



# **COUNTY GOVERNMENT OF BOMET**

## **TENDER DOCUMENT**

**PROJECT: BOMET COUNTY WATER PROJECT**

**TENDER NUMBER: CGB/W&I/001/2019/2020**

**TENDER DESCRIPTION: REHABILITATION OF ITARE (MOGOGOSIEK-KAPLETUNDO-KAPLONG) WATER SUPPLY PIPELINE**

**PREPARED BY:**

**Department of Water, Sanitation and Environment,  
P.O. Box 19 – 20400,  
Bomet, Kenya**

**PROCURING ENTITY:**

**County Government of Bomet,  
P.O. Box 19 – 20400,  
Bomet, Kenya**

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## **ABBREVIATIONS AND ACRONYMS**

<b>CDS</b>	Contract Data Sheet
<b>GCC</b>	General Conditions of Contract
<b>IFT</b>	Invitation for Tender
<b>ITT</b>	Instruction to Tenderers
<b>KIDDP</b>	Kenya Italy Debt for Development Programme
<b>PE</b>	Procuring Entity
<b>PM</b>	Project Manager
<b>PPADA 2015</b>	Public Procurement and Asset Disposal Act, 2015
<b>PPDR 2006</b>	Public Procurement and Disposal Regulations, 2006
<b>PPRA</b>	Public Procurement Regulatory Authority
<b>STD</b>	Standard Tender Documents
<b>SOR</b>	Statement of Requirements
<b>SP</b>	Service Provider
<b>TDS</b>	Tender Data Sheet
<b>VAT</b>	Value Added Tax

# SECTION I: INVITATION FOR TENDERS (IFT)

## INVITATION TO TENDER NOTICE

1. The County Government of Bomet through the Department of Water, Sanitation and Environment is set to undertake the project indicated below. This is therefore to invite qualified contractors/suppliers to submit sealed Bids for the tender as shown below.

Tender no.	Project name	Project scope	County	Category and class of registration
CGB/W&I/001/2019/2020	Rehabilitation of Itare (Mogogosiek-Kapletundo-Kaplong) water supply pipeline	Excavation and backfilling of pipe trenches Pipeline laying and joining of uPVC and GI pipes	Bomet	NCA 4 and above in Civil and Water Works

2. The estimated construction period is **Six (6)** calendar months.
3. A complete set of tender documents may be obtained by interested candidates by downloading from [www.bomet.go.ke](http://www.bomet.go.ke) free of charge.
4. Qualification requirements include: Bidders must be currently registered by the National Construction Authority in category NCA 4 and above, Financial capacity evidenced from 5 years audited financial statements, qualification and experience of key personnel proposed for administration and execution of the contract, Work performed as prime contractor on works of similar nature and volume over the last five years, Major items of contractor's equipment proposed for carrying out the works, Constitution or legal status, Place of registration, Location of business and Power of attorney of signatory of Bid.
5. Bidding, through National Competitive Bidding, (NCB) will be selected in accordance with the procedures set out in the Public Procurement and Disposal Act 2005 and subsequent Regulations, 2006.
6. Interested eligible candidates may obtain further information and inspect tender documents at County Government of Bomet Procurement Offices, County Offices, Bomet Town, located along Nairobi – Narok – Kisii road during normal working hours. (0800hrs to 1700hrs, East Africa Standard Time). Detailed IFB information is available in [www.bomet.go.ke](http://www.bomet.go.ke).
7. Bids must be delivered to the address below at or before **1200 hours local time** on Friday 17<sup>th</sup> April 2020. Submission of both Manual and online through IFMIS is a must. All bids must be accompanied by a **bid security of 2%** of bid price in Kenya shillings in form of a bank guarantee issued by a reputable bank located in Kenya. Late bids will be rejected. Bids will be opened physically in the presence of the bidders' representatives who choose to attend in person at Procurement Offices, Bomet town, at the address below at **1200 hours local time** on Friday 17<sup>th</sup> April 2020.
8. The address referred to in 7 above is:
- Attn:**  
**County Secretary,**  
**County Government of Bomet,**  
**P. O Box 19 - 20400**  
**Bomet, Kenya**

**Attn:**  
**Director Supply Chain Management,**  
**County Government of Bomet,**  
**P. O Box 19 - 20400**  
**Bomet, Kenya**

## SECTION II: INSTRUCTIONS TO TENDERERS (ITT)

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## A. Introduction

- |                              |   |
|------------------------------|---|
| <b>1. Scope of Tender</b>    | <p><b>1.1</b> The Procuring Entity indicated in the <b>Tender Data Sheet</b> (TDS) invites Tenders for the construction of works as specified in the <b>Tender Data Sheet</b> and Sections VI (Technical Specifications)</p> <p><b>1.2</b> The successful Tenderer will be expected to complete the works by the required completion date specified in the <b>Tender Data Sheet</b>.</p> <p><b>1.3</b> The objectives of the works are listed in the <b>Tender Data Sheet</b>. These are mandatory requirements. Any subsequent detail is offered to support these objectives and must not be used to dilute their importance.</p>  |
| <b>2. Source of Funds</b>    | <p><b>2.1</b> The County Government of Bomet has set aside funds for the use of the Procuring Entity named in the <b>Tender Data Sheet</b> during the Financial Year indicated in the <b>Tender Data Sheet</b>. It is intended that part of the proceeds of the funds will be applied to cover eligible payments under the contract for the works as described in the <b>Tender Data Sheet</b>.</p> <p><b>2.2</b> Payments will be made directly by the Procuring Entity and will be subject in all respects to the terms and conditions of the resulting contract placed by the Procuring Entity.</p>  |
| <b>3. Eligible Tenderers</b> | <p><b>3.1</b> A Tender may be a natural person, private or public company, subject to sub-Clause 3.4 or any combination of them with a formal intent to enter into an agreement or under an existing agreement in the form of a joint venture, consortium, or association. In the case of a joint venture, consortium, or association, unless otherwise specified in the <b>Tender Data Sheet</b>, all parties shall be jointly and severally liable.</p> <p><b>3.2</b> The Invitation for Tenders is open to all suppliers as defined in the <i>Public Procurement and Asset Disposal Act, 2015</i> and the <i>Public Procurement and Disposal Regulations, 2006</i> where applicable except as provided hereinafter.</p> <p><b>3.3</b> National Tenderers shall satisfy all relevant licensing and/or registration with the appropriate statutory bodies in Kenya, such as the National Construction Authority or the Energy Regulatory Commission.</p> <p><b>3.4</b> A Tenderer shall not have a conflict of interest. All Tenderers found to have a conflict of interest shall be disqualified. A Tenderer may be considered to have a conflict of interest with one or more parties in this Tendering process, if they:</p> <p style="margin-left: 40px;">a) Are associated or have been associated in the past directly or indirectly with employees or agents of the Procuring Entity or a member of a board or committee of the Procuring Entity;</p> |



- b) Are associated or have been associated in the past, directly or indirectly with a firm or any of its affiliates which have been engaged by the Procuring Entity to provide consulting services for the preparation of the design, specifications and other documents to be used for the procurement of the works under this Invitation for Tenders;
- c) Have controlling shareholders in common; or
- d) Receive or have received any direct or indirect subsidy from any of them; or
- e) Have the same legal representative for purposes of this Tender; or
- f) Have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the Tender of another Tenderer, or influence the decisions of the Procuring Entity regarding this Tendering process; or
- g) Submit more than one Tender in this Tendering process; however, this does not limit the participation of subcontractors in more than one Tender or as Tenderer and subcontractor simultaneously.

**3.5** A Tenderer will be considered to have a conflict of interest if they participated as a consultant in the preparation of the design or technical specification of the project and related services that are the subject of the Tender.

**3.6** Tenderers shall not be under a declaration of ineligibility for corrupt and fraudulent practices issued by the Government of Kenya in accordance with GCC sub-Clause 3.2.

**3.7** Tenderers shall provide such evidence of their continued eligibility satisfactory to the Procuring Entity, as the Procuring Entity shall reasonably request.

#### **4. One Tender per Tenderer**

**4.1** A firm shall submit only one Tender, in the same Tendering process, either individually as a Tenderer or as a partner in a joint venture pursuant to ITT Clause 5.

**4.2** No firm can be a subcontractor while submitting a Tender individually or as a partner of a joint venture in the same Tendering process.

**4.3** A firm, if acting in the capacity of subcontractor in any Tender, may participate in more than one Tender but only in that capacity.

**4.4** A Tenderer who submits or participates in more than one Tender (other than as a subcontractor or in cases of alternatives that have been permitted or requested) will cause all the Tenders in

which the Tenderer has participated to be disqualified.

## **5. Alternative Tenders by Tenderers**

- 5.1** Tenderers shall submit offers that comply with the requirements of the Tendering documents, including the basic Tenderer's technical design as indicated in the specifications and Drawings and Bill of Quantities. Alternatives will not be considered, unless specifically allowed for in the **Tender Data Sheet**. If so allowed, sub-Clause 5.2 and 5.3 shall govern.
- 5.2** When alternative times for completion are explicitly invited, a statement to that effect will be included in the **Tender Data Sheet** as will the method of evaluating different times for completion.
- 5.3** If so, allowed in the **Tender Data Sheet**, Tenderers wishing to offer technical alternatives to the requirements of the Tendering documents must also submit a Tender that complies with the requirements of the Tendering documents, including the basic technical design as indicated in the specifications. In addition to submitting the basic Tender, the Tenderer shall provide all information necessary for a complete evaluation of the alternative by the Procuring Entity, including technical specifications, breakdown of prices, and other relevant details. Only the technical alternatives, if any, of the lowest evaluated Tenderer conforming to the basic technical requirements shall be considered by the Procuring Entity.

## **6. Cost of Tendering**

- 6.1** The Tenderer shall bear all costs associated with the preparation and submission of its Tender, and the Procuring Entity shall in no case be responsible or liable for those costs, regardless of the conduct or outcome of the Tendering process.

## **7. Site Visit and Pre-Tender Meeting**

- 7.1** The Tenderer, at the Tenderer's own responsibility and risk, is advised to visit and examine the Site of 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.
- 7.2** The Procuring Entity may conduct a site visit and a pre-Tender meeting. The purpose of the pre-Tender meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.
- 7.3** The Tenderer's designated representative is invited to attend a site visit and pre-Tender meeting which, if convened, will take place at the venue and time stipulated in the **Tender Data Sheet**.
- 7.4** The Tenderer is requested as far as possible, to submit any questions in writing or by electronic means to reach the procuring Entity before the pre-Tender meeting. It may not be practicable at the meeting to answer all questions, but questions and responses will be transmitted in accordance with sub-Clause
- 7.5** Minutes of the pre-Tender meeting, including the text of the

questions raised and the responses given together with any responses prepared after the pre-Tender meeting will be transmitted within the time stated in the **Tender Data Sheet** to all purchasers of the Tendering documents. Any modification of the Tendering documents listed in sub-Clause 8.1 that may become necessary as a result of the pre-Tender meeting shall be made by the Procuring Entity exclusively through the issue of an Addendum pursuant to ITT sub Clause 10.2 and not through the minutes of the pre-Tender meeting.

- 7.6** Non-attendance during the site visit or pre-Tender meeting will lead to automatic disqualification of a Tenderer unless specified to the contrary in the **Tender Data Sheet**.

