



# NATIONAL WATER HARVESTING & STORAGE AUTHORITY (N.W.H.S.A)

## CONSTRUCTION OF UMAA DAM WATER SUPPLY & IRRIGATION PROJECT IN KITUI COUNTY, KENYA

TENDER NO. NW/HSA/OIT/001/2023-2024

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<b>SUPERVISING CONSULTANT</b> SMEC International PTY Limited in association with SMEC Kenya Limited	<b>DATE:</b> SEPTEMBER 2023

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## **INVITATION TO TENDER**

**PROCURING ENTITY: NATIONAL WATER HARVESTING & STORAGE AUTHORITY**

**CONTRACT NAME AND DESCRIPTION: CONSTRUCTION OF UMAA DAM WATER SUPPLY & IRRIGATION PROJECT IN KITUI COUNTY**

**NWHS/OIT/001/2023-2024**

1. The *National Water Harvesting & Storage Authority* invites sealed tenders for the construction of: **33m high earth fill embankment Dam (Umaa) and a Water Treatment Plant of a capacity of 2500 m<sup>3</sup>/day, in Kitui County, all to be completed within 24 months.**
2. Tendering will be conducted under open competitive method [*Open International Tender*] using a standardized tender document. Tendering is open to all qualified and interested Tenderers.
3. A complete set of tender documents may be obtained electronically from the Website (s) [www.waterauthority.go.ke](http://www.waterauthority.go.ke) OR [www.tenders.go.ke](http://www.tenders.go.ke) . Tender documents obtained electronically will be free of charge.
4. Tenderers who download the tender document must forward their particulars immediately to [procurement@waterauthority.go.ke](mailto:procurement@waterauthority.go.ke) to facilitate any further clarification or addendum.
5. Tenders shall be quoted be in **Kenya Shillings** and shall include all taxes. Tenders shall remain valid for **(182)** days from the date of opening of tenders.
6. All Tenders must be accompanied by a **Tender Security of Kes.2,000,000.00.**
7. The Tenderer shall **chronologically serialize all pages** of the tender documents submitted.
8. Completed tenders must be delivered to the address below on or before **8.30 a.m. on 27<sup>th</sup> October, 2023.** Electronic Tenders **will not** be permitted.
9. Tenders will be opened immediately after the deadline date and time specified above or any deadline date and time specified later. Tenders will be publicly opened in the presence of the Tenderers' designated representatives who choose to attend at the address below.
10. Late tenders will be rejected.
11. The addresses referred to above are:

### **A. Address for Submission of Tenders.**

National Water Harvesting & Storage Authority,  
Tender Box, 4<sup>th</sup> Floor, National Water Plaza Building  
Situating in Nairobi County, Industrial Area, Along Dunga Road.

#### **Attn.**

Chief Executive Officer,  
P.O. Box 30173 – 00100,  
Nairobi  
Tel No. Telephone: (254) (020) 6964000),  
E-mail: [procurement@waterauthority.go.ke](mailto:procurement@waterauthority.go.ke) / [info@waterauthority.go.ke](mailto:info@waterauthority.go.ke)

Bulk tenders may be deposited at the Chief Executive Officer's office on the  
5th Floor, National Water Plaza Building  
Situating in Nairobi County, Industrial Area, Along Dunga Road.

### **B. Address for Opening of Tenders.**

National Water Harvesting & Storage Authority,  
National Water Plaza Building - 5<sup>th</sup> Floor - Boardroom,  
Situating in Nairobi County, Industrial Area, Along Dunga Road,

Name **John K. Muhia (P. Eng. Tech.)**

Designation **Ag. Chief Executive Officer**

Signature \_\_\_\_\_

Date \_\_\_\_\_

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## **PART 1 - TENDERING PROCEDURES**

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## **SECTION I-INSTRUCTIONS TO TENDERERS**

### **A GENERAL PROVISIONS**

#### **1. 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**.

#### **2. 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 (where 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. Eligible Tenderers**

- 3.1 A Tenderer may be a firm that is a private entity, a state-owned enterprise or institution subject to ITT 3.8, or an individual or any combination of such entities in the form of a joint venture (JV) under an existing agreement or with the intent to enter into such an agreement supported by a letter of intent. In the case of a joint venture, all members shall be jointly and severally liable for the execution of the entire Contract in accordance with the Contract terms. The JV shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the members of the JV during the tendering process and, in the event the JV is awarded the Contract, during contract execution. Members of a joint venture may not also make an individual tender, be a subcontractor in a separate tender or be part of another joint venture for the purposes of the same Tender. The maximum number of JV members shall be specified in the **TDS**.
- 3.2 Public Officers of the Procuring Entity, their Spouses, Child, Parent, Brothers or Sister. Child, Parent, Brother or Sister of a Spouse, their business associates or agents and firms/organizations in which they have a substantial or controlling interest shall not be eligible to tender or be awarded a contract. Public Officers are also not allowed to participate in any procurement proceedings.
- 3.3 A Tenderer shall not have a conflict of interest. Any tenderer found to have a conflict of interest shall be disqualified. A tenderer may be considered to have a conflict of interest for the purpose of this tendering process, if the tenderer:
- a) Directly or indirectly controls, is controlled by or is under common control with another tenderer; or
  - b) Receives or has received any direct or indirect subsidy from another tenderer; or
  - c) Has the same legal representative as another tenderer; or
  - d) Has a relationship with another tenderer, directly or through common third parties, that puts it in a position to influence the tender of another tenderer, or influence the decisions of the Procuring Entity regarding this tendering process; or

- 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; or
  - f) any of its affiliates has been hired (or is proposed to be hired) by the Procuring Entity as a consultant for Contract implementation; or
  - 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; or
  - h) Has a close business or personal relationship with senior management or professional staff of the Procuring Entity who has the ability to influence the bidding process and:
    - i) are directly or indirectly involved in the preparation of the Tender document or specifications of the Contract, and/or the Tender evaluation process of such contract; or
    - ii) may be involved in the implementation or supervision of such Contract unless the conflict stemming from such relationship has been resolved in a manner acceptable to the Procuring Entity throughout the tendering process and execution of the Contract.
- 3.4 A tenderer shall not be involved in corrupt, coercive, obstructive or fraudulent practice. A tenderer that is proven to have been involved in any of these practices shall be automatically disqualified.
- 3.5 A Tenderer (either individually or as a JV member) shall not participate in more than one Tender, except for permitted alternative tenders. This includes participation as a subcontractor in other Tenders. Such participation shall result in the disqualification of all Tenders in which the firm is involved. Members of a joint venture may not also make an individual tender, be a subcontractor in a separate tender or be part of another joint venture for the purposes of the same Tender. A firm that is not a tenderer or a JV member may participate as a subcontractor in more than one tender.
- 3.6 A Tenderer may have the nationality of any country, subject to the restrictions pursuant to ITT3.9. A Tenderer shall be deemed to have the nationality of a country if the Tenderer is constituted, incorporated or registered in and operates in conformity with the provisions of the laws of that country, as evidenced by its articles of incorporation (or equivalent documents of constitution or association) and its registration documents, as the case may be. This criterion also shall apply to the determination of the nationality of proposed subcontractors or sub-consultants for any part of the Contract including related Services.
- 3.7 A Tenderer that has been debarred from participating in public procurement shall be ineligible to tender or be awarded a contract. The list of debarred firms and individuals is available from the website of PPRA [www.ppra.go.ke](http://www.ppra.go.ke).
- 3.8 A Tenderer that is a state-owned enterprise or a public institution in Kenya may be eligible to tender and be awarded a 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, or
  - 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 subcontracts 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 III-EVALUATION AND QUALIFICATION CRITERIA, Item 9*”.

- 3.11 Pursuant to the eligibility requirements of ITT4.10, a tender is considered a foreign tenderer, if the tenderer is not registered in Kenya or if the tenderer is registered in Kenya and has less than 51 percent ownership by Kenyan citizens. JVs are considered as foreign tenderers if the individual member firms are not registered in Kenya or if are registered in Kenya and have less than 51 percent ownership by Kenyan citizens. The JV shall not subcontract to foreign firms more than 10 percent of the contract price, excluding provisional sums.
- 3.12 The National Construction Authority Act of Kenya requires that all local and foreign contractors be registered with the National Construction Authority and be issued with a Registration Certificate before they can undertake any construction works in Kenya. Registration shall not be a condition for tender, but it shall be a condition of contract award and signature. A selected tenderer shall be given opportunity to register before such award and signature of contract. Application for registration with National Construction Authority may be accessed from the website [www.nca.go.ke](http://www.nca.go.ke).
- 3.13 The Competition Act of Kenya requires that firms wishing to tender as Joint Venture undertakings which may prevent, distort or lessen competition in provision of services are prohibited unless they are exempt in accordance with the provisions of Section 25 of the Competition Act, 2010. JVs will be required to seek for exemption from the Competition Authority. Exemption shall not be a condition for tender, but it shall be a condition of contract award and signature. A JV tenderer shall be given opportunity to seek such exemption as a condition of award and signature of contract. Application for exemption from the Competition Authority of Kenya may be accessed from the website [www.cak.go.ke](http://www.cak.go.ke).
- 4.14 A Kenyan tenderer shall be eligible to tender if it provides evidence of having fulfilled his/her tax obligations by producing a valid tax compliance or valid tax certificate issued by the Kenya Revenue Authority.

#### **4. 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 ITT3.9. 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. 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 at 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 up on its premises and lands for the purpose of such visit. The Tenderer shall indemnify the Procuring Entity against all liability arising from death or personal injury, loss of or damage to property, and any other losses and expenses incurred as a result of the examination and inspection.
- 5.4 The tenderer shall provide in the Form of Tender and Qualification Information, a preliminary description of the proposed work method and schedule, including charts, as necessary or required.

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

#### **6. Sections of Tender Document**

- 6.1 The tender document consists of Parts 1, 2, and 3, which includes all the sections specified below, and which should be read in conjunction with any Addenda issued in accordance with ITT10.

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

Section I: Instructions to Tenderers

Section II: Tender Data Sheet  
(TDS)

**PART 2: Works' Requirements**

Section V: Bills of Quantities  
Section VI: Specifications  
Section VII: Drawings

**PART3: Conditions of Contract and Contract Forms**

Section VIII: General Conditions (GCC)  
Section IX: Particular Conditions of Contract

Section X: Contract Forms

- 62 The Invitation to Tender Notice issued by the Procuring Entity is not part of the Contract documents.
- 63 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.
- 64 The Tenderer is expected to examine all instructions, forms, terms, and specifications in the Tender Document and to furnish with its Tender all information and documentation as is required by the Tender document.
- 7. Clarification of Tender Document, Site Visit, Pre-Tender Meeting**
- 7.1 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.

## **8. Amendment of Tender Documents**

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

## **C. PREPARATION OF TENDERS**

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

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

### **10. Language of Tender**

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

### **11. Documents Comprising the Tender**

- 11.1 The Tender shall comprise the following:
  - a) Form of Tender prepared in accordance with ITT 12;
  - b) Schedules including priced Bill of Quantities, completed in accordance with ITT 12 and ITT 14;
  - c) Tender Security or Tender-Securing Declaration, in accordance with ITT 19.1;
  - d) Alternative Tender, if permissible, in accordance with ITT 13;
  - e) Authorization: written confirmation authorizing the signatory of the Tender to commit the Tenderer, in accordance with ITT 20.3;
  - f) Qualifications: documentary evidence in accordance with ITT 17 establishing the Tenderer's qualifications to perform the Contract if its Tender is accepted;
  - g) Conformity: a technical proposal in accordance with ITT 16;
  - h) Any other document required in the **TDS**.
- 11.2 In addition to the requirements under ITT 11.1, Tenders submitted by a JV shall include a copy of the Joint Venture Agreement entered into by all members. Alternatively, a letter of intent to execute a Joint Venture Agreement in the event of a successful Tender shall be signed by all members and submitted with the Tender, together with a copy of the proposed JV Agreement. Change of membership and conditions of the JV prior to contract signature will render the tender liable for disqualification.

### **12. 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 ITT13.4 below, Tenderers wishing to offer technical alternatives to the requirements of the Tender Documents must first price the Procuring Entity's design as described in the Tender Documents and shall further provide all information necessary for a complete evaluation of the alternative by the Procuring Entity, including drawings, design calculations, technical specifications, breakdown of prices, and proposed construction methodology and other relevant details. Only the technical alternatives, if any, of the Tenderer with the Winning Tender conforming to the basic technical requirements shall be considered by the Procuring Entity.
- 13.4 When specified in the **TDS**, Tenderers are permitted to submit alternative technical solutions for specified parts of the Works, and such parts will be identified in the **TDS**, as will the method for their evaluating, and described in Section VII, Works' Requirements.

### **14. Tender Prices and Discounts**

- 14.1 The prices and discounts (including any price reduction) quoted by the Tenderer in the Form of Tender and in the Bill of Quantities shall conform to the requirements specified below.
- 14.2 The Tenderer shall fill in rates and prices for all items of the Works described in the Bill of Quantities. Items against which no rate or price is entered by the Tenderer shall be deemed covered by the rates for other items in the Bill of Quantities and will not be paid for separately by the Procuring Entity. An item not listed in the priced Bill of Quantities shall be assumed to be not included in the Tender, and provided that the Tender is determined substantially responsive notwithstanding this omission, the average price of the item quoted by substantially responsive Tenderers will be added to the Tender price and the equivalent total cost of the Tender so determined will be used for price comparison.
- 14.3 The price to be quoted in the Form of Tender, in accordance with ITT 12, shall be the total price of the Tender, including any discounts offered.
- 14.4 The Tenderer shall quote any discounts and the methodology for their application in the Form of Tender, in accordance with ITT 12
- 14.5 It will be specified in the **TDS** if the rates and prices quoted by the Tenderer are or are not subject to adjustment during the performance of the Contract in accordance with the provisions of the Conditions of Contract, except in cases where the contract is subject to fluctuations and adjustments, not fixed price. In such a case, the Tenderer shall furnish the indices and weightings for the price adjustment formulae in the Schedule of Adjustment Data and the Procuring Entity may require the Tenderer to justify its proposed indices and weightings.
- 14.6 Where tenders are being invited for individual lots (contracts) or for any combination of lots (packages), tenderers wishing to offer discounts for the award of more than one Contract shall specify in their Tender the price reductions applicable to each package, or alternatively, to individual Contracts within the package. Discounts shall be submitted in accordance with ITT 14.4, provided the Tenders for all lots (contracts) are opened at the same time.
- 14.7 All duties, taxes, and other levies payable by the Contractor under the Contract, or for any other cause, as of the date 30 days prior to the deadline for submission of Tenders, shall be included in the rates and prices and the total Tender Price submitted by the Tenderer.

### **15. Currencies of Tender and Payment**

- 15.1 The currency (ies) of the Tender and the currency (ies) of payments shall be the same.
- 15.2 Tenderers shall quote entirely in Kenya Shillings. The unit rates and the prices shall be quoted by the Tenderer in the Bill of Quantities, entirely in Kenya shillings

- a) A Tenderer expecting to incur expenditures in other currencies for inputs to the Works supplied from outside Kenya (referred to as “the foreign currency requirements”) shall (if so allowed in the **TDS**) indicate in the Appendix to Tender the percentage(s) of the Tender Price (excluding Provisional Sums), needed by the Tenderer for the payment of such foreign currency requirements, limited to no more than two foreign currencies.
- b) The rates of exchange to be used by the Tenderer in arriving at the local currency equivalent and the percentage(s) mentioned in (a) above shall be specified by the Tenderer in the Appendix to Tender and shall be based on the exchange rate provided by the Central Bank of Kenya on the date 30 days prior to the actual date of tender opening. Such exchange rate shall apply for all foreign payments under the Contract.

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 breakdown of the foreign currency requirements shall be provided by Tenderers.

## **16. Documents Comprising the Technical Proposal**

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

## **17. 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 ITT33. 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 contract 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 there by 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 17.2** 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 tenderer 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 on going, 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,
  - iii) The tenderer will be referred to the relevant law enforcement authorities for investigation of whether the tenderer or any other persons have committed any criminal offence.
- 17.10 If a tenderer submits information pursuant to these requirements that is incomplete, inaccurate or out-of-date, or attempts to obstruct the verification process, then the consequences ITT 17.8 will ensue unless the tenderer can show to the reasonable satisfaction of 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 tender.

## **18. Period of Validity of Tenders**

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

## **19. 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; or
  - 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 there to provided by the Tenderer; or
  - b) if the successful Tenderer fails to:
    - i) sign the Contract in accordance with ITT 47; or
    - ii) furnish a Performance Security and if required in the **TDS**, and any other documents required in the **TDS**.
- 19.8 Where tender securing declaration is executed, the Procuring Entity shall recommend to the PPRA that PPRA debars the Tenderer from participating in public procurement as provided in the law.
- 19.9 The Tender Security or the Tender-Securing Declaration of a JV shall be in the name of the JV that submits the Tender. If the JV has not been legally constituted into a legally enforceable JV at the time of tendering, the Tender Security or the Tender-Securing Declaration shall be in the names of all future members as named in the letter of intent referred to in ITT 4.1 and ITT 11.2.
- 19.10 A tenderer shall not issue a tender security to guarantee itself.

## **20. Format and Signing of Tender**

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

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

### **21. Sealing and Marking of Tenders**

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

The inner envelopes or packages or containers shall:

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

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

## **22. Deadline for Submission of Tenders**

- 22.1 Tenders must be received by the Procuring Entity at the address specified in the **TDS** and no later than the date and time also specified in the **TDS**. When so specified in the **TDS**, Tenderers shall have the option of submitting their Tenders electronically. Tenderers submitting Tenders electronically shall follow the electronic Tender submission procedures specified in the **TDS**.
- 22.2 The Procuring Entity may, at its discretion, extend the deadline for the submission of Tenders by amending the Tender Documents in accordance with ITT 8, in which case all rights and obligations of the Procuring Entity and Tenderers previously subject to the deadline shall thereafter be subject to the deadline as extended.

## **23. Late Tenders**

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

## **24. Withdrawal, Substitution, and Modification of Tenders**

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

## **25. Tender Opening**

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

- 25.4 Next, envelopes marked “MODIFICATION” shall be opened and read out with the corresponding Tender. No Tender modification shall be permitted unless the corresponding modification notice contains a valid authorization to request the modification and is read out at Tender opening.
- 25.5 Next, all remaining envelopes shall be opened on eata time, reading out: the name of the Tenderer and whether there is a modification; the total Tender Price, per lot (contract) if applicable, including any discounts and alternative Tenders; the presence or absence of a Tender Security or Tender-Securing Declaration, if required; and any other details as the Procuring Entity may consider appropriate.
- 25.6 Only Tenders, alternative Tenders and discounts that are opened and read out at Tender opening shall be considered further for evaluation. The Form of Tender and pages of the Bill of Quantities (to be decided on by the tender opening committee) are to be initialed by the members of the tender opening committee attending the opening.
- 25.7 At the Tender Opening, the Procuring Entity shall neither discuss the merits of any Tender nor reject any Tender (except for late Tenders, in accordance with ITT 23.1).
- 25.8 The Procuring Entity shall prepare minutes of the Tender Opening that shall include, as a minimum:
- a) The name of the Tenderer and whether there is a withdrawal, substitution, or modification;
  - b) The Tender Price, per lot (contract) if applicable, including any discounts;
  - c) Any alternative Tenders;
  - d) The presence or absence of a Tender Security, if one was required.
  - e) Number of pages of each tender document submitted.
- 25.9 The Tenderers' representatives who are present shall be requested to sign the minutes. The omission of a Tenderer's signature on the minutes shall not invalidate the contents and effect of the minutes. A copy of tender opening register shall be issued to a tenderer upon request.

## **E. Evaluation and Comparison of Tenders**

### **26. Confidentiality**

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

### **27. Clarification of Tenders**

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

### **28. Deviations, Reservations, and Omissions**

- 28.1 During the evaluation of tenders, the following definitions apply:
- a) “Deviation” is a departure from the requirements specified in the tender document;

- b) “Reservation” is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the tender document; and
- c) “Omission” is the failure to submit part or all of the information or documentation required in the Tender document.

## **29. 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; or
  - 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; or
  - 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. 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 nonmaterial 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 nonmaterial 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. 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 anyway 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, sub total and total bid price shall be considered as a major deviation that affects the substance of the tender and shall lead to disqualification of the tender as non-responsive. and
  - c) If there is a discrepancy between words and figures, the amount in words shall prevail
- 31.3 Tenderers shall be notified of any error detected in their bid during the notification of award.

## **32 Conversion to Single Currency**

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

## **33 Margin of Preference and Reservations**

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

## **34 Nominated Subcontractors**

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

## **35 Evaluation of Tenders**

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

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

### **36. 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. Abnormally Low Tenders and Abnormally High**

#### **Tenders Abnormally Low Tenders**

- 37.1 An Abnormally Low Tender is one where the Tender price, in combination with other elements of the Tender, appears so low that it raises material concerns as to the capability of the Tenderer in regards to the Tenderer's ability to perform the Contract for the offered Tender Price or that genuine competition between Tenderers is compromised.
- 37.2 In the event of identification of a potentially Abnormally Low Tender, the Procuring Entity shall seek written clarifications from the Tenderer, including detailed price analyses of its Tender price in relation to the subject matter of the contract, scope, proposed methodology, schedule, allocation of risks and responsibilities and any other requirements of the Tender document.
- 37.3 After evaluation of the price analyses, in the event that the Procuring Entity determines that the Tenderer has failed to demonstrate its capability to perform the Contract for the offered Tender Price, the Procuring Entity shall reject the Tender.

#### **Abnormally High Tenders**

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

### **38. Unbalanced and/or Front-Loaded Tenders**

- 38.1 If in the Procuring Entity's opinion, the Tender that is evaluated as the lowest evaluated price is seriously unbalanced and/or front loaded, 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; or
  - b) require that the total amount of the Performance Security be increased at the expense of the Tenderer to a level not exceeding a 10% of the Contract Price; or
  - c) agree on a payment mode that eliminates the inherent risk of the Procuring Entity paying too much for undelivered works; or
  - d) reject the Tender,

#### **39. 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 Subcontractors 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. 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. 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. Incase of annulment, all Tenders submitted and specifically, Tender securities, shall be promptly returned to the Tenderers.

### **F. AWARD OF CONTRACT**

#### **42. 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. Notice of Intention to enter into a Contract**

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) instructions on how to request a debriefing and/or submit a complaint during the stand still period;

#### **44. Stand still Period**

- 421 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.
- 422 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. 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 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. 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 within 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. Signing of Contract**

- 47.1 Upon the expiry of the fourteen days of the Notification of Intention to enter into 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. 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. 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 read out at Tender opening.

**50. Procurement Related Complaint and Administrative Review**

50.1 The procedures for making Procurement-related Complaints shall be 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	The contract name: <b>CONSTRUCTION OF UMAA DAM WATER SUPPLY &amp; IRRIGATION PROJECT IN KITUI COUNTY, KENYA</b>  The reference number of the Contract is <b>NWHS/OIT/001/2023-2024</b>  The number and identification of lots (contracts) comprising this Tender are <b>[NOT APPLICABLE]</b>																						
ITT 2.4	The Information made available on competing firms is as follows: The firms that provided consulting services for the contract being tendered for are: <b>SMEC International PTY Limited in association with SMEC Kenya Limited</b>																						
ITT 3.1	Maximum number of members in the Joint Venture (JV) shall be: <b>[Two]</b> .																						
B. Contents of Tender Document																							
ITT 7.1	(i) The Tenderer will submit any request for clarifications in writing at the Address: <a href="mailto:procurement@waterauthority.go.ke">procurement@waterauthority.go.ke</a> to reach the Procuring Entity not later than <b>10 days (ten days)</b> before the tender closing date.  (ii) The Procuring Entity will publish its response at the website <b><a href="http://www.waterauthority.go.ke">www.waterauthority.go.ke</a></b>																						
ITT 7.2	(A) A pre-arranged pretender site visit <b>Shall Not</b> take place. (B) Pre-Tender meeting <b>Shall Not</b> take place.																						
ITT 7.3	<b>Not Applicable</b>																						
ITT 7.5	The Procuring Entity’s website where Minutes of the pre-tender meeting and the pre-arranged pretender will be published is: <b>Not Applicable</b>																						
C. Preparation of Tenders																							
ITT 11.1 (h)	<table><tr><td colspan="3">The Tenderer shall submit the following additional documents in its Tender:</td></tr><tr><td>i</td><td>Evidence of a permanent office for the bidding entity in the form of either office space lease/rent agreement (witnessed by a lawyer) with evidence of payment of rent/lease dues in the last 12 months OR proof of ownership of the premise where the office is located which shall be in the form of a land ownership document in the name of bidding entity.</td><td></td></tr><tr><td>ii</td><td>Bidding firm’s bank statements for the last 12 months up to 31<sup>st</sup> August, 2023. (The copies should be certified by the bank issuing the statements. The certification should be original.)</td><td></td></tr><tr><td>iii</td><td>Copy of certificate of the composition of directors of shareholding (CR12) or Equivalent for Non-Local bidders.</td><td></td></tr><tr><td>iv</td><td>Copy of license/practicing certificate for the auditor who audited the Latest Financial Statements.</td><td></td></tr><tr><td>v</td><td>Demonstrate ability to raise Engineer’s Payment Certificates or Equivalent of at least Kshs.200 million in the course of executing dam contracts. This should be done by providing copies of such past certificates and the related payments highlighted on bidder’s bank statements (Such bank statements shall have been certified by the issuing bank in the original.)</td><td></td></tr><tr><td>vi</td><td>Evidence of a valid Public Liability Insurance Cover for the bidder for an insured sum of at least Kshs.100 million (One hundred Million Kenya Shillings). A policy document shall be attached.</td><td></td></tr></table>		The Tenderer shall submit the following additional documents in its Tender:			i	Evidence of a permanent office for the bidding entity in the form of either office space lease/rent agreement (witnessed by a lawyer) with evidence of payment of rent/lease dues in the last 12 months OR proof of ownership of the premise where the office is located which shall be in the form of a land ownership document in the name of bidding entity.		ii	Bidding firm’s bank statements for the last 12 months up to 31 <sup>st</sup> August, 2023. (The copies should be certified by the bank issuing the statements. The certification should be original.)		iii	Copy of certificate of the composition of directors of shareholding (CR12) or Equivalent for Non-Local bidders.		iv	Copy of license/practicing certificate for the auditor who audited the Latest Financial Statements.		v	Demonstrate ability to raise Engineer’s Payment Certificates or Equivalent of at least Kshs.200 million in the course of executing dam contracts. This should be done by providing copies of such past certificates and the related payments highlighted on bidder’s bank statements (Such bank statements shall have been certified by the issuing bank in the original.)		vi	Evidence of a valid Public Liability Insurance Cover for the bidder for an insured sum of at least Kshs.100 million (One hundred Million Kenya Shillings). A policy document shall be attached.	
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vi	Evidence of a valid Public Liability Insurance Cover for the bidder for an insured sum of at least Kshs.100 million (One hundred Million Kenya Shillings). A policy document shall be attached.																						

Reference to ITC Clause	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS		
		vii	The Bidder 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 by:
			a) having an annual turnover of at least Kshs.0.5 billion for each of the last 3 audited financial years.
			b) having a current ratio of at least 1:1 for each of the last 3 audited financial years – rounded off to one decimal place
			c) attaching evidence of access to cash/balances/reserves/credit lines/quick assets of at least Kshs.500Million (Five Hundred Million Kenya Shillings) in the form of an original letter addressed to the: Chief Executive Officer, National Water Harvesting and Storage Authority P.O. Box 30173-00100, Nairobi. The letter should be undersigned by the bidder's bank authorized signatory/signatories and should be on the bank's letterhead.
		viii	A written commitment on bidder's letterhead and properly signed that, if successfully awarded, the bidder shall:
			*transfer technology, skills and knowledge through training, mentoring and participation of Kenyan Citizens;
			*source at least 10% of materials from disadvantaged groups (youth, women and persons with disability) registered with The National Treasury (Kenya);
			*shall reserve at least 75% of employment opportunities for Kenyan Citizens of which not less than 20% shall be reserved for Kenyan Professionals at Management Level;
			*source at least 40% of their supplies from Kenyan citizen contractors.
			*shall provide a Local Content plan for the transfer of technology and shall include:
			+Positions reserved for employment of local citizens.
			+Capacity building and competence development program for local citizens
			+Time frames for which to provide employment opportunities.
			+Demonstrable efforts for accelerated capacity building of Kenyan citizens.
			+Succession planning and management.
			+Plan of how to source 40% of materials from local industries.
		ix	Propose major items of construction equipment/machinery/plant to be made available on site. Fill FORM EQU: EQUIPMENT in the Section IV of the bid document. The proposed construction equipment/machinery/plant shall include:
			<b>Description with minimum capacity requirement</b>
			<b>Minimum Quantity</b>
			<b>Number</b>
		a	20Tonnes (Tare Wgt) Dozer 3
		b	20Tonnes (Tare Wgt) Excavator 3
		c	20Tonnes (Tare Wgt) Vibratory Roller - Smooth & Sheepfoot 3
		d	10Tonnes (Load Capacity) Tipper Truck 8
		e	7Tonnes (Tare Wgt) Wheel Loader 3
		f	10Tonnes (Load Capacity) Concrete Mixer 3
		g	Water Bowser 4
		h	7Tonnes (Tare Wgt) Motor Grader 1
		i	30Tonnes Tower Crane 1
		j	Concrete Batching Plant 1
		k	Geotechnical Drilling Rig 1
		l	Stone Crushing Plant 1
			<i>The above listing shall comply with the following:</i>

Reference to ITC Clause	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS		
			The proposed construction equipment/machinery/plant shall be supported with <b>Copies of ownership documents issued by relevant machinery/equipment/plant registration or licensing entities</b> or Verifiable <b>ownership documents</b> (only for non-registrable equipment/machinery/plant i.e (i, j, k, l) in the name of bidding entity or in the case of Joint Venture in the name of one of the partners.
			Bidders shall own / lease all of the above listed machine/equipment/plant. Ownership shall be determined by provision of ownership documents issued by relevant machinery/equipment/plant registration or licensing entities in the name of the bidding entities or its directors. Otherwise, lease agreements (witnessed by a competent advocate) shall be provided. Such agreements shall also be supported with certified copies of the leased equipment which shall be in the name of the lessor.
		x	Propose qualified and experienced site management and technical personnel by filling FORM PER-1. The listing shall be accompanied by Curriculum Vitae (CVs) in the format of FORM PER-2. Further, copies of the academic certificates (masters/degree/diploma OR their equivalent for Non-Local Bidders) shall be also be attached. The proposed Engineer/Professionals shall be registered/licensed by the relevant professional boards and such proof attached. The proposed personnel shall include:
			<b>SCHEDULE OF PERSONNEL</b>
			<b>Position Held</b>
			<b>Minimum Years of Experience in dam construction &amp; related works</b>
		a	Project Manager - Degree Qualification in Civil Engineering 20
		b	Site Agent - Degree Qualification in Civil Engineering 20
		c	Assistant Site Agent - Degree Qualification in Civil Engineering 20
		d	Materials Engineer 20
		e	Plant and Equipment Superintendent 15
		f	Grouting Superintendent 15
		g	Superintendent Concrete 15
		h	Superintendent Earthworks 15
		i	Superintendent Pipeline 15
		j	Surveyor 10
		k	Health and safety Superintendent 10
			<b>Please Note:</b>
			<i>20% shall be Kenyan Citizens – proof shall be in the form of Kenyan Identification Cards</i>
		xi	Copy of at least 1 contract as a Prime/Main Contractor in dam construction works successfully completed within the <b>last 10 years</b> . The extract of the contract shall indicate the scope of the works, contract amount and signatures of the contracting parties. The completed dam project should have: a height of at least 20 meters high, 300m long embankment wall with an intake tower, diversion culvert and pipeline of at least 200mm diameter. Such contracts shall be for works valued above Kshs.2Billion (Two Billion Kenya Shillings) - where there is a value in foreign currency, conversion shall be done using the exchange rate at the time of contract signing as indicated on the contract extract. Proof of completion of the contract shall be provided in the form of a Completion certificate or Handing Over Certificate properly signed by the client. A Recommendation letter from the client shall be attached. The letter shall include the <i>name of the specific project implemented and cost of the project</i> . Details of the client including an official email address who may be contacted for further information on this

Reference to ITC Clause	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS			
			contract must be submitted. The bidder shall fill the FORM EXP - 4.2(a) and (b) provided in Section IV.	
		xii	A detailed proposal on the Methodology for implementation of the works. The methodology must include the main components of the project (coffer dam, river diversion culvert, intake tower- (water & penstock), embankment core and shell and spillway) as detailed in the scope including assurance of quality of work. The methodology shall not be less than twenty (20) pages and shall be typed, font 12 Times New Roman and single spacing.	
		xiii	Proposed Program of Works in form of a detailed Gantt chart. The same must be signed by the tenderer.	
		xiv	The practicing license for the certifying officer shall be attached.	
ITT 13.1	Alternative Tenders <b><u>Shall Not Be</u></b> considered.			
ITT 13.2	Alternative times for completion <b><u>Shall Not Be</u></b> permitted.			
ITT 13.4	Alternative technical solutions shall <b><u>Shall Not Be</u></b> permitted.			
ITT 14.5	The prices quoted by the Tenderer shall be: <b>Fixed</b>			
ITT 15.2(a)	Foreign currency requirements are <b>not allowed</b> .			
ITT 18.1	The Tender validity period shall be <b>182</b> days			
ITT 19.1	A Tender Security <b>shall be</b> required.  A Tender-Securing Declaration <b>shall not be</b> required.  If a Tender Security shall be required, the amount and currency of the Tender Security shall be: <b>Kes.2Million (Kenya Shillings Two Million)</b>			
ITT 19.5	Other documents required are: <b>NOT APPLICABLE</b>			
ITT 20.1	In addition to the original of the Tender, the number of copies is: <b>three (3) and one (1) electronic copy in pdf format (in flash disk only)</b>			
ITT 20.3	The written confirmation of authorization to sign on behalf of the Tenderer shall consist of:  <b>An appointment letter as power of attorney signed by at least half of the directors appearing on the CR12 or business owner. Such letter shall clearly have a specimen signature of the appointee and shall be witness by a qualified Commissioner for Oaths/Notary Public. A certified copy of the Identification Card/Passport of the appointee shall be attached to that appointment letter.</b>			
<b>D. Submission and Opening of Tenders</b>				
ITT 21.2	A tender package or container that cannot fit in the tender box shall be received as follows:  <b>Dropped at the Chief Executive Office (Fifth floor)</b>			
ITT 22.1	(A) For <u>Tender submission purposes only</u> , the Procuring Entity’s address is:  National Water Harvesting & Storage Authority, Tender Box, 4th Floor, National Water Plaza Building Situated in Nairobi County, Industrial Area, Along Dunga Road  Attn. Chief Executive Officer, P.O. Box 30173 – 00100, Nairobi Tel No. Telephone: (254) (020) 6964000) E-mail: <a href="mailto:procurement@waterauthority.go.ke">procurement@waterauthority.go.ke</a> / <a href="mailto:info@waterauthority.go.ke">info@waterauthority.go.ke</a>  Date: <b>27th October, 2023</b> Time: <b>8.30 a.m.</b> Tenderers <b>shall not submit</b> tenders electronically.			
ITT 25.1	The Tender opening shall take place at the time and the address for Opening of Tenders			

Reference to ITC Clause	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
	<p>provided below:</p> <p>Physical Address: <b>Authority's Board room, 5th Floor, National Water Plaza Building Situated in Nairobi County, Industrial Area, Along Dunga Road</b></p> <p>Date: <b>27<sup>th</sup> October, 2023</b> Time: <b>8.30 a.m.</b></p>
ITT 25.1	<p>If Tenderers are allowed to submit Tenders electronically, they shall follow the electronic tender submission procedures <b>specified below</b></p> <p><b>Electronic Submissions Not permitted</b></p>
E. Evaluation, and Comparison of Tenders	
ITT 30.3	The adjustment shall be based on the <b>average</b> 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 Lowest estimate.
ITT 31.2	The error shall be considered a major deviation that leads to disqualification of the tender if the percentage of the error (error over the tender price quoted) is: <b>more than 0 % or less than n/a %.</b>
ITT 32.1	<p>The currency that shall be used for Tender evaluation and comparison purposes to convert at the selling exchange rate all Tender prices expressed in various currencies into a single currency is: All tender prices shall be quoted in <b>Kenya Shillings Only</b></p> <p>The source of exchange rate shall be: <b>The Central bank of Kenya</b></p> <p>The date for the exchange rate shall be: <b>the deadline date for Submission of the Tenders.</b></p>
ITT 33.2	<p>A margin of preference <b>shall</b> apply.</p> <p><i>[The margin of preference applies, and the application methodology shall be defined in Section III – Evaluation and Qualification Criteria.]</i></p>
ITT 33.4	The invitation to tender is extended to the following groups that qualify for Reservations. (N/A)
ITT 34.1	At this time, the Procuring Entity “ <b>Does Not Intend</b> ” to execute certain specific parts of the Works by subcontractors selected in advance.
ITT 34.2	Contractor's may propose subcontracting: Maximum percentage of subcontracting permitted is: <b>Nil % of the total contract amount.</b> Tenderers planning to subcontract more than 10% of total volume of work shall specify, in the Form of Tender, the activity (ies) or parts of the Works to be subcontracted along with complete details of the subcontractors and their qualification and experience.
ITT 34.3	N/A
ITT 35.2 (e)	Additional requirements apply. These are detailed in the evaluation criteria in Section III, Evaluation and Qualification Criteria.
ITT 35.4	Multiple lots or contracts: <b>Not Allowed</b>
ITT 48.2	<p>Additional requirements are:</p> <p><b>Programme of Works</b></p>
ITT 50.1	<p>The procedures for making a Procurement-related Complaint are available from the PPRA website <a href="mailto:info@ppra.go.ke">info@ppra.go.ke</a> or <a href="mailto:complaints@ppra.go.ke">complaints@ppra.go.ke</a>. 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: <b>John K. Muhia (P. Eng Tech.)</b>  Title/position: <b>/The Chief Executive Officer/</b>  Procuring Entity: <b>/National Water Harvesting &amp; Storage Authority]</b>  Email address: <b><a href="mailto:info@waterauthority.go.ke">/info@waterauthority.go.ke;</a></b>  <b><a href="mailto:procurement@waterauthority.go.ke">procurement@waterauthority.go.ke</a></b> ]</p> <p>In summary, a Procurement-related Complaint may challenge any of the following:  (i) the terms of the Tender Documents; and  (ii) the Procuring Entity's decision to award the contract.</p>

## **SECTION III- EVALUATION AND QUALIFICATION CRITERIA**

### **General Provisions**

#### **1. General Provisions**

- 1.1 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:
- 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.
  - Value of single contract - Exchange rate prevailing on the date of the contract signature.
  - 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.

#### **12 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. 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 requirements in the ITT, and that the tender is complete in all aspects in meeting the requirements of “Part 2 – Procuring Entity's Works Requirements”, including checking for tenders with unacceptable errors, abnormally low tenders, abnormally high tenders and tenders that are front loaded. The Standard Tender Evaluation Report for Goods and Works for evaluating Tenders provides clear guidelines on how to deal with review of these requirements. Tenders that do not pass the Preliminary Examination will be considered irresponsible and will not be considered further.

A	<b><u>Preliminary Responsiveness</u></b>	-				
	<b><u>Requirement</u></b>	-	<b><u>Single Entity Bidder</u></b>	<b><u>Joint Venture</u></b>		
i	Compliance with the number of copies of documents requested		Must meet requirement	Must meet requirement	n/a	n/a
ii	Compliance with the Bid Validity Period		Must meet requirement	Must meet requirement	n/a	n/a
iii	Compliance with requirements of Clause 10 (Language of Bid).		Must meet requirement	Must meet requirement	n/a	n/a
iv	Compliance with the requirement of providing a written commitment on company letterhead and signed by the person with the Power of Attorney, that if successfully awarded, they shall source at least 40% of their supplies from Kenyan citizen contractors prior to submitting their bid. ( <b>Applicable only to Foreign Bidders</b> )		Must meet requirement	Must meet requirement	n/a	n/a
v	Assessed to determine whether the bid quote is within the Project Budget		Must meet requirement	Must meet requirement	n/a	n/a
vi	Compliance with the validity of the Bid Security provided.		Must meet requirement	Must meet requirement	n/a	n/a
vii	Document is continuously serialized		Must meet requirement	Must meet requirement	n/a	n/a
viii	The tender has been duly signed by the person lawfully authorized to do so through the power of attorney		Must meet requirement	Must meet requirement	n/a	n/a
ix	Tender is valid for the required period		Must meet requirement	Must meet requirement	n/a	n/a
B	<b><u>Mandatory Requirements</u></b>	-				

	-	-	Single Entity Bidder	Joint Venture		
	-	-		<u>All members combined</u>	<u>Each Member</u>	<u>One member</u>
	<u>Requirement</u>	-				
i	Evidence of a permanent office for the bidding entity in the form of either office space lease/rent agreement (witnessed by a lawyer) with evidence of payment of rent/lease dues in the last 12 months OR proof of ownership of the premise where the office is located which shall be in the form of a land ownership document in the name of bidding entity.		Must meet requirement	Must meet requirement	n/a	Must meet requirement
ii	Bidding firm's bank statements for the last 12 months up to 31 <sup>st</sup> August, 2023. (The copies should be certified by the bank issuing the statements. The certification should be original.)		Must meet requirement	Must meet requirement	Must meet requirement	n/a
iii	Copy of certificate of the composition of directors of shareholding (CR12) or Equivalent for Non-Local bidders.		Must meet requirement	Must meet requirement	Must meet requirement	n/a
iv	Copy of license/practicing certificate for the auditor who audited the Latest Financial Statements.		Must meet requirement	Must meet requirement	Must meet requirement	n/a
v	Demonstrate ability to raise Engineer's Payment Certificates or Equivalent of at least Kshs.200 million in the course of executing dam contracts. This should be done by providing copies of such past certificates and the related payments highlighted on bidder's bank statements (Such bank statements shall have been certified by the issuing bank in the original.)		Must meet requirement	Must meet requirement	n/a	Must meet requirement
vi	Evidence of a valid Public Liability Insurance Cover for the bidder for an insured sum of at least Kshs.100 million (One hundred Million Kenya Shillings). A policy document shall be attached.		Must meet requirement	Must meet requirement	n/a	n/a
vii	The Bidder 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 by:		Must meet requirement	Must meet requirement	n/a	Must meet requirement
	a) having an annual turnover of at least Kshs.0.5 billion for each of the last 3 audited financial years.		Must meet requirement	Must meet requirement	n/a	Must meet requirement
	b) having a current ratio of at least 1:1 for each of the last 3 audited financial years – rounded off to one decimal place		Must meet requirement	Must meet requirement	n/a	Must meet requirement
	c) attaching evidence of access to cash/balances/reserves/credit lines/quick assets of at least Kshs.500Million (Five Hundred Kenya Shillings) in the form of an original letter addressed to the: Chief Executive Officer, National Water Harvesting and Storage Authority P.O. Box 30173-00100, Nairobi. The letter should be undersigned by the bidder's bank authorized signatory/signatories and should be on the bank's letterhead.		Must meet requirement	Must meet requirement	n/a	Must meet requirement
viii	A written commitment on bidder's letterhead and properly signed that, if successfully awarded, the bidder shall:		Must meet requirement	Must meet requirement	n/a	n/a
	*transfer technology, skills and knowledge through training, mentoring and participation of Kenyan Citizens;		Must meet requirement	Must meet requirement	n/a	n/a
	*source at least 10% of materials from disadvantaged groups (youth, women and persons with disability) registered with The National Treasury (Kenya);		Must meet requirement	Must meet requirement	n/a	n/a
	*shall reserve at least 75% of employment opportunities for Kenyan Citizens of which not less		Must meet requirement	Must meet requirement	n/a	n/a

	than 20% shall be reserved for Kenyan Professionals at Management Level;					
	*source at least 40% of their supplies from Kenyan citizen contractors.		Must meet requirement	Must meet requirement	n/a	n/a
	*shall provide a Local Content plan for the transfer of technology and shall include:		Must meet requirement	Must meet requirement	n/a	n/a
	+Positions reserved for employment of local citizens.		Must meet requirement	Must meet requirement	n/a	n/a
	+Capacity building and competence development program for local citizens		Must meet requirement	Must meet requirement	n/a	n/a
	+Time frames for which to provide employment opportunities.		Must meet requirement	Must meet requirement	n/a	n/a
	+Demonstrable efforts for accelerated capacity building of Kenyan citizens.		Must meet requirement	Must meet requirement	n/a	n/a
	+Succession planning and management.		Must meet requirement	Must meet requirement	n/a	n/a
	+Plan of how to source 40% of materials from local industries.		Must meet requirement	Must meet requirement	n/a	n/a
ix	Propose major items of construction equipment/machinery/plant to be made available on site. Fill FORM EQU: EQUIPMENT in the Section IV of the bid document. The proposed construction equipment/machinery/plant shall include:		Must meet requirement	Must meet requirement	n/a	Must meet requirement
	<b>Description with minimum capacity requirement</b>	<b>Minimum Quantity</b>				
		<b>Number</b>				
a	20Tonnes (Tare Wgt) Dozer	3	Must meet requirement	Must meet requirement	n/a	Must meet requirement
b	20Tonnes (Tare Wgt) Excavator	3	Must meet requirement	Must meet requirement	n/a	Must meet requirement
c	20Tonnes (Tare Wgt) Vibratory Roller - Smooth & Sheepfoot	3	Must meet requirement	Must meet requirement	n/a	Must meet requirement
d	10Tonnes (Load Capacity) Tipper Truck	8	Must meet requirement	Must meet requirement	n/a	Must meet requirement
e	7Tonnes (Tare Wgt) Wheel Loader	3	Must meet requirement	Must meet requirement	n/a	Must meet requirement
f	10Tonnes (Load Capacity) Concrete Mixer	3	Must meet requirement	Must meet requirement	n/a	Must meet requirement
g	Water Bowser	4	Must meet requirement	Must meet requirement	n/a	Must meet requirement
h	7Tonnes (Tare Wgt) Motor Grader	1	Must meet requirement	Must meet requirement	n/a	Must meet requirement
i	30Tonnes Tower Crane	1	Must meet requirement	Must meet requirement	n/a	Must meet requirement
j	Concrete Batching Plant	1	Must meet requirement	Must meet requirement	n/a	Must meet requirement
k	Geotechnical Drilling Rig	1	Must meet requirement	Must meet requirement	n/a	Must meet requirement
l	Stone Crushing Plant	1	Must meet requirement	Must meet requirement	n/a	Must meet requirement
	<b><i>The above listing shall comply with the following:</i></b>					
	The proposed construction equipment/machinery/plant shall be supported with <b>Copies of ownership documents issued by relevant machinery/equipment/plant registration or licensing entities</b> or Verifiable <b>ownership documents</b> (only for non-registrable equipment/machinery/plant i.e (i, j, k, l) in the name of bidding entity or in the case of Joint Venture in the name of one of the partners.		Must meet requirement	Must meet requirement	n/a	Must meet requirement
	Bidders shall own / lease all of the above listed machine/equipment/plant. Ownership shall be determined by provision of ownership documents issued by relevant machinery/equipment/plant		Must meet requirement	Must meet requirement	n/a	Must meet requirement

	registration or licensing entities in the name of the bidding entities or its directors. Otherwise, lease agreements (witnessed by a competent advocate) shall be provided. Such agreements shall also be supported with certified copies of the leased equipment which shall be in the name of the lessor.					
x	Propose qualified and experienced site management and technical personnel by filling FORM PER-1. The listing shall be accompanied by Curriculum Vitae (CVs) in the format of FORM PER-2. Further, copies of the academic certificates (masters/degree/diploma OR their equivalent for Non-Local Bidders) shall be also be attached. The proposed Engineer/Professionals shall be registered/licensed by the relevant professional boards and such proof attached. The proposed personnel shall include:		Must meet requirement	Must meet requirement	n/a	Must meet requirement
	<b>SCHEDULE OF PERSONNEL</b>					
	<b>Position Held</b>	<b>Minimum Years of Experience in dam construction &amp; related works</b>				
a	Project Manager - Degree Qualification in Civil Engineering	20	Must meet requirement	Must meet requirement	n/a	Must meet requirement
b	Site Agent - Degree Qualification in Civil Engineering	20	Must meet requirement	Must meet requirement	n/a	Must meet requirement
c	Assistant Site Agent - Degree Qualification in Civil Engineering	20	Must meet requirement	Must meet requirement	n/a	Must meet requirement
d	Materials Engineer	20	Must meet requirement	Must meet requirement	n/a	Must meet requirement
e	Plant and Equipment Superintendent	15	Must meet requirement	Must meet requirement	n/a	Must meet requirement
f	Grouting Superintendent	15	Must meet requirement	Must meet requirement	n/a	Must meet requirement
g	Superintendent Concrete	15	Must meet requirement	Must meet requirement	n/a	Must meet requirement
h	Superintendent Earthworks	15	Must meet requirement	Must meet requirement	n/a	Must meet requirement
i	Superintendent Pipeline	15	Must meet requirement	Must meet requirement	n/a	Must meet requirement
j	Surveyor	10	Must meet requirement	Must meet requirement	n/a	Must meet requirement
k	Health and safety Superintendent	10	Must meet requirement	Must meet requirement	n/a	Must meet requirement
	<b>Please Note:</b>					
	<i>20% shall be Kenyan Citizens – proof shall be in the form of Kenyan Identification Cards</i>		Must meet requirement	Must meet requirement	n/a	Must meet requirement
xi	Copy of at least 1 contract as a Prime/Main Contractor in dam construction works successfully completed within the <b>last 10 years</b> . The extract of the contract shall indicate the scope of the works, contract amount and signatures of the contracting parties. The completed dam project should have: a height of at least 20 meters high, 300m long embankment wall with an intake tower, diversion culvert and pipeline of at least 200mm diameter. Such contracts shall be for works valued above Kshs.2 billion (Two Billion Kenya Shillings) - where there is a value in foreign currency, conversion shall be done using the exchange rate at the time of contract signing as indicated on the contract extract. Proof of completion of the contract shall be provided in the form of a Completion certificate or Handing Over Certificate properly signed by the client. A		Must meet requirement	Must meet requirement	n/a	Must meet requirement

	Recommendation letter from the client shall be attached. The letter shall include the <i>name of the specific project implemented and cost of the project</i> . Details of the client including an official email address who may be contacted for further information on this contract must be submitted. The bidder shall fill the FORM EXP - 4.2(a) and (b) provided in Section IV.					
xii	A detailed proposal on the Methodology for implementation of the works. The methodology must include the main components of the project (coffer dam, river diversion culvert, intake tower- (water & penstock), embankment core and shell and spillway) as detailed in the scope including assurance of quality of work. The methodology shall not be less than twenty (20) pages and shall be typed, font 12 Times New Roman and single spacing.		Must meet requirement	Must meet requirement	n/a	n/a
xiii	Proposed Program of Works in form of a detailed Gantt chart. The same must be signed by the tenderer.		Must meet requirement	Must meet requirement	n/a	n/a
xiv	All documents submitted as copies shall be stamped and signed by a Commissioner for Oaths / Notary Public (OR Equivalent for Non-Local bidders) to signify that they are true copies of the original. The practicing license for the certifying officer shall be attached.		Must meet requirement	Must meet requirement	n/a	n/a
	<b>Bidders shall meet all the Mandatory conditions in order to proceed to the Technical Evaluation. In the case of Joint Venture (JV) arrangements, the JV shall meet ALL the mandatory conditions in order to proceed to the Technical Evaluation.</b>					

### 3. Tender Evaluation (ITT 35)

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

- i) **Alternative Completion Times**, if permitted under ITT 13.2, will be evaluated as follows:  
**NOT APPLICABLE**
- ii) **Alternative Technical Solutions** for specified parts of the Works, if permitted under ITT 13.4, will be evaluated as follows: **NOT APPLICABLE**
- iii) **Other Criteria**; if permitted under ITT 35.2(d) : **NOT APPLICABLE**.

