not less than the full reinstatement cost including the costs of demolition, removal of debris and professional fees and profit. This insurance shall be effective from the date by which the evidence is to be submitted under sub-paragraph (a) of Sub-Clause 18.1 [General Requirements for Insurances], until the date of issue of the Taking-Over Certificate for the Works.
- 18.2.2 The insuring Party shall maintain this insurance to provide cover until the date of issue of the Performance Certificate, for loss or damage for which the Contractor is liable arising from a cause occurring prior to the issue of the Taking-Over Certificate, and for loss or damage caused by the Contractor in the course of any other operations (including those under Clause 11 [Defects Liability]).
- 18.2.3 The insuring Party shall insure the Contractor's Equipment for not less than the full replacement value, including delivery to Site. For each item of Contractor's Equipment, the insurance shall be effective while it is being transported to the Site and until it is no longer required as Contractor's Equipment.
- 18.2.4 Unless otherwise stated in the Special Conditions, insurances under this Sub-Clause:
- a) Shall be effected and maintained by the Contractor as insuring Party,
 - b) shall be in the joint names of the Parties, who shall be jointly entitled to receive payments from the insurers, payments being held or allocated to the Party actually bearing the costs of rectifying the loss or damage,
 - c) shall cover all loss and damage from any cause not listed in Sub-Clause 17.3 [Procuring Entity's Risks],
 - d) shall also cover, to the extent specifically required in the tendering documents of the Contract, loss or damage to a part of the Works which is attributable to the use or occupation by the Procuring Entity of another part of the Works, and loss or damage from the risks listed in sub-paragraphs (c), (g) and (h) of Sub-Clause 17.3 [Procuring Entity's Risks], excluding (in each case) risks which are not insurable at commercially reasonable terms, with deductibles per occurrence of not more than the amount stated **in the Special Conditions** of Contract (if an amount is not so stated, this sub-paragraph (d) shall not apply), and
 - e) may however exclude loss of, damage to, and reinstatement of:
 - i) a part of the Works which is in a defective condition due to a defect in its design, materials or workmanship (but cover shall include any other parts which are lost or damaged as a direct result of this defective condition and not as described in sub-paragraph (ii) below),
 - ii) a part of the Works which is lost or damaged in order to reinstate any other part of the Works if this other part is in a defective condition due to a defect in its design, materials or workmanship,
 - iii) a part of the Works which has been taken over by the Procuring Entity, except to the extent that the Contractor is liable for the loss or damage, and
 - iv) Goods while they are not in Kenya, subject to Sub-Clause 14.5 [Plant and Materials intended for the Works].
- 18.2.5 If, more than one year after the Base Date, the cover described in sub-paragraph (d) above ceases to be available at commercially reasonable terms, the Contractor shall (as insuring Party) give notice to the Procuring Entity, with supporting particulars. The Procuring Entity shall then (i) be entitled subject to Sub-Clause 2.5 [Procuring Entity's Claims] to payment of an amount equivalent to such commercially reasonable terms as the Contractor should have expected to have paid for such cover, and (ii) be deemed, unless he obtains the cover at commercially reasonable terms, to have approved the omission under Sub-Clause 18.1 [General Requirements for Insurances].

- 183.1 The insuring Party shall insure against each Party's liability for any loss, damage, death or bodily injury which may occur to any physical property (except things insured under Sub-Clause 18.2 [Insurance for Works and Contractor's Equipment]) or to any person (except persons insured under Sub-Clause 18.4 [Insurance for Contractor's Personnel]), which may arise out of the Contractor's performance of the Contract and occurring before the issue of the Performance Certificate.
- 183.2 This insurance shall be for a limit per occurrence of not less than the amount stated in **the Special Conditions of Contract**, with no limit on the number of occurrences. If an amount is not stated in the **Special Conditions of Contract**, this Sub-Clause shall not apply.
- 183.3 Unless otherwise stated in the Special Conditions, the insurances specified in this Sub-Clause:
- a) Shall be effected and maintained by the Contractor as insuring Party,
 - b) shall be in the joint names of the Parties,
 - c) shall be extended to cover liability for all loss and damage to the Procuring Entity's property (except things insured under Sub-Clause 18.2) arising out of the Contractor's performance of the Contract, and
 - d) may however exclude liability to the extent that it arises from:
 - i) the Procuring Entity's right to have the Permanent Works executed on, over, under, in or
 - ii) through any land, and to occupy this land for the Permanent Works,
 - iii) damage which is an unavoidable result of the Contractor's obligations to execute the
 - iv) Works and remedy any defects, and
 - v) a cause listed in Sub-Clause 17.3 [Procuring Entity's Risks], except to the extent that cover is available at commercially reasonable terms.

18.4 *Insurance for Contractor's Personnel*

- 184.1 The Contractor shall effect and maintain insurance against liability for claims, damages, losses and expenses (including legal fees and expenses) arising from injury, sickness, disease or death of any person employed by the Contractor or any other of the Contractor's Personnel.
- 184.2 The insurance shall cover the Procuring Entity and the Architect against liability for claims, damages, losses and expenses (including legal fees and expenses) arising from injury, sickness, disease or death of any person employed by the Contract or any other of the Contractor's Personnel, except that this insurance may exclude losses and claims to the extent that they arise from any act or neglect of the Procuring Entity or of the Procuring Entity's Personnel.
- 184.3 The insurance shall be maintained in full force and effect during the whole time that these personnel are assisting in the execution of the Works. For a Subcontractor's employees, the insurance may be effected by the Subcontractor, but the Contractor shall be responsible for compliance with this Clause.

19. *FORCE MAJEURE*

19.1 **Definition of Force Majeure**

- 19.1.1 In this Clause, "Force Majeure" means an exceptional event or circumstance:
- a) Which is beyond a Party's control,
 - b) Which such Party could not reasonably have provided against before entering into the Contract,
 - c) which, having arisen, such Party could not reasonably have avoided or overcome, and
 - d) which is not substantially attributable to the other Party.
- 19.1.2 Force Majeure may include, but is not limited to, exceptional events or circumstances of the kind listed below, so long as conditions (a) to (d) above are satisfied:
- a) war, hostilities (whether war be declared or not), invasion, act of foreign enemies,
 - b) rebellion, terrorism, sabotage by persons other than the Contractor's Personnel, revolution, insurrection, military or usurped power, or civil war,
 - c) riot, commotion, disorder, strike or lock out by persons other than the Contractor's Personnel,

- d) munitions of war, explosive materials, ionizing radiation or contamination by radio-activity, except as may be attributable to the Contractor's use of such munitions, explosives, radiation or radio-activity, and
- e) natural catastrophes such as earthquake, hurricane, typhoon or volcanic activity.

192 Notice of Force Majeure

- 192.1 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.
- 192.2 The Party shall, having given notice, be excused performance of its obligations for so long as such Force Majeure prevents it from performing them.
- 192.3 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.

193 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

- 194.1 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].
- 194.2 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

- 196.1 If the execution of substantially all the Works in progress is prevented for a continuous period of 84 days by reason of Force Majeure of which notice has been given under Sub-Clause 19.2 [Notice of Force Majeure], or for multiple periods which total more than 140 days due to the same notified Force Majeure, then either Party may give to the other Party a notice of termination of the Contract. In this event, the termination shall take effect 7 days after the notice is given, and the Contractor shall proceed in accordance with Sub-Clause 16.3 [Cessation of Work and Removal of Contractor's Equipment].

- 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.

- 20.1.6 Within 42 days after receiving a Notice of a claim or any further particulars supporting a previous claim, or within such other period as may be proposed by the Architect and approved by the Contractor, the Architect shall respond with approval, or with disapproval and detailed comments. He may also request any necessary further particulars but shall nevertheless give his response on the principles of the claim within the above defined time period.
- 20.1.7 Within the above defined period of 42 days, the Architect shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine (i) the extension (if any) of the Time for Completion (before or after its expiry) in accordance with Sub-Clause 8.4 [Extension of Time for Completion], and/or (ii) the additional payment (if any) to which the Contractor is entitled under the Contract.
- 20.1.8 Each Payment Certificate shall include such additional payment for any claim as has been reasonably substantiated as due under the relevant provision of the Contract. Unless and until the particulars supplied are sufficient to substantiate the whole of the claim, the Contractor shall only be entitled to payment for such part of the claim as he has been able to substantiate.
- 20.1.9 If the Architect does not respond within the time frame defined in this Clause, either Party may consider that the claim is rejected by the Architect and any of the Parties may refer the dispute for amicable settlement in accordance with Clause 20.3.
- 20.1.10 The requirements of this Sub-Clause are in addition to those of any other Sub-Clause which may apply to a claim. If the Contractor fails to comply with this or another Sub-Clause in relation to any claim, any extension of time and/ or additional payment shall take account of the extent (if any) to which the failure has prevented or prejudiced proper investigation of the claim, unless the claim is excluded under the second paragraph of this Sub-Clause 20.3.

20.2 *Procuring Entity's Claims*

- 20.2.1 If the Procuring Entity considers itself to be entitled to any payment under any Clause of these Conditions or otherwise in connection with the Contract, and/or to any extension of the Defects Notification Period, the Procuring Entity or the Architect shall give notice and particulars to the Contractor. However, notice is not required for payments due under Sub-Clause 4.19 [Electricity, Water and Gas], under Sub-Clause 4.20 [Procuring Entity's Equipment and Free-Issue Materials], or for other services requested by the Contractor.
- 20.2.2 The notice shall be given as soon as practicable and no longer than 30 days after the Procuring Entity became aware, or should have become aware, of the event or circumstances giving rise to the claim. A notice relating to any extension of the Defects Notification Period shall be given before the expiry of such period.
- 20.2.3 The particulars shall specify the Clause or other basis of the claim and shall include substantiation of the amount and/or extension to which the Procuring Entity considers itself to be entitled in connection with the Contract. The Architect shall then proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine (i) the amount (if any) which the Procuring Entity is entitled to be paid by the Contractor, and/ or (ii) the extension (if any) of the Defects Notification Period in accordance with Sub-Clause 11.3 [Extension of Defects Notification Period].
- 20.2.4 This amount may be included as a deduction in the Contract Price and Payment Certificates. The Procuring Entity shall only be entitled to set off against or make any deduction from an amount certified in a Payment Certificate, or to otherwise claim against the Contractor, in accordance with this Sub-Clause.

20.3 *Amicable Settlement*

Where a notice of a claim has been given, both Parties shall attempt to settle the dispute amicably before the commencement of arbitration. However, unless both Parties agree otherwise, the Party giving a notice of a claim in accordance with Sub-Clause 20.1 above should move to commence arbitration after 60 days from the day on which a notice of a claim was given, even if no attempt at an amicable settlement has been made.

Notwithstanding anything stated herein the following matters may be referred to arbitration before the practical completion of the Works or abandonment of the Works or termination of the Contract by either party:

- a) Whether or not the issue of an instruction by the Architect is empowered by these Conditions.
- b) Whether or not a certificate has been improperly withheld or is not in accordance with these Conditions.
- c) Any dispute arising in respect risks arising from matters referred to in Clause 17.3 and Clause 19.
- e) All other matters shall only be referred to arbitration after the completion or alleged completion of the Works or termination or alleged termination of the Contract, unless the Procuring Entity and the Contractor agree otherwise in writing.

20.5 *Arbitration*

- 205.1 Any claim or dispute between the Parties arising out of or in connection with the Contract not settled amicably in accordance with Sub-Clause 20.3 shall be finally settled by arbitration.
- 205.2 No arbitration proceedings shall be commenced on any claim or dispute where notice of a claim or dispute has not been given by the applying party within ninety days of the occurrence or discovery of the matter or issue giving rise to the dispute.
- 205.3 Notwithstanding the issue of a notice as stated above, the arbitration of such a claim or dispute shall not commence unless an attempt has in the first instance been made by the parties to settle such claim or dispute amicably with or without the assistance of third parties. Proof of such attempt shall be required.
- 205.4 The Arbitrator shall, without prejudice to the generality of his powers, have powers to direct such measurements, computations, tests or valuations as may in his opinion be desirable in order to determine the rights of the parties and assess and award any sums which ought to have been the subject of or included in any certificate.
- 205.5 The Arbitrator shall, without prejudice to the generality of his powers, have powers to open up, review and revise any certificate, opinion, decision, requirement or notice and to determine all matters in dispute which shall be submitted to him in the same manner as if no such certificate, opinion, decision require mentor notice had been given.
- 205.6 The arbitrators shall have full power to open up, review and revise any certificate, determination, instruction, opinion or valuation of the Engineer, relevant to the dispute. Nothing shall disqualify representatives of the Parties and the Architect from being called as a witness and giving evidence before the arbitrators on any matter whatsoever relevant to the dispute.
- 205.7 Neither Party shall be limited in the proceedings before the arbitrators to the evidence, or to the reasons for dissatisfaction given in its Notice of Dissatisfaction.
- 205.7 Arbitration may be commenced prior to or after completion of the Works. The obligations of the Parties, and the Architect shall not be altered by reason of any arbitration being conducted during the progress of the Works.
- 205.8 The terms of the remuneration of each or all the members of Arbitration shall be mutually agreed upon by the Parties when agreeing the terms of appointment. Each Party shall be responsible for paying one-half of this remuneration.

20.6 *Arbitration with National Contractors*

- 206.1 If the Contract is with national contractors, arbitration proceedings will be conducted in accordance with the Arbitration Laws of Kenya. In case of any claim or dispute, such claim or dispute shall be notified in writing by either party to the other with a request to submit it to arbitration and to concur in the appointment of an Arbitrator within thirty days of the notice. The dispute shall be referred to the arbitration and final decision of a person to be agreed between the parties. Failing agreement to concur in the appointment of an Arbitrator, the Arbitrator shall be appointed, on the request of the applying party, by the Chairman or Vice Chairman of any of the following professional institutions;
 - i) Architectural Association of Kenya
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- ii) Institute of Quantity Surveyors of Kenya
- iii) Association of Consulting Engineers of Kenya
- iv) Chartered Institute of Arbitrators (Kenya Branch)
- v) Institution of Engineers of Kenya

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

20.7 *Arbitration with Foreign Contractors*

20.7.1 Arbitration with foreign contractors shall be conducted in accordance with the arbitration rules of the United Nations Commission on International Trade Law (UNCITRAL); or with proceedings administered by the International Chamber of Commerce (ICC) and conducted under the ICC Rules of Arbitration; by one or more arbitrators appointed in accordance with said arbitration rules.

20.7.2 The place of arbitration shall be a location specified in the **SCC**; and the arbitration shall be conducted in the language for communications defined in Sub-Clause 1.4 [Law and Language].

20.8 *Alternative Arbitration Proceedings*

Alternatively, the Parties may refer the matter to the Nairobi Centre for International Arbitration (NCIA) which offers a neutral venue for the conduct of national and international arbitration with commitment to providing institutional support to the arbitral process.

20.9 *Failure to Comply with Arbitrator's Decision*

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

20.9.2 In the even tthat a Party fails to comply with a final and binding Arbitrator's decision, then the other Party may, without prejudice to any other rights it may have, refer the matter to a competent court of law.

20.10 *Contract operations to continue*

Notwithstanding any reference to arbitration herein,

- 1.1.1 the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; and
 - 1.1.2 the Procuring Entity shall pay the Contractor any monies due the Contractor.
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Section VI - Special Conditions of Contract

The following Special Conditions shall supplement the GCC. Whenever there is a conflict, the provisions here in shall prevail over those in the GCC.

Conditions	Sub-Clause	Data
Part A - Contract Data		
Procuring Entity's name and address	Heading	<i>NATIONAL POLICE SERVICE COMMISSION</i> <i>P.O BOX 47363-00100</i> <i>NAIROBI</i>
Name and Reference No. of the Contract	Heading and 1.1	<i>PROPOSED PARTITIONING AND OFFICE FIT OUT</i> <i>NPSC/XX/XX/2022-2023</i>
Architect's Name and address	Heading and 3.1.1	<i>DR(ARCHITECT) MARTIN MBITHI</i> <i>JKUATES LTD</i> <i>P.O BOX 62000-00200</i> <i>NAIROBI</i>
Contractor's Representative's name	4.3.1
Key Personnel names	16.9.1
Time for Completion	1.1.	_____days
Defects Notification Period	1.1	<u>180</u> days for the rest of the works and 365 days for items covered by warranty (under HVAC and; Structured Cabling, CCTV and Access Control)
Sections	1.1	<i>N/A</i>
Electronic transmission systems	1.3	<i>N/A</i>
Time for the Parties entering into a Contract Agreement	1.6
Commencement Date	8.1.1
Time for access to the Site	2.1.1	No later than the Commencement Date, and not later than <u>7</u> days after Commencement Date
Architect Duties and Authority	3.1.6 (b) (ii)	Variations resulting in an increase of the Accepted Contract Amount in excess of _shall require approval of the Procuring Entity. -

Conditions	Sub-Clause	Data
Performance Security	4.2.1	The performance security will be in the form of a <i>Unconditional demand bank guarantee</i> in the amount 10% percent of the Accepted Contract Amount and in the same currency(ies) of the Accepted Contract Amount.
Normal working hours	6.5	<i>0800HRS-1700HRS</i>
Delay damages for the Works	8.7 & 14.15(b)	<i>0.01</i> % of the Contract Price per day. <i>If Sections are to be used, refer to Table: Summary of Sections below – Not applicable</i>
Maximum amount of delay damages	8.7.1	<i>10</i> % of the final Contract Price.
Provisional Sums	13.6. (b)(ii)	<i>5</i> %
Adjustments for Changes in Cost	13.9	<i>Not Applicable</i>
Total advance payment	14.2.1	<i>Not Applicable</i>
Repayment amortization rate of advance payment	14.2.5 (b)	<i>Not Applicable</i>
Percentage of Retention	14.3.2 (c)	<i>10</i> %
Limit of Retention Money	14.3.2 (c)	<i>10</i> % of the Accepted Contract Amount
Plant and Materials	14.5.3(b)(i)	<i>N/A</i>
	14.5.3(c)(i)	<i>N/A</i>
Minimum Amount of Interim Payment Certificates	14.6.2	<i>5</i> % of the Accepted Contract Amount.
Publishing source of commercial interest rates for financial charges in case of delayed payment	14.8	Specify <i>0</i> % above CBK mean rate per month of delayed payment
Maximum total liability of the Contractor to the Procuring Entity	17.6.2	<i>[Select one of the two options below as appropriate]</i> The product of <i>1</i> <i>[insert a multiplier less or greater than one]</i> times the Accepted Contract Amount, <i>or</i> <i>_____</i> <i>[insert amount of the maximum total liability]</i>
Periods for submission of insurance: a. evidence of insurance.	18.1.6	<i>[Insert period for submission of evidence of insurance and policy. Period may be from 14 days to 30 days.]</i> <i>14</i> days

Conditions	Sub-Clause	Data
b. relevant policies		___14__days
Maximum amount of deductibles for insurance of the Procuring Entity's risks	18.2.4 (d) 0
Minimum amount of third-party insurance	18.3.2	<i>KSH 10,000,000.00</i>
The place of arbitration	20.7.2	<i>Nairobi, Kenya</i>
Contract administrator	All	Wherever the word “Engineer” appears, it shall be deemed deleted and replaced with the word “Architect” who shall be the contract administrator.

SECTION VII - CONTRACT FORMS

FORM No. 1 - NOTIFICATION OF INTENTION TO AWARD

FORM NO. 2 – REQUEST FOR REVIEW

FORM No. 3-LETTER OF 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 TO AWARD 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.

SNo	Name of Tender	Tender Price as read out	Tender's evaluated price (Note a)	One Reason Why Not Evaluated
1				
2				
3				
4				
5				

(Note a) State NE if not evaluated

5. How to request a debriefing

- a) DEADLINE: The dead line to request a debriefing expires at midnight on *[insert date]* (local time).
- b) You may request a debriefing in relation to the results of the evaluation of your Tender. If you decide to request a debriefing your written request must be made within three (5) Business Days of receipt of this Notification of Intention to Award.
- c) Provide the contract name, reference number, name of the Tenderer, contact details; and address the request for debriefing as follows:
 - i) Attention: *[insert full name of person, if applicable]*
 - ii) Title/position: *[insert title/position]*
 - iii) Agency: *[insert name of Procuring Entity]*
 - iv) Email address: *[insert email address]*
- d) If your request for a debriefing is received within the 3 Days deadline, we will provide the debriefing within five (3) Business Days of receipt of your request. If we are unable to provide the debriefing within this period, the Standstill Period shall be extended by five (3) Days after the date that the debriefing is provided. If this happens, we will notify you and confirm the date that the extended Standstill Period will end.
- e) The debriefing may be in writing, by phone, video conference call or in person. We shall promptly advise you in writing how the debriefing will take place and confirm the date and time.
- f) If the deadline to request a debriefing has expired, you may still request a debriefing. In this case, we will provide the debriefing as soon as practicable, and normally no later than fifteen (15) Days from the date of publication of the Contract Award Notice.

6. How to make a complaint

- a) Period: Procurement-related Complaint challenging the decision to award shall be submitted by midnight, *[insert date]* (local time).
- b) Provide the contract name, reference number, name of the Tenderer, contact details; and address the Procurement-related Complaint as follows:
 - i) Attention: *[insert full name of person, if applicable]*
 - ii) Title/position: *[insert title/ position]*
 - iii) Agency: *[insert name of Procuring Entity]*
 - iv) Email address: *[insert email address]*
- c) At this point in the procurement process, you may submit a Procurement-related Complaint challenging the decision to award the contract. You do not need to have requested, or received, a debriefing before making this complaint. Your complaint must be submitted within the Standstill Period and received by us before the Standstill Period ends.

- d) Further information: For more information refer to the Public Procurement and Disposals Act 2015 and 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 of dated 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
 executed by the Contractor, and has accepted a Tender by the Contractor for the execution and completion of these
 Works and the remedying of any defects there in,

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.

IN WITNESS 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 it self or in a separate signed document accompanying or identifying the demand, stating that the Applicant is in breach of its obligation(s) under the Contract, without the Beneficiary needing to prove or to show grounds for your demand or the sum specified therein.
4. This guarantee shall expire, no later than the.....Day of.....,2.....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]

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 Oblige (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 up to a total not exceeding the amount of this Bond.
4. The Surety shall not be liable for a greater sum than the specified penalty of this Bond.

5. Any suit under this Bond must be instituted before the expiration of one year from the date of the issuing of the Taking-Over Certificate. No right of action shall accrue on this Bond to or for the use of any person or corporation other than 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 (NOT APPLICABLE)**[Demand Bank Guarantee]****[Guarantor letterhead]****Beneficiary:** _____ *[Insert name and Address of Procuring Entity]***Date:** _____ *[Insert date of issue]***ADVANCE PAYMENT GUARANTEE No.:** *[Insert guarantee reference number]***Guarantor:** *[Insert name and address of place of issue, unless indicated in the letterhead]*

1. We have been informed that _____ (hereinafter called "the Contractor") has entered into Contract No. _____ dated _____ with the Beneficiary, for the execution of _____ (hereinafter called "the Contract").
2. Furthermore, we understand that, according to the conditions of the Contract, an advance payment in the sum _____ (in words _____) is to be made against an advance payment guarantee.
3. At the request of the Contractor, we as Guarantor, here by irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of _____ (in words _____) ¹ upon receipt by us of the Beneficiary's complying demand supported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating either that the Applicant:
 - a) Has used the advance payment for purposes other than the costs of mobilization in respect of the Works; or
 - b) Has failed to repay the advance payment in accordance with the Contract conditions, specifying the amount which the Applicant has failed to repay.
4. A demand under this guarantee may be presented as from the presentation to the Guarantor of a certificate from the Beneficiary's bank stating that the advance payment referred to above has been credited to the Contractor on its account number _____ at _____.
5. The maximum amount of this guarantee shall be progressively reduced by the amount of the advance payment repaid by the Contractor as specified in copies of interim statements or payment certificates which shall be presented to us. This guarantee shall expire, at the latest, upon our receipt of a copy of the interim payment certificate indicating that ninety (90) percent of the Accepted Contract Amount, less provisional sums, has been certified for payment, or on the _____ day of _____, ² _____, ² whichever is earlier. Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.
6. The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed *[six months]* *[one year]*, in response to the Beneficiary's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee.

[Name of Authorized Official, signature(s) and seals/stamp]

FORM NO. 8 – RETENTION MONEY SECURITY (NOT APPLICABLE)*[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 up to the limit set forth in the Contract ("the Retention Money"), and that when the Taking-Over Certificate has been issued under the Contract and the first half of the Retention Money has been certified for payment, and payment of *[insert the second half of the Retention Money]* is to be made against a Retention Money guarantee.
3. At the request of the Contractor, we, as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of *[insert amount in figures]* _____ (*[insert amount in words]* _____) ¹ upon receipt by us of the Beneficiary's complying demand supported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating that the Contractor is in breach of its obligation(s) under the Contract, without your needing to prove or showgrounds for your demand or the sum specified there in.
4. A demand under this guarantee may be presented as from the presentation to the Guarantor of a certificate from the Beneficiary's bank stating that the second half of the Retention Money as referred to above has been credited to the Contractor on its account number _____ at _____ *[insert name and address of Applicant's bank]*.
5. This guarantee shall expire no later than the.....Day of.....2.....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]

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 Indirectly-- ----- % of shares	Directly.....% of voting rights Indirectly----- ---% 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)					
	Nationality					
	Date of birth [dd/mm/yyyy]					
	Postal address					
					2. Is this right held directly or indirectly?:	2. Is this influence or control

	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)
	Residential address				Direct.....	exercised directly or indirectly?
	Telephone number					Direct.....
	Email address					
	Occupation or profession				Indirect.....	Indirect.....
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					
	Personal Identification Number (where applicable)		Indirectly-- ----- % of shares	Indirectly----- ---% of voting rights	2. Is this right held directly or indirectly?: Direct.....	2. Is this influence or control exercised directly or indirectly? Direct.....
	Nationality(ies)					
	Date of birth [dd/mm/yyyy]					
	Postal address					
	Residential address					
	Telephone number					
	Email address				Indirect.....	Indirect.....
	Occupation or profession					

	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)
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

PART III - WORKS REQUIREMENTS

**PROPOSED OFFICE PARTITIONING AND FIT OUT AT
CBK PENSION TOWERS**

**SECTION VIII: SPECIFICATIONS AND BILLS OF
QUANTITIES; MAIN WORKS**

MAIN WORKS SPECIFICATIONS

GENERAL SPECIFICATIONS

The works under this contract shall be carried out in accordance with Ministry of Works General Specification 1976 Edition or as qualified or amended.

Manufacturers' Name and references are given as a guide to quality. Alternative manufacture of equal quality will be accepted at the discretion of the PROJECT MANAGER.

EXCAVATION

Prices are to include for excavating in all materials met with except Rock as specified. Prices are also to include for planking and strutting, and for destroying all white ants nests and keeping excavations free from water.

Insecticide Treatment

Treating surface of hardcore with approved insecticide shall include execution by any reputable supplier/manufacturer who shall give a ten year guarantee to the Employer.

CONCRETE WORK

Test Cubes

Allowance must be included in the tender for the preparation of concrete test cubes as required by the Engineer.

Precast Concrete Works

Prices are to include for handling reinforcement, and for bedding in cement mortar.

WALLING

Concrete Blocks

All concrete walling blocks are to be in metric sizes and to the specified quantities.

Wall reinforcement shall be hoop iron, one layer per 90mm thickness, and placed in the bed joint of alternate courses.

Samples

Prices are to include for packing and sending sample blocks to the approved Testing Laboratory.

ROOFING

All roof materials shall be as specified in the Bills of Quantities, and laid in accordance with the manufacturer's instructions.

CARPENTRY AND JOINERY

Cypress

The grading rules for cypress shall be the same as those for podocarpus.

Laminated Plastic Sheeting

Shall be fixed with an approved waterproof adhesive.

Prices of Joinery

Shall include for pencil rounded arises; for protection against damage and for bedding frames and cills in cement mortar.

Plugged shall mean drilling walling or concrete with a drill and filling with proprietary plugs of the correct size

IRONMONGERY

Shall be as specified in the Bills of Quantities, or equal and approved.

Prices must include for removing and re-fixing during and after painting, for labeling all keys, and for fixing with matching screws.

METALWORK

Generally

All steelwork shall be cleaned free from rust and primed one coat or red lead primer before being delivered to the site.

Prices for Metal Windows

To include for assembling parts, bedding and pointing in mastic, building in fixing lugs, and plugging as necessary.

PLASTERWORK AND OTHER FINISHES

Generally

All plaster work and paving to be as described in the Specification and in the Bills of Quantities.

Paving

Prices are to include for brushing concrete clean, wetting and coating with cement and sand grout (1:1).

GLAZING

Polished Plate Glass

Shall be general Glazing Quality.

Prime Rebates

Prices are to include for priming rebates before placing putty.

Broken or Scratched Glass

The contractor will be responsible at his own cost, for replacing any broken or scratched glass and handing over in perfect condition.

PAINTING

Generally

Note that the General Contractor is to provide scaffolding for all trades including painting.

Paint Category

Painting shall be applied in accordance with the manufacturer's instructions and to the required coats.

Prices

Prices are to include for all preparatory work, priming coats and for protecting other works and for cleaning up on completion. Prices for painting on galvanized metal are to include for mordant solution as necessary.

PLUMBING AND ENGINEERING INSTALLATION INCLUDING SOLAR PANELS

Generally

All work shall be executed by an approved specialist and the General Contractor shall first obtain written approval from the Architect before engaging the specialist.

Description

The sizes given are the internal diameter. The words 'pipe' and 'tube' are synonymous.

Prices of Sanitary Fittings

To include for assembling and jointing parts, plugging as necessary, and all joints to services and wastes or soil pipes.

ROADS AND CAR PARKS

All work must be supervised by an experienced Road Engineer or Foreman.

DEMOLITIONS

The tenderer shall allow for avoiding damage to existing property during demolitions and for making good any damages caused.

Materials arising from the demolitions shall be the property of the contractor unless otherwise described.

The contractor is to allow for all temporary protection required during the works including ordinary and special dust screens, hoardings, barriers, warning signs etc. to protect workers employed upon the site and the public. Any damage or loss incurred due to the insufficiency of such protection must be made good by the contractor.

All protective devices are to be removed on completion of the work and any necessary making good consequent upon this is to be executed to the satisfaction of the Architect.

The works shall be propped, strutted and supported as necessary before any alteration or demolition work commences.

Prices shall include for all clearing and preparatory work to the structure and finishes on completion whether or not specifically described.

Unless described as being set aside for reuse, all materials arising from the demolitions shall be carefully removed from the existing building and carted away from site. The cost of removing such materials from site shall be included in the rates for demolitions items.

The contractor shall be entirely responsible for any breakage or damage which may occur to the materials required for re-use during their removal unless it is certified by the Architect that such damage or breakage was inevitable as a result of the condition of the item concerned.

All items of blocking up openings shall include for masonry or concrete block work in gauged cement mortar properly cut, toothed, pinned and wedged to existing soffits.

New finishes applied to existing surfaces shall in all areas include for cleaning, levelling, and other preparatory work and all additional thicknessing out and dubbing to make up irregularities exposed by the demolitions.

The works shall be executed in such order and sequence as the Architect may direct and as little disturbance and inconvenience as possible shall be caused to the normal

functioning of adjacent property including departments and areas still in use by the employer's staff and the public.

No demolitions shall be commenced without express instructions of the Architect.

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

1 PRELIMINARIES (NB: RATES INSERTED FOR PRELIMINARIES SHOULD BE FOR ENTIRE PROJECT)			
Item	Description	Rate	Kshs/Cts
	<u>PARTICULAR PRELIMINARIES</u>		
A	<u>PRICING ITEMS OF PRELIMINARIES</u> Prices SHALL BE INSERTED against items of "preliminaries" in the tenderer's priced Bills of Quantities. The contractor is advised to read and understand all preliminary items.		
B	<u>DESCRIPTION OF THE WORKS</u> The works to be carried out under this contract involves : New finishes, partitioning of offices, electrical works, structured cabling, CCTV, access control, AC and mechanical ventilation works, plumbing works and furnishing		
C	<u>MEASUREMENTS</u> 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 Architect in accordance with Clause 12 of the Conditions of Contract. The discrepancies shall then be treated as a variation and be dealt with in accordance with Clause 13 of the said Conditions.		
D	<u>LOCATION OF SITE</u> The site of the proposed works is at CBK Pension Towers, Harambee Avenue Nairobi . The Contractor is advised to visit the site, to familiarize himself with the nature and position of the site. No claims arising from the Contractor's failure to do so will be entertained.		
E	<u>CLEARING AWAY</u> The Contractor shall remove all temporary works, rubbish, debris and surplus materials from the site as they accumulate and upon completion of the works, remove and clear away all plant, equipment, rubbish, unused works and stains and leave in a clean and tidy state to the reasonable satisfaction of the Architect.		
	The whole of the works shall be delivered up clean, complete and in perfect condition in every respect to the satisfaction of the Architect.		
	Carried to collection		

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Rate	Kshs/Cts
A	<p><u>CLAIMS</u></p> <p>It shall be a condition of this contract that upon it becoming reasonably apparent to the Contractor that he has incurred losses and/or expenses due to any of the contract conditions, or by any other reason whatsoever, he shall present such claim or intent to claim notice to the Architect within 30 days after the occurrence of the event giving rise to such a claim. No claims shall be entertained upon the expiry of the said period.</p>		
B	<p><u>ADVANCE PAYMENT</u></p> <p>Not applicable</p>		
C	<p><u>PREVENTION OF ACCIDENT, DAMAGE OR LOSS</u></p> <p>The Contractor is notified that these works are to be carried out on a restricted site where the Employer is going on with other normal activities. The Contractor is instructed to take reasonable care in the execution of the works as to prevent accidents, damage or loss and disruption of normal activities being carried out by the Employer. The Contractor shall allow in his rates any expense he deems necessary by taking such care within the site.</p>		
D	<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 Employer may in some cases ask the Contractor not to proceed with the works until some activities within the site are completed, as the premises will be operating as usual during the course of the contract.</p>		
E	<p><u>SIGNBOARD</u></p> <p>Allow for providing, erecting, maintaining throughout the course of the Contract and afterwards clearing away a signboard as designed, specified and approved by the Architect</p>		
F	<p><u>LABOUR CAMPS</u></p> <p>The Contractor shall not be allowed to house labour on site. He/She shall allow for transporting workers to and from the site during the tenure of the contract.</p>		
	Carried to collection		

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Rate	Kshs/Cts
A	<p><u>MATERIALS FROM DEMOLITIONS</u></p> <p>Any materials arising from demolitions and not re-used shall become the property of the Employer. The Contractor shall allow in his rates the cost of transporting the demolished materials to storage places within the site as directed by the Architect.</p>		
B	<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>		
C	<p><u>SECURITY</u></p> <p>The Contractor shall allow for providing adequate security for the works and the workers in the course of execution of this contract. No claim will be entertained from the Contractor for not maintaining adequate security for both the works and workers.</p>		
D	<p><u>PAYMENT FOR MATERIALS ON SITE</u></p> <p>All materials for incorporation in the works must be stored on site before payment is effected, unless specifically exempted by the Architect. This is to include materials of the Contractor, nominated sub-Contractors and nominated suppliers.</p>		
E	<p><u>EXISTING SERVICES</u></p> <p>Prior to the commencement of any work, the Contractor is to ascertain from the relevant authority the exact position, depth and level of all existing services in the area and he/she shall make whatever provisions may be required by the authorities concerned for the support, maintenance and protection of such services.</p>		
F	<p><u>PERFORMANCE SECURITY</u></p> <p>A performance security of 10% of the contract sum will be required on award of contract of the Instructions to Tenderers. No payment on account for the works executed will be made to the contractor until he has submitted the Performance Security to the Architect duly signed, sealed and stamped from an approved Bank. The performance security should be in the form of an Unconditional Demand Bank Guarantee as per attached standard form.</p>		
	Carried to collection		

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Rate	Kshs/Cts
A	<p><u>TENDER DOCUMENTS</u></p> <p>Tender documents will be as listed in Clause 11 of the Instruction to Tenderers.</p>		
B	<p><u>DELIVERY OF TENDER</u></p> <p>Tenders and all documents in connection therewith, as specified above must be delivered in the addressed envelope which should be properly sealed and deposited at the offices as specified in the letter accompanying these documents or as indicated in the advertisement.</p> <p>Tenders will be opened at the time specified in the letter accompanying these Tender Documents or as indicated in the advertisement. Tenders delivered/received later than the above time will not be opened.</p>		
C	<p><u>PRICE ADJUSTEMENT/FLUCTUATIONS</u></p> <p>This is a fixed price contract. The tenderer should allow in his rates for any increases on the costs of materials and/or labour during the execution of the works.</p>		
D	<p><u>VALUE ADDED TAX (VAT)</u></p> <p>The Contractor's attention is drawn to the Legal Notice in the Finance Act part 3 Section 21(b) operative from 1st September, 1993 which requires payment of VAT on all contracts. The contractor should therefore include an allowance in his rates and prices for VAT.</p> <p>The tenderer is advised that in accordance with Government public notice No. 35 & 36 Dated 11th September 2003 operational from 1st October 2003, withholding VAT will be levied against the contract sum by the Employer and remitted to the Commissioner of VAT through all interim certificates. It should however be noted that this is not additional tax but a new mode of payment for VAT, any excess payment will be refundable once the Contractor has submitted his monthly returns to the Commissioner of VAT who will do the refunds when satisfied that the VAT regulations have been complied with.</p>		
	Carried to collection		

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Rate	Kshs/Cts
A	<p><u>WITHHOLDING INCOME TAX</u></p> <p>The Contractor is advised that in accordance with Government regulations, withholding Tax will be levied against the total Contract price by the Employer and remitted to the Commissioner of Income Tax through all interim and final payments. It should however be noted that this is not additional Tax, but an advance payment of Income Tax which will be refundable once the Contractor has submitted his annual returns to the Commissioner of Income Tax, who will do the refunds when he is satisfied that all the income tax regulations have been complied with.</p>		
B	<p><u>NOTE ON DISBURSEMENT OF FUNDS</u></p> <p>The funds referred to in item Page 5 C and D below shall be given to the concerned officers in advance in every month by the Contractor for the duration of the Contract.</p> <p>The Contractor shall be reimbursed in subsequent certificates every month after claiming.</p>		
C	<p>PROJECT MANAGEMENT FACILITATION:</p> <p>COMMUNICATION - N/A</p> <p>Provide sum for mobile phone airtime for Design Team members for the duration of the contract.</p>		
1			
2	<p>Include a percentage sum for Contractors' costs and profit and taxes for the above. %</p>		
D	<p>PROJECT MANAGEMENT FACILITATION: SITE MEETING EXPENSES: N/A</p> <p>Provide sum for site visit expenses for Design Team members for the duration of the contract.</p>		
1			
2	<p>Include a percentage sum for Contractors' costs and profit and taxes for the above. %</p>		
	Carried to collection		

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Rate	Kshs/Cts
A	<p><u>PARTICULARS OF INSERTIONS TO BE MADE IN APPENDIX TO CONTRACT AGREEMENT</u></p> <p>The following are the insertions to be made in the appendix to the Contract Agreement: -</p> <p>Date for Possession of site To be agreed with the Architect</p> <p>Date for Commencement To be agreed with the Architect</p> <p>Contract Periodweeks</p> <p>Date for Practical Completion To be stated in the letter of award</p> <p>Defects Liability Period 6 Months from practical completion</p> <p>Period of Final Measurements 6 Months after practical completion</p> <p>Liquidated and Ascertained Damages As provided in the special conditions of Contract</p> <p>Period of Interim Certificates Monthly</p> <p>Period of Honouring Certificates As provided in the contract</p> <p>Percentage of Certified Value Retained 10%</p> <p>Limit of Retention Fund 10%</p> <p>Advance payment Not applicable</p> <p>Carried to collection</p>		

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Rate	Kshs/Cts
	<u>GENERAL PRELIMINARIES</u>		
A	<u>PRICING OF ITEMS OF PRELIMINARIES AND PREAMBLES</u> Prices will be inserted against items of Preliminaries in the Contractor's priced Bills of Quantities and Specifications. The Contractor shall be deemed to have included in his prices or rates for the various items in the Bills of Quantities or Specifications for all costs involved in complying with all the requirements for the proper execution of the whole of the works in the Contract.		
B	<u>ABBREVIATIONS</u> Throughout these Bills, units of measurement and terms are abbreviated and shall be interpreted as follows: - C.M Shall mean Cubic S.M. Shall mean Square L.M. Shall mean Linear M.M. Shall mean K.g Shall mean No. Shall mean Number Prs. Shall mean Pairs B.S. Shall mean the Ditto Shall mean the whole of the preceding description except as qualified in the description in which it occurs.		
	Carried to collection		

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Rate	Kshs/Cts
	m.s	Shall mean measured separately.	
	a.b.d	Shall mean as before described.	
A	<p><u>STANDARD METHOD OF MEASUREMENT</u></p> <p>The works are measured in accordance with the Standard Method of Measurement of Building Works for Eastern Africa Published by the Architectural Association of Kenya, Second Edition with the following exemptions:</p> <p>Civil works are measured in accordance with the CESMM where indicated.</p> <p>Attendance; Clause B19(a) of the Standard Method of Measurement is deleted and the following clause is substituted: -</p> <p>Attendance on nominated Sub-Contractors shall be given as an item in each case and shall be deemed to include: allowing use of standing scaffolding, mess rooms, sanitary accommodation and welfare facilities; provision of special scaffolding where necessary; providing space for office accommodation and for storage of plant and materials; providing light and water for their work: clearing away rubbish; unloading checking and hoisting: providing electric power and removing and replacing duct covers, pipe casings and the like necessary for the execution and testing of sub-Contractors' work and being responsible for the accuracy of the same.</p> <p>The following exemptions have been made to the standard method of measurement:</p> <p>(i) The joinery works units are described and enumerated</p> <p>(ii) Builder's work in connection with services are lumped per category of building service and enumerated</p> <p>(iii) All the quantities shall be subject to re-measurement</p>		
B	<p><u>EMPLOYER</u></p> <p>The "Employer" is NATIONAL POLICE SERVICE COMMISSION whose address unless otherwise notified is P.O. BOX 47363-00100, NAIROBI.</p>		
C	<p><u>ARCHITECT</u></p> <p>The term "Architect" is defined in the Conditions of Contract or such person or persons as may be duly authorized to represent him.</p>		
	Carried to collection		