## **B. Tendering Documents**

### **8. Content of Tendering Documents**

- 8.1** The works required, Tendering procedures, and contract terms are prescribed in the Tendering Documents. In addition to the Section I Invitation for Tenders, Tendering documents which should be read in conjunction with any addenda issued in accordance with ITT sub Clause 10.2 include:

Section II	Instructions to Tenderers
Section III	Tender Data Sheet
Section IV	General Conditions of Contract
Section V	Contract Data Sheet
Section VI	Specifications
Section VII	Drawings
Section VIII	Bill of Quantities
Section IX	<ul style="list-style-type: none"> <li>• Form of Tender</li> <li>• Appendix to Tender</li> <li>• Confidential Business Questionnaire</li> <li>• Integrity Declaration</li> <li>• Letter of Acceptance</li> <li>• Form of Contract Agreement</li> </ul>
Section X	Forms of Security <ul style="list-style-type: none"> <li>• Tender Security Form</li> <li>• Tender Securing Declaration</li> <li>• Performance Bank or Insurance Guarantee</li> <li>• Advance Payment Guarantee</li> </ul>
Section XI	Form RB 1 Application to Public Procurement Administrative Review Board

- 8.2** The number of copies to be completed and returned with the Tender is specified in the **Tender Data Sheet**.
- 8.3** The Invitation for Tenders (Section I) issued by the Procuring Entity is not part of the Tendering Documents and is included for reference purposes only. In case of discrepancies between the Invitation for Tenders and the Tendering Documents listed in sub-Clause 8.1 above, the said Tendering Documents will take precedence.

- 8.4 The Procuring Entity is not responsible for the completeness of the Tendering Documents and their addenda, if they were not obtained directly from the authorized staff of the Procuring Entity.
- 8.5 The Tenderer is expected to examine all instructions, forms, terms and specifications in the Tendering documents. Failure to furnish all information required by the Tendering Documents or to submit a Tender substantially responsive to the Tendering documents in every respect will be at the Tenderer's risk and may result in the rejection of its Tender.
- 9. Clarification of Tendering Documents**
- 9.1 A prospective Tenderer requiring any clarification of the Tendering documents may notify the Procuring Entity in writing, e-mail or facsimile at the Procuring Entity's address indicated in the **Tender Data Sheet**.
- 9.2 The Procuring Entity will within the period stated in the **Tender Data Sheet** respond in writing to any request for clarification provided that such request is received no later than the period indicated in the **Tender Data Sheet** prior to the deadline for the submission of Tenders prescribed in sub-Clause 22.1.
- 9.3 Copies of the procuring entity's response will be forwarded to all Purchasers of the Tendering documents, including a description of the inquiry, but without identifying its source.
- 9.4 Should the Procuring Entity deem it necessary to amend the Tendering documents as a result of a clarification, it shall do so following the procedure under ITT Clause 10.
- 10. Amendments of the Tendering Documents**
- 10.1 Before the deadline for submission of Tenders, the Procuring Entity may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Tenderer, modify the Tendering documents by issuing addenda.
- 10.2 Any addendum issued shall be part of the Tender documents pursuant to sub-Clause 8.1 and shall be communicated in writing, by e-mail or facsimile to all who have obtained the Tendering documents directly from the Procuring Entity.
- 10.3 In order to allow prospective Tenderers reasonable time in which to take an addendum into account in preparing their Tenders, the Procuring Entity at its discretion shall extend, as necessary, the deadline for submission of Tenders, in accordance with sub-Clause 22.2

## **C. Preparation of Tenders**

- |  |             |   |
|--|-------------|---|
| <b>11. Language of Tender</b>  | <b>11.1</b> | The Tender, and all correspondence and documents related to the Tender exchanged by the Tenderer and the Procuring Entity shall be written in the Tender language stipulated in the <b>Tender Data Sheet</b> . Supporting documents and printed literature furnished by the Tenderer may be in another language provided they are accompanied by an accurate translation of the relevant passages in the above stated language, in which case, for purposes of interpretation of the Tender, the translation shall prevail.   |
| <b>12. Documents Constituting the Tender</b>                                     | <b>12.1</b> | <p>The Tender submitted by the Tenderer shall consist of the following components:</p> <ul style="list-style-type: none"><li>a) The Form of Tender (in the format indicated in Section IX) completed in accordance with ITT Clause 15, 16 and 17;</li><li>b) Information requested by Instructions to Tenderers ITT sub-Clause 13.2; 13.3 and 13.4;</li><li>c) Tender Security or Tender Securing Declaration in accordance with Instructions to Tenderers ITT Clause 19;</li><li>d) Priced Bill of Quantities;</li><li>e) Qualification Information Form and Documents;</li><li>f) Alternative offers where invited in accordance with Instructions to Tenderers ITT Clause 5;</li><li>g) Written confirmation authorizing the signatory of the Tender to commit the Tenderer in accordance with Instructions to Tenderers ITT sub Clause 19.2; and</li><li>h) And any information or other materials required to be completed and submitted by Tenderers, as specified in the <b>Tender Data Sheet</b>.</li></ul> |
| <b>13. Documents Establishing Eligibility and Qualifications of the Tenderer</b> | <b>13.1</b> | Pursuant to ITT Clause 13, the Tenderer shall furnish, as part of its Tender, documents establishing the Tenderer's eligibility to Tender and its qualifications to perform the contract if its Tender is accepted.   |
|  | <b>13.2</b> | In the event that pre-qualification of potential Tenderers has been undertaken, only Tenders from pre-qualified Tenderers will be considered for award of contract. These qualified Tenderers should submit their Tenders with any information updating the original pre-qualification applications or, alternatively, confirm in their Tenders that the originally submitted pre-qualification information remains essentially correct as of the date of Tender  |

submission. The update or confirmation should be provided in Section IX.

- 13.3** If the Procuring Entity has not undertaken pre-qualification of potential Tenderers, to qualify for award of the contract, Tenderers shall meet the minimum qualifying criteria specified in the **Tender Data Sheet**:
- 13.4** Tenders submitted by a joint venture of two or more firms as partners shall comply with the following requirements, unless otherwise stated in the **Tender Data Sheet**:
- a) The Tender shall include all the information listed in the **Tender Data Sheet** pursuant to sub-Clause 13.3 above for each joint venture partner;
  - b) The Tender shall be signed so as to be legally binding on all partners;
  - c) One of the partners will be nominated as being in charge, and this authorization shall be evidenced by submitting a power of attorney signed by legally authorized signatories of all the partners;
  - d) The partner in charge shall be authorized to incur liabilities and receive instructions for and on behalf of any and all partners of a joint venture and the entire execution of the Contract, including payment, shall be done exclusively with the partner in charge;
  - e) All partners of the joint venture shall be liable jointly and severally for the execution of the contract in accordance with the contract terms and a statement to this effect shall be included in the authorization mentioned under (c) above as well as in the Tender and in the Agreement (in case of a successful Tender); and
  - f) A copy of the joint venture agreement entered into by all partner shall be submitted with the Tender. Alternatively, a Letter of Intent to execute a joint venture agreement in the event of a successful Tender shall be signed by all partners and submitted with the Tender, together with a copy of the proposed Agreement.
  - g) The Tender Security and Tender Securing Declaration as stated in accordance with ITT Clause 19, and in case of a successful Tender, the Agreement, shall be signed so as to be legally binding on all partners.

## **14. Lots Package**

- 14.1** When Tendering for more than one contract under the lots arrangements, the Tenderer must provide evidence that it meets or exceeds the sum of all the individual requirements for the lots being tendered in regard to:

		<ul style="list-style-type: none"> <li>a) Average annual turnover;</li> <li>b) Particular experience including key production rates;</li> <li>c) Financial means, etc.;</li> <li>d) Personnel capabilities; and</li> <li>e) Equipment capabilities.</li> </ul>
	<b>14.2</b>	In case the Tenderer fail to fully meet any of these criteria, it may be qualified only for those lots for which the Tenderer meets the above requirement.
<b>15. Form of Tender</b>	<b>15.1</b>	The Tenderer shall fill the Form of Tender furnished in the Tendering Documents. The Form of Tender must be completed without any alterations to its format and no substitute shall be accepted.
<b>16. Tender Prices</b>	<b>16.1</b>	The Contract shall be for the whole Works, as described in sub-Clause 1.1, based on the priced Bill of Quantities submitted by the Tenderer.
	<b>16.2</b>	The Tenderer shall fill in rates and prices for all items of the Works described in the Bill of Quantities. Items for which no rate or price is entered by the Tenderer will not be paid for by the Procuring Entity when executed and shall be deemed covered by the other rates and prices in the Bill of quantities.
	<b>16.3</b>	All duties, taxes and other levies payable by the Contractor under the Contract, or for any other cause, as of the date 15 days prior to the deadline for submission of Tenders, shall be included in the rates, prices and total Tender price submitted by the Tenderer.
	<b>16.4</b>	The rates and prices quoted by the Tenderer shall be subject to adjustment during the performance of the Contract if provided for in the <b>Tender Data Sheet</b> and the provisions of the Conditions of Contract. The Tenderer shall submit with the Tender all the information required under the <b>Contract Data Sheet</b> .
<b>17. Tender Currencies</b>	<b>17.1</b>	The unit rates and prices shall be quoted by the Tenderer in the currency as specified in the <b>Tender Data Sheet</b> .
	<b>17.2</b>	Tenderers shall indicate details of their expected foreign currency requirements in the Tender, if any. The rates of exchange to be used by the Tenderers in arriving at the local currency equivalent shall be the selling rates for similar transactions established by the authority specified in the <b>Tender Data Sheet</b> prevailing on the date 28 days prior to the latest deadline for submission of Tenders. These exchange rates shall apply for all payments so that no exchange risk will be borne by the Tenderer. In any case, payments will be computed using the rates quoted in the Tender.

- 17.3 Tenderers may be required by the Procuring Entity to clarify their foreign currency requirements and to substantiate that the amounts included in the rates and prices and in the Contract Data Sheet are reasonable and responsive to sub-Clause 17.1.

## **18. Tender Validity Period**

- 18.1 Tenders shall remain valid for the period specified in the **Tender Data Sheet** after the Tender submission deadline prescribed by the Procuring Entity, pursuant to ITT Clause 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 expiry of the original Tender validity period, the Procuring Entity may request that the Tenderers extend the period of validity for a specified additional period. The request and the Tenderers' responses shall be made in writing or by cable. A Tenderer may refuse the request without forfeiting its Tender Security or causing to be executed its Tender Securing declaration. A Tenderer agreeing to the request will not be required or permitted to otherwise modify the Tender, but will be required to extend the validity of its Tender Security or Tender Securing declaration for the period of the extension, and in compliance with ITT Clause 19 in all respects.
- 18.3 In the case of fixed price contracts, if the award is delayed by a period exceeding sixty (60) days beyond the expiry of the initial Tender validity period, the contract price will be increased by a factor specified in the request for extension. The Tender evaluation shall be based on the Tender price without taking into consideration on the above correction.

## **19. Tender Security and Tender Securing Declaration**

- 19.1 Pursuant to ITT Clause 12, where required in the **Tender Data Sheet**, the Tenderer shall furnish as part of its Tender, a Tender Security in original form and in the amount and currency specified in the **Tender Data Sheet**
- A Tender Securing Declaration as specified in the **Tender Data Sheet** in the format provided in section X shall be provided as a mandatory requirement.
- 19.2 The Tender Security or Tender Securing Declaration is required to protect the Procuring Entity against the risk of Tenderer's conduct which would warrant the security's forfeiture, pursuant to ITT sub-Clause 19.9.
- 19.3 The Tender Security shall be denominated in the currency of the Tender and shall be in one of the following forms:
- a) Cash;
  - b) A Bank Guarantee;



- c) An Insurance Bond issued by an insurance firm approved by the PPRA located in Kenya;
- d) An irrevocable letter of credit issued by a reputable bank.