### 4. Multiple Contracts – CLAUSE ITT35.2 IS NOT APPLICABLE

### 5. Alternative Tenders (ITT 13.1)- NOT APPLICABLE

### 6. MARGIN OF PREFERENCE

- 61 If the TDS so specifies, the Procuring Entity will grant a margin of preference of fifteen percent (15%) to be loaded on the evaluated price of the foreign tenderers, where the percentage of shareholding of Kenyan citizens is less than fifty-one percent (51%).
- 62 Contractors applying for such preference 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 contract 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. If a tender from Group B is the lowest, an amount equal to the percentage indicated in Item 3.1 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.

65 To be precise, Section 164 of the PPADA Regulations 2020 shall prevail: “For purposes of section 157(8) (b) of the Act, the margin of preference for international tendering and competition pursuant to section 89 of the Act shall be — (a) twenty percent (20%) margin of preference of the evaluated price of the tender given to candidates offering goods manufactured, mined, extracted, grown, assembled or semi processed in Kenya and the percentage of shareholding of Kenyan citizens is more than fifty percent (50%); (b) fifteen percent (15%) margin of preference of the evaluated price of the tender given to candidates offering goods manufactured, mined, extracted, grown, assembled or semi processed in Kenya; (c) ten percent (10%) margin of preference of the evaluated price of the tender, where the percentage of shareholding of Kenyan citizens is more than fifty percent (50%); (d) eight percent (8%) margin of preference of the evaluated price of the tender, where the percentage of shareholding of Kenyan citizens is less than fifty percent (50%) but above twenty percent (20%); and (e) six percent (6%) margin of preference of the evaluated price of the tender, where percentage of shareholding of Kenyan citizens is above five percent (5%) and less than twenty percent (20%).

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

- a) In case the tender was subject to post-qualification, the contract shall be awarded to the lowest evaluated tenderer, subject to confirmation of pre-qualification data, if so required.
- b) 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 Five Hundred Million (Kshs.500,000,000) *the assets should be about 2-3 months cashflow requirements based on the estimated completion time*.
  - ii) Minimum average annual construction turnover of **Kenya Shillings Five Hundred Million (500Million)** equivalent calculated as total certified payments received for contracts in progress and/or completed within the last 5 years.
  - iii) At least **1 (One)** contract(s) of a similar nature executed within Kenya, or the East African Community or abroad, that have been satisfactorily and substantially completed as a prime contractor, or joint venture member or sub-contractor each of minimum value Kenya shillings.2 **Billion** (Two Billion) within the last ten years.
  - iv) Contractor's Representative and Key Personnel, which are specified as follows:-  
**as Item x in ITT 11.1 (h) Section II - Tender Data Sheet (TDS).**
  - v) Contractors key equipment listed on the table “Contractor's Equipment” below and more specifically listed as:-  
  
**Item ix in ITT 11.1 (h) Section II - Tender Data Sheet (TDS).**
  - vi) Other conditions depending on their seriousness.
- c) History of non-performing contracts:  
Tenderer and each member of JV incase the Tenderer is a JV, shall demonstrate that Non-performance of a contract did not occur because of the default of the Tenderer, or the member of a JV in the last **Ten (10) years.** The required information shall be furnished in the appropriate form.
- d) Pending Litigation  
Financial position and prospective long-term profitability 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.

e) Litigation History

There shall be no consistent history of court/arbitral award decisions against the Tenderer, in the last **Ten (10) years.** All parties to the contract shall furnish the information in the appropriate form about any litigation or arbitration resulting from contracts completed or ongoing 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.

## **Technical Evaluation Criteria**

<b>S/No.</b>			
<b>1</b>	<b><u>Human Resource Capacity</u></b>	<b><u>Parameter to Consider when awarding marks</u></b>	<b><u>Allocated Marks</u></b>
	Demonstrated ability to meet the minimum Technical and Managerial staff as indicated in the <b>Item x in ITT 11.1 (h) Section II - Tender Data Sheet (TDS).</b>		
		Met Academic and Experience Requirements of the Minimum Listed staff	20
		Met Academic and Experience Conditions of the Minimum and Extra Listed staff	30
			<b>30</b>
<b>2</b>	<b><u>Machinery / Equipment Capacity</u></b>		
	Demonstrated ability to meet the minimum Machinery/Equipment requirements as indicated in the <b>Item ix in ITT 11.1 (h) Section II - Tender Data Sheet (TDS).</b>		
		Met ALL Requirements of the Minimum Listed Equipment Required	20
		Met ALL Requirements of the Minimum and Extra Listed Equipment Required	30
			<b>30</b>
<b>3</b>	<b><u>Past Specific Experience</u></b>		
	Demonstrated ability of having the specific experience as indicated in the <b>Item xi in ITT 11.1 (h) Section II - Tender Data Sheet (TDS).</b>		
		Met the required minimum capacity required	20

		Met and exceeded the required minimum capacity required	<b>25</b>
			<b>25</b>
<b>4</b>	<b><u>Others</u></b>		
	Detailed Proposed Methodology for implementation of the works including detailed Gantt Chart as indicated in the ITT 11.1 (h) (xii & xiii)		
		Includes all project/activity aspects	<b>5</b>
		Covers the entire project period	<b>5</b>
		Detailed Gantt Chart	<b>5</b>
			<b>15</b>
	<b>TOTAL MARKS</b>		<b>100</b>
		<b>Passmark</b>	<b>80</b>

**Bidders shall meet all the Mandatory conditions in order to proceed to the Technical Evaluation.**

***Only bidders who achieve 80 marks and above shall proceed to the Financial Evaluation***

**Financial Evaluation.**

- A) Properly filled and signed Bill of Quantity tables and Schedule of Prices form in conformity with the bill quantities as provided in the tender document. The same should have no omissions. Any alterations must be countersigned.
- B) Price Quoted in the form of tender.

## 8. QUALIFICATION FORM SUMMARY

1	2	3	4	5
Item No.	Qualification Subject	Qualification Requirement	Document To be Completed by Tenderer	For Procuring Entity's Use (Qualification met or Not Met)
1	Nationality	Nationality in accordance with ITT 3.6	Forms ELI – 1.1 and 1.2, with attachments	
2	Tax Obligations for Kenyan Tenderers	Has produced a current tax clearance certificate or tax exemption certificate issued by Kenya Revenue Authority in accordance with ITT 3.14.	Attachment	
3	Conflict of Interest	No conflicts of interest in accordance with ITT 3.3	Form of Tender	
4	PPRA Eligibility	Not having been declared ineligible by the PPRA as described in ITT 3.7	Form of Tender	
5	State- owned Enterprise	Meets conditions of ITT 3.8	Forms ELI – 1.1 and 1.2, with attachments	
6	Goods, equipment and services to be supplied under the contract	To have their origin in any country that is not determined ineligible under ITT 4.1	Forms ELI – 1.1 and 1.2, with attachments	
7	History of Non-Performing Contracts	Non-performance of a contract did not occur as a result of contractor default since <b>1<sup>st</sup> January 2012</b>	Form CON-2	
8	Suspension Based on Execution of Tender/Proposal Securing Declaration by the Procuring Entity	Not under suspension based on-execution of a Tender/Proposal Securing Declaration pursuant to ITT 19.9	Form of Tender	
9	Pending Litigation	Tender's financial position and prospective long-term profitability still sound according to criteria established in 3.1 and assuming that all pending litigation will NOT be resolved against the Tenderer.	Form CON – 2	
10	Litigation History	No consistent history of court/arbitral award decisions against the Tenderer since <b>1<sup>st</sup> January 2012</b>	Form CON – 2	
11	Financial Capabilities	(i) The Tenderer shall demonstrate that it has	Form FIN – 3.1, with attachments	

1 Item No.	2 Qualification Subject	3 Qualification Requirement	4 Document To be Completed by Tenderer	5 For Procuring Entity's Use (Qualification met or Not Met)
		<p>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 500 million Kenya Shillings <i>[the assets should be about 3-4 months cashflow requirements based on the estimated completion time]</i> equivalent for the subject contract(s) net of the Tenderer's other commitments.</p> <p>(ii) The Tenderers shall also demonstrate, to the satisfaction of 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 <b><i>[3 Years]</i></b> years shall be submitted and must demonstrate the current soundness of the Tenderer's financial position and indicate its prospective long-term profitability.</p>		
12	Average Annual Construction Turnover	Minimum average annual construction turnover of Kenya Shillings <b>500 Million <i>[Five Hundred Million]</i></b> , equivalent calculated as total certified payments received for contracts in progress and/or completed within the last <b>5 <i>[Five]</i> years</b> .	Form FIN – 3.2	
13	General Construction Experience	Experience under construction contracts in the role of prime contractor, JV member, sub-contractor, or management contractor for at least the last <b><i>[Ten years]</i> 10 years</b> .	<b>4. Form EXP – 4.1 Experience</b>	
14	Specific Construction & Contract Management Experience	A minimum number of at least <b><i>[one number- (1)]</i></b> similar contract specified below that have been satisfactorily and substantially completed	Form EXP 4.2(a)	

1	2	3	4	5
Item No.	Qualification Subject	Qualification Requirement	Document To be Completed by Tenderer	For Procuring Entity's Use (Qualification met or Not Met)
		<p>as a prime contractor, contracts in the role of prime contractor, JV member, sub-contractor, or management contractor for the last 10 years of minimum value <b>Kenya shillings Two Billion (KES 2.0 Billion)</b> done in developing countries</p> <p>The similarity of the contracts shall be based on the following:</p> <ul style="list-style-type: none"> <li>▪ Zoned earth fill or rockfill dam embankment construction with a volume of at least 500,000 m<sup>3</sup></li> <li>▪ At least 200mm pipeline with required fittings</li> </ul>		

## **SECTION IV - TENDERING FORMS**

### **QUALIFICATION FORMS**

1. FOREIGN TENDERERS 40%RULE.
2. TENDERER'S ELIGIBILITY- CONFIDENTIAL BUSINESS QUESTIONNAIRE
3. Form EQU: EQUIPMENT.
4. FORM PER -1.
5. FORM PER-2.
6. TENDERERS QUALIFICATION WITHOUT PRE-QUALIFICATION.
  - 6.1 FORM ELI-1.1.
  - 6.2 FORM ELI-1.2.
  - 6.3 FORM CON –2.
  - 6.4 FORM FIN –3.1.
  - 6.5 FORM FIN –3.2.
  - 6.6 FORM FIN –3.3.
  - 6.7 FORM FIN –3.4.
  - 6.8 FORM EXP -4.1.
  - 6.9 FORM EXP - 4.2(a).
  - 6.9 FORM EXP - 4.2 (a) (cont.).
  - 6.10 FORM EXP -4.2 (b).

### **OTHER FORMS**

7. FORM OF TENDER.
8. FORM OF TENDER SECURITY - DEMAND BANK GUARANTEE.
9. FORM OF TENDER SECURITY (TENDER BOND).
10. FORM OF TENDER-SECURING DECLARATION.
11. APPENDIX TO TENDER.

### **TECHNICAL PROPOSAL FORMS**

Site Organization.

Method Statement.

Mobilization Schedule.

Construction Schedule.

## 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
<b>A</b>	<b>Local Labor</b>			
1				
2				
3				
4				
5				
<b>B</b>	<b>Sub contracts from Local sources</b>			
1				
2				
3				
4				
5				
<b>C</b>	<b>Local materials</b>			
1				
2				
3				
4				
5				
<b>D</b>	<b>Use of Local Plant and Equipment</b>			
1				
2				
3				
4				
5				
<b>E</b>	<b>Add any other items</b>			
1				
2				
3				
4				
5				
6				
	TOTAL COST LOCAL CONTENT		XXXXXX	
	PERCENTAGE OF CONTRACT PRICE		XXXX	

### 3. 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="radio"/> Owned <input type="radio"/> Rented <input type="radio"/> Leased <input type="radio"/> 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	

#### 4. FORMPER-1

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

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

##### Contractor' Representative and Key Personnel.

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

## 5. FORM PER-2:

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

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

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

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

## DECLARATION

I, the under signed *[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:

- be taken into consideration during Tender evaluation;
- result in my disqualification from participating in the Tender;
- 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): \_\_\_\_\_

## 6. TENDERERS QUALIFICATION WITHOUT PRE-QUALIFICATION

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.

### 6.1 FORM ELI-

#### 1.1 Tenderer Information

##### Form

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

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

Tenderer's name
In case of Joint Venture (JV), name of each member:
Tenderer's actual or intended country of registration: <i>[icate 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"> <li>• Legal and financial autonomy</li> <li>• Operation under commercial law</li> <li>• Establishing that the Tenderer is not under the supervision of the Procuring Entity</li> </ul> <p>2. Included are the organizational chart and a list of Board of Directors</p>

## 62 **FORM ELI-1.2**

### **Tenderer's JV Information Form**

*(To be completed for each member of Tenderer's JV)*

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

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

Tenderer's JV name:
JV member's name:
JV member's country of registration:
JV member's year of constitution:
JV member's legal address in country of constitution:
JV member's authorized representative information Name: _____ Address: _____ Telephone/Fax numbers: _____ E-mail address: _____
1. Attached are copies of original documents of <input type="checkbox"/> Articles of Incorporation (or equivalent documents of constitution or association), and/or registration documents of the legal entity named above, in accordance with ITT 43.6. <input type="checkbox"/> In case of a state-owned enterprise or institution, documents establishing legal and financial autonomy, operation in accordance with commercial law, and that they are not under the supervision of the Procuring Entity, in accordance with ITT 3.8.  2. Included are the organizational chart and a list of Board of Directors

### 63 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 1<sup>st</sup> January [insert year] specified in Section III, Evaluation and Qualification Criteria, Sub-Factor 2.1.

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

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

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

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

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

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

#### Litigation History in accordance with Section III, Evaluation and Qualification Criteria

☐ No Litigation History in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.4.

☐ Litigation History in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.4 as indicated below.

Year of award	Outcome as percentage of Net Worth	Contract Identification	Total Contract Amount (currency), Kenya Shilling Equivalent (exchange rate)
[insert year]	[insert percentage]	Contract Identification: [indicate complete contract name, number, and any other identification] Name of Procuring Entity: [insert full name] Address of Procuring Entity: [insert street/city/country] Matter in dispute: [indicate main issues in dispute] Party who initiated the dispute: [indicate "Procuring Entity" or "Contractor"] Reason(s) for Litigation and award decision [indicate main reason(s)]	[insert amount]

## 64 FORM FIN –3.1:

### Financial Situation and Performance

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

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

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

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

#### 6.4.1. 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*

#### 6.4.2 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		

#### 6.4.3 Financial documents

The Tenderer and its parties shall provide copies of financial statements for the last three (3)\_\_\_\_ years pursuant Section III, Evaluation and Qualifications Criteria, Sub-factor 3.1. The financial statements shall:

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

Attached are copies of financial statements <sup>1</sup> for the three \_\_\_\_\_ years required above; and complying with the requirements

## 6.5 FORM FIN – 3.2:

### Average Annual Construction Turnover

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

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

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

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

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

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

## 6.6 FORM FIN –3.3:

### Financial Resources

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

## 6.7 FORM FIN–3.4:

### Current Contract Commitments / Works in Progress

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

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

## 6.8 FORM EXP -4.1

### General Construction Experience

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

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

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

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

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

## 6.9 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
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	

## 6.10 FORM EXP -4.2(b)

### Construction Experience in Key Activities

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

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

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

Sub-contractor's Name<sup>2</sup> (as per ITT34): \_\_\_\_\_

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

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

1. Key Activity No One: \_

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

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

Activity No.

Two

3. ....

### OTHER FORMS

## 7. **FORM OF TENDER**

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

### ***INSTRUCTIONS TO TENDERERS***

*All italicized text is to help the Tenderer in preparing this form.*

*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.*

*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]

Dear Sirs,

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

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

The percentage or amount quoted above does not include provisional sums, and only allows not more than two foreign currencies.

2. We undertake, if our tender is accepted, to commence the Works as soon as is reasonably possible after the receipt of the Engineer's notice to commence, and to complete the whole of the Works comprised in the Contract within the time stated in the Particular 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. Unless and until a formal Agreement is prepared and executed this tender together with your written acceptance thereof, shall constitute abiding Contract between us. We further understand that you are not bound to accept the lowest or any tender you may receive.
5. We, the undersigned, further declare that:
  - i) No reservations: We have examined and have no reservations to the tender document, including Addenda issued in accordance with ITT 8;
  - ii) Eligibility: We meet the eligibility requirements and have no conflict of interest in accordance with ITT 3 and 4;
  - iii) Tender-Securing Declaration: We have not been suspended nor declared ineligible by the Procuring Entity based on execution of a Tender-Securing or Proposal-Securing Declaration in the Procuring Entity's Country in accordance with ITT 19.8;

- (iv) **Conformity:** We offer to execute in conformity with the tendering documents and in accordance with the implementation and completion specified in the construction schedule, the following Works: *[insert a brief description of the Works]*;
- (v) **Tender Price:** The total price of our Tender, excluding any discounts offered in item 1 above is: *[Insert one of the options below as appropriate]*
- (vi) **Option1**, 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

**Option2**, in case of multiple lots:

- a) **Total price of each lot** *[insert the total price of each lot in words and figures, indicating the various amounts and the respective currencies]*; and
- b) **Total price of all lots** (sum of all lots) *[insert the total price of all lots in words and figures, indicating the various amounts and the respective currencies]*;
- vii) **Discounts:** The discounts offered and the methodology for their application are:
- 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 subcontractor, and meet the requirements of ITT3.4, other than alternative Tenders submitted in accordance with ITT 13.3;
- xiii) **Suspension and Debarment:** We, along with any of our subcontractors, suppliers, Engineer, manufacturers, or service providers for any part of the contract, are not subject to, and not controlled by any entity or individual that is subject to, a temporary suspension or a debarment imposed by the Public Procurement Regulatory Authority or any other entity of the Government of Kenya, or any international organization.
- xiv) **State-owned enterprise or institution:** *[select the appropriate option and delete the other]* *[We are not a state-owned enterprise or institution]/[We are a state-owned enterprise or institution but meet the requirements of ITT 3.7]*;
- xv) **Commissions, gratuities, fees:** We have paid, or will pay the following commissions, gratuities, or fees with respect to the tender process or execution of the Contract: *[insert complete name of each Recipient, its full address, the reason for which each commission or gratuity was paid and the amount and currency of each such commission or gratuity]*

Name of Recipient	Address	Reason	Amount

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

- xvi) **Binding Contract:** We understand that this Tender, together with your written acceptance thereof included in your Letter of Acceptance, shall constitute a binding contract between us, until a formal contract is prepared and executed;
- xvii) **Not Bound to Accept:** We understand that you are not bound to accept the lowest evaluated cost Tender, the Most Advantageous Tender or any other. Tender that you may receive;
- xviii) **Fraud and Corruption:** We hereby 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;
- 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:
- Tenderer's Eligibility; Confidential Business Questionnaire – to establish we are not in any conflict to interest.
  - Certificate of Independent Tender Determination – to declare that we completed the tender without colluding with other tenderers.
  - Self-Declaration of the Tenderer– to declare that we will, if awarded a contract, not engage in any form of fraud and corruption.
  - 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.

#### i) 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**

**ii) Sole Proprietor**, provide the following details.

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

**iii) Partnership**, provide the following details.

	<b>Names of Partners</b>	<b>Nationality</b>	<b>Citizenship</b>	<b>% Shares owned</b>
1				
2				
3				

**(iv) 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.

	<b>Names of Director</b>	<b>Nationality</b>	<b>Citizenship</b>	<b>% Shares owned</b>
1				
2				
3				

**(v) 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.

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

## ii) Conflict of interest disclosure

	Type of Conflict	Disclosure YES OR NO	If YES provide details of the relationship with Tenderer
1	Tenderer is directly or indirectly controls, is controlled by or is under common control with another tenderer.		
2	Tenderer receives or has received any direct or indirect subsidy from another 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 such Contract.		
9	Has the conflict stemming from such relationship stated in item 7 and 8 above been resolved in a manner acceptable to the Procuring Entity throughout the tendering process and execution of the Contract?		

### Certification

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

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

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

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

## **B. CERTIFICATE OF INDEPENDENT TENDER DETERMINATION**

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

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

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

Name \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

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

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

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

1. THAT I am the Company Secretary/Chief Executive/Managing Director/Principal Officer/Director of ..... (*insert name of the Company*) who is a Bidder in respect of Tender No. .... for ..... (*insert tender title/description*) for ..... (*insert name of 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 herein above is true to the best of my knowledge, information and belief.

.....  
(Title)

.....  
(Signature)

.....  
(Date)

Bidder Official Stamp

**FORM SD2**

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

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

1. THAT I am the Chief Executive/Managing Director/Principal Officer/Director of ..... *(insert name of the Company)* who is a Bidder in respect of Tender No. .... for ..... *(insert tender title/description)* for ..... *(insert name of the Procuring entity)* and duly authorized and competent to make this statement.
2. THAT the 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 herein 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 hereby 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 asset 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 into, take part in any decision relating to the procurement or contract; and
    - c) shall not be a subcontractor for the bidder to whom was awarded contract, or a member of the group of bidders 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 director 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.
- 2.3 In compliance with Kenya's laws, regulations and policies mentioned above, the Procuring Entity:
- a) Defines broadly, for the purposes of the above provisions, the terms set forth below as follows:

- i) “corrupt practice” is the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;
  - ii) “fraudulent practice” is any act or omission, including misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain financial or other benefit or to avoid an obligation;
  - iii) “collusive practice” is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;
  - iv) “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;
  - v) “obstructive practice” is:
    - deliberately destroying, falsifying, altering, or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede investigation by Public Procurement Regulatory Authority (PPRA) or any other appropriate authority appointed by Government of Kenya into allegations of a corrupt, fraudulent, coercive, or collusive practice; and/or threatening, harassing, or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or
    - acts intended to materially impede the exercise of the PPRA's or the appointed authority's inspection and audit rights provided for under paragraph 2.3 e. below.
- b) Defines more specifically, in accordance with the above procurement Act provisions set forth for fraudulent and collusive practices as follows:
- "fraudulent practice" includes a misrepresentation of fact in order to influence a procurement or disposal process or the exercise of a contract to the detriment of the procuring entity or the tenderer or the contractor, and includes collusive practices amongst tenderers prior to or after tender submission designed to establish tender prices at artificial non-competitive levels and to deprive the procuring entity of the benefits of free and open competition.
- c) Rejects a proposal for award<sup>1</sup> of a contract if PPRA determines that the firm or individual recommended for award, any of its personnel, or its agents, or its sub-consultants, sub-contractors, service providers, suppliers and/ or their employees, has, directly or indirectly, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for the contract in question;
  - d) Pursuant to the Kenya's above stated Acts and Regulations, may sanction or recommend to appropriate authority(ies) for sanctioning and debarment of a firm or individual, as applicable under the Acts and Regulations;
  - e) Requires that a clause be included in Tender documents and Request for Proposal documents requiring (i) Tenderers (applicants/proposers), Consultants, Contractors, and Suppliers, and their Sub-contractors, Sub- consultants, Service providers, Suppliers, Agents personnel, permit the PPRA or any other appropriate authority appointed by Government of Kenya to inspect<sup>2</sup> all accounts, records and other documents relating to the procurement process, selection and/or contract execution, and to have them audited by auditors appointed by the PPRA or any other appropriate authority appointed by Government of Kenya; and
  - f) Pursuant to Section 62 of the above Act, requires Applicants/Tenderers to submit along with their Applications/Tenders/Proposals a “Self-Declaration Form” as included in the procurement document declaring that they and all parties involved in the procurement process and contract execution have not engaged/will not engage in any corrupt or fraudulent practices.

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<sup>1</sup>For the avoidance of doubt, a party's ineligibility 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.

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

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

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

**Request for Tenders No:**

\_\_\_\_\_

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

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

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

1. We have been informed that \_\_\_\_\_ (here in after called "the Applicant") has submitted or will submit to the Beneficiary its Tender (here in 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]*

<b><i>Name of currency</i></b>	<b><i>Amounts payable</i></b>
Local currency: _____	100% (KShs)
Foreign currency #1: _____	Not Applicable
Foreign currency #2: _____	Not Applicable
Foreign currency #3: _____	Not Applicable
Provisional sums expressed in local currency	[To be entered by the Procuring Entity]

## **5. TECHNICAL PROPOSAL**

The tender shall complete these sections as a Technical proposal to indicate how he/she intends to proceed with the works. The Procuring entity will review these Proposals and determine the extent to which they meet the required standards to complete the works.

### **4.1 Site Organization**

*[Insert Site Organization information]*

### **4.2 Method Statement**

*[Insert Method Statement]*

### **4.3 Mobilization Schedule**

*[Insert Mobilization Schedule]*

### **4.4 Construction Schedule**

*[Insert Construction Schedule]*

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## **PART 2 - WORKS' REQUIREMENTS**

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## SECTION V - BILLS OF QUANTITIES

### 1. The Bills of Quantities

#### Preamble to Bill of Quantities

#### Bills of Quantities

##### A. Preamble

1. The Bills of Quantities shall be read in conjunction with the Instructions to Tenderers, General and Particular Conditions of Contract, Technical Specifications, and Drawings.
2. The quantities given in the Bills of Quantities are estimated and provisional, and are given to provide a common basis for tendering. The basis of payment will be the actual quantities of work ordered and carried out, as measured by the Contractor and verified by the Engineer and valued at the rates and prices tender in the priced Bills of Quantities, where applicable, and otherwise at such rates and prices as the Engineer may fix within the terms of the Contract.
3. The rates and prices tender in the priced Bills of Quantities shall, except in so far as it is otherwise provided under the Contract, include all Constructional Plant, labor, supervision, materials, erection, maintenance, insurance, profit, taxes, and duties, together with all general risks, liabilities, and obligations set out or implied in the Contract.
4. 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 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.
5. The whole cost of complying with the provisions of the Contract shall be included in the Items provided in the priced Bills of Quantities, and where no Items are provided, the cost shall be deemed to be distributed among the rates and prices entered for the related Items of Work.
6. General directions and descriptions of work and materials are not necessarily repeated nor summarized in the Bills of Quantities. References to the relevant sections of the Contract documentation shall be made before entering prices against each item in the priced Bills of Quantities.
7. Provisional Sums included and so designated in the Bills of Quantities shall be expended in whole or in part at the direction and discretion of the Engineer in accordance with Sub-Clause 13.5 and Clause 13.6 of the General Conditions.
8. The method of measurement of completed work for payment shall be in accordance with *Standard Method of Measurement of the U.K. Institution of Civil Engineers*.
9. All rates and sums in the Bill of Quantities shall be in Kenya Shillings and Cents.
10. Explanation of abbreviations used in the Bills of Quantities is as follows:-

L.S	-	Lump Sum
No.	-	Number
Mm	-	Millimetre
M/m	-	Linear Metre
M2/m2	-	Square Metre
M3/m3	-	Cubic Metre
Ha	-	Hectare
GS	-	Galvanized Steel.
11. The rates for provision of concrete shall include the cost of formwork and casting where necessary.
12. Before carrying out any implementation of works, the Contractor together with NWH&SA appointed Project Supervisor shall discuss on the bill of quantities and identify all the works stated in the bill of quantities and get satisfied that the description of the works correspond to the actual ground conditions. The original ground levels shall then be taken jointly by the Surveyor from the Contractor and NWHSA Supervisor and recorded. No work shall start on any site before original ground levels are recorded and controls set.

BILL OF QUANTITIES

UMAA DAM AND WATER TREATMENT PLANT					
VOLUME 4: BILL OF QUANTITIES (BoQ)					
CONTRACT No. NWHSA/OIT/001/2023-2024					
<b>GRAND SUMMARY</b>					<b>25 September 2023</b>
<b>No.</b>	<b>Description</b>				<b>Bill amount (KShs.)</b>
1	Preliminary and General Items				<b>174,603,000</b>
2	Dam Embankment and Appurtenant Works				<b>11,000,000</b>
	A. General		11,000,000.00		
	B. Foundation Treatment, and Surface and Horizontal Drainage Works		-		
	C. Cofferdams		-		
	D. Main Embankment		-		
	D1. Grouting		-		
	E. Drawoff and Diversion Works - Intake Tower		-		
	F. Drawoff and Diversion Works - Diversion Culvert		-		
	G. Spillway Works - Approach Channel		-		
	H. Spillway Works - Chute		-		
	I. Spillway Works - Stilling Basin		-		
	J. Pipes and Fittings		-		
3	Raw Water Main Steel, 300 mm				-
4	Treatment Works, 2,500 m <sup>3</sup> /d				<b>2,090,000.00</b>
	A. Inlet works and Flocculation Tank		-		
	B. Sedimentation Basin		110,000.00		
	C. Filters		-		
	D. Clear Water Tank 300 m <sup>3</sup>		-		
	E. Pump House		-		
	F. Sludge Drying Bed		-		
	G. Administration Building		-		
	H. Staff houses		-		
	I. Site Works		1,980,000		
	J Sewer and Septic Tank		-		
5	Rising main steel 200 mm, 1.5 km				<b>220,000</b>
6	Electro-mechanical Works				-
	A. WTP Pump House and Filtration House		-		
	B. Power Reticulation and External Lighting		-		
	C. Administration Block		-		
	D. Staff Houses		-		
	E. Administration and Staff Houses Mechanical		-		
	F. Dam Intake Tower and Tunnel Lighting, Mechanical Ventilation and Monitoring		-		
	G. Stand-by Generator		-		
7	Daywork Schedule				
<b>A</b>	<b>Sub-total</b>				<b>187,913,000</b>
<b>B</b>	<b>10% Contingency (10% of A)</b>				<b>18,791,300</b>
<b>C</b>	<b>10% Variation of Price (10% of A)</b>				<b>18,791,300</b>
<b>D</b>	<b>16% Value Added Tax (16% of A)</b>				<b>30,066,080</b>
<b>E</b>	<b>Discount</b>				
	<b>GRAND TOTAL CARRIED TO FORM OF BID (A+B+C+D-E)</b>				<b>255,561,680</b>

**UMAA DAM AND WATER TREATMENT PLANT**

**CONTRACT No.:NWHSA/OIT/001/2023-2024**

**BILL No. 1 - PRELIMINARY AND GENERAL ITEMS**

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE (KSHS)	AMOUNT (KSHS)
	<b><u>CLASS A: GENERAL ITEMS</u></b>				
	<b><u>Contractual Requirements</u></b>				
	No separate payment shall be made for meeting contractual requirements. The Contractor shall be required to meet all the contractual obligations like provision of performance bond and insurances the cost of which shall be inbuilt in his rates.				
	<b><u>Specified Requirements</u></b>				
	<b><u>Office and Accommodation for the Site Staff</u></b>				
1.1	Provisional Sum of Kshs.5,000,000 for Resident Engineer Site office-Establishment and removal on completion	Sum	1.00	5,000,000.00	5,000,000
1.2	Resident Engineer Site Office - Maintenance (details to be broken down by the Contractor for Engineer's Approval, and quantified by evidence of purchase)	month	24.00	250,000.00	6,000,000
1.3	Provisional Sum of Kshs.500,000 for refurbishment of the existing Laboratory Block.	Sum	1.00	500,000.00	500,000
1.4	Laboratory Block - Maintenance (details to be broken down by the Contractor for Engineer's Approval, and quantified.	month	24.00	20,000.00	480,000
1.5	Rental of a fully furnished and functional 3 bedroom Housing for Resident Engineer to the satisfaction of the Engineer.	month	4.00	150,000.00	600,000
1.6	Rental of a fully furnished and functional two (2) no. 3 bedroom Housing for Resident Engineer's staff to the satisfaction of the Engineer.	month	4.00	300,000.00	1,200,000
1.7	Provisional Sum for furniture to Resident Engineer and Resident Engineer Staff Residential Houses( as listed in Appendix A).	Sum	1.00	-	-

	Furniture to revert to the Employer at the end of the contract.				
1.8	Add percentage adjustment for Contractor's attendance, overhead and profits on item 1.1 to 1.7	%	10%	13,780,000.00	1,378,000
	<b><i>Engineer's Transport Vehicles</i></b>				
1.9	Temporary renting of approved vehicle (2,400 - 3000 cc 4WD double pick-up) for use by the Engineer before purchase of project vehicles	month	3.00	300,000.00	900,000
1.10	Provisional Sum for purchase of 1 No. approved double cabin pickup vehicles (2,400 - 3000 cc 4WD capacity) complete with registration, license and insurances for sole use by the Resident Engineer during the contract. Vehicles to revert to the Employer upon completion of the Contract	No.	1.00	7,000,000.00	7,000,000
1.11	Add percentage adjustment for Contractor's attendance, overhead and profits on item 1.10	%	10%	7,000,000.00	700,000
					-
1.12	Provisional Sum for purchase of 3 No. approved double cabin pickup vehicles (2,400 - 3000 cc 4WD capacity) complete with registration, license and insurances for sole use by the Resident Engineers staff during the contract. Vehicle(s) to revert to the Employer upon completion of the Contract	No.	3.00	7,000,000.00	21,000,000
1.13	Add percentage adjustment for Contractor's attendance, overhead and profits on item 1.12	%	10%	21,000,000.00	2,100,000
	<b><i>Employer's Vehicles</i></b>				
1.14	Provisional Sum for purchase of 2 No. approved double cabin pickup vehicles (2,400 - 3000 cc 4WD capacity) complete with registration, license and insurances for sole use by the Employer during the contract.	No.	2.00	7,000,000.00	14,000,000
1.15	Add percentage adjustment for Contractor's attendance, overhead and profits on item 1.14	%	10%	14,000,000.00	1,400,000
1.16	Provision for operation and maintenance expenses of the Resident Engineer's vehicles and Employers vehicle	km	1,000,000.00	20.00	20,000,000

	<b><u>Provision and Maintenance of Equipment for use by Engineer's Staff. All equipment to revert to the Employer at the end of the Contract</u></b>				
1.17	Provisional sum for purchase and maintenance of Engineer's office equipment (as listed in Appendix B). Equipment to revert to the Employer at the end of the contract.	Item	1.00	-	-
1.18	Provisional sum for purchase and maintenance of Engineer's laboratory equipment	Item	1.00	9,500,000.00	9,500,000
1.19	Provisional sum for purchase and maintenance of Engineer's survey equipment (as listed in Appendix C). Survey Equipment to revert to the Employer at the end of the contract.	Item	1.00	-	-
1.20	Add percentage adjustment for Contractor's attendance, overhead and profits for items 1.17,1.18 and 1.19	%	10%	9,500,000.00	950,000
	<b><u>Attendance Upon the Engineer's Staff</u></b>				
1.21	Drivers (3No.)	month	24.00		0
1.22	Chainmen (1No.)	month	18.00		0
1.23	Office Secretary (1No.)	month	18.00		0
1.24	Office Assistants (2No.)	month	24.00		0
1.25	Preparation of Record Drawings and O&M Manuals	Sum	1.00	200,000.00	200,000
1.26	Add percentage adjustment for Contractor's attendance, overhead and profits for items 1.21,1.22,1.23,1.24 and 1.25.	%	10%	200,000.00	20,000
	<b><u>Testing of Materials</u></b>				
1.27	Concrete Tests as specified	sum	1.00	1,000,000.00	1,000,000
1.28	Earthworks tests as specified	sum	1.00	1,000,000.00	1,000,000
1.29	Other Material Tests as specified	sum	1.00	1,000,000.00	1,000,000
	<b><u>Testing of the Works</u></b>				
1.30	Testing of the Works - specified tests in all sections of the Works (except pipes - billed separately)	Sum	1.00	1,000,000.00	1,000,000

	<b><i>Temporary Works</i></b>				
1.32	Approved hoardings to works sites within the treatment works working areas to limit access	Item	1.00	2,500,000.00	2,500,000
1.33	Traffic regulation; establishment, operation and removal	Item	1.00	1,000,000.00	1,000,000
1.34	Add percentage adjustment for Contractor's attendance, overhead and profits for items 1.27, 1.28, 1.29, 1.30, 1.32, 1.33	%	10%	7,500,000.00	750,000
1.35	Establishment & removal of project signboards at designated locations	nr	3.00		-
	<b><u>Employer technical staff capacity, Project Public Relations liaison and project monitoring tools softwares</u></b>				
1.36	Allow a provisional sum of Ksh. 10,000,000 for technical staff capacity building (training) and project public relations liaison initiatives as directed by the Engineer	Sum	1.00	10,000,000.00	10,000,000
1.37	Allow a provisional sum of Kshs. 30,000,000 for costs associated with employers staff site visits and allowances for employers staff deployed to the project	Sum	1.00	30,000,000.00	30,000,000
1.38	Allow a provisional sum of KShs.5,000,000 to be spent under instructions from the Engineer for ICT facilities, improvement and related services, all to be acquired as directed by the Engineer	Sum	1.00	2,500,000.00	2,500,000
1.39	Allow a provisional sum of Kshs. 10,000,000 for hiring of dam experts on specialised consultation as may be directed by the Engineer	Item	1.00	10,000,000.00	10,000,000
1.40	Add percentage adjustment for Contractor's attendance, overhead and profits for items 1.36, 1.37, 1.38 and 1.39.	%	10%	52,500,000.00	5,250,000
	<b><u>Progress photographs and motion pictures</u></b>				
1.41	Allow a provisional sum of Ksh. 500,000 for purchase of digital camera capable of taking high resolution still images for progress photographs and images throughout the duration of the contract as directed by the Engineer	Item	1.00	500,000.00	500,000
1.42	Add percentage adjustment for Contractor's attendance, overhead and profits for item 1.41	%	10%	500,000.00	50,000

	<b><u>Engineer's Communication</u></b>				
1.43	Provide a provisional sum of Kshs 2,000,000 for providing and maintaining mobile telephones, VSAT internet connection, post office, courier, radio communication for the exclusive use of the engineer	Item	1.00	2,000,000.00	2,000,000
1.44	Include a percentage on item 1.43 for contractor's overheads and profits	%	10%	2,000,000.00	200,000
	<b><u>Provisional Sums</u></b>				
	<b><u>Dayworks</u></b>				
1.45	Dayworks - Labour	Sum			-
1.46	Contractor's mark-up on provisional sum for Dayworks Labour	%	10%	-	-
1.47	Dayworks - Materials	Sum			-
1.48	Contractor's mark-up on provisional sum for Dayworks Materials	%	10%	-	-
1.49	Dayworks - Plant	Sum			-
1.50	Contractor's mark-up on provisional sum for Dayworks Plant	%	10%	-	-
	<b><u>Other Provisional Sums</u></b>				
1.51	Provision for payment demanded by authorities for the temporary and permanent diversion of existing services.	Sum	1.00	500,000.00	500,000
1.52	Contractor's mark-up on item 1.51	%	10%	500,000.00	50,000
1.53	Provision of Pipe Locators	Sum	1.00	250,000.00	250,000
1.54	KPLC Charges for power supply to sites	Sum	1.00	3,000,000.00	3,000,000
1.56	Contractor's mark-up on provisional sums on items 1.53 and 1.54	%	10%	3,250,000.00	325,000
1.57	Provisional sum for meeting the Environment, Health and Safety requirements as provided in the Specification Section 1, Clause 1.12 - detailed breakdown of the same will be required by the Contractor	Sum	1.00	5,000,000.00	5,000,000
1.58	Allow a provisional sum of KES 3,000,000 for land acquisition as directed by the Engineer.	Sum	1.00	3,000,000.00	3,000,000

1.59	Include percentage on item 1.57 & 1.58 for Contractor's overheads and profits.	%	10%	8,000,000.00	800,000
BILL TOTAL TAKEN TO GRAND SUMMARY					174,603,000

**UMAA DAM AND WATER TREATMENT PLANT**

**CONTRACT No. ...NWHSA/OIT/001/2023-24**

**BILL No. 2 - DAM EMBANKMENT AND APPURTENANT WORKS**

**A. GENERAL**

ITEM No.	DESCRIPTION	UNIT	QTY	RATE (KShs)	AMOUNT (KShs)
	<b>CLASS D: DEMOLITION AND SITE CLEARANCE</b>				
2.1	Clear the embankment and the reservoir area of all the vegetation	ha	15.00		-
2.2	Site clearance at the spillway, including stilling basin, general clearance, removal of invasive plant species, rocks, and sediments settled. Ensure a clear working platform.	ha	0.10		-
2.3	Strip the borrow in Kitui county government and Kenya Agricultural and Livestock Organization (KALRO) land off the top soil and spread on site as directed by the Engineer	ha	5.00		-
2.4	Strip the reservoir, embankment, reservoir and spillway area off the top soil and stock pile as directed on site	ha	15.00		-
2.5	Clear the borrow area of all the vegetation	ha	5.00		-
2.6	Uproot trees in the reservoir, embankment and spillway area whose girth does not exceed 1.0m (provisional)	nr	400.00		-
2.7	Uproot trees in the reservoir, embankment and spillway area whose girth exceeds 1.0m	nr	300.00		-
	<b>CLASS E: EARTHWORKS</b>				
	The rates shall include for all strutting, shuttering, stabilising the excavation faces, and keeping the excavation free of water by pumping, bailing or other means				
2.8	Excavate zone 1 embankment material, transport from Kenya Agricultural and Livestock Organization (KALRO) grounds to stock pile on site	m <sup>3</sup>	92,877.00		-

2.10	Excavate the overburden in the embankment, reservoir and spillway area and stock pile as directed by the Engineer on site, depth n.e. 0.25 m	m <sup>3</sup>	15,177.60		-
2.11	Excavate the overburden in the embankment, reservoir and spillway area and stock pile as directed by the Engineer on site, depth 0.25-0.5 m	m <sup>3</sup>	1,897.20		-
2.12	Excavate the overburden in the embankment, reservoir and spillway area and stock pile as directed by the Engineer on site, depth 0.5-1.0 m	m <sup>3</sup>	1,328.04		-
2.13	Excavate the overburden in the embankment, reservoir and spillway area and stock pile as directed by the Engineer on site, depth 1-2 m	m <sup>3</sup>	379.44		-
2.14	Excavate in normal materials for the toe drain for a depth not exceeding 1.2m. The rate shall include trimming the sides to a slope of 1 in 2.	m <sup>3</sup>	300.00		-
2.15	Excavation in rock on slopes and cart away average 400mm	m <sup>3</sup>	50.00		-
2.17	Lay 160mm diameter perforated upvc pipe-class c in the toe drain	m	300.00		-
2.18	Place sand similar to the one used for the horizontal drainage blanket in the toe drain	m <sup>3</sup>	300.00		-
2.19	Construct a 1.2m x 1.2m collector manhole for the toe drain. The depth shall not exceed 1.5m. The walls are 200mm thick and in reinforced concrete to details	nr	1.00		-
2.20	Install a v-notch to detail in the collector manhole	nr	1.00		-
	<b>DAM SURVEY AND MONITORING EQUIPMENT</b>				
2.21	Supply, installation, Testing and commissioning of Dam Survey and Monitoring equipment as per specifications and approval by the Engineer	Sum	1.00	10,000,000.00	10,000,000.00
2.21-1	Allow percentage for contractor's profits and overheads on item 2.21	%	10,000,000.00	0.10	1,000,000.00
	<b>BILL TOTAL TAKEN TO GRAND SUMMARY</b>				<b>11,000,000.00</b>

**UMAA DAM AND WATER TREATMENT PLANT**

**CONTRACT No. NWHSA/OIT/001/2023-2024**

**BILL No. 2 - DAM EMBANKMENT AND APPURTENANT WORKS**

**B. SURFACE DRAIN AND HORIZONTAL DRAINAGE BLANKET**

ITEM No.	DESCRIPTION	UNIT	QTY	RATE (KShs)	AMOUNT (KShs)
	<b>SURFACE DRAIN WORKS</b>				
	<b>CLASS E: EARTHWORKS</b>				
	The rates shall include for all strutting, shuttering, stabilising the excavation faces, and keeping the excavation free of water by pumping, bailing or other means				
2.22	Excavate in normal materials for a depth not exceeding 1.0m for the surface drain including trimming the side slopes to 1 in 1	m <sup>3</sup>	60.00		-
	<b>CLASS U: BRICKWORK, BLOCKWORK AND MASONRY</b>				
2.23	Construct a surface drain in rubble stone to detail	m	250.00		-
	<b>HORIZONTAL DRAINAGE BLANKET</b>				
2.24	Place and compact to as per the specifications the material selected for the horizontal drainage blanket. The rate shall allow for excavation, haulage and watering the fill where required	m <sup>3</sup>	30,000.00		-
<b>BILL TOTAL TAKEN TO GRAND SUMMARY</b>					-

**UMAA DAM AND WATER TREATMENT PLANT**  
**CONTRACT No. NWHSA/OIT/001/2023-2024**

**BILL No. 2 - DAM EMBANKMENT AND APPURTENANT WORKS**  
**C. COFFERDAMS**

ITEM No.	DESCRIPTION	UNIT	QTY	RATE (KShs)	AMOUNT (KShs)
	<b>CLASS E: EARTHWORKS</b>				
	The rates shall include for all strutting, shuttering, stabilising the excavation faces, and keeping the excavation free of water by pumping, bailing or other means				
2.26	Excavate in normal materials to rock for the cut-off to the cofferdam, The rate shall allow for trimming the side to a slope of 1 in 1. Depth not exceeding 0.25 m	m <sup>3</sup>	746.00		-
2.27	Excavate in normal materials to rock for the cut-off to the cofferdam, The rate shall allow for trimming the side to a slope of 1 in 1. Depth 0.25-0.5m	m <sup>3</sup>	373.00		-
2.28	Excavate in normal materials to rock for the cut-off to the cofferdam, including carting away of material to stockpile or to spoil as directed by the Engineer. The rate shall allow for trimming the side to a slope of 1 in 1. Depth 0.5-1.0m	m <sup>3</sup>	100.00		-
2.29	Excavate in rock for a depth not exceeding 0.25m in the cut-off trench, including carting away of material to stockpile or to spoil as directed by the Engineer. The rate shall allow for trimming the side to a slope of 1 in 1.	m <sup>3</sup>	373.00		-
2.30	Excavate in rock for a depth 0.25-0.5m in the cut-off trench, including carting away of material to stockpile or to spoil as directed by the Engineer. The rate shall allow for trimming the side to a slope of 1 in 1.	m <sup>3</sup>	746.00		-
2.31	Excavate in rock for a depth not exceeding 0.5-1.0 m in the cut-off trench, including carting away of material to stockpile or to spoil as directed by the Engineer. The rate shall allow for trimming the side to a slope of 1 in 1.	m <sup>3</sup>	1,491.00		-
2.32	Transport, place and compact zone 1 material to the core trench. The rate shall include haulage from the stock pile, watering and compacting to the maximum dry density	m <sup>3</sup>	1,638.00		-