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Rate	Kshs/Cts
A	<u>QUANTITY SURVEYOR</u> Various roles assigned to the "Architect" in the contract shall be delegated to the Quantity Surveyor to the extent that they relate to the duties of the Quantity Surveyor		
B	<u>ELECTRICAL ENGINEER</u> Various roles assigned to the "Architect" in the contract shall be delegated to the Electrical Engineer to the extent that they relate to the duties of the Electrical Engineer		
C	<u>MECHANICAL ENGINEER</u> Various roles assigned to the "Architect" in the contract shall be delegated to the Mechanical Engineer to the extent that they relate to the duties of the Mechanical Engineer		
D	<u>STRUCTURAL ENGINEER</u> Various roles assigned to the "Architect" in the contract shall be delegated to the Structural Engineer to the extent that they relate to the duties of the Structural Engineer		
E	<u>FORM OF CONTRACT</u> The Form of Contract shall be as stipulated in the republic of Kenya's Standard Tender Document for procurement of Building and Associated Civil Engineering Works (2022 Edition) included herein. The Conditions of Contract are also included herein. The tenderer should also make reference to the insertions to made in the special conditions of contract and include here any cost related to adherence to the requirements of the conditions and special conditions to the extent that any requirements are not covered by any item herein.		
	Carried to collection		

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Rate	Kshs/Cts
A	<p><u>PLANT, TOOLS AND VEHICLES</u></p> <p>Allow for providing all scaffolding, plant, tools and vehicles required for the works except in so far as may be stated otherwise herein and except for such items specifically and only required for the use of nominated sub-Contractors as described herein. No timber used for scaffolding, formwork or temporary works of any kind shall be used afterwards in the permanent work.</p>		
B	<p><u>TRANSPORT</u></p> <p>Allow for transport of workmen, materials, etc., to and from the site at such hours and by such routes as may be permitted by the competent authorities.</p>		
C	<p><u>MATERIALS AND WORKMANSHIP</u></p> <p>All materials and workmanship used in the execution of the work shall be of the best quality and description unless otherwise stated. The Contractor shall order all materials to be obtained from overseas immediately after the Contract is signed and shall also order materials to be obtained from local sources as early as necessary to ensure that they are on site when required for use in the works. The Bills of Quantities shall not be used for the purpose of ordering materials.</p>		
D	<p><u>SIGN FOR MATERIALS SUPPLIED</u></p> <p>The Contractor will be required to sign a receipt for all articles and materials supplied by the Architect at the time of taking deliver thereof, as having received them in good order and condition, and will thereafter be responsible for any loss or damage and for replacements of any such loss or damage to articles and/or materials which will be supplied by the Architect at the current, market prices including Customs Duty and V.A.T., all at the Contractor's own cost and expense, to the satisfaction of the Architect.</p>		
	Carried to collection		

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Rate	Kshs/Cts
A	<p><u>STORAGE OF MATERIALS</u></p> <p>The Contractor shall provide at his own risk and cost where directed on the site weather proof lock-up sheds and make good damaged or disturbed surfaces upon completion to the satisfaction of the Architect. Nominated Sub-Contractors are to be made liable for the cost of any storage accommodation provided especially for their use.</p>		
B	<p><u>SAMPLES</u></p> <p>The Contractor shall furnish at his own cost any samples of materials or workmanship including concrete test cubes required for the works that may be called for by the Architect for his approval until such samples are approved by the Architect and the Architect, may reject any materials or workmanship not in his opinion to be up to the standard of approved samples. The Architect shall arrange for the testing of such materials as he may at his discretion deem desirable, but the testing shall be made at the expense of the Contractor and not at the expense of the Architect. The Contractor shall pay for the testing in accordance with the current scale of testing charges laid down by the Ministry of Roads and Public Works.</p> <p>The procedure for submitting samples of materials for testing and the method of marking for identification shall be as laid down by the Architect. The Contractor shall allow in his tender for such samples and tests except those in connection with nominated sub-contractors' work.</p>		
C	<p><u>GOVERNMENT ACTS REGARDING</u></p> <p>Allow for complying with all Government Acts, Orders and Regulations in connection with the employment of Labour and other matters related to the execution of the works. In particular the Contractor's attention is drawn to the provisions of the Factory Act 1950 and his tender must include for all costs arising or resulting from compliance with any Act, Order or Regulation relating to Insurances, pensions and holidays for workpeople or to the safety, health and welfare of the workpeople.</p> <p>The Contractor must make himself fully acquainted with current Acts and Regulations, including Police Regulations regarding the movement, housing, security and control of labour, labour camps, passes for transport, etc. it is most important that the Contractor, before tendering, shall obtain from the relevant Authority the fullest information regarding all such regulations and/or restrictions which may affect the organization of the works, supply and control of labour, etc., and allow accordingly in his tender. No claim in respect of want of knowledge in this connection will be entertained.</p> <p>Carried to collection</p>		

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Rate	Kshs/Cts
A	<p><u>PUBLIC AND PRIVATE ROADS</u></p> <p>Maintain as required throughout the execution of the works and make good any damage to public or private roads arising from or consequent upon the execution of the works to the satisfaction of the local and other competent authority and the Architect.</p>		
B	<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 and shall make good all such damage arising from the execution of this contract at his own expense to the satisfaction of the Architect.</p>		
C	<p><u>VISIT SITE AND EXAMINE DRAWINGS</u></p> <p>The Contractor is recommended to examine the drawings and visit the site, the location of which is described in the Particular Preliminaries hereof. He shall be deemed to have acquainted himself therewith as to its nature, position, means of access or any other matter which may affect his tender. No claim arising from his failure to comply with this recommendation will be considered.</p>		
D	<p><u>ACCESS TO SITE AND TEMPORARY ROADS</u></p> <p>Means of access to the site shall be agreed with the Architect prior to commencement of the work and Contractor must allow for building any necessary temporary access roads for the transport of the materials, plant and workmen as may be required for the complete execution of the works including the provision of temporary culverts, crossings, bridges, or any other means of gaining access to the site. Upon completion of the works, the Contractor shall remove such temporary access roads and gates temporary culverts, bridges, etc., and make good and reinstate all works and surfaces disturbed to the satisfaction of the Architect.</p>		
	Carried to collection		

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Rate	Kshs/Cts
A	<p><u>AREA TO BE OCCUPIED BY THE</u></p> <p>The area of the site which may be occupied by the Contractor for use of storage and for the purpose of erecting workshops, etc., shall be defined on site by the Architect.</p>		
B	<p><u>OFFICE FOR THE ARCHITECT</u></p> <p>The Contractor shall provide, erect and maintain where directed on site and afterwards dismantle the site office of minimum plinth size 50m2 comprising tiled concrete floor, weatherboard walls with painted chipboard internal lining, glass louvre windows, GCI roof, painted chipboard ceiling, softwood panel doors and appropriate electrical installations. It shall be furnished with a conference table and chairs to fit minimum 30 pax and drawer chest sufficient for Ao drawings. He shall also provide a strong metal trunk complete with strong hasp and staple fastening and two keys. He shall provide, erect and maintain a lock-up type water or bucket closet for the sole use of the Architect including making temporary connections to the drain where applicable to the satisfaction of Government and Medical Officer of health and shall provide services of cleaner and pay all conservancy charges and keep both office and closet in a clean and sanitary condition from commencement to the completion of the works and dismantle and make good disturbed surfaces. The office and closet shall be completed before the Contractor is permitted to commence the works. The Contractor shall make available on the Site as and when required by the Architect a modern and accurate level together with levelling staff, ranging rods and 50 metre metallic or linen tape. The office and attendant facilities shall meet the approval of the Project Manager.</p>		
C	<p><u>WATER AND ELECTRICITY SUPPLY FOR THE WORKS</u></p> <p>The Contractor shall provide at his own risk and cost all necessary water, electric light and power required for use in the works. The Contractor must make his own arrangements for connection to the nearest suitable water main and for metering the water used. He must also provide temporary tanks and meters as required at his own cost and clear away when no longer required and make good on completion to the entire satisfaction of the Architect. The Contractor shall pay all charges in connection herewith. No guarantee is given or implied that sufficient water will be available from mains and the Contractor must make his own arrangements for augmenting this supply at his own cost. Nominated Sub-contractors are to be made liable for the cost of any water or electric current used and for any installation provided especially for their own use.</p>		
	Carried to collection		

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Rate	Kshs/Cts
A	<p><u>SANITATION FOR THE WORKS</u></p> <p>The Sanitation of the works shall be arranged and maintained by the Contractor to the satisfaction of the Employer and/or Local Authorities, Labour Department, the Architect and the landlord.</p>		
B	<p><u>SUPERVISION AND WORKING HOURS</u></p> <p>The works shall be executed under the direction and to the entire satisfaction in all respects of the Architect who shall at all times during normal working hours have access to the works and to the yards and workshops of the Contractor and sub-Contractors or other places where work is being prepared for the contract.</p>		
C	<p><u>PROGRESS CHART</u></p> <p>The Contractor shall provide within two weeks of possession of Site and in agreement with the Architect a Progress Chart for the whole of the works including the works of Nominated Sub-Contractors; one copy to be handed to the Architect and a further copy to be retained on Site. Progress to be recorded and chart to be amended as necessary as the work proceeds.</p>		
D	<p><u>PROVISIONAL SUMS</u></p> <p>The term "Provisional Sum" wherever used in these Bills of Quantities shall have the meaning stated in Section A item A7 (i) of the Standard Method of Measurement mentioned in Condition No. 16 of the conditions of Contract. Such sums are net and no addition shall be made to them for profit.</p>		
E	<p><u>PRIME COST (P.C.) SUMS</u></p> <p>The term "Prime Cost Sum" or "P.C. Sum" wherever used in these Bills of Quantities shall have the meaning stated in Section A item A7 (ii) of the Standard method of Measurement mentioned in Condition No. 16 of the conditions of Contract. Persons or firms nominated by the Architect to execute work or to provide and fix materials or goods as stated in Condition No. 20 of the Conditions of Contract are described herein as Nominated Sub-Contractors.</p> <p>Persons or firms so nominated to supply goods or materials are described herein as Nominated Suppliers.</p>		
	Carried to collection		

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Rate	Kshs/Cts
A	<p><u>ADJUSTMENT OF P.C. SUMS</u></p> <p>In the final account, all P.C. Sums shall be deducted and the amount properly expended upon the Architect's order in respect of each of them added to the Contract sum. The Contractor shall produce to the Architect such quotations, invoices or bills, properly receipted, as may be necessary to show the actual details of the sums paid by the Contractor. Items of profit upon P.C. Sums shall be adjusted in the final account pro-rata to the amount paid. Items of "attendance" (as previously described) following P.C. Sums shall be adjusted pro-rata to the physical extent of the work executed (not pro-rata to the amount paid) and this shall apply if the Contractor's priced Bill shows a percentage in the rate column in respect of them.</p> <p>Should the Contractor be permitted to tender and his tender be accepted for any work for which a P.C. Sum is included in these Bills of Quantities, profit and attendance will be allowed at the same rate as it would be if the work were executed by a Nominated Sub-Contractor.</p>		
B	<p><u>ADJUSTMENT OF PROVISIONAL SUMS</u></p> <p>In the final account, all Provisional Sums shall be deducted and the value of the work properly executed in respect of them upon the Architect's order added to the Contract Sum. Such work shall be valued as described for Variations in Conditions No. 13 of the Conditions of Contract, but should any part of the work be executed by a Nominated Sub-contractor, the value of such work or articles for the work to be supplied by a nominated supplier, the value of such work or articles shall be treated as a P.C. Sum and profit and attendance comparable to the contained in the priced Bills of Quantities for similar items added.</p>		
C	<p><u>NOMINATED SUB-CONTRACTORS</u></p> <p>When any works is ordered by the Architect to be executed by nominated sub-contractors, the Contractor shall enter into sub-contracts as described in the Conditions of Contract and shall thereafter be responsible for such sub-contractors in every respect. Unless otherwise described the Contractor is to provide for such sub-Contractors any or all of the facilities described in these Preliminaries. The Contractor should price for these with the nominated Sub-contract Contractor's work concerned in the P.C. Sums under the description "add for Attendance"</p>		
	Carried to collection		

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Rate	Kshs/Cts
A	<p><u>DIRECT CONTRACTS</u></p> <p>Notwithstanding the foregoing conditions, the Employer reserves the right to place a "Direct Contract" for any goods or services required in the works which are covered by a P.C. Sum in the Bills of Quantities and to pay for the same direct. In any such instances, profit relative to the P.C. Sum in the priced Bills of Quantities will be adjusted as described for P.C. Sums and allowed.</p>		
B	<p><u>ATTENDANCE UPON OTHER TRADESMEN.</u></p> <p>The Contractor shall allow for the attendance of trade upon trade and shall afford any tradesmen or other persons employed for the execution of any work not included in his Contract every facility for carrying out their work and also for use of his ordinary scaffolding. The Contractor, however, shall not be required to erect any special scaffolding for them. The Contractor shall perform such cutting away for and making good after the work of such tradesmen or persons as may be ordered by the Architect and the work will be measured and paid for to the extent executed at rates provided in these Bills.</p>		
C	<p><u>INSURANCE</u></p> <p>The Contractor shall insure as required in Conditions No. 18 of the Conditions of Contract. No payment on account of the work executed will be made to the Contractor until he has satisfied the Architect either by production of an insurance Policy or an Insurance Certificate that the provision of the foregoing Insurance Clauses have been complied with in all respects. Thereafter, the Architect shall from time to time ascertain that premiums are duly paid up by the Contractor who shall if called upon to do so, produce the receipted premium renewals for the Architect's inspection.</p>		
D	<p><u>ALTERATIONS TO BILLS. PRICING. ETC.</u></p> <p>Any unauthorised alteration or qualification made to the text of the Bills of Quantities may cause the Tender to be disqualified and will in any case be ignored. The Contractor shall be deemed to have made allowance in his prices generally to cover any items against which no price has been inserted in the priced Bills of Quantities. All items of measured work shall be priced in detail and the Tenders containing Lump Sums to cover trades or groups of work must be broken down to show the price of each item before they will be accepted.</p>		
	Carried to collection		

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Rate	Kshs/Cts
A	<p><u>PROVISIONAL WORK</u></p> <p>All work described as "Provisional" in these Bills of Quantities is subject to remeasurement in order to ascertain the actual quantity executed for which payment will be made. All "Provisional" and other work liable to adjustment under this Contract shall be left uncovered for a reasonable time to allow all measurements needed for such adjustment to be taken by the Architect.</p> <p>Immediately the work is ready for measuring, the Contractor shall give notice to the Architect. If the Contractor makes default in these respects he shall if the Architect so directs uncover the work to enable all measurements to be taken and afterwards reinstate at his own expense.</p>		
B	<p><u>BLASTING OPERATIONS</u></p> <p>Blasting will only be allowed with express permission of the Architect in writing. All blasting operations shall be carried out at the Contractor's sole risk and cost in accordance with any Government regulations in force for the time being, and any special regulations laid down by the Architect governing the use and storage of explosives.</p>		
C	<p><u>MATERIALS ARISING FROM EXCAVATIONS</u></p> <p>Materials of any kind obtained from the excavations shall be the property of the Employer. Unless the Architect directs otherwise such materials shall be dealt with as provided in the Contract. Such materials shall only be used in the works, in substitution of materials which the Contractor would otherwise have had to supply with the written permission of the Architect. Should such permission be given, the Contractor shall make due allowance for the value of the materials so used at a price to be agreed.</p>		
D	<p><u>PROTECTION OF THE WORKS</u></p> <p>Provide protection of the whole of the works contained in the Bills of Quantities, including casing, casing up; covering or such other means as may be necessary to avoid damage to the satisfaction of Architect and remove such protection when no longer required and make good any damage which may nevertheless have been done at completion free of cost to the Employer.</p>		
	Carried to collection		

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Rate	Kshs/Cts
A	<u>REMOVAL OF RUBBISH. ETC</u> Remove all rubbish and debris from the Buildings and site as it accumulates and at the completion of the works and remove all plant, scaffolding and unused materials at completion.		
B	<u>WORKS TO BE DELIVERED UP CLEAN</u> Clean and flush all gutters, rainwater and waste pipes, manholes and drains, wash (except where such treatment might cause damage) and clean all floors, sanitary fittings, glass inside and outside and any other parts of the works and remove all marks, blemishes, stains and defects from joinery, fittings and decorated surfaces generally, polish door furniture and bright parts of metalwork and leave the whole of the buildings watertight, clean, perfect and fit for occupation to the approval of the Architect.		
C	<u>GENERAL SPECIFICATION</u> For the full description of materials and workmanship, method of execution of the work and notes for pricing, the Contractor is referred to the ministry of Road and Public Works General Specification dated 1976 or any subsequent revision thereof which is issued as a separate document, and which shall be allowed in all respects unless it conflicts with the General Preliminaries, Trade Preambles or other items in these Bills of Quantities.		
D	<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 at the rate of ¼% of the Contract sum on all contracts of more than kshs. 50,000.00 in value.		
	Carried to collection		

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Rate	Kshs/Cts
A	<p><u>STANDARD LEVY</u></p> <p>The Contractor's attention is drawn to the Standard Levy Order which was amended on 15th October 1998 vide legal Notice No. 154 of 1998. The Contractor is required to pay a monthly levy of 0.2% of his ex-factory price of Construction works and must allow for this when tendering.</p>		
B	<p><u>MATERIALS ON SITE</u></p> <p>All materials for incorporation in the works must be stored on or adjacent to the site before payment is effected unless specifically exempted by the Architect. This includes the materials of the Main Contractor, Nominated Sub-Contractors and Nominated Suppliers.</p>		
C	<p><u>HOARDING</u></p> <p>The Contractor shall enclose the site of the works under construction with a hoarding 2400mm high consisting of iron sheets on 100 x 50mm timber posts firmly secured at 1800mm centres with two 75 x 50mm timber rails. The Contractor is in addition required to take all precautions necessary for the safe custody of the works, materials, plant, public and Employer's property on the site. (Not applicable).</p>		
D	<p><u>CONTRACTOR'S SUPERINTENDENCE/SITE</u></p> <p>The Contractor shall constantly keep on the works a literate English speaking Agent or Representative, competent and experienced in the kind of work involved who shall give his whole experience in the kind of work involved and shall give whole time to the superintendence of the works. Such Agent or Representative shall receive on behalf of the Contractor all directions and instructions from the Architect and such directions shall be deemed to have been given to the Contractor in accordance with the Conditions of Contract.</p>		
E	<p><u>AS-BUILT DRAWINGS</u></p> <p>Upon completion of the project the Contractor shall furnish the Architect with four copies of As-Built drawings for all building services works.</p>		
F	<p><u>PHASED CONDUCT OF THE WORKS</u></p> <p>Tenderers are notified that while the entire scope of works remain one contract, the client will require the works to be awarded in Phases as per the Phasing Schedule attached in Section VII, and to take this into account in their pricing.</p>		
	Carried to collection		-

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Rate	Kshs/Cts
	COLLECTION		
	Brought forward from page 1		
	Brought forward from page 2		
	Brought forward from page 3		
	Brought forward from page 4		
	Brought forward from page 5		
	Brought forward from page 6		
	Brought forward from page 7		
	Brought forward from page 8		
	Brought forward from page 9		
	Brought forward from page 10		
	Brought forward from page 11		
	Brought forward from page 12		
	Brought forward from page 13		
	Brought forward from page 14		
	Brought forward from page 15		
	Brought forward from page 16		
	Brought forward from page 17		
	Brought forward from page 18		
	Brought forward from page 19		
	TOTAL FOR PRELIMINARIES CARRIED TO GRAND SUMMARY		

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

**MAIN WORKS
SIXTH FLOOR**

Item	Description	Qty	Unit	Rate	Kshs/Cts
PARTITIONS					
<u>Gypsum dry walls</u>					
A	100mm thick partitions comprising 12mm thick gypsum boards on each side, supported on and including 72mm galvanised steel stud framing at maximum 600mm spacing both ways and fixing firmly to floors, ceilings and other structures, taping and skimming joints: all to approval	325	SM		
B	100mm thick partitions comprising 12mm thick gypsum boards on each side, supported on and including 72mm galvanised steel stud framing at maximum 600mm spacing both ways and fixing firmly to floors and other structures, taping and skimming joints: all to approval (Dwarf walls)	33	SM		
<u>Glazed aluminium windows in gypsum partition</u>					
C	1500x1900mm high purpose made powder coated aluminium window units in 100x50mm sections by approved manufacturer incorporating and complete with fixing lugs, rubber washers, glazing beads and other accessories infilled with 8mm thick laminated glass and including intergration into gypsum partition walls (m.s) to approval	3	NO		
<u>Burglar proofing</u>					
D	Supply and fix 25x25x2mm thick mild steel SHS burglar proofing fixed at 200 center to center both ways including welding and grinding to aproval and making good affected finishes	103	SM		
<u>Prepare and apply one coat red oxide primer and three coats gloss paint as "Crown Paints" or equal and aproved</u>					
E	To grilled metal surfaces internally	206	SM		
Carried to collection					

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Qty	Unit	Rate	Kshs/Cts
	Partitions ctd				
	<u>Wrot prime grade mahogany</u>				
A	150x25mm hardwood board fixed around openings in gypsum partitions to approval	45	LM		
B	25mm diameter quadrant bead	90	LM		
	<u>Painting and decoration</u>				
	<u>Knot, prime, stop and apply one coat approved stain and four coats polyurethane clear varnish as "Crown Paints" or equal and approved to:</u>				
C	Wood surfaces 200-300mm girth	45	LM		
D	Ditto 0-100mm girth	90	LM		
	<u>Glass blocks</u>				
E	190x190x80mm coloured glass blocks bonded to manufacturer's instructions and integrated into partitions to approval	2	SM		
	Carried to collection				
	COLLECTION				
	Brought forward from page 21				
	Brought forward from above				
	TOTAL FOR PARTITIONS CARRIED TO SUMMARY				

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Qty	Unit	Rate	Kshs/Cts
A	WINDOWS Carefully demolish existing fixed panels in glazed aluminium curtain walling in panels size 900x900mm high and make good affected structures	60	NO		
B	900x900mm high purpose made glazed aluminium windows to match existing openable window panels incorporating and complete with fixing lugs, 600mm long stainless steel scissor hinges, rubber washers including all cutting, 8mm thick reflective glass and ironmongery intergrated into existing curtain walling to aproval	60	NO		
C	<u>Burglar proofing</u> Supply and fix 25x25x2mm thick mild steel SHS burglar proofing fixed at 200 center to center both ways including welding and grinding to aproval and making good affected finishes	22	SM		
D	<u>Prepare and apply one coat red oxide primer and three coats gloss paint as "Crown Paints" or equal and aproved</u> To grilled metal surfaces internally	44	SM		
E	<u>2700mm high vertical blinds as "Tile and Carpet Centre"or equal and approved including accessories (Allow purchase price Ksh 3,000) fixed as per manufacturers instructions</u> Fixed to walls to aproval	166	SM		
TOTAL FOR WINDOWS CARRIED TO SUMMARY					

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Qty	Unit	Rate	Kshs/Cts
DOORS					
Aluminium doors					
<u>Anodized powder coated aluminium to Architects specified colour comprising 100x50x2mm frames, subframes, couplings, mullions, transoms, built in lugs, rubbers washers and fixing facilities all by specialist and to Architects aproval infilled with 8mm thick laminate glass</u>					
A	Single doors size 900x2400mm high	5	NO		
<u>Polythene film</u>					
B	Supply and fix patterned polythene film to glass to aproved colour and design	5	SM		
Mild Steel					
<u>Purpose made mild steel panel door fabricated from 50x25x3mm R.H.S frame, stiles, top, middle and bottom rails, 3mm thick steel sheet panel infills, heavy duty pin and socket hinges, drop bolts and painting all round with one coat red oxide primer before fixing</u>					
C	size 900x2400mm high	4	NO		
Solid core flush doors					
<u>45mm thick melamine laminated solid core flush doors with 4No. 20mm wide horizontal aluminium strips as "Cherry interiors" or equal and approved</u>					
D	Door size 900x2100mm high	6	NO		
<u>Frames and finishing</u>					
<u>Wrot prime grade mahogany</u>					
E	100x50mm rebated door frame with 3 labours fixed to gypsum partitions to aproval; melamine laminated to match the door a.b.d as "Cherry interiors" or equal and approved	62	LM		
F	Ditto 50x25mm moulded architrave	62	LM		
G	Ditto 25mm diameter quadrant bead	62	LM		
<u>Iron Mongery</u>					
<u>Supply and fix the following as 'UNION' or equal and approved</u>					
H	100x75mm medium duty stainless steel butt hinges	48	NO		
Carried to collection					

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Qty	Unit	Rate	Kshs/Cts
	<u>Iron Mongery ctd</u>				
A	Cylinder locks with polished aluminium handles as Assa Abloy REF: LHP5156-AS or equal and approved	5	NO		
B	Polished aluminium 200mm long x 25mm diameter " D" handles	5	NO		
C	Black rubber floor mounted doorstop	15	NO		
D	Medium duty door closer as Assa Abloy REF: DC 120 or equal and approved	15	NO		
E	Supply and fix 'Yale' Cylinder locks with heavy brass handles as Assa Abloy REF: DY 2018540-SB or equal and approved	6	NO		
F	3 lever mortice lock for metal door with brass plated handles	4	NO		
	<u>Painting and decoration</u>				
	<u>Prepare and apply three coat gloss oil paint to:</u>				
G	General surfaces of metal doors	18	SM		
	Carried to collection				
	COLLECTION				
	Brought forward from page 24				
	Brought forward from above				
	TOTAL FOR DOORS CARRIED TO SUMMARY				

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

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PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Qty	Unit	Rate	Kshs/Cts
	FLOOR FINISHES				
	<u>Hacking floor</u>				
A	Hack existing screeded floors and prepare surfaces to receive new finishes	465	SM		
	<u>Cement sand (1:3) screed</u>				
B	25mm thick wood floated to receive ceramic tiles (m.s)	465	SM		
	<u>600x600x8.5mm thick ceramic tiles (Allow purchase price Ksh 1,800 per SM) and including approved adhesive and grouting; laid to Architects pattern</u>				
C	To screeded floor	465	SM		
D	100mm high x25mm thick aluminium skirting with brushed silver finish as "Tile & Carpet Ref. HEDGETRS A15" or equal and approved fixed on gypsum dry walls to manufacturer's instructions	397	LM		
	TOTAL FOR FLOOR FINISHES CARRIED TO SUMMARY				

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Qty	Unit	Rate	Kshs/Cts
A	CEILING FINISHES	465	SM		
	Acoustic ceilings <u>"Armstrong Dune Supreme:Tegular ceiling tiles" or equivalent accessible tile system suspended ceilings; 600x600x12.5mm complete with epoxy acrylic protected tee clips, pipped tabs, epoxy protected acrylic tee runners, hot dipped galvanized splice plates with edge trims; fixing with screws to backgrounds requiring plugging as "Tile and Carpet Centre" or equal and approved</u> Linings to form soffits generally to ceilings				
	TOTAL FOR CEILING FINISHES CARRIED TO SUMMARY				

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

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PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

SEVENTH FLOOR

Item	Description	Qty	Unit	Rate	Kshs/Cts
	PARTITIONS				
	<u>Gypsum dry walls</u>				
A	100mm thick partitions comprising 12mm thick gypsum boards on each side, supported on and including 72mm galvanised steel stud framing at maximum 600mm spacing both ways and fixing firmly to floors, ceilings and other structures, taping and skimming joints: all to approval	369	SM		
B	100mm thick partitions comprising 12mm thick gypsum boards on each side, supported on and including 72mm galvanised steel stud framing at maximum 600mm spacing both ways and fixing firmly to floors and other structures, taping and skimming joints: all to approval (Dwarf walls)	55	SM		
	<u>Glazed aluminium windows in gypsum partition</u>				
C	1500x1900mm high purpose made powder coated aluminium window units in 100x50mm sections by approved manufacturer incorporating and complete with fixing lugs, rubber washers, glazing beads and other accessories infilled with 8mm thick laminated glass and including intergration into gypsum partition walls (m.s) to approval	1	NO		
	<u>Wrot prime grade mahogany</u>				
D	150x25mm hardwood board fixed around openings in gypsum partitions to approval	52	LM		
E	25mm diameter qudrant bead	104	LM		
	<u>Painting and decoration</u>				
	<u>Knot, prime, stop and apply one coat aproved stain and four coats polyuthene clear varnish as "Crown Paints" or equal and approved to:</u>				
F	Wood surfaces 200-300mm girth	52	LM		
G	Ditto 0-100mm girth	104	LM		
	<u>Glass blocks</u>				
H	190x190x80mm coloured glass blocks bonded to manufacturer's instructions and integrated into partitions to approval	2	SM		
	TOTAL FOR PARTITIONS CARRIED TO SUMMARY				

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Qty	Unit	Rate	Kshs/Cts
	WINDOWS				
A	Carefully demolish existing fixed panels in glazed aluminium curtain walling in panels size 900x900mm high and make good affected structures	60	NO		
B	900x900mm high purpose made glazed aluminium windows to match existing openable window panels incorporating and complete with fixing lugs, 600mm long stainless steel scissor hinges, rubber washers including all cutting, 8mm thick reflective glass and ironmongery intergrated into existing curtain walling to aproval	60	NO		
	<u>2700mm high vertical blinds as "Tile and Carpet Centre"or equal and approved including accessories (Allow purchase price Ksh 3,000) fixed as per manufacturers instructions</u>				
C	Fixed to walls to aproval	166	SM		
	TOTAL FOR WINDOWS CARRIED TO SUMMARY				

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Qty	Unit	Rate	Kshs/Cts
	DOORS				
	Aluminium doors				
	<u>Anodized powder coated aluminium to Architects specified colour comprising 100x50x2mm frames, subframes, couplings, mullions, transoms, built in lugs, rubbers washers and fixing facilities all by specialist and to Architects aproval infilled with 8mm thick laminate glass</u>				
A	Single doors size 900x2400mm high	7	NO		
	<u>Polythene film</u>				
B	Supply and fix patterned polythene film to glass to aproved colour and design	7	SM		
	Solid core flush doors				
	<u>45mm thick melamine laminated solid core flush doors with 4No. 20mm wide horizontal aluminium strips as "Cherry interiors" or equal and approved</u>				
C	Door size 900x2100mm high	9	NO		
	<u>Frames and finishing</u>				
	<u>Wrot prime grade mahogany</u>				
D	100x50mm rebated door frame with 3 labours fixed to gypsum partitions to aproval; melamine laminated to match the door a.b.d as "Cherry interiors" or equal and approved	51	LM		
E	Ditto 50x25mm moulded architrave	51	LM		
F	Ditto 25mm diameter quadrant bead	51	LM		
	<u>Iron Mongery</u>				
	<u>Supply and fix the following as 'UNION' or equal and approved</u>				
G	100x75mm medium duty stainless steel butt hinges	51	NO		
H	Cylinder locks with polished aluminium handles as Assa Abloy REF: LHP5156-AS or equal and approved	7	NO		
I	Polished aluminium 200mm long x 25mm diameter " D" handles	7	NO		
J	Black rubber floor mounted doorstop	17	NO		
K	Medium duty door closer as Assa Abloy REF: DC 120 or equal and approved	17	NO		
	Carried to collection				

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Qty	Unit	Rate	Kshs/Cts
A	<u>Iron Mongery ctd</u> Supply and fix 'Yale' Cylinder locks with heavy brass handles as Assa Abloy REF: DY 2018540-5B or equal and approved Carried to collection COLLECTION Brought forward from page 32 Brought forward from above	9	NO		
TOTAL FOR DOORS CARRIED TO SUMMARY					

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

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PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Qty	Unit	Rate	Kshs/Cts
	FLOOR FINISHES				
A	<u>Hacking floor</u> Hack existing screeded floors and prepare surfaces to receive new finishes	465	SM		
B	<u>Cement sand (1:3) screed</u> 25mm thick wood floated to receive ceramic tiles (m.s)	465	SM		
C	<u>600x600x8.5mm thick ceramic tiles (Allow purchase price Ksh 1,800 per SM) and including approved adhesive and grouting laid to Architects pattern</u> To screeded floor	465	SM		
D	100mm high x25mm thick aluminium skirting with brushed silver finish as "Tile & Carpet Ref. HEDGETRS A15" or equal and approved fixed on gypsum dry walls to manufacturer's instructions	422	LM		
	TOTAL FOR FLOOR FINISHES CARRIED TO SUMMARY				

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Qty	Unit	Rate	Kshs/Cts
A	CEILING FINISHES Acoustic ceilings <u>"Armstrong Dune Supreme: Tegular ceiling tiles" or equivalent accessible tile system suspended ceilings; 600x600x12.5mm complete with epoxy acrylic protected tee clips, pipped tabs, epoxy protected acrylic tee runners, hot dipped galvanized splice plates with edge trims; fixing with screws to backgrounds requiring plugging as "Tile and Carpet Centre" or equal and approved</u>	465	SM		
	Linings to form soffits generally to ceilings				
	TOTAL FOR CEILING FINISHES CARRIED TO SUMMARY				

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

[illegible]

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

EIGHTH FLOOR

Item	Description	Qty	Unit	Rate	Kshs/Cts
	PARTITIONS				
	<u>Gypsum dry walls</u>				
A	100mm thick partitions comprising 12mm thick gypsum boards on each side, supported on and including 72mm galvanised steel stud framing at maximum 600mm spacing both ways and fixing firmly to floors, ceilings and other structures, taping and skimming joints: all to approval	196	SM		
B	100mm thick partitions comprising 12mm thick gypsum boards on each side, supported on and including 72mm galvanised steel stud framing at maximum 600mm spacing both ways and fixing firmly to floors, ceilings and other structures, taping and skimming joints: all to approval (Dwarf walls)	67	SM		
	<u>Glazed aluminium windows in gypsum partition</u>				
C	1500x1900mm high purpose made powder coated aluminium window units in 100x50mm sections by approved manufacturer incorporating and complete with fixing lugs, rubber washers, glazing beads and other accessories infilled with 8mm thick laminated glass and including intergration into gypsum partition walls (m.s) to approval	3	NO		
	<u>Burglar proofing</u>				
D	Supply and fix 25x25x2mm thick mild steel SHS burglar proofing fixed at 200 center to center both ways including welding and grinding to aproval and making good affected finishes	34	SM		
	<u>Prepare and apply one coat red oxide primer and three coats gloss paint as "Crown Paints" or equal and aproved</u>				
E	To grilled metal surfaces internally	68	SM		
	Carried to collection				

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Qty	Unit	Rate	Kshs/Cts
	Partitions ctd				
A	<u>Wrot prime grade mahogany</u> 150x25mm hardwood board fixed around openings in gypsum partitions to approval	67	LM		
B	25mm diameter quadrant bead	134	LM		
	<u>Painting and decoration</u> <u>Knot, prime, stop and apply one coat approved stain and four coats polyurethane clear varnish as "Crown Paints" or equal and approved to:</u>				
C	Wood surfaces 200-300mm girth	67	LM		
D	Ditto 0-100mm girth	134	LM		
E	<u>Glass blocks</u> 190x190x80mm coloured glass blocks bonded to manufacturer's instructions and integrated into partitions to approval	2	SM		
	Carried to collection				
	COLLECTION				
	Brought forward from page 38				
	Brought forward from above				
	TOTAL FOR PARTITIONS CARRIED TO SUMMARY				

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Qty	Unit	Rate	Kshs/Cts
	WINDOWS				
A	Carefully demolish existing fixed panels in glazed aluminium curtain walling in panels size 900x900mm high and make good affected structures	60	NO		
B	900x900mm high purpose made glazed aluminium windows to match existing openable window panels incorporating and complete with fixing lugs, 600mm long stainless steel scissor hinges, rubber washers including all cutting, 8mm thick reflective glass and ironmongery intergrated into existing curtain walling to aproval	60	NO		
	<u>Burglar proofing</u>				
C	Supply and fix 25x25x2mm thick mild steel SHS burglar proofing fixed at 200 center to center both ways including welding and grinding to aproval and making good affected finishes	25	SM		
	<u>Prepare and apply one coat red oxide primer and three coats gloss paint as "Crown Paints" or equal</u>				
D	To grilled metal surfaces internally	50	SM		
	<u>2700mm high vertical blinds as "Tile and Carpet Centre"or equal and approved including accessories (Allow purchase price Ksh 3,000) fixed as per manufacturers instructions</u>				
E	Fixed to walls to aproval	166	SM		
	TOTAL FOR WINDOWS CARRIED TO SUMMARY				

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Qty	Unit	Rate	Kshs/Cts
DOORS					
Aluminium doors					
<u>Anodized powder coated aluminium to Architects specified colour comprising 100x50x2mm frames, subframes, couplings, mullions, transoms, built in lugs, rubbers washers and fixing facilities all by specialist and to Architects aproval infilled with 8mm thick laminate glass</u>					
A	Single doors size 900x2400mm high	5	NO		
<u>Polythene film</u>					
B	Supply and fix patterned polythene film to glass to aproved colour and design	5	SM		
Mild Steel					
<u>Purpose made mild steel panel door fabricated from 50x25x3mm R.H.S frame, stiles, top, middle and bottom rails, 3mm thick steel sheet panel infills, heavy duty pin and socket hinges, drop bolts and painting all round with one coat red oxide primer before fixing</u>					
C	size 1200x2400mm high double door	1	NO		
Solid core flush doors					
<u>45mm thick melamine laminated solid core flush doors with 4No. 20mm wide horizontal aluminium strips as "Cherry interiors" or equal and aproved</u>					
D	Door size 900x2100mm high	4	NO		
<u>Frames and finishing</u>					
<u>Wrot prime grade mahogany</u>					
E	100x50mm rebated door frame with 3 labours fixed to gypsum partitions to aproval; melamine laminated to match the door a.b.d as "Cherry interiors" or equal and aproved	29	LM		
F	Ditto 50x25mm moulded architrave	29	LM		
G	Ditto 25mm diameter quadrant bead	29	LM		
<u>Iron Mongery</u>					
<u>Supply and fix the following as 'UNION' or equal and aproved</u>					
H	100x75mm medium duty stainless steel butt hinges	36	NO		
I	Cylinder locks with polished aluminium handles as Assa Abloy REF: LHP5156-AS or equal and aproved	5	NO		
Carried to collection					

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Qty	Unit	Rate	Kshs/Cts
	<u>Iron Mongery ctd</u>				
A	Polished aluminium 200mm long x 25mm diameter " D" handles	5	NO		
B	Black rubber floor mounted doorstop	10	NO		
C	Medium duty door closer as Assa Abloy REF: DC 120 or equal and approved	10	NO		
D	Supply and fix 'Yale' Cylinder locks with heavy brass handles as Assa Abloy REF: DY 2018540-5B or equal and approved	7	NO		
E	3 lever rebated mortice lock for steel door with brass plated handles	1	NO		
	<u>Painting and decoration</u>				
	<u>Prepare and apply three coat gloss oil paint to:</u>				
F	General surfaces of metal doors	6	SM		
	Carried to collection				
	COLLECTION				
	Brought forward from page 41				
	Brought forward from above				
	TOTAL FOR DOORS CARRIED TO SUMMARY				

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Qty	Unit	Rate	Kshs/Cts
	WALL FINISHES				
	<u>Prepare and apply one undercoat and three coats first grade silk vinyl emulsion paint as "Crown Paints" or equal and approved to:-</u>				
A	Gypsum partitions including taping and skimming	436	SM		
B	Existing walls and columns	383	SM		
	<u>Drainage pipe boxing</u>				
C	82mm thick acoustic casement comprising 20mm thick block board, 2layers of 50mm thick rock wool acoustic sandwich, 12mm thick gypsum board, supported on and including 50x50mm thick soft wood framing or galvanized iron channels at 600mm spacing both ways including fixing firmly to ceilings and other structures, taping and skimming joints: all to approval	154	SM		
	TOTAL FOR WALL FINISHES CARRIED TO SUMMARY				

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Qty	Unit	Rate	Kshs/Cts
FLOOR FINISHES					
<u>Hacking floor</u>					
A	Hack existing screeded floors and prepare surfaces to receive new finishes	465	SM		
<u>Cement sand (1:3) screed</u>					
B	25mm thick wood floated to receive ceramic tiles (m.s)	465	SM		
<u>600x600x8.5mm thick ceramic tiles (Allow purchase price Ksh 1,800 per SM) and including approved adhesive and grouting laid to Architects pattern</u>					
C	To screeded floor	465	SM		
D	100mm high x25mm thick aluminium skirting with brushed silver finish as "Tile & Carpet Ref. HEDGETRS A15" or equal and approved fixed on gypsum dry walls to manufacturer's instructions	377	LM		
TOTAL FOR FLOOR FINISHES CARRIED TO SUMMARY					