**19.4** The Tender Security shall be in accordance with the Form of the Tender Security included in Section X or another form approved by the Procuring Entity prior to the Tender submission.

**19.5** The Tender Security shall be payable promptly upon written demand by the Procuring Entity in case any of the conditions listed in sub-Clause 19.8 are invoked.

**19.6** Any Tender not accompanied by a Tender Security in accordance with sub-Clauses 19.1 or 19.3 shall be rejected by the Procuring Entity as non-responsive, pursuant to ITT Clause 28.

**19.7** The Procuring Entity shall immediately release any Tender Security if:

- a) The procuring proceedings are terminated;
- b) The Procuring Entity determines that none of the submitted Tenders is responsive;
- c) A contract for the procurement is entered into.

**19.8** The Tender Security shall be forfeited and the Tender Securing Declaration executed if the Tenderer:

- a) Withdraws its Tender after the deadline for submitting Tenders but before the expiry of the period during which Tenders must remain valid;
- b) Rejects a correction of an arithmetic error pursuant to sub-Clause 29.2;
- c) Refuse to enter into a written contract in accordance with ITT Clause 40;
- d) Fails to furnish the Performance Security in accordance with ITT Clause 41.

**19.9** The Tender Security and Tender Securing Declaration of a joint venture must be in the name of the joint venture submitting the Tender.

**19.10** A Tenderer shall be suspended from being eligible for Tendering in any contract with the Procuring Entity for the period of time indicated in the Tender Securing Declaration:

- a) If the Tenderer withdraws its Tender, except as

provided in ITT sub-Clauses 18.2 and 29.2; or

b) In the case of a successful Tenderer, if the Tenderer fails within the specified time limit to:

(i) Sign the contract; or

(ii) Furnish the required Performance Security.

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

**20.1** The Tenderer shall prepare one original of the documents comprising the Tender as described in ITT Clause 12 of these Instructions to Tenderers, with the Form of Tender, and clearly marked **—ORIGINAL**. In addition, the Tenderer shall submit copies of the Tender, in the number specified in the **Tender Data Sheet**, and clearly marked as **—COPIES**. In the event of discrepancy between them, the original shall prevail.

**20.2** The original and all copies of the Tenders shall be typed or written in indelible ink and shall be signed by a person or persons duly authorized to sign on behalf of the Tenderer. This authorization shall consist of a written confirmation as specified in the **Tender Data Sheet** 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, except for un-amended printed literature, shall be initialed by the person or persons signing the Tender.

**20.3** Any interlineations, erasures, or overwriting shall be valid only if they are initialed by the person or persons signing the Tender.

**20.4** The Tenderer shall furnish information as described in the Form of Tender on commissions or gratuities, if any, paid or to be paid to agents relating to this Tender and to contract execution if the Tenderer is awarded the contract

## **D. Submission of Tenders**

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

**21.1** The Tenderer shall seal the original and each copy of the Tender in separate envelopes, duly marking the envelopes as **—ORIGINAL** and **—COPY**. The envelopes shall then be sealed in an outer envelope securely sealed in such a manner that opening and resealing cannot be achieved undetected.

**21.2** The inner and outer envelopes shall:

a) Be addressed to the Procuring Entity at the address given in the **Tender Data Sheet**; and

b) Bear the Project name indicated in the **Tender Data Sheet**, the Invitation for Tenders (IFT) title and number

indicated in the **Tender Data Sheet**, and a statement:  
—**DO NOT OPEN BEFORE**, to be completed with the time and the date specified in the **Tender Data Sheet**, pursuant to ITT sub-Clause 22.1.

**21.3** In addition to the identification required in sub-Clause 21.2, the inner envelopes shall also indicate the name and address of the Tenderer to enable the Tender be returned unopened in case it is declared late, pursuant to sub-Clause 22.1 and for matching purpose under ITT Clause 23

**21.4** If the outer envelope is not sealed and marked as required by ITT sub clause 21.2, the Procuring Entity shall assume no responsibility for misplacement or premature opening of the Tender.

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

**22.1** Tenders shall be received by the Procuring Entity at the address specified under ITT sub-Clause 21.2 no later than the date and time specified in the **Tender Data Sheet**.

**22.2** The Procuring Entity may, in exceptional circumstances and at its discretion, extend the deadline for the submission of Tenders by amending the Tendering documents in accordance with ITT Clause 9, in which case all rights and obligations of the Procuring Entity and Tenderers previously subject to the deadline will thereafter be subject to the new deadline.

**22.3** The extension of the deadline for submission of Tenders shall not be made later than the period specified in the **Tender Data Sheet** before the expiry of the original deadline.

## **23. Late Tenders**

**23.1** The Procuring Entity shall not consider for evaluation any Tender that arrives after the deadline for submission of Tenders, in accordance with ITT Clause 22.

**23.2** 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. Modification, Substitution and Withdrawal of Tenders**

**24.1** A Tenderer may modify or substitute or withdraw its Tender after it has been submitted, provided that written notice of the modification, including substitution or withdrawal of the Tender, is received by the Procuring Entity prior to the deadline prescribed for submission of Tenders prescribed under ITT sub-Clause 22.1.

**24.2** The Tenderer's modification or substitution or withdrawal notice shall be prepared, sealed, marked, and dispatched in accordance with the provisions of ITT Clauses 20 and 21 with the outer and inner envelopes additionally marked "**MODIFICATION**" or **SUBSTITUTION** or "**WITHDRAWAL**" as appropriate. The notice may also be sent by electronic mail and facsimile, but followed by a

signed confirmation copy, postmarked not later than the deadline for submission of Tenders.

- 24.3 No Tender may be withdrawn, replaced 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 Tender Form. Withdrawal of a Tender during this interval shall result in the Tenderer's forfeiture of its Tender Security or execution of Tender Securing Declaration, pursuant to the ITT sub-Clause 19.9.
- 24.4 Withdrawal of a Tender between the deadline for submission of Tenders and the expiration of the period of Tender validity specified in the **Tender Data Sheet** or as extended pursuant to sub-Clause 22.2 shall result in the forfeiture of the Tender Security and execution of Tender Securing Declaration pursuant to ITT sub-Clause 19.9.
- 24.5 Tenderers may only offer discounts to, or otherwise modify the prices of their Tenders by submitting Tender modifications in accordance with this Clause, or included in the original Tender submission.

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

##### **25. Opening of Tenders**

- 25.1 The Procuring Entity will open all Tenders including modifications, substitution or withdraw notices made pursuant to ITT Clause 24, in public, in the presence of Tenderers or their representatives who choose to attend and other parties with legitimate interest and Tender proceedings, at the place on the date and at time specified in the **Tender Data Sheet**. The Tenderers' representatives who are present shall sign a register as proof of their attendance.
- 25.2 Envelopes marked **—WITHDRAWAL** shall be opened and read out first. Tenders for which an acceptable notice of withdrawal has been submitted pursuant to ITT Clause 24 shall not be opened but returned to the Tenderer. If the withdrawal envelope does not contain a copy of the "Power of Attorney" confirming the signature as a person duly authorized to sign on behalf of the Tenderer, the corresponding Tender will be opened. Subsequently, all envelopes marked **"MODIFICATION"** shall be opened and the submissions therein read out in appropriate detail. Thereafter all envelopes marked or **"SUBSTITUTION"** opened and the submissions therein read out in appropriate detail.
- 25.3 All other envelopes shall be opened one at a time. The Tenderers' names, the Tender prices, the total amount of each Tender and of any alternative Tender (if alternatives have been requested or permitted), any discounts, the presence or absence of Tender security, and such other details as the appropriate tender opening committee may

consider appropriate, will be announced by the Secretary of the Tender Opening Committee at the opening.

- 25.4** Tenders or modifications that are not opened and not read out at Tender opening shall not be considered further for evaluation, irrespective of the circumstances. In particular, any discount offered by a Tenderer which is not read out at Tender opening shall not be considered further.
- 25.5** Tenderers are advised to send in a representative with the knowledge of the content of the Tender who shall verify the information read out from the submitted documents. Failure to send a representative or to point out any un-read information by the sent Tenderer's representative shall indemnify the Procuring Entity against any claim or failure to read out the correct information contained in the Tenderer's Tender.
- 25.6** No Tender will be rejected at Tender opening except for late Tenders which will be returned unopened to the Tenderer, pursuant to ITT Clause 23.
- 25.7** The Secretary of the appropriate tender opening committee shall prepare minutes of the Tender opening. The record of the Tender opening shall include, as a minimum: the name of the Tenderers and whether or not there is a withdrawal, substitution or modification, the Tender price per Lot if applicable, including any discounts and alternative offers and the presence or absence of a Tender Security or Tender Securing Declaration.
- 25.8** The Tenderers' representatives who are present shall be requested to sign the record. The omission of a Tenderer's signature on the record shall not invalidate the contents and affect the record.
- 25.9** A copy of the minutes of the Tender opening shall be furnished to individual Tenderers upon request.

## **26. Confidentiality**

- 26.1** Information relating to the examination, clarification, evaluation, and comparison of Tenders and recommendations for the award of a Contract shall not be disclosed to Tenderers or any other persons not officially concerned with such process until the award to the successful Tenderer has been announced.
- 26.2** Any effort by a Tenderer to influence the Procuring Entity's processing of Tenders or award decisions may result in the rejection of his Tender.
- 26.3** Notwithstanding sub-Clause 26.2, from the time of Tender opening to the time of Contract award, if any Tenderer wishes to contact the Procuring Entity on any matter related to the Tendering process, it should do so in writing.

## **27. Clarification of Tenders**

- 27.1** To assist in the examination, evaluation, comparison of Tenders and post-qualification of the Tenderer, the Procuring Entity may, at its discretion, ask a Tenderer for clarification of its Tender including breakdown of prices. Any clarification submitted by a Tenderer that is not in response to a request by the Procuring Entity shall not be considered.
- 27.2** The request for clarification and the response shall be in writing. No change 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 Tenders in accordance with ITT Clause 29.
- 27.3** From the time of Tender opening to the time of Contract award if any Tenderer wishes to contact the Procuring Entity on any matter related to the Tender it should do so in writing.

## **28. Preliminary Examination of Tenders**

- 28.1** Prior to the detailed evaluation of Tenders, the Procuring Entity will determine whether:
- a) The Tender has been submitted in the required format;
  - b) Any Tender Security submitted is in the required form, amount and validity period;
  - c) The Tender has been signed by the person lawfully authorized to do so;
  - d) The required number of copies of the Tender have been submitted;
  - e) The Tender is valid for the period required;
  - f) All required documents and information have been submitted; and
  - g) Any required samples have been submitted.
- 28.2** The Procuring Entity will confirm that the documents and information specified under ITT Clause 12 and ITT Clause 13 have been provided in the Tender. If any of these documents or information is missing, or is not provided in accordance with the Instructions to Tenderers, the Tender shall be rejected.
- 28.3** The Procuring Entity may waive any minor informality, nonconformity, or irregularity in a Tender which does not constitute a material deviation, provided such waiver does not prejudice or affect the relative ranking of any Tenderer
- 28.4** A substantially responsive Tender is one which conforms to all the terms, conditions, and specifications of the

Tendering documents, without material deviation or reservation. A material deviation or reservation is one that:

- a) Affects in any substantial way the scope, quality, or execution of the Works;
- b) Limits in any substantial way, inconsistent with the Tendering documents, the Procuring Entity's rights or the Tenderer's obligations under the Contract; or
- c) If rectified, would affect unfairly the competitive position of other Tenderers presenting substantially responsive Tenders.