2.33	Transport, place and compact zone 1 material in the coffer dam. The rate shall include haulage from the stock pile, watering and compacting to the maximum dry density. Rate shall be for compacted fill.	m <sup>3</sup>	19,474.00		-
2.34	Transport, place and compact downstream coffer dam to minimum crest elevation of 1135 masl. Contractor to design the temporary cofferdam and ensure a dry working area is provided for the construction of the embankment. Rate shall be for compacted fill.	m <sup>3</sup>	10,000.00		-
2.35	Trim the upstream slope of the coffer to a recommended slope	m <sup>3</sup>	1,300.00		-
	<b>CLASS F: CONCRETE WORKS</b>				
2.36	Treat the bottom of the cut-off trench with Class 20/25 dental concrete	m <sup>2</sup>	3,000.00		-

**BILL TOTAL TAKEN TO GRAND SUMMARY**

-

**UMAA DAM AND WATER TREATMENT PLANT**

**CONTRACT No. ....NWHSA/OIT/001/2023-2024**

**BILL No. 2 - DAM EMBANKMENT AND APPURTENANT WORKS**

**D. MAIN EMBANKMENT**

ITEM No.	DESCRIPTION	UNIT	QTY	RATE (KShs)	AMOUNT (KShs)
	<b>CLASS E: EARTHWORKS</b>				
	The rates shall include for all strutting, shuttering, stabilising the excavation faces, and keeping the excavation free of water by pumping, bailing or other means				
2.37	Excavate in normal materials for the cut-off trench to the main embankment. The rate shall allow for trimming the side to a slope of 1 in 2. Depth not exceeding 0.25m	m <sup>3</sup>	3,750		-
2.38	Excavate in normal materials for the cut-off trench to the main embankment. The rate shall allow for trimming the side to a slope of 1 in 2. Depth 0.25-0.5m	m <sup>3</sup>	1,875		-
2.39	Excavate in normal materials for the cut-off trench to the main embankment. The rate shall allow for trimming the side to a slope of 1 in 2. Depth 0.5-1.0m	m <sup>3</sup>	938		-
2.40	Excavate in rock in the cut-off trench for the main embankment for a depth not exceeding 0.25m, including carting away of material to stockpile or to spoil as directed by the Engineer.	m <sup>3</sup>	3,750		-
2.41	Excavate in rock in the cut-off trench for the main embankment for a depth 0.25-0.5m, including carting away of material to stockpile or to spoil as directed by the Engineer.	m <sup>3</sup>	3,750		-
2.42	Excavate in weathered rock in the cut-off trench for the main embankment for a depth 0.5-1.0m - provisional	m <sup>3</sup>	-	Rate Only	No amount
2.43	Transport, place and compact zone 1 material in the cut-off trench. the rate shall be for compacted fill and shall include haulage from the stock pile, watering and compacting to the maximum dry density	m <sup>3</sup>	5,000		-

2.44	Transport, place and compact zone 1 material in the central core. The rate shall be for compacted fill and shall include haulage from the stock pile, watering and compacting to the maximum dry density	m <sup>3</sup>	73,403	-
2.45	Excavate, Transport, place and compact zone 2 material in the main embankment. The rate shall include haulage from the stock pile and compacting	m <sup>3</sup>	30,000	-
2.46	Excavate, Transport, place and compact zone 3 material in the main embankment. The rate shall include haulage from the stock pile, watering and compacting to the maximum dry density	m <sup>3</sup>	190,873	-
2.47	Excavate, Transport, place and compact murram in the crest to the embankment in the main embankment	m <sup>3</sup>	825	-
2.48	Borrow from the stock pile, place and spread top soil in the downstream embankment. The depth of the soil shall be 0.25m	m <sup>3</sup>	4,845	-
2.49	Place dumped rip-rap 750mm deep in the upstream slope. Allow for haulage from the stock pile	m <sup>3</sup>	14,963	-
2.5	Trim the upstream slope of the embankment to a slope of 1 in 3	m <sup>2</sup>	19,950	-
2.51	Trim the downstream slope of the embankment to a slope of 1 in 2.5 NWHSA/OIT/002/2023-24...	m <sup>2</sup>	19,380	-
2.52	Plant kikuyu grass or similar in the downstream slope	m <sup>2</sup>	19,380	-
<b>Geotextile</b>				
2.53	Supply and lay polyfelt T600 or similar approved geotextile membrane in for the interface between the riprap and shell material at the upstream face of the Main Embankment. Allow for 600mm laps.	m <sup>2</sup>	21,780	-
2.54	Supply and lay polyfelt T500 or similar approved geotextile membrane in for the inclined filter blanket in the main embankment. Allow for 600mm laps.	m <sup>2</sup>	25,740	-
<b>BILL TOTAL TAKEN TO GRAND SUMMARY</b>				-

**UMAA DAM AND WATER TREATMENT PLANT**

**CONTRACT No. ....NWHSA/OIT/001/2023-2024**

**BILL No. 2 - DAM EMBANKMENT AND APPURTENANT WORKS**

**D.1 - GROUTING WORKS**

<b>No.</b>	<b>Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Rate (KShs.)</b>	<b>Amount</b>
	<b>Raking</b>				
2D.1	Drill raking holes 50mm diameter at locations as directed	M	360.00		-
2D.2	Carry out lugeon pressure water tests down stage at raking holes.	No.	72.00		-
2D.3	Carry out pressure grouting tests upstage as directed.	No.	72.00		-
	<b>Consolidated/Contact Grouting</b>				
2D.4	Drill for contact and consolidated grouting as instructed.	M	1,000.00		-
2D.5	Carry out contact/consolidated/curtain grouting measured as cement ejected when dry. The rate shall include cost of provision of materials, labour and machinery	Kg	40,000.00	Rate only	No amount
	<b>Provisional grouting</b>				
2D.6	Carry out continuous core drilling for grout curtain. Rate shall include core drilling, shifting of equipment between holes, putting core in boxes and logging.	M	2,000.00	Rate only	No amount
2D.7	Carry out lugeon pressure water tests down stage	No.	400.00	Rate only	No amount
2D.8	Carry out pressure grouting upstage	M	2,000.00	Rate only	No amount
	<b>BILL TOTAL TAKEN TO GRAND SUMMARY</b>				-

**UMAA DAM AND WATER TREATMENT PLANT**

**CONTRACT No. ....NWHSA/OIT/001/2023-2024**

**BILL No. 2 - DAM EMBANKMENT AND APPURTENANT WORKS**

**E. DRAW & DIVERSION OFF WORKS - INTAKE TOWER**

ITEM No.	DESCRIPTION	UNIT	QTY	RATE (KShs)	AMOUNT (KShs)
	<b>CLASS E: EARTHWORKS</b>				
	The rates shall include for all strutting, shuttering, stabilising the excavation faces, and keeping the excavation free of water by pumping, bailing or other means				
2.55	Excavate in normal materials for the intake tower. Depth not exceeding 0.25m	m <sup>3</sup>	11.00		-
2.56	Excavate in normal materials for the intake tower. Depth 0.25-0.5m	m <sup>3</sup>	11.00		-
2.57	Excavate in normal materials for the intake tower. Depth 0.5-1.0m	m <sup>3</sup>	7.00		-
2.58	Excavate in rock for the intake tower for depth not exceeding 0.25m	m <sup>3</sup>	11.00		-
2.59	Excavate in rock for the intake tower for depth 0.25-0.5m	m <sup>3</sup>	11.00		-
2.60	Excavate in rock for the intake tower for depth 0.5-1.0m	m <sup>3</sup>	-	Rate Only	No amount
	<b>CLASS F: CONCRETE WORKS</b>				
2.61	Concrete designated Class 20/25 as per UNI EN 206 vibrated mass concrete in 50mm thick blinding for the intake tower	m <sup>3</sup>	2.00		-
2.62	Vibrated concrete designated class 25/30 as per UNI EN 206 in 300mm thick ground slab for the intake tower	m <sup>3</sup>	23.00		-
2.63	Vibrated class 25/30 as per UNI EN 206 in walls for the intake tower	m <sup>3</sup>	436.00		-
	<b>CLASS G: CONCRETE ANCILLARIES</b>				
2.64	Wrot formwork for intake tower	m <sup>2</sup>	1,742.00		-

	<b>High yield deformed bars type 2 as per KS 573: 2014. Minimum yield tensile strength of 460 N/mm<sup>2</sup></b>				
2.65	T8	kg	2,000.00		-
2.66	T10	kg	2,000.00		-
2.67	T12	kg	6,768.00		-
2.68	T16	kg	8,750.00		-
2.69	T20	kg	12,716.00		-
2.70	T25	kg	500.00		-
2.71	Construction joint between wall and base with 240mm wide plain rearguard polyvinyl chloride (PVC) waterstop between adjacent bays, and embedded in concrete, as per specification and Engineer's instructions	m	62.00		-
2.72	Construction joint between wall panels with 240mm wide plain rearguard polyvinyl chloride (PVC) waterstop between adjacent bays, and embedded in concrete, as per specification and Engineer's instructions. Waterstop shall be able to withstand water pressures	m	96.00		-
<b>BILL TOTAL TAKEN TO GRAND SUMMARY</b>					-

**UMAA DAM AND WATER TREATMENT PLANT**

**CONTRACT No. ....NWHSA/OIT/001/2023-2024**

**BILL No. 2 - DAM EMBANKMENT AND APPURTENANT WORKS**

**F. DRAW & DIVERSION OFF WORKS - DIVERSION CULVERT**

ITEM No.	DESCRIPTION	UNIT	QTY	RATE (KShs)	AMOUNT (KShs)
	<b>CLASS E: EARTHWORKS</b>				
2.73	Excavate in normal materials for the diversion culvert. Depth not exceeding 0.25m	m <sup>3</sup>	158.00		-
2.74	Excavate in normal materials for the diversion culvert. Depth 0.25-0.5m	m <sup>3</sup>	92.00		-
2.75	Excavate in rock for the diversion culvert. for depth not exceeding 0.25m	m <sup>3</sup>	158.00		-
	<b>CLASS F: CONCRETE WORKS</b>				
2.76	Vibrated class 20/25 as per UNI EN 206 mass concrete in the plug fuse for the diversion culvert	m <sup>3</sup>	7.80		-
2.77	Vibrated concrete designated class 20/25 as per UNI EN 206 mass concrete in 50mm thick blinding for the diversion culvert	m <sup>3</sup>	31.50		-
2.78	Vibrated concrete designated class C25/30 as per UNI EN 206 in 3.4 x 3.4m box culvert	m <sup>3</sup>	214.50		-
	<b>CLASS G: CONCRETE ANCILLARIES</b>				
2.79	Wrot formwork for diversion culvert	m <sup>2</sup>	1,500.00		-
	<b>High yeild deformed bars type 2 as per KS 573: 2014. Minimum yield tensile strength of 460 N/mm<sup>2</sup></b>				
2.80	R25	kg	100.00		-
2.81	T8	kg	50.00		-
2.82	T10	kg	50.00		-
2.83	T12	kg	3,782.00		-
2.84	T16	kg	10,972.00		-
2.85	T20	kg	18,945.50		-

2.86	Construction joint between wall panels with 240mm wide plain rearguard polyvinyl chloride (PVC) waterstop between adjacent bays, and embedded in concrete, as per specification and Engineer's instructions. Waterstop shall be able to withstand ground water pressures	m	300.00		-
2.87	Supply and install swellable strip waterstops, butyl rubber and mastic, one inch (25 mm) by 3/4 inch (19 mm) as per specifications and Engineers instructions	m	131.00		-
<b>BILL TOTAL TAKEN TO GRAND SUMMARY</b>					-

**UMAA DAM AND WATER TREATMENT PLANT**

**CONTRACT No. ....NWHSA/OIT/001/2023-2024**

**BILL No. 2 - DAM EMBANKMENT AND APPURTENANT WORKS**

**G. SPILLWAY WORKS - APPROACH CHANNEL**

ITEM No.	DESCRIPTION	UNIT	QTY	RATE (KShs)	AMOUNT (KShs)
	<b>CLASS E: EARTHWORKS</b>				
2.89	Excavate in weathered rock for the spillway approach channel for depth not exceeding 0.25m	m <sup>3</sup>	325.00		-
2.90	Excavate in weathered rock for the spillway approach channel for depth 0.25-0.5m	m <sup>3</sup>	65.00		-
2.91	Gravel for the drainage behind the retaining walls	m <sup>3</sup>	273.00		-
	<b>CLASS F: CONCRETE WORKS</b>				
2.92	Vibrated 50mm thick designated class 20/25 as per UNI EN 206 blinding for the retaining walls and base slab	m <sup>3</sup>	120.00		-
2.93	Vibrated reinforced concrete designated classes 25/30 as per UNI EN 206 in retaining walls, and base slab	m <sup>3</sup>	3,168.00		-
2.94	Vibrated reinforced concrete designated classes 25/30 as per UNI EN 206 in ogee spillway	m <sup>3</sup>	440.00		-
	<b>CLASS G: CONCRETE ANCILLARIES</b>				
2.95	Wrot formwork concrete surfaces including inclined finished level, and/or as instructed by the Engineer. Including supply, installation and removal of the formwork.	m <sup>2</sup>	96.00		-
2.96	Wrot formwork concrete surfaces of vertical walls, and/or as instructed by the Engineer. Including supply, installation and removal of the formwork.	m <sup>2</sup>	1,344.00		-
2.97	Wrot formwork of edges of vertical walls, footing, top of wall average 500mm wide, and/or as instructed by the Engineer. Including supply, installation and removal of the formwork.	m <sup>2</sup>	104.00		-
					-

2.98	Wrot formwork for the ogee-shape concrete spillway at crest, and/or as instructed by the Engineer. Including supply, installation and removal of the formwork.	LS	1.00	-
	<b>High yield deformed bars type 2 as per KS 573: 2014. Minimum yield tensile strength of 460 N/mm<sup>2</sup></b>			-
2.99	T8	kg	100.00	-
2.100	T10	kg	100.00	-
2.102	T12	kg	8,345.00	-
2.103	T16	kg	100.00	-
2.105	T20	kg	4,932.00	-
2.106	T25	kg	50.00	-
2.107	Construction joint between wall and base with 240mm wide plain rearguard polyvinyl chloride (PVC) waterstop between adjacent bays, and embedded in concrete, as per specification and Engineer's instructions	m	234.00	-
2.108	Construction joint between panels with 240mm wide plain rearguard polyvinyl chloride (PVC) waterstop between adjacent bays, and embedded in concrete, as per specification and Engineer's instructions between adjacent bays	m	192.00	-
2.109	Supply and install swellable strip waterstops, butyl rubber and mastic, one inch (25 mm) by 3/4 inch (19 mm) as per specifications and Engineers instructions	m	4,200.00	-
	<b>CLASS I: PIPEWORK - PIPES</b>			-
2.110	150mm diameter uPVC pipe class B perforated drainage pipe	m	60.00	-
<b>BILL TOTAL TAKEN TO GRAND SUMMARY</b>				<b>0</b>

**UMAA DAM AND WATER TREATMENT PLANT**

**CONTRACT No. ....NWHSA/OIT/001/2023-2024**

**BILL No. 2 - DAM EMBANKMENT AND APPURTENANT WORKS**

**H. SPILLWAY WORKS - CHUTE**

ITEM No.	DESCRIPTION	UNIT	QTY	RATE (KShs)	AMOUNT (KShs)
	<b>CLASS E: EARTHWORKS</b>				
2.111	Gravel for the drainage behind the retaining walls	m <sup>3</sup>	473.00		-
	<b>CLASS F: CONCRETE WORKS</b>				-
2.112	Vibrated reinforced concrete designated class 25/30 as per UNI EN 206 in retaining walls	m <sup>3</sup>	432.00		-
2.113	Vibrated reinforced concrete designated class 25/30 as per UNI EN 206 in ground slab	m <sup>3</sup>	960.00		-
	<b>CLASS G: CONCRETE ANCILLARIES</b>				
2.114	Wrot formwork on inclined top of blinding concrete surface, and/or as instructed by the Engineer. Including supply, installation and removal of the formwork.	m <sup>2</sup>	60.00		-
2.115	Wrot formwork concrete surfaces of vertical walls, and/or as instructed by the Engineer. Including supply, installation and removal of the formwork.	m <sup>2</sup>	720.00		-
2.116	Wrot formwork of edges of vertical walls, footing, top of wall average 400mm wide, and/or as instructed by the Engineer. Including supply, installation and removal of the formwork.	m <sup>2</sup>	288.00		-
	<b>High yeild deformed bars type 2 as per KS 573: 2014. Minimum yield tensile strength of 460 N/mm<sup>2</sup></b>				
2.117	T12	kg	4368.00		-
2.118	T16	kg	1894.00		-
2.119	Wire brush formed reinforcement prior to casting in concrete, and as instructed by the Engineer. The Contractor to submit a method statement on how wire brushing will be conducted.	Nr. / 12 m length	1047.00		-

2.120	Construction joint between wall and base with 240mm wide plain rearguard polyvinyl chloride (PVC) waterstop between adjacent bays, and embedded in concrete, as per specification and Engineer's instructions	m	63.00	-
2.121	Construction joint between panels with 240mm wide plain rearguard polyvinyl chloride (PVC) waterstop between adjacent bays, and embedded in concrete, as per specification and Engineer's instructions between adjacent bays	m	32.00	-
2.122	Supply and install swellable strip waterstops, butyl rubber and mastic, one inch (25 mm) by 3/4 inch (19 mm) as per specifications and Engineers instructions	m	42.00	-
<b>CLASS I: PIPEWORK - PIPES</b>				
2.123	150mm diameter uPVC pipe class B perforated drainage pipe	m	100.00	-
<b>BILL TOTAL TAKEN TO GRAND SUMMARY</b>				-

**BILL No. 2 - DAM EMBANKMENT AND APPURTENANT WORKS**

**I. SPILLWAY WORKS - STILLING BASIN**

ITEM No.	DESCRIPTION	UNIT	QTY	RATE (KShs)	AMOUNT (KShs)
	<b>CLASS F: CONCRETE WORKS</b>				
2.124	Vibrated reinforced concrete designated class 25/30 as per UNI EN 206 in retaining walls	m <sup>3</sup>	630.00		-
2.125	Vibrated reinforced concrete designated class 25/30 as per UNI EN 206 in ground slab and sill blocks - provisional	m <sup>3</sup>	120.00		-
	<b>CLASS G: CONCRETE ANCILLARIES</b>				
2.126	Wrot formwork concrete surfaces of vertical walls, and/or as instructed by the Engineer. Including supply, installation and removal of the formwork.	m <sup>2</sup>	360.00		-
2.127	Wrot formwork of edges of vertical walls, footing, top of wall average 400mm wide, and sill blocks, as instructed by the Engineer. Including supply, installation and removal of the formwork.	m <sup>2</sup>	432.00		-
	<b>High yeild deformed bars type 2 as per KS 573: 2014. Minimum yield tensile strength of 460 N/mm<sup>2</sup></b>				
2.128	T8	kg	50.00		-
2.129	T10	kg	50.00		-
2.130	T12	kg	2,237.00		-
2.131	T16	kg	316.00		-
2.132	Wire brush formed reinforcement prior to casting in concrete, and as instructed by the Engineer. The Contractor to submit a method statement on how wire brushing will be conducted.	Nr. / 12 m length	503.00		-
2.133	Construction joint between wall and base with 240mm wide plain rearguard polyvinyl chloride (PVC) waterstop between adjacent bays, and embedded in concrete, as per specification and Engineer's instructions	m	32.00		-

2.134	Construction joint between panels with 240mm wide plain rearguard polyvinyl chloride (PVC) waterstop between adjacent bays, and embedded in concrete, as per specification and Engineer's instructions between adjacent bays	m	16.00		-
2.135	Supply and install swellable strip waterstops, butyl rubber and mastic, one inch (25 mm) by 3/4 inch (19 mm) as per specifications and Engineers instructions	m	21.00		-
<b>BILL TOTAL TAKEN TO GRAND SUMMARY</b>					-

**UMAA DAM AND WATER TREATMENT PLANT**

**CONTRACT No. ....NWHSA/OIT/001/2023-2024**

**BILL No. 2 - DAM EMBANKMENT AND APPURTENANT WORKS**

**J. PIPES AND FITTINGS**

ITEM No.	DESCRIPTION	UNIT	QTY	RATE (KShs)	AMOUNT (KShs)
	<b>CLASS I: PIPEWORK - PIPES</b>				
2.136	ND600 mm, 6m long spiral welded steel pipe internally coated in bitumen and externally painted in zinc aluminium (supply and installation)	m	160.00		-
2.137	ND600 mm, 6m long spiral welded steel pipe internally coated in bitumen and externally painted in zinc aluminium, within the site and treated as per specification (installation only)	m	100.00		-
	<b>CLASS J: PIPEWORK - FITTINGS AND VALVES</b>				
	<b>Outlet Chamber and water connection</b>				
2.138	300mm DN x 45° double flanged steel radial steel long radius bend (supply and installation)	nr	2.00		-
2.139	300 x 300 x 300mm all flanged steel radial tee (supply and installation)	nr	2.00		-
2.14	600 x 600 x 200mm all flanged radial steel tee (supply and installation)	nr	1.00		-
2.141	300mm DN flanged steel spigot (L=500mm) (supply and installation)	nr	2.00		-
2.142	DN 300 vj flanged adapters, joints-4 of each (supply and installation)	nr	4.00		-
2.143	DN 600 vj flanged adapters, joints-4 of each (supply and installation)	nr	4.00		-
	<b>600mm Dia. Steel pipes fittings</b>				
2.144	Double flanged 90° short radius bend (supply and installation)	nr	1.00		-
2.145	Double flanged 90° duckfoot bend (supply and installation)	nr	1.00		-
2.146	All flanged tee (supply and installation)	nr	1.00		-
2.147	Vicking Johnson flanged adaptor (supply and installation)	nr	5.00		-

2.148	Viking Johnson coupling with a centre register (supply and installation)	nr	30.00		-
2.149	Flanged bellmouth pipe 750mm long (supply and installation)	nr	2.00		-
2.150	Double flanged straight 600mm long (supply and installation)	nr	2.00		-
2.151	Double flanged straight pipe, 970mm long pipe (supply and installation)	nr	1.00		-
2.152	Double flanged straight pipe, 800mm long pipe (supply and installation)	nr	1.00		-
2.153	Double flanged straight pipe, 1600mm long pipe (supply and installation)	nr	2.00		-
2.154	Double flanged butterfly valve (supply and installation)	nr	4.00		-
2.155	Flanged spigot 500mm long (supply and installation)	nr	2.00		-
2.156	<b>Valves</b> Power operated DN 600mm sluice gate (supply and installation)	nr	2.00		-
<b>BILL TOTAL TAKEN TO GRAND SUMMARY</b>					-

**UMAA DAM AND WATER TREATMENT PLANT**

**CONTRACT No. ....NWHS/01T/001/2023-2024**

**BILL No. 3 - RAW WATER MAIN**

ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Kshs)	AMOUNT (Kshs)
	<b>CLASS A: GENERAL ITEM</b>				
	<b><i>Testing of works</i></b>				
3.1	Pipeline testing and commissioning for the whole work on this line, including all necessary equipment, materials and works necessary for testing, such as thrust blocks, anchor blocks, transportation and use of water, pipe fittings, disposal of used water.	m	429.00		-
3.2	Disinfection of Pipe lines: flushing with clear water, filling with water containing 0.05 g/l calcium hypochlorite, left for 24 hours. This includes supply of all necessary equipment, materials, chemicals and water, measurement of residual chlorine, all as specified.	m	429.00		-
	<b>CLASS D: DEMOLITION AND SITE CLEARANCE</b>				
	<b><i>Tree Cutting (Provisional)</i></b>				
	Cut down trees, grub up roots and cart away to tips, girth shall be measured 1.0 m above the ground level				
3.3	Girth: 0.5m - 1.0m	Nr	10.00		-
3.4	Girth: 1.0 m - 2 m	Nr	10.00		-
	<b>CLASS I: PIPE WORK - PIPES</b>				
	<b><i>Supply and Pipe Laying</i></b>				
	Transport from site store, lay and joint pipes in trench, include for excavation, preparation of surfaces, disposal of excavated material, shoring sides of excavation and backfilling. Supply and Transport to site only upon instruction from the Engineer.				

**Note:-** Trench width and minimum cover to pipes is as per the Specification. The cost shall include for strutting, shuttering, stabilizing the earth faces of trenches and keeping the trenches free of water from whatever source by pumping or other means and cost of use of selected soil from the excavated material for compaction in bed and surround to backfilling of trenches, all as specified.

*PN 16 Epoxy coated/Cement lined steel pipe socket and spigot joint to BS EN10244/BS3601, Pushfit socket and spigot with rubber gasket joints*

3.5	ND 300 in trenches, depth not exceeding 1.8 m	m	429.00	-
<b>CLASS J: PIPE WORK - FITTINGS AND VALVES</b>				
<b>Supply, Laying and Jointing</b>				
<b>Intake Tower Pipework</b>				
<i>Rates to Include ; Supply, Transport to Site and Store, Install, Test and Commission in Secure Place Including Jointing Material, Anchoring, Bolts, Nuts, Washers, Gaskets, Packing, Jointing Glue, etc, All as Applicable</i>				
3.6	Provide DN 300 single flanged bell mouth spigot pipes PN10 as complete with stainless steel bolts, nuts and washers n.e 2m	nr	2.00	-
3.7	Provide DN 300 double flanged straight spigot pipes PN10 as complete with stainless steel bolts, nuts and washers, n.e 3.0 m	nr	10.00	-
3.8	Provide DN 300 flanged gate valve with spindle as per drawings and complete with stainless steel bolts, nuts and washers	nr	2.00	-
3.9	DN 300 Flanged Steel Tee PN10 supplied as complete with stainless steel bolts, nuts and washers	nr	2.00	-
3.10	DN 300 Flanged x DN 80 Double Flanged reducer Tee as complete with stainless steel bolts, nuts and washers	nr	1.00	-
3.11	DN 300 Flanged Steel Tee PN10 supplied as complete with stainless steel bolts, nuts and washers	nr	2.00	-
3.12	DN 300 flanged PN 10 Steel 90 degree elbow as per drawings and complete with stainless steel bolts, nuts and washers	nr	1.00	-
3.13	DN 80 PN10 Steel pipe supplied as complete with mesh gause on open	m	15.00	-

	<i><b>DN 300 Epoxy coated cement lined steel pipe plain ends bends</b></i>				
3.14	11.25°	Nr	3.00		-
3.15	22.5°	Nr	3.00		-
3.16	45°	Nr	2.00		-
3.17	90°	Nr	3.00		-
	<i><b>Epoxy coated/Cement lined Steel Flanged Steel fittings to Washouts</b></i>				
3.18	DN 300 x 200mm Washout Tee	nr	1.00		-
3.19	DN 200mm Double Flanged Spigot Scour Pipe	nr	1.00		-
3.20	DN 200mm by 5000mm long single flanged long steel spigot pipe PN 10	nr	1.00		-
3.21	DN 200mm Dia. Outfall single flanged spigot pipe PN 10 n.e 2 m long	nr	1.00		-
	<i><b>Epoxy coated/Cement lined Steel Flanged Steel fittings to Air Valves</b></i>				
	<i><b>Note: All air valves have to be coupled with isolation valve gate valve</b></i>				
3.22	DN 80 Double Orifice Air Valve coupled with an isolating steel Flanged Gate Valve PN8	nr	2.00		-
3.23	DN 350 X 80 mm Tee Flanged steel Tee PN 8	nr	1.00		-
	<i><b>Couplings</b></i>				
3.24	Epoxy coated 300 mm flexible VJ couplings	nr	6.00		-
3.25	Epoxy coated 200 mm flexible VJ Couplings	nr	2.00		-
	<i><b>Tees</b></i>				
3.26	DN 300 X 80 mm Tee	nr	1.00		-
	<i><b>Valves</b></i>				
3.27	DN 300 mm Single flanged steel spigot pipe piece 1000 mm Long	nr	6.00		-
3.28	DN 300 mm Double Flanged Gate Valve complete with bolts. Nuts and washers with 6mm rubber gasket	nr	4.00		-
	<b>CLASS K: PIPE WORK - CHAMBERS AND PIPE WORK ANCILLARIES</b>				

	<p>Chambers, ducts, culverts, crossings, thrust and anchor blocks, reinstatement and others as listed and specified in drawings.</p> <p><b>Note:-</b> Items for work in this class shall include:-  - Excavation, preparation of surfaces, disposal of excavated material, shoring sides of excavation, backfilling and removal of redundant services.  - Concrete, reinforcement, formwork, joints and finishes.  - Tips for disposal of excavated material or debris to be identified by the Contractor in liaison with the Local Authority.</p> <p><b><i>In Situ Chambers</i></b></p> <p>Provide all materials and construct <b>GATE VALVE</b> chambers internal dimensions 1800mm x 1500mm. Include for supply and fixing of precast concrete cover and step irons, as detailed in drawing</p>				
3.29	Depth: not exceeding 1.5 m	nr	2.00		-
3.30	Depth: 1.5 - 2 m	nr	2.00		-
	<p>Provide all materials and construct <b>WASHOUT</b> chambers internal dimensions 1800mm x 1500mm. Include for supply and fixing of precast concrete cover and step irons, as detailed in drawing</p>				
3.31	Depth: not exceeding 1.5 m	nr	1.00		-
3.32	Depth: 1.5 - 2 m	nr	1.00		-
	<p>Provide all materials and construct <b>AIR VALVE</b> chambers internal dimensions 1800mm x 1500mm. Include for supply and fixing of precast concrete cover and step irons, as detailed in drawing</p>				
3.33	Depth: not exceeding 1.5 m	nr	1.00		-
3.34	Depth: 1.5 - 2 m	nr	1.00		-
	<b><i>Crossings/Concrete Sorround as per technical drawings</i></b>				
	<i>River or stream width:3-10m</i>				
3.35	Pipe culvert : 1200-1200 mm	Nr	1.00		-
	<i>River or stream width exceeding 10m</i>				
3.36	Pipe culvert: 1200-1500mmmm	Nr	1.00		-

3.37	Allow for crossing existing underground services (water lines, sewer lines, telephone/electricity ducts etc.), including reinstatement to original states and liaison with the relevant body for the inspection/ approval during execution of the works. Nominal bore n.e.300mm	Item	1.00	-
	<b><u>Reinstatement</u></b>			
	<i>Breaking up, temporary and permanent reinstatement of roads</i>			
3.38	Pipe bore: 300-900 mm on tarmac road	m	15.00	-
3.39	Pipe bore: 300-900 mm on gravel road	m	15.00	-
	<i>Breaking up, temporary and permanent reinstatement of footpaths</i>			
3.40	Pipe bore: 300 mm on gravel road	m	15.00	-
	<b><u>Reinstatement of land</u></b>			
3.41	Pipe bore: not exceeding 300 mm	m	50.00	-
	<b><u>Other Ancillaries</u></b>			
	<i>Supply all material, cats and fixed reinforced concrete Marker Posts complete. All in accordance with drawings and specifications</i>			
3.42	Air Valves inscribe AV	nr	1.00	-
3.43	Washouts, inscribe WO	nr	1.00	-
3.44	Sluice Valves, inscribe SV	nr	4.00	-
	<b><u>CLASS L:- PIPEWORK - SUPPORTS AND PROTECTION, ANCILLARIES TO LAYING AND EXCAVATION</u></b>			
	<b>Extras to Excavation and Backfilling (Provisional)</b>			
3.45	Excavation in trench for rock class "A"	m³	214.50	-
3.46	Excavation in trench for rock class "B"	m³	107.25	-
3.47	Excavation in trench for rock class "C"	m³	107.25	-
	<b>Extras to Excavation and Backfilling (Provisional) Continued</b>			
3.48	Excavation for Chambers for rock class "A"	m³	8.44	-
3.49	Excavation for Chambers for rock class "B"	m³	4.22	-
3.50	Excavation for Chambers for rock class "C"	m³	4.22	-

	<b><u>Note:- Blasting is NOT permitted for Items above</u></b>					
	<b>Imported Selected Fill (Provisional)</b>					
	Provide, transport to site and place imported selected fill and compact in bed and surround to pipes as specified. Haulage not exceeding 2 km					
3.51	To pipes nominal bore: 300-600 mm	m³	154.44			-
	<b>Concrete Support, Thrust Blocks and Anchor Blocks</b>					
3.52	<u>Thrust blocks for bends</u>	nr	10.00			-
3.53	<u>Ditto for Tees</u>	nr	10.00			-
3.54	Concrete supports	nr	5.00			-
	<u>Pipe Slip Anchors</u>					
3.55	DN 300	nr	4.00			-
<b>BILL TOTAL TAKEN TO GRAND SUMMARY</b>						-

**UMAA DAM AND WATER TREATMENT PLANT**

**CONTRACT No. ....NWWSA/OIT/001/2023-2024**

**BILL NO. 4 --Treatment Works, 2,500 m<sup>3</sup>/d  
BILL No. 4A - FLOCCULATION UNIT**

ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Kshs)	AMOUNT (Kshs)
	<b><u>CLASS E: EARTHWORKS</u></b>				
	<b><u>Excavations</u></b>				
	The rates shall include for all strutting, shuttering, stabilising the excavation faces and keeping the excavation free of water by pumping, bailing or other means				
4.1	Excavate 200mm top soil and dispose	m <sup>2</sup>	5.00		-
4.2	Excavate for foundations Maximum depth n.e. 1.0 m	m <sup>3</sup>	6.30		-
	<b><u>Excavation Ancillaries</u></b>				
4.3	Trim surfaces to receive blinding concrete	m <sup>2</sup>	5.00		-
	<b><u>Filling</u></b>				
4.4	Transport approved excavated material from site and use as fill and compact in 200mm layers as specified on site as and when directed by the Engineer. Compaction tests to be done and rates to include for this	m <sup>3</sup>	6.00		-
4.5	Provide approved hard-core and compact in layers of 200mm, blinded with final material 25mm thick in fill area only	m <sup>3</sup>	6.00		-
	<b><u>CLASS F: INSITU CONCRETE:</u></b>				
	<b><u>Mass Concrete Class 15/20mm :-</u></b>				
4.6	Plain concrete Class 15/20 in 75mm blinding layer under base slab of Flocculation Basin	m <sup>3</sup>	0.38		-
	<b><u>Vibrated, Reinforced Concrete Class 25/20</u></b>				
4.7	Base Slab - inlet /chemical chamber	m <sup>3</sup>	1.50		-
4.8	Walls - internal and external including channels and walkways	m <sup>3</sup>	20.00		-

4.9	Baffle walls - all rebars require to be wire brushed prior to concrete pour, rates should reflect wire brushing	m <sup>3</sup>	32.40	-
<b>CLASS G: CONCRETE ANCILLARIES</b>				
<b><u>Formwork</u></b>				
Provide and fix shuttering including propping, strutting and striking all as specified				
<b>(i) Vertical Formwork - Class F1 Finish</b>				
4.10	Sides of 300mm Base Slab	m <sup>2</sup>	1.29	-
4.11	Faces of baffle wall, height n.e. 1 m	m <sup>2</sup>	216.00	-
4.12	Outlet channel to sedimentation tank, height n.e. 2 m	m <sup>2</sup>	4.80	-
<b><u>Reinforcement</u></b>				
Provide and fix high tensile steel reinforcement to SRN 127 including cutting, bending, propping, with spacers and tying as specified. Where rebar is casted in base, but not in wall or column, wire brushing shall be conducted prior to casting.				
4.13	10 mm diameter	kg	10.00	-
4.14	12 mm diameter	kg	50.00	-
<b><u>Construction Joints</u></b>				
Provide and install the following waterstops in construction joints including all surface treatment, formwork, forming of rebate and sealing of rebate with polysulphide sealant all as per Drawings and Specification				
4.15	200 mm wide expansive super-cast water foil PVC or similar approved waterstop in construction joints in walls (Provisional)	m	11.20	-
<b><u>Leak proof testing</u></b>				
4.16	Allow for leak proof testing of Flocculation Basin & flocculated water channel as specified	Item	1.00	-
<b><u>PIPEWORK, FITTINGS AND VALVES - PN16</u></b>				

*Rates to Include ; Supply, Transport to Site and Store, Install, Test and Commission in Secure Place Including Jointing Material, Bolts, Nuts, Washers, Gaskets, Packing, Jointing Glue, etc, All as Applicable*

**INLET CHAMBER PIPE WORK AND FLOCCULATION SYSTEM PIPEWORK**

**Inlet Chambers**

4.17	Provide for DN 300 90° PN12 Epoxy coated Steel double flanged bends c/w firm fit to flange bore diameter stainless steel bolts, nuts and washers and 8mm gasket	Nr	2.00	-
4.18	Provide for DN 300 Epoxy coated PN10 coated single flanged steel pipe starights n.e 10 m length for overflow at inlet chamber/stilling well	Nr	2.00	-
4.19	Provide for DN 300 Epoxy PN16 coated double flanged steel Valves PN 12	Nr	2.00	-
4.20	Provide for DN 250 overflow pipe Epoxy PN12 coated steel Tee straights n.e 5 m	Nr	1.00	-
4.21	400 dia mm single flanged spigot pipe n.e 2.0 m long cast into outlet channel with puddle flange in flocculation tank outlet channel wall	nr	1.00	-
4.22	400 dia mm 90° PN10 Epoxy coated Steel double flanged bends c/w firm fit to flange bore diameter stainless steel bolts, nuts and washers and 8mm gasket	nr	2.00	-
<b><u>Chemical (Hypochlorite etc) Dosing system within Flocculation Tank inlet channel</u></b>				
4.23	Provide for 25mm PN10 chemical HDPE dosing hose pipes networks within the water treatment site from chemical mixing tanks into dosing point on the flocculation inlet channel	m	150.00	-
4.24	Provide for 25mm PN10 HDPE Valves for chemical dosing hose pipes from chemical dosing system in line into injection point on the flocculation inlet channel	Nr	4.00	-
4.25	Provide for 25mm PN10 HDPE bends chemical dosing hose pipes from chemical dosing system in line into injection point on the flocculation inlet channel	m	18.00	-
4.26	Provide for 25mm PN10 HDPE backnuts from tank for chemical dosing hose pipes from chemical dosing system in line into dosing point on the flocculation inlet channel	Nr	4.00	-

4.27	Provide for 25mm PN10 HDPE Adoptors for chemical dosing hose pipes from chemical dosing system in line into injection point on the flocculation inlet channel	Nr	10.00		-
<b><u>CLASS N: MISCELLANEOUS METAL WORK</u></b>					
All steelwork to be completely cleaned by acid dipping prior to galvanising					
4.28	Provide Sharp Crested weir plate 600 mmx 850 mm x 6mm thick G.S plate beveling and fixing in concrete walls of the inlet channel	Item	1.00		-
4.29	Provide Sluice gates complete with hoisting support frame, wheel and spindle for operating the gates for the inlet of each flocculation tank as per the technical drawings	Item	2.00		-
4.30	Provide Sluice gates complete with hoisting support frame , wheel and spindle for operating the gates for the inlet of each flocculation tank as per the technical drawings	Item	2.00		-
4.31	40mm Galvanised mild steel tubular balustrades guardrails all framed and welded together, including all necessary labours and fittings on tubing:	m	45.00		-
4.32	Allow for fabrication of 1.5 m elevated tank stand for intermittent 2.5 m3 HDPE Alum tank next to the sedimentation basin including supply of 2.5 m3 tank c/w fittings for dosing into inlet chamber of flocculation basin	LS	1.00		-
<b><u>CLASS V: PAINTING</u></b>					
Provide, prepare and apply one coat mordant solution, one undercoat and two coats gloss enamel paint on galvanised metal work externally on:					
4.33	Hand-rail pipe and fittings including 900 mm high level balustrades	m <sup>2</sup>	50.00		-
<b>BILL TOTAL TAKEN TO GRAND SUMMARY</b>					-

**UMAA DAM AND WATER TREATMENT PLANT**

**CONTRACT No. ....NWHSA/OIT/001/2023-2024**

**BILL NO. 4 --Treatment Works, 2,500 m<sup>3</sup>/d**

**BILL No. 4B - SEDIMENTATION BASIN**

ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Kshs)	AMOUNT (Kshs)
	<b><u>CLASS E: EARTHWORKS</u></b>				
	<b>Excavations</b>				
	The rates shall include for all strutting, shuttering, stabilising the excavation faces, and keeping the excavation free of water by pumping, bailing or other means				
4.34	Excavate 200mm top soil and dispose	m <sup>2</sup>	51.03		-
4.35	Excavation for base of sedimentation tank maximum depth 1.0 m	m <sup>3</sup>	51.03		-
4.36	-Ditto- but maximum depth 1.0 m to 2.0 m	m <sup>3</sup>	102.06		-
4.37	Extra over excavation in rock Class 'A', blasting not permitted	m <sup>3</sup>	3.00		-
4.38	Ditto- for excavation in rock Class 'B', blasting not permitted	m <sup>3</sup>	3.00		-
4.39	Ditto- for excavation in rock Class 'C', blasting not permitted	m <sup>3</sup>	2.00		-
	<b>Excavation Ancillaries</b>				
4.40	Trim surfaces to receive blinding concrete	m <sup>2</sup>	51.03		-
	<b>Filling</b>				
4.41	Transport approved excavated material from site and use as fill and compact in 200mm layers as specified on site as and when directed by the Engineer.	m <sup>3</sup>	210.00		-
4.42	Provide approved hard-core and compact in layers of 200mm, blinded with final material 25mm thick in fill area only	m <sup>3</sup>	210.00		-
	<b><u>CLASS F: INSITU CONCRETE:</u></b>				
	<b><u>Mass Concrete Class 15/20mm :-</u></b>				
	Provide, mix and place concrete as directed				

4.43	Plain concrete Class 15/20 in 75 mm blinding layer under base slab of sedimentation tanks	m <sup>3</sup>	38.27		-
	<b>Vibrated, Reinforced concrete Class 25/20</b>				
4.44	Base concrete	m <sup>3</sup>	15.31		-
4.45	Inlet Channel - Flocculated water channels, baffle tray and scum board	m <sup>3</sup>	20.16		-
4.46	Walls - Sedimentation Tank	m <sup>3</sup>	70.40		-
4.47	Walkways and platform	m <sup>3</sup>	21.00		-
	<b>CLASS G: CONCRETE ANCILLARIES</b>				
	<b><u>Formwork</u></b>				
	Provide and fix shuttering including propping, strutting and striking all as specified, including for boxing out openings				
	<b>(i) Vertical Formwork - Class F1 Finish</b>				
4.48	Sides of 300 mm Base Slab - Sedimentation Tanks	m <sup>2</sup>	18.30		-
	<b>(iii) Vertical Formwork - Class F3 Finish</b>				
4.49	Internal and external of sedimentation tank	m <sup>2</sup>	403.76		-
4.50	Walls of inlet channels and scum board	m <sup>2</sup>	150.00		-
	<b>(iv) Horizontal Formwork - Class F3 Finish</b>				
4.51	Soffit of inlet channels	m <sup>2</sup>	12.00		-
4.52	Soffit of walkways and platform	m <sup>2</sup>	100.00		-
	<b><u>Reinforcement</u></b>				
	Provide and fix high tensile steel reinforcement to SRN 127 including cutting, bending, propping with spacers and tying as specified				
4.53	8 mm diameter	kg	83.00		-
4.54	10 mm diameter	kg	4,938.00		-
4.55	12 mm diameter	kg	3,153.00		-
4.56	20 mm diameter	kg	9,311.00		-
	<b><u>Concrete Surface Finish</u></b>				

4.57	Provide Class UF3 Finish for top of base slab and internal walls of sedimentation units	m <sup>2</sup>	515.30		-
	<b>Construction Joints</b>				
	Provide and install the following waterstops in construction joints including all surface treatment, formwork, forming of rebate and sealing of rebate with polysulphide sealant all as per Drawings and Specification				
4.58	200 mm wide expansive super-cast water foil PVC or similar approved waterstop in construction joints in walls	m	211.00		-
	<b>Leak proof testing</b>				
4.59	Allow for leak proof testing of the inlet channel to sedimentation, sedimentation tank and clear water channel	Item	1.00	100,000	100,000.00
4.59	Allow percentage on Item 4.59 for contractor's profit and overheads	%	10%	100,000	10,000.00
<b>PAGE TOTAL CARRIED TO SECTION COLLECTION SHEET-4B2</b>					110,000.00
	<b>CLASS I: PIPE WORK - PIPES</b>				
	<b><i>Supply and Pipe Laying</i></b>				
	Transport from site store, lay and joint pipes in trench, include for excavation, preparation of surfaces, disposal of excavated material, shoring sides of excavation and backfilling. Supply and Transport to site only upon instruction from the Engineer.				
	<i>Note:- Trench width and minimum cover to pipes is as per the Specification. The cost shall include for strutting, shuttering, stabilizing the earth faces of trenches and keeping the trenches free of water from whatever source by pumping or other means and cost of use of selected soil from the excavated material for compaction in bed and surround to backfilling of trenches, all as specified. The rates provided should include the rates for interphase point in to the exisiting pipeline from Maisnga system or inlet to the exisiting tanks</i>				
	<b><i>PN 16 Epoxy coated/Cement lined Double flanged pipes steel pipes EN10244/BS3601,</i></b>				
4.60	ND 400 Steel pipe in trenches, depth not exceeding 1.8 m	m	40.00		-
4.61	ND 300 Steel pipe in trenches, depth not exceeding 1.8 m	m	20.00		-
4.62	ND 250 Steel pipe in trenches, depth not exceeding 1.8 m	m	50.00		-
4.63	ND 150 Steel pipe in trenches, depth not exceeding 1.8 m	m	71.00		-
	<b>CLASS J: PIPE WORK - FITTINGS AND VALVES</b>				

	<b>Supply, Laying and Jointing</b>				
	<b><i>Elbows</i></b>				
	<i>Provide install test and commission DN 400 Epoxy coated steel double flanged Elbows PN12 including bolts, nuts washers and 8mm gasket for all bends</i>				
4.64	11.25°	Nr	3.00		-
4.65	22.5°	Nr	3.00		-
4.66	45°	Nr	3.00		-
4.67	90°	Nr	9.00		-
	<i>Provide install test and commission DN 300 Epoxy coated steel double flanged Elbows PN12 including bolts, nuts washers and 8mm gasket for all bends</i>				
4.68	11.25°	Nr	1.00		-
4.69	22.5°	Nr	2.00		-
4.70	45°	Nr	2.00		-
4.71	90°	Nr	3.00		-
	<i>Provide install test and commission DN 150 Epoxy coated steel double flanged Elbows PN12 including bolts, nuts washers and 8mm gasket for all bends</i>				
4.72	45°	Nr	4.00		-
4.73	90°	Nr	4.00		-
	<i>Provide install test and commission DN 200 Epoxy coated steel double flanged Elbows PN8 including bolts, nuts washers and 8mm gasket for all bends</i>				
4.74	11.25°	Nr	1.00		-
4.75	22.5°	Nr	2.00		-
4.76	45°	Nr	2.00		-
4.77	90°	Nr	3.00		-
	<b><i>Valves, Tees and Spigot pipes, Scour Pipe</i></b>				
	<i>Rates to Include ; Supply, Transport to Site and Store, Install, Test and Commission in Secure Place Including Jointing Material, Anchoring, Bolts, Nuts, Washers, Gaskets, Packing, Jointing Glue, etc, All as Applicable</i>				
4.78	DN 400 Epoxy coated cast iron valves PN 12 Complete with bolts, nuts washers and 8mm gasket	nr	4.00		-
4.79	DN 300 Epoxy coated cast iron valves PN 12 Complete with bolts, nuts washers and 8mm gasket	nr	2.00		-
4.80	DN 250 Epoxy coated cast iron valves PN 12 Complete with bolts, nuts washers and 8mm gasket	nr	2.00		-