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Qty	Unit	Rate	Kshs/Cts
A	CEILING FINISHES <u>Acoustic ceilings</u> <u>"Armstrong Dune Supreme:Tegular ceiling tiles" or</u> <u>equivalent accessible tile system suspended</u> <u>ceilings; 600x600x12.5mm complete with epoxy</u> <u>acrylic protected tee clips, pipped tabs, epoxy</u> <u>protected acrylic tee runners, hot dipped</u> <u>galvanized splice plates with edge trims; fixing with</u> <u>screws to backgrounds requiring plugging as "Tile</u> <u>and Carpet Centre" or equal and approved</u>	465	SM		
	Linings to form soffits generally to ceilings				
	TOTAL FOR CEILING FINISHES CARRIED TO SUMMARY				

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Kshs/Cts
	SUMMARY FOR EIGHTH FLOOR OFFICE FIT-OUTS	
1	PARTITIONS FROM PAGE 39	
2	WINDOWS FROM PAGE 40	
3	DOORS FROM PAGE 42	
4	WALL FINISHES FROM PAGE 43	
5	FLOOR FINISHES FROM PAGE 44	
6	CEILING FINISHES FROM PAGE 45	
	TOTAL FOR EIGHTH FLOOR FIT-OUT CARRIED TO GRAND SUMMARY	

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

NINETH FLOOR

Item	Description	Qty	Unit	Rate	Kshs/Cts
	PARTITIONS				
A	<u>Gypsum dry walls</u> 100mm thick partitions comprising 2 layers of 50mm thick rock wool acoustic sandwich, 12mm thick gypsum boards on each side, supported on and including 72mm galvanised steel stud framing at maximum 600mm spacing both ways and fixing firmly to floors, ceilings and other structures, taping and skimming joints: all to approval	410	SM		
B	<u>Approved block or dressed natural stone walling bedded and jointed with cement sand (1:4) mortar and reinforced with hoop iron every alternate course</u> 150mm thick	51	SM		
C	<u>Glazed aluminium windows in gypsum partition</u> 1500x1900mm high purpose made powder coated aluminium window units in 100x50mm sections by approved manufacturer incorporating and complete with fixing lugs, rubber washers, glazing beads and other accessories infilled with 8mm thick laminated glass and including intergration into gypsum partition walls (m.s) to approval	10	NO		
D	Ditto but size 1000x1900mm high	1	NO		
E	<u>Burglar proofing</u> Supply and fix 25x25x2mm thick mild steel SHS burglar proofing fixed at 200 center to center both ways including welding and grinding to aproval and making good affected finishes	57	SM		
	Carried to collection				

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Qty	Unit	Rate	Kshs/Cts
	Partitions ctd				
	<u>Prepare and apply one coat red oxide primer and three coats gloss paint as "Crown Paints" or equal</u>				
A	To grilled metal surfaces internally	114	SM		
	<u>Glass blocks</u>				
	190x190x80mm coloured glass blocks bonded to manufacturer's instructions and integrated into partitions to approval	2	SM		
	Carried to collection				
	COLLECTION				
	Brought forward from page 47				
	Brought forward from above				
	TOTAL FOR PARTITIONS CARRIED TO SUMMARY				

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Qty	Unit	Rate	Kshs/Cts
	WINDOWS				
A	Carefully demolish existing fixed panels in glazed aluminium curtain walling in panels size 900x900mm high and make good affected structures	60	NO		
B	900x900mm high purpose made glazed aluminium windows to match existing openable window panels incorporating and complete with fixing lugs, 600mm long stainless steel scissor hinges, rubber washers including all cutting, 8mm thick reflective glass and ironmongery intergrated into existing curtain walling to aproval	60	NO		
	<u>Burglar proofing</u>				
C	Supply and fix 25x25x2mm thick mild steel SHS burglar proofing fixed at 200 center to center both ways including welding and grinding to aproval and making good affected finishes	12	SM		
	<u>Prepare and apply one coat red oxide primer and three coats gloss paint as "Crown Paints" or equal</u>				
D	To grilled metal surfaces internally	24	SM		
	<u>2700mm high vertical blinds as "Tile and Carpet Centre" or equal and approved including accessories (Allow purchase price Ksh 3,000) fixed as per manufacturers instructions</u>				
E	Fixed to walls to aproval	166	SM		
	TOTAL FOR WINDOWS CARRIED TO SUMMARY				

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Qty	Unit	Rate	Kshs/Cts
DOORS					
Mild Steel					
<u>Purpose made mild steel panel door fabricated from 50x25x3mm R.H.S frame, stiles, top,middle and bottom rails, 3mm thick steel sheet panel infills, heavy duty pin and socket hinges, drop bolts and painting all round with one coat red oxide primer before fixing</u>					
A	Door size 900x2400mm high	2	NO		
Solid core flush doors					
<u>45mm thick melamine laminated solid core flush doors with 4No. 20mm wide horizontal aluminium strips as "Cherry interiors" or equal and approved</u>					
B	Door size 900x2100mm high	20	NO		
<u>Frames and finishing</u>					
<u>Wrot prime grade mahogany</u>					
C	100x50mm rebated door frame with 3 labours plugged including fixing dowels and cramps melamine laminated to match the door a.b.d as "Cherry interiors" or equal and approved	118	LM		
D	Ditto 50x25mm moulded architrave	118	LM		
E	Ditto 25mm diameter quadrant bead	118	LM		
<u>Iron Mongery</u>					
<u>Supply and fix the following as 'UNION' or equal and approved</u>					
F	100x75mm medium duty stainless steel butt hinges	81	NO		
Carried to collection					

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Qty	Unit	Rate	Kshs/Cts
	<u>Iron Mongery ctd</u>				
A	Black rubber floor mounted doorstop	22	NO		
B	Medium duty door closer as Assa Abloy REF: DC 120 or equal and approved	22	NO		
C	Supply and fix 'Yale' Cylinder locks with heavy brass handles as Assa Abloy REF: DY 2018540-5B or equal and approved	20	NO		
D	3 lever mortice lock for metal door with brass plated handles	2	NO		
	<u>Painting and decoration</u>				
	<u>Prepare and apply three coat gloss oil paint to:</u>				
E	General surfaces of metal doors	5	SM		
	<u>Glazed aluminium sliding doors and partition</u>				
	<u>Supply assemble and fix the following purpose made powder coated aluminium units in 100x50/50x50mm sections by approved manufacturer incorporating and complete with fixing lugs, plastic</u>				
	<u>mosquito proofed permanent vents, rubber washers including all cutting, to units infilled with 8mm thick laminated glass and including stainless steel ironmongery; sliding rails, washers and rollers</u>				
	<u>to aproval</u>				
F	Double door/partition size 1450x2100mm high comprising 1100mm wide fixed section and 800mm wide sliding section (Shower screen for C.E.O)	1	NO		
	Carried to collection				
	COLLECTION				
	Brought forward from page 50				
	Brought forward from above				
	TOTAL FOR DOORS CARRIED TO SUMMARY				

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Qty	Unit	Rate	Kshs/Cts
	WALL FINISHES				
A	<u>Gauged plaster (1:2:9) or (1:1:6) in two coats</u> 20mm thick to walls with steel trowelled finish to beams, walls and columns internally	32	SM		
B	Ditto wood floated to receive glazed tiles	47	SM		
C	<u>Approved 1200x600x10mm thick granito wall tiles (Purchase price Ksh 2,000) to Architect's pattern fixed with approved tile adhesive to plastered surface including polished aluminium corner strips</u> To walls	47	SM		
D	<u>Prepare and apply one undercoat and three coats first grade silk vinyl emulsion paint as "Crown Paints" or equal and approved to:-</u> Gypsum partitions including taping and skimming	637	SM		
E	Walls and columns	477	SM		
F	<u>Acoustic cladding to walls and doors</u> Acoustic cladding comprising alternate horizontal rows of 300mm wide acoustic texture padding of 50mm thick polythene foam covered with approved synthetic leather with tension buttons all covered to match the leather and alternate rows of 50x30mm wrot prime grade mahogany moulded to approval and finished with one stain coat and 4 coats clear polyurethane varnish all mounted on 20mm thick marine board base (Boardroom)	123	SM		
G	<u>Drainage pipe boxing</u> 82mm thick acoustic casement comprising 20mm thick block board, 2 layers of 50mm thick rock wool acoustic sandwich, 12mm thick gypsum, supported on and including 50x50mm thick soft wood framing or galvanized iron channels at 600mm spacing both ways including fixing firmly to ceilings and other structures, taping and skimming joints: all to approval	30	SM		
	TOTAL FOR WALL FINISHES CARRIED TO SUMMARY				

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Qty	Unit	Rate	Kshs/Cts
FLOOR FINISHES					
A	<u>Hacking floor</u> Hack existing screeded floors and prepare surfaces to receive new finishes	465	SM		
B	<u>Cement sand (1:3) screed</u> 25mm thick screed steel trowelled smooth to receive carpet (m.s)	221	SM		
C	25mm thick wood floated to receive ceramic tiles (m.s)	228	SM		
D	Ditto to receive non slip tiles to wet areas	16	SM		
E	Applied liquid chemical waterproofing as "Sika 105" or equal and aproved to screeded surfaces	16	SM		
F	<u>600x600x8.5mm thick ceramic tiles (Allow purchase price Ksh 2,200 per SM) including approved adhesive and grouting laid to Architects pattern</u> To screeded floor	228	SM		
G	100mm high x25mm thick brass plated skirting on gypsum dry walls as "HEDGETRS A15" or equal and approved	409	LM		
H	<u>600x600x8.5mm thick non slip ceramic tiles (Allow purchase price Ksh 2,200 per SM) including approved adhesive and grouting laid to Architects pattern</u> To screeded wet areas	16	SM		
I	<u>10mm thick executive/VIP red wall to wall carpet as "Tile and Carpet Centre" or "Ideal Floor Systems" or equal and approved including underlay and accessories (Allow purchase price Ksh 3,500) fixed as per manufacturers instructions</u> Fixed to screed floors to approval	221	SM		
TOTAL FOR FLOOR FINISHES CARRIED TO SUMMARY					

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Qty	Unit	Rate	Kshs/Cts
	CEILING FINISHES				
A	<u>Bulkhead gypsum ceilings</u> Suspended gypsum bulk head ceilings comprising 12mm thick gypsum board and including galvanised steel stud works, treating joints with tape and filler and skimming. Rates to include for forming bulkheads at various levels as to aproval.	250	SM		
B	Ditto but plain gypsum	16	SM		
C	100x25mm moulded cornice	323	LM		
D	<u>Prepare and apply one undercoat and three coats first grade silk vinyl emulsion paint as "Crown Paints" or equal and aproved to:-</u> Gypsum surfaces	266	SM		
E	Cornices 100-200mm girth	323	LM		
	Acoustic ceilings				
F	<u>"Armstrong Dune Supreme:Tegular ceiling tiles" or equivalent accessible tile system suspended ceilings; 600x600x12.5mm complete with epoxy acrylic protected tee clips, pipped tabs, epoxy protected acrylic tee runners, hot dipped galvanized splice plates with edge trims; fixing with screws to backgrounds requiring plugging as "Tile and Carpet Centre" or equal and approved</u> Linings to form soffits generally to ceilings	202	SM		
	TOTAL FOR CEILING FINISHES CARRIED TO SUMMARY				

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

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PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

TENTH FLOOR

Item	Description	Qty	Unit	Rate	Kshs/Cts
	PARTITIONS				
A	<u>Gypsum dry walls</u> 100mm thick partitions comprising 2 layers of 50mm thick rock wool acoustic sandwich, 12mm thick gypsum boards on each side, supported on and including 72mm galvanised steel stud framing at maximum 600mm spacing both ways and fixing firmly to floors, ceilings and other structures, taping and skimming joints: all to approval	380	SM		
B	<u>Approved block or dressed natural stone walling bedded and jointed with cement sand (1:4) mortar and reinforced with hoop iron every alternate course</u> 150mm thick	209	SM		
C	<u>Glazed aluminium windows in gypsum partition</u> 1500x1900mm high purpose made powder coated aluminium window units in 100x50mm sections by approved manufacturer incorporating and complete with fixing lugs, rubber washers, glazing beads and other accessories infilled with 8mm thick laminated glass and including intergration into gypsum partition walls (m.s) to approval	4	NO		
D	Ditto but size 1350x1900mm high	2	NO		
E	Ditto but size 750x1900mm high	1	NO		
F	<u>Glass blocks</u> 190x190x80mm coloured glass blocks bonded to manufacturer's instructions and integrated into partitions to approval	2	SM		
	TOTAL FOR PARTITIONS CARRIED TO SUMMARY				

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Qty	Unit	Rate	Kshs/Cts
	WINDOWS				
A	Carefully demolish existing fixed panels in glazed aluminium curtain walling in panels size 900x900mm high and make good affected structures	60	NO		
B	900x900mm high purpose made glazed aluminium windows to match existing openable window panels incorporating and complete with fixing lugs, 600mm long stainless steel scissor hinges, rubber washers including all cutting, 8mm thick reflective glass and ironmongery intergrated into existing curtain walling to aproval	60	NO		
	<u>2700mm high vertical blinds as "Tile and Carpet Centre"or equal and approved including accessories (Allow purchase price Ksh 3,000) fixed as per manufacturers instructions</u>				
C	Fixed to walls to aproval	166	SM		
	TOTAL FOR WINDOWS CARRIED TO SUMMARY				

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Qty	Unit	Rate	Kshs/Cts
DOORS					
Solid panel mahogany doors					
<u>45mm thick solid panel mahogany doors as "Woodmakers Ltd" or equal and aproved</u>					
A	Door size 900x2100mm high	34	NO		
<u>Frames and finishing</u>					
<u>Wrot prime grade mahogany</u>					
B	100x50mm rebated door frame with 3 labours plugged including fixing fixing to gypsum partitions a.b.d as "Woodmakers Ltd" or equal and approved	191	LM		
C	Ditto 50x25mm moulded architrave	191	LM		
D	Ditto 25mm diameter quadrant bead	191	LM		
<u>Iron Mongery</u>					
<u>Supply and fix the following as 'UNION' or equal and approved</u>					
E	100x75mm medium duty stainless steel butt hinges	102	NO		
F	Black rubber floor mounted doorstop	34	NO		
G	Medium duty door closer as Assa Abloy REF: DC 120 or equal and approved	34	NO		
H	Supply and fix 'Yale' Cylinder locks with heavy brass handles as Assa Abloy REF: DY 2018540-5B or equal and approved	34	NO		
Carried to collection					

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Qty	Unit	Rate	Kshs/Cts
A	Doors ctd	2	NO		
	<u>Glazed aluminium sliding doors and partition</u> <u>Supply assemble and fix the following purpose</u> <u>made powder coated aluminium units in 100x50/</u> <u>50x50mm sections by approved manufacturer</u> <u>incorporating and complete with fixing lugs, plastic</u>				
	<u>mosquito proofed permanent vents, rubber</u> <u>washers including all cutting, to units infilled with</u> <u>8mm thick laminated glass and including stainless</u> <u>steel ironmongery; sliding rails, washers and rollers</u>				
	<u>to aproval</u>				
	Double door/partition size 1900x2100mm high comprising 1100mm wide fixed section and 800mm wide sliding section (Shower screen for Chairman and Deputy)				
	Carried to collection				
	COLLECTION				
	Brought forward from page 58				
	Brought forward from above				
	TOTAL FOR DOORS CARRIED TO SUMMARY				

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Qty	Unit	Rate	Kshs/Cts
	WALL FINISHES				
A	<u>Gauged plaster (1:2:9) or (1:1:6) in two coats</u> 20mm thick to walls with steel trowelled finish to beams, walls and columns internally	623	SM		
B	Ditto wood floated to receive glazed tiles	139	SM		
C	<u>Approved 1200x600x10mm thick granito wall tiles (Purchase price Ksh 2,000) to Architect's pattern fixed with approved tile adhesive to plastered surface including polished aluminium corner strips</u> To walls	139	SM		
D	<u>Prepare and apply one undercoat and three coats first grade silk vinyl emulsion paint as "Crown Paints" or equal and approved to:-</u> Gypsum partitions including taping and skimming	587	SM		
E	Walls and columns	623	SM		
F	<u>Cladding to walls and doors</u> Acoustic cladding comprising alternate horizontal rows of 300mm wide acoustic texture padding of 50mm thick polythene foam covered with approved synthetic leather with tension buttons all covered to match the leather and alternate rows of 50x30mm wrot prime grade mahogany moulded to approval and finished with one stain coat and 4 coats clear polyurethane varnish all mounted on 20mm thick marine board base (Chairman's and boardroom)	130	SM		
G	Wall cladding comprising alternate horizontal rows of 300mm wide mahogany veneered MDF panelling and alternate rows of 30x20mm waluminium channels section fixed to approval finished with one stain coat and 4 coats clear polyurethane varnish all mounted on 20mm thick marine board base (On R.C. shear wall in Chairman's)	19	SM		
	TOTAL FOR WALL FINISHES CARRIED TO SUMMARY				

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Qty	Unit	Rate	Kshs/Cts
FLOOR FINISHES					
A	<u>Hacking floor</u> Hack existing screeded floors and prepare surfaces to receive new finishes	441	SM		
B	<u>Cement sand (1:3) screed</u> 25mm thick screed steel trowelled smooth to receive carpet (m.s)	441	SM		
C	25mm thick wood floated to receive non slip tiles to wet areas	24	SM		
D	Applied liquid chemical waterproofing as "Sika 105" or equal and aproved to screeded surfaces	24	SM		
E	<u>600x600x8.5mm thick non slip ceramic tiles (Allow purchase price Ksh 2,200 per SM) including approved adhesive and grouting laid to Architects pattern</u> To screeded wet areas	24	SM		
F	<u>10mm thick executive/VIP red wall to wall carpet as "Tile and Carpet Centre" or "Ideal Floor Systems" or equal and approved including underlay and accessories (Allow purchase price Ksh 3,500) fixed as per manufacturers instructions</u> Fixed to screed floors to approval	441	SM		
TOTAL FOR FLOOR FINISHES CARRIED TO SUMMARY					

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

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PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

Item	Description	Kshs/Cts
	SUMMARY FOR TENTH FLOOR OFFICE FIT-OUTS	
1	PARTITIONS FROM PAGE 56	
2	WINDOWS FROM PAGE 57	
3	DOORS FROM PAGE 59	
4	WALL FINISHES FROM PAGE 60	
5	FLOOR FINISHES FROM PAGE 61	
6	CEILING FINISHES FROM PAGE 62	
	TOTAL FOR TENTH FLOOR FIT-OUT CARRIED TO GRAND SUMMARY	

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

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PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS: BUILDER'S WORK

MAIN WORKS SUMMARY

Item	Description	Kshs/Cts
1	SIXTH FLOOR FROM PAGE 29	
2	SEVENTH FLOOR FROM PAGE 37	
3	EIGHTH FLOOR FROM PAGE 46	
4	NINETH FLOOR FROM PAGE 55	
5	TENTH FLOOR FROM PAGE 63	
6	BUILDER'S WORK FROM PAGE 64	
TOTAL FOR OFFICE FIT- OUT MAINWORKS CARRIED TO GRAND SUMMARY		

**PROPOSED OFFICE PARTITIONING AND FIT OUT AT CBK
PENSION TOWERS**

**SECTION IX: SPECIFICATIONS AND BILLS OF QUANTITIES;
ELECTRICAL WORKS**

PARTICULAR SPECIFICATION FOR ELECTRICAL INSTALLATION

PART 1: GENERAL

1.1 Definition of Terms

Throughout this document the following terms shall have the following meanings attached to them:

a) Employer

The term “Employer” whenever used hereinafter and in all Sub-Contract documents shall mean the National Police Service Commission of P.O. Box 47363 - 00100, Nairobi.

b) Architect

The term “Architect” whenever used hereinafter and in all Sub-Contract Documents shall mean JKUAT Enterprises Limited, P.O. Box 62000 - 00200, Nairobi.

c) Engineer

The term “Engineer” whenever used hereinafter and in all Sub-Contract Documents shall mean JKUAT Enterprises Limited, P.O. Box 62000 - 00200, Nairobi.

1.2 Location of Site

The site of the works is located in Nairobi central business district on 6th to 10th floors of the CBK Pension Towers.

1.3 Description of the Project

The project is an office fit out within an existing building to customize the spaces to accommodate the offices of the employer.

PART 2: INCOMING ELECTRICITY SUPPLY

2.1. General

Power supply to various floors and wings has already been done from the building’s L.V. switchboard to the various Distribution Boards in the services ducts in the various wings. The Sub Contractor shall liaise with the premise management for any queries regarding power supply to the spaces.

2.2 Earthing

The sub-contractor shall ensure all installations are adequately earthed via the existing earthing system. The subcontractor shall carryout earthing tests for all electrical outlets to verify the adequacy of the existing earthing system.

Supplementary earthing system shall be installed for any or all additional power distribution devices, including:

- (a) All switchboard cubicles
- (b) Distribution boards and consumer units.

PART 3: MEDIUM VOLTAGE MAIN SWITCHGEAR

3.1 Scope of Work

The Sub-contractor shall supply, deliver, install, test and commission all the equipment, plant and materials in accordance with the specification and as specified hereinafter or shown on the contract drawings to provide a complete and operable installation.

3.2 Contract Drawings

The Sub-contractor shall be deemed to have studied all the Contract Drawings listed in the schedule of Contract drawings and to have allowed for any necessary provisions in this section of the works required thereby. All fabrication or factory drawings of the switchgear shall be subject to approval by the engineer.

3.3 Indoor Equipment

Unless otherwise stated, plant and equipment shall be suitable for installation within the office spaces and the common areas.

3.4 General Requirements

All power distribution equipment shall comply with BS 162 and equivalent IEC standards. All circuit breakers shall be as manufactured by Merlin Gerin, schneider or other equal and approved.

The moulded case circuit breakers shall carry a certificate of rating issued by an approved authority and shall comply fully with BS and the appropriate local standards issued by the Kenya Bureau of Standards.

The MCCB's shall have adjustable thermal and magnetic overload and shall have a quick-make; quick-break trip free operating mechanism which shall prevent the breakers from being closed and 'held in' against overloads and short circuits.

All internal wiring and bus-bars shall be completely enclosed. All circuit breakers and MCCB's shall be capable of being padlocked in the 'OFF' or 'ON' positions.

3.7 Labeling and Indication

All switchgear shall have engraved labels indicating the services fed from them. The inscriptions shall be white 10mm high letters on black "Trafollite" sheet.

A neon type "Main On" indicator light shall be provided for each of the three incoming phases.

3.9 Topicalization

All switchgear shall be suitably tropicalized to operate satisfactorily in the tropics and more specifically at the altitude and weather conditions prevailing at the site.

PART 4: ELECTRICAL DISTRIBUTION SYSTEM

4.1 Scope of Work

Work to be carried out under this section includes the supply and Installation of all sub main cables, sub-main distribution boards and Consumer units. The type and rating of the elements of the system are shown on the appropriate contract drawings.

4.2 Sub-main Cables

The sub-main cables and methods of installation shall be as specified in the General Specification. The cables shall be manufactured by E.A. Cables Ltd, or other equal and approved.

4.3 Sub-main Distribution Boards and consumer units

The sub-main distribution boards and consumer units shall be in the places shown on the contract drawings.

The distribution boards and consumer units shall employ miniature circuit breakers and shall conform to the requirements for the general specification and shall be as manufactured by Crabtree Ltd, schneider or other equal and approved with integral isolation switch. Consumer units located in electrical cupboards shall be surface mounting whilst all other units shall be flush mounting.

PART 5: ELECTRICAL LIGHTING INSTALLATION

5.1 Scope of Work

The Sub-contractor shall supply, deliver, install, connect and test the electrical lighting installation as detailed on the contract drawings and the Bill of Quantities.

5.2 Wiring System

The lighting installation shall be carried out in single core PVC insulated copper cables with insulated earth continuity conductor enclosed in heavy gauge, PVC, super high impact conduit cast in slabs or recessed in the general fabric of the building.

5.3 Lighting Accessories

Lighting switched shall be flush mounted, single pole, 5 amp or 15 amp as required, rocker operated, micro-grid switches with high quality polycarbonate plastic cover plates. The switches shall be manufactured by Crabtree, MK or other equal and approved.

PART 6: ELECTRICAL POWER INSTALLATION

6.1 Scope of Work

The Sub-contractor shall supply, install, connect and test the electric power installation as detailed on the contract drawings. Work under this section shall include:

- a) Single-phase general-purpose power outlets in all areas.
- b) Single and three phase power outlets for specialist mechanical equipment such as air-conditioning units.

6.2 Wiring Systems

In all other areas, wiring to 13A general purpose socket outlets, spur units and DP switched shall be in single core PVC insulated copper cables enclosed in PVC heavy gauge conduit recessed in the general fabric of the building.

Wiring to specialist mechanical equipment shall be as indicated on the contract drawings. The Sub-contractor shall liaise fully with the mechanical and other specialist sub-contractors and nominated suppliers to ensure correct power supplies to their respective equipment.

6.1 Power Accessories

13A single phase socket outlets shall be flush mounted rocker operated with high quality polycarbonate plastic cover plates. The sockets shall be as manufactured by Crabtree, Mk or other equal and approved.

Fused switched shall be double pole and neutral as shown on contract drawings, wall mounting units with interlocked covers. All fused switch units shall be appropriately labeled to indicate the equipment they control.

Except where explicitly indicated otherwise, final wiring and connection to mechanical equipment from wall mounted fused switched or isolators shall be in single core, PVC insulated copper cables enclosed in PVC heavy gauge conduit recessed in general fabric of the building. Final connection to instant air-conditioning units and other fixed single-phase equipment shall be by appropriated PVC insulated and sheathed flexible cables.

6.2 Connection to Single Phase Fixed Appliances

The Sub-contractor shall supply and interconnect flexible cables of one following types between spur unit outlet boxes and fixed appliances supplied and installed by others.

Cable Type	No & Dia of Wires	No. of Cores
BICC ARMAFLEX	24.20MM	3
BICC ARMAFLEX	32.20MM	3
PVC SHEATHED	24.20MM	3
PVC SHEATHED	32.20MM	3
HEAT PROOF FLEXIBLE	32.20MM	3

BILLS OF QUANTITIES

PREAMBLE

1. The Sub-contractor is instructed to read all the pages and all the items of the Bills of Quantities very carefully. Should there be an apparent omission of words or figures, or should the sub-contractor be in doubt about the precise meaning of any word or figures, or for any reason whatsoever feel more clarification is necessary, either in the drawings or Bills of Quantities, to facilitate reasonable pricing of the tender document, he should inform the engineer at once so that the correct interpretation or clarification may be given before tendering. No liability will be accepted on mistakes and/or omissions which should have been corrected in the format above.
2. The specification should be priced in Kenya Currency i.e. Shillings and cents.
3. The Sub-contract is for supplying, delivering, fixing/installing, testing, commissioning and setting to work to the full satisfaction of the Engineer/Architect and the Sub-contractor's price must include all cost for the entire process.
4. All pipework and conduits/ducts must be heavy gauge as specified in the respective sections of Particular Specifications. Where steel pipes are specified, they must be minimum of class B in strength.
5. The installation shall be carried out strictly in accordance with the provision of the most current relevant standards issued by the Kenya Bureau of Standards, and with strict adherence to the Local Water Authority By-laws and the Local Authority/Council By-laws.
6. The Sub-contractor shall ensure that the highest standards of workmanship and highest quality materials are used at all times. Inferior workmanship and low quality materials shall be rejected and replaced at the Sub-contractors own cost.
7. The sub-contractors shall be solely responsible for the correct and accurate ordering of materials in accordance with the drawings and Bills of Quantities.
8. No claims on advance payment and/or materials off-site will be allowed unless the sub-contractor advances valid reasons acceptable to the employer. Should a claim on advance payment be allowed, the sub-contractor will be required to submit an Advance Payment Bond for the full value claimed.

9. The sub-contractor shall strictly follow the Main Contractor's programme of works and (the sub-contractor) must ensure that at no time does his activities cause delays to the Main Contractor.
10. This is a fixed price sub-contract, and the sub-contractor is expected to allow (in his unit rates) for generous fore-casts on fluctuations.
11. The Bills of Quantities shall be read in conjunction with Notes to All Tenderers, Preliminaries, General Specifications, Particular Specifications and all the relevant drawings.
12. The rates and prices tendered in the priced Bill of Quantities shall, except insofar as provided for under the sub-contract, include all plant, equipment, labour, supervision, materials, erection, testing, commissioning, setting to work, maintenance, insurance, profit, together with all general risks, liabilities, and obligations set out or implied in the sub-contract. The rates should include all government taxes, duties, levies and VAT. The quantities given are for guidance only. The whole works shall be re-measured upon practical completion, and the sub-contractor shall be paid **ONLY** for the actual work done. It is important to note that **VAT** must be included in the unit rates, the percentage applied being that stipulated by the relevant government department.
13. A rate or price shall be entered against each item in the priced Bills of Quantities whether quantities are stated or not. The cost of items against which the sub-contractor has failed to enter a rate or price shall be deemed to be covered by other rates and prices entered in the Bills of Quantities.
14. The whole cost of complying with provisions of the sub-contract shall be included in the items provided in the Bills of Quantities, and where no items are provided, the cost shall be deemed to be distributed among the rates and prices entered for the related items of work.
15. General directions and descriptions of work and materials are not necessarily repeated nor summarized in the Bills of Quantities. Reference to the relevant sections of the sub-contract document shall be made before entering prices against each item in the priced Bills of Quantities.
16. Provisional sums and contingencies included and so designated in the Bills of Quantities shall be expended in whole or in part at the direction and discretion of the Engineer.
- 17 Errors in pricing will be corrected by the Engineer for any arithmetic errors in computation or summarization as follows: -

- a) Where there is a discrepancy between amounts in figures and amounts in words, the amount in words will govern.
- b) Where there is discrepancy between the unit rate and the total amount derived from the multiplication of the unit price and the quantity, the unit rate quoted will govern unless in the opinion of the Engineer, there is an obviously gross misplacement of the decimal point in the unit prices, in which event the total amount as quoted will govern and the unit rate will be corrected._

PROPOSED PARTITIONING AND FIT OUT AT CBK PENSION TOWERS FOR NPSC

NPSC					
ITEM NO.	DESCRIPTION	UNIT	QTY	RATE KSHS.	TOTAL KSHS.
	<u>SIXTH FLOOR</u>				
	Supply, install and set to work the following:-				
A	Lighting points, wired using 3 x 1.5mm ² single core PVC insulated Copper cables drawn in 20mm diameter heavy gauge conduit concealed in floor and roof space for one/two way switching but excluding the fittings and switches.	NO.	106		
B	Signage outlet points, wired in 2C, 2.5mm sq PVC/SWA/PVC cables in ring circuit enclosed and concealed in 50mm diameter PVC conduits integrated to photocell (Pylon, Ingress and Exit signs)	NO.	2		
C	13Amps twin switched socket outlet point, wired using 3 x 2.5mm ² single core PVC insulated copper cables drawn in 25mm diameter PVC heavy gauge conduits concealed in the floors and roof space but without the outlet plate.	NO	148		
D	Powder coated cable pedestals for electrical, Data and and Telecommunication Distribution	No.	10		
E	200x 50mm 2-compartment , screwtype, off-white oven baked powder coated metal trunking complete with cover, bends and tees etc.	LM.	205		
F	200 mm upper single, screw type off-white and oven baked powder coated metal trunking template as Power Technics or equal and approved.	No.	114		
G	200 mm upper twin,screw type off-white and oven baked powder coated metal trunking template as Power Technics or equal and approved.	No.	54		
H	300x 50mm 1.2mm galvanized cable tray complete with mounting brackets, bends and all other accessories	LM.	60		
I	Data/Voice outlet point with a draw-wire left inside 25mm dia. PVC heavy gauge conduits concealed in the floor and walls but without the outlet plate.	NO.	20		
	TOTAL CARRIED TO COLLECTION PAGE				

PROPOSED PARTITIONING AND FIT OUT AT CBK PENSION TOWERS FOR NPSC

ITEM NO.	DESCRIPTION	UNIT	QTY	RATE KSHS.	TOTAL KSHS.
A	CCTV camera outlet point with a draw-wire left inside 25mm dia. PVC heavy gauge conduits concealed in the floor and walls but without the outlet plate.	NO.	8		
B	TV coaxial cable outlet point with a draw-wire left inside 25mm dia. PVC heavy gauge conduits concealed in the floor and walls but without the outlet plate.	NO.	4		
C	6 Way TP&N Distribution board for flush mounting incorporating 100A DP integral isolator, lockable cover and labeling but without MCB and as schneider Miniature circuit breakers (MCBs) rated at 500Vac as schneider for above items	NO.	2		
D	45A (TP)	NO.	2		
E	30A (SP)	NO.	16		
F	20A (SP)	NO.	4		
G	10A (SP)	NO.	12		
H	Blanking plates for items above	NO.	22		
I	Sub-mains cables drawn in conduit above and size 4C, 25mm sq PVC/SWA/PVC copper cables from clean power subboard to clean power Distribution boards 10 Amps rated moulded plate switches for flush mounting and as MK.	LM	60		
J	One gang one way as MK.	NO.	10		
K	One gang two way as MK.	NO.	2		
L	Two gang two way as MK.	NO.	2		
	TOTAL CARRIED TO COLLECTION PAGE				

PROPOSED PARTITIONING AND FIT OUT AT CBK PENSION TOWERS FOR NPSC

ITEM NO.	DESCRIPTION	UNIT	QTY	RATE KSHS.	TOTAL KSHS.
	Lighting fittings as shown in the drawings complete with tubes and lamps				
A	600x600 surface-mounted LED fitting as Phillips or equal and approved equivalent.	NO.	68		
B	600x600 surface-mounted LED fitting with 3Hr emergency kit as Phillips or equal and approved equivalent.	NO.	12		
C	Thorn ECO ZOE VARIO 96632688 LED recessed light 22 W Warm white	NO.	22		
D	Self illuminated Emergency Exit light with sign as Thorn	NO.	4		
E	WHITE 13Amps twin switched socket outlet plate and as MK or approved equivalent for raw power	NO	78		
F	RED 13Amps twin switched socket outlet plate and as MK or approved equivalent for clean power	NO	70		
G	TV Antennae coaxial point and plate for flush mounting as CRABTREE 7622	NO.	4		
H	Adaptable box of size 300x300x75mm made out of 18 gauge and for power and telephone reticulation	No	2		
	<u>ADDRESSABLE FIRE ALARM SYSTEM</u>				
	<u>Supply, install, test and commission the following</u> All detectors to be as MENVIER model numbers indicated. All detectors to be complete with mounting base				
I	Fire alarm points, wired in 3x 1.5mm sq single core cables in ring circuit enclosed and concealed PVC conduits	No.	19		
J	Conventional photoelectric smoke detectors model No. MPD720	No.	19		
K	Allow for termination to the existing fire alarm panel	item			
	TOTAL CARRIED TO COLLECTION PAGE				

PROPOSED PARTITIONING AND FIT OUT AT CBK PENSION TOWERS FOR NPSC

NPSC					
ITEM NO.	DESCRIPTION	UNIT	QTY	RATE KSHS.	TOTAL KSHS.
	SEVENTH FLOOR				
	Supply, install and set to work the following:-				
A	Lighting points, wired using 3 x 1.5mm ² single core PVC insulated Copper cables drawn in 20mm diameter heavy gauge conduit concealed in floor and roof space for one/two way switching but excluding the fittings and switches.	NO.	99		
B	Signage outlet points, wired in 2C, 2.5mm sq PVC/SWA/PVC cables in ring circuit enclosed and concealed in 50mm diameter PVC conduits integrated to photocell (Pylon, Ingress and Exit signs)	NO.	2		
C	13Amps twin switched socket outlet point, wired using 3 x 2.5mm ² single core PVC insulated copper cables drawn in 25mm diameter PVC heavy gauge conduits concealed in the floors and roof space but without the outlet plate.	NO	153		
D	Powder coated cable pedestals for electrical, Data and and Telecommunication Distribution	No.	5		
E	200x 50mm 2-compartment , screwtype, off-white oven baked powder coated metal trunking complete with cover, bends and tees etc.	LM.	180		
F	200 mm upper single, screw type off-white and oven baked powder coated metal trunking template as Power Technics or equal and approved.	No.	60		
G	200 mm upper twin,screw type off-white and oven baked powder coated metal trunking template as Power Technics or equal and approved.	No.	60		
H	300x 50mm 1.2mm galvanized cable tray complete with mounting brackets, bends and all other accessories	LM.	60		
I	Data/Voice outlet point with a draw-wire left inside 25mm dia. PVC heavy gauge conduits concealed in the floor and walls but without the outlet plate.	NO.	20		
	TOTAL CARRIED TO COLLECTION PAGE				

PROPOSED PARTITIONING AND FIT OUT AT CBK PENSION TOWERS FOR NPSC

ITEM NO.	DESCRIPTION	UNIT	QTY	RATE KSHS.	TOTAL KSHS.
A	CCTV camera outlet point with a draw-wire left inside 25mm dia. PVC heavy gauge conduits concealed in the floor and walls but without the outlet plate.	NO.	12		
B	TV coaxial cable outlet point with a draw-wire left inside 25mm dia. PVC heavy gauge conduits concealed in the floor and walls but without the outlet plate.	NO.	6		
C	6 Way TP&N Distribution board for flush mounting incorporating 100A DP integral isolator, lockable cover and labeling but without MCB and as schneider Miniature circuit breakers (MCBs) rated at 500Vac as schneider for above items	NO.	2		
D	45A (TP)	NO.	2		
E	30A (SP)	NO.	16		
F	20A (SP)	NO.	4		
G	10A (SP)	NO.	12		
H	Blanking plates for items above	NO.	22		
I	Sub-mains cables drawn in conduit above and size 4C, 25mm sq PVC/SWA/PVC copper cables from clean power subboard to clean power Distribution boards 10 Amps rated moulded plate switches for flush mounting and as MK.	LM	60		
J	One gang one way as MK.	NO.	11		
K	One gang two way as MK.	NO.	10		
L	Two gang two way as MK.	NO.	6		
	TOTAL CARRIED TO COLLECTION PAGE				

PROPOSED PARTITIONING AND FIT OUT AT CBK PENSION TOWERS FOR NPSC

ITEM NO.	DESCRIPTION	UNIT	QTY	RATE KSHS.	TOTAL KSHS.
	Lighting fittings as shown in the drawings complete with tubes and lamps				
A	600x600 surface-mounted LED fitting as Phillips or equal and approved equivalent.	NO.	66		
B	600x600 surface-mounted LED fitting with 3Hr emergency kit as Phillips or equal and approved equivalent.	NO.	12		
C	Thorn ECO ZOE VARIO 96632688 LED recessed light 22 W Warm white	NO.	16		
D	Self illuminated Emergency Exit light with sign as Thorn	NO.	5		
E	WHITE 13Amps twin switched socket outlet plate and as MK or approved equivalent for raw power	NO	75		
F	RED 13Amps twin switched socket outlet plate and as MK or approved equivalent for clean power	NO	70		
G	TV Antennae coaxial point and plate for flush mounting as CRABTREE 7622	NO.	6		
H	Adaptable box of size 300x300x75mm made out of 18 gauge and for power and telephone reticulation	No	2		
	<u>ADDRESSABLE FIRE ALARM SYSTEM</u>				
	<u>Supply, install, test and commission the following</u> All detectors to be as MENVIER model numbers indicated. All detectors to be complete with mounting base				
I	Fire alarm points, wired in 3x 1.5mm sq single core cables in ring circuit enclosed and concealed PVC conduits	No.	24		
J	Conventional photoelectric smoke detectors model No. MPD720	No.	24		
K	Allow for termination to the existing fire alarm panel	item			
	TOTAL CARRIED TO COLLECTION PAGE				

NPSC					
ITEM NO.	DESCRIPTION	UNIT	QTY	RATE KSHS.	TOTAL KSHS.
	<u>EIGHTH FLOOR</u>				
	Supply, install and set to work the following:-				
A	Lighting points, wired using 3 x 1.5mm ² single core PVC insulated Copper cables drawn in 20mm diameter heavy gauge conduit concealed in floor and roof space for one/two way switching but excluding the fittings and switches.	NO.	99		
B	Signage outlet points, wired in 2C, 2.5mm sq PVC/SWA/PVC cables in ring circuit enclosed and concealed in 50mm diameter PVC conduits integrated to photocell (Pylon, Ingress and Exit signs)	NO.	2		
C	13Amps twin switched socket outlet point, wired using 3 x 2.5mm ² single core PVC insulated copper cables drawn in 25mm diameter PVC heavy gauge conduits concealed in the floors and roof space but without the outlet plate.	NO	204		
D	Powder coated cable pedestals for electrical, Data and and Telecommunication Distribution	No.	15		
E	A/C outlet point, wired using 4 x 4mm ² single core PVC insulated copper cables drawn in 25mm diameter PVC heavy gauge conduits concealed 'in the floors and roof space but without the outlet plate.	NO	6		
F	A/C outdoor unit outlet point, wired using 4 x 6mm ² single core PVC insulated copper cables drawn in 32mm diameter PVC heavy gauge conduits concealed in the floors and roof space but without the outlet plate.	NO	2		
G	200x 50mm 2-compartment , screwtype, off-white oven baked powder coated metal trunking complete with cover, bends and tees etc.	LM.	240		
H	200 mm upper single, screw type off-white and oven baked powder coated metal trunking template as Power Technics or equal and approved.	No.	70		
I	200 mm upper twin,screw type off-white and oven baked powder coated metal trunking template as Power Technics or equal and approved.	No.	70		
J	300x 50mm 1.2mm galvanized cable tray complete with mounting brackets, bends and all other accessories	LM.	60		
K	Data/Voice outlet point with a draw-wire left inside 25mm dia. PVC heavy gauge conduits concealed in the floor and walls but without the outlet plate.	NO.	20		
	TOTAL CARRIED TO COLLECTION PAGE				