**28.5** If a Tender is not substantially responsive, it will be rejected by the Procuring Entity, and may not subsequently be made responsive by correction or withdrawal of the non-conforming deviation or reservation.

**29. Correction of Errors**

**29.1** The tender sum as submitted and read out during the tender opening shall be absolute and final and shall not be the subject of correction, adjustment or amendment in any way by any person or entity as per section 82 of the PPADA 2015

**30. Conversion to Single Currency**

**30.1** To facilitate the evaluation and comparison, the Procuring Entity will convert all Tender prices expressed in the amounts in various currencies in which the Tender prices are payable to Kenya Shillings at the selling exchange rate established for similar transactions by the Central Bank of Kenya ruling on the date specified in the **Tender Data Sheet**.

**31. Comparison of Tenders**

**31.1** The Procuring Entity shall evaluate and compare only the Tenders determined to be substantially responsive in accordance with ITT Clause 28.

**31.2** In evaluating the Tenders, the Procuring Entity will determine for each Tender the evaluated Tender price by Excluding provisional sums and the provision, if any for contingencies in the Bill of Quantities, but including Day work, where priced competitively; and Making appropriate adjustments to reflect discounts or other price modifications offered in accordance with sub-Clause 24.5.

**31.3** The Procuring Entity may waive any minor informality or non-conformity, which does not constitute a material deviation, provided such waiver does not prejudice or affect the relative standing of any Tenderer. Variations, deviations, and alternative offers and other factors, which are in excess of the requirements of the Tendering documents or otherwise result in unsolicited benefits for the Procuring Entity will not be taken into account in

Tender evaluation.

**32. National Preference**

- 32.1** In the evaluation of Tenders, the Procuring Entity shall apply exclusive preference to citizens of Kenya where:
- a) The funding is 100% from the Government of Kenya or a Kenyan body;
  - b) The amounts are below the prescribed threshold of KShs.200 million;
- 32.2** To qualify for the preference the candidate shall provide evidence of eligibility by:
- a) Proving Kenyan citizenship by production of a Kenyan Identity Card; or
  - b) Providing proof of being a “citizen contractor” in terms of section 3(1) of the Act, i.e. being a natural person or an incorporated company wholly owned and controlled by persons who are citizens of Kenya.
- 32.3** The Minister of Finance may prescribe additional preference and/or reservation schemes, for example for procurements above these thresholds. If such additional preference schemes apply, details will be given in the **Tender Data Sheet**.

**33. Determination of the Lowest Evaluated Tender**

- 33.1** The Tender with the lowest evaluated price from among those which are eligible, compliant and substantially responsive shall be the lowest evaluated Tender.

**34. Post-qualification of Tenderer**

- 34.1** If specified in the **Tender Data Sheet**, post-qualification shall be undertaken.
- 34.2** The Procuring Entity will determine to its satisfaction whether the Tenderer that is selected as having submitted the lowest evaluated responsive Tender is qualified to perform the contract satisfactorily, in accordance with the criteria listed in sub-Clause 13.3.
- 34.3** The determination will take into account the Tenderer's financial, technical, and production capabilities. It will be based upon an examination of the documentary evidence of the Tenderer's qualifications submitted by the Tenderer, pursuant to sub-Clause 13.3, as well as such other information as the Procuring Entity deems necessary and appropriate. Factors not included in these Tendering documents shall not be used in the evaluation of the Tenderer's qualifications.
- 34.4** An affirmative determination will be a prerequisite for award of the contract to the Tenderer. A negative determination will result in rejection of the Tenderer's Tender, in which event the Procuring Entity will proceed



to the next lowest evaluated Tender to make a similar determination of that Tenderer's capabilities to perform satisfactorily.

## **F. Award of Contract**

### **35. Criteria of Award**

**35.1** Subject to ITT Clause 35 and 36, the Procuring Entity will award the Contract to the Tenderer whose Tender has been determined to be substantially responsive to the Tendering documents and who has offered the lowest Evaluated Tender Price, provided that such Tenderer has been determined to be:

- a) Eligible in accordance with the provisions of ITT Clause 3;
- b) Is determined to be qualified to perform the Contract satisfactorily;
- c) Successful negotiations have been concluded.

**35.2** If, pursuant to sub-Clause 14.1, this Contract is being awarded on a "lot and package" basis, the lowest evaluated Tender price will be determined when evaluating this Contract in conjunction with other Contracts to be awarded concurrently, taking into account any discounts offered by the Tenderer for award of more than one Contract.

### **36. Clarifications**

**36.1** Clarifications may be undertaken with the lowest evaluated Tenderer relating to the following areas:

- a) A minor alteration to the technical details of the statement of requirements;
- b) Reduction of quantities for budgetary reasons, where the reduction is in excess of any provided for in the Tendering documents;
- c) A minor amendment to the Contract Data Sheet;
- d) Finalizing payment arrangements;
- e) Mobilization arrangements;
- f) Agreeing final delivery or work schedule to accommodate any changes required by the Procuring Entity;
- g) The methodology or staffing; or
- h) Clarifying details that were not apparent or

could not be finalized at the time of Tendering.

- 36.2** Clarifications shall not change the substance of the tender.
- 37. Procuring Entity's Right to Accept any Tender and to Reject any or all Tenders**
- 37.1** Notwithstanding ITT Clause 35, the Procuring Entity reserves the right to accept or reject any Tender, and to cancel the Tendering process and reject all Tenders, at any time prior to the award of Contract, without thereby incurring any liability to the affected Tenderer or Tenderers.
- 37.2** Notice of the rejection of all Tenders shall be given promptly within 14 days to all Contractors that have submitted Tenders.
- 37.3** The Procuring Entity shall upon request communicate to any Tenderer the grounds for its rejection of its Tenders, but is not required to justify those grounds.
- 38. Procuring Entities Right to Vary Quantities at the Time of Award**
- 38.1** The Procuring Entity reserves the right at the time of contract award to increase or decrease the quantity of goods or related services originally specified in these Tendering documents (schedule of requirements) provided this does not exceed by the percentage indicated in the **Tender Data Sheet**, without any change in unit price or other terms and conditions of the Tender and Tendering documents.
- 39. Notification of Award**
- 39.1** The Tenderer whose Tender has been accepted will be notified of the award by the Procuring Entity prior to expiration of the Tender validity period by e-mail or facsimile confirmed by registered letter. This letter (hereinafter and in the Conditions of Contract called the "Letter of Acceptance") will state the sum that the Procuring Entity will pay the Contractor in consideration of the provision and maintenance of the Work(s) as prescribed by the Contract (hereinafter and in the Contract called the "Contract Price").
- 39.2** The notification of award will constitute the formation of the Contract, subject to the Tenderer furnishing the Performance Security in accordance with ITT Clause 41 and signing the Contract in accordance with sub-Clause 40.2
- 39.3** At the same time as the person submitting the successful Tender is notified, the Procuring Entity will notify each unsuccessful Tenderer, the name of the successful Tenderer and the Contract amount and will discharge the Tender Security and Tender Securing Declaration of the Tenderer

pursuant to ITT sub Clause 19.7.

- 39.4** If, after notification of award, a Tenderer wishes to ascertain the grounds on which its Tender or application for pre-qualification was unsuccessful, it should address its request to the secretary of the Tender Committee that authorized the award of contract. The secretary of the Tender Committee shall, within fourteen days after a request, provide written reasons as to why the Tender, proposal or application to be pre-qualified was unsuccessful. However, failure to take this opportunity to clarify the grounds for rejection does not affect the Tenderer's right to seek immediate review by the Public Procurement Administrative Review Board under Clause 45.

#### **40. Signing of Contract**

- 40.1** Promptly, and in no case later than 14 days, after notification, Procuring Entity shall send the successful Tenderer the Agreement and Contract Data Sheet, incorporating all agreements between the parties obtained as a result of Contract negotiations.
- 40.2** Within the period specified in the notification or Tender Data Sheet but not earlier than fourteen (14) days since notification of award of contract, the successful Tenderer shall sign and date the contract and return it to the Procuring Entity.

#### **41. Performance Security**

- 41.1** Within thirty (30) days but after 14 days after receipt of the Letter of Acceptance, the successful Tenderer shall deliver to the Procuring Entity a Performance Security in the amount and in the form stipulated in the Tender Data Sheet and the Contract Data Sheet, denominated in the type and proportions of currencies in the Letter of Acceptance and in accordance with the Conditions of Contract.
- 41.2** If the Performance Security is provided by the successful Tenderer in the form of a Bank Guarantee or Insurance Bond, it shall be issued either:
- a) At the Tenderer's option, by a bank or insurance firm located in Kenya, or a foreign bank or insurance firm through a correspondent bank or insurance firm located in Kenya;
  - b) With the consent of the Procuring entity, directly by a foreign bank acceptable to the Procuring entity.
- 41.3** Failure of the successful Tenderer to comply with

the requirement of sub-Clause 41.1 shall constitute sufficient grounds for the annulment of the award and forfeiture of the Tender Security, in which event the Procuring Entity may make the award to the next lowest evaluated Tenderer or call for new Tenders.

#### **42. Advance Payment**

- 42.1** The Procuring Entity will provide an Advance Payment as stipulated in the Conditions of Contract, subject to a maximum amount, as stated in the Tender Data Sheet.
- 42.2** The Advance Payment request shall be accompanied by an Advance Payment Security (Guarantee) in the form provided in Section X. For the purpose of receiving the Advance Payment, the Tenderer shall make an estimate of, and include in its Tender, the expenses that will be incurred in order to commence work. These expenses will relate to the purchase of equipment, machinery, materials, and on the engagement of labour during the first month beginning with the date of the Procuring Entity's "Notice to Commence" as specified in the Contract Data Sheet.

#### **43. Adjudicator**

- 43.1** The Procuring Entity proposes the person named in the Tender Data Sheet to be appointed as Adjudicator under the Contract, at an hourly fee specified in the Tender Data Sheet, plus reimbursable expenses. If the Tenderer disagrees with this proposal, the Tenderer should so state in the Tender. If, in the Letter of Acceptance, the Procuring Entity has not agreed on the appointment of the Adjudicator, the Adjudicator shall be appointed by the Appointing Authority designated in the Contract Data Sheet at the request of either party.

### **G. Review of Procurement Decisions**

#### **44. Right to Review**

- 44.1** A Tenderer who claims to have suffered or risk suffering, loss or damage or injury as a result of breach of a duty imposed on a Procuring Entity or an Approving Authority by the Public Procurement and Asset Disposal Act, 2015 and the Public Procurement and Disposal Regulations 2006, the procurement proceedings or processes, may seek administrative review as prescribed by the Act. The following matters, however, shall not be subject to the administrative review:
- a) The choice of procurement method;
  - b) a decision by the Procuring Entity to reject all

Tenders, proposals or quotations;

c) Where a contract is signed in accordance to Section 135 of the Public Procurement and Asset Disposal Act,2015;

d) Where an appeal is frivolous.

**45. Time Limit on Review**

**45.1** The Tenderer shall submit an application for review in the number of copies and pay fees as prescribed by the Public Procurement and Disposal Regulations 2006 within fourteen (14) days of the time the Tenderer became or should have become aware of the circumstances giving rise to the complaint or dispute.

**46. Submission of Applications for Review by the Public Procurement Administrative Review Board**

**46.1** Any application for administrative review shall be submitted in writing to the Secretary, Public Procurement Administrative Review Board on Form RB 1 at the address shown in the Tender Data Sheet. The secretary to the review board shall immediately after filing of the request, serve a copy thereof on the Procuring Entity or Director-General as the case may be.