4.81	DN 400 Epoxy coated steel Tees PN 12 Complete with bolts, nuts washers and 8mm gasket	nr	1.00	-
4.82	DN 300 Epoxy coated steel Tees PN 12 Complete with bolts, nuts washers and 8mm gasket	nr	1.00	-
4.83	DN 150 Epoxy coated steel Tees PN 12 Complete with bolts, nuts washers and 8mm gasket	nr	2.00	-
	<i>Rates to Include ; Supply, Transport to Site and Store, Install, Test and Commission in Secure Place Including Jointing Material, Anchoring, Bolts, Nuts, Washers, Gaskets, Packing, Jointing Glue, etc, All as Applicable</i>			
4.84	Provide DN 400 double flanged straight spigot pipes PN10 as complete with stainless steel bolts, nuts and washers, n,e 5.0 m	nr	8.00	-
4.85	Provide DN 300 double flanged straight spigot pipes PN10 as complete with stainless steel bolts, nuts and washers, n,e 5.0 m	nr	4.00	-
4.86	Provide DN 300 single flanged straight spigot pipes PN10 as complete with stainless steel bolts, nuts and washers, n,e 3.0 m	nr	2.00	-
4.87	Provide DN 400 flanged gate valve with spindle as per drawings and complete with stainless steel bolts, nuts and washers	nr	4.00	-
4.88	Provide DN 300 flanged gate valve with spindle as per drawings and complete with stainless steel bolts, nuts and washers	nr	2.00	-
4.89	DN 400 Flanged Steel Tee PN12 supplied as complete with stainless steel bolts, nuts and washers	nr	1.00	-
4.90	DN 400 Flanged x DN 300 Double Flanged reducer as complete with stainless steel bolts, nuts and washers	nr	2.00	-
	<b>CLASS K: PIPE WORK - CHAMBERS AND PIPE WORK ANCILLARIES</b>			
	Chambers, ducts, culverts, crossings, thrust and anchor blocks, reinstatement and others as listed and specified in drawings.			
	<b><u>Note:- Items for work in this class shall include:-</u></b>			
	<b><u>- Excavation, preparation of surfaces, disposal of excavated material, shoring sides of excavation, backfilling and removal of redundant services.</u></b>			
	<b><u>- Concrete, reinforcement, formwork, joints and finishes.</u></b>			
	<b><u>- Tips for disposal of excavated material or debris to be identified by the Contractor in liaison with the Local Authority.</u></b>			

	<b><i>In Situ Chambers</i></b>				
	Provide all materials and construct <b>GATE VALVE</b> chambers internal dimensions 1800mm x 1500mm. Include for supply and fixing of precast concrete cover and step irons, as detailed in drawing				
4.91	Depth: not exceeding 1.5 m	nr	4.00		-
4.92	Depth: 1.5 - 2 m	nr	4.00		-
	Provide all materials and construct <b>WASHOUT</b> chambers internal dimensions 1800mm x 1500mm. Include for supply and fixing of precast concrete cover and step irons, as detailed in drawing				
4.93	Depth: not exceeding 1.5 m	nr	2.00		-
4.94	Depth: 1.5 - 2 m	nr	2.00		-
	<b>Note:-</b> <u>Blasting is NOT permitted.</u>				
	<b>Concrete Support, Thrust Blocks and Anchor Blocks</b>				
4.96	<u>Thrust blocks for bends</u>	nr	5.00		-
4.97	<u>Ditto for Tees</u>	nr	4.00		-
4.98	Concrete supports	nr	5.00		-
	<b><u>CLASS N: MISCELLANEOUS METAL WORK</u></b>				
	All steelwork to be completely cleaned by acid dipping prior to galvanising				
4.99	40mm Galvanised mild steel tubular balustrades guardrails all framed and welded together, including all necessary labours and fittings on tubing:	m	40.00		-
<b>BILL TOTAL TAKEN TO GRAND SUMMARY</b>					<b>110,000.00</b>

**UMAA DAM AND WATER TREATMENT PLANT****CONTRACT No. ....NWWSA/OIT/001/2023-2024****BILL NO. 4 --Treatment Works, 2,500 m<sup>3</sup>/d****BILL No. 4C - FILTER**

ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Kshs)	AMOUNT (Kshs)
	<b><u>CLASS D: DEMOLITION AND SITE CLEARANCE</u></b>				
4.100	Removal of wall to enable increase of the filter chamber, no blasting permitted	m <sup>3</sup>	5.04		-
	<b><u>CLASS E: EARTHWORKS</u></b>				
	<b>Excavation</b>				
	The rates shall include for all strutting, shuttering, stabilising the excavation faces, and keeping the excavation free of water by pumping, bailing or other means				
4.101	Excavation for floor slab, maximum depth n.e. 0.2 m	m <sup>3</sup>	14.40		-
4.102	Excavation for column bases, maximum depth n.e. 1.0 m	m <sup>3</sup>	32.00		-
4.103	-Ditto- but maximum depth 1.0 m to 2.0 m	m <sup>3</sup>	0		-
4.104	-Ditto- but maximum depth exceeding 2.0 m	m <sup>3</sup>	0		-
4.105	Extra over for excavation in rock Class 'A', blasting not permitted (Provisional)	m <sup>3</sup>	0		-
4.106	-Ditto- for excavation in rock Class 'B', blasting not permitted (Provisional)	m <sup>3</sup>	19.20		-
4.107	-Ditto- for excavation in rock Class 'C', blasting not permitted (Provisional)	m <sup>3</sup>	0		-
	<b>Excavation Ancillaries</b>				
4.108	Trim surfaces to receive blinding concrete	m <sup>2</sup>	35.20		-
	<b>Filling</b>				
4.109	Transport approved excavated material from site and use as fill and compact in 200mm layers as specified on site as and when directed by the Engineer. Compaction tests to be done and rates to include for this	m <sup>3</sup>	38.40		-

4.110	Provide approved hard-core and compact in layers of 200mm, blinded with final material 25mm thick in fill area only	m <sup>3</sup>	25.00	-
	<b>Filter Media</b>			
4.111	Provide gravel and form filters bed	m <sup>3</sup>	36.00	-
4.112	Provide sand and form filter sand bed	m <sup>3</sup>	50.00	-
	<b><u>CLASS F: INSITU CONCRETE:</u></b>			
	Provide, mix and place concrete as directed			
	<b>Mass Concrete Class 15/20:-</b>			
4.113	Plain concrete 0.075 mm blinding to filter and filter gallery base slab	m <sup>3</sup>	70.00	-
	<b>Vibrated Reinforced Concrete class 25/20 .</b>			
4.114	Base slab - filters and filter gallery	m <sup>3</sup>	44.46	-
4.115	Wall - Filter	m <sup>3</sup>	53.82	-
4.116	Clarified water channels - filter inlet channel	m <sup>3</sup>	2.81	-
4.117	Backwash/clarified water channels	m <sup>3</sup>	4.00	-
4.118	Filter Gallery roof slab, n.e. 200 mm	m <sup>3</sup>	18.72	-
4.119	1200 x 1200 x 300 mm column bases and 600 x 200 mm strip footings	m <sup>3</sup>	12.00	-
4.120	300x300 mm reinforced concrete columns	m <sup>3</sup>	3.00	-
4.121	300 x 450 mm beam, at roof slab level and corbel/gantry crane level	m <sup>3</sup>	13.00	-
	<b><u>Formwork</u></b>			
	Provide and fix shuttering including propping, strutting and striking all as specified			
4.122	300 mm side for base slab - filters, filter gallery , Class F1 Finish	m <sup>2</sup>	25.00	-
4.123	200 mm side for strip footing, Class F1 Finish	m <sup>2</sup>	13.00	-
4.124	1200 x 1200 column bases, Class F1 Finish	m <sup>2</sup>	20.00	-
4.125	Walls - Filters, filter gallery, Class F3 Finish	m <sup>2</sup>	340.00	-
4.126	Soffit to filter gallery roof slab, Class F2 Finish	m <sup>2</sup>	65.00	-

4.127	Soffit of settled water channels, Class F2 Finish	m <sup>2</sup>	13.00	-
4.128	Soffit of backwash water channels, Class F2 Finish	m <sup>2</sup>	10.00	-
4.129	300x300 mm columns, Class F2 Finish	m <sup>2</sup>	55.00	-
	<b><u>Reinforcement</u></b> Wire brush existing reinforcement bars where required, provide additional high tensile steel reinforcement to SRN 127 including cutting, propping, spacing and tying as specified.			
4.130	8 mm diameter - provide additional	kg	160.00	-
4.131	12 mm diameter - wire brush and reuse	kg	561.00	-
4.132	12 mm diameter - provide additional	kg	1,085.00	-
	<b><u>Concrete Surface Finish</u></b>			
4.135	Provide Class UF3 Finish for internal walls of the filters, filtration gallery	m <sup>2</sup>	185.00	-
	<b><u>Construction joints</u></b>			
4.136	Provide and fix 200 mm wide Expedite Supercast Rearguard R PCV or similar approved waterstop at kickers and horizontal joints	m	150.00	-
4.137	Bituminous expansion board, thickness 25 mm between filter walls and clear water channel.	m <sup>2</sup>	12.00	-
	<b><u>Leak proof testing</u></b>			
4.138	Allow for leak proof testing of the filters, filter gallery and chlorination channel	Item	1.00	-
	<b><u>MISCELLANEOUS METAL WORK</u></b>			
	All steelwork to be completely cleaned by acid dipping prior to galvanising.			
4.139	40mm Galvanised mild steel tubular balustrades guardrails 900 mm all framed and welded together, including all necessary labours and fittings on tubing:	m	70.00	-
	<b>120 M<sup>3</sup> SITE WATER ELEVATED BACKWASH TANK (Provisional Sums)</b>			
4.140	Allow for Vendor to supply all materials and construct foundation for the elevated pressed steel tank 120 m <sup>3</sup> height 17 m as specified and shown in the Drawing. Include for shuttering and excavation works	nr	1.00	-

4.141	Supply and erect an Elevated Pressed Steel panel tank Capacity 120 m <sup>3</sup> Incl platform height 17 m c/w the connection pipework (inlet, outlet, overflow and washout all 80 mm dia) as specified by Engineer	nr	1.00	-
4.142	Provide and install tank water level indicator and pipework ancillaries, cat ladders, scour pipes, air vents including any other necessary ancillaries as directed by site engineer	LS	1.00	-
<b><u>CLASS U: BRICKWORK, BLOCKWORK AND MASONRY Walling.</u></b>				
<b><u>Natural Stone Walling, Medium Chisel Dressed, Reinforced with 20 swg Hoop Iron at Every Two Course, and Bedded, Jointed and Pointed in Cement Mortar (1:3):-</u></b>				
4.143	<b><u>Substructure Walling</u></b> 200 mm thick stone masonry wall in strip foundation, "Wall 1" only	m <sup>2</sup>	20.00	-
4.144	<b><u>Structure Walling</u></b> 150 mm thick stone	m <sup>2</sup>	78.00	-
<b><u>Damp-Proof Course:</u></b> <b><u>Bituminous Felt Damp-Proof Course as Described:-</u></b>				
4.145	200mm Wide under walls	m	12.00	-
<b><u>Foundation Finishes</u></b>				
4.146	15mm Cement and sand (1:4) render to plinth walls, finished with a wood float	m <sup>2</sup>	35.00	-
4.147	Prepare and apply two coats of bituminous paint on rendered plinth walls	m <sup>2</sup>	35.00	-
<b><u>Wall Finishes</u></b> <b><u>12 mm Lime plaster : steel trowelled finish : on concrete, blockwork or stonework : to</u></b>				
4.148	Internal walls - blockwork only	m <sup>2</sup>	160.00	-
<b><u>PAINTING</u></b>				
<b><u>Prepare and Apply Three Coats Exterior Quality Plastic Emulsion Paint:-</u></b>				
<b><u>Externally and Internal on:-</u></b>				
4.149	Fair-faced concrete surfaces, concrete surfaces filter gallery etc	m <sup>2</sup>	160.00	-
4.150	Hand-rail pipe and fittings including 900 mm high level balustrades	m <sup>2</sup>	50.00	-

	<b><u>Windows</u></b>				
4.151	Supply and fix 1800x 1800 mm casement windows with burglar proof bars in 25 mm square tubes with openings not exceeding 250 mm to Engineer's approval to filter gallery	nr	2.00		-
	<b><u>Doors</u></b>				
4.152	50 mm Single leaf Panel composite door unit (overall) size 900 x 2400 mm high : comprising 50 x 150 mm stiles, top, and middle rails, 50 x 200 mm bottom rail; 1 no. door leaf size 900 x 2050mm : panels infilled with 50 mm hardwood boarding rebated and splayed at joint to frame : 900 x 300mm high fan light infilled with glass (m/s)	nr	2.00		-
	<b><u>Steel External Doors</u></b>				
4.153	900 x 2400 mm high single leaf	nr	2.00		-
	<b>CLASS I: PIPE WORK - PIPES</b>				
	<b><u>Supply and Pipe Laying</u></b>				
	Transport from site store, lay and joint pipes in trench, include for excavation, preparation of surfaces, disposal of excavated material, shoring sides of excavation and backfilling. Supply and Transport to site only upon instruction from the Engineer.				
	<i>Note:- Trench width and minimum cover to pipes is as per the Specification. The cost shall include for strutting, shuttering, stabilizing the earth faces of trenches and keeping the trenches free of water from whatever source by pumping or other means and cost of use of selected soil from the excavated material for compaction in bed and surround to backfilling of trenches, all as specified. The rates provided should include the rates for interphase point in to the exisiting pipeline from Maisnga system or inlet to the exisiting tanks</i>				
	<b><u>PN 12 HDPE pipes butt fusion including laying, testing, disinfecting and commissioning for Backwash pipeline</u></b>				
4.154	Supply, install , disinfect, test commission DN 400 HDPE PN12 pipe in trenches n.e 1.8 m for filter backwash system interface connections to tanks and interface point with filtered water line	m	135.00		-
	<b><u>PN 12 Epoxy coated/Cement lined steel pipe socket and spigot joint to BS EN10244/BS3601, Where applicable pushfit socket and spigot with elastomeric rubber ring in joints to be used for underground piping and flanged pipe connections to be used for all pipes above ground or within the filter gallery</u></b>				

4.155	ND 200 Steel pipe in trenches, depth not exceeding 1.8 m to clear water tank	m	150.00	-
4.156	ND 225 Steel single flanged manifold system for filtration bed underdrain system	m	19.80	-
4.157	ND 225 Steel pipe overflow system from filter to recirculation system sump and into the sedimentation tank stilling chamber	m	82.50	-
4.158	ND 100 Steel laterals in underdrain system for the filter bed with 10 mm diamtere orifices spaced at 118 mm c/c in the laterals	m	115.50	-
<b><u>CLASS J: PIPE WORK - FITTINGS AND VALVES</u></b>				
<b><u>Supply, Laying and Jointing</u></b>				
<i>Rates to Include ; Supply, Transport to Site and Store, Install, Test and Commission in Secure Place Including Jointing Material, Anchoring, Bolts, Nuts, Washers, Gaskets, Packing, Jointing Glue, etc, All as Applicable</i>				
<b><i>DN 400 Steel Elbows PN 12 Backwash system PN12</i></b>				
4.159	45°	Nr	6.00	-
4.160	90°	Nr	5.00	-
<b><i>DN 225 PN 12 Elbows for Filter Inlet pipe and the recirculated water PN12</i></b>				
4.161	22.5°	Nr	2.00	-
4.162	45°	Nr	8.00	-
4.163	90°	Nr	13.00	-
<b><i>DN 200 Steel Flanged elbows for filtered water pipe PN12</i></b>				
4.164	22.5°	Nr	6.00	-
4.165	45°	Nr	6.00	-
4.166	90°	Nr	6.00	-
<b><u>Couplings</u></b>				
4.167	<i>DN 200 VJ Couplings PN 12</i>	Nr	6.00	-
4.168	<i>DN 225 VJ Couplings PN 12</i>	Nr	18.00	-
4.169	<i>DN 400 VJ Couplings PN 13</i>	Nr	4.00	-

4.170	Provide DN 200 single flanged straight spigot pipes PN10 as complete with stainless steel bolts, nuts and washers, n,e 3.0 m	nr	6.00	-
4.171	Provide DN 225 Single flanged straight spigot pipes PN10 as complete with stainless steel bolts, nuts and washers, n,e 3.0 m	nr	18.00	-
4.172	Provide DN 400 Single flanged straight spigot pipes PN10 as complete with stainless steel bolts, nuts and washers, n,e 3.0 m	nr	4.00	-
<i><b>Valves</b></i>				
4.173	Provide DN 200 flanged gate valve with spindle as per drawings and complete with stainless steel bolts, nuts and washers	nr	2.00	-
4.174	Provide DN 225 flanged gate valve with spindle as per drawings and complete with stainless steel bolts, nuts and washers	nr	9.00	-
4.175	Provide DN 400 flanged gate valve with spindle as per drawings and complete with stainless steel bolts, nuts and washers	nr	2.00	-
4.176	DN 400mm x 200 mm Flanged Steel Tee PN12 supplied as complete with stainless steel bolts, nuts and washers	nr	1.00	-
4.177	DN 400mm x 225 mm Flanged Steel Tee PN12 supplied as complete with stainless steel bolts, nuts and washers	nr	3.00	-
<b>CLASS K: PIPE WORK - CHAMBERS AND PIPE WORK ANCILLARIES</b>				
Chambers, ducts, culverts, crossings, thrust and anchor blocks, reinstatement and others as listed and specified in drawings.				
<b><u>Note:- Items for work in this class shall include:-</u></b>				
<b><u>- Excavation, preparation of surfaces, disposal of excavated material, shoring sides of excavation, backfilling and removal of redundant services.</u></b>				
<b><u>- Concrete, reinforcement, formwork, joints and finishes.</u></b>				
<b><u>- Tips for disposal of excavated material or debris to be identified by the Contractor in liaison with the Local Authority.</u></b>				
<b><i>In Situ Chambers</i></b>				
Provide all materials and construct <b>GATE VALVE</b> chambers internal dimensions 1800mm x 1500mm. Include for supply and fixing of precast concrete cover and step irons, as detailed in drawing				
4.178	Depth: not exceeding 1.5 m	nr	6.00	-
4.179	Depth: 1.5 - 2 m	nr	6.00	-

	Provide all materials and construct <b>WASHOUT</b> chambers internal dimensions 1800mm x 1500mm. Include for supply and fixing of precast concrete cover and step irons, as detailed in drawing				
4.180	Depth: not exceeding 1.5 m	nr	2.00		-
4.181	Depth: 1.5 - 2 m	nr	2.00		-
	Provide all materials and construct <b>AIR VALVE</b> chambers internal dimensions 1800mm x 1500mm. Include for supply and fixing of precast concrete cover and step irons, as detailed in drawing				
4.182	Depth: not exceeding 1.5 m	nr	6.00		-
4.183	Depth: 1.5 - 2 m	nr	6.00		-
	<b><u>Crossings/Concrete Sorround as per technical drawings</u></b>				
	<i>River or stream width:3-10m</i>				
4.184	Pipe culvert : 1200-1200 mm	Nr	1.00		-
	<i>River or stream width exceeding 10m</i>				
4.185	Pipe culvert: 1200-1500mmmm	Nr	1.00		-
	<b><u>Reinstatement</u></b>				
	<i>Breaking up, temporary and permanent reinstatement of roads</i>				
4.187	Pipe bore: 300-900 mm on tarmac road	m	15.00		-
4.188	Pipe bore: 300-900 mm on gravel road	m	15.00		-
	<i>Breaking up, temporary and permanent reinstatement of footpaths</i>				
4.189	Pipe bore: 300 mm on gravel road	m	15.00		-
	<b><u>Reinstatement of land</u></b>				
4.190	Pipe bore: not exceeding 300 mm	m	15.00		-
	<b><u>Other Ancillaries</u></b> <i>Supply all material, cats and fixed reinforced concrete Marker Posts complete. All in accordance with drawings and specifications</i>				
4.191	Washouts, inscribe WO	nr	2.00		-
4.192	Sluice Valves, inscribe SV	nr	13.00		-

<b>CLASS L:- PIPEWORK - SUPPORTS AND PROTECTION, ANCILLARIES TO LAYING AND EXCAVATION</b>					
<b>Extras to Excavation and Backfilling (Provisional)</b>					
4.193	Excavation in trench for rock class "A"	m <sup>3</sup>	97.00		-
4.194	Excavation in trench for rock class "B"	m <sup>3</sup>	33.75		-
4.195	Excavation in trench for rock class "C"	m <sup>3</sup>	33.75		-
<b>Imported Selected Fill (Provisional)</b>					
Provide, transport to site and place imported selected fill and compact in bed and surround to pipes as specified. Haulage not exceeding 2 km					
4.196	To pipes nominal bore: 300-600 mm	m <sup>3</sup>	135.00		-
<b>Concrete Support, Thrust Blocks and Anchor Blocks</b>					
4.197	<u>Thrust blocks for bends</u>	nr	7.00		-
4.198	<u>Ditto for Tees</u>	nr	6.00		-
4.199	Concrete supports	nr	7.00		-
<b>PROVISIONAL ITEMS</b>					
4.200	Concrete recirculation sump tank as per drawings	LS	1.00		-
4.201	50 m3/hr and 40 mHead submersible raw water recirculation pumps one duty and one standby supply, install test and commission including with all sundries, base plates, armored cables, control panels, c/w compatible motor and electromechanical pump protection ancillaries	LS	1.00		-
<b>BILL TOTAL TAKEN TO GRAND SUMMARY</b>					<b>0</b>

**UMAA DAM AND WATER TREATMENT PLANT**

**CONTRACT No. ....NWHSA/OIT/001/2023-2024**

**BILL NO. 4 --Treatment Works, 2,500 m<sup>3</sup>/d**

**BILL No. 4D - 300 M<sup>3</sup> CLEAR WATER TANK**

ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Kshs)	AMOUNT (Kshs)
	<b>CLASS F: IN SITU CONCRETE</b>				
	<i>Placing of concrete</i>				
	<i>Mass concrete class 10/15</i>				
	<i>Reinforced Concrete class 25/20:</i>				
4.202	Base slab	m <sup>3</sup>	47.46		-
4.203	Column bases	m <sup>3</sup>	4.13		-
4.204	Roof slab	m <sup>3</sup>	48.37		-
4.205	Roof parapet wall	m <sup>3</sup>	1.94		-
4.206	Columns	m <sup>3</sup>	0.73		-
4.207	Columns heads	m <sup>3</sup>	1.34		-
	<b>CLASS G: CONCRETE ANCILLARIES</b>				
	<i>Formwork</i>				
	<i>Wrot vertical to:</i>				
4.208	Column bases	m <sup>2</sup>	5.52		-
4.209	Columns (500mm wide)	m <sup>2</sup>	4.50		-
4.210	Column head (350mm deep)	m <sup>2</sup>	2.66		-
4.211	External and Internal edges of up stand to roof parapet, including boxing out for roof drain pipes	m <sup>2</sup>	21.93		-
	<i>Wrot horizontal to:</i>				
4.212	Soffit of roof slab	m <sup>2</sup>	148.84		-
	<i>Wrot inclined to:</i>				

4.213	Column heads	m <sup>2</sup>	1.68	-
	<b><i>Extras for concrete and formwork</i></b>			
4.214	Form opening 1000 X 1000mm opening for roof access	nr	1.00	-
4.215	Form opening 3150 X 1200mm opening for inlet pipe access	nr	1.00	-
4.216	Form 1000 X 000 X 600mm deep sump for washout in the floor slab	nr	1.00	-
	<b><i>Reinforcement</i></b>			
	<b><i>Rate to include for supplying, delivery, cutting, bending, supporting and securing concrete</i></b>			
4.217	Diameter 8 mm	Kg	103.62	-
4.218	Diameter 10 mm	Kg	5,202.80	-
4.219	Diameter 12 mm	Kg	1,628.79	-
4.220	Diameter 16 mm	Kg	3,306.16	-
	<b><i>JOINTS AND WATER STOPS</i></b>			
	<b><i>(Rates to include for all rebates, shuttering, PVC waterstop, resin bonded cork joint sealers and bituminous painting)</i></b>			
4.221	Expansion joint between wall base and floor slab. Include 240mm rearguard water stops	m	10.00	-
4.222	Ditto between column bases and floor slab	m	11.52	-
4.223	Partial construction joint in roof slab. Include for 140mm wide plain PVC water stops priming of surface and 50mm wide adhesive tape	m	10.00	-
	<b>CLASS I: PIPEWORK - PIPES</b>			
	<b><i>Roof vents(PN12)</i></b>			
4.224	100mm GI Air vents coupled with mesh gauze and paddle flange to concrete tank roof slab n.e 3 m	n	1.00	-
4.225	300 mm PN12 Steel washout pipe	m	40.00	-
	<b>CLASS J: PIPEWORK - FITTINGS AND VALVES</b>			
	<b><i>Inlet pipe (PN12)</i></b>			
4.226	DN 200 Flange adaptor	nr	2.00	-

4.227	DN 200 double flanged 90 degree bend n.e 5m	nr	2.00	-
4.228	DN 200 single flanged pipe n.e 6m long n.e 5m	nr	1.00	-
4.229	DN 200 double flanged pipe 500m long with puddle flange in concrete tank walls	m	1.00	-
4.230	DN 200 flanged float Valve	m	1.00	-
	<u>Overflow pipe (PN12)</u>			
4.231	250 bell moth ended pipe n.e 2 m long with puddle flange	nr	1.00	-
4.232	250mm Dia. Flange adopter	nr	2.00	-
4.233	250 Double flanged 90° bend (long radius)	nr	2.00	-
4.234	250 Double flanged spigot pipe PN 12 n.e 2m	nr	2.00	-
	<u>Outlet pipe</u>			
4.235	200 plain ended pipe 7m long with puddle flange	m	7.00	-
4.236	200mm Dia. Flange adopter	nr	2.00	-
4.237	200 Double flanged 90° bend (long radius)	nr	2.00	-
4.238	200 Double flanged spigot pipe PN 12 n.e 2m	nr	2.00	-
	<u>Washout pipe</u>			
4.239	300 mm Dia. Flange adopter	nr	2.00	-
4.240	300 mm Dia. GI double flanged 90° bend	nr	4.00	-
4.241	300 mm Dia. GI single flanged pipe 6 m long	nr	2.00	-
4.242	300 mm Dia. GI double flanged pipe long n.e 6m	nr	2.00	-
4.243	300 mm Dia. flanged bell mouth n.e 2m	nr	1.00	-
4.244	300 mm Dia. Double flanged sluice valve with cap and key	nr	1.00	-
4.245	300 mm Dia. Double Flanged Mechanical Water Meter Class B c/w strainer and Non Return Valve	nr	1.00	-
	<b>CLASS K: PIPEWORK - MANHOLES AND PIPEWORK ANCILLARIES</b>			
	<u>Chambers</u>			

4.246	Provide materials and construct in situ concrete valve chambers, depth not exceeding 1.5m	nr	3.00		-
4.247	Ditto but depth 1.5-2m	nr	3.00		-
<b>CLASS N: MISCELLANEOUS METALWORKS</b>					
4.248	GMS ladder 400mm wide with stringers and rungs fabricated from 40mm and 30mm Dia. M.S tubes respectively (in and out)	nr	2.00		-
4.249	1400 square GMS grill over overflow pipe	nr	1.00		-
4.250	100mm Dia. GS pipe vent pipe 250mm long with screw on short radius elbow incorporating aluminium insect proof screen on outlet and overflow chambers	nr	2.00		-
4.251	Install all accessories for depth measuring staff gauge. Rate to include for all fittings	nr	1.00		-
<b>CLASS L: PIPEWORK - SUPPORTS AND PROTECTION, ANCILLARIES TO LAYING AND EXCAVATION</b>					
4.252	Class 20 mass concrete in pipe surrounds under reservoir	m <sup>3</sup>	13.19		-
4.253	Testing and sterilization	Item	1.00		-
4.254	Test and sterilize reservoir and all pipeworks	Item	1.00		-
<b>BILL TOTAL TAKEN TO GRAND SUMMARY</b>					<b>-</b>

**UMAA DAM AND WATER TREATMENT PLANT**

**CONTRACT No. ....NWHSA/OIT/001/2023-2024**

**BILL NO. 4 --Treatment Works, 2,500 m<sup>3</sup>/d  
BILL No. 4E - PUMP HOUSE**

ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Kshs)	AMOUNT (Kshs)
	<b><u>DEMOLITION AND SITE CLEARANCE</u></b>				
4.255	General clearing and cleaning, including clearing of old formwork.	Item	1.00		-
	<b><u>Slab and Staircase</u></b>				
4.256	Thickness:250 mm	m <sup>3</sup>	25.00		-
	<b><u>Beams</u></b>				
4.257	X Sectional area 0.03-0.1 m2	m <sup>3</sup>	6.00		-
	<b><u>Pump Plinth</u></b>				
4.258	Thickness:150-300 mm	m <sup>3</sup>	3.60		-
	<b><u>CONCRETE ANCILLARIES</u></b>				
	Provide and fix shuttering including propping, strutting and striking all as specified, including for boxing out openings				
	<b>(i) Vertical Formwork - Class F1 Finish</b>				
4.259	Sides of 150 mm base slab and columns bases	m <sup>2</sup>	14.40		-
4.260	Stairs sides	m <sup>2</sup>	5.00		-
4.261	Stairs soffit	m <sup>2</sup>	15.00		-
	<b>(iii) Vertical Formwork - Class F3 Finish</b>				
4.262	Internal and external of walls	m <sup>2</sup>	5.00		-
4.263	Ring beams	m <sup>2</sup>	75.00		-
	<b><u>REINFORCEMENT</u></b>				
	<u>High yield steel bars to SSRN 126 or 127. Wire brush reinforcement for the ring beam</u>				
4.264	Diameter: 8 mm - provide	kg	80.00		-

4.265	Diameter: 8 mm - wire brush and reuse	kg	10.00	-
4.266	Diameter: 10 mm - provide	kg	50.00	-
4.267	Diameter: 12 mm	kg	50.00	-
	<b><u>Construction Joints</u></b>			
	Provide and install the following waterstops in construction joints including all surface treatment, rebates and formwork			
4.268	200 mm wide expansive super-cast water foil PVC or similar approved waterstop in construction joints in walls (Provisional)	m	20.00	-
	<b><u>ROOFING</u></b>			
	<b><u>Roof including trussed rafters, fittings and fastenings</u></b>			
4.269	Roofing timber cypress 100 x 50 mm to purlins and struts	m	156.00	-
4.270	Ditto cypress 150 x 75 mm	m	86.40	-
4.271	Ditto cypress 100 x 75 to tie beam and king post	m	86.40	-
4.272	300 x 25 mm Fascia Board	m	60.00	-
4.273	100 x 100 mm wall plate	m	30.00	-
	<b><u>Cladding</u></b>			
4.274	24 gauge IT5 sheeting	m <sup>2</sup>	187.20	-
4.275	Ridge cap	m	15.60	-
	<b><u>BRICKWORK, BLOCKWORK &amp; MASONRY</u></b>			
	<b><u>Superstructure Walling</u></b>			
4.276	Supply, lay and join with sand cement mortar 200 mm thick stone masonry wall	m <sup>2</sup>	118.80	-
	<b><u>Blockwork ancillaries</u></b>			
4.277	Joint reinforcement using 50 x 6mm hoop iron ties 300mm long in every other course	m	492.00	-
	<b><u>PAINTING</u></b>			
4.278	2 coats of emulsion paint on doors and windows	m <sup>2</sup>	22.80	-
	<b><u>WATER PROOFING</u></b>			
	<b><u>Rendering with proprietary mix mortar</u></b>			

4.279	Internal 20 mm mortar rendering, cement/sand 1:4 painted soft white to ks 10 B 15 or similar	m <sup>2</sup>	122.40		-
	<b>MISCELLANEOUS WORK</b>				
	<b><u>Drainage to structures above ground</u></b>				
4.280	Gutters inclusive of all fittings	m	33.60		-
4.281	Downpipes inclusive of all fittings	m	16.80		-
	<b><u>Windows</u></b>				
4.282	HD 2FS window as specified in the drawing	nr	1.00		-
4.283	HD 4FS windows as specified in the drawing	nr	2.40		-
	<b><u>Doors</u></b>				
	<b><u>Metal external</u></b>				
4.284	Single leaf, standard, 800 mm wide	nr	1.00		-
4.285	Flush door 1500 mm wide	nr	2.00		-
	<b><u>Other</u></b>				
4.286	100mm dia vent pipes 200mm long	nr	1.00		-
4.287	Precast concrete grill work of approved type	m <sup>2</sup>	6.00		-
	<b>BILL TOTAL TAKEN TO GRAND SUMMARY</b>				-

**UMAA DAM AND WATER TREATMENT PLANT**

**CONTRACT No. ....NWHS/01T/001/2023-2024**

**BILL NO. 4 --Treatment Works, 2,500 m<sup>3</sup>/d**

**BILL No. 4F - SLUDGE DRYING**

ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Kshs)	AMOUNT (Kshs)
	<b>CLASS E: EARTHWORKS</b> <b><i>Excavations for Foundations</i></b>				
	<u>Excavations shall include for strutting. Shuttering, stabilizing excavated surfaces and keeping excavations free of water bailing out, pumping or other means</u>				
	<u>Sludge drying beds surface area of approx 16m wide x 18.8m long.</u>				
4.288	General clearance	ha	0.01		-
4.289	Topsoil, depth n.e 0.25m	m <sup>3</sup>	15.0		-
4.290	Material other than topsoil or rock depth 0.25 - 0.5m	m <sup>3</sup>	49.0		-
4.291	Ditto but depth 0.5 - 1.0m	m <sup>3</sup>	49.0		-
4.292	Ditto but depth 1.0 - 2.0m	m <sup>3</sup>	98.0		-
4.293	Ditto but depth 2.0 - 5.0m	m <sup>3</sup>	110.0		-
4.294	Rock depth 1.0 - 2.0m	m <sup>3</sup>	49.0		-
4.295	Ditto but depth 2.0 - 5.0m	m <sup>3</sup>	32.0		-
	<b><i>Excavation ancillaries</i></b> <b><i>Trimming of excavated surfaces</i></b>				
4.296	Material other than topsoil or rock, inclined at 45°	m <sup>2</sup>	36.0		-
4.297	Rock, inclined at 45°	m <sup>2</sup>	16.0		-
	<b><i>Disposal of excavated material</i></b>				
4.298	Material other than top soil or rock	m <sup>3</sup>	296.0		-
4.299	Rock	m <sup>3</sup>	100.0		-
	<b><i>Filling</i></b> <b><i>To structures</i></b>				
4.300	Selected excavated material	m <sup>3</sup>	50.0		-

4.301	Excavated rock	m <sup>3</sup>	20.0	-
<b>CLASS F: IN SITU CONCRETE</b>				
4.302	Provide concrete class 15	m <sup>3</sup>	5.0	-
4.303	Provide concrete class 25	m <sup>3</sup>	74.0	-
<b><u>Placing of Concrete</u></b>				
<b><u>Mass Concrete</u></b>				
4.304	C15 Blinding, 50mm thick	m <sup>3</sup>	5.0	-
<b><u>Reinforced Concrete</u></b>				
<b><u>Footings</u></b>				
4.305	C30 - Strip footing, 500mm thick	m <sup>3</sup>	24.0	-
<b><u>Inlet Channel</u></b>				
4.306	C30 - 200mm walls	m <sup>3</sup>	38.0	-
4.307	C30 - 200mm base slab	m <sup>3</sup>	4.0	-
<b><u>Dry well</u></b>				
4.308	C30 - 200mm walls	m <sup>3</sup>	5.0	-
4.309	C30 - 200mm base slab	m <sup>3</sup>	1.0	-
<b><u>Base Slabs</u></b>				
4.310	C30 - Base slab, minimum thickness, 300mm	m <sup>3</sup>	23.0	-
4.311	PCC slabs as per drawing	m <sup>2</sup>	64.0	-
<b><u>Masonry Walls</u></b>				
4.312	200mm thick masonry walls	m <sup>2</sup>	124.0	-
<b>CONCRETE ANCILLARIES</b>				
<b><u>Formwork - Rough finish</u></b>				
<b><u>Vertical to:-</u></b>				
4.313	External wall surfaces for base slab - Width 0.2 m	m <sup>2</sup>	12.0	-
4.314	External wall surface for inlet channel -width1.6m	m <sup>2</sup>	169.0	-
<b><u>Formwork - Fair Finish</u></b>				
<b><u>Horizontal to</u></b>				

4.315	Inlet channel , width 1m	m <sup>2</sup>	40.0	-
	<b><i>Reinforcement</i></b>			
	<b><u>NOTE - No RC design done and reinforcement is estimated at 150kg/m<sup>3</sup> of concrete</u></b>			
	<b><i>High Yield steel bars to BS 4449</i></b>			
	<b><u>To Base Slab</u></b>			
4.316	Estimated T-Bar	t	12.0	-
4.317	BRC AR142 for drying beds base slab	m <sup>2</sup>	89.0	-
	<b>PIPEWORK - PIPES</b>			
	<b><u>Connection details at outlet from drying bed</u></b>			
4.318	DN 250 uPVC class 'D' manufacturer slotted pipe	m	50.0	-
4.319	DN 300 Epoxy coated steel pipe from sedimentation tank and filter sump to sludge drying beds and overflow system to drainage	m	43.0	-
	<b><i>Valves</i></b>			
4.320	DN 300 sluice valves	nr	2.0	-
	<b><i>Adaptors</i></b>			
4.321	DN 300 x DN250 Upvc /Steel adaptors	nr	4.0	-
4.322	DN 250 Upvc Tees Class D	nr	4.0	-
4.323	DN 250 UPVC Bends	nr	6.0	-
	<b><u>Dry well connection details</u></b>			
4.324	2DN50 steel double flanged pipe piece 250mm long	nr	2.0	-
4.325	DN250 steel/upvc adaptor	nr	2.0	-
	<b><u>Supply of bed materials for 1 year</u></b>			
4.326	Supply graded sand	m <sup>3</sup>	700.0	-
4.327	Supply graded gravel	m <sup>3</sup>	225.0	-
<b>BILL TOTAL TAKEN TO GRAND SUMMARY</b>				<b>-</b>

**UMAA DAM AND WATER TREATMENT PLANT**

**CONTRACT No. ....NWHSA/OIT/001/2023-2024**

**BILL NO. 4 --Treatment Works, 2,500 m<sup>3</sup>/d  
BILL No. 4G - ADMINISTRATION BLOCK**

ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Kshs)	AMOUNT (Kshs)
	<b><u>CLASS E: EARTH WORKS</u></b>				
4.328	Excavate 200mm top soil and dispose	m <sup>2</sup>	70.00		-
4.329	Excavate for Foundations and bases for depth 0.25 - 0.5m	m <sup>3</sup>	10.00		-
4.330	Foundations and bases for depth 0.5 - 1.5m	m <sup>3</sup>	38.00		-
	<b>Excavation Ancillaries</b>				
4.331	Trimming of excavated surfaces to receive blinding concrete	m <sup>2</sup>	38.00		-
	<b>FILLING AND COMPACTION</b>				
	<b><u>Approved Material as Described:-</u></b>				
4.332	Provide approved materials selected from excavated material other than top soil	m <sup>3</sup>	36.00		-
	<b>Hard-core</b>				
4.333	200mm thick well compacted hard core	m <sup>3</sup>	28.00		-
4.334	50 mm stone dust blinding	m <sup>3</sup>	4.00		-
	<b>Anti-Termite treatment</b>				
4.335	Treat surface of hardcore with approved anti termite solution applied strictly in accordance with the manufacturers instructions	m <sup>3</sup>	66.00		-
	<b>Damp-Proof Membrane</b>				
4.336	1000 Gauge polythene sheeting, laid over hard-core in two layers	m <sup>3</sup>	66.00		-
	<b><u>CLASS F: INSITU CONCRETE:</u></b>				
	<b><u>Mass Concrete Class 15/20mm :-</u></b>				
4.337	50mm Thick blinding under foundation footing, column bases, verandah	m <sup>3</sup>	4.00		-
	<b><u>Vibrated Reinforced Concrete</u></b>				
	<b><u>Reinforced Concrete Class 25/20mm:-</u></b>				

4.338	1200 x 1200 x 300 mm column bases and 600 x 200 mm strip footings	m <sup>3</sup>	6.00	-
4.339	300x200 mm reinforced concrete columns	m <sup>3</sup>	2.00	-
4.340	150 mm thick reinforced concrete slab	m <sup>3</sup>	10.00	-
4.341	200 x 450 mm ring beam concrete	m <sup>3</sup>	4.00	-
<b><u>CLASS G: CONCRETE ANCILLARIES</u></b>				
<b><u>Formwork</u></b>				
<b><u>Provide and Fix Shuttering Including Propping, Strutting and Striking, all as Specified</u></b>				
<b><u>Formwork - Rough Finish:-</u></b>				
4.342	Vertical sides columns below the ground level	m <sup>2</sup>	5.00	-
<b><u>Formwork - Fair Finish:-</u></b>				
4.343	Vertical Sides of the columns	m <sup>2</sup>	12.00	-
4.344	Vertical sides of ring beam	m <sup>2</sup>	34.00	-
<b><u>CLASS H: PRECAST CONCRETE</u></b>				
4.345	Verandah 500mm x 500mm x 50 mm concrete units	nr	65.00	-
<b><u>Reinforcement</u></b>				
<b><u>Provide and Fix High Tensile Steel Reinforcement to SRN 127 Including Cutting, Bending, Propping with Spacers and Tying as Specified :-</u></b>				
4.346	8 mm diameter	kg	1,344.00	-
4.347	10 mm diameter	kg	2,914.00	-
4.348	12 mm diameter	kg	2,444.00	-
4.349	16 mm diameter	kg	1,052.00	-
<b><u>Fabric Reinforcement No. A142 Mesh Size 150 x 150mm Weighing 2.22 kgs Per m<sup>2</sup>, Including Bends, Tying Wire and Distance Blocks:-</u></b>				
4.350	Fabric reinforcement with minimum 150mm wide side and end laps, laid in bed- A142 mesh at 25mm from the top	m <sup>2</sup>	70.00	-
<b><u>Concrete Accessories</u></b>				
4.351	Trowel finish of top surfaces	m <sup>2</sup>	80.00	-
<b><u>CLASS U: BRICKWORK, BLOCKWORK AND MASONRY</u></b>				

	<b><u>Walling.</u></b>				
	<u>Natural Stone Walling, Medium Chisel Dressed, Reinforced with 20 swg Hoop Iron at Every Two Course, and Bedded, Jointed and Pointed in Cement Mortar (1:3):-</u>				
	<b><u>Substructure Walling</u></b>				
4.352	200 mm thick stone masonry wall in strip foundation	m <sup>2</sup>	46.00		-
	<b><u>Structure Walling</u></b>				
4.353	150 mm thick stone	m <sup>2</sup>	114.00		-
	<b><u>Damp-Proof Course:</u></b>				
	<u>Bituminous Felt Damp-Proof Course as Described:-</u>				
4.354	200mm Wide under walls	m	40.00		-
	<b><u>Finishes</u></b>				
4.355	15mm Cement and sand (1:4) render to plinth walls, finished with a wood float	m <sup>2</sup>	35.00		-
4.356	Prepare and apply two coats of bituminous paint on rendered plinth walls	m <sup>2</sup>	35.00		-
	<b><u>Wall Finishes</u></b>				
	<u>12 mm Lime plaster : steel trowelled finish : on concrete, blockwork or stonework : to</u>				
4.357	Internal walls	m <sup>2</sup>	193.00		-
	<b><u>CEILING FINISHES</u></b>				
	<u>12 mm Lime plaster : steel trowelled finish : on concrete : to</u>				
4.358	Horizontal concrete soffits	m <sup>2</sup>	66.00		-
	<b><u>CLASS 0: TIMBER</u></b>				
	<b><u>Roof</u></b>				
4.359	125 x 50 mm Rafter: in trusses	m	72.00		-
4.360	75x 50 mm: battens	m	127.00		-
4.361	125 x 50 mm: Struts and ties	m	72.00		-
4.362	75 x 75 mm Wall plate: fixed to concrete with approved bolts at 1000 mm centres	m	38.00		-
4.363	50 x 125 mm purlins	m	98.00		-
4.364	300 x 25 mm Fascia Board	m	42.00		-

4.365	Steel angle cleats 50 x 25 x 100mm - 3mm thick	nr	72.00		-
4.366	16mm diameter high density rag bolt 150mm long built into beam: including nut and washer	nr	210.00		-
	<b>Cladding</b>				
4.367	24 gauge IT5 sheeting	m <sup>2</sup>	86.00		-
4.368	Ridge cap	m	32.00		-
	<b>Windows</b>				
4.369	1500 x 1500 mm steel casement windows with grills	nr	6.00		-
4.370	400 x 600 mm steel casement windows to washrooms with grills	nr	2.00		-
	<b>Doors</b>				
4.371	50 mm Single leaf Panel composite door unit (overall) size 900 x 2400 mm high : comprising 50 x 150 mm stiles, top, and middle rails, 50 x 200 mm bottom rail; 1 no. door leaf size 900 x 2050mm : panels infilled with 50 mm hardwood boarding rebated and splayed at joint to frame : 900 x 300mm high fan light infilled with glass (m/s)	nr	2.00		-
	<b>Steel External Doors</b>				
4.372	900 x 2400 mm high single leaf	nr	4.00		-
	<b>Toilet Cubicle doors</b>				
4.373	800 x 1800 mm high	nr	2.00		-
	<u>Supply and fix the following ironmongery as per "Assa Abloy" catalogue to Engineers approval ; to timber ; with matching screws</u>				
4.374	100 mm Brass butt hinges Pairs	nr	8.00		-
4.375	Rubber door stops	nr	4.00		-
4.376	5 lever system Multi lock complete with handles	nr	2.00		-
4.377	Two lever mortice lock with handles	nr	2.00		-
4.378	150 mm Brass barrel bolt	nr	4.00		-
	<b>Ceiling</b>				
	<u>12mm thick approved chipboard to BS 2604, Part 2, density 480-640kgs, per square meter in sheets size 2400 x 1200mm fixed to and Including 50 x 50mm sawn cypress grade 2 battens at 600mm centres in both directions complete with gauge jointing material</u>				
4.379	Horizontal ceiling fixed to underside of trusses	m <sup>2</sup>	66.00		-

4.380	12 mm cornice 50mm high, plugged	m	40.00		-
	<u>Other</u>				
4.381	100 mm upvc vent pipes 200 mm long	nr	22.00		-
4.382	Office Shelves	SUM	1.00		-
	<b>CLASSV: PAINTING</b>				
	<b>Prepare and Apply Three Coats Exterior Quality</b>				
	<b>Plastic Emulsion Paint:-(Provisional)</b>				
4.383	Fair-faced concrete surfaces	SUM	1.00		-
<b>BILL TOTALTAKEN TO GRAND SUMMARY</b>					<b>0</b>

**UMAA DAM AND WATER TREATMENT PLANT**

**CONTRACT No. ....NWHSA/OIT/001/2023-2024**

**BILL NO. 4 --Treatment Works, 2,500 m<sup>3</sup>/d**

**BILL No. 4H - STAFF HOUSES**

ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Kshs)	AMOUNT (Kshs)
	<b><u>CEILING FINISHES</u></b>				
	<u>12 mm Lime plaster : steel trowelled finish : on concrete : to</u>				
4.384	Horizontal concrete soffits	m <sup>2</sup>	70.00		-
	<b><u>Windows</u></b>				
4.385	1000 x 1500 mm steel casement windows with grills	nr	16.00		-
4.386	600 x 800 mm steel casement windows with grills	nr	8.00		-
4.387	600 x 800 mm steel casement windows to washrooms with grills	nr	16.00		-
4.388	50 mm Single leaf Panel composite door unit (overall) size 900 x 2400 mm high : comprising 50 x 150 mm stiles, top, and middle rails, 50 x 200 mm bottom rail; 1 no. door leaf size 900 x 2050mm : panels infilled with 50 mm hardwood boarding rebated and splayed at joint to frame : 900 x 300mm high fan light infilled with glass (m/s)	nr	8.00		-
	<b><u>Steel External Doors</u></b>				
4.389	900 x 2400 mm high single leaf	nr	8.00		-
	<b><u>Toilet Cubicle doors</u></b>				
4.390	800 x 1800 mm high	nr	5.00		-
	<u>Supply and fix the following ironmongery as per "Assa Abloy" catalogue to Engineers approval ; to timber ; with matching screws</u>				
4.391	100 mm Brass butt hinges Pairs	nr	80.00		-
4.392	Rubber door stops	nr	40.00		-
4.393	5 lever system Multi lock complete with handles	nr	20.00		-
4.394	Two lever mortice lock with handles	nr	20.00		-
4.395	150 mm Brass barrel bolt	nr	40.00		-