PROPOSED PARTITIONING AND FIT OUT AT CBK PENSION TOWERS FOR NPSC

ITEM NO.	DESCRIPTION	UNIT	QTY	RATE KSHS.	TOTAL KSHS.
A	CCTV camera outlet point with a draw-wire left inside 25mm dia. PVC heavy gauge conduits concealed in the floor and walls but without the outlet plate.	NO.	8		
B	TV coaxial cable outlet point with a draw-wire left inside 25mm dia. PVC heavy gauge conduits concealed in the floor and walls but without the outlet plate.	NO.	6		
C	6 Way TP&N Distribution board for flush mounting incorporating 100A DP integral isolator, lockable cover and labeling but without MCB and as schneider Miniature circuit breakers (MCBs) rated at 500Vac as schneider for above items	NO.	2		
D	45A (TP)	NO.	2		
E	30A (SP)	NO.	22		
F	20A (SP)	NO.	4		
G	10A (SP)	NO.	12		
H	Blanking plates for items above	NO.	22		
I	Sub-mains cables drawn in conduit above and size 4C, 25mm sq PVC/SWA/PVC copper cables from clean power subboard to clean power Distribution boards 10 Amps rated moulded plate switches for flush mounting and as MK.	LM	40		
J	One gang one way as MK.	NO.	11		
K	One gang two way as MK.	NO.	10		
L	Two gang two way as MK.	NO.	6		
	TOTAL CARRIED TO COLLECTION PAGE				

PROPOSED PARTITIONING AND FIT OUT AT CBK PENSION TOWERS FOR NPSC

ITEM NO.	DESCRIPTION	UNIT	QTY	RATE KSHS.	TOTAL KSHS.
	Lighting fittings as shown in the drawings complete with tubes and lamps				
A	600x600 surface-mounted LED fitting as Phillips or equal and approved equivalent.	NO.	66		
B	600x600 surface-mounted LED fitting with 3Hr emergency kit as Phillips or equal and approved equivalent.	NO.	12		
C	Thorn ECO ZOE VARIO 96632688 LED recessed light 22 W Warm white	NO.	16		
D	Self illuminated Emergency Exit light with sign as Thorn	NO.	5		
E	WHITE 13Amps twin switched socket outlet plate and as MK or approved equivalent for raw power	NO	105		
F	RED 13Amps twin switched socket outlet plate and as MK or approved equivalent for clean power	NO	99		
G	TV Antennae coaxial point and plate for flush mounting as CRABTREE 7622	NO.	6		
H	Adaptable box of size 300x300x75mm made out of 18 gauge and for power and telephone reticulation	No	2		
	<u>ADDRESSABLE FIRE ALARM SYSTEM</u>				
	<u>Supply, install, test and commission the following</u> All detectors to be as MENVIER model numbers indicated. All detectors to be complete with mounting base				
I	Fire alarm points, wired in 3x 1.5mm sq single core cables in ring circuit enclosed and concealed PVC conduits	No.	21		
J	Conventional photoelectric smoke detectors model No. MPD720	No.	21		
K	Allow for termination to the existing fire alarm panel	item			
	TOTAL CARRIED TO COLLECTION PAGE				

PROPOSED PARTITIONING AND FIT OUT AT CBK PENSION TOWERS FOR NPSC

NPSC					
ITEM NO.	DESCRIPTION	UNIT	QTY	RATE KSHS.	TOTAL KSHS.
	<u>NINTH FLOOR</u>				
	Supply, install and set to work the following:-				
A	Lighting points, wired using 3 x 1.5mm ² single core PVC insulated Copper cables drawn in 20mm diameter heavy gauge conduit concealed in floor and roof space for one/two way switching but excluding the fittings and switches.	NO.	221		
B	Signage outlet points, wired in 2C, 2.5mm sq PVC/SWA/PVC cables in ring circuit enclosed and concealed in 50mm diameter PVC conduits integrated to photocell (Pylon, Ingress and Exit signs)	NO.	2		
C	13Amps twin switched socket outlet point, wired using 3 x 2.5mm ² single core PVC insulated copper cables drawn in 25mm diameter PVC heavy gauge conduits concealed in the floors and roof space but without the outlet plate.	NO	123		
D	Powder coated cable pedestals for electrical, Data and and Telecommunication Distribution	No.	10		
E	A/C outlet point, wired using 4 x 4mm ² single core PVC insulated copper cables drawn in 25mm diameter PVC heavy gauge conduits concealed 'in the floors and roof space but without the outlet plate.	NO	2		
F	A/C outdoor unit outlet point, wired using 4 x 6mm ² single core PVC insulated copper cables drawn in 32mm diameter PVC heavy gauge conduits concealed in the floors and roof space but without the outlet plate.	NO	2		
G	200x 50mm 2-compartment , screwtype, off-white oven baked powder coated metal trunking complete with cover, bends and tees etc.	LM.	180		
H	200 mm upper single, screw type off-white and oven baked powder coated metal trunking template as Power Technics or equal and approved.	No.	70		
I	200 mm upper twin,screw type off-white and oven baked powder coated metal trunking template as Power Technics or equal and approved.	No.	70		
J	300x 50mm 1.2mm galvanized cable tray complete with mounting brackets, bends and all other accessories	LM.	60		
K	Data/Voice outlet point with a draw-wire left inside 25mm dia. PVC heavy gauge conduits concealed in the floor and walls but without the outlet plate.	NO.	20		
	TOTAL CARRIED TO COLLECTION PAGE				

PROPOSED PARTITIONING AND FIT OUT AT CBK PENSION TOWERS FOR NPSC

ITEM NO.	DESCRIPTION	UNIT	QTY	RATE KSHS.	TOTAL KSHS.
A	CCTV camera outlet point with a draw-wire left inside 25mm dia. PVC heavy gauge conduits concealed in the floor and walls but without the outlet plate.	NO.	8		
B	TV coaxial cable outlet point with a draw-wire left inside 25mm dia. PVC heavy gauge conduits concealed in the floor and walls but without the outlet plate.	NO.	6		
C	6 Way TP&N Distribution board for flush mounting incorporating 100A DP integral isolator, lockable cover and labeling but without MCB and as schneider Miniature circuit breakers (MCBs) rated at 500Vac as schneider for above items	NO.	2		
D	45A (TP)	NO.	2		
E	30A (SP)	NO.	22		
F	20A (SP)	NO.	4		
G	10A (SP)	NO.	12		
H	Blanking plates for items above	NO.	22		
I	Sub-mains cables drawn in conduit above and size 4C, 25mm sq PVC/SWA/PVC copper cables from clean power subboard to clean power Distribution boards 10 Amps rated moulded plate switches for flush mounting and as MK.	LM	60		
J	One gang one way as MK.	NO.	11		
K	One gang two way as MK.	NO.	10		
L	Two gang two way as MK.	NO.	6		
	TOTAL CARRIED TO COLLECTION PAGE				

PROPOSED PARTITIONING AND FIT OUT AT CBK PENSION TOWERS FOR NPSC

ITEM NO.	DESCRIPTION	UNIT	QTY	RATE KSHS.	TOTAL KSHS.
	Lighting fittings as shown in the drawings complete with tubes and lamps				
A	600x600 surface-mounted LED fitting as Phillips or equal and approved equivalent.	NO.	70		
B	600x600 surface-mounted LED fitting with 3Hr emergency kit as Phillips or equal and approved equivalent.	NO.	12		
C	Thorn ECO ZOE VARIO 96632688 LED recessed light 22 W Warm white	NO.	28		
D	Philips CoreLine ProSet LED recessed light	NO.	90		
E	Bathroom ceiling Type E lamp as BOB 15-2514-21-F9, 1xE27, 60W lamp	NO.	3		
F	Bathroom mirror light, Type M, as DRESDE EVO 05-0026-21-F9, 1xG11, 18W lamp	NO.	3		
G	Indirect Strip lights	LM	250		
H	Connectors and other accessories for Strip lights	NO.	10		
I	Self illuminated Emergency Exit light with sign as Thorn	NO.	5		
J	WHITE 13Amps twin switched socket outlet plate and as MK or approved equivalent for raw power	NO	65		
K	RED 13Amps twin switched socket outlet plate and as MK or approved equivalent for clean power	NO	58		
L	TV Antennae coaxial point and plate for flush mounting as CRABTREE 7622	NO.	6		
M	Adaptable box of size 300x300x75mm made out of 18 gauge and for power and telephone reticulation	No	2		
	<u>ADDRESSABLE FIRE ALARM SYSTEM</u>				
	<u>Supply, install, test and commission the following</u> All detectors to be as MENVIER model numbers indicated. All detectors to be complete with mounting base				
N	Fire alarm points, wired in 3x 1.5mm sq single core cables in ring circuit enclosed and concealed PVC conduits	No.	20		
O	Conventional photoelectric smoke detectors model No. MPD720	No.	20		
P	Allow for termination to the existing fire alarm panel	item			
	TOTAL CARRIED TO COLLECTION PAGE				

PROPOSED PARTITIONING AND FIT OUT AT CBK PENSION TOWERS FOR NPSC

ITEM NO.	DESCRIPTION	UNIT	QTY	RATE KSHS.	TOTAL KSHS.
	TENTH FLOOR Supply, install and set to work the following:-				
A	Lighting points, wired using 3 x 1.5mm ² single core PVC insulated Copper cables drawn in 20mm diameter heavy gauge conduit concealed in floor and roof space for one/two way switching but excluding the fittings and switches.	NO.	278		
B	Signage outlet points, wired in 2C, 2.5mm sq PVC/SWA/PVC cables in ring circuit enclosed and concealed in 50mm diameter PVC conduits integrated to photocell (Pylon, Ingress and Exit signs)	NO.	2		
C	13Amps twin switched socket outlet point, wired using 3 x 2.5mm ² single core PVC insulated copper cables drawn in 25mm diameter PVC heavy gauge conduits concealed in the floors and roof space but without the outlet plate.	NO	95		
D	Powder coated cable pedestals for electrical, Data and and Telecommunication Distribution	No.	15		
E	A/C outlet point, wired using 3 x 4mm ² single core PVC insulated copper cables drawn in 25mm diameter PVC heavy gauge conduits concealed 'in the floors and roof space but without the outlet plate.	NO	6		
F	A/C outdoor unit outlet point, wired using 4 x 6mm ² single core PVC insulated copper cables drawn in 32mm diameter PVC heavy gauge conduits concealed in the floors and roof space but without the outlet plate.	NO	2		
G	200x 50mm 2-compartment , screwtype, off-white oven baked powder coated metal trunking complete with cover, bends and tees etc.	LM.	145		
H	200 mm upper single, screw type off-white and oven baked powder coated metal trunking template as Power Technics or equal and approved.	No.	70		
I	200 mm upper twin,screw type off-white and oven baked powder coated metal trunking template as Power Technics or equal and approved.	No.	70		
J	300x 50mm 1.2mm galvanized cable tray complete with mounting brackets, bends and all other accessories	LM.	60		
K	Data/Voice outlet point with a draw-wire left inside 25mm dia. PVC heavy gauge conduits concealed in the floor and walls but without the outlet plate.	NO.	20		
	TOTAL CARRIED TO COLLECTION PAGE				

PROPOSED PARTITIONING AND FIT OUT AT CBK PENSION TOWERS FOR NPSC

ITEM NO.	DESCRIPTION	UNIT	QTY	RATE KSHS.	TOTAL KSHS.
A	CCTV camera outlet point with a draw-wire left inside 25mm dia. PVC heavy gauge conduits concealed in the floor and walls but without the outlet plate.	NO.	8		
B	TV coaxial cable outlet point with a draw-wire left inside 25mm dia. PVC heavy gauge conduits concealed in the floor and walls but without the outlet plate.	NO.	6		
C	6 Way TP&N Distribution board for flush mounting incorporating 100A DP integral isolator, lockable cover and labeling but without MCB and as schneider Miniature circuit breakers (MCBs) rated at 500Vac as schneider for above items	NO.	2		
D	45A (TP)	NO.	2		
E	30A (SP)	NO.	22		
F	20A (SP)	NO.	4		
G	10A (SP)	NO.	12		
H	Blanking plates for items above	NO.	22		
I	Sub-mains cables drawn in conduit above and size 4C, 25mm sq PVC/SWA/PVC copper cables from clean power subboard to clean power Distribution boards 10 Amps rated moulded plate switches for flush mounting and as MK.	LM	40		
J	One gang one way as MK.	NO.	11		
K	One gang two way as MK.	NO.	10		
L	Two gang two way as MK.	NO.	6		
	TOTAL CARRIED TO COLLECTION PAGE				

PROPOSED PARTITIONING AND FIT OUT AT CBK PENSION TOWERS FOR NPSC

ITEM NO.	DESCRIPTION	UNIT	QTY	RATE KSHS.	TOTAL KSHS.
	Lighting fittings as shown in the drawings complete with tubes and lamps				
A	600x600 surface-mounted LED fitting as Phillips or equal and approved equivalent.	NO.	40		
B	600x600 surface-mounted LED fitting with 3Hr	NO.	8		
C	Thorn ECO ZOE VARIO 96632688 LED recessed light 22 W Warm white	NO.	21		
D	Philips CoreLine ProSet LED recessed light	NO.	170		
E	Bathroom ceiling Type E lamp as BOB 15-2514-21-F9, 1xE27, 60W lamp	NO.	12		
F	Bathroom mirror light, Type M, as DRESDE EVO 05-0026-21-F9, 1xG11, 18W lamp	NO.	6		
G	Indirect Strip lights	LM	300		
H	Connectors and other accessories for Strip lights	NO.	16		
I	Self illuminated Emergency Exit light with sign as Thorn	NO.	5		
J	WHITE 13Amps twin switched socket outlet plate and as MK or approved equivalent for raw power	NO	50		
K	RED 13Amps twin switched socket outlet plate and as MK or approved equivalent for clean power	NO	45		
L	TV Antennae coaxial point and plate for flush mounting as CRABTREE 7622	NO.	6		
M	Adaptable box of size 300x300x75mm made out of 18 gauge and for power and telephone reticulation	No	2		
	<u>ADDRESSABLE FIRE ALARM SYSTEM</u>				
	<u>Supply, install, test and commission the following</u>				
	All detectors to be as MENVIER model numbers indicated. All detectors to be complete with mounting base				
N	Fire alarm points, wired in 3x 1.5mm sq single core cables in ring circuit enclosed and concealed PVC conduits	No.	18		
O	Conventional photoelectric smoke detectors model No. MPD720	No.	18		
P	Allow for termination to the existing fire alarm panel	item			
	TOTAL CARRIED TO COLLECTION PAGE				

COMMERCIAL BUILDING COLLECTION PAGE

ITEM NO.	DESCRIPTION				AMOUNT KSHS.
	TOTAL BROUGHT FORWARD FROM: -				
	NPSC - SIXTH FLOOR				
1	PAGE 2				
2	PAGE 3				
3	PAGE 4				
	TOTAL FOR SIXTH FLOOR				
	NPSC - SEVENTH FLOOR				
4	PAGE 5				
5	PAGE 6				
6	PAGE 7				
	TOTAL FOR SEVENTH FLOOR				
	NPSC - EIGHTH FLOOR				
7	PAGE 8				
8	PAGE 9				
9	PAGE 10				
	TOTAL FOR EIGHTH FLOOR				
	NPSC - NINTH FLOOR				
10	PAGE 11				
11	PAGE 12				
12	PAGE 13				
	TOTAL FOR NINTH FLOOR				
	NPSC - TENTH FLOOR				
13	PAGE 14				
14	PAGE 15				
15	PAGE 16				
	TOTAL FOR TENTH FLOOR				
	TOTAL CARRIED FORWARD TO SUMMARY PAGE				

POWER/TELEPHONE RETICULATION

ITEM NO.	DESCRIPTION	UNIT	QTY	RATE KSHS.	TOTAL KSHS.
A	Supply, install and set to work the following: <u>LV SUB-SWITCH BOARD - FOR CLEAN POWER</u> Powder coated to IP54 type tested Low Voltage Switchboard as manufactured by either schneider electric or Nationwide electric Power System with the following as per drawing; a) 1 No. 4P 250A busbar b) 2 No. 4P 250A INCOMER MCCB with shunt trip coil c) 10No. TP 80A MCCB d) 3No. TP 63A MCCB Appropriate knockouts for incoming & outgoing cables	Item	1		
B	Earthing comprising of copper earth electrode of size 1500mm long x15mm diameter enclosed by a concrete manhole of size 300x300x300mm and with removable concrete cover and bonded to the meter board using 6mm ² copper conductor	No	1		
C	Liaison with landlord and attendance charges for provision of power supply to the spaces	Item	Item		
D	Mains conduits of size 100mm dia. for telephone/fiber cables and reticulation	LM	40		
E	Trenching size 700x600mm, shifting, laying of above conduits at 450mm separation and backfilling	LM	200		
F	Trenching, sifting, tiling, and laying 2x150mm diameter heavy gauge PVC ducts with concrete surround under roads and plot entrances	LM	200		
G	Construction of 600x900 KPLC manhole complete concrete cover reinforced with y12 at 200 interval and inscribed KPLC	NO.	16		
H	40Amps TP isolator for pumps	NO.	4		
I	Allow for connection of stand-by generators by others. Rate to include liaison for testing and commissioning	Item	Item		
	TOTAL CARRIED TO SUMMARY PAGE				

ITEM NO.	DESCRIPTION	UNIT	QTY	RATE KSHS.	TOTAL KSHS.
	<u>UPS INSTALLATION</u>				
A	<p>Supply, deliver to site, install, test and commission a 50KVA three phase in three phase out, Uninterruptible Power Supply complete with bypass switch as APC/Equal and equivalent with the provided in the specification and summarised below :-</p> <p>(Product Catalogue to be attached)</p> <ul style="list-style-type: none"> a) Rating 50KVA b) Adequate Battery c) Back up time at 100% load – 30min d) Input Voltage 290 – 480V e) Input power factor 0.95 f) Input frequency 45 – 65 Hz g) Output Voltage 415V +_ 1% h) Output frequency 50Hz i) IP30 j) Noise level 40-55dB k) Multi-function LCD status and control console l) Audible and visible alarms prioritized by severity m) Emergency Power Off (EPO) n) Predictive failure notification o) Automatic restart of loads after UPS shutdown p) Manual bypass switch p) Isolator switch <p>To be environmental friendly</p>	No	1		
B	Earthing comprising of copper earth electrode of size1500mm long x15mm diameter enclosed by a concrete manhole of size450x450x450mm with removable concrete cover and a 38mm diameter PVC heavy gauge conduit lead-in duct and bonded to the UPS using 10mm2 SC cable to approval	NO	1		
C	Any other item required for proper operation of the UPS; (Specify)	ITEM	1		
	TOTAL CARRIED TO SUMMARY PAGE				

PROPOSED OFFICES FOR THE NATIONAL POLICE SERVICE COMMISSION

SUMMARY PAGE

ITEM NO.	DESCRIPTION	AMOUNT KSHS.
	TOTAL BROUGHT FORWARD FROM: -	
1	PRELIMINARIES AND GENERAL CONDITIONS FROM PAGE 1	
2	6TH - 10TH FLOOR LIGHTING AND POWER INSTALLATIONS FROM PAGE 17	
3	LV SWICTHBOARD & POWER RETICULATION FROM PAGE 18	
5	UNINTERUPPTED POWER SUPPLY (10KVA) FROM PAGE 19	
10	CONTINGENCY SUM	1,200,000.00
TOTAL INCLUDING VAT CARRIED TO FORM GRAND SUMMARY		

**PROPOSED OFFICE PARTITIONING AND FIT OUT AT CBK
PENSION TOWERS**

**SECTION X: SPECIFICATIONS AND BILLS OF QUANTITIES;
STRUCTURED CABLING, CCTV AND ACCESS CONTROL
WORKS**

GENERAL TECHNICAL SPECIFICATION FOR STRUCTURED CABLING

PART 1: GENERAL

1. Summary

This specification outlines recommended practice for selection and installation of all structured cabling materials and implementation of LAN and must be followed unless specific clearance to deviate from it has been obtained from the Engineer in writing. The campus LAN infrastructure shall be a converged network designed for Quality of service (QoS) with separate VLANs for voice and data devices.

2. Standards and Codes

All design, manufacture, materials and installation of telecommunication distribution networks shall comply with the manufacturer's requirements and the following standards, regulations, codes and recommended practice:

- (a) IEE Wiring Regulations BS 7671
- (b) Communications Commission of Kenya (CCK)
- (c) Kenya Bureau of Standards (KEBS) Specifications
- (d) ANSI/TIA/EIA-568-A: Commercial Building Telecommunications Cabling.
- (e) ANSI/TIA/EIA-568-A-1: Propagation Delay and Delay Skew Specifications for 100 ohm 4-pair cable
- (f) ANSI/TIA/EIA-568-A-2: Commercial Building Standards Updates
- (g) ANSI/TIA/EIA-569-A: Commercial Building Standard for Telecommunications Pathways and Spaces
- (h) ANSI/TIA/EIA-606: Administration Standard for the Telecommunications Infrastructure of Commercial Building
- (i) ANSI/TIA/EIA-607: Commercial Building Grounding and Bonding Requirements for Telecommunications.
- (j) ANSI/TIA/EIA TSB-607: Transmission Performance Specification for Field Testing of Unshielded Twisted Pair Cabling Systems.
- (k) ANSI/TIA/EIA TSB-75: Additional Horizontal Cabling Practices for Open Offices.

All Kenya statutory codes, rules, regulations, and ordinances governing the work, are as fully part of the specifications as if herein repeated or hereto attached. If the contractor should note items in the drawings or the specifications, construction of which would be code violations, he shall promptly draw them to the attention of the Engineer in writing. Where the requirements of other sections of the specifications are more stringent than applicable codes, rules, regulations, and ordinances, the specifications shall apply.

3. Scope of Work

The Sub-contractor shall supply and deliver all equipment, materials, labor and services necessary to provide a complete and functional telephone and data distribution system in accordance with the specifications and drawings, including but not limited to the following:

- (a) Telephone and data cabling terminations
- (b) Optical fiber and terminations
- (c) Telecommunications outlets
- (d) Terminal blocks/cross-connect systems
- (e) Equipment racks and cabinets

- (f) LAN switches
- (g) Systems testing
- (h) Documentation and submissions

The Sub-contractor shall allow in his costs for provision of all equipment, materials, labour and services not specifically mentioned or shown, but which may be necessary to complete or perfect all parts of the installation ensuring that they are in compliance with requirements stated or reasonably inferred by the contract documents.

Installation of conduits, cable trunking, other cableways, electrical wiring and outlets shall be carried out by others.

4. Permits, Fees and Certificates of Approval

The Sub-contractor shall be responsible for paying the fees and obtaining all the required permits. As pre-requisite to final acceptance, the Sub-contractor shall submit to the Engineer certificates of inspection and approval from CCK.

5. System Description

- (a) A telecommunications cabling system generally consists of one telecommunications outlet in each workstation area, wall telephones in common areas, telecommunications closets (TCs) located one in each block and computer room, and the equipment room (ER) located in the administration block.
- (b) The typical work area consists of a single gang plate with two standards compliant work area outlets.
- (c) One work area outlet consists of 1 x 4-pair **voice** Category 6 cable installed from work area outlet to the TC. Terminate voice cables on rack mounted modular patch panels located in the appropriate TC.
- (d) One work area outlet consist of 1 x 4-pair **data** Category 6 cable installed from work area outlet to the TC. Terminate data cables on rack mounted modular patch panels located in the appropriate TC.
- (e) Vertical/horizontal **copper backbone** cabling consist of multiple pair unshielded twisted pair installed from the main cross-connect (MC) to the horizontal cross-connect (HC). This backbone will be utilized for voice telecommunications service, premises switching equipment, data communications, etc.
- (f) Vertical/horizontal **fibre backbone** cabling consist of four core cable installed from the main cross-connect (MC) to the horizontal cross-connect (HC). This backbone will be utilized for premises switching equipment, data communications, etc.
- (g) External cables will be external rated, armoured cables.

6. Submittals

- (a) The Sub-contractor shall, within thirty (30) days of award of contract, submit to the Engineer shop drawings, product data (including cut sheet and catalog information) and samples required by the

contract documents. The Engineer will indicate approval of the submitted shop drawings, product data, and samples by stamping such submittals "APPROVED". Submitted shop drawings shall be initialed or signed by the Sub-contractor, showing the date and the contractor's legitimate firm names.

- (b) By submitting shop drawings, product data, and samples, the contractor represents that that he has carefully reviewed and verified materials, quantities, field measurements and field construction criteria related thereto. It also represents that the contractor has checked, coordinated, and verified that information contained within shop drawings, product data, and samples conform to be requirements of the work and the contract documents. The Engineer remains responsible for the design concept expressed in the contract documents as defined herein.
- (c) The Engineer's approval of shop drawing, product data, and samples submitted by the contractor shall not relieve the contractor of responsibility for deviation from requirements of the contract documents, unless the contractor has specifically informed the Engineer in writing of such deviation at time of submittal, and the Engineer has given written approval of the specific deviation. The contractor shall continue to be responsible for deviations from requirements of the contract documents not specifically noted by the contractor in writing and specifically approved by the Engineer in writing.
- (d) The Engineer's approval of shop drawings, product data, and samples shall not relieve the contractor of responsibility for errors or omissions in such shop drawings, product data, and samples.
- (e) The Engineer's review and approval, or other appropriate action upon shop drawings, product data, and samples, is for the limited purpose of checking for conformance with information given and design concept expressed in the contract documents. The Engineer's review of such submittals is not conducted for the purpose of determining accuracy and completeness of other details such as dimensions and quantities, or for substantiating instructions for installations or performance of equipment or systems, all of which remain the responsibility of the contractor as required by the contract documents. The review shall not constitute approval of safety precautions or of construction means, methods, techniques, sequences, or procedures. The Engineer's approval of a specific item shall not indicate approval of an assembly of which the item is a component.
- (f) The Sub-contractor shall perform no portion of the work requiring submittal and review of shop drawing, product data, or samples until the Engineer has approved the respective submittal. Such work shall be in accordance with approved submittals.
- (g) For initial submission and for re-submission required for approval, three copies of each item shall be submitted to the Engineer who will return one copy to the Sub-contractor indicating approval or amendments therein. The Sub-contractor shall make reproductions as required for his used and distribution to the main contractor and other sub-contractors.
- (h) The Sub-contractor shall submit optical loss calculations for each optical fibre run.
- (i) Shop drawings shall comprise the following:
 - 1) Backbone (riser) diagrams
 - 2) System block diagram, indicating interconnection between system components and sub-systems.
 - 3) Interface requirements, including connector types and pin-outs, to external systems and other systems or components not supplied by the contractor.
- (j) Product data shall include catalogue cut sheets and information for the following:
 - 1) Wire, cables, and optical fiber.

- 2) Outlets, jacket, faceplates and connectors.
- 3) All metallic and non-metallic raceways, including surface raceways, outlet boxes and fittings.
- 4) Terminal blocks and patch panels.
- 5) Enclosures, racks and equipment housings.

(k) Record drawings and documentation to be submitted at conclusion of the project shall include:

- 1) Approved shop drawings
- 2) Plan drawings indicating locations and identification of work area outlets, nodes, telecommunications closets (TCs) and equipment room (ER and MDF) terminating detail sheets.
- 3) Cross-connect schedules including entrance point, main cross-connects, intermediates cross-connects and horizontal cross-connect
- 4) Labeling and administration documentation
- 5) Warranty documents for equipment.
- 6) Copper certification test result printouts and diskettes.
- 7) Optical fiber power meter/light sources test results.

7. Equipment and Materials

Equipment and materials of the type for which there are independent standard testing requirements, listing, and labels, shall be listed and labeled by the independent testing laboratory.

Where equipment and materials have industry certification, labels, or standards (e.g. NEMA), this equipment shall be labeled as certified or complying with standards.

Material and equipment shall be new as dispatched from the factory and conform to grade, quality, and standards specified. Refurbished material and equipment shall not be accepted. Equipment and materials of the same type shall be a product of the same manufacturer throughout the installation.

8. Warranty

Unless otherwise specified, the contractor shall provide an unconditional manufacturer's guarantee in writing covering the cabling materials, cabling equipment and workmanship for a period of not less than fifteen (15) years from date of acceptance by the Engineer.

The Sub-contractor shall transfer manufacturer's warranties to the Employer in addition to the general systems guarantee and submit the warranties on each item in list form together with record drawings detailing specific parts within the equipment that are subject to separate conditional warranty. The Sub-contractor shall warranty propriety equipment and systems involved in this contract during the guarantee period. Final payment shall not relieve the contractor of these obligations.

9. Delivery, Storage, and Handling

Equipment shall be protected during transit, storage and handling to prevent damage, theft, soiling and misalignment. Equipment must not be stored where conditions fall outside manufacturer's recommendations for environmental conditions.

10. Sequence and Scheduling

The Sub-contractor shall submit a programme for installation of equipment and cabling indicating delivery, installation and testing start/completion dates. Dates are to be provided for bid award, installation start date, completion of station cabling, completion of riser cabling, completion of testing and labeling, cutover, completion of the final punch list, start of demolition, Engineer acceptance and demolishing completion.

PART 2: PRODUCTS

1. Manufacturers

Equipment and materials shall be of the following make or brand:

- (a) *Krone* cross connect hardware.
- (b) Active components as *Cisco or Nortel*.
- (c) LAN horizontal cabling and fibre material as *Siemon*.

Alternative equipment/material that meet or exceed the standards will also be used on approval of the Engineer. The Sub-contractor shall provide detailed specifications and product data sheets for such alternatives for consideration by the Engineer.

2. Fabrication

Fabricated custom-made equipment shall generally comply with industry standard with careful consideration given to aesthetic, technical and functional aspects of equipment and its installation.

3. Suitability

Equipment shall be suitable for the intended use, including, but not limited to environmental, regulatory and electrical requirements.

4. Voice/Data Telecommunication Service Backbone Cables

- (a) Solid copper, 24 AWG, twisted-pair backbone cable, in sizes as indicated on the drawings, with the following minimum specifications:

- 1) Characteristic impedance: - 100ohms at 1MHz.
- 2) Attenuation: - 7.9 dB maximum per 100ft at 1MHz.
- 3) Listed type: - CMR, CMP, MPR and/or MPP (select type required)

- (b) Multimode 62.5/125µm diameter tight-buffered optical fiber, with fiber counts as indicated on drawings, with the following minimum specifications:

- 1) Dual window: - 850nm and 1300nm.
- 2) Minimum bandwidth: - 500MHz-km at 1300 nm, 160MHz at 850nm.
- 3) Maximum attenuation: - 1.5 dB/km at 1300nm, 3.75 dB/km at 850nm.
- 4) Listed type: - OFNP, OFNP, OFNR, OFCR and/or OFCP (select type).
- 5) Meets or exceeds EIA/TIA standards.

(c) Single mode 8.7µm to 10µm diameter tight-buffered optical fiber, with fiber counts as indicated on drawings, with the following minimum specifications:

- | | | |
|---|---|--------------------------|
| 1) Dual windows: | - | 1310 nm and 1550nm. |
| 2) Maximum attenuation:
dB/km at 1550nm. | - | 1.0 dB/km at 1310nm, 1.0 |
| 3) Listed type:
and / or OFCP (select type). | - | OFNP, OFN, OFCR |
| 4) Meets or exceeds EIA/TIA standards. | | |

5. Voice and Data Station Cable

This shall be 4-pair 24 AWG solid copper station cable with the following minimum specifications:

- | | | |
|---|---|------------------------------|
| 1) Characteristic impedance: | - | 100 ohms \pm 15% at 10MHz. |
| 2) Attenuation:
1000 ft at 10MHz | - | 20 dB maximum per |
| 3) Worst pair near end cross talk (Next): | - | 47 dB minimum at 10MHz. |
| 4) Listed type:
and/or CM (select type). | - | CMP, CMG, MP |
| 5) Classification category 6. | | |

6. International Optical Fiber Cable

62.5/125µm diameter tight-buffered optical fibre, with 4 fibre and the following minimum specifications:

- | | | |
|--|---|-------------------------------|
| 1) Dual window: | - | 850nm and 1300nm. |
| 2) Minimum bandwidth:
1300nm, 160 MHz at 850nm. | - | 500 MHz-km at |
| 3) Maximum attenuation:
km at 850nm | - | 1.5 dB/km at 1300nm, 3.75 dB/ |
| 4) Meets or exceeds EIA/TIA standard. | | |

7. Underground Telecommunication Cable

Solid copper 24 AWG twisted pair, gel-filled duct cable, in size as indicated on the drawings with the characteristic impedance of 100 ohms at 1 MHz.

8. Underground Optical Fiber Cable

Multimode 62.5/125 µm diameter armoured, gel-filled optical fibre, with number of usable fibres as shown on drawings, with the following minimum specifications:

- | | | |
|---|---|----------------------------|
| 1) Dual window: | - | 850 nm and 1300nm. |
| 2) Minimum bandwidth:
MHz/km at 850nm. | - | 500 MHz/km at 1300 nm, 160 |
| 3) Maximum attention:
dB/km at 850 nm. | - | 1.5 dB/km at 1300nm, 3.75 |

9. Voice/Data Work Area Outlets

Single gang mounting plate with one opening to receive twin outlet module containing the following devices:

- 1) ***Voice Outlet:***
8-pin modular, Category 6, unkeyed, angled with door and blue/ivory telephone icon, pinned to ANSI/TIA/568A standards.
- 2) ***Data Outlet:***
8-pin modular, Category 6, unkeyed, angled with door and red/black data icon, pinned to ANSI/TIA/568A standards.

10. Data Only Work Area Outlet

Single gang faceplate with twin outlet modules 8-pin modular, category 6 unkeyed, angled with door and red/black data icon, pinned to ANSI/TIA/EIA/568A standards.

11. Voice Only Work Area Outlet

Single- gang faceplate with twin outlet module 8-pin modular, category 6, unkeyed, angled with door and blue/ivory telephone icon, pinned to ANSI/TIA/EIA568A standards.

12. Termination Blocks

The contractor shall utilize high density wiring blocks as approved by the Engineer. Wiring blocks are to be installed on MDF racks including wiring troughs between ER frame sections as per the drawing provided.

13. Patch Panels

19" rack mountable, 24-port 8-pin modular to insulation displacement connector (IDC) meeting Category 6 performance standards, and pinned to ANSI/TIA EIA568(A or B)standards. Typical examples of IDC connections are the 110, BIX and *Krone*.

14. Rack Mounted Optical Fiber Termination Panel

(a) Telecommunications Closets

19" rack mounted 12-port rack mounted optical fibre termination panel with cable strain relief, grounding lugs, slack storage and three 4-port duplex SC adapter modules will be provided at every TC terminating fibre cables.

(b) Main Distribution Frame

19" rack mounted 72-port rack mounted optical fibre termination panel with cable strain relief, grounding lugs, slack storage and three 12-port duplex SC connector panels with adapters and provisions for six (6) splice trays, will be provided at the fibre MDF.

15. Splice Trays

Splice trays shall be sized for single mode and multimode fibres, with clear plastic cover, 12 fibre splice capacity, compatible with splice enclosure and splicing method.

16. Optical Fiber Connectors

Ceramic tipped field installed 568 SC connectors, meeting the following minimum requirements:

- 1) Meet ANSI/TIA EIA/568-A specifications.
- 2) 0.2 dB typical insertion loss.

17. Optical Fiber Jumpers

Dual 62.5/125µm optical fiber jumper cable, 1m long with 3mm duplex 586 SC optical fibre connectors on both ends.

18. Equipment Racks

The 19" equipment rack shall have the following minimum requirements:

- 1) Rack space to suit number of panel space specified
- 2) Welded frame construction
- 3) Locking front and rear doors
- 4) Adjustable front and back equipment mounting rails drilled and tapped to EIA standards.
- 5) 8 electrical outlets.
- 6) Removable side panels
- 7) Top mounted, thermostatically controlled exhaust fan.
- 8) Smoked acrylic/glass front door.

19. Listed Building Entrance Protectors

Building entrance terminal utilizing a two (2) foot fuse link between the outside cable plant splice and the protector module with IDC type input and output terminals, 100-pair capacity and female mounting base equipped with 240-volt solid state protector modules. Sufficient protector modules to completely populate all building entrance terminals shall be provided.

20. Ethernet Routing Switch

The Ethernet routing switch (ERS) must be a versatile modular LAN switch perfectly suitable for use in both the network core and edge and supporting switch clustering technology for always-on application availability. It should also support network virtualization capability allowing the ERS to support highly flexible network topologies and support otherwise conflicting organizational structures. Additionally, the ERS should support a complete suite of convergence and security friendly features ensuring that it also is optimized for the wiring closet. It should deliver real-world layer 2 and layer 3 performance, flexible connectivity options, high density interfaces and Standards-based Power-over-Ethernet (PoE).

21. Core Switch

The core switch should support the following specifications as a minimum:

- (i) Switch architecture: - 10-slots, 720Gbps gross throughput
- (ii) Switch fabric performance: - up to 464Gbps
- (iii) Frame forwarding rate: - up to 345Mpps
- (iv) Frame length: 64 to 1518 Bytes (802.1Q Untagged), 64 to 1522 bytes (802.1Q Tagged)
- (v) Jumbo frame support
- (vi) Multi-Link Trunks: - up to 31 Groups, with 8 links per group
- (vii) VLANs: - up to 4,000 port or protocol-based (with per VLAN tagging option)
- (viii) Multiple spanning tree groups: - up to 60 or more
- (ix) VRF-Lite instances: - 120 or more
- (x) ECMP Routes: - up to 4
- (xi) Clustering capability for always-on networking
- (xii) Standards-based Power-over-Ethernet available for both 10/100 and 10/100/1000 high-density interfaces
- (xiii) Standards-based network access control for full 3rd Party support
- (xiv) Enhanced network access control and host integrity checking with Secure Network Access
- (xv) End-to-end resiliency, flexibility and capabilities for strategic converged-ready networks

22. Edge Switches

The edge switches should support the following specifications as a minimum:

- (i) Resilient stacking: - up to 8 units
- (ii) Stacking ports: - 2 built-in HiStack ports per switch
- (iii) Total stacking architecture: - not less than 320 Gbps
- (iv) Individual switch architecture: - not less than 48.8 - 184 Gbps
- (v) 100% throughput performance across 160 10/100/1000 BaseT ports handling
- (vi) Ethernet frame sizes of 64 through 1,518 bytes
- (vii) Zero frame loss when handling 238 million packets per second
- (viii) Low latency and jitter that is absolutely critical for handling voice over IP (VoIP) traffic
- (ix) Load-balancing and fail-over protection with Distributed Multi-Link Trunking (DMLT) and IEEE 802.3ad

- (x) Automatic Unit Replacement that automatically reconfigures any replaced unit
- (xi) Resilient stack IP management to ensure continued operation even if the base unit fails
- (xii) Efficient stack resiliency including simultaneous bi-directional stacking traffic on each stacking port
- (xiii) Intelligent traffic forwarding using advanced stacking architecture to determine the shortest path for optimal traffic flow across the stack

23. PoE Specifications

IEEE 802.3af compliant with power classification support

PART 3: EXECUTION

1. Pre-installation Site Survey

Liaison with the Main Contractor will be necessary to plan the crucial scheduled completions of the cable pathways, equipment room and electrical power points.

Sub-contractor shall examine areas and conditions under which the systems are to be installed and satisfy himself that satisfactory conditions have been achieved for installation of his works.

2. Installation

- (a) The sub-contractor shall be responsible for delivery, unloading, setting in place, fastening to walls, floors, ceiling, or other structures where required, interconnecting wiring of system components, equipment alignment and adjustment, and other related work whether or not expressly defined herein.
- (b) Materials and equipment shall be installed in accordance with applicable standards, code requirement and recommendations of IEE, ISO, CCK, KPLC and with manufacturer's printed instructions. Minimum bend radii shall be 10 times cable diameter.
- (c) Penetrations through floor and fire-rated walls shall utilize intermediate metallic conduit (IMC) or galvanized rigid conduit (GRC) sleeves and shall be fire-stopped after installation and testing, utilizing a fire-topping assembly approved for that application.
- (d) Station cabling shall be installed to the nearest telecommunications closet, unless otherwise noted.
- (e) Installation shall be neat and uncluttered using only approved wire, cable and wiring devices
- (f) Cables shall be attached to permanent structures with suitable attachments at intervals of 1000mm. Cables installed above removable ceilings and roof voids shall similarly be supported.
- (g) Install adequate support structures for 3m cable service loops at each TC.
- (h) Support riser cables every 3000mm and at top of run with cable grips.
- (i) Limit number of 4-pair data riser cables per grip to fifty (50)
- (j) Install cables in one continuous piece. Splices shall not be allowed except as indicated on the drawings or noted below. Coaxial trunk cables shall be laid in standard length segments, joined with approved connectors.
- (k) The Sub-contractor shall provide for over voltage protection on both ends of external cabling.

3. Grounding

- (l) Grounding shall conform to ANSI/TIA/EIA/607 (Commercial Building Grounding and Bonding Requirements for Telecommunications), BS 7671 and manufacturer's grounding requirement as minimum.
- (m) Equipment racks, housing, messenger cables, and raceways shall all be grounded.
- (n) Cabinets, racks and frames shall be connected to a single point ground which is connected to building ground system via #6 AWG green/yellow insulated copper grounding conductor.