**46.2** The application for administrative review shall be in accordance with the requirements of Regulation 73 of the Public Procurement and Disposals Regulations,2006, including:

- a) Reasons for the complaint, including any alleged breach of the Act or Regulations;
- b) An explanation of how the provisions of the Act and or Regulation has been breached or omitted, including the dates and name of the responsible public officer, where known;
- c) Statements or other evidence supporting the complaint where available as the applicant considers necessary in support of its request;
- d) Remedies sought;
- e) Any other information relevant to the complaint.

**47. Decision by the Public Procurement Administrative Review Board**

**47.1** The Administrative Review Board shall within thirty days after receipt of an application for administrative review deliver a written decision which shall indicate:

- a) Annuling anything the Procuring Entity has done in the procurement proceedings, including annulling the procurement proceedings in their entirety;
- b) Giving directions to the Procuring Entity with respect to anything to be done or redone in the procurement proceedings;

- c) Substituting the decision of the Review Board for any decision of the Procuring Entity in the procurement proceedings;
- d) Order the payment of costs as between parties to the review.

**47.2** The decision made by the Review Board shall, be final and binding on the parties unless judicial review thereof commences within fourteen (14) days from the date of the Review Board's decision.

**48. Appeal on the  
decision of the  
Review Board**

**48.1** Any party to the review aggrieved by the decision of the Review Board may appeal to the High Court and the decision of the High Court shall be final.

### **SECTION III: TENDER DATA SHEET**

## Tender Data Sheet (TDS)

### Instructions to Tenderers Clause Reference

TDS Reference Number	ITT Clause Number	Amendments of, and Supplements to, Clauses in the Instruction to Tenderers
<b>A. Introduction</b>		
1.	1.1	The Procuring Entity is <b>County Government of Bomet</b>
2.	1.1	Name of Project is <b>Rehabilitation of Mogogosiek-Kapletundo-Kaplong Pipeline of Itare Water Supply</b>
3.	1.2	The expected completion date of the works is <i>2<sup>nd</sup> November 2020</i>
4.	1.3	The Objective of the Project is <b>to reinstate Mogogosiek-Kapletundo-Kaplong water supply pipeline to serve residents of Mogogosiek, Kapletundo and Chemagel Ward.</b>
5.	2.1	<p>Name of financing institution is <i>County Government of Bomet</i></p> <p>Name of the Procuring Entity is <i>County Government of Bomet</i></p> <p>Financial Year <i>2019-2020</i></p> <p>Describe works under the contract: -</p> <p><b>-Construction of water supply pipeline and its appurtenances</b></p>
6.	2.2	The loan/ credit number is: <i>N/A</i>
7.	5.1	Alternative Tenders: - <i>Not allowed</i>
8.	5.2	Alternative time for completion: <i>-Not applicable</i>
9.	3.1	Only Tenderers registered <i>with National Construction Authority category NCA 4 and above in Water Works/ Civil class</i>
10.	7.3	Pre-Tender meeting to take place. <i>N/A</i>
11.	7.5	The minutes of the pre-Tender meeting not be available
	7.6	<b>Pre-tender meeting:</b>



B. Tendering Documents		
12.	8.2	The number of copies to be completed and returned with the Tender are <i>(1) copy</i> . <b>N/B- All pages must be paginated</b>
13.	8.1	Address for clarification of Tendering Document is <b><i>Director Supply Chain Management, County Government of Bomet, P.O. Box 19 – 20400, Bomet, Kenya</i></b>
14.	9.2	Period to Respond to request for clarification by the Procuring Entity <b><i>4(Four) days before deadline for submission.</i></b>  Period Prior to deadline for submission of Tenders for Tenderers to request clarification at least <b><i>6(Six) days to deadline for submission</i></b>

C. Preparation of Tenders																																									
15.	11.1	Language of Tender and all correspondence shall be: <b><i>English</i></b>																																							
16.	13.3	<p><b>Evaluation and comparison of Tenders:</b> The following evaluation criteria shall be applied not withstanding any other requirement in the tender documents.</p> <p><b>a) Mandatory Requirements (MR)</b> The following requirements must be met by the tenderer</p> <table border="1"> <thead> <tr> <th>No.</th><th>Requirement</th><th>Responsive or Not Responsive</th></tr> </thead> <tbody> <tr> <td>MR1</td><td>Registered with the National Construction Authority category 4 and above, Water/Civil works class</td><td></td></tr> <tr> <td>MR2</td><td>Signatory has authorized power of attorney for Joint Ventures</td><td></td></tr> <tr> <td>MR3</td><td>Must Fill the Bill of Quantities in the Format have provided</td><td></td></tr> <tr> <td>MR4</td><td>Must Fill the Form of Tender in the Format provide</td><td></td></tr> <tr> <td>MR5</td><td>Dully filled Tender Security declaration form</td><td></td></tr> <tr> <td>MR6</td><td>Duly serialized tender document (<b>Every page of the bid document must be serialized</b>)</td><td></td></tr> <tr> <td>MR7</td><td>Must submit a dully filled, signed and stamped Confidential Business Questionnaire in format provided.</td><td></td></tr> <tr> <td>MR8</td><td>Valid Bomet County Trading License</td><td></td></tr> <tr> <td>MR9</td><td>Certificate of Incorporation</td><td></td></tr> <tr> <td>MR10</td><td>CR12</td><td></td></tr> <tr> <td>MR11</td><td>Bid Security</td><td></td></tr> <tr> <td>MR11</td><td>Online Submission</td><td></td></tr> </tbody> </table> <p><b>At this stage, the tenderer's submission will either be responsive or non-responsive. The non-responsive submissions will be eliminated from the entire evaluation process and will not be considered further.</b></p>	No.	Requirement	Responsive or Not Responsive	MR1	Registered with the National Construction Authority category 4 and above, Water/Civil works class		MR2	Signatory has authorized power of attorney for Joint Ventures		MR3	Must Fill the Bill of Quantities in the Format have provided		MR4	Must Fill the Form of Tender in the Format provide		MR5	Dully filled Tender Security declaration form		MR6	Duly serialized tender document ( <b>Every page of the bid document must be serialized</b> )		MR7	Must submit a dully filled, signed and stamped Confidential Business Questionnaire in format provided.		MR8	Valid Bomet County Trading License		MR9	Certificate of Incorporation		MR10	CR12		MR11	Bid Security		MR11	Online Submission	
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17.

13.4

**b) Technical Scores (TS)**

This section (Technical Evaluation) will be marked out of 100 and will determine the technical score (TS)

No.	Evaluation Attribute	Weighting Score	Max. Score
T.S.1	<b>Key Personnel (Attach evidence)</b> <b>(i) Site Agent</b> At least Degree in a civil/water engineering or equivalent. with 5 years relevant experience	<ul style="list-style-type: none"><li>Less than diploma: 0</li><li>Diploma or above with 5 or more years" experience: 15</li><li>Diploma or above with less than 5 years <b>No. of years x 15/5</b></li></ul>	15
T.S. 2	<b>(ii) Foreman; At least 1 No.</b> Each, at least a diploma in civil/ building, masonry or equivalent. with 5 years relevant experience	For each; <ul style="list-style-type: none"><li>Less than certificate: 0</li><li>Certificate or above with 5or more years" experience: 10</li><li>Certificate or above with less than 5 years <b>No. of years x 10/5</b></li></ul>	10
T.S. 3	<b>(ii) Plumber1 No</b> Each, at least trade test grade 2 in plumbing, masonry or equivalent. with 5 years	No trade test grade 2: 0 5yrs experience & above with trade test grade 2 :5 Below 5 years' experience No. of years x 5/5	5
T.S. 5	<b>At least 2No Project of similar nature, complexity and Magnitude completed or at 70% completion, in the last 3 years where firm was prime contractor.</b>	<ul style="list-style-type: none"><li>2No projects done to more than 70% :16</li><li>One project done to 70%: 8</li><li>1 or 2 projects done to less than 70% (Sum of project completion in %) x 16/140</li></ul>	16
T.S. 6	<b>Not more than 3No. ongoing projects of similar nature, complexity and magnitude whose contract period extends beyond 30<sup>th</sup> December,2018</b>	No projects:.8 Up to 3 projects: 8- (2*number of projects) 4 or more projects: 0	8
T.S. 7	<b>Schedules of contractor's equipment and transport (proof of evidence of ownership, lease or hiring)</b>	Pick-up..... 4 Backhoe/excavator..... 4 Pipe wrench .....1 Chain spanners..... 1	12

			Concrete Mixer -----2	
		T.S. 8	<b>Audited financial reports for the (last three (2) years</b>	<ul style="list-style-type: none"> <li>For last 2 or more years : 6</li> <li>6 x No. of reports/2</li> </ul> 6
			<b>Average Annual Turnover (AAT) for the last three years is KShs15 million</b>	<ul style="list-style-type: none"> <li>AAT ≥ 15million: 20</li> <li>&lt;7M=AAT*20/15M</li> </ul> 20
		T.S. 9	<b>Evidence of Financial Resources (cash in hand, lines of credit, over draft facility, etc.)</b> Has financial resources equal or above the cost of the project (as per the bid sum)8	Other than financial resource equal to or above the project cost. <b>Financial resource available x 8/Cost of the project (as per the bid sum)</b> 8
			<b>TOTAL</b>	<b>100</b>
<b>Only bidders who score 70% and above will be subjected to the financial Evaluation. Financial Evaluation will be in accordance to Section 82, PPADA 2015</b>				
18.	16.4	The price shall be <i>fixed</i> Information to be submitted with the Tender are: N/A		
19.	17.1	The currency in which the prices shall be quoted shall be: <i>Kenyan Shilling</i>		
20.	17.2 30.2	The authority for establishing the rates of exchange shall be Central Bank of Kenya. N/A The applicable date for exchange rates for tendering and evaluation purposes is 28 days earlier than the final deadline for the submission of tenders. N/A		
21.	18.1	The Tender validity period shall be <i>90 (Ninety)</i> days.		
22.	19.1	The amount of Tender Security shall be <b>2% of Bid Sum.</b>		
23.	20.1	In addition to the original of the Tender, the Tenderer should submit <b>one</b> copy of the Tender		
24.	20.2	Written confirmation of authorization is: <i>Provide Power of Attorney for Joint Ventures</i>		

D. Submission of Tenders		
25.	21.2 a)	Tenders shall be submitted to <b>Director Supply Chain Management,</b> <b>County Government of Bomet,</b> <b>P.O. Box 19 – 20400,</b> <b>Bomet, Kenya</b>
26.	21.2 b)	Project name <b>Rehabilitation of Itare (Mogogosiek-Kapletundo- Kaplong) Water Supply Pipeline</b> Tender number <b>CGB/W&amp;I/001/2019/2020</b>

		Time and date for submission <b>12.00pm on 17<sup>th</sup> April 2020</b>
<b>27.</b>	<b>22.1</b>	The deadline for Tender submission is  <b>17<sup>th</sup> April 2020</b> <b>Time 12.00 noon</b>
<b>28.</b>	<b>22.3</b>	The extension of the deadline for submission of Tenders shall be made not later than <b>3(Three) days</b> before the expiry of the original deadline.
<b>29</b>	<b>24.4</b>	Expiry of Tender validity is <b>(90) Ninety days after opening of tenders (17<sup>th</sup> July 2020)</b>

<b>E. Opening and Evaluation of Tenders</b>		
<b>29.</b>	<b>25.1</b>	<b>Director Supply Chain Management, County Government of Bomet, P.O. Box 19 – 20400, Bomet, Kenya</b> Date: <b>17<sup>th</sup> July 2020</b> Time <b>12.05pm</b>
<b>30.</b>	<b>32.3</b>	Additional Preference <b>N/A</b>
<b>31.</b>	<b>34.1</b>	Post- qualification <b>will be undertaken</b>
<b>32.</b>	<b>38.1</b>	Percentage for quantities increase or decrease <b>is 15%</b>
<b>F. Award of Contract</b>		
<b>33.</b>	<b>41.1</b>	The amount of Performance Security shall be <b>N/A</b>
<b>34.</b>	<b>42.1</b>	The Advance Payment shall be <b>N/A</b>
<b>35.</b>	<b>43.1</b>	The proposed adjudicator for the project is: <b>N/A</b>

## **SECTION IV: GENERAL CONDITIONS OF CONTRACT**

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## A. General

### 1. Definitions

#### 1.1 Boldface type is used to identify defined terms.

The **Adjudicator** is the person appointed jointly by the Procuring Entity and the Contractor to resolve disputes in the first instance, as provided for in Clauses 27 and 28 hereunder.