	<b>Ceiling</b> <u>12mm thick approved chipboard to BS 2604, Part 2, density 480-640kgs, per square meter in sheets size 2400 x 1200mm fixed to and Including 50 x 50mm sawn cypress grade 2 battens at 600mm centres in both directions complete with gauge jointing material</u>				
4.396	Horizontal ceiling fixed to underside of trusses	m <sup>2</sup>	72.00		-
4.397	12 mm cornice 50mm high, plugged	m	80.00		-
	<b>Other</b>				
4.398	Provide for kitchen shelves, cupboards and flue	SUM	5.00		-
4.399	kitchen sink with 125mm concrete slab area	nr	5.00		-
4.400	100 mm upvc vent pipes 200 mm long	nr	110.00		-
	<b>CLASSV: PAINTING</b>				
	<b><u>Prepare and Apply Three Coats Exterior Quality Plastic Emulsion Paint:-(Provisional)</u></b>				
4.401	Fair-faced concrete surfaces	m <sup>2</sup>	315.00		-
<b>BILL TOTAL FOR FIVE STAFF HOUSES TAKEN TO GRAND SUMMARY</b>					<b>0</b>

**UMAA DAM AND WATER TREATMENT PLANT**

**CONTRACT No. ....NWHS/0IT/001/2023-2024**

**BILL NO. 4 --Treatment Works, 2,500 m<sup>3</sup>/d**

**BILL No. 4I - Site Works**

ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Kshs)	AMOUNT (Kshs)
	<b>SITE PIPEWORK</b>				
	<b><i>PN 16 Epoxy coated/Cement lined steel pipe socket and spigot joint to BS EN10244/BS3601, Push fit socket and spigot with rubber casket joints</i></b>				
4.402	DN 80 in trench, depth not exceeding 1.5 m to site water elevated tank	m	100.00		-
4.403	DN 200 mm in trench, depth not exc. 1.5 m for realignemnet of existing tank pipework or equivalent fittings	m	100.00		-
4.404	DN 300 in trench, depth not exc. 1.5 m rising main existing tank	m	80.00		-
	<b><i>Pipe Fittings and Valves</i></b>				
	<b><i>Connection to 300 mm diameter raw water mains</i></b>				
4.405	300 mm flanged equal tee to existing raw water main	nr	1.00		-
4.406	300 dia mm V.J. flange adaptor	nr	2.00		-
4.407	300 dia mm sluice valve	nr	1.00		-
4.408	250 mm blank flange	nr	1.00		-
4.409	300 mm flange / spigot pipe 400 mm	nr	2.00		-
4.410	300 mm dia flanged/ flanged bend 90°	nr	2.00		-
	<b><i>Connection of 300 mm backwash water pipe to elevated tank</i></b>				
4.411	300 dia mm flanged/ flanged bend 90° to backwash water (4) and clear water (2) pipes	nr	6.00		-
4.412	300 dia mm V.J. flange adaptor	nr	2.00		-
4.413	300 dia mm standard uPVC G.S. adaptor Type A2	nr	1.00		-

4.414	300 dia mm flange / spigot pipe 450 mm to backwash (6) and clear water (4) pipes	nr	6.00	-
	<b>MASTER METER</b>			
4.415	Flanged Woltman Type 300 mm Dia	nr	1.00	-
	<b>WASTE WASHWATER DRAINS</b>			
	Excavate for, provide, lay, joint, backfill and test for 600 mm dia. precast concrete Ogee' pipes for stormwater drains in depth not exceeding 1.5 m			
4.416	Depth not exc. 1.5 m	m	280.00	-
4.417	Depth 1.5 - 3.0 m	m	20.00	-
	<b>ACCESS ROAD</b>			
4.418	Excavation of virgin topsoil depth not exc. 250 mm	m <sup>2</sup>	11,410.00	-
4.419	Excavation in material other than rock	m <sup>3</sup>	9,128.00	-
4.420	Filling and compaction with approved material	m <sup>3</sup>	3,423.00	-
4.421	Pack and compact hardcore 300 mm layers (as per specification)	m <sup>3</sup>	5,134.50	-
4.422	Sand/approved granular filling to receive cabro blocks (50mm layer)	m <sup>2</sup>	720.00	-
4.423	Supply and lay precast concrete paving blocks size 210 x 105 x 60 mm : heavy duty load bearing 49 N/mm <sup>2</sup> ) : manufactured by Kenya Builders Ltd, Cabroworks Ltd or Bamburi Concrete Product Ltd : complete with 40 mm sand bed : to	m <sup>2</sup>	720.00	-
	<i>Precast concrete units : class 25 :</i>			
4.424	Supply and install channel and kerbstone blocks vibrated 125 mm x 250 mm Half-battered kerbs: 350 mm x 100 mm concrete (class 15) bed: 100 mm x 250 mm concrete (class 15) haunching one side: formwork	m	240.00	-
4.425	Ditto : curved on plan to 2500 mm radius		15.00	-
4.426	Excavation in material other than rock for storm drains as directed	m <sup>3</sup>	70.00	-
4.427	Provide lay and joint DN 600mm ogee concrete pipes	m	10.00	-
	<i>Stormwater Open drains</i>			
4.428	Excavate for, lay and joint precast concrete Shallow IBD from the road edge to the open	nr	8.00	-

	drains as specified				
4.429	Excavate for, provide, lay and joint 350 x 660mm half round invert block drains . 600x225x50mm thick precast concrete side slabs. Include for muram bedding and haunching	nr	8.00		-
4.430	Stone pitching of the storm drains	m <sup>2</sup>	240.00		-
4.431	Provide lay and joint DN 600mm ogee concrete pipes	m	10.00		-
	<u>Headwall</u>	nr	8.00		-
4.432	Provide all materials and construct culvert headwalls in 225mm blockwork including all bedding and haunching and foundations.	nr	8.00		-
	<b>FOOTPATHS 1.2 M WIDE</b>				
	<u>Surface treatment</u>				
4.433	Grade and compact bottoms of excavations : to receive fillings	m <sup>2</sup>	150.00		-
	<u>Hardcore</u>				
4.434	Hardcore bed : levelled and compacted to 100% BS compaction : to receive sand bed	m <sup>2</sup>	150.00		-
	<u>Sand bed</u>				
4.435	Sand bed : levelled and compacted to receive paving slabs	m <sup>2</sup>	150.00		-
	<u>Precast concrete units : class 20/20 : laid on sand bed (measured separately) : butt jointed</u>				
4.436	50 mm Paving slabs size 600 x 600 mm	m <sup>2</sup>	150.00		-
	<b>GUARD/ GATE HOUSE AND POWER/ SWITCHGEAR HOUSE</b>				
4.437	Supply all materials and construct a Guard/ Gate house as directed. Allow for excavation, shuttering, walling. The Gate house shall be partitioned to include concreting and block abluion c/w sanitary fitments and plumbing. The roofing comprises corrugated ironsheet roofing on timber trusses.	P.C.	1.00	1,800,000	1,800,000
4.438	Percentage adjustment to Items 4.437	%	0.10	1,800,000.00	180,000
4.439	Metallic tape/strip for cable location Pigmented low density polyethylene and Aluminium foil in a bright colour continously labelled "DANGER PLASTIC PIPE" in English	m	80.00		-

4.440	<b>FOUL WATER DRAINAGE</b> Construct 1 No. septic tank, foul water drainage and soak pit	Item	1.00		-
	<b>FENCING AND GATE</b>				
	<i>Fencing</i>				
4.441	Concrete posts in concrete holes and chain link fence, height 2.50 - 3.00 m	m	380.00		-
	<i>Metal Gate and Stiles</i>				
4.442	Metal field gate width 1.5 - 2.0 m	No.	1.00		-
<b>BILL TOTAL TAKEN TO COLLECTION</b>					<b>1,980,000</b>

**UMAA DAM AND WATER TREATMENT PLANT**

**CONTRACT No. ....NWHSA/OIT/001/2023-2024**

**BILL NO. 4 --Treatment Works, 2,500 m<sup>3</sup>/d**

**BILL No. 4J - Sewers and Septic Tank**

ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Kshs)	AMOUNT (Kshs)
<b>CLASS A</b>	<b>GENERAL ITEMS</b>				
	<b>Specified Requirements</b>				
	<u>Testing of works</u>				
	Carry out testing and cleansing of the Sewers in accordance with the specifications specified in the works requirements				
4.443	200 mm Diameter DWC SN8 sewer pipe	m	298.00		-
<b>CLASS D</b>	<b>DEMOLITION AND SITE CLEARANCE</b>				
	<u>General clearance</u>				
4.444	Demolish and cart away natural and artificial articles, objects and obstructions which are above the original surface, 3m on either side of the sewer lines	ha	0.20		-
<b>CLASS I</b>	<b>PIPEWORK - SEWERS</b>				
	<u>Provide SN8 DWC pipes as specified. Rate to include for supply, transportation, storage, security and insurance. (PROVISIONAL)</u>				
4.445	200 mm Diameter DWC SN8 sewer pipe	sum	1.00		-
4.446	Contractors Provisional Sum for Septic Tank	sum	1.00		-
	<u>Lay, and joint Double Wall Corrugated (DWC SN8) Sewers in standard lengths. Rates to include for surveying and setting out, excavation, shoring, disposal of excavated material, bedding for sewers, backfilling of pipe trenches thereafter including rubber rings and siliconlubricant</u>				
4.447	DN 200 DWC SN8 pipes in trenches depth n.e 1.5m	m	149.00		-
4.448	Ditto in trenches depth, 1.5- 2.0m	m	59.60		-

4.449	Ditto in trenches, but depth 2.0 – 2.5m	m	59.60	-
4.450	Ditto in trenches, but depth 2.5 – 3.0m	m	29.80	-
4.451	Ditto in trenches, House connection including all pour flush plumbing fittings	m	120.00	-
<b>CLASS K</b>	<b>PIPEWORK – MANHOLES AND PIPEWORK ANCILLARIES</b>			
	<i>Provide all materials and construct Precast Concrete Ring Manholes in the following depth ranges, complete with Heavy duty triangular manhole cover and step irons as shown on drawings. Rates to include for excavation, preparation of surfaces, disposal of excavated materials, shoring, insitu concrete surround and backfilling and provision of connections to the manholes for individual connections</i>			
	<b>Manholes</b>			
4.452	Precast Concrete Ring Manhole/Inspection Chambers depth n.e 1.0m	nr	20.00	-
4.453	Ditto but depth, 1 – 2m	nr	20.00	-
4.454	Ditto but depth 2 – 3m	nr	20.00	-
4.455	Ditto but depth 3 – >4 m	nr	4.00	-
	<i>Provide all materials and construct Precast Concrete Ring Manholes with backdrops in the following depth ranges, complete with Heavy duty triangular manhole cover and step irons as shown on drawings. Rates to include for excavation, preparation of surfaces, disposal of excavated materials, shoring, insitu concrete surround and backfilling and provision of connections to the manholes for individual connections</i>			
	<b>Manholes with backdrops</b>			
4.456	Precast Concrete Ring Manhole depth 2.0 – 2.5 m	nr	5.00	-
4.457	Ditto but depth greater than, 3.0	nr	5.00	-
<b>CLASS L</b>	<b>PIPEWORK – SUPPORTS AND PROTECTION, ANCILLARIES TO LAYING AND EXCAVATION</b>			
	<i>Extra to excavation and backfilling for excavation in Rock</i>			
4.458	In pipe trenches	m <sup>3</sup>	59.60	-
4.459	In Manholes	m <sup>3</sup>	25.00	-
	<i>Provide, place and compact selected excavated granular material surround compacted in 225mm layers to DWC SN8 pipe as shown on the drawings or as directed by the Project Manager.</i>			

4.460	Diameter 200 mm DWC SN8 pipe	m	298.00		-
<b>CLASS E</b>	<b><i>Miscellaneous Works</i></b>				
4.461	landscaping and reinstatement of working areas along the pipeline routes to original form	m	500.00		-
<b>TOTAL CARRIED TO SUMMARY</b>					<b>-</b>

**UMAA DAM AND WATER TREATMENT PLANT**

**CONTRACT No. ....NWHS/0IT/001/2023-2024**

**BILL No. 5 - RISING WATER MAIN**

ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Kshs)	AMOUNT (Kshs)
	<b>CLASS A: GENERAL ITEM</b>				
	<b><i>Testing of works</i></b>				
5.1	Pipeline testing and commissioning for the whole work on this line, including all necessary equipment, materials and works necessary for testing, such as thrust blocks, anchor blocks, transportation and use of water, pipe fittings, disposal of used water.	m	890.82		-
5.2	Disinfection of Pipe lines: flushing with clear water, filling with water containing 0.05 g/l calcium hypochlorite, left for 24 hours. This includes supply of all necessary equipment, materials, chemicals and water, measurement of residual chlorine, all as specified.	m	890.82		-
	<b>CLASS D: DEMOLITION AND SITE CLEARANCE</b>				
	<b><i>Tree Cutting (Provisional)</i></b>				
	Cut down trees, grub up roots and cart away to tips, girth shall be measured 1.0 m above the ground level				
5.3	Girth: 0.5m - 1.0m	Nr	29.69		-
5.4	Girth: 1.0 m - 2 m	Nr	29.69		-
	<b>CLASS I: PIPE WORK - PIPES</b>				
	<b><i>Supply and Pipe Laying</i></b>				
	Transport from site store, lay and joint pipes in trench, include for excavation, preparation of surfaces, disposal of excavated material, shoring sides of excavation and backfilling. Supply and Transport to site only upon instruction from the Engineer.				

	<p><i>Note:- Trench width and minimum cover to pipes is as per the Specification. The cost shall include for strutting, shuttering, stabilizing the earth faces of trenches and keeping the trenches free of water from whatever source by pumping or other means and cost of use of selected soil from the excavated material for compaction in bed and surround to backfilling of trenches, all as specified. The rates provided should include the rates for interphase point in to the existing pipeline from Maisnga system or inlet to the existing tanks</i></p> <p><u><i>PN 16 Epoxy coated/Cement lined steel pipe socket and spigot joint to BS EN10244/BS3601, Pushfit socket and spigot with elastomeric rubber ring in joints</i></u></p>				
5.5	<p>ND 200 Steel pipe in trenches, depth not exceeding 1.8 m</p> <p><b>CLASS J: PIPE WORK - FITTINGS AND VALVES</b></p> <p><b>Supply, Laying and Jointing</b></p> <p><b><i>Elbows</i></b></p>	m	890.82		-
5.6	11.25°	Nr	8.00		-
5.7	22.5°	Nr	6.00		-
5.8	45°	Nr	6.00		-
5.9	90°	Nr	5.00		-
5.10	<p><u><b><i>Epoxy coated/Cement lined Steel Flanged Steel fittings to Washouts requirements</i></b></u></p> <p>DN 200 x 200mm Steel Washout Tee PN12</p>	nr	2.00		-
5.11	<p>DN 200 x 200mm Double Flanged Spigot Steel pipe PN 12</p>	nr	4.00		-
5.12	<p>DN 200mm by 5000mm long single flanged long steel spigot pipe PN 12</p>	nr	2.00		-
5.13	<p>DN 200mm Dia. Outfall scour pipe single flanged spigot pipe PN 12 n.e 5.0 m long</p> <p><u><b><i>Epoxy coated/Cement lined Steel Flanged Steel fittings to Air Valves requirements</i></b></u></p> <p><b><i>Note: All air valves have to be coupled with isolation valve gate valve, bolts, nuts , washers and 6mm rubber gasket</i></b></p>	nr	2.00		-

5.14	DN 80 Double Orifice Air Valve coupled with an isolating steel Flanged Gate Valve PN8	nr	4.00	-
5.15	DN 200 X 80 mm Steel Tee Flanged steel Tee PN 8	nr	4.00	-
	<b><i>Couplings</i></b>			
	<b><i>Valves</i></b>			
	<i>Rates to Include ; Supply, Transport to Site and Store, Install, Test and Commission in Secure Place Including Jointing Material, Anchoring, Bolts, Nuts, Washers, Gaskets, Packing, Jointing Glue, etc, All as Applicable</i>			
5.16	Provide DN 200 single flanged straight spigot pipes PN10 as complete with stainless steel bolts, nuts and washers, n,e 3.0 m	nr	12.00	-
5.17	Provide DN 200 flanged gate valve with spindle as per drawings and complete with stainless steel bolts, nuts and washers	nr	6.00	-
5.18	DN 200 Flanged Steel Tee PN12 supplied as complete with stainless steel bolts, nuts and washers	nr	6.00	-
5.19	DN 200 Flanged x DN 80 Double Flanged reducer as complete with stainless steel bolts, nuts and washers	nr	6.00	-
	<b>CLASS K: PIPE WORK - CHAMBERS AND PIPE WORK ANCILLARIES</b>			
	Chambers, ducts, culverts, crossings, thrust and anchor blocks, reinstatement and others as listed and specified in drawings.			
	<b><u>Note:- Items for work in this class shall include:-</u></b>			
	<b><u>- Excavation, preparation of surfaces, disposal of excavated material, shoring sides of excavation, backfilling and removal of redundant services.</u></b>			
	<b><u>- Concrete, reinforcement, formwork, joints and finishes.</u></b>			
	<b><u>- Tips for disposal of excavated material or debris to be identified by the Contractor in liaison with the Local Authority.</u></b>			
	<b><i>In Situ Chambers</i></b>			
	Provide all materials and construct <b>GATE VALVE</b> chambers internal dimensions 1800mm x 1500mm. Include for supply and fixing of precast concrete cover and step irons, as detailed in drawing			
5.20	Depth: not exceeding 1.5 m	nr	6.00	-
5.21	Depth: 1.5 - 2 m	nr	6.00	-

	Provide all materials and construct <b>WASHOUT</b> chambers internal dimensions 1800mm x 1500mm. Include for supply and fixing of precast concrete cover and step irons, as detailed in drawing				
5.22	Depth: not exceeding 1.5 m	nr	2.00		-
5.23	Depth: 1.5 - 2 m	nr	2.00		-
	Provide all materials and construct <b>AIR VALVE</b> chambers internal dimensions 1800mm x 1500mm. Include for supply and fixing of precast concrete cover and step irons, as detailed in drawing				
5.24	Depth: not exceeding 1.5 m	nr	4.00		-
5.25	Depth: 1.5 - 2 m	nr	4.00		-
	<b><u>Crossings/Concrete Sorround as per technical drawings</u></b>				
	<i>River or stream width:3-10m</i>				
5.26	Pipe culvert : 1200-1200 mm	Nr	3.00		-
	<i>River or stream width exceeding 10m</i>				
5.27	Pipe culvert: 1200-1500mmmm	Nr	3.00		-
5.28	Allow for crossing existing underground services (water lines, sewer lines, telephone/electricity ducts etc.), including reinstatement to original states and liaison with the relevant body for the inspection/ approval during execution of the works. Nominal bore n.e.300mm (provisional sum)	Item	1.00	200,000	200,000
5.28-1	Allow percentage on item 5.28 for contractor's profits and overheads. <b><u>Reinstatement</u></b> <i>Breaking up, temporary and permanent reinstatement of roads</i>	%	200,000	0.1	20,000
5.29	Pipe bore: 300-900 mm on tarmac road	m	15.00		-
5.30	Pipe bore: 300-900 mm on gravel road	m	15.00		-
	<i>Breaking up, temporary and permanent reinstatement of footpaths</i>				
5.31	Pipe bore: 300 mm on gravel road	m	15.00		-
	<b><u>Reinstatement of land</u></b>				
5.32	Pipe bore: not exceeding 300 mm	m	300.00		-
	<b><u>Other Ancillaries</u></b>				

	<i>Supply all material, cats and fixed reinforced concrete Marker Posts complete. All in accordance with drawings and specifications</i>				
5.33	Air Valves inscribe AV	nr	2.00		-
5.34	Washouts, inscribe WO	nr	4.00		-
5.35	Sluice Valves, inscribe SV	nr	6.00		-
	<b><u>CLASS L:- PIPEWORK - SUPPORTS AND PROTECTION, ANCILLARIES TO LAYING AND EXCAVATION</u></b>				
	<b>Extras to Excavation and Backfilling (Provisional)</b>				
5.36	Excavation in trench for rock class "A"	m³	89.08		-
5.37	Excavation in trench for rock class "B"	m³	133.62		-
5.38	Excavation in trench for rock class "C"	m³	44.54		-
	<b>Extras to Excavation and Backfilling (Provisional) Continued</b>				
5.39	Excavation for Chambers for rock class "A"	m³	16.88		-
5.40	Excavation for Chambers for rock class "B"	m³	8.44		-
5.41	Excavation for Chambers for rock class "C"	m³	8.44		-
	<b><u>Note:-</u></b> Blasting is NOT permitted for Item L11				
	<b>Imported Selected Fill (Provisional)</b> Provide, transport to site and place imported selected fill and compact in bed and surround to pipes as specified. Haulage not exceeding 2 km				
5.42	To pipes nominal bore: 300-600 mm	m³	320.70		-
	<b>Concrete Support, Thrust Blocks and Anchor Blocks</b>				
5.43	<u>Thrust blocks for bends</u>	nr	7.00		-
5.44	<u>Ditto for Tees</u>	nr	6.00		-
	Concrete supports	nr	7.00		-
	<u>Pipe Slip Anchors</u>				
5.45	DN 300	nr	20.00		-
<b>BILL TOTALTAKEN TO GRAND SUMMARY</b>					<b>220,000</b>

# UMAA DAM AND WATER TREATMENT PLANT

CONTRACT No. ....NWHS/01T/001/2023-2024

## BILL NO. 6 --Electro-mechanical Works

### BILL No. 6A. WTP Pump House and Filtration House

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE KES	AMOUNT KES
	<b>POWER SUPPLY</b>				
6.1	Allow for payment application, follow up and paying for electricity connection charges for Umaa WTP. Estimated power required is 200kVA	PC	1.00	1,800,000.00	1,800,000.00
6.2	Allow for Contractors attendanace and Profit	%	0.10	1,800,000.00	180,000.00
					-
6.3	Supply to Main Pumping station at the treatment works, install, and test and commission 400 volts, metal clad floor mounted type, and Main LV and Instrumentation Panel complete with, instrumentation, integral mains phase failure panel and motorised breakers, status indicators and all accessories 400 Amps TP & N rated busbars at full load integrated using 400 Amps TP&N minimum SCR 30kA MCCB adjustable incomer . The board is to be fabricated using a minimum of 16 SWG or 2mm thick Galvanised steel sheets. The instrumentation panel will comprise : 1 No. flush ac voltmeter size 95x95mm, 0-500 V ac c/w selector switch and HRC protection fuses; 3 No. flush ac meters size 95x95mm, 0-500 Amps c/w CTS rated 400A, 400/5 Amps. Integral automatically switched 35 kvar PFC bank, to IP20, comprising dry type capacitors type VARPLUS from MERLIN GERIN Rectiphase, complying to IEC 831 Standards, switched in steps of 2x10kvar, 3x4kVAR and 3x1kVAR complete with all necessary protections , controls, cabling and instrumentations. To have a digital indicator panel. The board shall be to form four type A separation. The design of the board must be submitted to the Engineer for approval before fabrication. The switchgear shal have the following outgoers. 2 No. 160Amps TPN MCCB for clear water pumps, 2 No. 10 Amps TPN for Recirculation Pumps, 1 No. 80Amps TPN MCCB for Power Factor Correction Capacitor Bank, 1 no. 32A TPN MCCB for local distribution panel, and following spares 1 no. 160Amps TPN, 1 No. 80A TPN, 1 No. 10Amps TPN an 1 No. 32Amps TPN . Allow for approval by Engineer for all bus bar ratings and all ratings of the switchgear components.	No.	1.00		-

6.4	<p>Supply and install two water pumps each delivering 200m<sup>3</sup>/hr at 75m head, on the basis of 1 duty and 1 standby. Each pump shall have a soft starter rated at 125Amps TPN respectively with integrated controls and protection. The protection shall at the very minimum include phase fault, phase failure relay, thermal over load, overcurrent protection, earth leakage and dry run protection. The protection settings shall be to the latest standards of BS or IEC standards. The panels shall also have run hour meter, ammeter and voltmeter for each pump prominently displayed at the front face. The board shall be designed for automatic operation but with an override to allow manual selection of pumps. The panel shall have automatic step power factor correction capacitors to ensure at no time is the power factor below 0.93. The controls shall use float or pressure switches to achieve start stop operations for the pumps. The panel shall have an audible alarm that sounds whenever there is an electrical fault. The panel shall also have bulbs at the front of the panel illuminating for each pump. The lamps shall be green for pump running, red for pump tripped and amber when pump is not on running but available for duty. Additionally the panel shall be fitted with selector switch to enable the operator to physically select the duty pumps while at the same time retaining the automatic rotational selection capacity to ensure uniform run hours. Each pumpset shall be fitted with an emergency switch adjacent to it to enable immediate stop and another emergency stop button at the panel. The Contractor has to allow for telemetry to independently control the pumps from the control centre which is 1.5km away from the tanks sites.</p>	No.	1.00		-
6.5	<p>2 No 63A TP&amp;N panel for starters for air compressors complete with with standard protection for the compressors. The protection shall include overload, phas and eartyh fault, single phasing relays at the very minimum. The compressors shall be operating on duty and standby basis.</p>	ls	1.00	200,000.00	200,000.00
6.6	<p>2 No 63A TP&amp;N panel for starters for air blowers complete with with standard protection for the compressors. The protection shall include overload, phas and eartyh fault, single phasing relays at the very minimum. The blowers shall operate on duty and standby basis.</p>	ls	1.00	200,000.00	200,000.00

6.8	<p>2 No. 10A TP&amp;N (400V)isolators for recirculation pumps. They shall serve 2No. Pumps, each delivering 40m<sup>3</sup>/hr at 16m head, on the basis of 1 duty and 1 standby. Each pump shall have a direct online starter rated at 10Amps TPN respectively with integrated controls and protection.The protection shall at the very minimum include phase fault, phase failure relay, thermal over load, overcurrent protection,earth leakage and dry run protection. The protection settings shall be to the latest standards of BS or IEC standards. The panels shall also have run hour meter, ammeter and voltmeter for each pump prominently displayed at the front face. The board shall be designed for automatic operation but with an override to allow manual selection of pumps. The panel shall have automatic step power factor correction capacitors to ensure at no time is the power factor below 0.93. The controls shall use float or pressure switches to achieve start stop operations for the pumps. The panel shall have an audible alarm that sounds whenever there is an electrical fault. The panel shall alsohave bulbs at the front of the panel illuminating for each pump. The lamps shall be green for pump running, red for pump tripped and amber when pump is not on running but available for duty. Additionally the panel shall be fitted with selector switch to enable the operator to physically select the duty pumps while at the same time retaining the automatic rotational selection capacity to ensure uniform run hours. Each pumpset shall be fitted with an emergency switch adjacent to it to enable immediate stop and another emergency stop button at the panel. The Contractor has to allow for telemetry to independently control the pumps from the control centre which is 1.5km away from the tanks sites.</p> <p><b>POWER DISTRIBUTION</b></p>	No.	1.00	-
6.9	Multi-core (4) 50mm <sup>2</sup> PVC/SWA/PVC armoured copper cable in conduit/floor ducts from the switchgear to the 160A TP&N breaker for clear water pumpset.	m	50.00	-
6.10	Multi-core (4) 50mm <sup>2</sup> PVC insulated copper cable in conduit/floor ducts from the switchgear to the 160A TP&N breaker for clear water pumpset.	m	50.00	-
6.11	Multi-core (4) 35mm <sup>2</sup> PVC/SWA/PVC armoured spaced copper cable in conduit/floor ducts from clear water pump soft starter to the motor terminal	m	60.00	-
6.12	Multi-core (4) 4mm <sup>2</sup> PVC/SWA/PVC armoured copper cable in conduit/floor ducts from the switchgear to the 10A TP&N breaker for Recirculation Water pumpset	m	60.00	-
6.13	Single-core (4) 4mm <sup>2</sup> PVCi nsulated copper cable in conduit/floor ducts from the switchgear to the 10A TP&N breaker for Recirculation Water pumpset	m	60.00	-

6.14	Multi-core (4) 4mm <sup>2</sup> PVC/SWA/PVC armoured spaced copper cable in conduit/floor ducts from Recirculation Pumps star delta starter to the motor terminal	m	30.00		-
6.15	Multi-core (3) 16mm <sup>2</sup> PVC/SWA/PVC armoured copper cable in conduit/floor ducts from the 80A TP&N breaker to the power factor correction capacitor bank	m	20.00		-
6.16	Multicore (4) 6mm <sup>2</sup> PVC/SWA/PVC armoured copper cable in conduit/floor ducts from the main switchgear to the Pump House distribution panel 'P'	m	20.00		-
6.17	Multicore (4) 10mm <sup>2</sup> PVC/SWA/PVC armoured copper cable in conduit/floor ducts from the main switchgear to the Compressor	m	40.00		-
6.18	Multicore (4) 10mm <sup>2</sup> PVC/SWA/PVC armoured copper cable in conduit/floor ducts from the main switchgear to the air blower'	m	40.00		-
6.19	Supply, Install, test and commission Horizontally or vertically installed, single-stage, axially-split volute casing pump with double-entry radial impeller, mating flanges to DIN, ISO, BS or ANSI standards water pumps each of capacity 40m <sup>3</sup> /hr against 16m head. Include for all excavation, backfilling, demolition, pipe work, concrete works, connect to the Control panel for the pumps (the controls units shall be housed in a wall mounted dust and dump proof sheet steel enclosure with hinged and lockable front door, and door switched power isolator) (system duty point shall be Q=40m <sup>3</sup> /hr and H=16m). The pumps so selected complete with the motor shall have a minimum efficiency of 70% at system duty point. The motors shall be minimum class IE3 efficiency class. The minimum impeller passage shall be 20mm. The motor shall be to minimum IP 55 running at 3000rpm with 50Hz frequency. The pump must be capable of maintaining efficiency over a large pumping range but shall not lose efficiency by more than 5% on 10% either side of the duty point. The suction and delivery pipe setup shall be as shown in the drawings, the quotation to include for all the valves, nonreturn valves, elbows and all other fittings as shown in the drawings. The net positive suction head available is 8m.	No	2.00		-

6.20	Supply, Install, test and commission Horizontally or vertically installed, single-stage, axially-split volute casing pump with double-entry radial impeller, mating flanges to DIN, ISO, BS or ANSI standards water pumps each of capacity 200m <sup>3</sup> /hr against 75m head. Include for all excavation, backfilling, demolition, pipe work, concrete works, connect to the Control panel for the pumps (the controls units shall be housed in a wall mounted dust and dump proof sheet steel enclosure with hinged and lockable frontdoor, and door switched power isolator) (system duty point shall be Q=200m <sup>3</sup> /hr and H=75m). The pumps so selected complete with the motor shall have a minimum efficiency of 70% at system duty point. The motors shall be minimum class IE3 efficiency class. The minimum impeller passage shall be 20mm. The motor shall be to minimum IP 55 running at 1500rpm with 50Hz frequency. The pump must be capable of maintaining efficiency over a large pumping range but shall not lose efficiency by more than 5% on 10% either side of the duty point. The suction and delivery pipe set up shall be as shown in the drawings, the quotation to include for all the valves, non-return valves, elbows and all other fittings as shown in the drawings. The net positive suction head available is 8m.	No	2.00	-
6.21	<b>Switchboard</b> 10 way TP consumer unit with 40 Amps isolator. Mcbs, Hager EN 60898-1 to IEC 898 & 947.2	No.	1.00	-
6.22	10 Amps sp	No.	7.00	-
6.23	32 Amps sp	No.	2.00	-
6.24	10 Amps TP	No.	3.00	-
6.25	32 Amps TP	No.	2.00	-
6.26	<b>Lighting</b> <b>Light fittings complete with accessories, lamps and tubes, 1.5 mm<sup>2</sup> three core heat resisting cables and wiring to an adjacent lighting point (<i>measured separately</i>) and fixing</b> Supply, install, connect and set to work rigid pvc super high impact screwed conduit installed in walls/roof slabs with wiring in pvc insulated cables complete with all accessories  All switches and accessories to be in accordance with B.S. 3676. lighting points to comprise a 25mm Black Marshall Tufflex PVC conduit, and 2.5 sq mm 2c pvc copper cables inclusive of all accessories and wired for one way or two-way switching	No.	8.00	-
6.27	Switches: 1 gang 1 way switch Light fittings:	No.	3.00	-

	Supply and install basic light fittings complete with lamps as per schedule of schedule of fittings:				
6.28	1 x 36W Weatherproof Fluorescent HPF on circuit 1	No.	21.00		-
6.29	1 x 36W Weatherproof Fluorescent HPF on circuit 2	No.	20.00		-
6.30	1 x 36W Weatherproof Fluorescent HPF on circuit 3	No.	20.00		-
	Power: Power points to comprise of a twin 13A SP socket outlet BS standard with earth completely wired in 3*2.5mm sq PVC insulated copper cable, Marshall Tufflex 25mm PVC conduit, White 2 Gang/twin Mounting Box 35mm deep flush mounted metallic back box, double gang Depth socket outlet plate and inclusive of all accessories.				
6.31	13 Amps twin socket outlets comprising of conduit, cable, and all accessories and weather proof	No.	4.00		-
6.32	32A, 3P+N+E power points completely wired in 4 core 4mm <sup>2</sup> PVC/SWA/PVC copper cables drawn in trunking and running from the distribution board to the 3 phase 32A socket outlet excluding the switched socket.	No	4.00		-
6.33	32A, 400V, 3P+N+E Surface mounting interlocked switched socket outlet complete with its top plug as MK Cat No. 9645 RED10A, 3P+N+E power points completely wired in 5 x 2.50 mm <sup>2</sup> PVC single copper	No	4.00		-
6.34	cables drawn in trunking/ conduit and running from the distribution board to the 3 phase 10A to Stirrer pumps isolator.	No	3.00		-
6.35	10A, 400V, 3P+N+E Surface mounted Isolator as MK or approved equivalent.	No	3.00		-
	<b><u>LIGHTNING PROTECTION</u></b> Allow for supply, installation and commissioning of the following lighting fittings as described below.				
6.36	Air terminals as Furse	No.	2.00		-
6.37	Copper tape down conductor 25mm x 3 mm	LM	75.00		-
6.38	Brass bonding	No.	20.00		-
6.39	Materials for Earth Inspection concrete chamber 300mm x 300mm x 300mm with an air inspection concrete chamber	No.	1.00		-
6.40	16mm diameter, 1500mm long copper Earth rod as Furse Cat. No. RC 020	No.	1.00		-
6.41	DN 250 PN 10 gate valves complete with all associated fittings	No.	2.00		-
6.42	DN150 PN25 gate valves complete with all associated	No	2.00		-

	fittings				
6.43	Pressure Gauge ranging 0-25 Bar	No.	2.00		-
6.44	Pressure Gauge ranging 0-4 Bar	No.	2.00		-
6.45	Slow closing Non return Valve DN150 PN 25	No.	2.00		-
6.46	All the necessary internal pipe fittings inside the pump station from the main supply pipe to the outlet connecting all the fittings as per the drawings.	ls	1.00	450,000.00	450,000.00
6.47	Perform detailed surge analysis and present the results to the Engineer for approval of the surge measures if any	ls	1.00	200,000.00	200,000.00
6.48	Supply and install surge equipment recommended from the surge analysis	PC	1.00	5,000,000.00	5,000,000.00
6.48-1	Allow percentage on item 6.48 for contractor's profits and overheads	%	0.10	5,000,000	500,000.00
6.49	<u>Carbon Dioxide Gas Fire Extinguisher</u> 5kg carbon dioxide gas portable fire extinguisher complete with pressure gauge, initial charge and mounting brackets.	No.	2.00		-
6.50	<u>Dry Chemical Powder Fire Extinguisher</u> 6kg dry chemical powder portable fire extinguisher complete with pressure gauge, initial charge and mounting brackets.	No.	2.00		-
6.51	<u>Manual Alarm Bell</u> 9" (225mm) manual operated alarm bell (Gong)	No.	2.00		-

	Air Blowers, duty and standby, for WTP having capacity more than 3 MLD ( Million Liter per day) air blowers capable of delivering 600 LPM per square metre of free air, of filter area at 0.4 Kg/SqCm at the underdrains .	No	2.00		-
6.52	<b>Air Compressors</b> An identical single stage reciprocating air compressors each directly driven by an electric motor and incorporating an air inlet filter and silencer. Each compressor shall be provided with air-blast after-coolers and auto/manual drains. The compressor electric motors shall be squirrel cage type suitable for a 415V, 50Hz, 3phase power supply. <b>Receiver Vessel</b> Horizontally mounted welded steel receiver vessel . The total vessel capacity shall be 500 litres. The receiver shall be protected by a pressure relief valve and fusible plug and shall be provided with an automatic drain with manual by-pass. The vessel to be constructed to BS 5169 or EN 286.	No	2.00		-
6.53	<b>Distribution Board 'F' at Filtration Block</b> 4 way TP consumer unit with 40 Amps isolator. Mcb's, Hager EN 60898-1 to IEC 898 & 947.2	No.	1.00		-
6.54	10 Amps sp	No.	1.00		-

6.55	32 Amps sp	No.	2.00	-
6.56	32 Amps TP	No.	3.00	-
<b>Filtration Block Lighting Points</b>				
Switches:				
6.57	1 gang 1 way switch	No.	1.00	-
Light fittings:				
Supply and install basic light fittings complete with lamps as per schedule of schedule of fittings:				
6.58	1 x 36W Weatherproof Fluorescent HPF	No.	2.00	-
<b>Filtration Block Power:</b>				
Power points to comprise of a twin 13A SP socket outlet BS standard with earth completely wired in 3*2.5mm sq PVC insulated copper cable, Marshall Tufflex 25mm PVC conduit, White 2 Gang/twin Mounting Box 35mm deep flush mounted metallic back box, double gang Depth socket outlet plate and inclusive of all accessories.				
6.59	13 Amps twin socket outlets comprising of conduit, cable, and all accessories and weather proof	No.	2.00	-
6.70	32A TPN Isolators for the Blower Pumps completely wired with 4c 4.0 mm <sup>2</sup> PVC/SWA/PVC insulated cu cable in conduit/ cable tray	No.	2.00	-
<b>FIRE DETECTION AND ALARMSYSTEM</b>				
<b>SUPPLY, DELIVER, INSTALL SET TO WORK AND COMMISSION THE FOLLOWING:-</b>				
6.71	Fire alarm points comprising wiring in 1.5mm <sup>2</sup> heat resistant screened cables drawn in 20mmØ concealed HG PVC conduits	No.	6.00	-
6.72	Addressable resettable call point as Menvier or approved equivalent.	No.	2.00	-
6.73	Addressable Electronic wall sounder with beacon light, 105dBA at 1M as MENVIER or approved equivalent.	No.	2.00	-
6.74	4 Loop hybrid protocol analogue addressable fire detection and alarm control panel complete with graphic display, up to 240 addressable devices and 32 zonal LEDs. The control panel to be designed to meet fully the requirements of BS EN54 Pt 2 and 4. The panel to be complete with integral power backup rated to operate for upto 72 hours under conditions of sustained power failure. as Menvier or Approved Equivalent	No.	1.00	-
6.75	Addressable Photoelectric Smoke Detector as Menvier or Approved Equivalent	No.	2.00	-
<b>TOTAL CARRIED FORWARD TO SUMMARY SHEET</b>				-

**UMAA DAM AND WATER TREATMENT PLANT**

**CONTRACT No. ....NWWSA/OIT/001/2023-2024**

**BILL NO. 6 --Electro-mechanical Works  
BILL No. 6B. WTP Pump House and Filtration House**

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE KES	AMOUNT
					KES
6.76	<b>ELECTRICAL POWER RETICULATION AND CONNECTION</b> <b>Allow for supply, installation and commissioning of the following as described below:-</b> Free Standing Feeder Panels weather proof for cable termination, 600 x 450 x 300mm (L x W x D) fabricated from heavy gauge steel sheets comprising the following to approval:	Item	3.00		-
6.77	Supply, install, and test and commission 400 volts, metal clad floor mounted type, and Main LV Panel 'A', 100 Amps TP & N rated busbars at full load integrated using 100 Amps TP&N minimum SCR 20kA MCCB adjustable incomer. The board is to be fabricated using a minimum of 16 SWG or 2mm thick Galvanised steel sheets. The switchgear shall have the following outgoing: 1 No. 63Amps Double Pole MCB, 10 No. 63 Amps DP and 1 No. 63Amps TP MCB for Power Factor Correction Capacitor Bank, 1 no. 32A TPN MCCB. The design of the board must be submitted to the Engineer for approval before fabrication.	No.	1.00		-
6.78	Multi-core (4) 25mm <sup>2</sup> PVC/SWA/PVC armoured copper cable in conduit/floor ducts from the Main LV switchgear to the 100A TP& LV Board 'A' at the Administration Block.	m	200.00		-
6.79	Excavate trenches for the above duct at least 750mm deep, remove soft earth, lay duct, cover with "DANGER-HATARI" tiles, back-fill with soil and compact	LM	750.00		-
6.80	Multi-core (4) 16mm <sup>2</sup> PVC/SWA/PVC armoured copper cable in conduit/floor ducts from the Main LV Board at Pump House to the Staff Houses Administration Block Main LV Board 'A'	LM	250.00		-
6.81	Multi-core (4) 16mm <sup>2</sup> PVC/SWA/PVC armoured copper cable in conduit/floor ducts from the Main LV Board at Pump House to DB 'D' inside Feeder Pillar 3 for the Dam Loads	LM	430.00		-

6.82	Multi-core (4) 6mm <sup>2</sup> PVC/SWA/PVC armoured copper cable in conduit/floor ducts from the Main LV Boar at Pump House to the Filtration Building Main LV Board 'F'	LM	120.00		-
6.83	Earthing points comprising of the following to approval				
	(i) 16mm diameter, 1500mm long copper Earth rod as Furse Cat. No. RC 020, complete with driving stud	nr	2.00		
	(ii) 10.0 sq mm PCV insulated sc earth continuity cable.	m	10.00		
	(iii) (LXWXD), 300X300X 600mm Concrete Earth inspection chamber	item	4.00		-
6.85	450 x 450 x 6000 mm power and Manhole, complete with heavy gauge cover engraved "POWER- DANGER"	No.	22.00		-
6.86	100mm diameter, HG, PVC duct laid underground in trench for KP&LC power cable ways and DATA complete with draw wires	LM	1,760.00		-
	<b>Compound Lighting for Water Treatment Works</b> <b>Provide all materials and install the following: in accordance with details shown on drawings</b>				
6.87	Lanterns with intergral Control gear and 125W SON-T as Thorn Beta 79 or approved a LED equivalent.	No.	25.00		-
6.88	Street Lighting columns 7.5m long with 1.2m single arm out reach in accordance with b the drawings	No.	25.00		-
6.89	Cutouts 60A Type	No	3.00		-
6.90	2.5.0mm x 2 core PVC/SWA/PVC copper cable.	Lm	1,350.00		-
6.91	Tiles marked ' DANGER' for cable protection covers 100 x 300 x 25mm.	No	30.00		-
6.92	Trenching and backfilling etc	Lm	1,175.00		-
6.93	Control Pillar in accordance with drawings	No	1.00		-
6.94	Photain P10 Photo cells or equivalent.	No	1.00		-
6.95	60AC 'Telemecanique' Electromagnetic contractor or equivalent.	No	1.00		-
6.96	60A 6 way SP & N Consumer Unit integral with 60A SP & N Switxh Fuse as MEM	No	1.00		-
6.97	Ditto but 4 way	No	1.00		-
6.98	15A SP & N MCBs	No	3.00		-

6.99	ELCB 60A, 0.5A current trip Crab Tree or equivalent.	No	1.00		-
6.100	Aluminium Cable glands	No	24.00		-
6.101	Earthing at each control pillar and at each forth light column.	Ls	8.00		-
6.102	Test the completed works in accordance with I.E.E. regulations and as specified.	Ls	1.00		-
<b>TOTAL CARRIED FORWARD TO SUMMARY SHEET</b>					<b>-</b>

**UMAA DAM AND WATER TREATMENT PLANT**

**CONTRACT No. ....NWWSA/OIT/001/2023-2024**

**BILL NO. 6 --Electro-mechanical Works**

**BILL No. 6C. Administration Block**

ITEM		UNIT	QTY	RATE	AMOUNT
No.	ITEM DESCRIPTION			KES	KES
	<b>Consumer Unit 'A'</b>				
6.103	8 way SP consumer unit with 63 Amps isolator. Mcbs, Hager EN 60898-1 to IEC 898 & 947.2	No.	1.00		-
6.104	10 Amps sp	No.	2.00		-
6.105	32 Amps sp	No.	3.00		-
6.106	20 Amps SP	No.	1.00		-
	<b>POWER DISTRIBUTION</b>				
	Multi-core (3C) 10.0mm <sup>2</sup> PVC/SWA/PVC armoured copper cable in conduit/floor ducts from the switchgear to Administration Block Ccu complete with conduit/ duct as detailed in the drawing.	m	15.00		-
	<b>Lighting</b>				
	Allow for supply, installation and commissioning of the following:-				
	Lighting points wired in 3 x 1.5sq.mm PVC insulated single core copper cables drawn in 20mm diameter HG PVC conduits concealed in the walls and floor slab, one way switched complete with all accessories but excluding switch and fittings.	No.	19.00		-
	<b>Power Points</b>				
	<b>Switches:</b>				
6.109	1 gang 1 way switch	No.	5.00		-
	<b>Light fittings:</b>				
	Supply and install basic light fittings complete with lamps as per schedule of schedule of fittings:				
6.110	1 x 36W, 1200mm Surface Mounted batten Fluorescent Fitting as Thorn	No.	4.00		-
6.111	4 X18W Modular Fluorescent Fitting with ribbed Aluminium Louvre as Power Technics Aires	No.	8.00		-

6.112	28W 2D Circular White Body Opal Polycarbonate Difuser as Thorn Club	No.	3.00	-
6.113	28W 2D Square White Body Opal Polycarbonate Difuser as Thorn Panther	No.	4.00	-
	<b>Power Points:</b> Allow for supply, installation and commissioning of the following as specified:-  13 amp ringmain socket outlet points wired in 3 x 2.5sq.mm PVC insulated single core copper cables drawn in 20mm diameter HG PVC conduits concealed in the walls and floor slab, complete with all accessories but excluding the socket outlet plate.	No.	6.00	-
6.114				
6.115	Cooker circuit wired in 3 x 4.0 sq.mm PVC insulated single core copper cables drawn in 25mm diameter HG PVC conduits concealed in the walls and floor slab, complete with all accessories but excluding the cooker control unit.  Power point accessories  Allow for supply, installation and commissioning of the following accessories as specified below:-	No.	1.00	-
6.116	13 Amp twin switched moulded socket outlet plate flush mounted on wall as Crabtree AM 4306/D or approved equivalent.	No.	5.00	-
6.117	13 Amp single switched moulded socket outlet plate flush mounted on wall as Crabtree AM 4304/D or approved equivalent.	No.	1.00	-
6.118	45A DP cooker control Unit compete with 13 Amp switch socket outlet with iii neon indicator and face plate marked 'cooker' as Crabtree cat No. 4520/31 or approved equivalent.	No.	1.00	-
6.119	45A Cooker cable outlet point/plate bottom entry as Crabtree Cat No. 4506 or approved equivalent.	No.	1.00	-
	<b>DATA/ INTERCOM INSTALLATION CONDUIT WORKS ONLY</b>			
6.120	Final sub-circuits comprising 25mm diameter concealed heavy gauge PVC conduit complete with draw wires and all accessories and fittings	No.	2.00	-
6.121	RJ45 dual outlet as Crabtree	No.	2.00	-
6.122	(200x200x100)mm Galvanized steel box for Data cable entry	No.	1.00	-
<b>TOTAL CARRIED FORWARD TO SUMMARY SHEET</b>				-

**UMAA DAM AND WATER TREATMENT PLANT**

**CONTRACT No. ....NWHS/0IT/001/2023-2024**

**BILL NO. 6 --Electro-mechanical Works**

**BILL No. 6D. Staff Houses**

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE KES	AMOUNT
					KES
6.123	<b>Consumer Unit 'SA'</b> 6 way SP consumer unit with 100 Amps isolator. Mcbs, Hager EN 60898-1 to IEC 898 & 947.2	No.	1.00		-
6.124	10 Amps sp	No.	2.00		-
6.125	32 Amps sp	No.	2.00		-
6.126	20 Amps SP	No.	1.00		-
	<b>POWER DISTRIBUTION</b>				-
6.127	Multi-core (3C) 6mm <sup>2</sup> PVC/SWA/PVC armoured copper cable in conduit/floor ducts from the switchgear to CCU.	m	80.00		-
		m	80.00		-
	<b>Lighting Points</b>				
6.128	Lighting points wired in 3 x 1.5sq.mm PVC insulated single core copper cables drawn in 20mm diameter HG PVC conduits concealed in the walls and floor slab, one way switched complete with all accessories but excluding switch and fittings.	No.	16.00		-
	<b>Switches:</b>				
6.129	1 gang 1 way switch	No.	8.00		-
6.130	1 gang 2 way switch	No.	7.00		-
	<b>Light fittings:</b>				
	Supply and install basic light fittings complete with lamps as per schedule of schedule of fittings:				
6.131	1 x 36W, 1200mm Surface Mounted batten Fluorescent Fitting as Thorn	No.	1.00		-
6.132	4 X18W Modular Fluorescent Fitting with ribbed Aluminium Louvre as Power Technics Aires	No.	8.00		-
6.133	28W 2D Circular White Body Opal Polycarbonate Difuser as Thorn Club		2.00		-
6.134	60W Lamp Ceilig Rose with 3C-1mm sq pendant and holder	No.	3.00		-
6.135	60W Lamp Dpuble Arm Wooden Wall bracket	No.	4.00		-
6.136	28W 2D Square White Body Opal Polycarbonate Difuser as Thorn Panther	No.	3.00		-
	<b>Power Points:</b> Allow for supply, installation and commissioning of the following as specified:-				