4. Labeling

- (a) Label each outlet with permanent self-adhesive label with minimum 5mm high characters.
- (b) Label each cable with permanent self-adhesive label with minimum 3mm high character in the following locations:
 - 1) Inside receptacle box at the work area.
 - 2) Behind the communication closet patch panel or punch block.
- (c) Use labels on face of data patch panels. Provide facility assignment records in a protective cover at each telecommunications closet location that is specific to the facilities terminated therein.
- (d) Use colour-coded labels for each termination field that conforms to ANSI/TIA/EIA/606 standard colour codes for termination blocks.
- (e) Labels shall be machines-printed. Hand-lettered labels shall not be accepted.
- (f) Labels shall conform to format provided by the Engineer

5. "As-built" Drawings

Three (3) sets of as-built drawing shall be delivered to the Engineer within two (2) weeks of acceptance of the structured cabling installation by the Engineer. An additional set of as-built drawings shall be provided to the Engineer in electronic format (CD-ROM) and utilizing AutoCAD software or other that is acceptable to the Engineer.

6. Testing

- (a) Testing shall conform to TIA/EIA/TSB-67 (Transmission Performance Specifications for Field Testing of Unshielded Twisted Cabling Systems) and ANSI/TIA/EIA-568-A-1 (Propagation Delay and Delay Skew Specification for 100 ohm 4-pair Cable). Testing shall be accomplished using Cat. 6 certification field testers.
- (b) Test each pair and shield of each cable for opens, shorts, grounds and pair reversal. Correct grounded and reversed pairs. Examine open and shorted pairs to determine if problem is caused by improper termination. If termination is proper, tag bad pairs at both ends and note on termination sheets.

- (c) Perform testing of copper cables with tester meeting TIA/EIA/TSB-67 and ANSI/TI /EIA-568-A-1 requirements.
- (d) If copper backbone cables contain more than one percent (1%) bad pairs, remove and replace entire cable.

<i>Cable Size</i>	<i>Maximum Bad Pairs</i>
<100	1
101 to 300	1 - 3
301 to 600	3 - 6
>601	6

- (e) If horizontal cable contains bad conductors or shield, remove and replace cable.
- (f) Initially test optical cable with a light source and power meter utilizing procedure as stated in ANSI/TIA/EIA-526-14A: OFSTP-14A (Optical Power Loss Measurements of Installed Multimode Fibre Cables Plant) and ANSI/TIA/EIA-527-7 (currently Standard Proposal Number 2974-B): OFSTP-7 (Measurement of Optical Power Loss of Installed Single Mode Fibre Cable Plant). Measured results shall be ± 1 dB of submitted loss budget calculations. If loss figures are outside this range, test cable with optical time domain reflectometer to determine cause of variation. Correct improper splices and replace damage cables.
 - 1) Cables shall be tested at 850 nm and 1300 nm for multimode optical fibre cables and 1310 nm and 1550 nm for single mode optical fibres.
 - 2) Testing procedures shall utilize "Method B" - One jumper reference.
 - 3) Bi-directional testing of optical fibres is required.
- (g) Perform optical time domain reflectometer (OTDR) testing on each fibre optic conductor. Measured result shall be ± 1 dB of submitted loss budget calculations and submit printout for each cable tested as well as CD ROM with test results and program to view result.
- (h) Where any portion of system does not meet the specifications, correct deviation and repeat applicable testing at no additional cost.

7. Field Quality Control

- (a) The Sub-contractor shall employ a site foreman during the course of the installation to provide coordination of work of this specification and of other trades and provide technical information when requested by other trades. This person shall hold a current recognized manufacturer's installer certification or communication distribution specialist registration and shall be responsible for quality control during installation, equipment set up and testing.
- (b) At least 3 installation personnel shall be registered/certified telecommunications installers.
- (c) Installations personnel shall meet manufactures training and education requirement for implementation of extended warranty program.

SECTION B:
PARTICULAR SPECIFICATION
FOR
STRUCTURED CABLING INSTALLATIONS

PARTICULAR SPECIFICATION

1.1 Description of the Site

The site of the proposed Sub-contract Works is located in Nairobi central business district on 6th to 10th floors of the CBK Pension Towers.

1.2 Scope of the Work

This technical specification describes the requirements of:

- (i) Structured cabling installation and implementation of LAN infrastructure. The facility LAN infrastructure shall be a converged network designed for Quality of service (QoS) with separate VLANs for voice and data devices
- (ii) A Security system comprising biometric access control points and IP POE CCTV cameras as per designs and description.

The work shall comprise supply, installation, testing, programming, training, commissioning and initial maintenance of the entire system.

1.3 Climatic Conditions

The following climatic conditions can apply at the site of the contract works and all the plant, equipment, apparatus, materials and installations shall be suited for these conditions:

Mean maximum temperature	35°C.
Mean minimum temperature	15°C.
Range of relative humidity	39% - 97%
Salt in the temperature	up to 0.02%
Solar radiation, February maximum 630 Langley's	Mean

Extremely heavy rains fall at certain periods of the year and the contractor shall be deemed to have taken account of this factor both in his prices and in his planning of the execution of the contract works. Equipment de-rating factors for the temperature and altitude shall be stated.

It is intended that the accommodation shall not be air-conditioned. Any requirements of this nature upon which the tender is conditioned shall be clearly stated in the tender.

SECTION C:
BILL OF QUANTITIES
BILL OF QUANTITIES

1. REMARKS TO THE BILL OF QUANTITIES

1.1 General

The Bill of Quantities, which contains the unit prices of all goods and services, is an inseparable and integral part of the Tender Documents. The Bill of Quantities has been compiled for calculating the costs of all Works performed. It shall serve as a basis for payments on account as well as for the final settlement of accounts according to Drawings and Specifications and the articles of the Contract.

Each item of the Bill of Quantities contains only a brief description of the work concerned, a detailed description of the items is to be found in the Specifications or in other documents of the contract. The costs of these items include any preparation, procurement, required work for erection as well as procurement of all necessary basic or secondary materials, wages, lost materials and accurate execution which is to be complete and accepted by the Engineer according to Drawings and Specification as has been stipulated in the Tender Documents.

The tenderer shall make himself completely acquainted with all conditions, obligations and Specifications of the Tender Documents and Drawings before giving his prices, he shall have no right either to claim any price revision on the basis of ignorance of the Tender Documents and Drawings or local conditions or to make any claims as regards the integrity of the unit prices of the Bill of Quantities.

The Conditions of Contract, Specifications and Drawings shall be read in conjunction with the Bill of Quantities. The costs of complying with all conditions, obligations and liabilities described in the Conditions of Contract, Specifications and Drawings, including all overhead charges and profits, shall be deemed to be spread over and included in the prices or sums stated by the tenderer in the Bill of Quantities.

The Bill of Quantities must be fully priced and totaled in ink and no blank space shall be left; every item must be either priced or provided with reference to the other items or items under which costs thereof has been included.

1.2 Statements

The tenderer shall supply to the Employer:

- (a) A statement that the tenderer has familiarized himself with the local conditions and that he has conducted an on-the-spot survey and site inspection.
- (b) A statement that the tender price includes every item of hardware and software and whatever else is found necessary to hand over a complete and working installation to Employer

- (c) A guarantee on the comprehensiveness of his work. This means that all material, labour and services necessary to complete the installation, modern in all respects, on the guidelines of this Specification are included in the offer and will be specifically been mentioned.

1.3 Quantities

The quantities set out in the Bill of Quantities are estimated and their accuracy or inaccuracy shall in no way affect the validity of the tenders or of any Contract based thereon. The total amount for the various items set out in the Bill of Quantities at the rates or prices inserted by the tenderer shall be stated in each case, but this figure is required solely for the purpose of facilitating the comparison of the various tenders received and shall not deemed to be the actual sum which is to be paid to the Contractor for the execution of the works. The actual sum, which is to be paid to the Contractor whose tender is accepted, will be determined by measuring the work actually done in accordance with the Contract and valuing it at the rates or prices inserted by the Contractor in the Bill of Quantities.

Works which are no longer accessible after execution are to be locally measured during execution in the presence of a representative of the Engineer and of the Contractor, and are to be noted down on site-measuring sheets. These sheets are to be accepted as a basis for final settlements of accounts but only if they are signed by the Contractor and the Engineer's representative and/or the Engineer.

1.4 Site Installation

If the Contractor requires areas and buildings for storage, working, accesses, etc. these are to be acquired by the Contractor.

1.5 Extra Proposals

The tenderer can add to his tender extra proposals or partial extra proposals. The nominal dimensions given in the Tender Documents and the given condition and rules have to be considered.

The tenderer shall supply to the Employer a statement for any additional proposal that the price of the proposal includes all cost for hardware and software and whatever else is found necessary to hand over a complete and working installation to the Engineer.

1.6 Preliminaries

Sub-contractor's preliminaries are as per those described in Section C: Sub-contract Preliminaries and General Conditions of Contract. The preliminaries form part of this contract and together with the Bill of Quantities covers for the costs involved in complying with all the requirements for the proper execution of the whole of the works in the contract.

The sub-contractor shall study the conditions and make provision to cover their cost in this Schedule. However, the Tenderer is free to include and price any other items he deems necessary taking into consideration conditions he is likely to encounter on site. Where the sub-contractor fails to insert his

price in any item, he shall be deemed to have made adequate provision for this on various items in the Price Schedules.

1.7 Bill of Quantities

The brief description of the items in these Schedules should in no way modify or supersede the detailed descriptions in the contract drawings, conditions of contract and specifications and the unit of measurements and observations are as those described in Clause 1.0.5 of Section C.

1.8 Summary of Prices

The summary contains tabulation of the separate parts of the Bills of Quantities carried forward with provisional sums, contingencies and any prime cost sums included. The sub-contractor shall insert his totals and enter his grand total tender sum in the space provided below the summary.

This grand total tender sum shall be entered in the Form of Tender provided elsewhere in this document.

SPECIAL NOTES ON PRICING OF THE BILLS OF QUANTITIES

1. The Bills of Quantities form part of the contract documents and are to be read in conjunction with the contract drawings and specifications of materials and works.
2. The prices quoted shall be deemed to include for all obligations under the sub-contract including but not limited to supply of materials, labour, delivery to site, storage on site, installation, testing, commissioning and all taxes (including **16% VAT and 3% withholding tax**). In accordance with Government policy, the 16% VAT **shall be deducted** from all payments made to the tenderer, and the same shall be forwarded to the **Kenya Revenue Authority**.
3. All prices omitted from any item, section or part of the Bills of Quantities shall be deemed to have been included in another item, section or part.
4. The brief descriptions of the items given in the Bills of Quantities are for the purpose of establishing a standard to which the sub-contractor shall adhere to. Otherwise alternative brands of **equal and approved** quality will be accepted.
5. Should the sub-contractor install any material not specified herein before receiving **written approval** from the Architect or Engineer, the sub-contractor shall remove the material in question and, **at his own cost**, install the proper material.
6. The grand total of prices in the price summary page must be carried forward to the **Form of Tender for the tender to be deemed valid**.
7. Tenderers must enclose, together with their submitted tenders, detailed coloured manufacturer's brochures detailing technical literature and specifications on all the equipment they intend to offer.

STATEMENT OF COMPLIANCE

1. I confirm compliance with all clauses of the General Conditions, General Specifications and Particular Specifications in this tender.
2. I confirm I have not made and will not make any payment to any person which can be perceived as inducement to win this tender.

Signed:for and on behalf of the Tenderer

Date:

Official Rubber Stamp:

.....

PROPOSED OFFICES FOR THE NATIONAL POLICE SERVICE COMMISSION

BILLS OF QUANTITIES FOR STRUCTURED CABLING, TELEPHONE AND CCTV

RATES TO INCLUDE VAT WHERE APPLICABLE

ITEM NO.	DESCRIPTION	UNIT	QTY	RATE KSHS.	TOTAL KSHS.
	<u>PRELIMINARIES AND GENERAL CONDITIONS</u>				
A	Preparation of working & As built drawings "As installed" record drawings.	Sum	1		
B	Printing of paper copies of item C above.	Sum	1		
	TOTAL CARRIED TO SUMMARY PAGE				

NPSC					
ITEM NO.	DESCRIPTION	UNIT	QTY	RATE KSHS.	TOTAL KSHS.
	<u>SIXTH FLOOR</u>				
	Supply, install, lay and set to work structured cabling system drawn in trunking provided elsewhere: - Rates to include, Vat, labour and any others charges				
A	Category 6A 4 pair F/UTP cable as Siemon fully wired- Each point approximately 55 metres long	No	126		
B	Dual RJ 45 category 6A UTP dual outlets plate complete with flush mounting plate and module as Siemon.	No	59		
C	Category 6A 4 pair F/UTP 1m patch cord as Siemon	No.	118		
D	Category 6A 4 pair F/UTP 3m patch cord as Siemon	No.	118		
E	18U wall-mounted communications cabinet complete with all cable management accessories, glass door with lock and key, adjustable shelving as Siemon or approved equivalent. The cabinet shall be fitted with extractor fans and 13Amp switched socket outlet extensions	No.	2		
F	Provide for earthing of the cabinet	No.	1		
G	APC Smart-UPS C 1500VA 2U, 1.5kva, Rack mountable LCD 230v smart connect (SMC1500I-2UC)	No.	1		
H	Network shielded Patch Panels-24 Ports Cat 6A as Siemon or as approved.	No.	6		
I	Access switch as 48-port Cisco Catalyst C9300-48P-A Ethernet Switch or approved equivalent	No.	2		
J	Cisco StackWise-480 1m stacking cable	No.	1		
K	2U Horizontal patch lead organiser	No.	6		
L	8 core 50/125µm multimode indoor fibre cable	LM	200		
M	24 port rack mount pre-loaded odf-optical distribution frame	No.	4		
N	Flat adaptor plate	No.	60		
O	Flat blank	No.	30		
P	1m multimode fibre patch cords	No.	2		
Q	Cisco GLC-TE 1000BASE-T Standard SFP Transceiver Module	No.	2		
R	Cisco Catalyst 9100 Series Access Points	No.	8		
S	Any other item required for proper functioning of the installation (Specify)	item			
T	Equipment installation, termination and programming	No.	1		
	TOTAL CARRIED TO SUMMARY PAGE				

NPSC					
ITEM NO.	DESCRIPTION	UNIT	QTY	RATE KSHS.	TOTAL KSHS.
	<u>SEVENTH FLOOR</u>				
	Supply, install, lay and set to work structured cabling system drawn in trunking provided elsewhere: -				
	Rates to include, Vat, labour and any others charges				
A	Category 6A 4 pair F/UTP cable as Siemon fully wired- Each point approximately 55 metres long	No	168		
B	Dual RJ 45 category 6A UTP dual outlets plate complete with flush mounting plate and module as Siemon.	No	80		
C	Category 6A 4 pair F/UTP 1m patch cord as Siemon	No.	160		
D	Category 6A 4 pair F/UTP 3m patch cord as Siemon	No.	160		
E	18U wall-mounted communications cabinet complete with all cable management accessories, glass door with lock and key, adjustable shelving as Siemon or approved equivalent. The cabinet shall be fitted with extractor fans and 13Amp switched socket outlet extensions	No.	2		
F	Provide for earthing of the cabinet	No.	1		
G	APC Smart-UPS C 1500VA 2U, 1.5kva, Rack mountable LCD 230v smart connect (SMC1500I-2UC)	No.	1		
H	Network shielded Patch Panels-24 Ports Cat 6A as Siemon or as approved.	No.	6		
I	Access switch as 48-port Cisco Catalyst C9300-48P-A Ethernet Switch or approved equivalent	No.	2		
J	Cisco StackWise-480 1m stacking cable	No.	2		
K	2U Horizontal patch lead organiser	No.	6		
L	8 core 50/125µm multimode indoor fibre cable	LM	160		
M	24 port rack mount pre-loaded odf-optical distribution frame	No.	2		
N	Flat adaptor plate	No.	60		
O	Flat blank	No.	30		
P	1m multimode fibre patch cords	No.	2		
Q	Cisco GLC-TE 1000BASE-T Standard SFP Transceiver Module	No.	2		
R	Cisco Catalyst 9100 Series Access Points	No.	8		
S	Any other item required for proper functioning of the installation (Specify)	item			
T	Equipment installation, termination and programming	No.	1		
	TOTAL CARRIED TO SUMMARY PAGE				

NPSC					
ITEM NO.	DESCRIPTION	UNIT	QTY	RATE KSHS.	TOTAL KSHS.
	<u>EIGHTH FLOOR</u>				
	Supply, install, lay and set to work structured cabling system drawn in trunking provided elsewhere: -				
	Rates to include, Vat, labour and any others charges				
A	Category 6A 4 pair F/UTP cable as Siemon fully wired- Each point approximately 55 metres long	No	216		
B	Dual RJ 45 category 6A UTP dual outlets plate complete with flush mounting plate and module as Siemon.	No	104		
C	Category 6A 4 pair F/UTP 1m patch cord as Siemon	No.	108		
D	Category 6A 4 pair F/UTP 3m patch cord as Siemon	No.	208		
E	18U wall-mounted communications cabinet complete with all cable management accessories, glass door with lock and key, adjustable shelving as Siemon or approved equivalent. The cabinet shall be fitted with extractor fans and 13Amp switched socket outlet extensions	No.	1		
F	38U free-standing communications cabinet complete with all cable management accessories, glass door with lock and key, adjustable shelving as Siemon or approved equivalent. The cabinet shall be fitted with extractor fans and 13Amp switched socket outlet extensions	No.	4		
G	Network shielded Patch Panels-24 Ports Cat 6A as Siemon or as approved.	No.	9		
H	Access switch as 48-port Cisco Catalyst C9300-48P-A Ethernet Switch or approved equivalent	No.	2		
I	Access switch as 24-port Cisco Catalyst C9300-24P-A Ethernet Switch or approved equivalent	No.	1		
J	Aggregation switch as Cisco Catalyst C9500-24Y4C-A or as approved	No.	1		
K	Cisco StackWise-480 1m stacking cable	No.	4		
L	2U Horizontal patch lead organiser	No.	10		
M	8 core 50/125µm multimode indoor fibre cable	LM	100		
N	24 port rack mount pre-loaded odf-optical distribution frame	No.	4		
O	Flat adaptor plate	No.	60		
P	Flat blank	No.	30		
	TOTAL CARRIED TO COLLECTION PAGE				

PROPOSED PARTITIONING AND FIT OUT AT CBK PENSION TOWERS FOR NPSC

ITEM NO.	DESCRIPTION	UNIT	QTY	RATE KSHS.	TOTAL KSHS.
A	1m multimode fibre patch cords	No.	2		
B	Cisco GLC-TE 1000BASE-T Standard SFP Transceiver Module	No.	2		
C	Cisco Catalyst 9100 Series Access Points	No.	8		
D	Any other item required for proper functioning of the installation (Specify)	item			
E	Equipment installation, termination and programming	No.	1		
	TOTAL CARRIED TO COLLECTION PAGE				
	COLLECTION FOR EIGHTH FLOOR				
	Total brought forward from page 4				
	Total brought down from above				
	TOTAL CARRIED TO SUMMARY PAGE				

NPSC					
ITEM NO.	DESCRIPTION	UNIT	QTY	RATE KSHS.	TOTAL KSHS.
	<u>NINTH FLOOR</u>				
	Supply, install, lay and set to work structured cabling system drawn in trunking provided elsewhere: -				
	Rates to include, Vat, labour and any others charges				
A	Category 6A 4 pair F/UTP cable as Siemon fully wired- Each point approximately 55 metres long	No	116		
B	Dual RJ 45 category 6A UTP dual outlets plate complete with flush mounting plate and module as Siemon.	No	54		
C	Category 6A 4 pair F/UTP 1m patch cord as Siemon	No.	108		
D	Category 6A 4 pair F/UTP 3m patch cord as Siemon	No.	108		
E	18U wall-mounted communications cabinet complete with all cable management accessories, glass door with lock and key, adjustable shelving as Siemon or approved equivalent. The cabinet shall be fitted with extractor fans and 13Amp switched socket outlet extensions	No.	2		
F	Network shielded Patch Panels-24 Ports Cat 6A as Siemon or as approved.	No.	6		
G	Access switch as 48-port Cisco Catalyst C9300-48P-A Ethernet Switch or approved equivalent	No.	2		
H	Cisco StackWise-480 1m stacking cable	No.	2		
I	2U Horizontal patch lead organiser	No.	6		
J	8 core 50/125µm multimode indoor fibre cable	LM	180		
K	24 port rack mount pre-loaded odf-optical distribution frame	No.	4		
L	Flat adaptor plate	No.	60		
M	Flat blank	No.	30		
N	1m multimode fibre patch cords	No.	2		
O	Cisco GLC-TE 1000BASE-T Standard SFP Transceiver Module	No.	2		
P	Cisco Catalyst 9100 Series Access Points	No.	8		
Q	Any other item required for proper functioning of the installation (Specify)	item			
R	Equipment installation, termination and programming	No.	1		
	TOTAL CARRIED TO SUMMARY PAGE				

NPSC					
ITEM NO.	DESCRIPTION	UNIT	QTY	RATE KSHS.	TOTAL KSHS.
	<u>TENTH FLOOR</u>				
	Supply, install, lay and set to work structured cabling system drawn in trunking provided elsewhere: -				
	Rates to include, Vat, labour and any others charges				
A	Category 6A 4 pair F/UTP cable as Siemon fully wired- Each point approximately 55 metres long	No	88		
B	Dual RJ 45 category 6A UTP dual outlets plate complete with flush mounting plate and module as Siemon.	No	40		
C	Category 6A 4 pair F/UTP 1m patch cord as Siemon	No.	80		
D	Category 6A 4 pair F/UTP 3m patch cord as Siemon	No.	80		
E	18U wall-mounted communications cabinet complete with all cable management accessories, glass door with lock and key, adjustable shelving as Siemon or approved equivalent. The cabinet shall be fitted with extractor fans and 13Amp switched socket outlet extensions	No.	2		
F	Network shielded Patch Panels-24 Ports Cat 6A as Siemon or as approved.	No.	4		
G	Access switch as 48-port Cisco Catalyst C9300-48P-A Ethernet Switch or approved equivalent	No.	2		
H	2U Horizontal patch lead organiser	No.	6		
I	8 core 50/125µm multimode indoor fibre cable	LM	200		
J	24 port rack mount pre-loaded odf-optical distribution frame	No.	4		
K	Flat adaptor plate	No.	60		
L	Flat blank	No.	30		
M	1m multimode fibre patch cords	No.	2		
N	Cisco GLC-TE 1000BASE-T Standard SFP Transceiver Module	No.	2		
O	Cisco Catalyst 9100 Series Access Points	No.	8		
P	Any other item required for proper functioning of the installation (Specify)	item			
Q	Equipment installation, termination and programming	No.	1		
	TOTAL CARRIED TO SUMMARY PAGE				

ITEM NO.	DESCRIPTION	UNIT	QTY	RATE KSHS.	TOTAL KSHS.
	<u>ACCESS CONTROL AND CCTV</u>				
	Access control starter kit including software, control panel, battery and palm/card reader as below	set	1		
A	Cabling for access control using cat 6 UTP cable average length of 45m UTP	No	10		
B	Door kit with reader, card and keypad (Attach catalogue)	No.	10		
C	Power supply unit	No.	10		
D	Back up battery	No.	10		
E	Standard Maglock with Z & L Bracket	No.	10		
F	Installation of Access control and locks	No.	10		
G	Network Documentation	item	1		
H	Any other materials necessary to complete the works, Specify	item	1		
I	Testing and commissioning of the new installation	item	1		
	<u>CCTV INSTALLATION</u>				
J	Supply and install IP network camera as Hikvision 4MP dome type, with motion detection, night vision complete with cabling, housing and connection	NO	25		
L	32-channel Network video recorder as Hikvision with adequate 2no. 9TB SATA storage, HDMI and VGA outputs and 40 inch view screen	Item	1		
M	Any other materials necessary to complete the works, Specify	item	1		
N	Testing and commissioning	Item	1		
	TOTAL CARRIED TO SUMMARY PAGE				

PROPOSED OFFICES FOR THE NATIONAL POLICE SERVICE COMMISSION

SUMMARY PAGE

ITEM NO.	DESCRIPTION				AMOUNT KSHS.
	TOTAL BROUGHT FORWARD FROM: -				
1	PRELIMINARIES AND GENERAL CONDITIONS FROM PG 1				
2	SIXTH FLOOR FROM PG 2				
3	SEVENTH FLOOR FROM PG 3				
4	EIGHTH FLOOR FROM PAGE 5				
5	NINTH FLOOR FROM PG 6				
6	TENTH FLOOR FROM PG 7				
7	ACCESS CONTROL AND CCTV FROM PG 8				
8	CONTINGENCY SUM				1,500,000.00
	TOTAL INCLUDING VAT CARRIED TO GRAND SUMMARY				

**PROPOSED OFFICE PARTITIONING AND FIT OUT AT CBK
PENSION TOWERS**

**SECTION XI: SPECIFICATIONS AND BILLS OF QUANTITIES;
HEATING, VENTILATION AND AIR CONDITIONING WORKS**

PART A: GENERAL MECHANICAL SPECIFICATION

1.01 General

This section specifies the general requirement for plant, equipment and materials forming part of the Sub-contract Works and shall apply except where specifically stated elsewhere in the Specification or on the Contract Drawings.

1.02 Quality of Materials

All plant, equipment and materials supplied as part of the Sub-contract Works shall be new and of first class commercial quality, shall be free from defects and imperfections and where indicated shall be of grades and classifications designated herein.

All products or materials not manufactured by the Sub-contractor shall be products of reputable manufacturers and so far as the provisions of the Specification is concerned shall be as if they had been manufactured by the Sub-contractor.

Materials and apparatus required for the complete installation as called for by the Specification and Contract Drawings shall be supplied by the Sub-contractor unless mention is made otherwise.

Materials and apparatus supplied by others for installation and connection by the Sub-contractor shall be carefully examined on receipt. Should any defects be noted, the Sub-contractor shall immediately notify the Engineer.

Defective equipment or that damaged in the course of installation or tests shall be replaced as required to the approval of the Engineer.

1.03 Regulations and Standards

The Sub-contract Works shall comply with the current editions of the following:

- The Kenya Government Regulations.
- The United Kingdom Institution of Electrical Engineers (IEE) Regulations for the Electrical Equipment of Buildings.
- The United Kingdom Chartered Institute of Building Services Engineers (CIBSE) Guides.
- British Standard and Codes of Practice as published by the British Standards Institution (BSI)
- The Local Council By-laws.
- The Electricity Supply Authority By-laws.
- Local Authority By-laws.
- The Kenya Building Code Regulations.
- The Kenya Bureau of Standards

1.04 Electrical Requirements

Plant and equipment supplied under this Sub-contract shall be complete with all necessary motor starters, control boards, and other control apparatus.

Where control panels incorporating several starters are supplied they shall be complete with a main isolator.

The supply power up to and including local isolators shall be provided and installed by the Electrical Sub-contractor. All other wiring and connections to equipment shall form part of this Sub-contract and be the responsibility of the Sub-contractor. The Sub-contractor shall supply three copies of all schematic, cabling and wiring diagrams for the Engineer's approval. The starting current of all electric motors and equipment shall not exceed the maximum permissible starting currents described

in the Kenya Power Company (KP) By-laws.

All electrical plant and equipment supplied by the Sub-contractor shall be rated for the supply voltage and frequency obtained in Kenya, that is 415 Volts, 50Hz, 3-Phase or 240Volts, 50Hz, 1-phase. Any equipment that is not rated for the above voltages and frequencies shall be rejected by the Engineer.

1.05 Transport and Storage

All plant and equipment shall, during transportation be suitably packed, crated and protected to minimise the possibility of damage and to prevent corrosion or other deterioration.

On arrival at site all plant and equipment shall be examined and any damage to parts and protective priming coats made good before storage or installation.

Adequate measures shall be taken by the Sub-contractor to ensure that plant and equipment do not suffer any deterioration during storage.

Prior to installation all piping and equipment shall be thoroughly cleaned.

If, in the opinion of the Engineer any equipment has deteriorated or been damaged to such an extent that it is not suitable for installation, the Sub- contractor shall replace this equipment at his own cost.

1.06 Site Supervision

The Sub-contractor shall ensure that there is an English-speaking supervisor on the site at all times during normal working hours.

1.07 Installation

Installation of all special plant and equipment shall be carried out by the Sub- contractor under adequate supervision from skilled staff provided by the plant and equipment manufacturer or his appointed agent in accordance with the best standards of modern practice and to the relevant regulations and standards described under Clause 1.03 of this Section.

1.08 Testing

1.08.1 General

The Sub-contractor's attention is drawn to Part 'C' Clause 1.38 of the "Preliminaries and General Conditions".

1.08.2 Material Tests

All material for plant and equipment to be installed under this Sub-contract shall be tested, unless otherwise directed, in accordance with the relevant B.S Specification concerned.

For materials where no B.S. Specification exists, tests are to be made in accordance with the best modern commercial methods to the approval of the Engineer, having regard to the particular type of the materials concerned.

The Sub-contractor shall prepare specimens and performance tests and analyses to demonstrate conformance of the various materials with the applicable standards.

If stock material, which has not been specially manufactured for the plant and equipment specified is used, then the Sub-contractor shall submit satisfactory evidence to the Engineer that such materials conform to the requirements stated herein in which case tests of material may be partially or completely waived.

Certified mill test reports of plates, piping and other materials shall be deemed acceptable.

1.08.3 Manufactured Plant and Equipment – Work Tests

The rights of the Engineer relating to the inspection, examination and testing of plant and equipment during manufacture shall be applicable to the Insurance Companies or Inspection Authorities so nominated by the Engineer. The Sub-contractor shall give two weeks' notice to the Engineer of the manufacturer's intention to carry out such tests and inspections.

The Engineer or his representative shall be entitled to witness such tests and inspections. The cost of such tests and inspections shall be borne by the Sub-contractor.

Six copies of all test and inspection certificates and performance graphs shall be submitted to the Engineer for his approval as soon as possible after the completion of such tests and inspections.

Plant and equipment which is shipped before the relevant test certificate has been approved by the Engineer shall be shipped at the Sub-contractor's own risk and should the test and inspection certificates not be approved, new tests may be ordered by the Engineer at the Sub-contractor's expense.

1.08.4 Pressure Testing

All pipework installations shall be pressure tested in accordance with the requirements of the various sections of this Specification. The installations may be tested in sections to suit the progress of the works but all tests must be carried out before the work is buried or concealed behind building finishes. All tests must be witnessed by the Engineer or his representative and the Sub-contractor shall give 48 hours notice to the Engineer of his intention to carry out such tests.

Any pipework that is buried or concealed before witnessed pressure tests have been carried out shall be exposed at the expense of the Sub-contractor and the specified tests shall then be applied.

The Sub-contractor shall prepare test certificates for signature by the Engineer and shall keep a progressive and up-to-date record of the section of the work that has been tested.

1.09 Colour Coding

Unless stated otherwise in the Particular Specification all pipework shall be colour coded in accordance with the latest edition of B.S 1710 and to the approval of the Engineer or Architect.

1.10 Welding

1.10.1 Preparation

Joints to be made by welding shall be accurately cut to size with edges sheared, flame cut or machined to suit the required type of joint. The prepared surface shall be free from all visible defects such as lamination, surface imperfection due to shearing or flame cutting operation, etc., and shall be free from rust scale, grease and other foreign matter.

1.10.2 Method

All welding shall be carried out by the electric arc processing using covered electrodes in accordance with B.S. 639.

Gas welding may be employed in certain circumstances provided that prior approval is obtained from

the Engineer.

1.10.3 Welding Code and Construction

All welded joints shall be carried out in accordance with the following Specifications:

a) Pipe Welding

All pipe welds shall be carried out in accordance with the requirements of B.S.806.

b) General Welding

All welding of mild steel components other than pipework shall comply with the general requirements of B.S. 1856.

1.10.4 Welders Qualifications

Any welder employed on this Sub-contractor shall have passed the trade tests as laid down by the Government of Kenya.

The Engineer may require to see the appropriate to see the appropriate certificate obtained by any welder and should it be proved that the welder does not have the necessary qualifications the Engineer may instruct the Sub- contractor to replace him by a qualified welder.

Standards

The design, manufacture and testing of equipment and system to be offered: -

(a) Air Conditioning System.

All the above systems shall be carried out as per the latest ASHRAE and other local relevant standards

PART B: SPECIFIC SPECIFICATION FOR HVAC SYSTEM

General Design Data

Location: Nairobi, Kenya

Nearest Airport: JKIA, Nairobi

Ambient Design Conditions: As per ASHRAE Data Inside

Design Condition:

Dry-bulb temperature: $12^{\circ}\text{C} \pm 2\%$

Relative Humidity: $55\% \pm 5\%$

OUTDOOR UNIT

Variable Refrigerant Flow (VRF) HVAC system shall be a variable capacity, direct expansion (DX) system. Each system shall have single or Multiple, all inverter compressor(s). Each system shall be connected to Multiple indoor units (IDUs-ducted, non-ducted or mixed combinations) through a common refrigerant piping network and integrated system controls and communication network. Each indoor unit shall be controlled individually or as a group.

Heat Pump unified heating and cooling system shall be an air cooled system allowing user to configure in the field a heat pump system consisting of one to four outdoor unit modules, conjoined to make 8 to 96 HP single refrigerant circuit. Heat pump systems shall require a liquid pipe and gas pipe.

The heat pump system shall be capable of operating with $<380\text{--}415\text{V}$ with a tolerance of $\pm 10\% > 50\text{Hz}$, 3 phase power & 380V with a tolerance of $\pm 10\% > 60\text{Hz}$, 3 phase power.

Heat Pump

Outdoor Unit shall be capable of maintaining continuous compressor operation under all of the following operating ambient air conditions.

- Operating ambient air conditions Cooling: 10°C DB to 48°C DB and Heating: -25°C WB to 18°C WB
- The VRF system shall maintain normal cooling or heating operation at all IDUs while any one IDU is powered down for service. When power is restored to the IDU serviced, normal operation shall be restored with no system shutdown, interruption, reset, or power cycling of the outdoor unit.

General features:

The air-conditioning system shall use R-410A refrigerant.

The system shall be capable of an automatic refrigerant charge function for use in both the heating and cooling mode to ensure the proper amount of refrigerant is installed into the system.

Each system shall be consisted of one, two, three or four air source outdoor units.

Multi-frame configurations shall be field piped together using manufacturer's designed and supplied Y-branch kit

System shall employ self-diagnostics function to identify any malfunctions and provide type and location of malfunctions via fault alarms.

Refrigerant circuit configuration for heat pump system

- The refrigerant circuit shall be constructed using field provided copper piped together with manufacturer supplied y- branches or headers connected to Multiple (IDUs-ducted, non-ducted or

combination thereof) indoor units to effectively and efficiently control heating or cooling operation of the VRF system.

- All refrigerant pipe, y-branches, elbows and valves shall be individually insulated with no air gaps. All joints shall be glued and sealed.

Factory installed microprocessor controls in the outdoor unit(s) and indoor unit(s) shall perform functions to optimize the operation of the VRF system and communicate in a daisy chain configuration between outdoor unit and indoor unit(s) via RS485 network.

Controls shall also be available to control other building systems as required from the VRF control system. DIO/AIO capabilities shall be available as well as a central controller to perform operation changes, schedules and other duties as required by this specification.

Addition of separate building control system shall not be required. Other control devices and sequences shall be as specified in other sections of this project specification.

Inverter PCB cooling: Cooling of the inverter PCB shall be conducted by way of high pressure, sub-cooled liquid refrigerant via heat exchanger attached to rear side of inverter PCB. The full capacity flow of refrigerant shall pass through the heat exchangers to maximize the cooling effect of the PCBs and to aid in the evaporation process and capacity of the outdoor coil during the heating mode. The recovered heat of the PCBs must be used to enhance the overall heating process, other uses or dissipation of heat to ambient shall not be permitted.

Compressor control: Fuzzy control logic shall establish and maintain target evaporating temperature (T_e) to be constant on cooling mode and condensing temperature (T_c) constant on heating mode by Fuzzy control logic to ensure the stable system performance.

Flexible Capacity Control: (Demand limiting) The system shall allow for up to 5 steps of flexible capacity control or up to 8 steps of flexible capacity control using a BMS control by others.

This FCC (Flexible Capacity Control) shall be employed when electrical demand limiting or any other flexible capacity control requirement based on any other requirement using contact closures or 0-10vdc to engage.

Initial Test Run (ITR) / Fault Detection Diagnosis (FDD) Code:

This control mode shall monitor and display positive or negative results of system initial startup and commissioning. It shall monitor the following, but not be limited to, refrigerant quantity charge, auto-charge, stable operations, connection ratios, indoor unit status, error status, and number of indoor units connected. This control mode shall not replace the system error monitoring control system.

Integration: Each system shall be able to integrate via open protocol via BACnet IP, This gateway converts between BACnet IP or Modbus TCP protocol and RS-485 AP allowing third party control and monitoring of the A/C system, or LonWorks gateways.

Dual Sensing SLC: Dual sensing Smart load control operation shall be available at any time during or after system Commissioning.

This function shall be controlled by indoor/outdoor air temperature and indoor/outdoor relative humidity as sensed at the outdoor/indoor unit and shall automatically adjust the refrigerant's evaporating temperature target (condensing target for heating operation) pressure / temperature that the system will operate to in order precisely load match the system to the building load as the indoor/outdoor ambient temperature and indoor/outdoor humidity increases or decreases, by varying the compression ratios of the system and

increase the operating efficiencies and reducing energy consumption by adjusting the compressor lifts.

The system shall gather all indoor units' data in real time and apply its algorithm to determine the optimal evaporating temperature to satisfy varying loads.

Indoor unit connectivity: The system shall be designed to accept connection up to 64 indoor units of various configuration and capacity, depending on the capacity of the system.

Power and communication interruption: The system shall be capable of performing continuous operation when an individual or several indoor units are being serviced; communication wire cut or power to indoor unit is disconnected. Systems that alarm and/or shut down because of a lack of power to any number of indoor units shall not be acceptable or allowed.

Refrigerant Flow Control

The all-Inverter compressor design shall be of the high-pressure shell scroll type where the internal pressure below the suction valves of the compressor shall be at the same high pressure and high temperature.

The motor shall be cooled by high pressure gas at temperatures above saturation conditions and prevents the mixing of refrigerant liquid with oil in the sump. Bearing surfaces are continually coated with oil.

The compressor shall employ a bearing constructed with high lubricity materials increasing operation time in case of low sump oil level. Compressor shall have a nominal operating range from 10Hz to 165 Hz.

The VRF outdoor unit shall include a factory provided and mounted sub-cooler assembly consisting of a Double Spiral Tube-type Sub-cooling heat exchanger and EEV providing refrigerant sub-cooling modulation controlled by fuzzy logic of EEV and by mode of operation to provide capacity and efficiency as required.

System shall have following frame configurations vs. capacity (HP).

1. 8 to 26 HP units shall be a single frame only.
2. 22 to 48 HP units shall be two frames.
3. 50 to 72 HP units shall be three frames.
4. 74 to 96 HP units shall be four frames.

Field Supplied Refrigerant Piping Design Parameters

The outdoor unit shall be capable of operating at an elevation difference of up to 110 meter above or below the lowest or highest indoor unit respectively without the requirement of field installed sub cooler or other forms of performance enhancing booster devices.

The outdoor unit shall be capable of operating with up to 1000 equivalent length meter of interconnecting liquid line refrigerant pipe in the network.

The outdoor unit shall be capable of operating with up to 150 actual meter or 175 equivalent length meter of liquid line refrigerant pipe spanning between outdoor unit and farthest indoor unit.

The piping system installation must conform to the VRF equipment manufacturer's published guidelines.

The installation of pipe hangers, supports, insulation, and in general the methods chosen to attach the pipe system to the structure must allow for expansion and contraction of the piping system and shall not interfere with that movement.

Cabinet

The front panels of the outdoor units shall be removable type for access to internal components.

Outdoor unit cabinet material shall be made of SGCC of thickness 1mm

A controls maintenance and unit diagnostic access port shall be provided in front of the microprocessor to allow quick access to read service codes, set DIP switches, perform microprocessor operational checks, address system components and extract operational data without removing the unit's front panel(s).

The cabinet shall have piping knockouts to allow refrigerant piping to be connected at the front, right side, or through the bottom of the unit.

Fan Assembly

8 to 12 HP frames shall be equipped with one direct drive variable speed propeller fan with Brush Less Direct Control (BLDC) inverter motor with a vertical air discharge.

14 to 26 HP frames shall be equipped with two direct drive variable speed propeller fan(s) with BLDC inverter motor(s) with a vertical air discharge.

The fan(s) blades shall be made of Acrylonitrile Butadiene Styrene (ABS) material and incorporate biomimetic technology to enhance fan performance and reduce fan generated noise.

The fan(s) motor shall be equipped with permanently lubricated bearings.

The fan motor shall be variable speed with an operating speed range of 0-1150 RPM UXB chassis cooling mode (UXA has Max. 1000 RPM).

The fan shall have a guard to help prevent contact with moving parts.

The cabinet shall have option to redirect the discharge air direction from vertical to horizontal with the addition of optional factory provided air guides.

Outdoor Unit Coil

The outdoor unit coil for each cabinet shall have lanced aluminum fins with a maximum fin spacing of no more than 14 Fins Per Inch (FPI).

All the outdoor unit coils shall be comprised of aluminum fins mechanically bonded to copper tube four side and a 2 or 3 rows consisting of staggered tubes for efficient air flow across the heat exchanger.

The copper tubes shall have inner riffling to expand the total surface of the tube interior.

The aluminum fins shall have a factory applied **Ocean Black Fin heat exchanger** coating that is comprised of a corrosion resistant epoxy resin coating designed to perform in corrosive environments such as seaside with high salt contamination and industrial cities with severe air pollution.

The Ocean Black Fin heat exchanger protection shall include a Hydrophilic coating which minimizes moisture build up on the fin heat exchanger. The Ocean Black Fin coating shall be certified by Underwriters Laboratories and per ISO 21207.