**Bill of Quantities** means the priced and completed Bill of Quantities forming part of the Tender.

**Compensation Events** are those defined in Clause 47 hereunder.

The **Completion Date** is the date of completion of the Works as certified by the Project Manager, in accordance with Sub- Clause 58.1.

The **Contract** is the Contract between the Procuring Entity and the Contractor to execute, complete, and maintain the Works. It consists of the documents listed in Clause 2.3 below.

The **Contractor** is a person or corporate body whose Tender to carry out the Works has been accepted by the Procuring Entity.

The **Contractor's Tender** is the completed Tendering document submitted by the Contractor to the Procuring Entity.

The **Contract Price** is the price stated in the Letter of Acceptance and thereafter as adjusted in accordance with the provisions of the Contract.

**Days** are calendar days; months are calendar months.

**Day works** are varied work inputs subject to payment on a time basis for the Contractor's employees and Equipment, in addition to payments for associated Materials and Plant.

A **Defect** is any part of the Works not completed in accordance with the Contract.

The **Defects Liability Certificate** is the certificate issued by the Project Manager upon correction of defects by the Contractor.

The **Defects Liability Period** is the period named in the **Contract Data Sheet** and calculated from the Completion Date.

**Drawings** include calculations and other information provided or approved by the Project Manager for the execution of the Contract.

The **Procuring Entity** is the party who employs the Contractor to carry out the Works.

**Equipment** is the Contractor's machinery and vehicles brought temporarily to the Site to construct the Works.

The **Initial Contract Price** is the Contract Price listed in the Procuring Entity's Letter of Acceptance.

The **Intended Completion Date** is the date on which it is intended that the Contractor shall complete the Works. The Intended Completion Date is specified in the **Contract Data Sheet**.



The Intended Completion Date may be revised only by the Project Manager by issuing an extension of time or an acceleration order.

**Materials** are all supplies, including consumables, used by the Contractor for incorporation in the Works.

**Plant** is any integral part of the Works that shall have a mechanical, electrical, chemical, or biological function.

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

The **Site** is the area defined as such in the **Contract Data Sheet**. **Site**

**Investigation Reports** are those that were included in the Tendering documents and are factual and interpretative reports about the surface and subsurface conditions at the Site.

**Specification** means the Specification of the Works included in the Contract and any modification or addition made or approved by the Project Manager.

The **Start Date** is given in the **Contract Data Sheet**. It is the latest date when the Contractor shall commence execution of the Works. It does not necessarily coincide with any of the Site Possession Dates.

A **Subcontractor** is a person or corporate body who has a Contract with the Contractor to carry out a part of the work in the Contract, which includes work on the Site.

**Temporary Works** are works designed, constructed, installed, and removed by the Contractor that are needed for construction or installation of the Works.

A **Variation** is an instruction given by the Project Manager that varies the Works.

The **Works** are what the Contract requires the Contractor to construct, install, and turn over to the Procuring Entity, as defined in the **Contract Data Sheet**.

“**Force Majeure**” means an event which is beyond the reasonable control of a Party and which makes a Party's performance of its obligations under the Contract impossible or so impractical as to be considered impossible under the circumstances.

## 2. Interpretation

- 2.1 In interpreting these Conditions of Contract, singular also means plural, male also means female or neuter, and the other way round. Headings have no significance. Words have their normal meaning under the language of the Contract unless specifically defined. The Project Manager will provide instructions clarifying queries about these Conditions of Contract.

- 2.2 If sectional completion is specified in the **Contract Data Sheet**, references in the Conditions of Contract to the Works, the Completion Date, and the Intended Completion Date apply to any Section of the Works (other than references to the Completion Date and Intended Completion Date for the whole of the Works).
- 2.3 The documents forming the Contract shall be interpreted in the order of priority given in the **Contract Data Sheet**:
  - (1) Agreement;
  - (2) Letter of Acceptance;
  - (3) Contract Data Sheet;
  - (4) Conditions of Contract;
  - (5) Technical Specifications;
  - (6) Contractor's Tender;
  - (7) Drawings;
  - (8) Bill of Quantities; and
  - (9) Any other document listed in the **Contract Data Sheet** as forming part of the Contract.

### 3. Language, Law, Fraud and Corruption

- 3.1 The language of the Contract and the law governing the Contract are stated in the **Contract Data Sheet**.
- 3.2 The Government requires that Procuring Entities (including beneficiaries of Government funded projects) as well as Tenderers/Suppliers/Contractors under Government financed contracts, observe the highest standard of ethics during the procurement and execution of such contracts. It is the responsibility of the Procuring Entity to ensure that Tenderers, suppliers, and contractors and their subcontractors observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy:

For the purpose of this provision, the following definitions are provided:

- (i). “**Corruption**” has the meaning assigned to it in the Anti-Corruption and Economic Crime Act 2003 and includes the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement or disposal process or in contract execution;
- (ii). “**Fraudulent Practice**” includes a misrepresentation of fact in order to influence a procurement or disposal process or the execution of a contract to the detriment of the Procuring Entity and includes collusive practices amongst Tenderers prior to or after Tender submission designed to establish Tender prices at artificial non-competitive levels and deprive the Procuring Entity of the benefits of free and open

competition;

- (iii). —**Collusive Practice** means an arrangement between two or more suppliers, contractors and subcontractors designed to achieve an improper purpose, including to influence improperly the actions of the Procuring Entity prior to or after Tender submission, designed to establish Tender prices at artificial non-competitive levels and to deprive the Procuring Entity of the benefit of free and open competition;
- (iv). —**Coercive Practice** means impairing or harming, or threatening to impair or harm, directly or indirectly a supplier, contractor or subcontractor or the property of any of them to influence improperly the actions of a Procuring Entity;
- (v). —**Obstructive Practice** means deliberately destroying, falsifying, altering or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede an investigation 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.

A Procuring Entity has the right to require that Tenderers, suppliers, and contractors and their subcontractors permit persons duly appointed by EACC/PPRA/KNAO to inspect their accounts and records and other documents relating to the Tender submission and contract performance;

The Procuring Entity will reject a proposal for award if it determines that the Tenderer recommended for award has engaged in corrupt, fraudulent practices or others stated under Clause 44.1.a in competing for the contract;

In pursuit of the policy defined in sub-Clause 44.1 the Procuring Entity will cancel the portion of the funds allocated to a contract for goods, works, or services if it at any time determines that corrupt or fraudulent practices were engaged in by representatives of the Procuring Entity or Approving Authority or of a beneficiary of the funds during the procurement or the execution of that contract;

In the event that the Procuring Entity or Approving Authority does not take timely and appropriate action satisfactory to the Government of Kenya to remedy the situation, then the Director-General may order an investigation of procurement proceedings for the purpose of determining whether there has been a breach of the Public Procurement and Asset Disposal Act, 2015.

- 3.3 The Director-General may, on the advice of the Advisory Board, debar a person from participating in procurement proceedings on the ground that the person has committed an offence under the

Public Procurement and Asset Disposal Act, 2015. A debarment shall be for a period of time of not less than five years. Before a person is so debarred, he/she will be given an opportunity to make representations to the Director-General and may request the Review Board to review the debarment.

3.4 Any communication between the Tenderers and the Procuring Entity related to matters of alleged fraud or corruption must be made in writing.

#### **4. Confidentiality**

4.1 The Service Providers, their Subcontractors, and the Personnel of either of them shall not disclose any proprietary or confidential information relating to the Project, the Services, this Contract, or the Procuring Entity's business or operations without the prior written consent of the Procuring Entity.

#### **5. Project Manager's Decisions**

5.1 Except where otherwise specifically stated, the Project Manager will decide contractual matters between the Procuring Entity and the Contractor in the role representing the Procuring Entity.

#### **6. Delegation**

6.1 The Project Manager may delegate any of his duties and responsibilities to other people except to the Adjudicator, after notifying the Contractor, and may cancel any delegation after notifying the Contractor.

#### **7. Communications**

7.1 Communications between parties that are referred to in the Conditions shall be effective only when in writing. A notice shall be effective only when it is delivered.

#### **8. Subcontracting**

8.1 The Contractor may subcontract with the approval of the Project Manager, but may not assign the Contract without the approval of the Procuring Entity in writing. Subcontracting shall not alter the Contractor's obligations.

#### **9. Other Contractors**

9.1 The Contractor shall cooperate and share the Site with other contractors, public authorities, utilities, and the Procuring Entity between the dates given in the Schedule of Other Contractors, as referred to in the **Contract Data Sheet**. The Contractor shall also provide facilities and services for them as described in the Schedule. The Procuring Entity may modify the Schedule of Other Contractors, and shall notify the Contractor of any such modification

#### **10. Personnel**

10.1 The Contractor shall employ the key personnel named in the Schedule of Key Personnel, as referred to in the **Contract Data Sheet**, who shall be appropriately qualified and registered with the appropriate bodies to carry out the functions stated in the Schedule or other personnel approved by the Project Manager. The Project Manager will approve any proposed replacement of key personnel only if their relevant qualifications and abilities are substantially equal to or better than those of the personnel listed in the Schedule.

10.2 If the Project Manager asks the Contractor to remove a person who is a member of the Contractor's staff or work force, stating the reasons, the Contractor shall ensure that the person leaves the

Site within seven days and has no further connection with the work in the Contract.

**11. Procuring Entity 's and Contractor 's Risks**

11.1 The Procuring Entity carries the risks which this Contract states are Procuring Entity's risks, and the Contractor carries the risks which this Contract states are Contractor's risks.

**12. Procuring Entity 's Risks**

12.1 From the Start Date until the Defects Correction Certificate has been issued, the following are Procuring Entity's risks:

- a) The risk of personal injury, death, or loss of or damage to property (excluding the Works, Plant, Materials, and Equipment), which are due to:
  - (i) Use or occupation of the Site by the Works or for the purpose of the Works, which is the unavoidable result of the Works; or
  - (ii) Negligence, breach of statutory duty, or interference with any legal right by the Procuring Entity or by any person employed by or contracted to him except the Contractor.
- b) The risk of damage to the Works, Plant, Materials, and Equipment to the extent that it is due to a fault of the Procuring Entity or in the Procuring Entity's design, or due to war or radioactive contamination directly affecting the country where the Works are to be executed.