6.137	13 amp ringmain socket outlet points wired in 3 x 2.5sq.mm PVC insulated single core copper cables drawn in 20mm diameter HG PVC conduits concealed in the walls and floor slab, complete with all accessories but excluding the socket outlet plate.Cooker circuit wired in 3 x 4.0 sq.mm PVC insulated single core copper	No.	6.00	-
6.138	cables drawn in 25mm diameter HG PVC conduits concealed in the walls and floor slab, complete with all accessories but excluding the cooker control unit.	No.	1.00	-
6.139	<b>Power point accessories</b> Allow for supply, installation and commissioning of the following accessories as specified below:- 13 Amp twin switched moulded socket outlet plate flush mounted on wall as Crabtree AM 4306/D or approved equivalent.	No.	4.00	-
6.140	13 Amp single switched moulded socket outlet plate flush mounted on wall as Crabtree AM 4304/D or approved equivalent.	No.	2.00	-
6.141	45A DP cooker control Unit compete with 13 Amp switch socket outlet with neon indicator and face plate marked 'cooker' as Crabtree cat No.4520/31 or approved equivalent.	No.	1.00	-
6.142	45A Cooker cable outlet point/plate bottom entry as Crabtree Cat No. 4506 or approved equivalent.	No.	1.00	-
6.143	<b>DATA/ INTERCOM INSTALLATION CONDUIT WORKS ONLY</b> Final sub-circuits comprising 25mm diameter concealed heavy gauge PVC conduit complete with draw wires and all accessories and fittings	No.	5.00	-
6.144	RJ45 dual outlet as Crabtree	No.	5.00	-
6.145	(200x200x100)mm Galvanized steel box for Data cable entry	No.	1.00	-
<b>TOTAL CARRIED FORWARD TO SUMMARY SHEET</b>				-

**UMAA DAM AND WATER TREATMENT PLANT**

**CONTRACT No. ....NWWSA/OIT/001/2023-2024**

**BILL NO. 6 --Electro-mechanical Works**

**BILL No. 6E. Administration and Staff Houses Mechanical**

ITEM No.	DESCRIPTION	UNIT	QTY	RATE (KSHS)	AMOUNT (KSHS)
A	<p><b>TREATMENT WORKS SITE</b></p> <p><b>ADMINISTRATION BUILDING</b></p> <p><b>SANITARY FITTINGS</b></p> <p><i>Supply, deliver and install the following appliances including their support brackets, screws etc. Where necessary items such as mastic, silicon, grouting etc. must be included in the rates. All connections to water supply, waste/soil drainage and electrical power supply are to be the responsibility of the contractor and must be priced for.</i></p> <p><b>NOTE: TRADE NAMES</b></p> <p>Where Trade Names are mentioned below, it is intended to indicate the level of quality required. The tenderer <u>MAY</u> supply alternatives which <u>must</u> be approved in writing by the Engineer.</p> <p><b>Water Closet Suites</b></p> <p>Twyfords Bathrooms Ltd's "Refresh HO close coupled RefNo.RE1148WH" white vitreouschina, low level wash-down action with open flushing rim WC pan with horizontal outlet and fixing screws. WC pan to be complete with close coupled cistern and fittings 6/4L dual flush push button cistern (ref. No. RE2996WH) and plastic single ring seat and cover with stainless steel hinges (Re No. RE7815WH). Cistern is to be complete with all fittings. WC to be complete with all fixing supports.</p>				
6.146	<p>WC "S" or "turned P" connector to drain pipe for horizontal outlet WC Pan as Twyfords Bathrooms Ltd Ref. No. WF 1241 WH.</p> <p><b>Bowl Urinal</b></p> <p>Back inlet bowl urinal white in colour, complete with touch-free electronic control, 9V Lithium battery with built in transformer, chrome plated, sensor cover and suitable for adjustable sensor range and flushing time. The bowl urinal to be as "Twyford, Idol" or equal and approved.</p>	No.	1.00		-
6.147	<p>WC "S" or "turned P" connector to drain pipe for horizontal outlet WC Pan as Twyfords Bathrooms Ltd Ref. No. WF 1241 WH.</p> <p><b>Bowl Urinal</b></p> <p>Back inlet bowl urinal white in colour, complete with touch-free electronic control, 9V Lithium battery with built in transformer, chrome plated, sensor cover and suitable for adjustable sensor range and flushing time. The bowl urinal to be as "Twyford, Idol" or equal and approved.</p>	No.	1.00		-
6.148	<p>Back inlet bowl urinal white in colour, complete with touch-free electronic control, 9V Lithium battery with built in transformer, chrome plated, sensor cover and suitable for adjustable sensor range and flushing time. The bowl urinal to be as "Twyford, Idol" or equal and approved.</p> <p><b>Wash Hand Basins</b></p>	No	1.00		-

6.149	<p>Twyford Bathrooms Ltd. Sef rimming Countertop white vitreous china "Refresh 550", 550 x 450 mm basin with 1No. centre taphole Ref. No. RE4561 WH, sealed to unit with silicone building sealant.</p> <p><b>WHB Accessories</b></p>	No.	1.00		-
6.150	<p>Twyford Bathrooms Ltd Sola chrome plated ½" push monobloc tap for cold water and 1½" pop-up waste.</p>	No.	1.00		-
6.151	<p>"Cobra Watertech" Ref. No. 308 chrome plated 1½" cast basin waste complete with 62mm diameter flange, 80mm long shank, chain &amp; plug.</p>	No.	1.00		-
6.152	<p>"Cobra Watertech" Ref. No. 340 chrome plated 1½" bottle trap with 75 mm deep seal and 200 mm long tail pipe, cap-nut and wall flange.</p> <p><b>Mirrors</b></p>	No.	1.00		-
6.153	<p>1200x750mm, 6 mm, thick plate rectangular-shaped glass mirror with bevelled edge boundary, plywood backing and concealed domed screws for installation.</p> <p><b>Robe Hook</b></p>	No.	1.00		-
6.154	<p>Satin Aluminium robe hook complete with screws as Twyford's Bathrooms Ltd Ref. No. PB0204SI fixed in the inside of every toilet door.</p> <p><b>Toilet Roll Holder</b></p>	No.	1.00		-
6.155	<p>Mediclinics' or equal and approved semi recessed wall-mounted toilet roll holder complete with mounting screws.</p>	No.	1.00		-
<b>Kitchen Sink &amp; Accessories</b>					
6.156	<p>Franke as Trendline 722 - 1500x535 DCB of Product Code: 312880 Single bowl, single drainer kitchen sink size 1500L x 535W mm and bowls size of 343L x 410W x146D mm in bright machine polish finish. The drainers shall be centred.</p>	No.	1.00		-
6.157	<p>"Bricon" Ref. No. 316 chrome plated heavy cast 1½" sink grid waste, 70 mm diameter flange, X52 Low Flow Kitchen Mono tap, 45 mm long shank, unslotted with plug, chain and backnut.</p>	No.	1.00		-
6.158	<p>"Cobra Watertech" Ref. No. 340 chrome plated 1½" bottle trap with 75 mm deep seal and 200 mm long tail pipe, cap-nut and wall flange.</p> <p><b>Soap Dispenser</b></p>	No.	1.00		-
6.159	<p>Mediclinics or equal and approved, impact resistant, heavy duty, liquid soap dispenser in stainless steel complete with initial charge, key and mounting brackets.</p> <p><b>Paper towel dispenser</b></p>	No.	1.00		-
6.160	<p>"Mediclinic DT0106CS" paper towel dispenser capacity 600 tissues stainless steel satin finish complete with fixing screws.</p> <p><b>Hand Dryer</b></p>	No.	1.00		-

6.161	Mediclinics or equal and approved 1.6kW automatic no-touch sensor operated, impact resistant, heavy duty hand dryer in stainless steel complete with mounting brackets, and electrical wiring from hand dryer to a power point provided by others.	No.	1.00	-
<b>Laboratory Sink</b>				
6.162	Twyford Bathrooms Ltd. Laboratory sink with flanged rim without overflow complete with waste hole rebated for acid-resistant waste fitting glazed all round and reversible, 420 x 3150 x 160 mm as Ref. No. FC1415 WH with 2No. centre taphole Ref. No. RE4561 WH, sealed to unit with silicone building sealant.	No.	1.00	-
<b>Laboratory Sink Accessories</b>				
6.163	Twyford Bathrooms Ltd Sola chrome plated ½" lever type Ref. SF2401CP.	No.	1.00	-
6.164	"Cobra Watertech" Ref. No. WF4353XX chrome plated 1½" Acid Resistant waste complete with 62mm diameter flange, 80mm long shank, chain & plug.	No.	1.00	-
6.165	"Cobra Watertech" Ref. No. 340 chrome plated 1½" bottle trap with 75 mm deep seal and 200 mm long tail pipe, cap-nut and wall flange.	No.	1.00	-
<b>INTERNAL PLUMBING (Cold water )</b>				
<i>Supply, deliver and install plastic PP-R 80 PN 16 pipes to specification.</i>				
<i>Tenderers must allow in their pipework prices for all the couplings, connectors, unions, nipples, sockets, endcaps, bridges, expansion loops, jointing materials etc. as required in the running lengths of pipework and also where necessary, for pipe fixing clips, collars,</i>				
<i>holderbats plugged and screwed, and pipe sleeves through structural members.</i>				
6.166	20 mm nominal diameter PPR-PN 16 pipe.	M	15.00	-
6.167	25 mm ditto	M	20.00	-
6.168	32 mm ditto	M	10.00	-
6.169	40 mm ditto	M	6.00	-

<b>Extra Over PP-R 80 fittings as follows:-</b>				
6.170	20 mm nominal diameter elbow, 90°/45°	No.	8.00	-
6.171	25 mm ditto	No.	8.00	-
6.172	32 mm ditto	No.	2.00	-
6.173	40 mm ditto	No.	1.00	-
6.174	20mm nominal diameter equal tee	No.	10.00	-
6.175	25 mm ditto	No.	5.00	-
6.176	32mm ditto	No.	3.00	-
6.177	40mm ditto	No.	2.00	-
6.178	20mm x ½" diameter PP-R male/female transition piece round/hexagonal.	No.	8.00	-
6.179	25mm x ¾" ditto	No.	6.00	-

6.180	32mm x 1" ditto	No.	2.00		-
6.181	40x32mm ditto	No.	1.00		-
6.182	25x20mm nominal diameter PP-R reducing piece.	No.	6.00		-
6.183	32x20mm ditto	No.	2.00		-
6.184	32x25mm ditto	No.	2.00		-
6.185	40x25mm ditto	No.	1.00		-
6.186	40x32mm ditto	No.	1.00		-
	<b>Gate Valves</b>				
6.187	20 mm diameter high pressure screw-down fullway non-rising stem, solid wedge disc "Pegler"	No.	2.00		-
6.188	gate valve with wheel head and joints to steel tubing complete with matching diameter GMS union.	No.	2.00		-
6.189	25mm diameter ditto	No.	3.00		-
6.190	32mm diameter ditto	No.	1.00		-
6.191	40mm diameter ditto	No.	1.00		-
	<b>Angle Regulating Valves</b>				
6.192	½" Chrome plated angle regulating valve with 350 mm long service connection.	No.	7.00		-
6.193	Allow for sterilization of plumbing system with chlorine.	Item	1.00		-
	<b>FOUL WATER DRAINAGE</b>				
	<i>Supply and fix uPVC soil system and MuPVC waste systems with screwed and socketed joints Solvent welded joints shall be as per the systems manufacturer's written instructions.</i>				
	<i>Tenderers must allow in their pipework prices for all the couplings, connectors, joints etc as required in the running lengths of pipework and also where necessary, for pipe fixing clips, holderbats plugged and screwed and for any associated builder's work such as sleeves, plastering, cutting, chasing, drilling, making good etc.</i>				
	<b>The installation must comply with BS EN 12056 MuPVC Waste System Heavy Duty Pipework</b>				
6.194	32 mm diameter waste pipe	M	10.00		-
6.195	40 mm ditto	M	8.00		-
6.196	50 mm ditto	M	20.00		-
6.197	100 mm ditto	M	25.00		-

	<b>Extra Over MuPVC Waste Pipework for the following:-</b>				
6.198	32 mm diameter 90°/135° Sweep Bend	No.	5.00		-
6.199	40 mm ditto	No.	7.00		-
6.200	50 mm ditto	No.	3.00		-
6.201	32 mm diameter 90°/135° Sweep Tee	No.	3.00		-
6.202	40mm ditto	No.	3.00		-
6.203	50mm ditto	No.	5.00		-
6.204	40 x 32 mm diameter Socket Reducer	No.	4.00		-
6.205	50 x 40 mm ditto	No.	3.00		-
6.206	32 mm diameter Access Plug	No.	4.00		-
6.207	40 mm ditto	No.	3.00		-
6.208	50 mm ditto	No.	5.00		-
6.209	100 mm diameter Trapped Floor Gulley with cover, 3				

	No. 40 mm diameter inlets and 50 mm diameter outlet.	No.	3.00		-
	<b>uPVC Soil System Heavy Duty Pipework</b>				
6.210	100 mm diameter Soil Pipe	M	15.00		-
	<b>Extra Over uPVC Soil Pipework for the following: -</b>				
6.211	100 x 50 mm diameter Boss Connector	No.	5.00		-
6.212	100 x 40 mm ditto	No.	3.00		-
6.213	100mm diameter Single Branch Tee.	No.	3.00		-
6.214	100mm diameter access cap	No.	3.00		-
6.215	100mm diameter Short Radius bend.	No.	6.00		-
6.216	100 mm diameter Weathering Apron, Cowl & weathering slate.	No.	2.00		-
	<b>uPVC Buried Drain System Heavy Duty Pipework</b>				
6.217	100 mm diameter Golden Brown Buried Drain Pipe.	M	20.00		-
6.218	Allow excavation, concreting to Class 1:3:6, walling 150 mm thick solid concrete block walls with 1:3 mortar and plastering to 1:2, Medium duty Rectangular Cover and Frame to specification for manhole not exceeding 1500 mm depth.	No.	2.00		-
	<b>Gulley traps</b>				
6.219	Masonry gulley trap complete with golden brown UPVC P-Trap with seal drain and concrete cover	No.	3.00		-
	<b>Excavation</b>				
6.220	Excavate trench for buried drain pipes not exceeding 1000 mm and average 750 mm deep, part return, fill in, ram and remainder cart away (Final ground finish is to Architect's specification).	M	35.00		-
6.221	Allow for 150mm concrete surround for new 100mm UPVC pipe passing across roads / hard stand areas. Concrete surround to be complete with sleeve to ensure drainage pipe is not embedded in concrete.	M	35.00		-
6.222	Allow for connection of new drainage pipework into new septic tank	Item	1.00		-

	<b>PORTABLE FIRE EQUIPMENT</b>				
	<b>CO<sub>2</sub> Fire Extinguishers</b>				
	5 kg Carbon Dioxide Steel Stored pressure gas fire extinguishers conforming to BS EN 3 complete with:-				
6.223	- charge and fixing bracket - pictorial instructions - colour coding to BS 7863 - discharge horn and hose. - pressure indicator	No.	2.00		-
	<b>Dry Powder Fire Extinguishers</b>				
	9kg Cartridge operated dry powder fire extinguisher manufactured to BS EN 3 complete with:-				
6.224	- charge and fixing bracket - pictorial instructions - colour coding to BS 7863 - discharge nozzle and hose	No.	2.00		-
	<b>Fire Blankets</b>				

6.225	1210 x 1210mm Fire Blankets in woven fibreglass material to be installed in kitchen.	No.	2.00	-
6.226	<b>Fire Signs</b> Allow for inscription of the words 'FIRE POINT' in 80mm high letters to Architect's approval	No.	1.00	-

B	<b>STAFF HOUSE (TREATMENT WORKS SITE)</b>  <b>SANITARY FITTINGS</b> <i>Supply, deliver and install the following appliances including their support brackets, screws etc. Where necessary items such as mastic, silicon, grouting etc. must be included in the rates. All connections to water supply, waste/soil drainage and electrical power supply are to be the responsibility of the contractor and must be priced for.</i>  <b>NOTE: TRADE NAMES</b> Where Trade Names are mentioned below, it is intended to indicate the level of quality required. The tenderer <u>MAY</u> supply alternatives which <u>must</u> be approved in writing by the Engineer.  <b>Water Closet Suites</b>  Close-coupled water closet suite in approved colour complete with horizontal outlet to BS 3402 with 7.5 litre valveless ceramic cistern and fittings including siphon,15mm diameter bottom inlet ball valve, 20mm diameter side overflow, plastic flush bend, inlet connection, dual- flush system with push button and heavy plastic seat and cover with chrome plated hinges. As Sona or approved equivalent.  WC "S" or "turned P" connector to drain pipe for horizontal outlet WC Pan as Twyfords Bathrooms Ltd Ref. No. WF 1241 WH.  <b>Wash Hand Basins</b>  Pedestal wash hand basin size 635 x 500mm with one tap hole, 32mm diameter chrome plated chain waste, chain stay hole, pedestall and chrome plated bottle trap (32mm 'P' trap) with 75mm seal. All to be as Sona or equal and approved.  Cobra chrome plated ½" push monobloc tap for cold water  <b>Mirrors</b> 600x450mm, 6 mm, thick plate rectangular-shaped glass mirror with bevelled edge boundary, plywood backing and concealed domed screws for installation.				
6.227		No.	2.00	-	
6.228		No.	2.00	-	
6.229		No.	2.00	-	
6.230		No.	2.00	-	
6.231		No.	2.00	-	

6.232	<b>Robe Hook</b> Chrome plated robe hook mounted with concealed screws. To be as Nova or equal and approved.	No.	2.00	-
6.233	<b>Toilet Roll Holder</b> Chrome plated robe hook mounted with concealed screws. To be as Nova or equal and approved.	No.	2.00	-
	<b>Kitchen Sinks &amp; Accessories</b>			
6.234	Single bowl single drainer stainless steel kitchen sink of size 1000 x 600mm as manufactured by ASL or equal and approved. The bowl size to be 430 x 420 x 250mm deep complete with chrome plated 40mm waste fittings, plugs, chain stays, overflow, 1No. 15mm diameter chrome plated sink mixer as Cobra model, chrome plated bottle trap with 75mm deep seal and chain waste fitting.	No.	2.00	-
6.235	<b>Shower Fittings</b> Shower complete with concealed shower stop corks, shower arm, chrome plated bib tap and other necessary fittings & accessories. All to be as Sterling, or equal and approved.	No.	2.00	-
6.236	<b>Soap Holder</b> Recessed built in soap tray in Vitreous China of size: 165 x 150mm in approved colour as Nova or equal and approved.	No.	2.00	-
6.237	<b>Towel rail</b>  Chrome plated 20mm diameter x 600mm long double towel rail and brackets as one piece, plugged and screwed into the wall. The fitting shall be as Nova or equal and approved.	No.	2.00	-
	<b>INTERNAL PLUMBING (Cold water )</b>			
	<i>Supply, deliver and install plastic PP-R 80 PN 16 pipes to specification.</i>			
	<i>Tenderers must allow in their pipework prices for all the couplings, connectors, unions, nipples, sockets, endcaps, bridges, expansion loops, jointing materials etc. as required in the running lengths of pipework and also where necessary, for pipe fixing clips, collars, holderbats plugged and screwed, and pipe sleeves through structural members.</i>			
6.238	20 mm nominal diameter PPR-PN 16 pipe.	M	28.00	-
6.239	25 mm ditto	M	36.00	-
6.240	32 mm ditto	M	15.00	-
6.241	<b>Extra Over PP-R fittings as follows:-</b>			
6.242	20 mm nominal diameter elbow, 90°/45°	No.	20.00	-
6.243	25 mm ditto	No.	10.00	-

6.244	32 mm ditto	No.	10.00	-
6.245	20mm nominal diameter equal tee	No.	10.00	-
6.246	25 mm ditto	No.	6.00	-
6.247	32mm ditto	No.	5.00	-
6.248	20mm x ½" diameter PP-R male/female transition piece round/hexagonal.	No.	18.00	-
6.249	25mm x ¾" ditto	No.	15.00	-
6.250	32mm x 1" ditto	No.	6.00	-
6.251	40x32mm ditto	No.	3.00	-
6.252	25x20mm nominal diameter PP-R reducing piece.	No.	5.00	-
6.253	32x20mm ditto	No.	3.00	-
6.254	32x25mm ditto	No.	3.00	-
	<b>Gate Valves</b>			
6.255	25 mm diameter high pressure screw-down fullway non-rising stem, solid wedge disc "Pegler" gate valve with wheel head and joints to steel tubing complete with matching diameter GMS union.	No.	3.00	-
	<b>Angle Regulating Valves</b>			
6.256	½" Chrome plated angle regulating valve with 350 mm long service connection.	No.	9.00	-
6.257	Allow for sterilization of plumbing system with chlorine.	Item	1.00	-
	<b>FOUL WATER DRAINAGE</b>			
	<b>Supply and fix uPVC soil system and MuPVC waste systems with screwed and socketed joints</b>			
	<b>Solvent welded joints shall be as per the systems manufacturer's written instructions.</b>			
	<b><u>Tenderers must allow in their pipework prices for all the couplings, connectors, joints etc as required in the running lengths of pipework and also where necessary, for pipe fixing clips, holderbats plugged and screwed and for any associated builder's work such as sleeves, plastering, cutting, chasing, drilling, making good etc.</u></b>			
	<b><u>The installation must comply with BS EN 12056 MuPVC Waste System Heavy Duty Pipework</u></b>			
6.258	32 mm diameter waste pipe	M	12.00	-
6.259	50 mm ditto	M	15.00	-
6.260	100 mm ditto	M	25.00	-
	<b>Extra Over MuPVC Waste Pipework for the following:-</b>			
6.261	32 mm diameter 90°/135° Sweep Bend	No.	8.00	-
	50 mm ditto	No.	10.00	-
	<b>uPVC Soil System Heavy Duty Pipework</b>			
6.262	100 mm diameter Soil Pipe	M	15.00	-

6.263	<b>uPVC Buried Drain System Heavy Duty Pipework</b> 100 mm diameter Golden Brown Buried Drain Pipe.	M	22.00		-
6.264	<b>Inspection Chambers</b> Allow excavation, concreting to Class 1:3:6, walling 150 mm thick solid concrete block walls with 1:3 mortar and plastering to 1:2, Medium duty Rectangular Cover and Frame to specification for manhole not exceeding 1500 mm depth.	No.	3.00		-
6.265	<b>Gulley traps</b> Masonry gulley trap complete with golden brown UPVC P-Trap with seal drain and concrete cover	No.	3.00		-
6.266	<b>Excavation</b> Excavate trench for buried drain pipes not exceeding 1000 mm and average 750 mm deep, part return, fill in, ram and remainder cart away (Final ground finish is to Architect's specification).	M	30.00		-
6.267	Allow for 150mm concrete surround for new 100mm UPVC pipe passing across roads / hard stand areas. Concrete surround to be complete with sleeve to ensure drainage pipe is not embedded in concrete.	M	30.00		-
6.268	Allow for connection of new drainage pipework into new septic tank	Item	1.00		-
	<b>RAIN WATER DRAINAGE</b>				-
	<b><u>Supply and fix uPVC rain water system with solvent welded, seal ring or dry joints to manufacturer's instruction.</u></b>				-
6.269	100mm diameter PVC rainwater downpipe.	M	20.00		-
	<b>Extra Over uPVC Rainwater Pipework for the following:</b> -				-
6.270	100mm diameter uPVC fulbora rainwater outlet complete with dome type grating, flange, raising ring, adaptor and other accessories including connecting to steel downpipe.	No.	8.00		-
6.271	100mm diameter 90°/135° Bend	No.	4.00		-
6.272	100mm diameter sweep tee	No.	8.00		-
6.273	100mm diameter access cap	No.	4.00		-
	<b>PUMP ROOM WASHROOM SANITARY FITTINGS</b>				

	<p><i>Supply, deliver and install the following appliances including their support brackets, screws etc. Where necessary items such as mastic, silicon, grouting etc. must be included in the rates. All connections to water supply, waste/soil drainage and electrical power supply are to be the responsibility of the contractor and must be priced for.</i></p> <p><b>NOTE: TRADE NAMES</b></p> <p><i>Where Trade Names are mentioned below, it is intended to indicate the level of quality required. The tenderer MAY supply alternatives which <u>must</u> be approved in writing.</i></p> <p><b>Water Closet Suites</b></p> <p>Close-coupled water closet suite in approved colour complete with horizontal outlet to BS 3402 with 7.5 litre valveless ceramic cistern and fittings including siphon, 15mm diameter bottom inlet ball valve, 20mm diameter side overflow, plastic flush bend, inlet connection, dual-flush system with push button and heavy plastic seat and cover with chrome plated hinges.</p> <p>As Sona or approved equivalent.</p>				
6.274		No.	1.00	-	-
6.275	<p>WC "S" or "turned P" connector to drain pipe for horizontal outlet WC Pan as Twyford Bathrooms Ltd Ref. No. WF 1241 WH.</p> <p><b>Wash Hand Basins</b></p> <p>Pedestal wash hand basin size 635 x 500mm with one tap hole, 32mm diameter chrome plated chain waste, chain stay hole, pedestal. All to be as Sona or equal and approved.</p> <p><b>WHB Accessories</b></p> <p>"Cobra Watertech" Ref. No. 308 chrome plated 1½" cast basin waste complete with 62mm diameter flange, 80mm long shank, chain &amp; plug.</p> <p>"Cobra Watertech" Ref. No. 340 chrome plated 1½" bottle trap with 75 mm deep seal and 200 mm long tail pipe, cap-nut and wall flange.</p> <p><b>Mirrors</b></p> <p>650x450mm, 6 mm, thick plate rectangular-shaped glass mirror with bevelled edge boundary, plywood backing and concealed domed screws for installation.</p> <p><b>Robe Hook</b></p> <p>Chrome plated robe hook mounted with concealed screws. To be as Nova or equal and approved.</p> <p><b>Toilet Roll Holder</b></p> <p>Chrome plated robe hook mounted with concealed screws. To be as Nova or equal and approved.</p>	No.	1.00	-	-
6.276		No.	1.00	-	-
6.277		No.	1.00	-	-
6.278		No.	1.00	-	-
6.279		No.	1.00	-	-
6.280		No.	1.00	-	-
6.281		No.	1.00	-	-

## INTERNAL PLUMBING (Cold water )

	<b>Supply, deliver and install plastic PP-R 80 PN 16 pipes to specification.</b>			
	Tenderers must allow in their pipework prices for all the couplings, connectors, unions, nipples, sockets, endcaps, bridges, expansion loops, jointing materials etc. as required in the running lengths of pipework and also where necessary, for pipe fixing clips, <u>collars, holderbats plugged and screwed, and pipe sleeves through structural</u>			
	members.			
6.282	20 mm nominal diameter PPR-PN 16 pipe.	M	6.00	-
6.283	32 mm ditto	M	6.00	-
	<b>Extra Over PP-R fittings as follows:-</b>			-
6.284	20 mm nominal diameter elbow, 90°/45°	No.	2.00	-
6.285	32 mm ditto	No.	2.00	-
6.286	20mm nominal diameter equal tee	No.	1.00	-
6.287	32mm ditto	No.	1.00	-
6.288	40mm ditto	No.	1.00	-
6.289	20mm x ½" diameter PP-R male/female transition piece round/hexagonal.	No.	2.00	-
6.290	32mm x 1" ditto	No.	1.00	-
6.291	32x20mm nominal diameter PP-R reducing piece.	No.	2.00	-
	<b>Gate Valves</b>			-
				-
6.292	20 mm diameter high pressure screw-down fullway non-rising stem, solid wedge disc "Pegler" gate valve with wheel head and joints to steel tubing complete with matching diameter GMS union.	No.	1.00	-
				-
	<b>Angle Regulating Valves</b>			-
6.293	½" Chrome plated angle regulating valve with 350 mm long service connection.	No.	2.00	-
6.294	Allow for sterilization of plumbing system with chlorine.	Item	1.00	-
	<b>FOUL WATER DRAINAGE</b>			-
	Supply and fix uPVC soil system and MuPVC waste systems with screwed and socketed joints			-
	Solvent welded joints shall be as per the systems manufacturer's written instructions.			-
				-
	Tenderers must allow in their pipework prices for all the couplings, connectors, joints			-
	etc as required in the running lengths of pipework and also where necessary, for pipe			-
	fixing clips, holderbats plugged and screwed and for any associated builder's work			-
	such as sleeves, plastering, cutting, chasing, drilling, making good etc.			-
	The installation must comply with BS EN 12056			-
	MuPVC Waste System Heavy Duty Pipework			-

6.295	32 mm diameter waste pipe	M	6.00		-
6.296	50 mm ditto	M	6.00		-

	<b>Extra Over MuPVC Waste Pipework for the following:-</b>				
6.297	32 mm diameter 90°/135° Sweep Bend	No.	3.00		-
6.298	50 mm ditto	No.	3.00		-
6.299	32 mm diameter 90°/135° Sweep Tee	No.	1.00		-
6.300	50mm ditto	No.	3.00		-
6.301	50 x 32 mm diameter Socket Reducer	No.	1.00		-
6.302	50 x 40 mm ditto	No.	2.00		-
6.303	32 mm diameter Access Plug	No.	1.00		-
6.304	100 mm diameter Trapped Floor Gulley with cover, 3 No. 40 mm diameter inlets and 50 mm diameter outlet.	No.	1.00		-
	<b>uPVC Soil System Heavy Duty Pipework</b>				-
6.305	100 mm diameter Soil Pipe	M	6.00		-
	<b>Extra Over uPVC Soil Pipework for the following: -</b>				-
6.306	100 x 50 mm diameter Boss Connector.	No.	1.00		-
6.307	100mm diameter Single Branch Tee.	No.	1.00		-
6.308	100mm diameter access cap.	No.	1.00		-
6.309	100mm diameter Short Radius bend.	No.	1.00		-
6.310	100 mm diameter Weathering Apron, Cowl & weathering slate.	No.	1.00		-
	<b>uPVC Buried Drain System Heavy Duty Pipework</b>				-
6.311	100 mm diameter Golden Brown Buried Drain Pipe.	M	6.00		-
	<b>Inspection Chambers</b>				-
6.312	Allow excavation, concreting to Class 1:3:6, walling 150 mm thick solid concrete block walls with 1:3 mortar and plastering to 1:2, Medium duty				-
6.313	Rectangular Cover and Frame to specification for manhole not exceeding 1500 mm depth.	No.	1.00		-
	<b>Gulley traps</b>				-
6.314	Masonry gulley trap complete with golden brown UPVC P-Trap with seal drain and concrete cover	No.	1.00		-
	<b>Excavation</b>				-
6.315	Excavate trench for buried drain pipes not exceeding 1000 mm and average 750 mm deep, part return, fill in, ram and remainder cart away (Final ground finish is to Architect's specification).	M	10.00		-
6.316	Allow for 150mm concrete surround for new 100mm UPVC pipe passing across roads / hard stand areas. Concrete surround to be complete with sleeve to ensure drainage pipe is not embedded in concrete.	M	10.00		-
6.317	Allow for connection of new drainage pipework into new or existing septic tank	Item	1.00		-

## RAIN WATER DRAINAGE

Supply and fix uPVC rain water system with solvent welded, seal ring or dry joints to

manufacturer's instruction.

6.318	100mm diameter PVC rainwater downpipe. <b>Extra Over uPVC Rainwater Pipework for the following:</b> -	M	5.00		-
6.319	100mm diameter uPVC fulbora rainwater outlet complete with dome type grating, flange, raising ring, adaptor and other accessories including connecting to steel downpipe.	No.	2.00		-
6.320	100mm diameter 90°/135° Bend	No.	2.00		-
6.321	100mm diameter sweep tee	No.	2.00		-
6.322	100mm diameter access cap	No.	1.00		-
<b>TOTAL CARRIED FORWARD TO SUMMARY SHEET</b>					-

**UMAA DAM AND WATER TREATMENT PLANT**

**CONTRACT No. ....NWHS/01T/001/2023-2024**

**BILL NO. 6 --Electro-mechanical Works  
BILL No. 6F. Dam Intake Tower and Tunnel Lighting, Mechanical**

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE KES	AMOUNT KES
	<b>FRESH AND EXHAUST AIR FANS</b>				
	Supply and installation of fresh, extract air fans including metal mesh, painted steel bases & all required accessories.				
6.323	Supply fans 3.5 cubic metres per hour against 2.5 Bars	No.	3.0		-
6.324	Extraction fans 2 cubic metres per hour against 1.5 Bars	No.	3.0		-
	<b>METAL DUCTS</b>				-
	<b>Duct construction to be done according to specifications as "SMACNA" duct construction standards</b>				-
	Supply and installation of ventilation metal sheet rectangular air ducts, including seams, joints, hangers, supports, turning vanes, elbows and transformation complete with duct sealants and flexible connections (duct sealant and flexible connections to be fire rated where needed) and all necessary accessories all as specified and shown on drawings.				-
6.325	Galvanized steel duct for ventilation system.	m2	471.0		-
	<b>DUCT ACOUSTIC LINING</b>				-
6.326	Supply, Install, Test and Commissioning internal duct acoustic lining of fiber glass of 24kg/m3 and 25mm thickness C/W all the required fittings, materials and accessories.	m2	150.0		-
	<b>DUCT ACCESSORIES</b>				-
	Supply and installation of volume dampers, all as specified and shown on drawings.				-
6.327	Size 400x200mm.	No.	6.0		-
	<b>FLEXIBLE DUCT CONNECTION</b>				-
6.328	Supply and installation of metal-pvc-metal flexible duct connection, complete with all necessary accessories.	m	12.0		-
	<b>WASHABLE AIR FILTER</b>				-
	Supply and installation of washable Aluminum filter 2" thickness, and all necessary accessories.				-
6.329	Size 1000 x 1000mm	No.	2.0		-
	<b>AIR GRILLES</b>				-
	<b>SUPPLY &amp; RETURN AIR GRILES</b>				-

	Supply Square Ceiling air diffuser complete with all fixings and accessories.				-
6.330	SG-1 size 150x400mm.	No.	37.0		-
6.331	EG-1 size 150x300mm.	No.	14.0		-
	<b>FIRE &amp; SMOKE DAMPERS</b>				-
	Motorized fire & smoke damper complete with all fixings and accessories.				-
6.332	MFD size 320x440mm.	No.	37.0		-
	<b>POWER DISTRIBUTION</b>				
	<b>Distribution Board 'D'</b>				
6.333	8 way TPN DB with 40 Amps MCB isolator.	No.	1.0		-
	Mcbs, Hager EN 60898-1 to IEC 898 & 947.2				-
6.334	10 Amps sp	No.	2.0		-
6.335	32 Amps sp	No.	4.0		-
6.336	32 Amps TP	No.	6.0		-
	<b>Lighting Points</b>				-
6.337	Lighting points wired in 3C, 1.5sq.mm PVC insulated flexible copper cables a drawn in 20mm diameter surface run pvc conduits, two way switched complete with all accessories but excluding switch and fittings.	No.	35.0		-
	<b>Switches:</b>				-
6.338	1 gang 1 way switch	No.	3.0		-
6.339	1 gang 2 way switch	No.	6.0		-
	<b>Light fittings:</b>				-
	Supply and install basic light fittings complete with lamps as per schedule of schedule of fittings:				-
6.340	2X58W, 1500mm fluorescent fitting surface Mounted with IP 64 Prismatic diffuser as Thorn Aquaproof with Emmergency Kit	No.	16.0		-
6.341	40W, 1200mm surface Mounted LED fitting with IP 64 Prismatic diffuser for tunnel lighting to approval	No.	30.0		-
	<b>Power Points:</b>				-
	Allow for supply, installation and commissioning of the following as specified:-				-
6.342	13 amp ringmain socket outlet points wired in 3C 2.5sq.mm PVC insulate flexiblecopper cables drawn in 25mm diameter surface run pvc conduits , complete with all accessories but excluding the socket outlet plate.	No.	15.0		-
	<b>Power point accessories</b>				-
	Allow for supply, installation and commissioning of the following accessories as specified below:-				-

6.343	13 Amp twin switched moulded socket outlet plate flush mounted on wall as Crabtree or approved equivalent.	No.	13.0		-
6.344	13 Amp single switched moulded socket outlet plate flush mounted on wall as Crabtree AM 4304/D or approved equivalent	No.	2.0		-
<b>TOTAL CARRIED FORWARD TO SUMMARY SHEET</b>					-

**UMAA DAM AND WATER TREATMENT PLANT**

**CONTRACT No. ....NWWSA/OIT/001/2023-2024**

**BILL NO. 6 --Electro-mechanical Works**

**BILL No. 6G. Stand-by Generator**

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE KES	AMOUNT KES
6.345	<b>GENERATOR INSTALLATION</b> <b>100KVA, 400/230V 50HZ GENERATOR SET</b> <b>NOTE: The underlisted information should accompany the tender returned:-</b>  a) Company profile and Bronchures of GENERATOR model offered detailing all the features of intrerest and reference sites of similar installation. Where the bronchure contains different models and sizes of generators, the bidders MUST clearly mark out the model and size of generator they intend to offer by using a 'mark pen'. <b>SUPPLY, DELIVERY, INSTALLATION COMMISSION AND MAINTAIN FOR A PERIOD OF TWELVE MONTHS OF 1 NO. 100 KVA 400V 50Hz SOUND PROOFED PRIME RATED GENERATOR</b> Supply and fix Diesel Engine Standby Generator set with standby rating of 100KVA, 400/230V, 50HZ, 3 phase c/w Automatic Changeover switch, Control panel with Digital Display, instrumentation, hours run recorder, base tank for 8 hour operationweather proof and sound attenuation canopy, heavy duty battery, attachments and accessories as Perkins or Cummins . The Generator to have a Base Tank with of capacity 200 Litres complete with Fuel Level Gauge a) Original manufacturer's Installation, Operation and Maintenance b) Manuals are to accompany the tender c) Emmergency stop button mounted on enclosure exterior d) Warranty for atleast one year e) Testing and Commissioning the Set f) Earth the Generator Set as per Code of Practice and IEE Regulations, as to achieve an earth resistance value of not more than 1.0 ohm.	No.	1		-
6.346	Sub-mains cables comprising wiring in 4C 70 mm <sup>2</sup> insulated PVC /SWA/PVC copper cables from The Generator to The Main LV Switch Board at the Power Room.	M	30		-
6.347	Control cables comprising wiring in 4C 2.5 mm <sup>2</sup> insulated PVC /SWA/PVC copper cables.	M	30		-
6.348	Trenching, laying sifting, tiling and back-filling for the cables.	M	25		-
<b>TOTAL CARRIED FORWARD TO SUMMARY SHEET</b>					-

**UMAA DAM AND WATER TREATMENT PLANT**

**CONTRACT No. ....NWHSA/OIT/001/2023-2024**

**BILL NO. 7 Daywork Schedule**

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE (Kshs)	AMOUNT (Kshs)
<b>1.1</b>	<b>LABOUR</b>  The rates inserted hereafter should include all such costs as insurance, travel time, overtime expenses, accomodation, use and maintenance of small tools of trade, Contractors overheads and profit. Only time engaged upon work instructed by the Engineer under this Bill will be paid for.				
1.1.1	Unskilled labour	hr	400.00		-
1.1.2	Foreman	hr	45.00		-
1.1.3	Driver	hr	75.00		-
1.1.4	Mason	hr	75.00		-
1.1.5	Carpenter	hr	50.00		-
1.1.6	Plumber	hr	25.00		-
1.1.7	Electrician	hr	50.00		-
1.1.8	Plant Operator	hr	100.00		-
1.1.9	Supervisor	hr	50.00		-
1.1.10	Pipelayer	hr	100.00		-
1.1.11	Painter	hr	50.00		-
1.1.12	Concretor	hr	100.00		-
1.1.13	Technician	hr	50.00		-
1.1.14	Watchman	hr	150.00		-
<b>TOTAL FOR LABOUR CARRIED TO BILL No. 1</b>					<b>-</b>
<b>1.2</b>	<b>MATERIALS</b>  Materials shall comply with the relevant Technical Specifications and shall be subject to the approval of the Resident Engineer. The rate to include for delivery, storage, handling, Contractor's overheads, etc.				
1.2.1	Building sand	ton	100.00		-
1.2.2	Ordinary portland cement in 50 kg bags	No.	500.00		-
1.2.3	Fine aggregate	ton	100.00		-
1.2.4	Coarse aggregate	ton	100.00		-
1.2.5	150mm Blockwork	m <sup>2</sup>	100.00		-
1.2.6	200mm Blockwork	m <sup>2</sup>	100.00		-
1.2.7	Reinforcement fabric mesh.	m <sup>2</sup>	250.00		-
1.2.8	Reinforcement steel.	ton	10.00		-
1.2.9	Concrete Class 25	m3	50.00		-

1.2.10	Imported Fill	m3	400.00		-
1.2.11	Hardcore	m3	50.00		-
1.2.12	Formwork	m <sup>2</sup>	250.00		-
1.2.13	Petrol	L	500.00		-
1.2.14	Diesel	L	250.00		-
1.2.15	Lubricants	L	100.00		-
1.2.16	Epoxy Paint	L	100.00		-
1.2.17	Emulsion Paint	L	100.00		-
1.2.18	Gloss Paint	L	50.00		-
1.2.19	Wrought Finish Formwork	m <sup>2</sup>	250.00		-
1.2.20	Smooth Finish Formwork	m <sup>2</sup>	250.00		-
1.2.21	DN400 Gate Valve	No.	1.00		-
1.2.22	DN500 Gate Valve	No.	1.00		-
<b>TOTAL FOR MATERIALS CARRIED TO BILL No. 1</b>					<b>-</b>
<b>1.3</b>	<b><u>EQUIPMENT</u></b>				
	Rates to include for all operation and maintenance of equipment, cost of fueling and lubrication, etc.				
1.3.1	Excavator	hr	50.00		-
1.3.2	Dozer 70Kw	hr	50.00		-
1.3.3	Grader Tractor	hr	100.00		-
1.3.4	Mobile generator 15 kVA	hr	200.00		-
1.3.5	4 WD Pickup 1 tonne	hr	200.00		-
1.3.6	Concrete mixer type 5/3.5	hr	50.00		-
1.3.7	Concrete dumper 0.5 cu.m.	hr	50.00		-
1.3.8	Concrete vibrator poker type N.D. 50 mm	hr	50.00		-
1.3.9	Dewatering pump 50mm dia suction end	hr	120.00		-
1.3.10	Air Compressor (5,000 l/min)	hr	500.00		-
1.3.11	Tipper Truck 7 tonne	hr	50.00		-
1.3.12	Tipper Truck 15 tonne	hr	50.00		-
1.3.13	Oxy-acetylene cutting and welding set including oxygen and acetylene gases.	hr	50.00		-
1.3.14	Electrical welding set including electrodes	hr	50.00		-
<b>TOTAL FOR EQUIPMENT CARRIED TO BILL No. 1</b>					<b>-</b>

**APPENDIX A: RESIDENT ENGINEER AND STAFF HOUSES FURNITURE AND EQUIPMENT**

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE (KES)	AMOUNT (KES)
	<b>FURNITURE</b>				
1	Kitchen table (Formica top)	Nr	12.00		-
2	Kitchen chairs	Nr	12.00		-
3	Dining table	Nr	12.00		-
4	Dining chairs	Nr	72.00		-
5	Settee – 5 Seater	Nr	12.00		-
6	Coffee tables	Nr	12.00		-
7	Beds double 6ft x 6ft with inner spring mattresses	Nr	24.00		-
8	Pillows	Nr	48.00		-
9	Writing desk with lockup	Nr	12.00		-
10	Dressing tables with mirrors	Nr	12.00		-
11	Dressing table stools	Nr	12.00		-
12	Chest of drawers	Nr	24.00		-
13	Bedside chairs	Nr	24.00		-
14	Bathroom mirror	Nr	12.00		-
	<b>EQUIPMENT</b>				
15	Refrigerator (at least 19 cu. ft.) including a freezer compartment of about 3 cu. ft. capacity	Nr	1.00		-
16	Refrigerator (at least 7 cu. ft.) including a freezer compartment	Nr	12.00		-
17	Electric & gas cooker with 4 burners, a grill and an oven	Nr	12.00		-
18	Water filter (hot and cold dispenser)	Nr	12.00		-
19	Dust bin	Nr	12.00		-
20	Door mats	Nr	12.00		-
21	Fire extinguisher (CO <sub>2</sub> )	Nr	12.00		-
22	Standard lamps	Nr	12.00		-
23	Toilet tissue holders	Nr	12.00		-
24	Waste baskets	Nr	12.00		-
25	Mixer electric (portable)	Nr	12.00		-
26	Bedside lights	Nr	12.00		-
27	Curtain rods	Nr	50.00		-
28	Built in Wardrobe (Full length)	Nr	30.00		-
29	Curtains for the house (set)	Nr	50.00		-
<b>Total Carried Forward to P&amp;G Item 1.7</b>					<b>-</b>

**APPENDIX B: RESIDENT ENGINEER'S OFFICE FURNITURE AND EQUIPMENT**

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE (KES)	AMOUNT (KES)
	<b>FURNITURE</b>				

	Ownership to revert to the Employer upon completion of contract.				
1	Desk 2.2m x 0.9m with chair and 3 No. lockup drawers	Nr	8.00		-
2	Office tables 2.2m x 0.9m	Nr	2.00		-
3	Swivel orthopedic chairs	Nr	8.00		-
4	Standard chairs	Nr	7.00		-
5	3m long bench with cushioned backrest (located as directed)	Nr	2.00		-
6	Typist's desk	Nr	1.00		-
7	Typist's chair	Nr	1.00		-
8	Stationery cupboard, 1.2m³, lockable	Nr	2.00		-
10	Steel filing cabinet, 4 lockable drawers	Nr	2.00		-
11	Conference table with 16 chairs	Nr	1.00		-
12	Curtains for offices	Set	20.00		-
	<b>ENGINEER'S OFFICE EQUIPMENT</b>				
	Ownership to revert to the Employer upon completion of contract.				
13	Provide "GENUINE" desktop computer with rating Intel core i7 8GB Ram, DDR3 and hard disc of minimum 500GB and a processor capacity of minimum 1333MHz with "GENUINE" Windows 10 Operating System, 64 bit and latest MS office suite together with a compatible A3 Colour printer. Complete with one-year warranty computer and printer to be used by the Engineer's staff and will revert to employer upon completion of contract.	Nr	6.00		-
14	Provide "GENUINE" Laptop; Processor; 2nd generation Intel core i7-2760QM (2.4GHz with turbo boost 2.0 up to 3.5GHz, Operating system; Windows 10, 64bit, Memory; 8GB Dual Channel DDR3, Display; 15.6" multi-touch HD(1366x768), Truelife WLED Display, Hard Drive; up to 1000GB hard drive (5400rpm) minimum 500GB and a processor capacity of minimum 3.2GH with "GENUINE" Windows 10 Operating System and latest MS office suite together with a compatible A4 colour printer. Laptops and printer to be used by the Engineer and to revert to Employer upon completion of contract.	Nr	6.00		-
15	A0 plotter as HP Design Jet 510 1067mm 42" A0 CAD Plotter CH337A or similar equivalent with Stand. Capable of producing A0 drawings in-house.	Nr	1.00		-
16	Latest HP (A3) colour Printer with extra print cartridges and accessories	Nr	2.00		-
17	Latest HP (A4) colour Printer with extra print cartridges and accessories	Nr	2.00		-
18	UPS 600VA	Nr	8.00		-
19	Rolls of A0 paper	Nr	10.00		-

20	Reams of A3 photocopying paper	Nr	10.00		-
21	Reams of A4 photocopying paper	Nr	50.00		-
22	Electronic scientific calculator, 12 figures	Nr	5.00		-
23	Stapling machine Ofrex size 50 or similar with 5000 staples	Nr	5.00		-
24	Heavy duty punch and spiral binder, IBICO AG or similar approved	Nr	1.00		-
25	Pin board 1.8m x 1.2m	Nr	2.00		-
26	Heavy-duty 2-hole paper punch	Nr	5.00		-
27	Ordinary 2-hole paper punch	Nr	5.00		-
28	First Aid Kit (for 10 persons) in metal box	Nr	2.00		-
29	Portable Fire Extinguisher (5 litres)	Nr	2.00		-
30	Office Tray (3 tier)	Nr	20.00		-
31	Waste paper basket	Nr	5.00		-
32	Refrigerator minimum capacity 300L	Nr	1.00		-
33	Wall mountable cupboard 1.5m <sup>3</sup> lockable	Nr	2.00		-
34	Cooker 3+1 plate electric cooker with oven and grill	Nr	1.00		-
35	Water dispenser: Hot and Cold	Nr	2.00		-
36	Microwave 20 litres	Nr	2.00		-
<b>Page Total Carried Forward to Bill No. 1: Preliminary and General Items, Item No. 1.17</b>					-

APPENDIX C: SURVEYING EQUIPMENT					
ITEM	DESCRIPTION	UNIT	QUANTITY	RATE (KES)	AMOUNT (KES)
	<b>ENGINEER'S SURVEY EQUIPMENT</b>				
	Ownership to revert to the Employer upon completion of contract.				
1	Total Station complete with a field data collector TOPCON Model GTS-701, or similar including accessories (charger, batteries, etc.) and supporting software	Nr	1.00		-
2	Complete RTK Survey Equipment for employer	Nr	1.00		-
3	Total station for Engineer- complete with a field data collector TOPCON Model GTS-701, or similar including accessories (charger, batteries, etc.) and supporting software	Nr	1.00		-
4	Precise automatic levels including tripods (Wild or similar)	Nr	1.00		-
5	Metric extending levelling staffs with vertical bubble	Nr	1.00		-
6	30m (enamelled or otherwise protected) steel bands	Nr	1.00		-
7	3 metre ranging rods	Nr	6.00		-
8	Survey umbrellas with stand	Nr	1.00		-

9	5 metre steel tapes	Nr	2.00	-
10	Builders spirit levels 1000mm long	Nr	3.00	-
11	Hammers 3 kg each	Nr	2.00	-
<b>Page Total Carried Forward to Bill No. 1: Preliminary and General Items, Item No. 1.17</b>				-

## **SCOPE OF WORKS**

The principal items of work to be executed under this Contract include the following:

- a) River diversion works consisting of completion of a diversion culvert generally 2.1m x 2.1m internal dimensions in cross section and approximately 200 m long and upstream and downstream coffer dams 12 m and 5 m high respectively. The diversion culvert will be utilised for outlet pipe works, including raw water mains from the intake works to the treatment plant, and scour pipe to return environmental flow to the river.
- b) Concrete intake works consisting of a dry tower and pipe work in the diversion culvert which will serve as an outlet works. The tower is approximately 34 m high with three (3) draw off levels. Also included in this work is a 2m by 26m span access bridge, piers and abutment.
- c) Mechanical and electrical equipment for the intake/outlet works:
  - i) Screen raking equipment in the intake works
  - ii) Stop logs and associated equipment in the intake works
  - iii) Pipework and valves in the intake works
- d) A raw water and scour pipes in the diversion culvert of ND 300 mm and 600 mm respectively, inducing saddle supports and thrust blocks.
- e) Main zoned earth fill embankment dam generally 200m long at the crest by 33 m high.  
The proposed zones are:
  - i) Zone 1 – Impervious core and upstream cofferdam
  - ii) Zone 2 – Filter material
  - iii) Zone 3 – Selected fill for the shell material
  - iv) Riprap upstream protection works and sod at downstream face
- f) An approach spillway leading to an ogee-shaped concrete weir, chute and stilling basin (USBR Type III). A 20m wide concrete road bridge is at the top of the ogee-shaped concrete weir.
- g) Construction of the Water Treatment Plant facilities, which consist of:
  - i) Completion of the flocculation basin;
  - ii) Completion of the sedimentation basin;
  - iii) Completion of the filters;
  - iv) Completion of the pump house;
  - v) Completion of the clear water tank;
  - vi) Construction of the administration block;
  - vii) Pipework and hydromechanical works;
  - viii) Electro-mechanical works;
  - ix) Electrical works for the staff house
- h) Access roads, through the treatment plant and along the crest of the dam and abutments that joins the access leading to the water treatment plant.
- i) Fulfilment of obligations in respect of Environmental work and the Recruitment and Training policy.
- j) Ancillary works such as topsoiling, landscaping, grassing and fencing.
- k) Commissioning of the Works at various stages and on completion.
- l) Remedying of Defects in the Works (including original works).
- m) Fulfilment of other general contractual obligations, inter-alia in respect of such matters as programming, construction and quality control, health and safety, industrial relations, liaison requirements and the like.