The above conditions shall establish the minimum allowable performance which all alternates must comply. Shall have Multiple circuits designed for path isolation and variable velocity control.

Compressor(s)

8 to 16 HP frames shall be equipped with a single hermetically sealed, inverter driven, High Side Shell (HSS) scroll compressor. 18 to 26 HP frames shall be equipped with dual hermetically sealed, inverter driven, High Side Shell (HSS) scroll compressors.

Each inverter driven, HSS scroll compressor shall be capable of operating from 10 Hz up to 165 Hz with

control in 1 Hz increments in any and all modes (cooling, heating or simultaneous modes).

The compressor(s) shall be equipped with a 60 Watt crankcase heater controlled by oil temperature.

The compressor shall be equipped with a motor insulation of Class B

The compressor shall employ a factory metered charge of Polyvinyl Ether (PVE) oil.

The compressor shall be designed for a separate port for oil to be directly returned to the compressor oil sump.

The compressor bearing(s) shall have Teflon™ coating and shall be an aero type design using High lubricity materials.

Inverter Compressor Controller(s)

The VRF outdoor unit shall be provided with a separate inverter compressor controller PCB for each compressor.

The inverter compressor controller shall be designed and programmed to utilize the entire range of operation of the connected compressor during cooling cycle operation or heating cycle operation.

Sensors

Each outdoor unit module shall have

- Suction temperature sensor
- Discharge temperature sensor
- Oil level sensor
- High Pressure sensor
- Low Pressure sensor
- Outdoor temperature sensor
- Outdoor humidity sensor
- Outdoor unit heat exchanger temperature sensors

Indoor cooling unit (Evaporator)

Indoor cooling unit (Evaporator) Each coil unit shall consist of a cooling coil, air circulating fan, fan-guard and a thermostatic expansion valve. A timer unit shall be mounted in the control panel to both the de-frosting intervals and defrosting periods, both of which shall be variable.

The evaporator unit shall be of capacity as specified under the specified conditions, and shall be of the dry expansion type, and preferably of similar make as that of the condensing units. The unit shall be high static pressure ducted unit, cassette type, high wall mounted or ceiling mounted as will be specified by the Engineer.

The coil shall be manufactured from seamless copper tubing with aluminium fins mechanically bonded to the tubes.

The panel shall be interlocked such, that on energizing the heater, the compressor, condenser and evaporator fan shall be de-energized and only re-energized when the heater is switched off by a evaporator mounted thermostat. A manual overriding switch shall by-pass the timer switch.

The air-circulating fan shall be manufactured from rigid aluminium sheet and finished in white casing. A drip tray with 25mm diameter connections shall be incorporated in the base of the casing.

The Unit shall be complete with the following: -

- 1 No. air purifying filter.
- Built-in drain pump to automatically drain water.
- Refrigeration pipe work with flared connections
- Fixing brackets/wall mounting kit/ground mounting kit
- Thermostat to control room temperature
- High- and low-pressure units
- Condensate discharge pipe work in Black PVC, 15mm diameter
- Service access valves
- Voltage Surge Protector
- Pulsed modulating valves (PMV) to permit linear variation of refrigerant flow in any circuit directly proportional to the thermal load.

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

Control Panel

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

- ❖ Isolator
- ❖ Contactors
- ❖ Controlling thermostat with temp range from -100C to +300C
- ❖ 80mm dial thermometer with temp range from -100C to +300C
- ❖ Motor starters & current overload relays
- ❖ MCBs

- ❖ Phase failure relay with over and under voltage protection
- ❖ Timer switch for defrost control
- ❖ Push buttons for start and stop
- ❖ Audible and visual high temperature alarm with manual reset

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

System Controls Unit

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

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

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

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

The control system shall be complete with;

- Weekly timer for a 7-day timer completes with day omit
- Infrared wireless remote controller
- Remote temperature sensor for all indoor units
- Network/protocol adaptor kit to enable integration with artificial intelligence network

- External master on/off control board C-6 Admin Block AC
- Error output control board
- Power peak cut control board
- Touch screen controller for full control of up to 64 indoor unit including electric billing
- Intelligent server and software package to allow connection to touch screen controller
- Energy monitoring interface

Testing and Commissioning Standards

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

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

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

As-Built-Drawings and maintenance manuals

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

Training

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

TESTING & COMMISSIONING

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

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

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

ELECTRICAL WORKS

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

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

BUILDERS WORKS

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

Ducted – High Static Indoor Unit Specification

A. General:

- 1.0 Unit shall be manufactured by approved makes
- 2.0 Unit shall be factory assembled, wired, piped and run tested.
- 3.0 Unit shall be designed to be installed for indoor application.
- 4.0 Unit shall be designed to mount fully concealed above the finished ceiling.
- 5.0 Unit shall have opening to supply air from front horizontal and a dedicated rear horizontal return.
- 6.0 The supply air shall be flanged for field installed ductwork that shall not exceed the external static pressure limitation of the unit.
- 7.0 Unit shall be capable to be installed with heat pump VRF system.

B. Product Capacity

As specified in the BOQ

C. Casing/Panel

- 1.0 Unit case shall be manufactured using galvanized steel plate.
- 2.0 The cold surfaces of the unit shall be covered internally with a coated polystyrene insulating material.
- 3.0 The cold surfaces of the unit shall be covered externally with sheet insulation made of Ethylene Propylene Diene Monomer (M-Class) (EPDM)
- 4.0 The external insulation shall be plenum rated and conform to ASTM Standard D-1418.
- 5.0 Unit shall be provided with hanger brackets designed to support the unit weight on four corners.
- 6.0 Hanger brackets shall have pre-punched holes designed to accept field supplied, all thread rod hangers.

D. Cabinet Assembly:

- 1.0 Unit shall have supply air discharge outlets horizontal and a return air inlet horizontal.
- 2.0 Unit shall be equipped with factory installed temperature thermistors for:
 - a. Return air
 - b. Refrigerant entering coil
 - c. Refrigerant leaving coil
- 3.0 Unit shall have a factory assembled, piped and wired electronic expansion valve (EEV) for refrigerant control.
- 4.0 Unit shall have a built-in control panel to communicate with other indoor units and to the outdoor unit.

Unit shall have the following functions as standard:

- a. Self-diagnostic function
- b. Auto addressing
- c. Auto restart function
- d. Auto operation function
- e. Child lock function
- f. Forced operation
- g. Dual thermistor control
- h. Sleep mode
- i. External static pressure (ESP) control
- j. Dual set point control
- k. Multiple aux heater applications
- l. Filter life and power consumption display

E. Fan Assembly:

- 1.0 The unit shall have one or two direct drive Sirocco fans made of high strength ABS GP-2200 polymeric resin.
- 2.0 The fan impeller shall be statically and dynamically balanced.
- 3.0 The fans shall be mounted on a common shaft.
- 4.0 The fan motor is Brush Less Direct control (BLDC) with permanently lubricated and sealed ball bearings.
- 5.0 The fan motor shall include thermal, overcurrent and low RPM protection.
- 6.0 The fan/motor assembly shall be mounted on vibration attenuating rubber grommets.
- 7.0 The fan speed shall be controlled using microprocessor based direct digitally controlled algorithm.
- 8.0 In cooling mode, the indoor fan shall have the following settings: Low, Med, High, Power Cool, and Auto.

- 9.0 In heating mode, the indoor fan shall have the following settings: Low, Med, High, and Auto.
- 10.0 Each of the settings can be field adjusted from the factory setting (RPM/ESP).
- 11.0 Unit shall be designed for high-speed air volume against an external static pressure of up to 245 Pa.

F. Filter Assembly:

- 1.0 The return air inlet shall have a factory supplied removable, washable filter with antifungal treatment.
- 2.0 The filter access shall be from the rear of the unit.

G. Coil Assembly:

- 1.0 Unit shall have a factory-built coil comprised of aluminum fins mechanically bonded on copper tubing.
- 2.0 The copper tubing shall have inner grooves for high efficiency heat exchanger.
- 3.0 Unit shall have a minimum 2-3 row coil, 14-21 fins per inch.
- 4.0 Unit shall have a factory supplied condensate drain pan below the coil constructed of HIPS (high impact polystyrene resin).
- 5.0 Unit shall include an installed and wired condensate drain pump capable of providing maximum 700mm lift from bottom surface of the unit.
- 6.0 The drain pump shall have a safety switch to shut off the unit if condensate rises too high in the drain pan.
- 7.0 Unit shall have provision of 45° flare refrigerant pipe connections.
- 8.0 The coil shall be factory pressure tested at a minimum of 3780kPa.
- 9.0 All refrigerant piping from outdoor unit to indoor unit shall be field insulated.

H. Microprocessor Control:

- 1.0 The unit shall have a factory installed microprocessor controller capable of performing functions necessary to operate the system.
- 2.0 The unit shall be able to communicate with other indoor units and the outdoor unit using a field supplied minimum of 18 AWG, 2 core, stranded and shielded communication cable.
- 3.0 The unit controls shall operate the indoor unit using one of the five operating modes:
 - a. Auto changeover (Heat Recovery System only)
 - b. Heating
 - c. Cooling
 - d. Dry
 - e. Fan only

I. Electrical:

- 1.0 The unit electrical power shall be () / 1 / () (V / Ph / Hz)
- 2.0 The unit shall be capable of operating within voltage limits of +/- 10% of the rated voltage.

J. Controls:

Unit shall use controls provided by the manufacturer to perform all functions necessary to operate the system effectively and efficiently and communicate with the outdoor unit over an RS485 daisy chain.

DIFFUSERS

Small Format Circular Diffuser

The diffuser for both supply and exhaust applications requiring compact circular diffusers with small overall to neck size ratio. The diffusers are adjustable to produce horizontal or vertical air patterns.

The diffusers are constructed from steel spinning retained on aluminium spider braces. Each diffuser shall come with a 600 mm X 600 mm plate with same color to fit in acoustic grid.

Small format circular diffuser Butterfly type louvre damper Equalising deflector & louvre damper

Double Deflection Grills:

- Double deflection grille with a frame and 2 number sets of vertical and horizontal blades used to deflect air direction in both the horizontal and vertical plans.
- All supply air grilles shall be with an integral opposed blade damper to facilitate air volume control.
- The return/ exhaust grilles shall be without opposed blade dampers.
- The frame size shall be 8 mm with a minimum pitch of 19 mm

PI DUCT

The duct will be constructed using **pre-Insulated duct** type sandwich panels with the following characteristics:

External Aluminum: Thickness of **80 micron** embossed protected w/polyester lacquer;

Internal Aluminium: Thickness of **80 micron** embossed protected w/polyester lacquer;

Insulation Component: Water foamed polyisocyanurate without use of CFC, HCFC or HFC, **density of 45 Kg/m³**; with a tolerance of +/- 3 kg/m³

Thickness: **20 mm**; with a tolerance of +/- 0.5 mm Initial thermal conductivity: **0.021 – 0.022 W/(m °C)**;

Product cells characteristic: **Closed cells**

Panels must be in conformity to the following international standard specifications:

- 1) English certification BS 476, Part 6 & 7 – class 0; United Kingdom
- 2) English certification IMO Resolution MSC61(67): Annex 1: Part 2 for smoke and toxicity; United Kingdom
- 3) UL 2818 Green Guard Gold Certificate
- 4) EN 13823 Standard Certificate with B, S2, d0
- 5) EXOVA Certificate of CERTFIRE CF 777
- 6) Dubai Central Laboratory DCL Conformity Certificate
- 7) Canadian Certification ASTM – E84 for surface burning of the material characteristics.
- 8) Canadian Certification UL 723 – 2010 for surface burning characteristics building materials;
- 9) British Naval Engineering Standard NES 713, Toxicity index (average) below 5;
- 10) Exova Certification ASTM G 21 – 96 for Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi; rating “0”
- 11) Thermal Conductivity certification ASTM C – 518 (achieved) 0.021 W/(m °C)

Fire Damper:

- All fire damper to comply with EN 15650. For maintenance of the integrity of compartmentation the fire dampers shall have an E classification to EN 13501-3. The fire damper case shall be fully welded to meet the air tightness test requirements of HVCA.
- Normal operating conditions - not exceeding 1000Pa, Classes A & B of DW 144 2016 Specification will apply.
- The fusible link shall have a melting temperature of 72 degree Celsius. The link melting shall allow the springs to close the damper.

- Frame shall be made of high quality galvanized steel sheet of thickness 16gauge. All blades shall be interlock type roll formed blades of thickness 20 gauge.

Copper Piping:

- Seamless soft copper tubing, type L shall be used to make connections to equipment, wherever required or specified.
- Flare fittings e.g. flare nuts, tees, elbows, reducers etc. shall all be of brass.

Refrigerant Piping:

All refrigerant piping for the air conditioning system shall be constructed from soft seamless up to 19.1mm and hard drawn copper refrigerant pipes for above 19.1mm with copper fittings and silver-soldered joints.

The refrigerant piping arrangements shall be in accordance with good practice within the air conditioning industry, and are to include charging connections, suction line insulation and all other items normally forming part of proper refrigerant circuits.

All joints in copper piping shall be sweat joints using low temperature brazing and or silver solder. Before joining any copper pipe or fittings, its interiors shall be thoroughly cleaned by passing a clean cloth via wire or cable through its entire length.

The piping shall be continuously kept clean of dirt etc. while constructing the joints. Subsequently, it shall be thoroughly blown out using nitrogen.

After the refrigerant piping installation has been completed, the refrigerant piping system shall be pressure tested using nitrogen at pressure of 20Kg per sq.cm and 10 Kg per sq.cm (low side). Pressure shall be maintained in the system for 24 hours. The system shall then be evacuated to minimum vacuum of 700mm hg and held for 24 hours.

The air-conditioning system supplier shall be design sizes and erect proper interconnections of the complete refrigerant circuit.

The thickness of copper piping shall not be less than mentioned below:

Pipe Size in mm (OD)	Wall Thickness in mm
54.1	1.5
41.3 – 34.9	1.3
28.6 – 25.4	1.2
22.2 – 15.9	1.0
12.7 - 6.4	0.8

The suction line pipe size and the liquid line pipe size shall be selected according to the manufacturers specified outside diameter. All refrigerant pipes shall be properly supported and anchored to the building structure using steel hangers, anchors, brackets and supports which shall be fixed to the building structure by means of inserts or expansion shields of adequate size and number to support the load imposed thereon.

Ducts:

- All ducts shall be fabricated from galvanized steel sheets as indicated in the enclosed table 1.
- Sheet metal ducts shall be fabricated out of galvanized steel sheets. Fabrication of ducts shall be through Triplex lock former or multiple lock formers, conforming to relevant BIS Codes.
- Sheets used shall be produced by Hot Dip Process and galvanizing shall be Class VII.
- All ducts shall be fabricated and installed in workmanlike manner, generally conforming to relevant BIS Codes. Round exposed ducts shall be die-formed for achieving perfect circle configuration.

- Ducts so identified on the Drawings shall be acoustically lined with thermal insulation as described in the section “Insulation” and as indicated in Schedule of Quantities.
- Duct dimensions should be compensated for the thickness of the acoustic insulation proposed wherever applicable.
- Ducts shall be straight and smooth on the inside with neatly finished joints. All joints shall be made airtight.
- Changes in dimensions and shape of ducts shall be gradual. Air-turns shall be installed in all vanes, arranged to permit the air to make the turn without appreciable turbulence.
- Plenums shall be panel type and assembled at site. Fixing of galvanized angle flanges on duct pieces shall be with rivets heads inside i.e. towards G. S. sheet and riveting shall be done from outside.
- Rubber lining 4 mm thick shall be used between duct flanges instead of felt, in all ducting installation.
- All ducts shall be installed generally as per tender Drawings, and in strict accordance with approved shop drawings to be prepared by the Contractor. While making the drawings contractor will have to consider the other services interference & suit to site conditions.
- The Contractor shall provide and neatly erect all sheet metal work as may be required to carry out the intent of these Specifications and Drawings. The work shall meet with the approval of Architect/ Consultant in all its parts and details.
- Structural members from floor shall support all vertical duct work.
- Where metal ducts or sleeves terminate in woodwork, tight joints shall be made by means of closely fittings heavy flanged collars. Where ducts pass through brick or masonry openings, wooden frame work shall be provided within the opening and crossing ducts provided with heavy flanged collars on each side of wooden frame work, so that duct crossing is made leak-proof. All ducts shall be totally free from vibration under all conditions of operation.
- Whenever duct work is connected to fans, air handling units or blower coil units that may cause vibration in the ducts, ducts shall be provided with one flexible connection shall be constructed of fire retarding flexible heavy canvas sleeve at least 100mm long securely bonded and bolted on both sides.
- Contractor has deemed to have included the scaffolding & any other cost in their estimate which may be required for installation of the ducting. The quoted unit rate for external surface of ducts shall include all wastage allowances, flanges and gaskets for joints, nuts and bolts, hangers and angles and angle/ flat with double nuts for supports, felt strip between duct and support, vibration isolator suspension where specified or required, inspection chamber/ access panel, splitter damper with quadrant and lever for position indication, turning vanes, straightening vanes, and all other accessories required to complete the duct installation as per the Specifications. These accessories shall not be separately measured nor paid for.
- Unless otherwise specified, measurements for ducting, for the project shall be on the basis of centerline measurements described herewith.
- Duct Work shall be measured on the basis of external surface area of ducts. Duct measurements shall be taken before application of the insulation. The external surface area shall be calculated by measuring the perimeter comprising overall width and depth, including the corner joints, in the center of each duct section, multiplying with the overall length from flange face to flange face of each duct section and adding up areas of all duct sections.
- For tapered rectangular ducts, the average width and depth shall be considered for perimeter, whereas for tapered circular ducts, the diameter of the section midway between large and small diameters shall be adopted, the length of tapered duct section shall be the center line distance between the flanges of the duct section.
- For special pieces like bends, tees, reducers, branches and collars, mode of measurement shall be identical to that described above using the length along the center line.

NOTES TO ALL TENDERERS:

1. The tenderer is required to check the number of pages in this document and should any be found to be missing or the figures indistinct, he must inform the Engineer at once and have the same rectified. Should the tenderer be in doubt the precise meaning of any item, word or figure. Or for any reason whatsoever observe any apparent omission of words or figures, he must inform the Engineer in order that the correct meaning may be decided upon before the date for the submission of the tenders.
2. No liability whatsoever will be admitted nor claim allowed in respect of errors in the completed tender due to mistakes in this document which should have been rectified in the manner described above.
3. The tenderer shall not otherwise qualify the text of this specification. Any alteration or qualification made without authority will be ignored and the text of the specification as printed will be adhered to.
4. The tenderer shall be deemed to have made allowances in his unit prices generally to cover items of preliminaries or additions to prime cost Sums or other items. If those have not been priced against the respective items.
5. The tenderer's price shall include all government taxes including duties, VAT, etc which must be included in the rates. No claims whatsoever will be allowed in respect of duties, VAT etc if the tenderer does not price them as aforementioned.
6. In no case will expense incurred by the tenderer in preparation of this tenderer be reimbursed.
7. The copyright of this specification is vested in the Engineer and no part thereof may be reproduced without their express permission, given in writing.
8. The Sub-Conductor shall be solely responsible for the accurate ordering of materials in accordance with the drawings and these specifications.
9. The specifications must be priced in Kenya Shillings
10. This is a fixed price Contract and no claims shall be entertained on whatever ground. The sub-contractor is advised to include all such costs as he projects may arise in his unit rates. Any variations in the exchange rate will also be no excuse for any variations in the contract sum.

Signed (As in form of Tender)

Date/Stamp

**PROPOSED FIT OUT AND PARTITIONING AT CBK PENSION TOWERS FOR NPSC:
HVAC INSTALLATIONS**

PROPOSED NATIONAL POLICE SERVICES OFFICES, NAIROBI

BILL OF QUANTITIES FOR AIR CONDITIONING & MECHANICAL VENTILATION

RATES INCLUSIVE OF VAT

10TH FLOOR

ITEM NO	DESCRIPTION	UNIT	QTY	RATE KSHS.	TOTAL KSHS.
A	Preparation of working & As built drawings "As installed" record drawings.	Sum	1		
B	Printing of paper copies of item C above.	Sum	1		
TOTAL CARRIED TO SUMMARY					

**PROPOSED FIT OUT AND PARTITIONING AT CBK PENSION TOWERS FOR NPSC:
HVAC INSTALLATIONS**

ITEM NO	DESCRIPTION	UNIT	QTY	RATE KSHS.	TOTAL KSHS.
	Supply, install, test and commission the following VRF (variable Refrigerant Flow) system of air conditioning units. The units must be wired for automatic resetting in case of power failure.				
	OutdoorUnit 33.5Kw cooling capacity out door Units with matching weather resistant (Electrostatic powder paint) outdoor air cooled condenser able to operates in high outdoor temperature +40 deg C.as Aermec MVAM3350T or equal and approved complete with the following:- *Power input 7KW each *Runing Current 12.5A each *Refrigerant Charge R410A 6.7kg * Local isolator *DC Invertor compressor * Mounting/Support brackets * Burglar proofing cage/grille with pad lock.	No.	2		
C	Indoor Units High pressure Ducted Ceiling concealed unit with case, simple type wired remote controller and other installation accessories *Cooling Capacity - 9KW *power input-0.14KW * Air flowrate : 1700m3/hr *Model MVA901DH *Make: Aermec or Approved equal	No.	5		
C	Ditto but 7.1KW	No.	2		
C	Ditto but 5.6KW	No.	1		
D	Supply and install Y-branches	No.	8		
E	Supply and install the following VRF pipe work including the insulation 9.5mm 12.7mm 15.9mm 19mm 22mm	Lm Lm Lm Lm Lm	180 150 120 96 72		
F	Three Phase power window compactor as LAVATO.	No.	2		
G	Duct work Supply and install pre insulated duct complete with fittings as per the drawings.	Sm	750		
H	Flexible Ducts 200mm diameter by 1500 mm long flexible ducting	No	38		
I	4-way anodised aluminium air supply diffuser 4-way anodised aluminium air supply diffuser of the specified sizes, flow rates, pressure loses complete with adjustable volume controll damper and finised off to Architects approved colour.				
i	600 x 600mm capable 150L/s @ 24 Pa and 22 dB(A) maximum noise	No	2		
ii	200mm dia circular capable 150L/s @ 10 Pa and 22 dB(A) maximum noise	No	12		
iii	1000mm x 250 linear capable 150L/s @ 10 Pa and 22 dB(A) max. noise	No	14		
J	4-way anodised aluminium air return grille Anodised aluminium air return eggcrate grilles of the specified sizes, flow rates, pressure loses complete with adjustable volume controll damper and finised off to Architects approved colour as trox or approved equal.				
i	600 x 600mm capable 150L/s @ 24 Pa and 22 dB(A) maximum noise	No	2		
ii	200mm dia circular capable 150L/s @ 10 Pa and 22 dB(A) maximum noise	No	12		
iii	1000mm x 250 linear capable 150L/s @ 10 Pa and 22 dB(A) max. noise	No	14		
TOTAL CARRIED FORWARD TO NEXT PAGE					

**PROPOSED FIT OUT AND PARTITIONING AT CBK PENSION TOWERS FOR NPSC:
HVAC INSTALLATIONS**

ITEM NO.	DESCRIPTION	UNIT	QTY	RATE KSHS.	TOTAL KSHS.
	TOTAL BROUGHT FORWARD				
A	Toilet Extract Fans Window mounted extract fans as Expelair GX6 or equal and approved	No	5		
B	Inline fan as Xpelair XID100	No	5		
C	Supply and install extract grill 200x200mm	No	2		
D	Supply and install 100mm UPVC pipe	Lm	6		
E	Electrical Works Allow for the electrical works associated with the installation which shall include; - Connecting electrical power from the local isolator to the equipment panel; - Wiring the mechanical equipment motors from the control panel; - Installation of all the mechanical equipment control cables; - Liaising with Electrical contractor for adequate provision of electrical power, etc.	Item	Sum		
F	Supports Allow for all the necessary supports, including fixings, anchors, insulating blocks and anti-vibration devices	Item	Sum		
G	Testing and commissioning Allow for all necessary testing and commissioning, including flushing, cleaning, purging of air, refrigerant charging, balancing and operating the completed installations and providing the necessary utilities including power.	Item	Sum		
H	Servicing During Warranty Period Allow for the servicing of the units during warranty period	1	Item		
TOTAL CARRIED TO SUMMARY PAGE					

**PROPOSED FIT OUT AND PARTITIONING AT CBK PENSION TOWERS FOR NPSC:
HVAC INSTALLATIONS**

PROPOSED NATIONAL POLICE SERVICES OFFICES, NAIROBI

BILL OF QUANTITIES FOR AIR CONDITIONING & MECHANICAL VENTILATION

RATES INCLUSIVE OF VAT

10TH FLOOR

ITEM NO	DESCRIPTION	UNIT	QTY	RATE KSHS.	TOTAL KSHS.
	Supply, install, test and commission the following VRF (variable Refrigerant Flow) system of air conditioning units. The units must be wired for automatic resetting in case of power failure.				
A	Outdoor Unit 33.5Kw cooling capacity out door Units with matching weather resistant (Electrostatic powder paint) outdoor air cooled condenser able to operates in high outdoor temperature +40 deg C.as Aermec MVAM3350T or equal and approved complete with the following:- *Power input 7KW each *Runing Current 12.5A each *Refrigerant Charge R410A 6.7kg * Local isolator *DC Invertor compressor * Mounting/Support brackets * Burglar proofing cage/grille with pad lock.	No.	1		
B	Ditto but 22.4Kw	No.	1		
C	Indoor Units High pressure Ducted Ceiling concealed unit with case, simple type wired remote controller and other installation accessories *Cooling Capacity - 9KW *power input-0.14KW * Air flowrate : 1700m3/hr *Model MVA901DH *Make: Aermec or Approved equal	No.	3		
D	Ditto but 7.1KW	No.	1		
E	Four Way Ceiling cassette unit with simple type wired remote controller and other installation accessories *Cooling Capacity - 5.6KW *power input-0.035KW *Model MVA561C *Make: Aermec or Approved equal	No.	4		
F	Supply and install Y-branches	No.	8		
G	Supply and install the following VRF pipe work including the insulation 9.5mm 12.7mm 15.9mm 19mm 22mm	Lm Lm Lm Lm Lm	140 120 96 72 60		
H	Three Phase power window compactor as LAVATO.	No.	2		
G	Duct work Supply and install pre insulated duct complete with fittings as per the drawings.	Sm	500		
H	Flexible Ducts 200mm diameter by 1500 mm long flexible ducting	No	20		
I	4-way anodised aluminium air supply diffuser 4-way anodised aluminium air supply diffuser of the specified sizes, flow rates, pressure loses complete with adjustable volume controll damper and finised off to Architects approved colour.				
i	600 x 600mm capable 150L/s @ 24 Pa and 22 dB(A) maximum noise	No	10		
ii	200mm dia circular capable 150L/s @ 10 Pa and 22 dB(A) maximum noise	No	4		
iii	1000mm x 250 linear capable 150L/s @ 10 Pa and 22 dB(A) max. noise	No	4		
TOTAL CARRIED FORWARD TO NEXT PAGE					

PROPOSED FIT OUT AND PARTITIONING AT CBK PENSION TOWERS FOR NPSC: HVAC INSTALLATIONS

ITEM NO.	DESCRIPTION	UNIT	QTY	RATE KSHS.	TOTAL KSHS.
	TOTAL BROUGHT FORWARD				
A	4-way anodised aluminium air return grille Anodised aluminium air return eggcrate grilles of the specified sizes, flow rates, pressure losses complete with adjustable volume control damper and finished off to Architects approved colour as trox or approved equal.				
i	600 x 600mm capable 150L/s @ 24 Pa and 22 dB(A) maximum noise	No	10		
ii	200mm dia circular capable 150L/s @ 10 Pa and 22 dB(A) maximum noise	No	4		
iii	1000mm x 250 linear capable 150L/s @ 10 Pa and 22 dB(A) max. noise	No	4		
B	Toilet Extract Fans Window mounted extract fans as Expelair GX6 or equal and approved	No	3		
C	Electrical Works Allow for the electrical works associated with the installation which shall include; - Connecting electrical power from the local isolator to the equipment panel; - Wiring the mechanical equipment motors from the control panel; - Installation of all the mechanical equipment control cables; - Liaising with Electrical contractor for adequate provision of electrical power, etc.	Item	Sum		
D	Supports Allow for all the necessary supports, including fixings, anchors, insulating blocks and anti-vibration devices	Item	Sum		
E	Testing and commissioning Allow for all necessary testing and commissioning, including flushing, cleaning, purging of air, refrigerant charging, balancing and operating the completed installations and providing the necessary utilities including power.	Item	Sum		
F	Servicing During Warranty Period Allow for the servicing of the units during warranty period	1	Item		
	TOTAL CARRIED TO SUMMARY PAGE				

PROPOSED FIT OUT AND PARTITIONING AT CBK PENSION TOWERS FOR NPSC:
HVAC INSTALLATIONS

SUMMARY PAGE

	DESCRIPTION	AMOUNT KSHS.
1	PRELIMINARIES AND GENERAL CONDITIONS	
2	10TH FLOOR AIR CONDITIONING & MECHANICAL VENTILATION	
3	9TH FLOOR AIR CONDITIONING & MECHANICAL VENTILATION	
4	ALLOW FOR SERVER ROOM PRECISION COOLING	3,000,000.00
5	CONTIGENCY SUM	1,500,000.00
TOTAL INCLUDING VAT CARRIED TO GRAND SUMMARY		

PROPOSED OFFICE PARTITIONING AND FIT OUT AT CBK PENSION TOWERS

SECTION XII: SPECIFICATIONS AND BILLS OF QUANTITIES; PLUMBING, DRAINAGE AND FIRE FIGHTING WORKS

SPECIFICATIONS FOR PLUMBING, DRAINAGE AND FIRE FIGHTING

GENERAL MECHANICAL SPECIFICATION

<u>CLAUSE</u>	<u>DESCRIPTION</u>
1.01	GENERAL
1.02	QUALITY OF MATERIALS
1.03	REGULATIONS AND STANDARDS
1.04	ELECTRICAL REQUIREMENTS
1.05	TRANSPORT AND STORAGE
1.06	SITE SUPERVISION
1.07	INSTALLATION
1.08	TESTING
1.09	COLOUR CODING
1.10	WELDING

GENERAL MECHANICAL SPECIFICATION

1.01 General

This section specifies the general requirement for plant, equipment and materials forming part of the Sub-contract Works and shall apply except where specifically stated elsewhere in the Specification or on the Contract Drawings.

1.02 Quality of Materials

All plant, equipment and materials supplied as part of the Sub-contract Works shall be new and of first class commercial quality, shall be free from defects and imperfections and where indicated shall be of grades and classifications designated herein.

All products or materials not manufactured by the Sub-contractor shall be products of reputable manufacturers and so far as the provisions of the Specification is concerned shall be as if they had been manufactured by the Sub-contractor.

Materials and apparatus required for the complete installation as called for by the Specification and Contract Drawings shall be supplied by the Sub- contractor unless mention is made otherwise.

Materials and apparatus supplied by others for installation and connection by the Sub- contractor shall be carefully examined on receipt. Should any defects be noted, the Sub-contractor shall immediately notify the Engineer.

1.03 Defective equipment or that damaged in the course of installation or tests shall be replaced as require to the approval of the Engineer. Regulations and Standards

The Sub-contract Works shall comply with the current editions of the following:

- The Kenya Government Regulations.
- The United Kingdom Institution of Electrical Engineers (IEE) Regulations for the Electrical Equipment of Buildings.
- The United Kingdom Chartered Institute of Building Services Engineers (CIBSE) Guides.
- British Standard and Codes of Practice as published by the BritishStandards Institution (BSI)
- The Local Council By-laws.
- The Electricity Supply Authority By-laws.
- Local Authority By-laws.
- The Kenya Building Code Regulations.
- The Kenya Bureau of Standards

1.04 Electrical Requirements

Plant and equipment supplied under this Sub-contract shall be complete with all necessary motor

starters, control boards, and other control apparatus.

Where control panels incorporating several starters are supplied they shall be complete with a main isolator.

The supply power up to and including local isolators shall be provided and installed by the Electrical Sub-contractor. All other wiring and connections to equipment shall form part of this Sub-contract and be the responsibility of the Sub-contractor. The Sub-contractor shall supply three copies of all schematic, cabling and wiring diagrams for the Engineer's approval. The starting current of all electric motors and equipment shall not exceed the maximum permissible starting currents described in the Kenya Power Company (KP) By-laws.

All electrical plant and equipment supplied by the Sub-contractor shall be rated for the supply voltage and frequency obtained in Kenya, that is 415 Volts, 50Hz, 3-Phase or 240Volts, 50Hz, 1-phase. Any equipment that is not rated for the above voltages and frequencies shall be rejected by the Engineer.

1.05 Transport and Storage

All plant and equipment shall, during transportation be suitably packed, crated and protected to minimise the possibility of damage and to prevent corrosion or other deterioration.

On arrival at site all plant and equipment shall be examined and any damage to parts and protective priming coats made good before storage or installation.

Adequate measures shall be taken by the Sub-contractor to ensure that plant and equipment do not suffer any deterioration during storage.

Prior to installation all piping and equipment shall be thoroughly cleaned.

If, in the opinion of the Engineer any equipment has deteriorated or been damaged to such an extent that it is not suitable for installation, the Sub- contractor shall replace this equipment at his own cost.

1.06 Site Supervision

The Sub-contractor shall ensure that there is an English-speaking supervisor on the site at all times during normal working hours.

1.07 Installation

Installation of all special plant and equipment shall be carried out by the Sub- contractor under adequate supervision from skilled staff provided by the plant and equipment manufacturer or his appointed agent in accordance with the best standards of modern practice and to the relevant regulations and standards described under Clause 1.03 of this Section.

1.08 Testing

1.08.1 General

The Sub-contractor's attention is drawn to Part 'C' Clause 1.38 of the "Preliminaries and General Conditions".

1.08.2 Material Tests

All material for plant and equipment to be installed under this Sub-contract shall be tested, unless otherwise directed, in accordance with the relevant B.S Specification concerned.

For materials where no B.S. Specification exists, tests are to be made in accordance with the best modern commercial methods to the approval of the Engineer, having regard to the particular type of the materials concerned.

The Sub-contractor shall prepare specimens and performance tests and analyses to demonstrate conformance of the various materials with the applicable standards.

If stock material, which has not been specially manufactured for the plant and equipment specified is used, then the Sub-contractor shall submit satisfactory evidence to the Engineer that such materials conform to the requirements stated herein in which case tests of material may be partially or completely waived.

Certified mill test reports of plates, piping and other materials shall be deemed acceptable.

1.08.3 Manufactured Plant and Equipment – Work Tests

The rights of the Engineer relating to the inspection, examination and testing of plant and equipment during manufacture shall be applicable to the Insurance Companies or Inspection Authorities so nominated by the Engineer. The Sub-contractor shall give two weeks' notice to the Engineer of the manufacturer's intention to carry out such tests and inspections.

The Engineer or his representative shall be entitled to witness such tests and inspections. The cost of such tests and inspections shall be borne by the Sub- contractor.

Six copies of all test and inspection certificates and performance graphs shall be submitted to the Engineer for his approval as soon as possible after the completion of such tests and inspections.

Plant and equipment which is shipped before the relevant test certificate has been approved by the Engineer shall be shipped at the Sub-contractor's own risk and should the test and inspection certificates not be approved, new tests may be ordered by the Engineer at the Sub- contractor's expense.

1.08.4 Pressure Testing

All pipework installations shall be pressure tested in accordance with the requirements of the various sections of this Specification. The installations may be tested in sections to suit the progress of the works but all tests must be carried out before the work is buried or concealed behind building finishes. All tests must be witnessed by the Engineer or his representative and the Sub- contractor shall give 48 hours notice to the Engineer of his intention to carry out such tests.

Any pipework that is buried or concealed before witnessed pressure tests have been carried out shall be exposed at the expense of the Sub-contractor and the specified tests shall then be applied.

The Sub-contractor shall prepare test certificates for signature by the Engineer and shall keep a progressive and up-to-date record of the section of the work that has been tested.

1.09 Colour Coding

Unless stated otherwise in the Particular Specification all pipework shall be colour coded in accordance with the latest edition of B.S 1710 and to the approval of the Engineer or Architect.

1.10 Welding

1.10.1 Preparation

Joints to be made by welding shall be accurately cut to size with edges sheared, flame cut or machined to suit the required type of joint. The prepared surface shall be free from all visible defects such as lamination, surface imperfection due to shearing or flame cutting operation, etc., and shall be free from rust scale, grease and other foreign matter.

1.10.2 Method

All welding shall be carried out by the electric arc processing using covered electrodes in accordance with B.S. 639.

Gas welding may be employed in certain circumstances provided that prior approval is obtained from the Engineer.

1.10.3 Welding Code and Construction

All welded joints shall be carried out in accordance with the following Specifications:

a) Pipe Welding

All pipe welds shall be carried out in accordance with the requirements of B.S.806.

b) General Welding

All welding of mild steel components other than pipework shall comply with the general requirements of B.S. 1856.

1.10.4 Welders Qualifications

Any welder employed on this Sub-contractor shall have passed the trade tests as laid down by the Government of Kenya.

The Engineer may require to see the appropriate certificate obtained by any welder and should it be proved that the welder does not have the necessary qualifications the Engineer may instruct the Sub- contractor to replace him by a qualified welder.