12.2 From the Completion Date until the Defects Correction Certificate has been issued, the risk of loss of or damage to the Works, Plant, and Materials is a Procuring Entity's risk except loss or damage due to:

- (a) A Defect which existed on the Completion Date;
- (b) An event occurring before the Completion Date, which was not itself a Procuring Entity's risk; or
- (c) The activities of the Contractor on the Site after the Completion Date.

**13. Contractor 's Risks**

13.1 From the Starting Date until the Defects Correction Certificate has been issued, the risks of personal injury, death, and loss of or damage to property (including, without limitation, the Works, Plant, Materials, and Equipment) which are not Procuring Entity's risks are Contractor's risks.

**14. Insurance**

14.1 The Contractor shall provide, in the joint names of the Procuring Entity and the Contractor, insurance cover from the Start Date to the end of the Defects Liability Period, in the amounts and deductibles stated in the **Contract Data Sheet** for the following events which are due to the Contractor's risks:

- (a) Loss of or damage to the Works, Plant, and Materials;

- (b) Loss of or damage to Equipment;
  - (c) Loss of or damage to property (except the Works, Plant, Materials, and Equipment) in connection with the Contract; and
  - (d) Personal injury or death.
- 14.2 Policies and certificates for insurance shall be delivered by the Contractor to the Project Manager for the Project Manager's approval before the Start Date. All such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.
- 14.3 If the Contractor does not provide any of the policies and certificates required, the Procuring Entity may affect the insurance which the Contractor should have provided and recover the premiums the Procuring Entity has paid from payments otherwise due to the Contractor or, if no payment is due, the payment of the premiums shall be a debt due.
- 14.4 Alterations to the terms of insurance shall not be made without the approval of the Project Manager.
- 14.5 Both parties shall comply with any conditions of the insurance policies.
- 15. Site Investigation Reports**
- 15.1 The Contractor, in preparing the Tender, shall rely on any Site Investigation Reports referred to in the **Contract Data Sheet**, supplemented by any information available to the Tenderers.
- 16. Queries about the Contract Data Sheet**
- 16.1 The Project Manager will clarify queries on the **Contract Data Sheet**.
- 17. Contractor to Construct the Works**
- 17.1 The Contractor shall construct and install the Works in accordance with the Specifications and Drawings.
- 18. Commencement and Completion**
- 18.1 The Contractor may commence execution of the Works on the Start Date and shall carry out the Works in accordance with the Programme submitted by the Contractor, as updated with the approval of the Project Manager, and complete them by the Intended Completion Date.
- 19. Approval by the Project Manager**
- 19.1 The Contractor shall submit Specifications and Drawings showing the proposed Temporary Works to the Project Manager, who is to approve them if they comply with the Specifications and Drawings.
- 19.2 The Contractor shall be responsible for the design of Temporary Works.
- 19.3 The Project Manager's approval shall not alter the Contractor's responsibility for design of the Temporary Works.
- 19.4 The Contractor shall obtain approval of third parties to the design

of the Temporary Works, where required.

19.5 All Drawings prepared by the Contractor for the execution of the temporary or permanent Works, are subject to prior approval by the Project Manager before their use.

## **20. Protection of the Environment**

20.1 The Contractors shall take all reasonable steps to protect the environment and to limit damage and nuisance to people and property resulting from pollution, noise and other results of his operations.

20.2 The Contractors shall ensure that emissions, surface discharges and effluent from his activities shall not exceed prescribed values in the environmental laws.

## **21. Labour Laws**

21.2 The Contractor shall comply with all the relevant labour laws applicable in the Country, including laws relating to workers employment, working hours, health, safety, welfare, and immigration, and shall allow them all their legal rights.

21.2 The Contractor shall require his employees to obey all applicable laws, including those concerning safety at work.

## **22. Health and Safety**

22.1 The Contractor shall at all times take all reasonable precautions to maintain the health and safety of his personnel.

22.2 The Contractor shall ensure that first aid facilities are available at all times at the site and that suitable arrangements are made for all necessary welfare and hygiene requirements and for the prevention of epidemics.

22.3 The Contractor shall notify the Procuring Entity 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 the property, as the Procuring Entity may reasonably require.

22.4 The Contractor shall conduct an HIV-Aids awareness programme, and shall take other such measures as specified in the **Contract Data Sheet** to reduce the risk of transfer of HIV virus between and among Contractor personnel, the Procuring Entity's Staff and the surrounding community.

## **23. Discoveries**

23.1 Anything of historical or other interest or of significant value unexpectedly discovered on the Site shall be the property of the Procuring Entity. The Contractor shall notify the Project Manager of such discoveries and carry out the Project Manager's instructions for dealing with them.

## **24. Possession of the Site**

24.1 The Procuring Entity shall give possession of all parts of the Site to the Contractor. If possession of a part is not given by the date stated in the **Contract Data Sheet**, the Procuring Entity will be deemed to have delayed the start of the relevant activities, and this will be a Compensation Event.

- 25. Access to the Site** 25.1 The Contractor shall allow the Project Manager and any person authorized by the Project Manager access to the Site and to any place where work in connection with the Contract is being carried out or is intended to be carried out.
- 26. Instructions, Inspections and Audits** 26.1 The Contractor shall carry out all instructions of the Project Manager which comply with the applicable laws where the Site is located.
- 26.2 The Contractor shall permit the Kenya Government to inspect the Contractor's accounts and records relating to the performance of the Contractor and to have them audited by auditors appointed by the Kenya Government, if so required by the Kenya Government
- 27. Disputes** 27. 1 If the Contractor believes that a decision taken by the Project Manager was either outside the authority given to the Project Manager by the Contract or that the decision was wrongly taken, the decision shall be referred to the Adjudicator within 14 days of the notification of the Project Manager's decision.
- 28. Procedure for Disputes** 28.1 The Adjudicator shall give a decision in writing within 28 days of receipt of a notification of a dispute.
- 28.2 The Adjudicator shall be paid by the hour at the rate specified in the **Tender Data Sheet** and **Contract Data Sheet**, together with reimbursable expenses of the types specified in the **Contract Data Sheet**, and the cost shall be divided equally between the Procuring Entity and the Contractor, whatever decision is reached by the Adjudicator. Either party may refer a decision of the Adjudicator to an Arbitrator within 28 days of the Adjudicator's written decision. If neither party refers the dispute to arbitration within the above 28 days, the Adjudicator's decision will be final and binding.
- 28.3 The arbitration shall be conducted in accordance with the arbitration procedure published by the institution named and, in the place, shown in the **Contract Data Sheet**.
- 29. Replacement of Adjudicator** 29.1 Should the Adjudicator resign or die, or should the Procuring Entity and the Contractor agree that the Adjudicator is not functioning in accordance with the provisions of the Contract, a new Adjudicator will be jointly appointed by the Procuring Entity and the Contractor. In case of disagreement between the Procuring Entity and the Contractor, within 30 days, the Adjudicator shall be designated by the Appointing Authority designated in the **Contract Data Sheet** at the request of either party, within 14 days of receipt of such request.



## **B. Time Control**

### **30. Programme**

- 30.1 Within the time stated in the **Contract Data Sheet**, the Contractor shall submit to the Project Manager for approval a Programme showing the general methods, arrangements, order, and timing for all the activities in the Works.
- 30.2 An update of the Programme shall be a programme showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work, including any changes to the sequence of the activities.
- 30.3 The Contractor shall submit to the Project Manager for approval an updated Programme at intervals no longer than the period stated in the **Contract Data Sheet**. If the Contractor does not submit an updated Programme within this period, the Project Manager may withhold the amount stated in the **Contract Data Sheet** from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Programme has been submitted.
- 30.4 The Project Manager's approval of the Programme shall not alter the Contractor's obligations. The Contractor may revise the Programme and submit it to the Project Manager again at any time. A revised Programme shall show the effect of Variations and Compensation Events

### **31. Extension of the Intended Completion Date**

- 31.1 The Project Manager shall extend the Intended Completion Date if a Compensation Event occurs or a Variation is issued which makes it impossible for Completion to be achieved by the Intended Completion Date without the Contractor taking steps to accelerate the remaining work, which would cause the Contractor to incur additional cost.
- 31.2 The Project Manager shall decide whether and by how much to extend the Intended Completion Date within 21 days of the Contractor asking the Project Manager for a decision upon the effect of a Compensation Event or Variation and submitting full supporting information. If the Contractor has failed to give early warning of a delay or has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date.

### **32. Acceleration**

- 32.1 When the Procuring Entity wants the Contractor to finish before the Intended Completion Date, the Project Manager will obtain priced proposals for achieving the necessary acceleration from the Contractor. If the Procuring Entity accepts these proposals, the Intended Completion Date will be adjusted accordingly and confirmed by both the Procuring Entity and the Contractor.
- 32.2 If the Contractor's priced proposals for acceleration are accepted by the Procuring Entity, they shall be incorporated in the Contract Price and treated as a Variation.

### **33. Delays Ordered by**

- 33.1 The Project Manager may instruct the Contractor to delay the start or progress of any activity within the Works.

**the Project  
Manager**

**34. Management  
Meetings**

- 34.1 Either the Project Manager or the Contractor may require the other to attend a management meeting. The business of a management meeting shall be to review the plans for remaining work and to deal with matters raised in accordance with the early warning procedure.
- 34.2 The Project Manager shall record the business of management meetings and provide copies of the record to those attending the meeting and to the Procuring Entity. The responsibility of the parties for actions to be taken shall be decided by the Project Manager either at the management meeting or after the management meeting and stated in writing to all who attended the meeting.

**35. Early  
Warning**

- 35.1 The Contractor shall warn the Project Manager at the earliest opportunity of specific likely future events or circumstances that may adversely affect the quality of the work, increase the Contract Price or delay the execution of the Works. The Project Manager may require the Contractor to provide an estimate of the expected effect of the future event or circumstance on the Contract Price and Completion Date. The estimate shall be provided by the Contractor as soon as reasonably possible.
- 35.2 The Contractor shall cooperate with the Project Manager in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of the Project Manager.

**C. Quality Control**

**36. Identifying  
Defects**

- 36.1 The Project Manager shall check the Contractor's work and notify the Contractor of any Defects that are found. Such checking shall not affect the Contractor's responsibilities. The Project Manager may instruct the Contractor to search for a Defect and to uncover and test any work that the Project Manager considers may have a Defect.

**37. Tests**

- 37.1 If the Project Manager instructs the Contractor to carry out a test not specified in the Specification to check whether any work has a Defect and the test shows that it does, the Contractor shall pay for the test and any samples. If there is no Defect, the test shall be a Compensation Event.

**38. Correction of  
Defects**

- 38.1 The Project Manager shall give notice to the Contractor of any Defects before the end of the Defects Liability Period, which begins at Completion, and is defined in the **Contract Data Sheet**. The Defects Liability Period shall be extended for as long as Defects remain to be corrected.
- 38.2 Every time notice of a Defect is given; the Contractor shall correct the notified Defect within the length of time specified by

the Project Manager's notice.

38.3 If the Contractor has not corrected a defect within the time specified in the Procuring Entity's notice, a penalty for lack of performance will be paid by the Contractor. The amount to be paid will be calculated as a percentage of the cost of having the defect correct, assessed as described in Clause 39.

**39. Uncorrected Defects**

39.1 If the Contractor has not corrected a Defect within the time specified in the Project Manager's notice, the Project Manager will assess the cost of having the Defect corrected, and the Contractor will pay this amount.

**D. Cost Control**

**40. Bill of Quantities**

40.1 The Bill of Quantities shall contain items for the construction, installation, testing, and commissioning work to be done by the Contractor.