## **SECTION VI - SPECIFICATIONS**

**Attached separately in the document Titled:**

**Vol 2 - Technical Specifications - Umaa Dam**

## **SECTION VII - DRAWINGS**

**Drawings including Site plans have been annexed in separate booklets**

## **SUPPLEMENTARY INFORMATION**

## **PART 3 – CONDITIONS OF CONTRACT AND CONTRACT FORMS**

## Section VIII - General Conditions of Contract 1. GENERAL CONDITIONS

### 1. General Provisions

#### 1.1 Definitions

In the Conditions of Contract (“these Conditions”), which include Particular Conditions, Parts A and B, and these General Conditions, the following words and expressions shall have the meanings stated. Words indicating persons or parties include corporations and other legal entities, except where the context requires otherwise.

##### 1.1.1 The Contract

**“Bills of Quantities”, “Daywork Schedule” and “Schedule of Payment Currencies”** mean the documents so named (if any) which are comprised in the Schedules.

**“Contract Agreement”** means the contract agreement referred to in Sub-Clause 1.6 [Contract Agreement].

**“Contract”** means the Contract Agreement, the Letter of Acceptance, the Letter of Tender, these Conditions, the Specification, the Drawings, the Schedules, and the further documents (if any) which are listed in the Contract Agreement or in the Letter of Acceptance.

**“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.

**“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, signed by the contractor and the Procuring Entity, including any annexed memoranda comprising agreements between and signed by both Parties.

**“Letter of Tender”** means the document entitled letter of tender or letter of tender, which was completed by the Contractor and includes the signed offer to the Procuring Entity for the Works.

**“SCC”** means the Special Conditions of Contract completed by the Procuring Entity which modify the General Conditions of Contract.

**“Schedules”** means the document(s) entitled schedules, completed by the Contractor and submitted with the Letter of Tender, as included in the Contract. Such document may include the Bills of Quantities, data, lists, and schedules of rates and/or prices.

**“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.

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

##### 1.1.2 Parties and Persons

**“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 Contract or in the Contractor appointed from time to time by the Contractor under Sub-Clause 4.3 [Contractor's Representative], who acts on behalf of the Contractor.

**“Contractor”** means the person(s) named as contractor in the Letter of Tender accepted by the Procuring Entity and the legal successors in title to this person(s).

**“Engineer”** means the person appointed by the Procuring Entity to act as the Engineer for the purposes of the Contract and named in the SCC, or other person appointed from time to time by the Procuring Entity and notified to the Contractor under Sub-Clause 3.4 [Replacement of the Engineer].

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

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

**“Procuring Entity's Personnel”** means the Engineer, the assistants referred to in Sub-Clause 3.2 [Delegation by the Engineer] and all other staff, labor and other employees of the Engineer 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 person named as Procuring Entity in the SCC and the legal successors in title to this person.

**“Subcontractor”** means any person named in the Contract as a subcontractor, or any person appointed as a subcontractor, for a part of the Works; and the legal successors in title to each of these persons.

### **1.1.3 Dates, Tests, Periods and Completion**

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

**“Commencement Date”** means the date notified under Sub-Clause 8.1 [Commencement of Works].

**“Completion Certificate”** means the certificate issued under Sub-Clause 11.9 [Performance Certificate]. **“Day”** means a calendar day and **“year”** means 365 days.

**“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 365 days except if otherwise stated in the SCC (with any extension under Sub-Clause 11.3 [Extension of Defects Notification Period]), calculated from the date on which the Works or Section is completed as certified under Sub-Clause 10.1 [Taking Over of the Works and Sections].

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

**“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 Contract or 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) under Sub-Clause 8.2 [Time for Completion], as stated in the SCC (with any extension under Sub-Clause 8.4 [Extension of Time for Completion]), calculated from the Commencement Date.

### **1.1.4 Money and Payments**

**“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.

**“Contract Price”** means the price defined in Sub-Clause 14.1 [The Contract Price] and includes adjustments in accordance with the Contract.

**“Cost”** means all 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.

**“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].

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

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

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

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

**“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].

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

### 1.1.5 Works and Goods

**“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.

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

**“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.

**“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.

**“Section”** means a part of the Works specified in the SCC as a Section (if any).

**“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.

**“Works”** mean the Permanent Works and the Temporary Works, or either of them as appropriate.

### 1.1.6 Other Definitions

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

**“Country”** means Kenya as the country in which the Site is located, where the Permanent Works are to be executed.

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

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

**“Notice of Dissatisfaction”** means the notice given by either Party to the other under Sub-Clause 20.4 indicating its dissatisfaction and intention to commence arbitration.

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

**“Procuring Entity's Equipment”** means the apparatus, machinery and vehicles (if any) made available by the Procuring Entity for the use of the Contractor 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.

**“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.

**“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].

## **12 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 “inwriting” means hand-written, type-written, printed or electronically made, and resulting in a permanent record; and
- e) the word “tender” is synonymous with “tender” and “tenderer” with “Tenderer” and the words “tender documents” with “tendering documents.”

## **13 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 **SCC**; and
- b) Delivered, sent or transmitted to the address for the recipient's communications as stated in the **SCC**. 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 Engineer or the other Party, as the case may be.

## **14 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 the **English Language**.

## **15 Priority of Documents**

1.5.1 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 Particular Conditions–Part A,
- d) the Particular 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.

1.5.2 If an ambiguity or discrepancy is found in the documents, the Engineer 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 Letter of Acceptance, unless the Particular Conditions establish otherwise. The Contract Agreement shall be based upon the form annexed to the Particular 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**

Neither Party shall assign the whole or any part of the Contract or any benefit or interest in or under the Contract. However, either Party:

- a) May assign the whole or any part with the prior agreement of the other Party, at the sole discretion of such other Party, and
- b) May, as security in favor of a Procuring Entity or financial institution, assign its right to any moneys due, or to become due, under the Contract.

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

1.8.1 The Specification 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 Drawing shall be supplied to the Contractor, who may make or request further copies at the cost of the Contractor.

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

1.8.3 The Contractor shall keep, on the Site, a copy of the Contract, publications named in the Specification, the Contractor's Documents (if any), the Drawings and Variations and other communications given under the Contract. The Procuring Entity's Personnel shall have the right of access to all these documents at all reasonable times.

1.8.4 If a Party becomes aware of an error or defect in a document which was prepared for use in executing the Works, the Party shall promptly give notice to the other Party of such error or defect.

## **1.9 Delayed Drawings or Instructions**

1.9.1 The Contractor shall give notice to the Engineer 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.

If the Contractor suffers delay and/or incurs Cost as a result of a failure of the Engineer 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 Engineer 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.

- 1.9.2 After receiving this further notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.
- 1.9.3 However, if and to the extent that the Engineer'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.

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

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

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

As 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**

The Contractor's and the Procuring Entity's Personnel 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.

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

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

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

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

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

- a) These persons shall be deemed to be jointly and severally liable to the Procuring Entity for the performance of the Contract;

- b) these persons shall notify the Procuring Entity of their leader who shall have authority to bind the Contractor and each of these persons; and
- c) the Contractor shall not alter its composition or legal status without the prior consent of the Procuring Entity.

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

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

## **2. THE PROCURING ENTITY**

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

- 2.1.1 The Procuring Entity shall give the Contractor right of access to, and possession of, all parts of the Site within the time (or times) stated in the SCC. The right and possession may not be exclusive to the Contractor. If, under the Contract, the Procuring Entity is required to give (to the Contractor) possession of any foundation, structure, plant or means of access, the Procuring Entity shall do so in the time and manner stated in the Specification. However, the Procuring Entity may withhold any such right or possession until the Performance Security has been received.
- 2.1.2 If no such time is stated in the SCC, the Procuring Entity shall give the Contractor right of access to, and possession of, the Site within such times as required to enable the Contractor to proceed without disruption in accordance with the programme submitted under Sub-Clause 8.3 [Programme].
- 2.1.3 If the Contractor suffers delay and/or incurs Cost as a result of a failure by the Procuring Entity to give any such right or possession within such time, the Contractor shall give notice to the Engineer and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:
  - a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and
  - b) payment of any such Cost-plus profit, which shall be included in the Contract Price.
- 2.1.4 After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.
- 2.1.5 However, if and to the extent that the Procuring Entity's failure was caused by any error or delay by the Contractor, including an error in, or delay in the submission of, any of the Contractor's Documents, the Contractor shall not be entitled to such extension of time, Cost or profit.

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

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

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

The Procuring Entity shall be responsible for ensuring that the Procuring Entity's Personnel and the Procuring Entity's other contractors on 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 Arrangement**

- 24.1 The Procuring Entity shall submit, before the Commencement Date and there after within 30 days after receiving any request from the Contractor, reasonable evidence that financial arrangements have been made and are being maintained 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]. Before the Procuring Entity makes any material change to his financial arrangements, the Procuring Entity shall give notice to the Contractor with detailed particulars.
- 24.2 In addition, if the Procuring Entity has notified to the Contractor that the Procuring Entity has suspended disbursements under its loan, which finances in whole or in part the execution of the Works, the Procuring Entity shall give notice of such suspension to the Contractor with detailed particulars, including the date of such notification, with a copy to the 2.4.3 Engineer, within 7 days of the Procuring Entity having received the suspension notification from the Procuring Entity. If alternative funds will be available in appropriate currencies to the Procuring Entity to continue making payments to the Contractor beyond a date 60 day after the date of Procuring Entity notification of the suspension, the Procuring Entity shall provide reasonable evidence in his notice of the extent to which such funds will be available.

## **25 Procuring Entity's Claims**

- 25.1 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 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.
- 25.2 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.
- 25.3 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 Engineer 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].

## **3. THE ENGINEER**

### **3.1 Engineer's Duties and Authority**

- 3.1.1 The Procuring Entity shall appoint the Engineer who shall carry out the duties assigned to him in the Contract. The Engineer's staff shall include suitably qualified engineers and other professionals who are competent to carry out these duties.

The Engineer shall have no authority to amend the Contract.

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

- 3.1.2 However, whenever the Engineer exercises a specified authority for which the Procuring Entity's approval is required, then (for the purposes of the Contract) the Procuring Entity shall be deemed to have given approval. Except as otherwise stated in these Conditions:
  - a) Whenever carrying out duties or exercising authority, specified in or implied by the Contract, the Engineer shall be deemed to act for the Procuring Entity; the Engineer has no authority to relieve either Party of any duties, obligations or
  - b) any approval, check, certificate, consent, examination, inspection, instruction, notice, proposal, request, test, or similar act by the Engineer (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

- c) any act by the Engineer in response to a Contractor's request except as otherwise expressly specified shall be notified in writing to the Contractor within 14 days of receipt.

3.12 The following provisions shall apply; The Engineer 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-Clause13.1: 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 SCC.
- c) Sub-Clause13.3: Approving a proposal for Variation submitted by the Contractor in accordance with Sub Clause13.1or13.2.
- d) Sub-Clause13.4: Specifying the amount payable in each of the applicable currencies.

3.13 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 forthwith comply, despite the absence of approval of the Procuring Entity, with any such instruction of the Engineer. The Engineer 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 Engineer 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 Engineer shall not delegate the authority to determine any matter in accordance with Sub-Clause3.5 [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 Engineer 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 Engineer may issue to the Contractor (at any time) instructions and additional or modified Drawings which may be necessary for the execution of the Works and the remedying of any defects, all in accordance with the Contract. The Contractor shall only take instructions from the Engineer, or from an assistant to whom the appropriate authority has been delegated under this Clause. If an instruction constitutes a Variation, Clause 13 [Variations and Adjustments] shall apply.

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

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, 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 replacement Engineer. If the Contractor considers the intended replacement Engineer to be unsuitable, he has the right to raise objection against him by notice to the Procuring Entity, with supporting particulars, and the Procuring Entity shall give full and fair consideration to this objection.

### **3.5 Determinations**

- 3.5.1 Whenever these Conditions provide that the Engineer shall proceed in accordance with this Sub-Clause 3.5 to agree or determine any matter, the Engineer shall consult with each Party in an endeavor to reach agreement. If agreement is not achieved, the Engineer shall make a fair determination in accordance with the Contract, taking due regard of all relevant circumstances.
- 3.5.2 The Engineer 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 Engineer's 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 as defined by the Procuring Entity.
- 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 The Contractor shall not commence any Works, including mobilization and/or pre-construction activities (e.g. limited clearance for haul roads, site accesses and work site establishment, geotechnical investigations or investigations to select ancillary features such as quarries and borrow pits), unless the Engineer is satisfied that appropriate measures are in place to address environmental, social, health and safety risks and impacts.
- 4.1.7 If the Contract specifies that the Contractor shall design any part of the Permanent Works, then unless otherwise stated in the Particular Conditions:
- a) The Contractor shall submit to the Engineer 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 Engineer to add to the Drawings for co-ordination of each Party's designs;
  - c) The Contractor shall be responsible for this part and it shall, when the Works are completed, be fit for such purposes for which the part is intended as are specified in the Contract; and
  - d) Prior to the commencement of the Tests on Completion, the Contractor shall submit to the Engineer the

“as- built” documents and, if applicable, operation and maintenance manuals in accordance with the Specification and insufficient 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**

- 42.1 Performance security shall not be required for contracts estimated to cost less than Kenya shillings five million shillings.
- 42.2 The Contractor shall obtain (at his cost) a Performance Security for proper performance, in the amount stated in the SCC and denominated in the currency (ies) of the Contractor in a freely convertible currency acceptable to the Procuring Entity. If an amount is not stated in the SCC, this Sub-Clause shall not apply.
- 42.3 The Contractor shall deliver the Performance Security to the Procuring Entity within 14 days after receiving the Letter of Acceptance and shall send a copy to the Engineer. The Performance Security shall be issued by a reputable Procuring Entity or financial institution selected by the Contractor and shall be in the form annexed to the Particular Conditions, as stipulated by the Procuring Entity in the SCC, or in another form approved by the Procuring Entity.
- 42.4 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.
- 42.5 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.

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.

- 42.6 The Procuring Entity shall return the Performance Security to the Contractor within 21 days after receiving a copy of the Performance Certificate.
- 42.7 Without limitation to the provisions of the rest of this Sub-Clause, whenever the Engineer determines an addition or deduction 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 Engineer's 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**

- 43.1 The Contractor shall appoint the Contractor's Representative and shall give him all authority necessary to act on the Contractor's behalf under the Contract. Unless the Contractor's Representative is named in the Contract, the Contractor shall, prior to the Commencement Date, submit to the Engineer for consent the name and particulars of the person the Contractor proposes to appoint as Contractor's Representative. If consent is withheld or subsequently revoked in terms of Sub-Clause 6.9 [Contractor's Personnel], or if the appointed person fails to act as Contractor's Representative, the Contractor shall similarly submit the name and particulars of another suitable person for such appointment.

The Contractor shall not, without the prior consent of the Engineer, revoke the appointment of the Contractor's Representative or appoint a replacement.

- 43.2 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 Engineer's prior consent, and the Engineer shall be notified accordingly.
- 43.3 The Contractor's Representative shall, on behalf of the Contractor, receive instructions under Sub-Clause 3.3 [Instructions of the Engineer].

The Contractor's Representative may delegate any powers, functions and authority to any competent person, and may at anytime revoke the delegation. Any delegation or revocation shall not take effect until the Engineer has received prior notice signed by the Contractor's Representative, naming the person and specifying the powers, functions and authority being delegated or revoked.

- 434 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 Subcontractors**

- 44.1 The Contractor shall not subcontract the whole of the Works.
- 44.2 The Contractor shall be responsible for the acts or defaults of any Subcontractor, his agents or employees, as if they were the acts or defaults of the Contractor. Unless otherwise stated in the Particular 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 Engineer shall be obtained to other proposed Sub contractors;
  - c) the Contractor shall give the Procuring entity not less than 14 days' notice of the intended date of the commencement of each Subcontractor's work, and of the commencement of such work on the Site; and
  - d) each subcontract shall include provisions which would entitle the Procuring Entity to require the subcontract to be assigned to the Procuring Entity under Sub-Clause 4.5 [Assignment of Benefit of Subcontract] (if or when applicable) or in the event of termination under Sub-Clause 15.2 [Termination by Procuring Entity].
- 44.3 The Contractor shall ensure that the requirements imposed on the Contractor by Sub-Clause 1.12 [Confidential Details] apply equally to each Subcontractor.
- 44.4 Where practicable, the Contractor shall give fair and reasonable opportunity for contractors from the Country 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**

- 46.1 The Contractor shall, as specified in the Contract or as instructed by the Engineer, allow appropriate opportunities for carrying out work to:
- a) The Procuring Entity's Personnel,
  - b) Any other contractors employed by the Procuring Entity, and
  - c) The personnel of any legally constituted public authorities, who may be employed in the execution on or near the Site of any work not included in the Contract.
- 46.2 Any such instruction shall constitute a Variation if and to the extent that it causes the Contractor to suffer delays and/or to incur Unforeseeable Cost. Services for these personnel and other contractors may include the use of Contractor's Equipment, Temporary Works or access arrangements which are the responsibility of the Contractor.

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 Engineer in the time and manner stated in the Specification.

#### **47 Setting Out**

- 47.1 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.

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.

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

#### **48 Safety Procedures**

The Contractor shall:

- a) Comply with all applicable safety regulations,
- b) Take care for the safety of all persons entitled to be on the Site,
- c) Use reasonable efforts to keep the Site and Works clear of unnecessary obstructions 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**

- 4.91 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 Engineer shall be entitled to audit any aspect of the system.
- 4.92 Details of all procedures and compliance documents shall be submitted to the Engineer for information before each design and execution stage is commenced. When any document of a technical nature is issued to the Engineer, evidence of the prior approval by the Contractor itself shall be apparent on the document itself. Compliance with the quality assurance system shall not relieve the Contractor of any of his duties, obligations or responsibilities under the Contract.

#### **4.10 Site Data**

- 4.10.1 The Procuring Entity shall have made available to the Contractor for his information, prior to the Base Date, all relevant data in the Procuring Entity's possession on sub-surface and hydrological conditions at the Site, including environmental aspects. The Procuring Entity shall similarly make available to the Contractor all such data which come into the Procuring Entity's possession after the Base Date. The Contractor shall be responsible for interpreting all such data.
- 4.10.2 To the extent which was practicable (taking account of cost and time), the Contractor shall be deemed to have obtained all necessary information as to risks, contingencies and other circumstances which may influence or affect the Tender or Works. To the same extent, the Contractor shall be deemed to have inspected and examined the Site, its surroundings, the above data and other available information, and to have been satisfied before submitting the Tender as to all relevant matters, including (without limitation):
- a) The form and nature of the Site, including sub-surface conditions,
  - b) The hydrological and climatic conditions,
  - c) The extent and nature of the work and Goods necessary for the execution and completion of the Works and the remedying of any defects,
  - d) The Laws, procedures and labor practices of the Country, 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 Engineer as soon as practicable.

This notice shall describe the physical conditions, so that they can be inspected by the Engineer, 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 Engineer may give. If an instruction constitutes a Variation, Clause 13 [Variations and Adjustments] shall apply.

- 4.12.3 If and to the extent that the Contractor encounters physical conditions which are Unforeseeable, gives such a notice, and suffers delay and/or incurs Cost due to these conditions, the Contractor shall be entitled subject to notice under Sub-Clause 20.1 [Contractor's Claims] to:
- a) An extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and
  - b) Payment of any such Cost, which shall be included in the Contract Price.
- 4.12.4 Upon receiving such notice and inspecting and/or investigating these physical conditions, the Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine (i) whether and (if so) to what extent these physical conditions were Unforeseeable, and (ii) the matters described in sub-paragraphs (a) and (b) above related to this extent.
- 4.12.5 However, before additional Cost is finally agreed or determined under sub-paragraph (ii), the Engineer 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 Engineer 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 any reduction in the Contract Price.
- 4.12.6 The Engineer 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 footpaths, irrespective of whether they are public or in the possession of the Procuring Entity or of others.

4.142 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 effort to prevent any road or bridge from being damaged by the Contractor's traffic or by the Contractor's Personnel. These efforts shall include the proper use of appropriate vehicles and routes.

4.15.2 Except as otherwise stated in these Conditions:

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

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

Unless otherwise stated in the Particular Conditions:

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

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

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

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

4.18.1 The Contractor shall 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.

4.18.2 The Contractor shall ensure that emissions, surfaced is charges and effluent from the Contractor's activities shall not exceed the values stated in the Specification or prescribed by applicable Laws.

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

4.19.1 The Contractor shall, except as stated below, be responsible for the provision of all power, water and other services he may require for his construction activities and to the extent defined in the Specifications, for the tests.

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 Specification. The Contractor shall, at his risk and cost, provide any apparatus necessary for his use of these services and for measuring the quantities consumed.

4.192 The quantities consumed and the amounts due (at these prices) for such services shall be agreed or determined by the Engineer in accordance with Sub-Clause 2.5 [Procuring Entity's Claims] and Sub-Clause 3.5 [Determinations]. The Contractor shall pay these amounts to the Procuring Entity.

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

4.20.1 The Procuring Entity shall make the Procuring Entity's Equipment (if any) available for the use of the Contractor in the execution of the Works in accordance with the details, arrangements and prices stated in the Specification. Unless otherwise stated in the Specification:

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

4.20.2 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 Engineer 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.

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 Engineer of any shortage, defect or default in these materials. Unless otherwise agreed by both Parties, the Procuring Entity shall immediately rectify the notified shortage, defect or default.

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

#### **4.21 Progress Reports**

4.21.1 Unless otherwise stated in the Particular Conditions, monthly progress reports shall be prepared by the Contractor and submitted to the Engineer 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.

4.21.3 Each report shall include:

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

4.21.4 The Contractor shall provide immediate notification to the Engineer of incidents in the following categories. Full details of such incidents shall be provided to the Engineer within the time frame agreed with the

Engineer.

- a) confirmed or likely violation of any law or international agreement;
- b) any fatality or serious injury;
- c) significant adverse effects or damage to private property (e.g. vehicle accident, damage from fly rock, working beyond the boundary);
- d) major pollution of drinking water aquifer or damage or destruction of rare or endangered habitat (including protected areas) or species; or
- e) any allegation of sexual harassment or sexual misbehavior, child abuse, defilement, or other violations involving children.

#### **422 Security of the Site**

Unless otherwise stated in the Particular 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 Engineer 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.

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.

- 423.2 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.
- 424.2 The Contractor shall, upon discovery of any such finding, promptly give notice to the Engineer, who shall issue instructions for dealing with it. If the Contractor suffers delay and/or incurs Cost from complying with the instructions, the Contractor shall give a further notice to the Engineer 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 Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.

### **5. NOMINATED SUB CONTRACTORS**

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

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

- a) Who is stated in the Contract as being a nominated Subcontractor, or
- b) whom the Engineer, under Clause 13 [Variations and Adjustments], instructs the Contractor to employ as a Subcontractor subject to Sub-Clause 5.2 [Objection to Notification].

## **52 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 Engineer 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].

## **53 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 Engineer 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**

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

## **6. STAFF AND LABOR**

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

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

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

- 6.2.1 The Contractor shall pay rates of wages, and observe conditions of labor, which are not lower than those established for the trade or industry where the work is carried out. If no established rates or conditions are

applicable, the Contractor shall pay rates of wages and observe conditions which are not lower than the general level of wages and conditions observed locally by Procuring Entity's whose trade or industry is similar to that of the Contractor.

- 622 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 labor from amongst the Procuring Entity's Personnel.

### **64 Labor Laws**

- 641 The Contractor shall comply with all the relevant labor Laws applicable to the Contractor's Personnel, including Laws relating to their employment, health, safety, welfare, immigration and emigration, and shall allow them all their legal rights.
- 642 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 SCC, unless:

- a) Otherwise stated in the Contract,
- b) The Engineer 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.

### **66 Facilities for Staff and Labor**

- 661 Except as otherwise stated in the Specification, the Contractor shall provide and maintain all necessary accommodation and welfare facilities for the Contractor's Personnel. The Contractor shall also provide facilities for the Procuring Entity's Personnel as stated in the Specification.
- 662 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**

- 671 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.
- 672 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.
- 673 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 Engineer may reasonably require.
- 674 HIV-AIDS Prevention. The Contractor shall conduct an HIV-AIDS awareness programme via an approved service provider and shall undertake such other measures as are specified in this Contract to reduce the risk of the transfer of the HIV virus between and among the Contractor's Personnel and the local community, to promote early diagnosis and to assist affected individuals.

## **6.8 Contractor's Superintendence**

- 6.8.1 Throughout the execution of the Works, and as long thereafter as is necessary to fulfil the Contractor's obligations, the Contractor shall provide all necessary superintendence to plan, arrange, direct, manage, inspect and test the work.
- 6.8.2 Superintendence shall be given by a sufficient number of persons having adequate knowledge of the language for communications (defined in Sub-Clause 1.4 [Law and Language]) and of the operations to be carried out (including the methods and techniques required, the hazards likely to be encountered and methods of preventing accidents), for the satisfactory and safe execution of the Works.

## **6.9 Contractor's Personnel**

- 6.9.1 The Contractor's Personnel specified in the SCC shall be appropriately qualified, skilled and experienced in their respective trades or occupations. The Engineer 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 incompetently or negligently,
  - c) Fails to conform with any provisions of the Contract,
  - d) Persists in any conduct which is prejudicial to safety, health, or the protection of the environment, or
  - e) Based on reasonable evidence, is determined to have engaged in Fraud and Corruption during the execution of the Works.
- 6.9.2 If appropriate, the Contractor shall then appoint (or cause to be appointed) a suitable replacement person.

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

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

## **6.11 Disorderly Conduct**

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

## **6.12 Foreign Personnel**

- 6.12.1 The Contractor may bring in to the Country any foreign personnel who are necessary for the execution of the Works to the extent allowed by the applicable Laws. The Contractor shall ensure that these personnel are provided with the required residence visas and work permits. The Procuring Entity will, if requested by the Contractor, use his Lowest endeavors in a timely and expeditious manner to assist the Contractor or in obtaining any local, state, national or government permission required for bringing in the Contractor's personnel.
- 6.12.2 The Contractor shall be responsible for the return of these personnel to the place where they were recruited or to their domicile. In the event of the death in the Country of any of these personnel or members of their families, the Contractor shall similarly be responsible for making the appropriate arrangements for their return or burial.

## **6.13 Supply of Foodstuffs**

- 6.13.1 The Contractor shall arrange for the provision of a sufficient supply of suitable food as may be stated in the Specification at reasonable prices for the Contractor's Personnel for the purposes of or in connection with the Contract.

## **6.14 Supply of Water**

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

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

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

## **6.16 Alcoholic Liquor or Drugs**

The Contractor shall not, otherwise than in accordance with the Laws of the Country, 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.

## **6.17 Arms and Ammunition**

The Contractor shall not give, barter, or otherwise dispose of, to any person, any arms or ammunition of any kind, or allow Contractor's Personnel to do so.

## **6.18 Festivals and Religious Customs**

The Contractor shall respect the Country's recognized festivals, days of rest and religious or other customs.

## **6.19 Funeral Arrangements**

The Contractor shall be responsible, to the extent required by local regulations, for making any funeral arrangements for any of his local employees who may die while engaged upon the Works.

## **6.20 Prohibition of Forced or Compulsory Labor**

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.

## **6.21 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 labor laws of the Country 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.

## **6.22 Employment Records of Workers**

The Contractor shall keep complete and accurate records of the employment of labor 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].

## **6.23 Workers' Organizations**

The Contractor shall comply with laws on workers' rights to form and to join workers' organizations without interference and to bargain collectively.

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

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

## **7. Plant, Materials and Workmanship**

### **7.1 Manner of Execution**

The Contractor shall carry out the manufacture 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.

## **72 Samples**

The Contractor shall submit the following samples of Materials, and relevant information, to the Engineer for consent prior to using the Materials 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 Engineer as a Variation.

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

## **73 Inspection**

73.1 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.

73.2 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.

The Contractor shall give notice to the Engineer whenever any work is ready and before it is covered up, put out of sight, or packaged for storage or transport. The Engineer shall then either carry out the examination, inspection, measurement or testing without unreasonable delay, or promptly give notice to the Contractor that the Engineer 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 thereafter reinstate and make good, all at the Contractor's cost.

## **74 Testing**

74.1 This Sub-Clause shall apply to all tests specified in the Contract, other than the Tests after Completion (if any).

74.2 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.

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

74.3 The Engineer shall give the Contractor not less than 24 hours' notice of the Engineer's intention to attend the tests. If the Engineer 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 Engineer's presence.

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 Engineer and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:

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

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

The Contractor shall promptly forward to the Engineer duly certified reports of the tests. When the specified

tests have been passed, the Engineer shall endorse the Contractor's test certificate, or issue a certificate to him, to that effect. If the Engineer has not attended the tests, he shall be deemed to have accepted the readings as accurate.

## **75 Rejection**

- 75.1 If, as a result of an examination, inspection, measurement or testing, any Plant, Materials or workmanship is found to be defective or otherwise not in accordance with the Contract, the Engineer may reject the Plant, Materials or workmanship by giving notice to the Contractor, with reasons. The Contractor shall then promptly make good the defect and ensure that the rejected item complies with the Contract.
- 75.2 If the Engineer 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**

- 76.1 Notwithstanding any previous test or certification, the Engineer 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, unforeseeable event or otherwise.
- 76.2 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).
- 76.3 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.

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

Except as otherwise provided in the Contract, each item of Plant and Materials shall, to the extent consistent with the Laws of the Country, 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 areas 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 conditions have all been fulfilled and the Engineer's notification recording the agreement of both Parties on such fulfilment and instructing to commence the Work is received by the Contractor:
- a) Contract by relevant authorities of the Country;
  - b) delivery to the Contractor of reasonable evidence of the Procuring Entity's financial arrangements (under Sub-Clause 2.4 [Procuring Entity's Financial Arrangements]);
  - c) signature of the Contract Agreement by both Parties, and if required, approval of the except if otherwise

specified in the SCC, 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

- d) receipt by the Contractor of the Advance Payment under Sub-Clause 14.2 [Advance Payment] provided that the corresponding Procuring Entity guarantee has been delivered by the Contractor.

8.12 If the said Engineer's 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.

## **82 Time for Completion**

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

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

## **83 Programme**

83.1 The Contractor shall submit a detailed time programme to the Engineer 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.

83.2 Unless the Engineer, within 14 days after receiving a programme, gives notice to the Contractor stating the extent to which it does not comply with the Contract, the Contractor shall proceed in accordance with the programme, subject to his other obligations under the Contract. The Procuring Entity's Personnel shall be entitled to rely upon the programme when planning their activities.

83.3 The Contractor shall promptly give notice to the Engineer of specific probable future events or circumstances which may adversely affect the work, increase the Contract Price or delay the execution of the Works. The Engineer may require the Contractor to submit an estimate of the anticipated effect of the future event or circumstances, and/or a proposal under Sub-Clause 13.3 [Variation Procedure].

83.4 If, at anytime, the Engineer gives notice to the Contractor that a programme fails (to the extent stated) to comply with the Contract or to be consistent with actual progress and the Contractor's stated intentions, the Contractor shall submit a revised programme to the Engineer in accordance with this Sub-Clause.

## **84 Extension of Time for Completion**

84.1 The Contractor shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to an extension of the Time for Completion if and to the extent that completion for the purposes of Sub-Clause 10.1 [Taking Over of the Works and Sections] is or will be delayed by any of the following causes:

- a) a Variation (unless an adjustment to the Time for Completion has been agreed under Sub-Clause 13.3 [Variation Procedure]) or other substantial change in the quantity of an item of work included in the Contract,

- b) a cause of delay giving an entitlement to extension of time under a Sub-Clause of these Conditions,
- c) exceptionally adverse climatic conditions,
- d) Unforeseeable shortages in the availability of personnel or Goods caused by epidemic or governmental actions, or
- e) Any delay, impediment or prevention caused by or attributable to the Procuring Entity, the Procuring Entity's Personnel, or the Procuring Entity's other contractors.

842 If the Contractor considers itself to be entitled to an extension of the Time for Completion, the Contractor shall give notice to the Engineer in accordance with Sub-Clause 20.1 [Contractor's Claims]. When determining each extension of time under Sub-Clause 20.1, the Engineer 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 the Country,
- b) These authorities delay or disrupt the Contractor's work, and
- c) The delay or disruption was Unforeseeable, then this delay or disruption will be considered as a cause of delay under sub-paragraph (b) of Sub-Clause 8.4 [Extension of Time for Completion].

## **86 Rate of Progress**

86.1 If, at any time:

- a) Actual progress is too slow to complete within the Time for Completion, and/or
- b) Progress has fallen (or will fall) behind the current programme under Sub-Clause 8.3 [Programme], other than as a result of a cause listed in Sub-Clause 8.4 [Extension of Time for Completion], then the Engineer 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.

Unless the Engineer 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.

86.2 Additional costs of revised methods including acceleration measures, instructed by the Engineer 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 SCC, 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 SCC.

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

88.2 The Engineer may also notify the cause for the suspension. If and to the extent that the cause is notified and

is the responsibility of the Contractor, the following Sub-Clauses 8.9, 8.10 and 8.11 shall not apply.

## **8.9 Consequences of Suspension**

8.9.1 If the Contractor suffers delay and/or incurs Cost from complying with the Engineer's instructions under Sub-Clause 8.8 [Suspension of Work] and/or from resuming the work, the Contractor shall give notice to the Engineer 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 notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.

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

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

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

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

## **8.11 Prolonged Suspension**

If the suspension under Sub-Clause 8.8 [Suspension of Work] has continued for more than 84 days, the Contractor may request the Engineer's permission to proceed. If the Engineer 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 Engineer 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 Engineer 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 Engineer not less than 21 days' notice of the date after which the Contract or 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 Engineer shall instruct.

9.1.3 In considering the results of the Tests on Completion, the Engineer 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.

If the Tests on Completion are being unduly delayed by the Contractor, the Engineer 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 Contract or may fix and of which he shall give notice to the Engineer.

If the Contractor fails to carry out the Tests on Completion within the period of 21 days, the Procuring Entity's Personnel may proceed with the Tests at the risk and cost of the Contractor. The Tests on Completion shall then be deemed to have been carried out in the presence of the Contract or and the results of the Tests shall be accepted as accurate.

### **93 Retesting**

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

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

- 94.1 If the Works, or a Section, fail to pass the Tests on Completion repeated under Sub-Clause 9.3 [Retesting], the Engineer shall be entitled to:
- a) Order further repetition of Tests on Completion under Sub-Clause 9.3;
  - 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 11.4 [Failure to Remedy Defects]; or
  - c) Issue a Taking-Over Certificate, if the Procuring Entity so requests.
- 94.2 In the event of sub-paragraph (c), the Contractor shall proceed in accordance with all other obligations under the Contract, and the Contract Price shall be reduced by such amount as shall be appropriate to cover the reduced value to the Procuring Entity as a result of this failure. Unless the relevant reduction for this failure is stated (or its method of calculation is defined) in the Contract, the Procuring Entity may require the reduction to be (i) agreed by both Parties (in full satisfaction of this failure only) and paid before this Taking-Over Certificate is issued, or
- (ii) determined and paid under Sub-Clause 2.5 [Procuring Entity's Claims] and Sub-Clause 3.5 [Determinations].

## **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 Contract or may apply by notice to the Engineer for a Taking-Over Certificate not earlier than 14 days before the Works will, in the Contractor's opinion, be complete and ready for taking over. If the Works are divided into Sections, the Contract or may similarly apply for a Taking-Over Certificate for each Section.
- 10.1.3 The Engineer 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 Engineer fails either to issue the Taking-Over Certificate or to reject the Contractor's application within the period of 30 days, and if the Works or Section (as the case may be) are substantially in accordance

with the Contract, the Taking-Over Certificate shall be deemed to have been issued on the last day of that period.

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

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

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 Engineer 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 Engineer shall issue a Taking-Over Certificate for this part.
- 102.2 After the Engineer has issued a Taking-Over Certificate for a part of the Works, the Contractor shall be given the earliest opportunity to take such steps as may be necessary to carry out any outstanding Tests on Completion. The Contractor shall carry out these Tests on Completion as soon as practicable before the expiry date of the relevant Defects Notification Period.
- 102.3 If the Contractor incurs Cost as a result of the Procuring Entity taking over and/or using a part of the Works, other than such use as is specified in the Contractor agreed by the Contractor, the Contractor shall (i) give notice to the Engineer and (ii) be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to payment of any such Cost-plus profit, which shall be included in the Contract Price. After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine this Cost and profit.
- 102.4 If a Taking-Over Certificate has been issued for a part of the Works (other than a Section), the delay damages there after for completion of the remainder of the Works shall be reduced. Similarly, the delay damages for the remainder of the Section (if any) in which this part is included shall also be reduced. For any period of delay after the date stated in this Taking-Over Certificate, the proportional reduction in these delay damages shall be calculated as the proportion which the value of the part so certified bears to the value of the Works or Section (as the case may be) as a whole. The Engineer 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.

The Engineer 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 Engineer 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.

- 103.2 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 Engineer 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.
- 103.3 After receiving this notice, the Engineer 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.

## **11. Defects Liability**

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

- 11.1.1 In order that the Works and Contractor's Documents, and each Section, shall be in the condition required by the Contract (fair wear and tear excepted) by the expiry date of the relevant Defects Notification Period or as soon as practicable 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 (or on behalf of) the Procuring Entity.

## **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 (or on behalf of) the Procuring Entity, 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 Engineer 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.
- 11.4.3 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 Engineer may require the repetition of any of the tests described in the Contract. The requirement shall be made by notice within 30 days after the defect or damage is remedied.
- 11.6.2 These tests shall be carried out in accordance with the terms applicable to the previous tests, except that they shall be carried out at the risk and cost of the Party liable, under Sub-Clause 11.2 [Cost of Remedying Defects], for the cost of the remedial work.

## **11.7 Right of Access**

Until the Performance 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, 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 Engineer 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 Engineer has issued the Performance Certificate to the Contractor, stating the date on which the Contractor completed his obligations under the Contract.
- 11.9.2 The Engineer shall issue the Performance Certificate within 30 days after the latest of the expiry dates of the Defects Notification Periods, 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 Performance Certificate shall be issued to the Procuring Entity.
- 11.9.3 Only the Performance Certificate shall be deemed to constitute acceptance of the Works.

## **11.10 Unfulfilled Obligations**

After the Performance 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 Performance 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 Performance 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.

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 Engineer 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 Engineer in making the measurement, and
  - b) supply any particulars requested by the Engineer.
- If the Contractor fails to attend or send a representative, the measurement made by (or on behalf of) the Engineer shall be accepted as accurate.
- 12.1.3 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.
- 12.1.4 If the Contractor examines and disagrees the records, and/or does not sign them as agreed, then the Contractor shall give notice to the Engineer of the respects in which the records are asserted to be inaccurate. After receiving this notice, the Engineer 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 Engineer 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 and notwithstanding local practice:

- 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 Bills of Quantities or other applicable Schedules.

### **12.3 Evaluation**

- 12.3.1 Except as otherwise stated in the Contract, the Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine the Contract Price 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.

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.

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

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

- a) I) the measured quantity of the item is changed by more than 25% from the quantity of this item in the Bills of Quantities or another Schedule,
  - ii) This change in quantity multiplied by such specified rate for this item exceeds 0.25% of the Accepted Contract Amount,
  - iii) This change in quantity directly changes the Cost per unit quantity of this item by more than 1%, and
  - iv) This item is not specified in the Contract as a "fixed rate item"; or
- b) i) the work is instructed under Clause 13 [Variations and Adjustments],

- ii) no rate or price is specified in the Contract for this item, and
- iii) 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.

- 1233 Each new rate or price shall be derived from any relevant rates or prices in the Contract, with reasonable adjustments to take account of the matters described in sub-paragraph (a) and/or (b), as applicable. If no rates or prices are relevant for the derivation of a new rate or price, it shall be derived from the reasonable Cost of executing the work, together with profit, taking account of any other relevant matters.
- 1234 Until such time as an appropriate rate or price is agreed or determined, the Engineer shall determine a provisional rate or price for the purposes of Interim Payment Certificates as soon as the concerned work commences.
- 1235 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: *(corrected tender price – tender price)/tender price X 100*.

## 124 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 Engineer accordingly, with supporting particulars. Upon receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine this cost, which shall be included in the Contract Price.

## 13. VARIATIONS AND ADJUSTMENTS

### 13.1 Right to Vary

- 13.1.1 Variations may be initiated by the Engineer 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.
- 13.1.2 The Contractor shall execute and be bound by each Variation, unless the Contractor promptly gives notice to the Engineer 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 Engineer shall cancel, confirm or vary the instruction.

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.

- 13.13 The Contractor shall not make any alteration and/or modification of the Permanent Works, unless and until the Engineer instructs or approves a Variation.

### **132 Value Engineering**

- 13.21 The Contractor may, at any time, submit to the Engineer a 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.
- 13.22 The proposal shall be prepared at the cost of the Contractor and shall include the items listed in Sub-Clause 13.3 [Variation Procedure].

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 Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine a fee, which shall be included in the Contract Price. This fee shall be half (50%) of the difference between the following amounts:
  - i) such reduction in contract value, resulting from the change, excluding adjustments under Sub-Clause 13.7 [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 reductions in quality, anticipated life or operational efficiencies.

- 13.23 However, if amount (i) is less than amount (ii), there shall not be a fee.

### **133 Variation Procedure**

- 13.31 If the Engineer 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.
- 13.32 The Engineer shall, as soon as practicable after receiving such proposal (under Sub-Clause 13.2 [Value Engineering] or otherwise), respond with approval, disapproval or comments. The Contractor shall not delay any work whilst awaiting a response.
- 13.33 Each instruction to execute a Variation, with any requirements for the recording of Costs, shall be issued by the Engineer to the Contractor, who shall acknowledge receipt.

Each Variation shall be evaluated in accordance with Clause 12 [Measurement and Evaluation], unless the Engineer instructs or approves otherwise in accordance with this Clause.

### **134 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.

### **13.5 Provisional Sums**

- 13.5.1 Each Provisional Sum shall only be used, in whole or in part, in accordance with the Engineer's 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 Engineer shall have instructed. For each Provisional Sum, the Engineer 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.
    - iii) If there is no such rate, the percentage rate stated in the SCC shall be applied.
- 13.5.2 The Contractor shall, when required by the Engineer, produce quotations, invoices, vouchers and accounts or receipts in substantiation.

### **13.6 Daywork**

- 13.6.1 For work of a minor or incidental nature, the Engineer 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-Clauses shall not apply.

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.

- 13.6.2 Except for any items for which the Daywork Schedule specifies that payment is not due, the Contractor shall deliver each day to the Engineer accurate statements in duplicate which shall include the following details of the resources used in executing the previous day's work:
- a) The names, occupations and time of Contractor's Personnel,
  - b) The identification, type and time of Contractor's Equipment and Temporary Works, and
  - c) The quantities and types of Plant and Materials used.
- 13.6.3 One copy of each statement will, if correct, or when agreed, be signed by the Engineer and returned to the Contractor. The Contractor shall then submit priced statements of these resources to the Engineer, prior to their inclusion in the next Statement under Sub-Clause 14.3 [Application for Interim Payment Certificates].

### **13.7 Adjustments for Changes in Legislation**

- 13.7.1 The Contract Price shall be adjusted to take account of any increase or decrease in Cost resulting from a change in the Laws of the Country (including the introduction of new Laws and the repeal or modification of existing Laws) or in the judicial or official governmental interpretation of such Laws, made after the Base Date, which affect the Contractor in the performance of obligations under the Contract.
- 13.7.2 If the Contract or 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 Engineer 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 notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.

13.73 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].

### **138 Adjustments for Changes in Cost**

- 13.81 In this Sub-Clause, “table of adjustment data” means the completed table of adjustment data for local and foreign currencies included in the Schedules. If there is no such table of adjustment data, this Sub- Clause shall not apply.
- 13.82 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.
- 13.83 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:

$$P_n = a + b \frac{L_n}{L_o} + c \frac{E_n}{E_o} + d \frac{M_n}{M_o} + \dots \text{ where:}$$

“P<sub>n</sub>” is the adjustment multiplier to be applied to the estimated contract value in the relevant currency of the work carried out in period “n”, this period being a month unless otherwise stated in the SCC;

“a” is a fixed coefficient, stated in the relevant table of adjustment data, representing the non-adjustable portion in contractual payments;

“b”, “c”, “d”, ... are coefficients representing the estimated proportion of each cost element related to the execution of the Works, as stated in the relevant table of adjustment data; such tabulated cost elements may be indicative of resources such as labor, equipment and materials;

“L<sub>n</sub>”, “E<sub>n</sub>”, “M<sub>n</sub>”, ... are the current cost indices or reference prices for period “n”, expressed in the relevant currency of payment, each of which is applicable to the relevant tabulated cost element on the date 49 days prior to the last day of the period (to which the particular Payment Certificate relates); and

“L<sub>o</sub>”, “E<sub>o</sub>”, “M<sub>o</sub>” ... are the base cost indices or reference prices, expressed in the relevant currency of payment, each of which is applicable to the relevant tabulated cost element on the Base Date.