PARTICULAR SPECIFICATIONS FOR SANITARY FITTINGS

WATER CLOSET

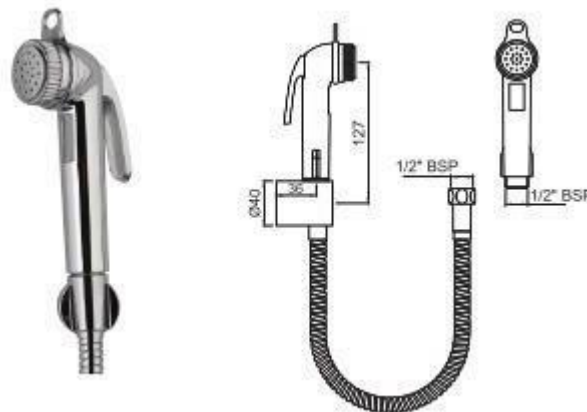
- ☐ Rimless Wall Hung WC with UF soft close slim seat cover and Hinges,
- ☐ Accessories set complete with Concealed cistern with Frame & Finish Plate
- ☐ Finish with an antibacterial ceramic glaze
- ☐ Noise reduction gasket
- ☐ Ceramic
- ☐ Meets EU declaration of conformity certificate



AS DURAVIT STYLE MODEL OR EQUEVERLENT

HEALTH FAUCET KIT

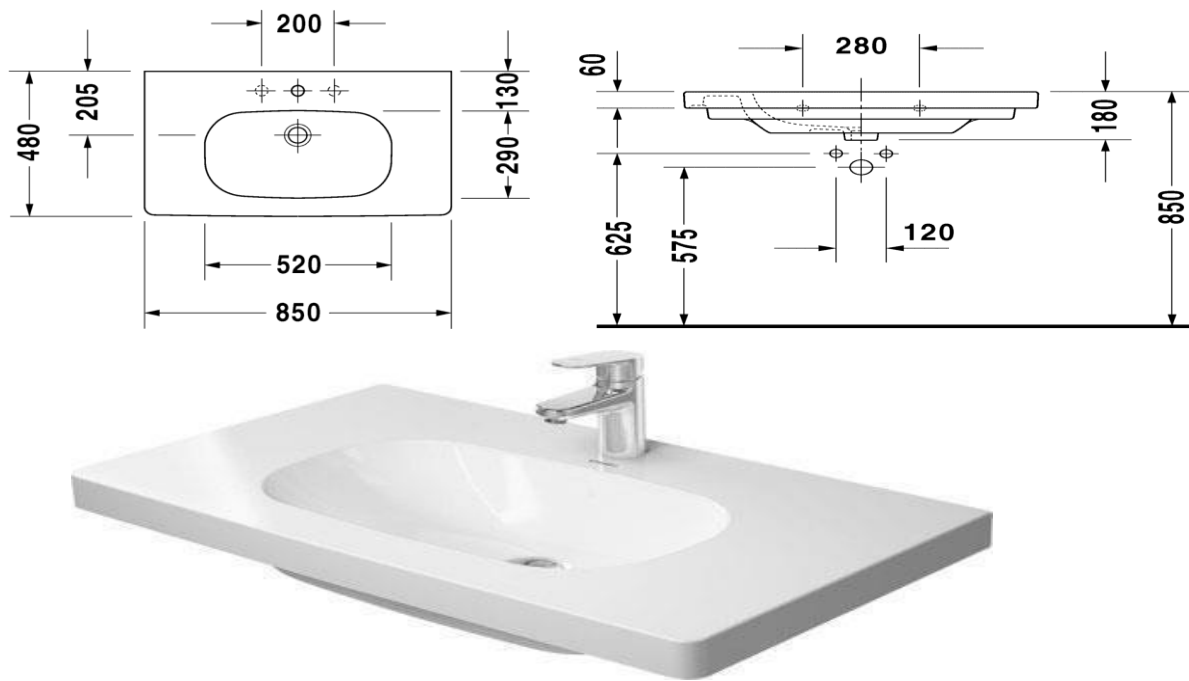
- ☐ Flexible Chrome Hose, Handset, ABS Body & Bracket
- ☐ For water pressure between 1.0 Bar - 3.0 Bar
- ☐ Finish Plating: Nickel-10.0 micron Chromium-0.3 micron, Salt Spray (500 hrs +Validated) and Adhesion (Pass)
- ☐ with preferred dimensions as indicated



HANSGROHE MODEL OR EQUAVERLENT WASH HAND BASIN

- ☐ Without overflow
- ☐ with tap platform
- ☐ square tube 14 mm

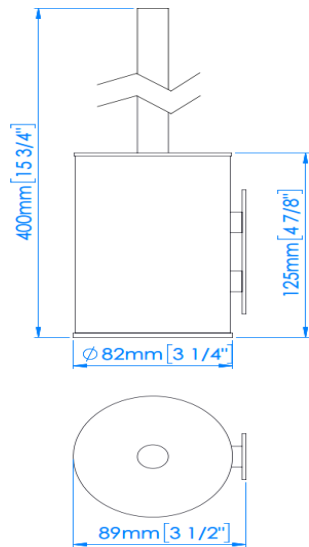
- ☐ Ceramic
- ☐ Meets EU declaration of conformity certificate



AS DURAVIT STYLE COUNTERTOP MOUNTED OR EQUIVALENT

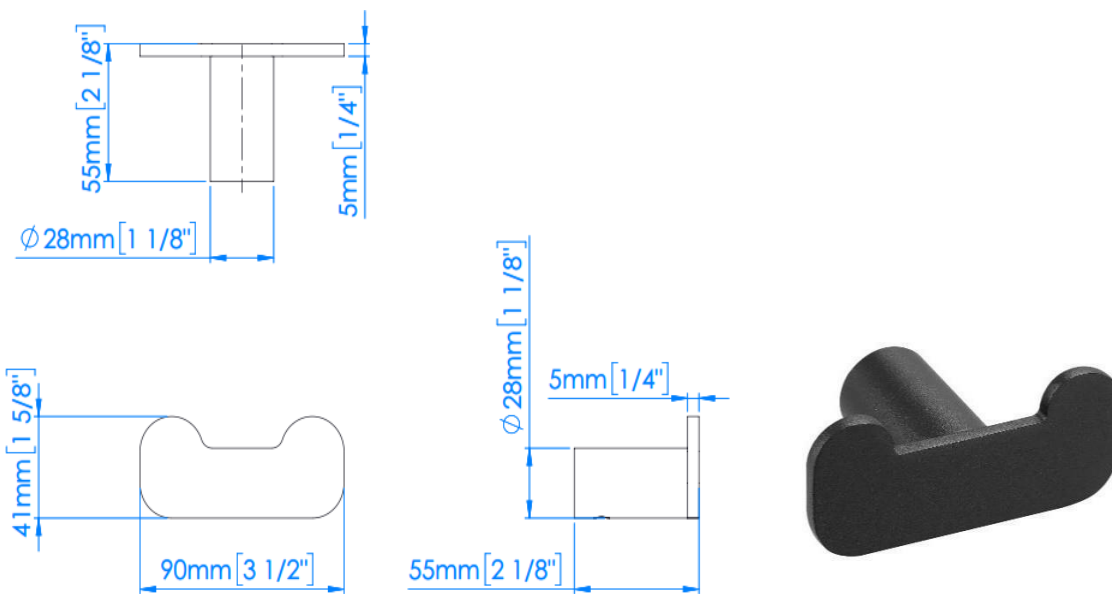
TOILET BRUSH SET

- ☐ Toilet brush set for fixing to the bathroom wall, made of AISI 304 stainless steel 1 mm thick
- ☐ Resistant to humidity and corrosion
- ☐ Circular lid with an airtight seal that prevents the spread of bad odors and protects hands from getting dirty or splashed while cleaning the toilet.
- ☐ Comes with stainless steel hardware for fixing it to a brick wall
- ☐ WALL BRACKET: made of AISI 304 stainless steel, 2 mm thick. Allows quick removal of the brush holder for cleaning, without tools.
- ☐ INNER RECIPIENT: to collect water and prevent body rust. Made of black thermoplastic to prevent oxidation of the body.
- ☐ HANDLE: made with AISI 304 stainless steel rod and is 27.5 cm in length, which for ease of reach and clean the toilet bowl.
- ☐ LID: made of black circular rubber seal, 2.0 mm thick. ☐
- ☐ BRUSHES: long, dense and soft



AS MEDICLINIC MODEL ES1002B OR EQUIVALENT
ROBE HOOK

- Double-ended bathroom robe hook, made of AISI 304 stainless steel black finish
- └ Made with anti-corrosive and highly resistant stainless steel.
- └ With hidden wall mounting system
- With stainless steel hardware kit for installing on brick walls.
- DOUBLE HOOK: made of 5 mm thick AISI 304 stainless steel plate.
- WALL BRACKETS: two units, made with AISI 304 stainless steel cylindrical tube of $\varnothing 28\text{mm}$ and 1.2mm thick. Attached to the bar by means of a threaded stud and nut.
- └ WALL ANCHORS: two units made of AISI 304 stainless steel tube of $\varnothing 22\text{mm}$ and 1.0mm thick.



AS MEDICLINIC MODEL AI2318B OR EQUIVALENT BASIN MIXER

- └ For connecting to hot and cold water.
- └ with 150mm long levers which
- └ Manufactured from chromium plated brass.
- └ Mounting: Deck mounted
- └ Spout projection: 75mm
- └ To conform to WRAS standards

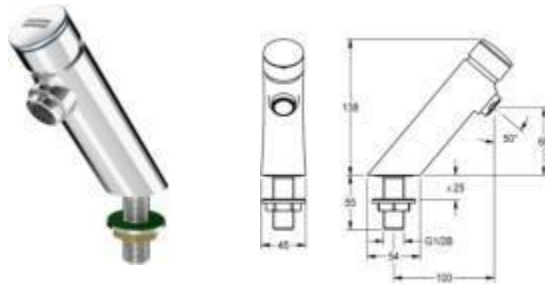


AS HANSGROHE OR EQUIVALENT

SELF CLOSING WASH HAND BASIN PILLAR TAP

- └ F3S Self-closing pillar tap DN 15
- └ Self-closing cartridge, hydraulically controlled, piston-free design, self-closing, stepless adjustment of flow duration.
- └ With Aerator with an integrated flow regulator 3.0 l/min
- └ With adjustable flow time

- ☐ Maximum flow time 20.00 seconds
- ☐ Minimum flow time 5.00 seconds
- ☐ Chromised Surface finish fitting
- ☐ Volume flow rate at 3 bar 0.05 litre per second
- ☐ with preferred dimensions as indicated



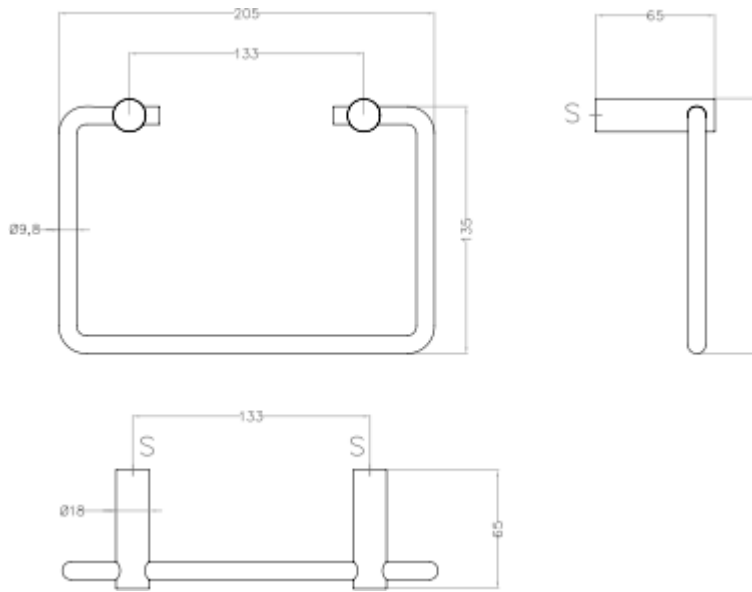
INSTANTENIOUS SHOWER ROSE



LORENZETTI ACQUA-STORM CHROME INSTANT SHOWER WATER HEATER BLACK CHROME L OR EQUIVALENT

TOWEL RING

- ☐ Stainless steel AISI 304 ring, square form, 0.8 mm, satin finish.
- ☐ Stainless steel AISI 304 arm, 0.8 mm thick, satin finish.
- ☐ Completely welded construction.
- ☐ Mounting on the wall by means of two screws.
- ☐ Size 135mmx205mmx65 mm
- ☐ To meet ISO 9001:2008.



AS MEDICLINIC TOWEL RING MODEL AI0090CS OR EQUIVALENT

MIRROR

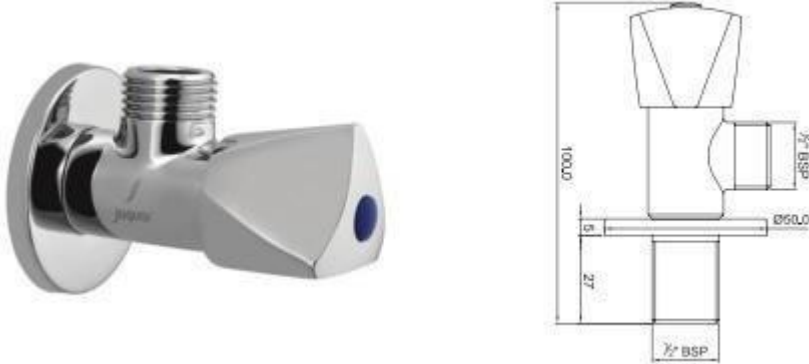
□ Size 900X600mm



ANGLE VALVE

- └ Angle Valve with Triangular Handle & Wall Flange
- └ Recommended Water Pressure 0.5 – 5 bar
- └ Flow Rate 21.00 LPM @ 3 bar
- └ Components have WRAS Approved for food grade conformity with Brass Housing and Spindle

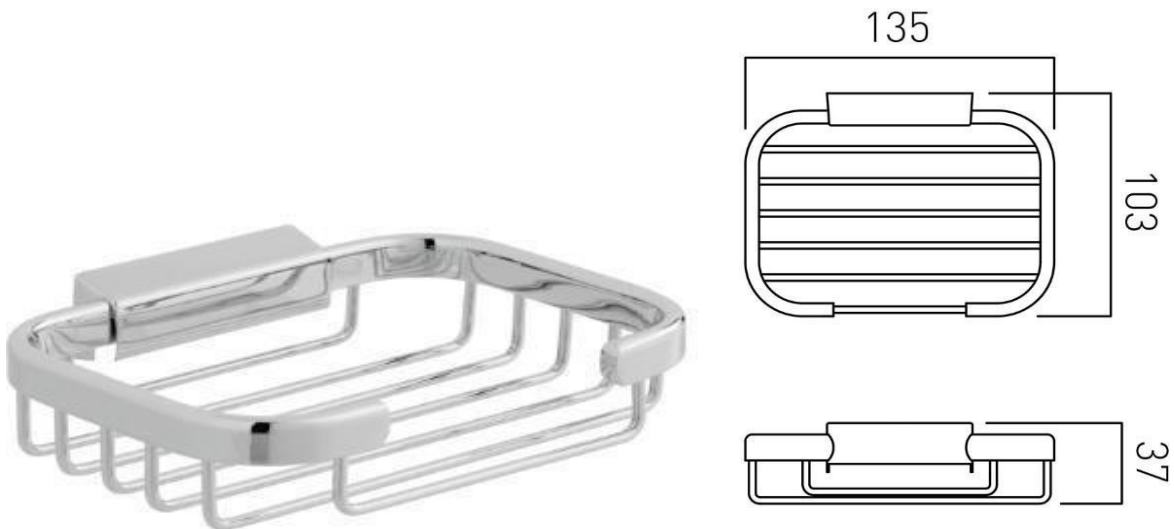
- Finish Plating: Nickel-10.0 micron Chromium-0.3 micron



AS HANSGROHE OR EQUIVALENT

SOAP DISH

- small rectangular basket
- wall mounted
- In chrome finish
- With preferred dimensions as below



AS VADO BASKET MODEL BAS-2001-C/P OR EQUIVALENT

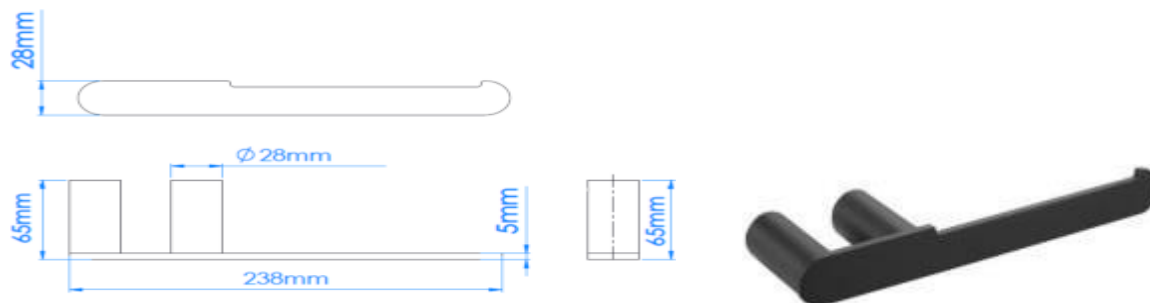
TOILET ROLL HOLDER

- Toilet roll holder made of AISI 304 stainless steel black finish.
- Roll axis made of 5 mm thick AISI 304 stainless steel sheet.
- Wall brackets of two units, made with AISI 304 stainless steel cylindrical tube of Ø 28mm and

1.2mm thick and attached to the bar by means of a threaded stud and nut.

- Wall anchors made of two units, made of AISI 304 stainless steel tube of Ø 22mm and 1.0mm thick. Attached to the wall bracket by means of a screw. It has two oval holes (one vertical and one horizontal) to facilitate wallmounting.

AS MEDICLINIC TOILET ROLL HOLDER MODEL AI1321B OR EQUIVALENT



PIPING SPECIFICATIONS

PARTICULAR SPECIFICATIONS FOR PLUMBING AND DRAINAGE INSTALLATION WORKS

GENERAL

This section specifies the general requirements for plant, equipment and materials forming part of the plumbing and drainage installations.

MATERIALS AND STANDARDS

Pipework and Fittings

Pipework materials are to be used as follows:

a) Galvanized Steel Pipework

Galvanized steel pipe work up to 65mm nominal bore shall be manufactured in accordance with B.S. 1387 Medium Grade, with tapered pipe threads in accordance with B.S. 21. All fittings shall be malleable iron and manufactured in accordance with B.S. 143.

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

Galvanized steel pipe work, 80mm nominal bore up to 150mm nominal bore shall be manufactured to comply in all respects with the specification for 65mm pipe, except that screwed and bolted flanges shall replace unions and couplings for the jointing of pipes to valves and other items of plant. All flanges shall comply with the requirements of B.S. 10 to the relevant classifications contained hereinafter under Section 'C' of the Specification.

Galvanizing shall be carried out in accordance with the requirements of B.S. 1387 and B.S. 143 respectively.

b) Copper Tubing

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

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

Short copper connection tubes between galvanized pipe work and sanitary fittings shall not be used because of the risk of galvanic action.

If, as may occur in certain circumstances, it is not possible to make the connection in any way than the use of copper tubing, then a brass straight connector shall be positioned between the galvanized pipe and the copper tube in order to prevent direct contact.

c) P.V.C. (Hard) Pressure Pipes and Fittings

All P.V.C. pipes and fittings shall be manufactured in accordance with B.S. 3505: 1968.

Jointing

The method of jointing to be employed shall be that of solvent welding, using the pipe and manufacturer's approved cement. Seal ring joint shall be introduced where it is necessary to accommodate thermal expansion.

Testing

Pipelines shall be tested in sections under an internal water pressure normally one and a half times the maximum allowable working pressure of the class of pipe used.

Testing shall be carried out as soon as practical after laying and when the pipeline is adequately anchored. Precautions shall be taken to eliminate all air from the test section and to fill the pipe slowly to avoid risk of damage due to surge.

b) HDPE Pressure Pipes and Fittings

All P.V.C. pipes and fittings shall be manufactured in accordance with B.S. 3505: 1968.

Jointing

The method of jointing to be employed shall be that of solvent welding, using the pipe and manufacturer's approved cement. Seal ring joint shall be introduced where it is necessary to accommodate thermal expansion.

Testing

Pipelines shall be tested in sections under an internal water pressure normally one and a half times the maximum allowable working pressure of the class of pipe used.

Testing shall be carried out as soon as practical after laying and when the pipeline is adequately anchored. Precautions shall be taken to eliminate all air from the test section and to fill the pipe slowly to avoid risk

of damage due to surge.

c) A.B.S. Waste System

Where indicated on the Drawings and Schedules, the Sub-contractor shall supply and fix A.B.S. waste pipes and fittings.

The pipes, traps and fittings shall be in accordance with the relevant British Standards, including B.S. 3943, and fixed generally in accordance with manufacturer's instructions and B.S. 5572: 1978.

Jointing of pipes shall be carried out by means of solvent welding, the manufacturer's instructions and B.S. 5572: 1978. Jointing of pipes shall be carried out by means of solvent welding. The manufacturer's recommended method of joint preparation and fixing shall be followed.

Standard brackets, as supplied for use with this system, shall be used wherever possible. Where the building structure renders this impracticable the Sub-contractor shall provide purpose made supports, centers of which shall not exceed one meter. Expansion joints shall be provided as indicated. Supporting brackets and pipe clips shall be fixed on each side of these joints.

e) PVC Soil System

The Sub-contractor shall supply and fix PVC soil pipes and fittings as indicated on the Drawings and Schedules.

Pipes and fittings shall be in accordance with relevant British Standards, including B.S. 4514 and fixed to the manufacturer's instructions and B.S. 5572.

The soil system shall incorporate synthetic rubber gaskets as provided by the manufacturer whose fixing instructions shall be strictly adhere to. Connections to WC pans shall be effected by the use of a WC connector, gasket and cover, fixed to suit pan outlet. Suitable supporting brackets and pipe clips shall be provided at maximum of one metre centres.

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

Valves

Draw-off Taps and Stop Valves (Up to 50mm Nominal Bore)

Draw-off taps and valves up to 50mm nominal bore, unless otherwise stated or specified for attachment or connection to sanitary fitment shall be manufactured in accordance with the requirements of B.S.1010.

Gate Valves

All gate valves 80mm nominal bore and above, other than those required for fitting to buried water mains shall be of cast iron construction, in accordance with the requirements of B.S. 3464.

All gate valves required for fitting to buried water mains shall be of cast iron construction in accordance with the requirements of B.S.1218.

All gate valves up to and including 65mm nominal bore shall be of bronze construction in accordance with the requirements of B.S. 1952.

The pressure classification of all valves shall depend upon the pressure conditions pertaining to the site of works.

Globe Valves

All globe valves up to and including 65mm nominal bore shall be of bronze construction in accordance with the requirements of B.S.3061.

The pressure classification of all globe valves shall depend upon the pressure conditions pertaining to the site of works.

Waste Fitment Traps

a) Standard and Deep Seal P & S Traps

Where standard or deep seal traps are specified they shall be manufactured in suitable non-ferrous materials in accordance with the full requirements of B.S. 1184.

In certain circumstances, cast iron traps may be required for cast iron baths and in these instances bath traps shall be provided which are manufactured in accordance with the full requirements of B.S.1291.

b) Anti-Syphon Traps

Where anti-syphon traps are specified, these shall be similar or equal to the range of traps manufactured by Greenwood and Hughes Limited, Deacon Works Littlehampton, Sussex, England.

The trade name for traps manufactured by this company is 'Grevak'.

Pipe Supports

a) General

This sub-clause deals with pipe supports securing pipes to the structure of buildings for above ground application.

The variety and type of support shall be kept to a minimum and their design shall be such as to facilitate quick and secure fixings to metal, concrete, masonry or wood.

Consideration shall be given, when designing supports, to the maintenance of desired pipe falls and the restraining of pipe movements to a longitudinal axial direction only.

The Sub-contractor shall supply and install all steelwork forming part of the pipe support assemblies and shall be responsible for making good damage to builders work associated with the pipe support installation.

The Sub-contractor shall submit all his proposals for pipe supports to the Engineer for approval before any erection works commence.

b) Steel and Copper Pipes and Tubes

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

An approximate guide to the maximum permissible supports spacing in metres for steel and copper pipe

and tube is given in the following table for horizontal runs.

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

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

c) Expansion Joints and Anchors

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

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

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

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

Sanitary Appliances

All sanitary appliances supplied and installed as part of the Sub-contract works shall comply with the general requirements of B.S. Code of Practice 305 and the particular requirements of the latest B.S. Specifications.

Pipe Sleeves

Main runs of pipework are to be fitted with sleeves where they pass through walls and floors. Generally the sleeves shall be of P.V.C. except where they pass through the structure, where they shall be mild steel.

The sleeves shall have 6mm – 12mm clearance all around the pipe or for insulated pipework all around the installation.

The sleeve will then be packed with slag wool or similar.

INSTALLATION

General

Installation of all pipework, valves, fittings and equipment shall be carried out under adequate supervision from skilled staff to the relevant codes and standards as specified herein. The Sub-contractor shall be responsible to the Main Contractor for ensuring that all builders work associated with his piping installation is carried out in a satisfactory manner to the approval of the Engineer.

Above Ground Installation

a) Water Services

Before any joint is made, the pipes shall be hung in their supports and adjusted to ensure that the joining faces are parallel and any falls which shall be required are achieved without springing the pipe.

Where falls are not shown on the Contract Drawings or stated elsewhere in the Specification, pipework shall be installed parallel to the lines of the buildings and as close to the walls, ceilings, columns, etc., as is practicable.

All water systems shall be provided with sufficient drain points and automatic air vents to enable them to function correctly.

Valves and other user equipment shall be installed with adequate access for operation and maintenance. Where valves and other operational equipment are unavoidably installed beyond normal reach or in such position as to be difficult to reach from a small step ladder, extension spindles with floor or wall pedestals shall be provided.

Screwed piping shall be installed with sufficient number of unions to facilitate easy removal of valves and fittings, and to enable alterations of pipework to be carried out without the need to cut the pipe.

Full allowances shall be made for the expansion and contraction of pipework, precautions being taken to ensure that any force produced by the pipe movements are not transmitted to valves, equipment or plant.

All screwed joints to piping and fittings shall be made with P.T.F.E. tape.

The test pressure shall be maintained by the pump for about one hour and if there is any leakage, it shall be measured by the quantity of water pumped into the main in that time. A general leakage of 4.5 litres per 25mm of diameter, per 1.6 kilometres per 24 hours per 30 metres head, may be considered reasonable but any visible individual leak shall be repaired.

b) Sanitary Services

Soil, waste and vent pipe system shall be installed in accordance with the best standard of modern practice as described in B.S. 5572 to the approval of the Engineer. The Sub-contractor shall be responsible for ensuring that all ground waste fittings are discharged to a gully trap before passing to the sewer via a

manhole.

The Sub-contractor shall provide all necessary rodding and inspection facilities within the draining system in positions where easy accessibility is available. Where a branch requires rodding facilities in a position to which normal access is unobtainable, then that branch shall be extended so as to provide a suitable purpose made rodding eye in the nearest adjacent wall or floor to which easy access is available.

The vent stacks shall terminate above roof level and where stack passes through roof, a weather skirt shall be provided. The Sub-contractor shall be responsible for sealing the roof after installation of the stacks.

The open end of each stack shall be fitted with a plastic coated or galvanised steel wire guard. Access for rodding and testing shall be provided at the foot of each stack.

c) Sanitary Appliances

All sanitary appliances associated with the Sub-contract works shall be installed in accordance with the best standard of modern practice as described in C.P. 305 to the approval of the Engineer.

Underground Water Mains

After laying, jointing and anchoring, the mains shall be slowly and carefully charged with water so that all air is expelled and allowed to stand full for three days before testing under pressure.

A long main shall be tested in sections as the work of laying proceeds and all joints shall be exposed for inspection during the testing. The open end of the main may be temporarily closed for testing under moderate pressure by fitting a water pipe expanding plug, of which several types are available.

The end of the main and the plug should be secured by struts or otherwise, to resist the end thrust of the water pressure in the main. If the section of main terminates with a sluice valve, the wedge of the valve shall not be used to retain the water, instead the valve shall be fitted temporarily with a blank flange, or a socket valve with a plug and the wedge shall be placed in the open position while testing.

The Contractor shall provide suitable end supports to withstand the end thrust of the water pressure in the main.

Above Ground Internal Water Services Installation

All water service pipe system installed above ground shall be tested hydraulically for a period of one hour to not less than one and half times the design working pressure. If preferred, the Contractor may test the Pipelines in sections.

Any such section found to be satisfactory need not be the subject of a further test when system has been completed, unless specifically requested by the Engineer. During the test, each branch and joint shall be examined carefully for leaks and any defects revealed shall be made good by the Contractor and the section retested.

The Contractor shall take all necessary precautions to prevent damage occurring to special valves and fittings during the tests. Any item damaged shall be required or replaced at the Contractor's expenses.

Underground Drainage System

A site test shall be carried out on all drainage pipes before haunching or surrounds are applied. These tests shall be carried out preferably from manhole to manhole.

Short branch drains connected to a main drain between manholes shall be tested as one system with a main drain.

In long branches, a testing junction shall be inserted next to the junction with the main drain and the branch tested separately. After this has been passed, the testing junction shall be effectively sealed.

All tests on underground drains shall be permitted on cast iron drains at the discretion and to the approval of the Engineer. Water tests shall be carried out in accordance with the methods described under B.S. Code of Practice 301, Clause 601(b) and (c) and the test pressure shall not be less than 1,520mm head at the highest point in the pipe section and not more than 10.36mm head at any point in the section.

The test pressure shall be maintained for the period of one hour during which time the pipe and joints shall be inspected for sweating and leakage. Any leak discovered during the tests shall be made good by the Sub-Contractor and the section re-tested.

In addition to pressure tests, drain pipe runs shall be tested for straightness where applicable. This test shall be carried out in accordance with one of the two methods described in B.S. code of Practice 301, Clause 601(e).

Testing of manholes shall be carried out in accordance with the methods described under B.S. code of practice 301, clause 601 (f).

TESTING AND INSPECTION

Site Tests – Pipework Systems

a) Above Ground Internal Water Services Installation

All water service pipe system installed above ground shall be tested hydraulically for a period of one hour to not less than one and half times to design working pressure.

If preferred, the Sub-contractor may test the pipelines in sections. Any such section found to be satisfactory need not be the subject of a further test when system has been completed, unless specifically requested by the Engineer. During the test, each branch and joint shall be examined carefully for leaks and any defects revealed shall be made good by the Sub-contractor and the section re-tested.

The Sub-contractor shall take all necessary precautions to prevent damage occurring to special valves and fittings during the tests. Any item damaged shall be repaired or replaced at the Sub-contractor's expenses.

b) Above Ground Soil Waste and Ventilation System

All soil, waste and ventilating pipe system forming part of the above ground installation, shall be given appropriate test procedures as described in B.S. 5572,1972.

Smoke tests on above ground soil, waste and ventilating pipe system shall not be permitted.

Pressure tests shall be carried out before any work which is to be concealed is finally enclosed.

In all respects, tests shall comply with the requirements of B.S. 5572.

Site Test – Performance

Following satisfactory pressure test on the pipework system operational tests shall be carried out in accordance with the relevant B. S. Code of practice on the systems as a whole to establish that special valves, gauges, control, fittings, equipment and plant are functioning correctly to the satisfaction of the Engineer.

All hot water pipework shall be installed with pre-formed fibre glass lagging to a thickness of 25mm where the pipe runs above a false ceiling or in areas where the ambient temperature is higher than normal with the result that pipe “sweating”, due to condensation will cause nuisance.

All lagged pipes which run in a visible position after erection shall be given a canvas cover and prepared for painting as follows

- i) Apply a coating of suitable filler until the canvas weave disappears and allow to dry.
- ii) Apply two coats of an approved paint and finish in suitable gloss enamel to colors approved by the Engineer.

All lagging for cold and hot water pipes erected in crawlways, ducts and above false ceiling which after erection are not visible from the corridors of rooms, shall be covered with a reinforced aluminium foil finish banded in colours to be approved by the Engineer.

In all respects, unless otherwise stated, the hot and cold water installation shall be carried out in accordance with the best standard of modern practice and described in C.P.342 and C.P.310 respectively to the approval of the Engineer.

The test pressure shall be applied by means of a manually operated test pump or, in the case of long main or mains of large diameter, by a power driven test pump which shall not be left unattended. In either case precautions shall be taken to ensure that the required pressure is not exceeded.

Pressure gauges should be recalibrated before the tests.

The Sub-contractor shall be deemed to have included in his price for all test pumps, and other equipment required under this specification.

The test pressure shall be one and a half times the maximum working pressure except where a pipe is manufactured from a material for which the relevant B.S. specification designates a maximum test pressure.

STERILISATION OF HOT AND COLD WATER SYSTEM

All water distribution system shall be thoroughly sterilised and flushed out after the completion of all tests and before being fully commissioned for handover.

The sterilisation procedures shall be carried out by the Sub-contractor in accordance with the requirements of B.S. Code of Practice 301, Clause 409 and to the approval of the Engineer.

PLUMBING PIPES SPECIFICATION

- Impact Strength of over 45 avg ft/lbs tested by ASTM D2444 Standard Practice for Determination of the Impact Resistance of Thermoplastic Pipe and Fittings
- Biofilm Formation Potential of less than 120 pg ATP/cm²
- integrates specialized additives that protect the pipe from UV
- To meet the requirement of having a flame spread index of 0-25 and a smoke developed index of 0-50 (25/50 rating) when tested in accordance with ASTM E84/UL723

Item	Parameter	Required
A	Material	Chlorinated Polyvinyl Chloride
B	Tensile Strength (MPa at 23°C)	High.55 MPa
C	Flow Rate	High due to higher ID
D	Jointing	cold fusion as done by solvent joint
E	Scale Formation/ Calcination	No scale formation, pitting and corrosion
F	Fire Retardance	LOI = 60%. Self extinguishes
G	Bacterial Growth	Less than 5000Kbe/cm
H	Thermal Conductivity	0.14W/MK Less energy loss
I	Coefficient of Thermal expansion	0.7x10 mm/mk less supports, less snaking.
J	Effect of UV	Dehydrochlorination reaction. Temp and pressure bearing capacity remains unaffected
K	Oxygen Permeation	Less than 1 cm ³ /m day atmosphere (at 70°C) No corrosion risk
L	Reliability	Being in production for at least 20 years
M	Maximum Temperature	93 degrees centigrade

N	Resistance to water disinfectant (Chlorine)	Not affected by chlorine in water supply or by pH of Water
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Certified to

- EN ISO 15877, which specifies the material is approved for use in hot and cold water distribution systems
- ASTM F656, standard for using a primer for potable water and sewer pipe
- NSF-61 Annex G certification, which verifies the material leaches almost no lead into the water.

PIPE SCHEDULE

Temperature and Pressure Tolerance

Item	Temperature (degrees centigrade)	Working Pressure for PN16(bar)	Working Pressure for PN20(bar)	Working Pressure for PN25(bar)
A	20	16	20	25
B	40	11	14	17
C	60	6	8	10
D	80	4	5	6
E	95	2	3	4

HANGERS AND SUPPORT

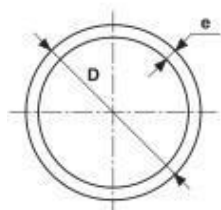
- Piping should not be anchored tightly to supports, but rather secured with smooth straps or hangers that allow for movement caused by expansion and contraction.
- Hangers should not have rough or sharp edges which come in contact with the tubing.

Item	Pipe size(mm)	Hangers Spacing			
		Horizontal			Vertical
		20 ° C	60 ° C	80 ° C	
A	16	850	700	600	1000
B	20	950	850	750	1200
C	25	1050	950	850	1300
D	32	1200	1100	1000	1400
E	40	1300	1150	1150	1500
F	50	1500	1450	1350	1700
G	63	1700	1650	1550	2000

PIPES

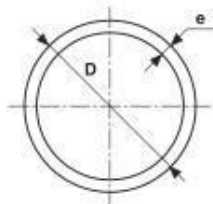
CPVC pipes SDR-11 for 15 mm (½") to 50 mm (2") CPVC Schedule
40 pipes to ASTM F-441

PN 16



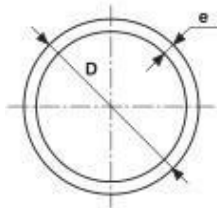
Diameter D	e/mm	PN	Description	Unit	Weight per meter (Kg)	Internal Diameter (mm)
16	1,4	16	TUBE CPVC	ML	0,111	13,20
20	1,5	16	TUBE CPVC	ML	0,151	17,00
25	1,9	16	TUBE CPVC	ML	0,234	21,20
32	2,4	16	TUBE CPVC	ML	0,379	27,20
40	3	16	TUBE CPVC	ML	0,590	34,00
50	3,7	16	TUBE CPVC	ML	0,910	42,60
63	4,7	16	TUBE CPVC	ML	1,460	53,60
75	5,6	16	TUBE CPVC	ML	2,100	63,80
90	6,7	16	TUBE CPVC	ML	2,900	76,60
110	8,1	16	TUBE CPVC	ML	4,310	93,80
125	9,2	16	TUBE CPVC	ML	5,460	106,60
140	10,3	16	TUBE CPVC	ML	6,850	119,40
160	11,8	16	TUBE CPVC	ML	9,070	136,40

PN 20



Diameter D	e/mm	PN	Description	Unit	Weight per meter (Kg)	Internal Diameter (mm)
16	1,5	20	TUBE CPVC	ML	0,115	13,00
20	1,9	20	TUBE CPVC	ML	0,187	16,20
25	2,3	20	TUBE CPVC	ML	0,270	20,40
32	2,9	20	TUBE CPVC	ML	0,470	26,20
40	3,7	20	TUBE CPVC	ML	0,701	32,60
50	4,6	20	TUBE CPVC	ML	1,090	40,80
63	5,8	20	TUBE CPVC	ML	1,720	51,40
75	6,8	20	TUBE CPVC	ML	2,420	61,40
90	8,2	20	TUBE CPVC	ML	3,750	73,60
110	10	20	TUBE CPVC	ML	5,130	90,00
125	11,4	20	TUBE CPVC	ML	6,620	102,20
140	12,7	20	TUBE CPVC	ML	8,200	114,60
160	14,6	20	TUBE CPVC	ML	10,800	130,80

PN 25

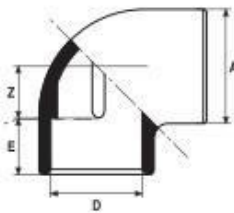


Diameter D	e/mm	PN	Description	Unit	Weight per meter (Kg)	Internal Diameter (mm)
16	1,8	25	TUBE CPVC	ML	0,140	12,40
20	2,3	25	TUBE CPVC	ML	0,220	15,40
25	2,8	25	TUBE CPVC	ML	0,330	19,40
32	3,6	25	TUBE CPVC	ML	0,490	24,80
40	4,5	25	TUBE CPVC	ML	0,830	31,00
50	5,6	25	TUBE CPVC	ML	1,290	38,80
63	7,1	25	TUBE CPVC	ML	2,020	48,80
75	8,4	25	TUBE CPVC	ML	2,880	58,20
90	10,1	25	TUBE CPVC	ML	4,250	69,80
110	12,3	25	TUBE CPVC	ML	6,160	85,40
125	14	25	TUBE CPVC	ML	7,90	97,00
140	15,7	25	TUBE CPVC	ML	9,920	108,60
160	17,9	25	TUBE CPVC	ML	12,910	124,20

PIPE FITTINGS

- CPVC pipes SDR-11 fittings to per ASTM D2846 for pipes Sizes 15 mm (½") to 50 mm (2")
- Schedule 40 fittings to ASTM F-438 for pipe Sizes above 50 mm (2")

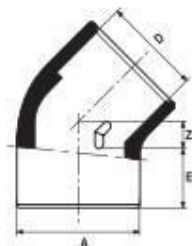
Elbow 90°



Dn	Reference	A(min)	D(avg)	Z(avg)	E(min)
16	GIC 16	21,2	16,2	9,0	14,0
20	GIC 20	26,6	20,2	11,0	16,0
25	GIC 25	32,95	25,35	13,5	25,0
32	GIC 32	40,35	32,35	17,0	30,0
40	GIC 40	50,35	40,35	21,0	35,0
50	GIC 50	62,95	50,35	26,0	41,0
63	GIC 63	76,15	63,35	32,5	50,0
75	GIC 75	90,65	75,45	38,5	60,0
90	GIC 90	108,65	90,45	46,0	72,0
110	GIC 110	132,45	110,45	56,0	88,0

Notes: All dimensions are in mm

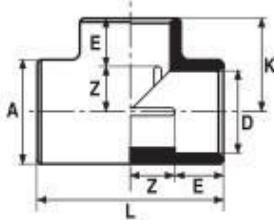
Elbow 45°



Dn	Reference	A(min)	D(avg)	Z(avg)	E(min)
16	HIC 16	21,2	16,2	4,5	14,0
20	HIC 20	26,6	20,2	5,0	16,0
25	HIC 25	32,8	25,2	6,0	18,5
32	HIC 32	40,35	32,35	7,5	30,0
40	HIC 40	50,35	40,35	9,5	35,0
50	HIC 50	60,35	50,35	11,5	41,0
63	HIC 63	76,15	63,35	14,0	50,0
75	HIC 75	90,65	75,45	16,5	60,0
90	HIC 90	108,65	90,45	19,5	72,0
110	HIC 110	132,45	110,45	24,0	88,0

Notes: All dimensions are in mm

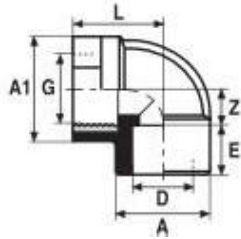
Tee 90°



Dn	Reference	A(min)	D(avg)	Z(avg)	E(min)	K	L
16	TIC 16	21,2	16,2	9,0	14,0	23,0	46,0
20	TIC 20	26,6	20,2	11,0	16,0	27,0	54,0
25	TIC 25	32,95	25,35	13,5	25,0	38,5	77,0
32	TIC 32	40,35	32,35	17,0	30,0	47,0	94,0
40	TIC 40	50,35	40,35	21,0	35,0	56,0	112,0
50	TIC 50	62,95	50,35	26,0	41,0	67,0	134,0
63	TIC 63	76,15	63,35	32,5	50,0	82,5	165,0
75	TIC 75	90,65	75,45	38,5	60,0	98,5	197,0
90	TIC 90	108,65	90,45	46,0	72,0	118,0	236,0
110	TIC 110	132,45	110,45	56,0	88,0	144,0	288,0

Notes: All dimensions are in mm

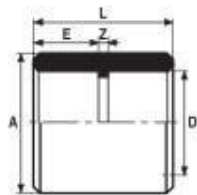
Elbow Metal Reduced and Threaded



Dn	Reference	A1(min)	D(avg)	Z(avg)	E1(min)	G	A1	L
16x1/2"	GIRC 16x1/2"	21,2	16,2	9,0	14,0	1/2"	39,8	28,5
20x1/2"	GIRC 20x1/2"	26,75	20,35	11,0	20,0	1/2"	42,0	27,5
25x1/2"	GIRC 25x1/2"	32,95	25,35	13,5	25,0	1/2"	43,0	33,8
32x1"	GIRC 32x1"	40,35	32,35	17,0	30,0	1"	49,3	39,7

Notes: All dimensions are in mm

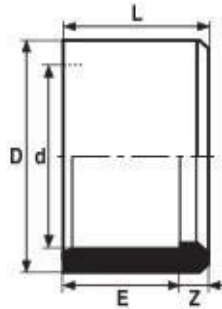
Sleeves



Dn	Reference	A(min)	D(avg)	Z(avg)	E(min)	L
16	MIC 16	21,2	16,2	3,0	14,0	31,0
20	MIC 20	26,6	20,2	3,0	16,0	35,0
25	MIC 25	32,95	25,35	3,0	25,0	53,0
32	MIC 32	40,35	32,35	3,0	30,0	63,0
40	MIC 40	50,35	40,35	3,0	35,0	73,0
50	MIC 50	62,95	50,35	3,0	41,0	85,0
63	MIC 63	76,15	63,35	3,0	50,0	103,0
75	MIC 75	90,65	75,45	4,0	60,0	124,0
90	MIC 90	108,65	90,45	5,0	72,0	149,0
110	MIC 110	132,45	110,45	6,0	88,0	182,0

Notes: All dimensions are in mm

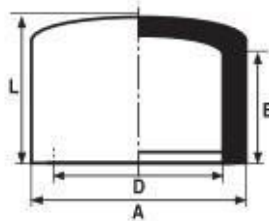
Reduction



Dn	Reference	D(min)	d(avg)	Z(avg)	E(min)	L(min)
20/16	DIC 20/16	20,0	16,35	4,0	16,0	20,0
25/20	DIC 25/20	25,0	20,35	5,0	20,0	25,0
32/20	DIC 32/20	32,0	20,35	10,0	20,0	30,0
32/25	DIC 32/25	32,0	25,35	5,0	25,0	30,0
40/20	DIC 40/20	40,0	20,35	15,0	20,0	35,0
40/25	DIC 40/25	40,0	25,35	10,0	25,0	35,0
40/32	DIC 40/32	40,0	32,35	5,0	30,0	35,0
50/20	DIC 50/20	50,0	20,35	15,0	20,0	35,0
50/25	DIC 50/25	50,0	25,35	16,0	25,0	41,0
50/32	DIC 50/32	50,0	32,35	11,0	30,0	41,0
50/40	DIC 50/40	50,0	40,35	6,0	35,0	41,0
63/32	DIC 63/32	63,0	32,35	20,0	30,0	50,0
63/40	DIC 63/40	63,0	40,35	15,0	35,0	50,0
63/50	DIC 63/50	63,0	50,35	9,0	41,0	50,0
75/50	DIC 75/50	75,0	50,35	19,0	41,0	60,0
75/63	DIC 75/63	75,0	63,35	10,0	50,0	60,0
90/75	DIC 90/75	90,0	75,45	12,0	60,0	72,0
110/90	DIC 110/90	110,0	90,45	16,0	72,0	88,0

Notes: All dimensions are in mm

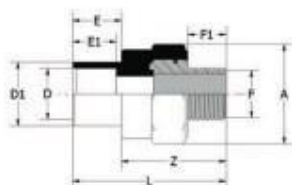
End Cap



Dn	Reference	A(min)	D(Avg)	E(min)	L(min)
16	CIC 16	21,2	16,2	14,0	19,5
20	CIC 20	26,6	20,2	16,0	22,2
25	CIC 25	32,8	25,2	18,5	25,3
32	CIC 32	40,35	32,35	30,0	37,0
40	CIC 40	50,35	40,35	35,0	43,0
50	CIC 50	62,95	50,35	41,0	50,3
63	CIC 63	79,15	63,35	50,0	60,9
75	CIC 75	93,85	75,45	60,0	73,2
90	CIC 90	112,65	90,45	72,0	88,1
110	CIC 110	137,45	110,45	88,0	107,5

Notes: All dimensions are in mm

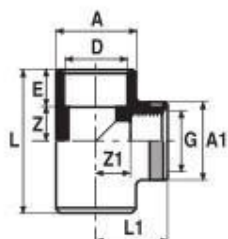
Reduced Metal Sleeve



Dn	Reference	D1(min)	D(avg)	A	E1	E	F	F1	L	Z
25x1/2"	KRG 25x1/2"	32,95	25,35	40,8	25,0	28,0	1/2"	13,7	59,5	43,0
32x1/4"	KRG 32x1/4"	40,35	32,35	47,5	30,0	33,0	3/4"	16,6	65,0	47,5

Notes: All dimensions are in mm

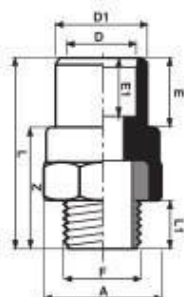
Tee Metal Threaded



Dn	Reference	A(min)	D(avg)	Z(avg)	E(min)	L	G	A1	Z1	L1
16x1/2"	TIRC 16x1/2"	21,2	16,2	9,0	14,0	46,0	1/2"	39,5	15,0	30,0
20x1/2"	TIRC 20x1/2"	26,6	20,35	11,0	20,0	62,0	1/2"	42,5	13,5	30,0
25x1/4"	TIRC 25x1/4"	32,95	25,35	13,5	25,0	77,0	1/4"	43,0	16,5	34,5
32x1"	TIRC 32x1"	40,35	32,35	17,0	30,0	94,0	1"	49,2	20,0	40,5

Notes: All dimensions are in mm

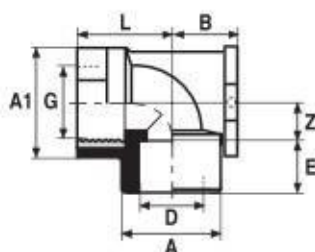
Metal Sleeves Male



Dn	Reference	D1(min)	D(avg)	A	E1	E	F	L1	L	Z
16x½"	KIGC 16x½"	21,2	16,2	39,5	14,0	16,0	½"	12,0	46,7	30,5
20x½"	KIGC 20x½"	26,75	20,35	34,9	20,0	19,0	½"	12,0	48,0	29,5
25x¾"	KIGC 25x¾"	31,75	25,35	40,8	25,0	15,6	¾"	13,7	59,5	43,0
32x1"	KIGC 32x1"	40,35	32,35	47,5	30,0	17,0	1"	16,6	65,0	47,5
40x1¼"	KIGC 40x1¼"	48,55	40,35	59,5	35,0	19,5	1¼"	22,0	75,5	56,0
50x1½"	KIGC 50x1½"	60,35	50,35	69,0	41,0	26,5	1½"	20,0	81,0	54,5
63x2"	KIGC 63x2"	76,15	63,35	81,0	50,0	33,7	2"	26,5	98,5	64,0

Notes: All dimensions are in mm

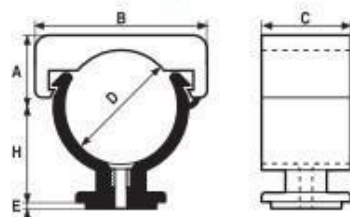
Wall Mount Elbow



Dn	Reference	A(min)	D(avg)	Z(avg)	E(min)	G	A1	L	B
20x½"	20x½"	26,75	20,35	11,0	20,0	½"	42,0	27,0	12,5
25x¾"	25x¾"	32,95	25,35	13,5	25,0	¾"	46,5	34,0	17,5

Notes: All dimensions are in mm

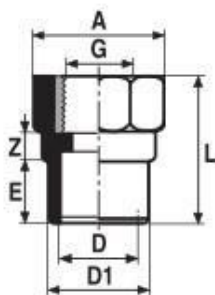
Bracket for Pipe



Dn	Reference	D	A	B	C	E	H
20	MDC 20	20,5	10,0	31,5	16,0	1,9	18,0
25	MDC 25	25,5	11,0	38,0	16,0	1,9	21,0
32	MDC 32	32,8	15,0	48,0	18,0	2,7	25,5

Notes: All dimensions are in mm

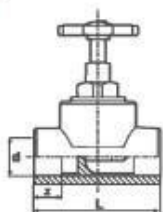
Sleeve Female Metal Threaded



Dn	Reference	D1(min)	D(avg)	A	E(min)	G	Z	L
16x½"	MIRC 16x½"	21,2	16,2	39,5	14,0	½"	3,0	34,5
20x½"	MIRC 20x½"	26,75	20,35	39,5	20,0	½"	3,0	35,2
25x¾"	MIRC 25x¾"	32,95	25,35	45,5	25,0	¾"	3,0	48,0
32x1"	MIRC 32x1"	40,35	32,35	50,5	30,0	1"	3,0	48,5
40x1¼"	MIRC 40x1¼"	48,55	40,35	60,0	35,0	1¼"	3,0	54,5
50x1½"	MIRC 50x1½"	60,35	50,35	69,0	41,0	1½"	3,0	61,0
63x2"	MIRC 63x2"	76,15	63,35	81,0	50,0	2"	3,0	72,0

Notes: All dimensions are in mm

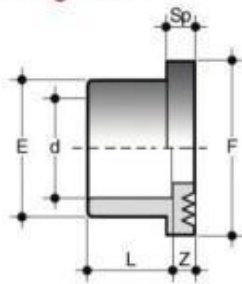
Stop Valve



Dn	Reference	d(avg)	Z(min)	L
20x½"	VKIK 20x½"	20,35	20,0	62,0
25x¾"	VKIK 25x¾"	25,35	25,0	77,0
32x1"	VKIK 32x1"	32,35	30,0	94,0

Notes: All dimensions are in mm

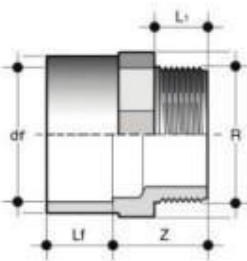
Flange Hub



Dn	Reference	d(avg)	E(min)	L	Z	SP	F
63	Colet 63	63.35	82.0	41.0	3.0	9.0	90.0
75	Colet 75	75.45	89.5	43.5	3.0	10.0	105.0
90	Colet 90	90.45	107.5	49.0	5.0	11.0	125.0
110	Colet 110	110.45	131.0	63.0	5.0	14.0	158.0

Notes: All dimensions are in mm

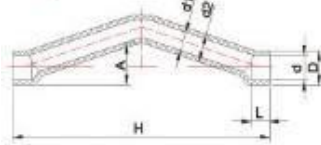
Sleeve Male Threaded



Dn	Reference	df(avg)	Lf(min)	L1(min)	Z	R
25x3/4"	KIFC 25x3/4"	25.35	25.0	16.3	27.0	3/4"
32x1"	KIFC 32x1"	32.35	30.0	19.1	30.5	1"
40x1 1/4"	KIFC 40x1 1/4"	40.35	35.0	21.4	35.0	1 1/4"
50x1 1/2"	KIFC 50x1 1/2"	50.35	41.0	21.4	35.0	1 1/2"
63x2"	KIFC 63x2"	63.35	50.0	25.7	41.0	2"
75x3"	KIFC 75x3"	75.45	60.0	34.5	46.5	3"
90x4"	KIFC 90x4"	90.45	72.0	41.0	52.0	4"

Notes: All dimensions are in mm

Step over bend



Dn	Reference	d(avg)	D(min)	L(min)	H(min)	A	d1	d2
20	SOBC 20	20.2	28.0	16.0	160.0	26.5	14.0	21.8
25	SOBC 25	25.2	34.8	18.5	180.0	29.5	17.7	26.7
32	SOBC 32	32.2	42.0	22.0	220.0	32.5	22.2	32.0

Notes: All dimensions are in mm



Elbow 45°



Expansion Loop



Coupler



Elbow 90°



Tee (Brass)



Cross Tee



Powder Coated
Metal Clamp



Union



Male Adaptor
Plastic Threaded
(MAPT)



Female Adaptor
Plastic Threaded
(FAPT)



End Cap



Equal Tee



Female Adaptor Brass
Threaded (FABT)



Step Over Bend



Reducer Elbow 90°



Tank Nipple



Reducer Tee



Flange Open



Flange Closed



Reducing Bush



Elbow 90° Brass



Reducer Coupler



Converter Bushing

INSTALLATION

Cutting

- CPVC pipe can be cut with a wheel-type plastic tube cutter, a hack saw or other fine toothed hand or power saw.
- Use of ratchet cutters is permitted, provided blades are sharpened regularly. A miter box should be used to ensure a square cut when using a saw.
- Pipes to be cut as squarely as possible to provide an optimal bonding area within the joint.
- If any indication of damage or cracking is evident at the pipe end, cut off at least 5 cm beyond any visible crack.

Deburring / Beveling

- Burrs and filings can prevent proper contact between pipe and fitting during assembly, and should be removed from the outside and inside of the pipe.
- A chamfering tool is preferred for this purpose. A slight bevel on the end of the pipe will ease entry of the pipe into the fitting socket and minimize the chances of pushing solvent cement to the bottom of the joint.

Fitting Preparation

- Any dirt or moisture must be wiped from the fitting socket and pipe end.
- Check the dry fit of the pipe and fitting.
- The pipe should make contact with the socket wall 1/3 to 2/3 of the way into the fitting socket.
- Pipe should not bottom out in the socket.

Solvent Cement Application

- Only CPVC approved cement to be used

Assembly

- Immediately insert the pipe into the fitting socket, rotating the pipe 1/4 to 1/2 turn while inserting. This motion ensures an even distribution of cement within the joint. Properly align the fitting. Hold the assembly for approximately 10 seconds, allowing the joint to set.
- An even bead of cement should be evident around the joint. If this bead is not continuous around the socket edge, it may indicate that insufficient cement was applied. In this case remake the joint to avoid potential leaks.

ALL PIPE AND FITTINGS TO BE AS CPVC FLOWGUARD OR EQUAL

PLUMBING PIPES SPECIFICATION

EXTERNAL PLUMBING

Item	Parameter	Required
A	Material	PE100 raw material
B	Tensile Strength	High.55 MPa
C	Flow Rate	High due to higher ID
D	Jointing	cold fusion as done by solvent joint
E	Scale Formation/ Calcination	No scale formation, pitting and corrosion
F	Fire Retardance	Less than 0.14W/MK Less energy loss
G	Bacterial Growth	Less than 5000Kbe/cm
H	Thermal Conductivity	
I	Thermal Expansion	Low. 0.7x10 mm/mk less supports, less snaking.
J	Effect of UV	Dehydrochlorination reaction. Temp and pressure bearing capacity remains unaffected
K	Oxygen Permeation	Less than 1 cm ³ /m day atmosphere (at 70°C) No corrosion risk
L	Reliability	Being in production for at least 20 years
	Maximum Temperature	93 degrees centigrade
	Jointing	Fittings can be fabricated for butt welding, extrusion welding (butt fusion) and electrofusion welding.

- Manufactured to ISO 4427 standards, and carry the KEBS KS-ISO 4427
- Fittings can be fabricated for butt welding, extrusion welding (butt fusion) and electrofusion welding.

HDPE COMPRESSION FITTINGS

Polypropylene (PP) Compression fittings are approved for use in contact with drinking water. These fittings offer joint security for metric OD polyethylene (PE) pipes and form a seal without distorting the pipe or restricting the pipe bore. The PP Compression fittings range is suitable for potable water distribution mains and irrigation systems

- Joints Body: black Polypropylene
- Lock-nut: blue Polypropylene (RAL 5012)
- Gasket: 75 Shore (NBR) nitrile rubber
- Locking ring: white polyacetale
- Reinforced rings: Stainless steel AISI 430
- Clamp Saddles Body and gasket: black Polypropylene

COUPLING



Size (mm)
16
20
25
32
40
50
63
75
90
110

FLANGED JOINT WITH METAL FLANGE



Size (mm)
50
63
75
90
110

FEMALE ADAPTOR



Size (mm)
16
20
25
32
40
50
63
75
90
110

45° ELBOW WITH THREADED MALE OFFTAKE



Size(mm)
25
32
40
50
63
120

END CAP



Size (mm)
16
20
25
32
40
50
63
75
90
110

90° REDUCING ELBOW



Size(mm)
20 - 15
25 - 20

MALE ADAPTOR WITH THREADED METAL-GI



Size(mm)
20
25
32
40
50
63

MALE ADAPTOR WITH THREADED METAL-BRASS



Size(mm)
20
25
32
40
50
63

45° ELBOW



Size(mm)
20
25
32
40
50
63

FEMALE ADAPTOR WITH METAL OFFTAKE (BRASS)



Size (mm)
20
25
32
40
50
63

90° MALE ELBOW WITH THREADED METAL (NICKELED BRASS)



Size(mm)
20
25
32
40

FEMALE ADAPTOR WITH METAL- (NICKELED BRASS)



Size(mm)
20
25
32
40
50
63

BLANKING PLUG



Size (mm)
20
25
32
40
50

METAL TIGHTENING WRENCH



Size(mm)
16 - 32
40 - 63
75 - 110

90° MALE ELBOW WITH THREADED METAL (BRASS)



Size(mm)
20
25
32
40
50
63

90° TEE



Size
16
20
25
32
40
50
63
75
90
110

REPAIRING COUPLING(WITHOUT PIPE STOP)



Size
120
25
32
40
50
63
75
90
110

MALE ADAPTOR



Size
16
20
25
32
40
50
63
75
90
110

90° TEE WITH THREADED FEMALE OFFTAKE



Size
16
20
25
32
40
50
63
75
90
110

90° REDUCING-INCREASING TEE



Size
20 - 16 - 20
20 - 25 - 20
25 - 20 - 25
25 - 32 - 25
32 - 25 - 32
40 - 32 - 40
50 - 32 - 50
50 - 40 - 50
63 - 32 - 63
63 - 50 - 63

REDUCING COUPLING



Size
20 - 16
25 - 16
25 - 20
32 - 20
32 - 25
40 - 25
40 - 32
50 - 32
50 - 40
63 - 50
110 - 90

90° ELBOW WITH THREADED FEMALE OFFTAKE



Size
16
20
25
32
40
50
63
75
90
110

90° ELBOW WITH THREADED MALE OFFTAKE



Size
16
20
25
32
40
50
63
75
90
110

90° ELBOW



Size
16
20
25
32
40
50
63
75
90
110



Specifications Size

63 x 1/2"
63 x 3/4"
63 x 1"
63 x 1 1/2"
63 x 1 1/2"
75 x 1/2"
75 x 3/4"
75 x 1"
75 x 1 1/4"
75 x 1 1/2"
75 x 2"

Specifications Size

90 x 1/2"
90 x 3/4"
90 x 1"
90 x 1 1/4"
90 x 1 1/2"
90 x 2"
110 x 1/2"
110 x 3/4"
110 x 1"
110 x 1 1/4"
110 x 1 1/2"

Mechanical joint

PRESSURE TEST RECORD

Site name

Date

Address

Contractor Name

Plumber Name

Floor level

Floor/Wing

Room/Office

Starting Time of the Procedure.....

Testing Pressure

Duration	Time	Recorded Pressure Readings (Bar)	Comment
Starting Time			
1 hour			
2 hours			
4 Hours			
6 Hours			
8 Hours			
12 Hours			
24 Hours			

Certification

Plumber Name.....Date.....

Engineers Rep (COW) Name.....Date.....

Testing Procedure

- Disconnect ancillary equipment that may not be designed to withstand test pressures, e.g. shower, boiler, etc. Manufacturer's data should be consulted.
- Check all system high points for location of air vents.

- Blank or plug any open ends including float valves. Close valves where sub-sections only are being tested.
- Open all valves in the enclosed section under test.
- Attach test pump to a convenient point with non-return valve and testing gate valve
- Start filling the system by pump priming and replenishing the pumpwater reservoir.
- Ventilate air from high points until water shows.
- When the system is full, raise the pressure as required.
- Remove the pump and leave the system primed
- If pressure falls, check joints, valves, etc. for leakage.
- When the test is satisfied, ensure the appropriate documentation is signed.
- Physical examination of the system for any leakages

Test requirements

Test required test pressure is applied and maintained for initial 30 minutes for bleeding air out of the pipeline/system.

Test is satisfied if: there is no visible leakage and the pressure drop is a maximum of 5% of the start testing pressure.

Testing Notes

Pipelines shall be tested in sections under an internal water pressure normally one and a half times the maximum allowable working pressure of the class of pipe used or the design pressure. Testing shall be carried out as soon as practical after laying and when the pipeline is adequately anchored. Precautions shall be taken to eliminate all air from the test section and to fill the pipe slowly to avoid risk of damage due to surge. All water service pipe system installed above ground shall be tested hydraulically for a period of one hour to not less than one and half times to design working pressure.

If preferred, the Sub-contractor may test the pipelines in sections. Any such section found to be satisfactory need not be the subject of a further test when system has been completed, unless specifically requested by the Engineer. During the test, each branch and joint shall be examined carefully for leaks and any defects revealed shall be made good by the Sub-contractor and the section re-tested. The Sub-contractor shall take all necessary precautions to prevent damage occurring to special valves and

fittings during the tests. Any item damaged shall be repaired or replaced at the Sub-contractor's expenses.

The test pressure shall be applied by means of a manually operated test pump or, in the case of long main or mains of large diameter, by a power driven test pump which shall not be left unattended. In either case precautions shall be taken to ensure that the required pressure is not exceeded. Pressure gauges should be recalibrated before the tests. The Sub-contractor shall be deemed to have included in his price for all test pumps, and other equipment required under this specification.

The test pressure shall be one and a half times the maximum working pressure except where a pipe is manufactured from a material for which the relevant B.S. specification designates a maximum test pressure.

Note: If further testing is required, it should be done in intervals of 1 hour up to 8 hours (working hours). For overnight testing, the last recorded pressure before close of business and the first reading in the morning should be captured.

DRAINAGE PIPING

- Drainage Piping shall be with specifications as follows

- Raw material - **100% VIRGIN Polyvinyl chloride (PVC-U)**
- Stabilizers - Non-lead/ Organic
- Jointing method - Rubber ring or Solvent Weld
- Density (g/cm³) - 1.40
- Yield strength (N/mm²) - 50 – 55
- E-modulus (N/mm²) - 3000
- Melting point - Ca. 90°C
- Vicat softening point - 80°C
- Specific heat - 1.00 kJ/kg • K
- Colour Light Grey to BS EN 1329-1:2000 and quality to BS 5255
- Colour Brown to BS EN 1401-1:1998 and quality to BS 4660
- Coefficient of heat conduction - 0.16 W/mK
- Tensile Strength : Min. 45 N/mm²
- Jointing by Rubber Ring/Solvent Weld
- With all associated fittings
 - WC Connectors
 - Vent pipes and caps
 - Air admittance valves
 - Traps/siphons
 - Floor gullies
 - Access fittings
 - Connectors and reducers
- 15° chamfer is applied to all spigot ends for rubber ring pipe.

Item	Parameter	Value	Test method
A	Impact Resistance	$TIR \leq 10\%$	EN 744
B	Vicat Softening	$\geq 79^{\circ}\text{C}$	EN 727
C	Longitudinal Reversion	$\leq 5\%$	EN 743
D	Dichloromethane Acid Resistance	No attack	EN 580
E	Water Tightness of Rubber Ring Joint	No leakage	EN 1277
F	Elevated Temp. Cycling	No leakage	EN 1055
G	Long Term Performance of TPE Seals	90 days ≥ 1.3 bar	EN 1989
		100 years ≥ 0.6 bar	EN 1989
H	Resistance to Internal Pressure	No failure during the test 10.0MPa for 1000 hours, at 60°C	EN 921

Item	Pipe Size (mm)	Mean outside diameter(mm)	Wall thickness (mm)
A	36	36.5	3.5
B	43	43.1	3.5
C	56	56.1	3.5
D	82	82.3	3.5
E	110	110.3	3.5
F	160	160.4	3.8

PIPE FITTING



BEND 90° - SWR

Sizes

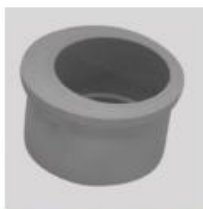
1 1/4"
1 1/2"
2"
3" (82mm)



BEND 45° - SWR

Sizes

4" (110mm)
Bend 45°



REDUCING BUSH - SWR

Sizes

1 1/4"
1 1/2"
2"
3" (82mm)



W.C. CONNECTOR - SWR

Sizes

W.C. Connector
Straight 4" (110mm)



SHOWER TRAP - SWR

Sizes

4" (110mm) Tee



BOSS CONNECTOR - SWR

Sizes

4' (110mm) x 1 1/4"
4' (110mm) x 1 1/2"
4' (110mm) x 2"



FLOOR TRAP - SWR

Description

Complete with Grill and Tile
Grill and Tile (inlet)
Main Trap
Grill



INSPECTION BEND 90° - SWR

Sizes

4" (110mm) Inspection
Bend 90°



VENT COWL - SWR

Description

4' (110mm)



ACCESS PLUG - SWR

Sizes

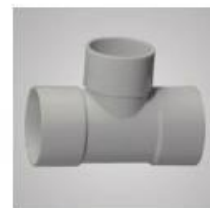
1 1/4"
1 1/2"
2"



TEE SWR

Sizes

1 1/4"
1 1/2"
2"
3" (82mm)



TEE SWR

Sizes

4" (110mm) Tee



INSPECTION TEE

Sizes

4" (110mm) Bend 90°

PROPOSED NATIONAL POLICE SERVICES COMMISSION OFFICES, NAIROBI

BILL OF QUANTITIES FOR PLUMBING, DRAINAGE AND FIRE FIGHTING

RATES INCLUSIVE OF VAT

ITEM NO.	DESCRIPTION	UNIT	QTY	RATE KSHS.	TOTAL KSHS.
	<u>PRELIMINARIES AND GENERAL CONDITIONS</u>				
A	Preparation of working drawings "As installed" record drawings.	Sum	1		
B	Printing of paper copies of item C above.	Sum	1		
TOTAL CARRIED TO MAIN SUMMARY PAGE					

PROPOSED NATIONAL POLICE SERVICES COMMISSION OFFICES, NAIROBI

BILL OF QUANTITIES FOR PLUMBING, DRAINAGE AND FIRE FIGHTING

RATES INCLUSIVE OF VAT

10TH FLOOR

ITEM NO.	DESCRIPTION	UNIT	QTY	RATE KSHS.	TOTAL KSHS.
1.0	<u>SANITARY FITTINGS</u> <i>To supply and install the following sanitary fittings including all necessary joints to service overflow and waste pipes, jointings and motices, plugs, screws, bolts, and making good. Sanitary fittings will be to Architect's /Engineer approval of the relevant samples Supply and install the following Sanitary Fittings,</i>				
A	'DURAVIT" D-Code Wall- Hung W.C pan with horizontal outlet in Vitreous China to B.S 3402 comprising of WC pan , seat & cover with soft closing stainless steel hinges, C/W concealed cistern as geberit or or equal and approved.	No	6		
B	'DURAVIT" D-Code Countertop wash hand basin 600 x 450 mm with one tap hole, in Vitreous China, tube, chrome plated bottle trap and metal handle S8910 and servicing valves	No	6		
C	Hangrohe four way shower mixer complete with diverter, shower rose and hands shower or equal and approved.	No	2		
	<u>SANITARY FITTINGS: ACCESSORIES</u>				
D	Hangsgrohe Monoblock basin mixer complete with waste and flexible supply hoses.	No	6		
E	Dali or equal and approved Toilet roll holder size 150 x150	No	6		
F	Dali Wall soap dish in Vitreous china	No	2		
G	Dali Chrome plated towel rail size 25 x 600mm long fixed on wall or equal and approved	No	2		
H	Towel Ring as Dali or equal and approved	No	6		
I	Wall mounted brush holder as Dali or equal and approved	No.	6		
J	Bevelled edge polished Rectangular glass mirror size 800 x 600 x 6mm thick with back LED light	No	6		
K	20 mm diameter flexible tubing about 300mm long including brass brackets and clips	No	20		
L	20mm angle valves as scholler	No	30		
M	Supply and install undercounter instantenious water heater with min. flow rate 1.5 rater 5.7kW tobe as Stiebel eltron or equal and approved	No	6		
N	Supply and install Arabic shower next to the water closet	No	6		
TOTAL CARRIED FORWARD TO COLLECTION PAGE					

ITEM NO.	DESCRIPTION	UNIT	QTY	RATE KSHS.	TOTAL KSHS.
2.0	<u>PLUMBING COLD AND HOT WATER DISTRIBUTION</u> <i>Supply and install CPVC pipe to be solvent joint as per manufactured details and conforming to ISO and EN 15874 standard.</i>				
A	40mm diameter pipe	Lm	4		
B	32 mm diameter pipe	Lm	24		
C	25 mm diameter ditto	Lm	60		
	<u>Extra Over Tubbing For:-</u>				
	<u>BEND /ELBOWS</u>				
D	32mm diameter	No	4		
E	25mm diameter	No	36		
	Equal Tee				
F	40mm diameter	No	2		
G	32mm diameter	No	4		
H	25mm diameter	No	24		
	<u>REDUCERS</u>				
I	40 x 32mm diameter	No	4		
J	32 x 25mm diameter	No	6		
K	40 x 25mm diameter	No	2		
	GATE VALVES				
L	25mm diameter gate valve as peglar	No	6		
M	32mm diameter	No	4		
	<u>Male PPR Adaptors</u>				
N	25mm x 20mm diameter	No	20		
O	32mm x20mm diameter	No	8		
P	32mm x25mm diameter	No	12		
	PPR Male Screwed Bend				
Q	32 x 25mm Dia	No	12		
R	25mm x 20mm Dia	No	8		
	PPR Female Adaptor				
S	25mm x 20mm diameter	No	24		
T	32mm x20mm diameter	No	12		
U	32mm x25mm diameter	No	8		
v	Allow for supply and installation of fire sprinkler flex pipes 1.2m long to be connected to existing provisions	No.	32		
w	Allow for ceiling pendent sprinkler head covers	No.	32		
TOTAL CARRIED TO COLLECTION PAGE					

ITEM NO.	DESCRIPTION	QTY	UNIT	RATE KSHS.	TOTAL KSHS.
3.0	<p>DRAINAGE - FOUL & WASTE WATER DRAINAGE</p> <p><i>Fix uPVC soil system to BS 4660 and BS 4515 and MuPVC waste system to BS 5255 with screwed and socketed joints to BS 21, solvent welded joints shall be as per the manufacture's written instructions. Tenders must allow in their pipework prices for all the running lengths of pipework and also where necessary for pipe fixing clips, holderbats, plugs and screwed. The installation must comply with BS 5572. All pipework to be as KEY TERRAIN.</i></p> <p>MuPVC waste system conforming to BS 5255</p>				
A	200.15.40 ditto /40mm	LM	8		
B	200.3.40 ditto/50mm	LM	12		
C	100.4.40/100mm waste pipe	LM	48		
D	100.4.40/150mm waste pipe	LM	24		
	BENDS				
E	Ditto but 40mm	No.	16		
F	Ditto but 50mm	No.	12		
G	Ditto but 100mm	No.	36		
H	204.15.91 sweep tee	No.	8		
I	204.2.135 tee	No.	10		
J	237.15 Access plug	No.	10		
K	279.2 floor traps complete with SS covers	No.	6		
L	282.6 floor traps inlet	No.	6		
M	129.4.90 WC connector bend	No.	8		
N	100X50mm boss connector	No.	8		
O	100mm diameter single branch	No.	6		
	TOTAL CARRIED TO SUMMARY PAGE				

SUMMARY PAGE FOR SANITARY FITTINGS, PLUMBING, DRAINAGE & FIRE FIGHTING

CONTRACT PRICE: ONE THIRTY TWO THOUSAND, TWO HUNDRED AND FORTY TWO THOUSAND SHILLINGS ONLY		
	DESCRIPTION	AMOUNT KSHS.
1	SANITARY FITTINGS INSTALLATIONS	
2	PLUMBING - COLD WATER SUPPLY	
3	DRAINAGE - FOUL & WASTE WATER INSTALLATIONS	
TOTALS CARRIED TO MAIN SUMMARY PAGE		

PROPOSED NATIONAL POLICE SERVICES COMMISSION OFFICES, NAIROBI

BILL OF QUANTITIES FOR PLUMBING, DRAINAGE AND FIRE FIGHTING

RATES INCLUSIVE OF VAT

9TH FLOOR

ITEM NO.	DESCRIPTION	UNIT	QTY	RATE KSHS.	TOTAL KSHS.
1.0	<u>SANITARY FITTINGS</u> <i>To supply and install the following sanitary fittings including all necessary joints to service overflow and waste pipes, jointings and motices, plugs, screws, bolts, and making good. Sanitary fittings will be to Architect's /Engineer approval of the relevant samples</i> <i>Supply and install the following Sanitary Fittings,</i>				
A	'DURAVIT' D-Code Wall- Hung W.C pan with horizontal outlet in Vitreous China to B.S 3402 comprising of WC pan , seat & cover with soft closing stainless steel hinges, C/W concealed cistern as geberit or or equal and approved.	No	3		
B	'DURAVIT' D-Code Countertop wash hand basin 600 x 450 mm with one tap hole, in Vitreous China, tube, chrome plated bottle trap and metal handle S8910 and servicing valves	No	3		
C	Hangrohe four way shower mixer complete with diverter,shower rose and hands shower or equal and approved.	No	1		
	<u>SANITARY FITTINGS: ACCESSORIES</u>				
D	Hangsgrohe Monoblock basin mixer complete with waste and flexible supply hoses.	No	3		
E	Dali or equal and approved Toilet roll holder size 150 x150	No	3		
F	Dali Wall soap dish in Vitreous china				
G	Dali Chrome plated towel rail size 25 x 600mm long fixed on wall or equal and approved	No	1		
H	Towel Ring as Dali or equal and approved	No	1		
I	Wall mounted brush holder as Dali or equal and approved	No	3		
J	Bevelled edge polished Rectangular glass mirror size 800 x 600 x 6mm thick with back LED light	No.	3		
K	20 mm diameter flexible tubing about 300mm long including brass brackets and clips	No	3		
L	20mm angle valves as scholler	No	10		
M	Supply and install undercounter instantenious water heater with min. flow rate 1.5 rater 5.7kW tobe as Stiebel eltron or equal and approved	No	3		
N	Supply and install Arabic shower next to the water closet	No	3		
TOTAL CARRIED FORWARD TO COLLECTION PAGE					

ITEM NO.	DESCRIPTION	UNIT	QTY	RATE KSHS.	TOTAL KSHS.
2.0	PLUMBING COLD AND HOT WATER DISTRIBUTION <i>Supply and install CPVC pipe to be solvent joint as per manufactured details and conforming to ISO and EN 15874 standard.</i>				
A	40mm diameter pipe	Lm	4		
B	32 mm diameter pipe	Lm	24		
C	25 mm diameter ditto	Lm	36		
	<u>Extra Over Tubbing For:-</u>				
	<u>BEND /ELBOWS</u>				
D	32mm diameter	No	4		
E	25mm diameter	No	24		
	Equal Tee				
F	40mm diameter	No	4		
G	32mm diameter	No	4		
H	25mm diameter	No	16		
	<u>REDUCERS</u>				
I	40 x 32mm diameter	No	4		
J	32 x 25mm diameter	No	6		
K	40 x 25mm diameter	No	4		
	GATE VALVES				
L	25mm diameter gate valve as peglar	No	6		
M	32mm diameter	No	4		
	<u>Male PPR Adaptors</u>				
N	25mm x 20mm diameter	No	8		
O	32mm x20mm diameter	No	10		
P	32mm x25mm diameter	No	12		
	PPR Male Screwed Bend				
Q	32 x 25mm Dia	No	6		
R	25mm x 20mm Dia	No	10		
	PPR Female Adaptor				
S	25mm x 20mm diameter	No	10		
T	32mm x20mm diameter	No	8		
U	32mm x25mm diameter	No	6		
v	Allow for supply and installation of fire sprinkler flex pipes 1.2m long to be connected to existing provisions	No.	32		
w	Allow for ceiling pendent sprinkler head covers	No.	32		
TOTAL CARRIED TO COLLECTION PAGE					

ITEM NO.	DESCRIPTION	QTY	UNIT	RATE KSHS.	TOTAL KSHS.
3.0	<p>DRAINAGE - FOUL & WASTE WATER DRAINAGE</p> <p><i>Fix uPVC soil system to BS 4660 and BS 4515 and MuPVC waste system to BS 5255 with screwed and socketed joints to BS 21, solvent welded joints shall be as per the manufacture's written instructions. Tenders must allow in their pipework prices for all the running lengths of pipework and also where necessary for pipe fixing clips, holderbats, plugs and screwed. The installation must comply with BS 5572. All pipework to be as KEY TERRAIN.</i></p> <p>MuPVC waste system conforming to BS 5255</p>				
A	200.15.40 ditto /40mm	LM	12		
B	200.3.40 ditto/50mm	LM	8		
C	100.4.40/100mm waste pipe	LM	30		
D	100.4.40/150mm waste pipe	LM	6		
	BENDS				
E	Ditto but 40mm	No.	10		
F	Ditto but 50mm	No.	8		
G	Ditto but 100mm	No.	20		
H	204.15.91 sweep tee	No.	8		
I	204.2.135 tee	No.	8		
J	237.15 Access plug	No.	6		
K	279.2 floor traps complete with SS covers	No.	4		
L	282.6 floor traps inlet	No.	4		
M	129.4.90 WC connector bend	No.	3		
N	100X50mm boss connector	No.	4		
O	100mm diameter single branch	No.	6		
P	100mm acustic PVC pipe	Lm	12		
	TOTAL CARRIED TO SUMMARY PAGE				

SUMMARY PAGE FOR SANITARY FITTINGS, PLUMBING, DRAINAGE & FIRE FIGHTING

	DESCRIPTION	AMOUNT KSHS.
1	SANITARY FITTINGS INSTALLATIONS	
2	PLUMBING - COLD WATER SUPPLY	
3	DRAINAGE - FOUL & WASTE WATER INSTALLATIONS	
TOTALS CARRIED TO MAIN SUMMARY PAGE		

PROPOSED NATIONAL POLICE SERVICES OFFICES, NAIROBI

FIRE SUPPRESSION

RATES INCLUSIVE OF VAT

ROOM VOID 74M3

8TH FLOOR

ITEM NO	DESCRIPTION	UNIT	QTY	RATE KSHS.	TOTAL KSHS.
A	60 lbs HFC 227ea cylinder filled with 60 lbs HFC 227ea gas ,C/W: impulse discharge valve ,nipple, Victaulic coupling, mounting Strap,and Pressure gauge	No.	2		
B	Impulse Valve Operator W/ Manual Strike Button Kit C/W impulse valve operator, reset tool, wire lead w/connector and impulse release.	No.	1		
C	Pressure Switch (Low pressure)	No.	1		
D	Discharge nozzle	No.	2		
E	impulse valve operator w/manual strike button kit	No.	1		
F	Extinguishing Control Panel (2) Detection Zone and Releasing Area (1) C/W 24VDC Back up Battery,	SET	1		
G	Optical Smoke Detector With Base shield	No.	2		
H	Abort Switch w/ back box, model;S111R-AB shield	No.	1		
I	FIRE BELL 6"c/w back box, model HR-SHIELD	No.	1		
J	Strobe horn c/w back box model, model P2R	No.	1		
K	XENON / strobe light w/back box model SR	No.	1		
L	Warning signs	No.	1		
M	Allow for supply and installation of fire sprinkler flex pipes 1.2 be connected to existing provisions	No.	32		
N	Allow for ceiling pendent sprinkler head covers	No.	32		
TOTAL CARRIED FORWARD TO NEXT PAGE					

ITEM NO.	DESCRIPTION	UNIT	QTY	RATE KSHS.	TOTAL KSHS.
	TOTAL BROUGHT FROM PREVIOUS PAGE				
	Pipework Supply and install Schedule 40/GMS pipework and threaded fittings as follows:-				
A	25mm diameter pipe	Lm.	12		
B	15mm diameter pipe	Lm	21		
	Bends				
C	25mm diameter bend	No	10		
D	15mm diameter bend	No.	9		
	Tees				
E	25mm diameter tee	No	2		
F	15mm diameter tee	No.	2		
	Sockets				
G	25mm diameter socket	No	4		
H	15mm diameter socket	No.	4		
	Unions				
I	25mm diameter unions	No	3		
J	15mm diameter unions	No.	4		
K	Allow for Paintworks/Anchorage installations and Configurations	PC	sum		
L	Allow for electrical connection	PC	sum		
M	Allow for testing and commissioning	PC	sum		
	TOTAL CARRIED TO COLLECTION PAGE				

PROPOSED NATIONAL POLICE SERVICES COMMISSION OFFICES, NAIROBI

BILL OF QUANTITIES FOR PLUMBING, DRAINAGE AND FIRE FIGHTING

RATES INCLUSIVE OF VAT

7TH FLOOR

ITEM NO.	DESCRIPTION	UNIT	QTY	RATE KSHS.	TOTAL KSHS.
A	Allow for supply and installation of fire sprinkler flex pipes 1.2m long to be connected to existing provisions	No.	32		
B	Allow for ceiling pendent sprinkler head covers	No.	32		
TOTAL CARRIED TO COLLECTION PAGE					

SUMMARY PAGE FOR SANITARY FITTINGS, PLUMBING, DRAINAGE & FIRE FIGHTING

	DESCRIPTION	AMOUNT KSHS.
1	FIRE FIGHTING	
TOTALS CARRIED TO MAIN SUMMARY PAGE		

PROPOSED NATIONAL POLICE SERVICES COMMISSION OFFICES, NAIROBI

BILL OF QUANTITIES FOR PLUMBING, DRAINAGE AND FIRE FIGHTING

RATES INCLUSIVE OF VAT

6TH FLOOR

ITEM NO.	DESCRIPTION	UNIT	QTY	RATE KSHS.	TOTAL KSHS.
A	Allow for supply and installation of fire sprinkler flex pipes 1.2m long to be connected to existing provisions	No.	32		
B	Allow for ceiling pendent sprinkler head covers	No.	32		
TOTAL CARRIED TO COLLECTION PAGE					

SUMMARY PAGE FOR SANITARY FITTINGS, PLUMBING, DRAINAGE & FIRE FIGHTING

	DESCRIPTION	AMOUNT KSHS.
1	FIRE FIGHTING	
TOTALS CARRIED TO MAIN SUMMARY PAGE		

PROPOSED NATIONAL POLICE SERVICES COMMISSION OFFICES, NAIROBI

SUMMARY PAGE FOR PLUMBING AND DRAINAGE INSTALLATIONS

	DESCRIPTION	AMOUNT KSHS.
1	PRELIMINARIES AND GENERAL CONDITIONS	
2	10TH FLOOR SANITARY FITTINGS, PLUMBING, DRAINAGE & FIRE FIGHTING	
3	9TH FLOOR SANITARY FITTINGS, PLUMBING, DRAINAGE & FIRE FIGHTING	
4	8TH FLOOR FIRE FIGHTING	
5	7TH FLOOR FIRE FIGHTING	
6	6TH FLOOR FIRE FIGHTING	
7	CONTINGENCY SUM	500,000.00
TOTAL INCLUDING VAT CARRIED TO GRAND SUMMARY		

**PROPOSED OFFICE PARTITIONING AND FIT OUT AT
CBK PENSION TOWERS**

**SECTION XIII: PRIME COSTS, PROVISIONAL SUMS
AND GRAND SUMMARY**

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS

PRIME COST AND PROVISIONAL SUMS

PROPOSED OFFICE PARTITIONING AND FIT-OUT FOR NPSC AT CBK PENSION TOWERS

GRAND SUMMARY

ITEM	PARTICULARS	FOR OFFICIAL USE ONLY	KSHS/CTS
1	PRELIMINARIES FROM PAGE 20		
2	MAIN WORKS FROM PAGE 65		
3	ELECTRICAL INSTALLATIONS FROM PAGE 20		
4	STRUCTURED CABLING & CCTV FROM PAGE 9		
	MECHANICAL VENTILATION AND AIR		
5	CONDITIONING FROM PAGE 6		
	PLUMBING, DRAINAGE AND FIRE FIGHTING		
6	FROM PAGE 16		
7	PROVISIONAL SUMS FROM PAGE PGS/1		16,461,000.00
	GRAND TOTAL INCLUDING VAT CARRIED TO FORM OF TENDER		

.....
TENDERER'S SIGNATURE AND STAMP

.....
WITNESS'S SIGNATURE

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NAME & ADDRESS

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NAME & ADDRESS

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DATE

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DATE