- 13.84 The cost indices or reference prices stated in the table of adjustment data shall be used. If their source is in doubt, it shall be determined by the Engineer. For this purpose, reference shall be made to the values of the

indices at stated dates (quoted in the fourth and fifth columns respectively of the table) for the purposes of clarification of the source; although these dates (and thus these values) may not correspond to the base cost indices.

- 1385 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 Procuring Entity of the Country, of this relevant currency on the above date for which the index is required to be applicable.
- 1386 Until such time as each current cost index is available, the Engineer 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.
- 1387 If the Contractor fails to complete the Works within the Time for Completion, adjustment of prices thereafter 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, which ever is more favorable to the Procuring Entity.
- 1388 The weightings (coefficients) for each of the factors of cost stated in the table(s) of adjustment data shall only be adjusted if they have been rendered unreasonable, unbalanced or inapplicable, as a result of Variations.

## **14. CONTRACT PRICE AND PAYMENT**

### **14.1 The Contract Price**

- 14.1.1 Unless otherwise stated in the Particular Conditions:
- a) the Contract Price 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 Bills 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 lumpsum price in the Schedules.
- 14.1.2 The Engineer may take account of the breakdown when preparing Payment Certificates, but shall not be bound by it.
- 14.1.3 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 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 Sub-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 SCC. Unless and until the Procuring Entity receives this guarantee, or if the total advance payment is not stated in the SCC, this Sub-Clause shall not apply.
- 14.2.2 The Engineer 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 Procuring Entity or financial institution selected by the Contractor and shall be in the form annexed to the Particular Conditions or in another form approved by the Procuring Entity.
- 14.2.3 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.

1424 Unless stated otherwise in the SCC, the advance payment shall be repaid through percentage deductions from the interim payments determined by the Engineer 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 SCC 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.

1425 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 15.5 [Procuring Entity's Entitlement to Termination for Convenience], payable by the Contractor to the Procuring Entity.

### 143 Application for Interim Payment Certificates

143.1 The Contractor shall submit a Statement in six copies to the Engineer 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].

1432 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 SCC 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 SCC;
- d) any amounts to be added for the advance payment and (if more than one instalment) and to be deducted for its repayments in accordance with Sub-Clause 14.2 [Advance Payment];
- e) any amounts to be added and deducted for Plant and Materials in accordance with Sub-Clause 14.5 [Plant and Materials intended for the Works];
- f) any other additions or deductions which may have become due under the Contract or otherwise, including those under Clause 20 [Claims, Disputes and Arbitration]; and
- g) the deduction of amounts certified in all previous Payment Certificates.

1433 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:  $(\text{corrected tender price} - \text{tender price}) / \text{tender price} \times 100$ .

### 144 Schedule of Payments

144.1 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 Engineer may proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine revised instalments, which shall take account of the extent to which progress is less or more than that on which the instalments were previously based.

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** *(see SCC for lists)*

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. The Engineer 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 a 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 the Country, 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 Engineer together with evidence of payment of freight and insurance, any other documents reasonably required, and an Procuring Entity 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;
- 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.

1453 The additional amount to be certified shall be the equivalent of eighty percent (80%) of the Engineer's 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.

1454 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 Engineer 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 Engineer fairly determines to be due, with all supporting particulars for

any reduction or withholding made

However, prior to issuing the Taking-Over Certificate for the Works, the Engineer 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 SCC. In this event, the Engineer shall give notice to the Contractor accordingly.

1462 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.

1463 The Engineer 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 Engineer's acceptance, approval, consent or satisfaction.

#### **147 Payment**

147.1 The Procuring Entity shall pay to the Contractor:

- a) The first instalment of the advance payment within 42 days after issuing the Letter of Acceptance or within 21 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 56 days after the Engineer receives the Statement and supporting documents; or, at a time when the Procuring Entity's loan or credit (from which part of the payments to the Contractor is being made) is suspended, the amount shown on any statement submitted by the Contractor within 14 days after such statement is submitted, any discrepancy being rectified in the next payment to the Contractor; and
- c) the amount certified in the Final Payment Certificate within 56 days after the Procuring Entity receives this Payment Certificate; or, at a time when the Procuring Entity's loan or credit (from which part of the payments to the Contractor is being made) is suspended, the undisputed amount shown in the Final Statement within 56 days after the date of notification of the suspension in accordance with Sub-Clause 16.2 [Termination by Contractor].

1472 Payment of the amount due in each currency shall be made in to the Procuring Entity account, nominated by the Contractor, in the payment country (for this 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 compounded 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.

1482 Unless otherwise stated in the Particular Conditions, these financing charges shall be calculated at the annual rate of three percentage points above the discount rate of the central Procuring Entity in the country of the currency of payment, or if not available, the inter-Procuring Entity offered rate, and shall be paid in such currency.

The Contractor shall be entitled to this payment without formal notice or 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 Engineer 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.

1492 Promptly after the latest of the expiry dates of the Defects Notification Periods, the outstanding balance of

the Retention Money shall be certified by the Engineer 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.

- 1493 However, if any work remains to be executed under Clause 11 [Defects Liability], the Engineer shall be entitled to withhold certification of the estimated cost of this work until it has been executed.
- 1494 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].
- 1495 Unless otherwise stated in the Particular 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 guarantee, in the form annexed to the Particular Conditions or in another form approved by the Procuring Entity and issued by a reputable Procuring Entity or financial institution selected by the Contractor, for the second half of the Retention Money. The Contractor shall ensure that the guarantee is in the amounts and currencies of the second half of the Retention Money and is valid and enforceable until the Contractor has executed and completed the Works and remedied any defects, as specified for the Performance Security in Sub-Clause 4.2. On receipt by the Procuring Entity of the required guarantee, the Engineer shall certify and the Procuring Entity shall pay the second half of the Retention Money. The release of the second half of the Retention Money against a guarantee shall then be in lieu of the release under the second paragraph of this Sub-Clause. The Procuring Entity shall return the guarantee to the Contractor within 21 days after receiving a copy of the Performance Certificate.
- 1496 If the Performance Security required under Sub-Clause 4.2 is in the form of a demand guarantee, and the amount guaranteed under it when the Taking-Over Certificate is issued is more than half of the Retention Money, then the Retention Money guarantee will not be required. If the amount guaranteed under the Performance Security when the Taking-Over Certificate is issued is less than half of the Retention Money, the Retention Money guarantee will only be required for the difference between half of the Retention Money and the amount guaranteed under the Performance Security.

#### **14.10 Statement at Completion**

Within 84 days after receiving the Taking-Over Certificate for the Works, the Contractor shall submit to the Engineer six 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.

The Engineer 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 56 days after receiving the Performance 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 Engineer disagrees with or cannot verify any part of the draft final statement, the Contractor shall submit such further information as the Engineer 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 Engineer 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 Engineer and the Contractor and any changes to the draft final statement which are agreed, it becomes evident that a dispute exists, the Engineer 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 Engineer shall deliver, to the Procuring Entity and to the Contractor, the Final Payment Certificate which shall state:

- (a) The amount which he fairly determines is finally due, and
- (b) After giving credit to the Procuring Entity for all amounts previously paid by the Procuring Entity and for all sums to which the Procuring Entity is entitled, the balance (if any) due from the Procuring Entity to the Contractor or from the Contractor to the Procuring Entity, as the case may be.

14.13.1 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 Engineer shall request the Contractor to do so. If the Contractor fails to submit an application within a period of 30 days, the Engineer shall issue the Final Payment Certificate for such amount as he fairly determines to be due.

#### **14.14 Cessation of Procuring Entity's Liability**

14.14.1 The Procuring Entity shall not be liable to the Contractor for any matter or thing under or in connection with the Contract or execution of the Works, except to the extent that the Contractor shall have included an amount expressly for it:

- a) In the Final Statement and also
- b) (Except for matters or things arising after the issue of the Taking-Over Certificate for the Works) in the Statement at completion described in Sub-Clause 14.10[Statement at Completion].

14.14.2 However, this Sub-Clause shall not limit the Procuring Entity's liability under his indemnification obligations, or the Procuring Entity's liability in any case of fraud, deliberate default or reckless misconduct by the Procuring Entity.

#### **14.15 Currencies of Payment**

The Contract Price shall be paid in the currency or currencies named in the Schedule of Payment Currencies. If more than one currency is so named, payments shall be made as follows:

- a) If the Accepted Contract Amount was expressed in Local Currency only:
  - (i) The proportions or amounts of the Local and Foreign Currencies, and the fixed rates of exchange to be used for calculating the payments, shall be as stated in the Schedule of Payment Currencies, except as otherwise agreed by both Parties;
  - ii) payments and deductions under Sub-Clause 13.5 [Provisional Sums] and Sub-Clause 13.7 [Adjustments for Changes in Legislation] shall be made in the applicable currencies and proportions; and
  - iii) other payments and deductions under sub-paragraphs (a) to (d) of Sub-Clause 14.3 [Application for Interim Payment Certificates] shall be made in the currencies and proportions specified in sub-paragraph (a) (i) above;
- b) payment of the damages specified in the SCC, 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 Procuring Entity of the Country.

## **15. TERMINATION BY PROCURING ENTITY**

### **15.1 Notice to Correct**

If the Contractor fails to carry out any obligation under the Contract, the Engineer may by notice require the Contractor to make good the failure and to remedy it within a specified reasonable time.

### **15.2 Termination by Procuring Entity**

- 15.2.1 The Procuring Entity shall be entitled to terminate the Contract if the Contractor:
- 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 whole of the Works or as signs the Contract without the required agreement,
  - 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 inducement or reward:
    - i) for doing or forbearing 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 if any of the Contractor's Personnel, agents or Subcontractors gives or offers to give (directly or indirectly) to any person any such inducement or reward as is described in this sub-paragraph (f). However, lawful inducements and rewards to Contractor's Personnel shall not entitle termination, or
  - g) based on reasonable evidence, has engaged in Fraud and Corruption as defined in paragraph 2.2 of the Appendix B to these General Conditions, in competing for or in executing the Contract.
- 15.2.2 In any of these events or circumstances, the Procuring Entity may, upon giving 14 days' notice to the Contractor, terminate the Contract and expel the Contractor from the Site. However, in the case of sub-paragraph (e) or (f) or (g), the Procuring Entity may by notice terminate the Contract immediately.
- 15.2.3 The Procuring Entity's election to terminate the Contract shall not prejudice any other rights of the Procuring Entity, under the Contract or otherwise.

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 lowest 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.

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.

The Procuring Entity shall then give notice that the Contractor's Equipment and Temporary Works will be released to the Contractor at or near the Site. The Contractor shall promptly arrange their removal, at the risk and cost of the Contractor. However, if by this time the Contractor has failed to make a payment due to the Procuring Entity, these items may be sold by the Procuring Entity in order to recover this payment. Any balance of the proceeds shall then be paid to the Contractor.

### **15.3 Valuation at Date of Termination**

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

#### **154 Payment after Termination**

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

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

#### **155 Procuring Entity's Entitlement to Termination for Convenience**

155.1 The Procuring Entity shall be entitled to terminate the Contract, at any time for 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].

155.2 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].

#### **156 Fraud and Corruption**

The Procuring Entity requires compliance with the national law and regulations against corruption. All available sanctions will apply where corruption is detected.

### **16. SUSPENSION AND TERMINATION BY CONTRACTOR**

#### **16.1 Contractor's Entitlement to Suspend Work**

16.1.1 If the Engineer fails to certify in accordance with Sub-Clause 14.6 [Issue of Interim Payment Certificates] or the Procuring Entity fails to comply with Sub-Clause 2.4 [Procuring Entity's Financial Arrangements] or Sub-Clause 14.7 [Payment], the Contractor may, after giving not less than 21 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 Notwithstanding the above, if the Procuring Entity has suspended disbursements under the loan or credit from which payments to the Contractor are being made, in whole or in part, for the execution of the Works, and no alternative funds are available as provided for in Sub-Clause 2.4 [Procuring Entity's Financial Arrangements], the Contractor may by notice suspend work or reduce the rate of work at any time, but not less than 7 days after the Procuring Entity having received the suspension notification from the Procuring Entity.

16.1.3 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].

16.1.4 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.

16.1.5 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 Engineer and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:

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

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

## **162 Termination by Contractor**

162.1 The Contractor shall be entitled to terminate the Contract if:

- a) the Contractor does not receive the reasonable evidence within 42 days after giving notice under Sub-Clause 16.1 [Contractor's Entitlement to Suspend Work] in respect of a failure to comply with Sub-Clause 2.4 [Procuring Entity's Financial Arrangements],
- b) the Engineer fails, within 56 days after receiving a Statement and supporting documents, to issue the relevant Payment Certificate,
- c) the Contractor does not receive the amount due under an Interim Payment Certificate within 42 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]),
- d) 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,
- e) the Procuring Entity fails to comply with Sub-Clause 1.6 [Contract Agreement] or Sub-Clause 1.7 [Assignment],
- f) a prolonged suspension affects the whole of the Works as described in Sub-Clause 8.11 [Prolonged Suspension], or
- g) 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.
- h) The Contractor does not receive the Engineer's 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].

1622 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.

1623 In the event the Procuring Entity suspends the loan or credit from which part or whole of the payments to the Contractor are being made, if the Contractor has not received the sums due to him upon expiration of the 14 days referred to in Sub-Clause 14.7 [Payment] for payments under Interim Payment Certificates, the Contractor may, without prejudice to the Contractor's entitlement to financing charges under Sub-Clause 14.8 [Delayed Payment], take one of the following actions, namely (i) suspend work or reduce the rate of work under Sub-Clause 16.1 above, or (ii) terminate the Contract by giving notice to the Procuring Entity, with a copy to the Engineer, such termination to take effect 14 days after the giving of the notice.

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

## **163 Cessation of Work and Removal of Contractor's Equipment**

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

- a) Cease all further work, except for such work as may have been instructed by the Engineer for the protection of life or property or for the safety of the Works,
- b) Handover 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.

## **164 Payment on Termination**

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

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

## **17. RISK AND RESPONSIBILITY**

### **17.1 Indemnities**

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

- (a) Bodily injury, sickness, disease or death, of any person whatsoever arising out of or in the course of or by reason of the Contractor's design (if any), the execution and completion of the Works and the remedying of any defects, unless attributable to any negligence, willful act or breach of the Contract by the Procuring Entity, the Procuring Entity's Personnel, or any of the irrelative 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, the irrelative agents, or any one 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].

### **17.2 Contractor's Care of the Works**

17.2.1 The Contractor shall take full responsibility for the care of the Works and Goods from the Commencement Date until the Taking-Over Certificate is issued (or is deemed to be issued under Sub-Clause 10.1 [Taking Over of the Works and Sections]) for the Works, when responsibility for the care of the Works shall pass to the Procuring Entity. If a Taking-Over Certificate is issued (or is so deemed to be issued) for any Section or part of the Works, responsibility for the care of the Section or part shall then pass to the Procuring Entity.

17.2.2 After responsibility has accordingly passed to the Procuring Entity, the Contractor shall take responsibility for the care of any work which is outstanding on the date stated in a Taking-Over Certificate, until this outstanding work has been completed.

17.2.3 If any loss or damage happens to the Works, Goods or Contractor's Documents during the period when the Contractor is responsible for their care, from any cause not listed in Sub-Clause 17.3 [Procuring Entity's Risks], the Contractor shall rectify the loss or damage at the Contractor's risk and cost, so that the Works, Goods and Contractor's Documents conform with the Contract.

17.2.4 The Contractor shall be liable for any loss or damage caused by any actions performed by the Contractor after a Taking-Over Certificate has been issued. The Contractor shall also be liable for any loss or damage which occurs after a Taking-Over Certificate has been issued and which arose from a previous event for which the Contractor was liable.

### **17.3 Procuring Entity's Risks**

The risks referred to in Sub-Clause 17.4 [Consequences of Procuring Entity's Risks] below, insofar as they directly affect the execution of the Works in the Country, are:

- 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, within the Country,
- c) riot, commotion or disorder within the Country by persons other than the Contractor's Personnel,
- d) munitions of war, explosive materials, ionizing radiation or contamination by radio-activity, within the Country, except as may be attributable to the Contractor's use of such munitions, explosives, radiation or radio-activity,
- e) pressure waves caused by aircraft or other aerial devices traveling at sonic or supersonic speeds,
- f) use or occupation by the Procuring Entity of any part of the Permanent Works, except as may be specified in the Contract,
- g) design of any part of the Works by the Procuring Entity's Personnel or by others for whom the Procuring Entity is responsible, and
- h) 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 Engineer 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 Engineer 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 (f) and (g) of Sub-Clause 17.3 [Procuring Entity's Risks], Cost plus profit shall be payable.
- 174.3 After receiving this further notice, the Engineer 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" means an infringement (or alleged infringement) of any patent, registered design, copyright, trademark, tradename, trade secret or other intellectual or industrial property right relating to the Works; and "claim" means a claim (or proceedings pursuing a claim) alleging an infringement.
- 175.2 Whenever a Party does not give notice to the other Party of any claim within 30 days of receiving the claim, the first Party shall be deemed to have waived any right to indemnity under this Sub-Clause.
- 175.3 The Procuring Entity shall indemnify and hold the Contractor harmless against and from any claim alleging an infringement which is or was:
- a) An unavoidable result of the Contractor's compliance with the Contract, or
  - b) A result of any Works being used by the Procuring Entity:
    - i) For a purpose other than that indicated by, or reasonably to be inferred from, the
    - ii) Contract, or
    - iii) In conjunction with anything not supplied by the Contractor, unless such use was disclosed to the Contractor prior to the Base Date or is stated in the Contract.
- 175.4 The Contractor shall indemnify and hold the Procuring Entity harmless against and from any other claim which arises out of or in relation to (i) the manufacture, use, sale or import of any Goods, or (ii) any design for which the Contractor is responsible.
- 175.5 If a Party is entitled to be indemnified under this Sub-Clause, the indemnifying Party may (at its cost) conduct negotiations for the settlement of the claim, and any litigation or arbitration which may arise from it. The other Party shall, at the request and cost of the indemnifying Party, assist in contesting the claim. This other Party (and its Personnel) shall not make any admission which might be prejudicial to the indemnifying Party, unless the indemnifying Party failed to take over the conduct of any negotiations, litigation or arbitration upon being requested to do so by such other Party.

## **17.7 Limitation of Liability**

- 17.7.1 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 indirect or consequential loss or damage which may be suffered by the other Party in connection with the Contract, other than as specifically provided in Sub-Clause 8.7 [Delay Damages]; Sub-Clause 11.2 [Cost of Remedying Defects]; Sub-Clause 15.4 [Payment after Termination]; Sub-Clause 16.4 [Payment on Termination]; Sub-Clause 17.1 [Indemnities]; Sub-Clause 17.4 (b) [Consequences of Procuring Entity's Risks] and Sub-Clause 17.5 [Intellectual and Industrial Property Rights].
- 17.7.2 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 SCC, or (if such multiplier or other sum is not so stated) the Accepted Contract Amount.
- 17.7.3 This Sub-Clause shall not limit liability in any case of fraud, deliberate default or reckless misconduct by the defaulting Party.

## **17.8 Use of Procuring Entity's Accommodation/Facilities**

- 17.8.1 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 Contract or 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).
- 17.8.2 If any loss or damage happens to any of the above items while the Contractor is responsible for their care arising from any cause whatsoever other than those for which the Procuring Entity is liable, the Contractor shall, at his own cost, rectify the loss or damage to the satisfaction of the Engineer.

## **18. INSURANCE**

### **18.1 General Requirements for Insurances**

- 18.1.1 In this Clause, "insuring Party" means, for each type of insurance, the Party responsible for effecting and maintaining the insurance specified in the relevant Sub-Clause.
- 18.1.2 Wherever the Contractor is the insuring Party, each insurance shall be effected with insurers and in terms approved by the Procuring Entity. These terms shall be consistent with any terms agreed by both Parties before the date of the Letter of Acceptance. This agreement of terms shall take precedence over the provisions of this Clause.
- 18.1.3 Wherever the Procuring Entity is the insuring Party, each insurance shall be effected with insurers and in terms acceptable to the Contractor. These terms shall be consistent with any terms agreed by both Parties before the date of the Letter of Acceptance. This agreement of terms shall take precedence over the provisions of this Clause.
- 18.1.4 If a policy is required to indemnify joint insured, the cover shall apply separately to each insured as though a separate policy had been issued for each of the joint insured. If a policy indemnifies additional joint insured, namely in addition to the insured specified in this Clause, (i) the Contractor shall act under the policy on behalf of these additional joint insured except that the Procuring Entity shall act for Procuring Entity's Personnel, (ii) additional joint insured shall not be entitled to receive payments directly from the insurer or to have any other direct dealings with the insurer, and (iii) the insuring Party shall require all additional joint insured to comply with the conditions stipulated in the policy.
- 18.1.5 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 SCC (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.

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.

18.1.9 The insuring Party fails to effect and keep in force any of the insurances it is required to effect and maintain under the Contract or 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.

18.1.10 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 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.

18.1.11 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.

18.1.12 The Contractor shall be entitled to place all insurance relating to the Contract (including, but not limited to the insurance referred to Clause 18) with insurers from any eligible source country.

## **182 Insurance for Works and Contractor's Equipment**

18.2.1 The insuring Party shall insure the Works, Plant, Materials 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 Particular 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 SCC(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 the Country, subject to Sub-Clause 14.5 [Plant and Materials intended for the Works].

1825 If, more than one year after the Base Date, the cover described in sub-paragraph (d) above ceases to be available at commercially reasonable terms, the Contractor shall (as insuring Party) give notice to the Procuring Entity, with supporting particulars. The Procuring Entity shall then (i) be entitled subject to Sub-Clause 2.5 [Procuring Entity's Claims] to payment of an amount equivalent to such commercially reasonable terms as the Contractor should have expected to have paid for such cover, and (ii) be deemed, unless he obtains the cover at commercially reasonable terms, to have approved the omission under Sub-Clause 18.1 [General Requirements for Insurances].

### **183 Insurance against Injury to Persons and Damage to Property**

183.1 The insuring Party shall insure against each Party's liability for any loss, damage, death or bodily injury which may occur to any physical property (except things insured under Sub-Clause 18.2 [Insurance for Works and Contractor's Equipment]) or to any person (except persons insured under Sub-Clause 18.4 [Insurance for Contractor's Personnel]), which may arise out of the Contractor's performance of the Contract and occurring before the issue of the Performance Certificate.

1832 This insurance shall be for a limit per occurrence of not less than the amount stated in the SCC, with no limit on the number of occurrences. If an amount is not stated in the SCC, this Sub-Clause shall not apply. Unless otherwise stated in the Particular 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 through any land, and to occupy this land for the Permanent Works,
  - ii) damage which is an unavoidable result of the Contractor's obligations to execute the Works and remedy any defects, and
  - iii) a cause listed in Sub-Clause 17.3 [Procuring Entity's Risks], except to the extent that cover is available at commercially reasonable terms.

### **184 Insurance for Contractor's Personnel**

184.1 The Contractor shall effect and maintain insurance against liability for claims, damages, losses and expenses (including legal fees and expenses) arising from injury, sickness, disease or death of any person employed by the Contractor or any other of the Contractor's Personnel.

1842 The insurance shall cover the Procuring Entity and the Engineer against liability for claims, damages, losses and expenses (including legal fees and expenses) arising from injury, sickness, disease or death of any person employed by the Contractor or any other of the Contractor's Personnel, except that this insurance may exclude losses and claims to the extent that they arise from any act or neglect of the Procuring Entity or of the Procuring Entity's Personnel.

1843 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:

- i) war, hostilities (whether war be declared or not), invasion, act of foreign enemies,
- ii) rebellion, terrorism, sabotage by persons other than the Contractor's Personnel, revolution, insurrection, military or usurped power, or civil war,
- iii) riot, commotion, disorder, strike or lock out by persons other than the Contractor's Personnel,
- iv) 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
- v) natural catastrophes such as earthquake, hurricane, typhoon or volcanic activity.

### **19.2 Notice of Force Majeure**

19.2.1 If a Party is or will be prevented from performing its substantial obligations under the Contract by Force Majeure, then it shall give notice to the other Party of the event or circumstances constituting the Force Majeure and shall specify the obligations, the performance of which is or will be prevented. The notice shall be given within 14 days after the Party became aware, or should have become aware, of the relevant event or circumstance constituting Force Majeure.

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

Notwithstanding any other provision of this Clause, Force Majeure shall not apply to obligations of either Party to make payments to the other Party under the Contract.

### **19.3 Duty to Minimize Delay**

Each Party shall at all times use all reasonable endeavors to minimize any delay in the performance of the Contract as a result of Force Majeure. A Party shall give notice to the other Party when it ceases to be affected by the Force Majeure.

### **19.4 Consequences of Force Majeure**

19.4.1 If the Contractor is prevented from performing his substantial obligations under the Contract by Force Majeure of which notice has been given under Sub-Clause 19.2 [Notice of Force Majeure], and suffers delay and/or incurs Cost by reason of such Force Majeure, the Contractor shall be entitled subject to Sub-Clause

20.1 [Contractor's Claims] to:

- a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and
- b) if the event or circumstance is of the kind described in sub-paragraphs (i) to (iv) of Sub-Clause 19.1 [Definition of Force Majeure] and, in sub-paragraphs (ii) to (iv), occurs in the Country, payment of any such Cost, including the costs of rectifying or replacing the Works and/or Goods damaged or destroyed by Force Majeure, to the extent they are not indemnified through the insurance policy referred to in Sub- Clause 18.2 [Insurance for Works and Contractor's Equipment].

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

### **19.5 Force Majeure Affecting Subcontractor**

If any Subcontractor is entitled under any contract or agreement relating to the Works to relief from force majeure on terms additional to or broader than those specified in this Clause, such additional or broader force majeure events or circumstances shall not excuse the Contractor's non-performance or entitle him to relief under this Clause.

## **19.6 Optional Termination, Payment and Release**

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].

Upon such termination, the Engineer shall determine the value of the work done and issue a Payment Certificate which shall include:

- a) The amounts payable for any work carried out for which a price is stated in the Contract;
- b) The Cost of Plant and Materials ordered for the Works which have been delivered to the Contractor, or of which the Contractor is liable to accept delivery: this Plant and Materials shall become the property of (and be at the risk of) the Procuring Entity when paid for by the Procuring Entity, and the Contractor shall place the same at the Procuring Entity's disposal;
- c) other Cost or liabilities which in the circumstances were reasonably and necessarily incurred by the Contractor in the expectation of completing the Works;
- d) the Cost of removal of Temporary Works and Contractor's Equipment from the Site and their turn 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 labor 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. CLAIMS, DISPUTES AND ARBITRATION**

### **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.

20.1.3 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 Engineer 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 Engineer to inspect all these records, and shall (if instructed) submit copies to the Engineer.

- 20.14 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 Engineer a 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 Engineer 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.
- 20.15 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 Engineer and approved by the Contractor, the Engineer 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.
- 20.16 Within the above defined period of 42 days, the Engineer 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.
- 20.17 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.
- 20.18 If the Engineer does not respond within the time frame defined in this Clause, either Party may consider that the claim is rejected by the Engineer and any of the Parties may refer to Arbitration in accordance with Sub-Clause 20.4 [Arbitration].
- 20.19 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 Sub-Clause 20.3 (f).

## **20.2 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 the fifty-sixth day from the day on which a notice of a claim was given, even if no attempt at an amicable settlement has been made.

## **20.3 Matters that may be referred to arbitration**

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

- a) The appointment of a replacement Engineer upon the said person ceasing to act.
- b) Whether or not the issue of an instruction by the Engineer is empowered by these Conditions.
- c) Whether or not a certificate has been improperly withheld or is not in accordance with these Conditions.
- e) Any dispute arising in respect of war risks or war damage.
- f) 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.

## **20.4 Arbitration**

- 204.1 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.
- 204.2 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.
- 204.3 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.
- 204.4 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.
- 204.5 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 requirement or notice had been given.
- 204.6 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 Engineer from being called as a witness and giving evidence before the arbitrators on any matter whatsoever relevant to the dispute.
- 204.7 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.
- 204.7 Arbitration may be commenced prior to or after completion of the Works. The obligations of the Parties, and the Engineer shall not be altered by reason of any arbitration being conducted during the progress of the Works.
- 204.8 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.

## **20.5 Arbitration with National Contractors**

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

## **20.6 Arbitration with Foreign Contractors**

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

2072 The place of arbitration shall be a location specified in the **SCC**; and the arbitration shall be conducted in the language for communications defined in Sub-Clause 1.4 [Law and Language].

#### **207 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.

#### **208 Failure to Comply with Arbitrator's Decision**

2081 The award of such Arbitrator shall be final and binding upon the parties.

2082 In the event that a Party fails to comply with a final and binding Arbitrator's decision, then the other Party may, without prejudice to any other rights it may have, refer the matter to a competent court of law.

#### **10.7 Contract operations continue**

Notwithstanding any reference to arbitration herein,

- a) The parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; and
- b) The Procuring Entity shall pay the Contractor any monies due the Contractor.

**SECTION IX. PARTICULAR CONDITIONS (PC) OF CONTRACT**

## SECTION IX - SPECIAL CONDITIONS OF CONTRACT

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

Conditions	GCC Clause	Data
Procuring Entity's name and address	1	Chief Executive Officer National Water Harvesting & Storage Authority P.O Box 30173 - 00100 Nairobi, Kenya
Time for Completion	1	<u>24 Months</u>
Engineer's name and address	1	<b>The Engineer is: -</b> NWHSA Engineer appointed by Chief Executive Officer National Water Harvesting & Storage Authority P.O Box 30173 - 00100 Nairobi, Kenya
Electronic transmission	1.3	Not Applicable unless followed by delivery of hard copy
Governing Law	1.4	Law of the Republic of Kenya
Ruling language	1.4	English
Language for communications	1.4	English
Time for the Parties entering into a Contract Agreement	1.6	10 <sup>th</sup> November 2023
Time for access to the Site	2.1	Not later than six (6) months after the Commencement Date
Engineer's Authority to make variations.	3.1.2 (b) (ii)	<b>Add the following to this Sub-Clause:</b> "Unless the Employer notifies the Contractor in writing otherwise, the Engineer shall obtain the specific approval of the Employer before taking action under the following Sub-Clauses of these Condition: (a) <u>The maximum value of Variation issued</u> under Subclause 13 [Variations and Adjustments] by the Engineer shall be subject to the Public Procurement & Asset Disposal Act No. 33 of 2015. All variations shall be reported to the Employer by the Engineer's Representative for approval before issuing instructions to the Contractor.
Performance Security	4.2.2	The performance security will be in the form of an 'unconditional Bank Guarantee' in the amount(s) of <b>Ten (10) percent</b> of the Contract price amount and in the same currency (ies) of the Accepted Contract Price and from a bank approved by Central Bank of Kenya.
Contractor's Representative's name	4.3	<i>[Insert the name of the Contractor's Representative agreed by the Procuring Entity prior to Contract signature]</i>
Working Hours	6.5	Resident Engineer's staff Monday to Friday: 08.00 to 13.00 Hrs 14.00 to 17.00 Hrs Saturday: 08.00 to 13.00 Hrs EA Time
Key Personnel names	6.9.1	<i>[insert the name of each Key Personnel agreed by the Procuring Entity prior to Contract signature]</i>
Commencement of Works	8.1.1(c)	<i>Modifications shall be (if nay)</i>
Delay Damages	8.7.1	0.01% of the Accepted Contract Amount per day.
Maximum amount of delay damages	8.7.1	Ten Percent (30%) of the Accepted Contract Amount.
Defects Notification Period		24 Months.

Conditions	GCC Clause	Data
<b>Tender Make-up</b>	12.5	Add the following new Sub-Clause:  “The Contractor shall provide tender make-up attached to the tender document or Basis of the tender prices”. OR Schedule of basic prices.
<b>Value Engineering</b>	13.2	Add “Alternative proposals by the Contractor that results in better economic value and efficiency shall be encouraged”.
<b>Provisional Sums</b>	13.5. (b)(iii)	Ten Percent (10%)
<b>Adjustments for Changes in Cost</b>	13.8.3	Not Applicable
<b>Total advance payment</b>	14.2.1	<b>None</b>
<b>Start repayment of advance payment</b>	14.2.4(a)	<b>Not Applicable</b>
<b>Repayment amortization rate of advance payment</b>	14.2.4(b)	<b>Not Applicable</b>
<b>Limit of Retention</b>	14.3.2(c)	10% of the Accepted Contract Amount
<b>Percentage of Retention</b>	14.3.2(c)	10 % of the gross amount of interim payment certificates.
<b>Plant and Materials</b>	14.5.2(b)(i)	Delete entire clause and replace “this clause shall not be applicable”.
	14.5.2(c)(i)	Delete entire clause and replace “this clause shall not be applicable”.
<b>Minimum Amount of Interim Payment Certificates</b>	14.6.1	Kshs 250 million .
<b>Publishing source of commercial interest rates for financial charges in case of delayed payment</b>	14.8	Delete entire clause and replace “interest rate for delayed payments shall not be applicable”.
<b>Termination by Employer</b>	15.2.1	After sub-paragraph(g), insert the following paragraphs:  h) or, has become liable in accordance with Sub-Clause 8.7 for the maximum amount of Delay Damages stated in the Appendix to Tender.”
<b>Maximum total liability of the Contractor to the Procuring Entity</b>	17.6.2	The Accepted Contract Amount
<b>Periods for submission of insurance:</b>	18.1.6	<i>[Insert period for submission of evidence of insurance and policy. Period may be from 14 days to 30 days.]</i>
<b>a. evidence of insurance.</b>		<u>14</u> days
<b>b. relevant policies</b>		<u>28</u> days
<b>Maximum number of deductibles for insurance of the Procuring Entity's risks</b>	18.2(d)	KShs 50 Million
<b>Minimum amount of third-party insurance</b>	18.3.2	The minimum shall be Kshs 50,000,000 (Kshs Fifty Million) for unlimited occurrences.
<b>Institute administering the arbitration; including appointing authority for arbitration</b>	<b>20.5 &amp; 20.6</b>	The Chartered Institute of Arbitrators, Kenya Branch
<b>The place of arbitration</b>	20.5.1 & 20.7.2	Nairobi
<b>Language of arbitration</b>	20.5.1 & 20.7.2	<b>English</b>
<b>Failure to Comply with Dispute Adjudication Board's Decision</b>	20.8.2	The binding decision of the Dispute Adjudication Board (DAB), the other party may refer the failure to arbitration without first having to refer the matter to DAB and then wait for amicable period to expire.

**Appendix**

Tender make-up/ Basis of Tender/Schedule of Basic Prices – Clause 12.5

*(Contractor to attach schedule of basic prices and sources (quoted prices without adjustments for profits))*

## **Section X - CONTRACT FORMS**

### **Table of 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

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FORM No. 6 PERFORMANCE SECURITY [Option 2– Performance Bond]

FORM No. 7 ADVANCE PAYMENT SECURITY

FORM No. 8 RETENTION MONEY SECURITY

FORM NO. 9 BENEFICIAL OWNERSHIP DISCLOSURE FORM

## FORM No. I - Notification of Intention to Award

*[This Notification of Intention to Award shall be sent to each Tenderer that submitted a Tender.] [Send this Notification to the Tenderer's Authorized Representative named in the Tender Information Form]*

### **FORMAT**

For the attention of Tenderer's Authorized Representative

Name:.....*[insert Authorized Representative's name]* Address: *[insert Authorized Representative's Address]* Telephones: *[insert Authorized Representative's telephone/fax numbers]* 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.]*

**Date of Transmission:** This Notification is sent by: *[email]* on *[date]* (local time)

Procuring Entity: *[insert the name of the Procuring Entity]* Contract title: *[insert the name of the contract]*

Country: Kenya, County\_\_\_\_\_ *(if the Procuring Entity is from a County)*

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:

- a) Request a debriefing in relation the evaluation of your Tender, and/or
- b) Submit a Procurement-related Complaint in relation to the decision to award the contract.

### **1. The successful Tenderer**

Name: *[insert name of successful Tenderer]*. Address: *[insert address of the successful Tenderer]* Contract price: *[insert contract price of the successful Tender]*

### **2 Other Tenderers:** *insert 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.]*

	Name of Tenderer	Tender price	Evaluated Tender price	Comments (if any)
1				
2				
3				
4				
5				
6				
7				
Etc.				

## 1. How to request a debriefing

**DEADLINE:** The deadline to request a debriefing expires at midnight on *[insert date]* (local time).

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 (3) Business Days of receipt of this Notification of Intention to Award. Provide the contract name, reference number, name of the Tenderer, contact details; and address the request for debriefing as follows:

**Attention:** *[insert full name of person, if applicable]* **Title/position:** *[insert title/position]* **Procuring Entity:** *[insert name of Procuring Entity]* **Email address:** *[insert email address]*

If your request for a debriefing is received within the 3 Business Days deadline, we will provide the debriefing within five (5) 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 (5) Business 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. 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.

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) Business Days from the date of publication of the Contract Award Notice.

## 2. How to make a complaint

**Period:** Procurement-related Complaint challenging the decision to award shall be submitted by midnight, *[insert date]* (local time).

Provide the contract name, reference number, name of the Tenderer, contact details; and address the Procurement-related Complaint as follows:

Attention: *[insert full name of person, if applicable]*

Title/position: *[insert title/position]* Procuring

Entity: *[insert name of Procuring Entity]* Email

address: *[insert email address]*

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.

In summary, there are four essential requirements:

- a) 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.
- b) The complaint can only challenge the decision to award the contract.
- c) You must submit the complaint within the period stated above.
- d) You must include, in your complaint, all of the information necessary to support your case.
- e) The application must be accompanied by the fees set out in the Procurement Regulations, which shall not be refundable (information available from the Public Procurement Authority at [www.ppoa.go.ke](http://www.ppoa.go.ke)).

**3. Standstill Period**

- a) **DEADLINE:** The Standstill Period is due to end at midnight on *[insert date]* (local time).
- i) The Standstill Period lasts ten (14) Days after the date of transmission of this Notification of Intention to Award.

(ii) The Standstill Period may be extended as stated in Section 4 above.

If you have any questions regarding this Notification please do not hesitate to contact

us. On behalf of the Procuring Entity:

Name\_\_\_\_\_

Title and Position\_\_\_\_\_

\_\_\_\_\_

Signature\_\_\_\_\_

Date\_\_\_\_\_

\_\_\_\_\_

**FORM NO. 2 - REQUEST FOR REVIEW**

**FORM FOR REVIEW (r.203 (1))**

**PUBLIC PROCUREMENT ADMINISTRATIVE REVIEW BOARD**

**APPLICATION NO.....OF.....20.....**

**BETWEEN**

**.....APPLICANT**

**AND**

**.....RESPONDENT (Procuring Entity)**

Request for review of the decision of the..... (Name of the Procuring Entity of .....dated the...day of .....20.....in the matter of Tender No.....of .....20..... for ..... (Tender description).

**REQUEST FOR REVIEW**

I/We.....,the above named Applicant(s), of address: Physical address.....P. O. Box No.....  
Tel. No.....Email ....., hereby request the Public Procurement Administrative Review Board to review the whole/part of the above mentioned decision on the following grounds , namely:

- 1.
- 2.

By this memorandum, the Applicant requests the Board for an order/orders that:

- 1.
- 2.

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

---

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

**SIGNED**

**Board Secretary**

## FORM NO. 3 - LETTER OF AWARD

*[Letter head paper of the Procuring Entity]*

*[Date]*

### **FORMAT**

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 SCC]* 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 hereby accepted by our Agency.

You are requested to furnish the Performance Security within 30 days in accordance with the Conditions of Contract, using, for that purpose, one of the Performance Security Forms included in Section X, Contract Forms, of the tender document.

We attach a copy of the Contract for your

Authorized Signature:

Name and Title of

Signatory: Name of Agency:

**Attachment: Contract Agreement**

## FORM NO. 4 – CONTRACT AGREEMENT

THIS AGREEMENT made the \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, between \_\_\_\_\_ of \_\_\_\_\_ (hereinafter “the Procuring Entity”), of the one part, and \_\_\_\_\_ of \_\_\_\_\_ (herein after “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 therein, 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 Letter of Acceptance
  - b) The Letter of Tender
  - c) The addenda Nos \_\_\_\_\_ (if any)
  - d) The Particular Conditions
  - e) The General Conditions;
  - f) The Specification
  - 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 hereby 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 hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects therein, 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 whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of Kenya on the day, month and year specified above.

Signed by \_\_\_\_\_

\_\_\_\_\_(For the Procuring Entity)

Signed by \_\_\_\_\_

\_\_\_\_\_(For the Contractor)

**FORM NO. 5 - PERFORMANCE SECURITY**  
**– (Unconditional Demand Bank Guarantee)**

*[Guarantor letterhead or SWIFT identifier code]*

**Beneficiary:** \_\_\_\_\_ *[insert name and Address of Procuring*

Entity] **Date:** \_\_\_\_\_ *[Insert date of issue]*

**PERFORMANCE GUARANTEE No.:** \_\_\_\_\_

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

1. We have been informed that \_\_\_\_\_ (herein after called "the Applicant") has entered into Contract No. \_\_\_\_\_ dated \_\_\_\_\_ with the Beneficiary, for the execution of \_\_\_\_\_ (herein after called "the Contract").
2. Further more, we understand that, according to the conditions of the Contract, a performance guarantee is required.
3. At the request of the Applicant, we as Guarantor, here by irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of \_\_\_\_\_ ( ),<sup>1</sup> such sum being payable in the types and proportions of currencies in which the Contract Price is payable, upon receipt by us of the Beneficiary's complying demand supported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating that the Applicant is in breach of its obligation(s) under the Contract, without the Beneficiary needing to prove or to show grounds for your demand or the sum specified therein.
4. This guarantee shall expire, no later than the ..... Day of ..... 2...<sup>2</sup>, and any demand for payment under it must be received by us at this office indicated above on or before that date.
5. The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed *[six months]* *[one year]*, in response to the Beneficiary's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee."

\_\_\_\_\_  
*[Name of Authorized Official, signature(s) and seals/stamps]*

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

<sup>1</sup>The Guarantor shall insert an amount representing the percentage of the Accepted Contract Amount specified in the Letter of Acceptance, less provisional sums, if any, and denominated either in the currency (cies) of the Contract or a freely convertible currency acceptable to the Beneficiary.

<sup>2</sup>Insert the date twenty-eight days after the expected completion date as described in GC Clause 11.9. The Procuring Entity should note that in the event of an extension of this date for completion of the Contract, the Procuring Entity would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee. In preparing this guarantee, the Procuring Entity might consider adding the following text to the form, at the end of the pen ultimate paragraph: "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."

**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 letter head]*

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 thereto, which to the extent here in provided for, are by reference made part hereof and are herein 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:
  - 1) Complete the Contract in accordance with its terms and conditions; or
  - 2) 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
  - 3) Pay the Procuring Entity the amount required by Procuring Entity to complete the Contract in accordance with its terms and conditions upto a total not exceeding the amount of this Bond.
- 4 The Surety shall not be liable for a greater sum than the specified penalty of this Bond.
- 5 Any suit under this Bond must be instituted before the expiration of one year from the date of the issuing of the Taking-Over Certificate. No right of action shall accrue on this Bond to or for the use of any person or corporation other than the Procuring Entity named here in or the heirs, executors, administrators, successors, and assigns of the Procuring Entity.

6 In testimony where of, 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 attested 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 or SWIFT identifier*

*code]* *[Guarantor letterhead or SWIFT identifier code]*

**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 \_\_\_\_\_ (herein after called "the Applicant") has entered into Contract No. \_\_\_\_\_ dated \_\_\_\_\_ with the Beneficiary, for the execution of \_\_\_\_\_ (herein after called "the Contract").
2. Furthermore, we understand that, according to the conditions of the Contract, an advance payment in the sum \_\_\_\_\_ ( ) is to be made against an advance payment 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 \_\_\_\_\_ ( )<sup>1</sup> upon receipt by us of the Beneficiary's complying demand supported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating either that the Applicant:
  - a) Has used the advance payment for purposes other than the costs of mobilization in respect of the Works; or
  - b) Has failed to repay the advance payment in accordance with the Contract conditions, specifying the amount which the Applicant has failed to repay.
4. A demand under this guarantee may be presented as from the presentation to the Guarantor of a certificate from the Beneficiary's bank stating that the advance payment referred to above has been credited to the Applicant 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 Applicant as specified in copies of interim statements or payment certificates which shall be presented to us. This guarantee shall expire, at the latest, upon our receipt of a copy of the interim payment certificate indicating that ninety (90) percent of the Accepted Contract Amount, less provisional sums, has been certified for payment, or on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, <sup>2</sup> whichever is earlier. Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.
6. The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed *[six months]* *[one year]*, in response to the Beneficiary's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee.

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

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

<sup>1</sup> The Guarantor shall insert an amount representing the amount of the advance payment and denominated either in the currency (ies) of the advance payment as specified in the Contract, or in a freely convertible currency acceptable to the Procuring Entity.

<sup>2</sup> Insert the expected expiration date of the Time for Completion. The Procuring Entity should note that in the event of an extension of the time for completion of the Contract, the Procuring Entity would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee. In preparing this guarantee, the Procuring Entity might consider adding the following text to the form, at the end of the penultimate paragraph: "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."

**FORM NO. 8 - RETENTION MONEY SECURITY**  
**[Demand Bank Guarantee]**

*[Guarantor letterhead]*

**Beneficiary:** \_\_\_\_\_ *[Insert name and Address of Procuring Entity]*  
**Date:** \_\_\_\_\_ *[Insert date of issue]*

**ADVANCE PAYMENT GUARANTEE No.:** \_\_\_\_\_  
*[Insert guarantee reference number]*

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

1. We have been informed that \_\_\_\_\_ *[insert name of Contractor, which in the case of a joint venture shall be the name of the joint venture]* (herein after 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]* (herein after 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]* \_\_\_\_\_ 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 show grounds for your demand or the sum specified therein.
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...<sup>2</sup>, and any demand for payment under it must be received by us at the office indicated above on or before that date.
6. The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed *[six months]* *[one year]*, in response to the Beneficiary's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee.

\_\_\_\_\_  
*[Name of Authorized Official, signature(s) and seals/stamps]*

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

<sup>1</sup> The Guarantor shall insert an amount representing the amount of the second half of the Retention Money.

<sup>2</sup> Insert a date that is twenty-eight days after the expiry of retention period after the actual completion date of the contract. The Procuring Entity should note that in the event of an extension of this date for completion of the Contract, the Procuring Entity would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee.

**FORM NO. 9 BENEFICIAL OWNERSHIP DISCLOSURE FORM**  
**(Amended and issued pursuant to PPRA CIRCULAR No. 02/2022)**

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-----  2. Is this right held directly or indirectly?:  Direct..... .....  Indirect..... .....	1. Exercises significant influence or control over the Company body of the Company (tenderer)  Yes -----No-- --  2. Is this influence or control exercised directly or indirectly?  Direct..... .....
	National identity card number or Passport number				
	Personal Identification Number (where applicable)				
	Nationality				
	Date of birth [dd/mm/yyyy]				
	Postal address				
	Residential address				
	Telephone number				
	Email address				
	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)
					Indirect..... ...
2.	<div>Full Name</div> <div>National identity card number or Passport number</div> <div>Personal Identification Number (where applicable)</div> <div>Nationality(ies)</div> <div>Date of birth [dd/mm/yyyy]</div> <div>Postal address</div> <div>Residential address</div> <div>Telephone number</div> <div>Email address</div> <div>Occupation or profession</div>	<div>Directly----- ----- % of shares</div> <div>Indirectly---- ----- % of shares</div>	<div>Directly..... .....% of voting rights</div> <div>Indirectly----- % of voting rights</div>	<div>1. Having the right to appoint a majority of the board of the directors or an equivalent governing body of the Tenderer: Yes -----No----</div> <div>2. Is this right held directly or indirectly?:</div> <div>Direct..... .....</div> <div>Indirect..... .....</div>	<div>1. Exercises significant influence or control over the Company body of the Company (tenderer) Yes -----No----</div> <div>2. Is this influence or control exercised directly or indirectly?</div> <div>Direct..... .....</div> <div>Indirect..... .....</div>
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

III) 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.*

IV) 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.

V) 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