40.2 The Bill of Quantities is used to calculate the Contract Price. The Contractor shall be paid for the quantity of the work done at the rate in the Bill of Quantities for each item.

**41. Changes in the Quantities**

41.1 If the final quantity of the work done differs from the quantity in the Bill of Quantities for the particular item by more than 25 percent, provided the change exceeds 1 percent of the Initial Contract Price, the Project Manager shall adjust the rate to allow for the change.

41.2 The Project Manager shall not adjust rates from changes in quantities if thereby the Initial Contract Price is exceeded by more than 15 percent, except with the prior approval of the Procuring Entity.

41.3 If requested by the Project Manager, the Contractor shall provide the Project Manager with a detailed cost breakdown of any rate in the Bill of Quantities.

**42. Variations**

42.1 All Variations shall be included in the updated Programmes produced by the Contractor.

**43. Payments for Variations**

43.1 The Contractor shall provide the Project Manager with a quotation for carrying out the Variation when requested to do so by the Project Manager. The Project Manager shall assess the quotation, which shall be given within seven days of the request or within any longer period stated by the Project Manager and before the Variation is ordered.

43.2 If the work in the Variation corresponds with an item description in the Bill of Quantities and if, in the opinion of the Project Manager, the quantity of work is above the limit stated in Sub-Clause 41.1 or the timing of its execution do not cause the cost per unit of quantity to change, the rate in the Bill of Quantities shall be used to calculate the value of the Variation. If the cost per unit of quantity changes, or if the nature or timing of the work in the Variation does not correspond with items in

the Bill of Quantities, the quotation by the Contractor shall be in the form of new rates for the relevant items of work.

43.3 If the Contractor's quotation is unreasonable, the Project Manager may order the Variation and make a change to the Contract Price, which shall be based on the Project Manager's own forecast of the effects of the Variation on the Contractor's costs.

43.4 If the Project Manager decides that the urgency of varying the work would prevent a quotation being given and considered without delaying the work, no quotation shall be given and the Variation shall be treated as a Compensation Event.

43.5 The Contractor shall not be entitled to additional payment for costs that could have been avoided by giving early warning.

#### **44. Cash Flow Forecasts**

44.1 When the Programme is updated, the Contractor shall provide the Project Manager with an updated cash flow forecast. The cash flow forecast shall include different currencies, as defined in the Contract, converted as necessary using the Contract exchange rates.

#### **45. Payment Certificates**

45.1 The Contractor shall submit to the Project Manager monthly statements of the estimated value of the work executed less the cumulative amount certified previously.

45.2 The Project Manager shall check the Contractor's monthly statement and certify the amount to be paid to the Contractor within twenty-eight 28 days of receipt of the certificate from the contractor.

45.3 The value of work executed shall be determined by the Project Manager.

45.4 The value of work executed shall comprise the value of the quantities of the items in the Bill of Quantities completed.

45.5 The value of work executed shall include the valuation of Variations and Compensation Events.

45.6 The Project Manager may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.

45.7 The Project Manager shall not be bound to certify any payment, if the net amount, after all retentions and deductions would be less than minimum amount of Interim Payment Certificate stated in the **Contract Data Sheet**.

#### **46. Payments**

46.1 Payments shall be adjusted for deductions for advance payments and retention.

- 46.2 If an amount certified is increased in a later certificate or as a result of an award by the Adjudicator or an Arbitrator, the Contractor shall be paid interest upon the delayed payment as set out in this clause. Interest shall be calculated from the date upon which the increased amount would have been certified in the absence of dispute.
- 46.3 Unless otherwise stated, all payments and deductions will be paid or charged in the proportions of currencies comprising the Contract Price.
- 46.4 Items of the Works for which no rate or price has been entered in will not be paid for by the Procuring Entity and shall be deemed covered by other rates and prices in the Contract.

#### **47. Compensation Events**

- 47.1 The following shall be Compensation Events:
  - (a) The Procuring Entity does not give access to a part of the Site by the Site Possession Date stated in the **Contract Data Sheet**.
  - (b) The Procuring Entity modifies the Schedule of Other Contractors in a way that affects the work of the Contractor under the Contract.
  - (c) The Project Manager orders a delay or does not issue Drawings, Specifications, or instructions required for execution of the Works on time.
  - (d) The Project Manager instructs the Contractor to uncover or to carry out additional tests upon work, which is then found to have no Defects.
  - (e) The Project Manager unreasonably does not approve a subcontract to be let.
  - (f) Ground conditions are substantially more adverse than could reasonably have been assumed before issuance of the Letter of Acceptance from the information issued to Tenderers (including the Site Investigation Reports), from information available publicly and from a visual inspection of the Site.
  - (g) The Project Manager gives an instruction for dealing with an unforeseen condition, caused by the Procuring Entity, or additional work required for safety or other reasons.
  - (h) Other contractors, public authorities, utilities, or the Procuring Entity does not work within the dates and other constraints stated in the Contract, and they cause delay or

extra cost to the Contractor.

- (i) The advance payment is delayed.
- (j) The effects on the Contractor of any of the Procuring Entity's Risks.
- (k) The Project Manager unreasonably delays issuing a Certificate of Completion.
- (l) Other Compensation Events described in the Contract or determined by the Project Manager shall apply.

47.2 If a Compensation Event would cause additional cost or would prevent the work being completed before the Intended Completion Date, the Contract Price shall be increased and/or the Intended Completion Date shall be extended. The Project Manager shall decide whether and by how much the Contract Price shall be increased and whether and by how much the Intended Completion Date shall be extended.

47.3 As soon as information demonstrating the effect of each Compensation Event upon the Contractor's forecast cost has been provided by the Contractor, it shall be assessed by the Project Manager, and the Contract Price shall be adjusted accordingly. If the Contractor's forecast is deemed unreasonable, the Project Manager shall adjust the Contract Price based on the Project Manager's own forecast. The Project Manager will assume that the Contractor will react competently and promptly to the event.

47.4 The Contractor shall not be entitled to compensation to the extent that the Procuring Entity's interests are adversely affected by the Contractor's not having given early warning or not having cooperated with the Project Manager.

#### **48. Taxes**

48.1 The Project Manager shall adjust the Contract Price if taxes, duties, and other levies are changed between the date 28 days before the submission of Tenders for the Contract and the date of the last Completion certificate. The adjustment shall be the change in the amount of tax payable by the Contractor, provided such changes are not already reflected in the Contract Price or are a result of Clause 50.

#### **49. Currencies**

49.1 Where payments are made in currencies other than the Kenya Shillings, the exchange rates used for calculating the amounts to be paid shall be the exchange rate stated in the Contractor's Tender.

#### **50. Price Adjustment**

50.1 The amounts payable to the Contractor, in various currencies pursuant to Sub-Clause 45.1, shall be adjusted in respect of the rise or fall in the cost of Labour, Contractor's Equipment, Plant, materials, and other inputs to the Works, by applying to such amounts the formulae prescribed in this clause based on the prevailing consumer price index obtained from the Central Bureau of Statistics or the monthly inflation rate issued by the

Central Bank of Kenya.

50.2 To the extent that full compensation for any rise or fall in costs to the Contractor is not covered by the provisions of this or other clauses in the Contract, the unit rates and prices included in the Contract shall be deemed to include amounts to cover the contingency of such other rise or fall of costs.

50.3 The adjustment to be applied to amount payable to the Contractor as certified in Payment Certificates shall be determined 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 as follows;

$$P_n = a + b \frac{L_n - L_o}{L_o} + c \frac{M_n - M_o}{M_o} + d \frac{E_n - E_o}{E_o} + etc.$$

where;

**P<sub>n</sub>** is a price adjustment factor to be applied to the amount in each specific currency for the payment of the work carried out in the subject month, where such variations and day work are not otherwise subject to adjustment;

**a** is a constant, specified in the **Appendix to Tender**, representing the nonadjustable portion in contractual payments;

**b, c, d, etc.**, are weightings or coefficients representing the estimated proportion of each cost element (labour, materials, equipment usage, etc.) in the Works or sections thereof, net of Provisional Sums, as specified in the **Appendix to Tender**; the sum of a, b, c, d, etc., shall be one;

**L<sub>n</sub>, M<sub>n</sub>, E<sub>n</sub>, etc.**, are the current cost indices or reference prices of the cost elements in the specific currency of origin for month “**n**,” determined pursuant to Sub-Clause 50.5, applicable to each cost element; and

**L<sub>o</sub>, M<sub>o</sub>, E<sub>o</sub>, etc.**, are the base cost indices or reference prices corresponding to the above cost elements at the date specified in Sub-Clause 50.5

The value of net work done, certified by the Project Manager, in any monthly Interim or Final Certificate as payable by the Procuring Entity to the Contractor before deduction of any retention money shall be increased or decreased by an amount of F ‘.

$$F = P_n \times P_c$$

where;

The effective value **P<sub>c</sub>** of work done which is to be subjected to increase or decrease shall be the difference between:

- (i) the amount which, in the opinion of the Project Manager,

is due to the Contractor under Clause 45 (before deduction of retention money and before deducting sums previously paid on account) less:

- any amount for payment or repayment of any advance payment;
- any amount for materials on site (if any);
- any amounts for nominated sub-contractors (if any)
- any amounts for any other items based on actual cost or current prices; or
- any sums for increase or decrease in the Contract Price paid under this Sub-Clause

and

- (ii) the amount calculated in accordance with (i) above of this Sub-clause and included in the last preceding statement.

50.4 The sources of indices shall be those listed in the **Appendix to Tender**, as approved by the Engineer. Indices shall be appropriate for their purpose and shall relate to the Contractor's proposed source of supply of inputs on the basis of which his Contract Price and expected foreign currency requirements shall have been computed. As the proposed basis for price adjustment, the Contractor shall have submitted with his Tender the tabulation of Weightings and Source of Indices in the **Appendix to Tender**, which shall be subject to approval by the Engineer.

50.5 The base cost indices or prices shall be those prevailing on the day 28 days prior to the latest date for submission of Tenders. Current indices or prices shall be those prevailing on the day 28 days prior to the last day of the period to which a particular Interim Payment Certificate is related. If at any time the current indices are not available, provisional indices as determined by the Engineer will be used, subject to subsequent correction of the amounts paid to the Contractor when the current indices become available.

50.6 If the Contractor fails to complete the Works within the time for completion prescribed under Clause 58 adjustment of prices thereafter until the date of completion of the Works shall be made using either the indices or prices relating to the prescribed time for completion, or the current indices or prices, whichever is more favourable to the Procuring Entity, provided that if an extension of time is granted pursuant to Clause 28, the above provision shall apply only to adjustments made after the expiry of such extension of time.

50.7 The weightings for each of the factors of cost given in the **Appendix to Tender** shall be adjusted if, in the opinion of the Engineer, they have been rendered unreasonable, unbalanced, or inapplicable as a result of varied or additional work already executed or instructed under Clause 43 or for any other reason.

## 51. Retention

51.1 The Procuring Entity shall retain from each payment due to the Contractor the proportion stated in the **Contract Data Sheet**



until Completion of the whole of the Works.

- 51.2 On completion of the whole of the Works, half the total amount retained shall be repaid to the Contractor and the other half when the Defects Liability Period has passed and the Project Manager has certified that all Defects notified by the Project Manager to the Contractor before the end of this period have been corrected.
- 51.3 On completion of the whole Works, the Contractor may substitute retention money with an “on demand” Bank guarantee.

## **52. Liquidated Damages**

- 52.1 The Contractor shall pay liquidated damages to the Procuring Entity at the rate per day stated in the **Contract Data Sheet** for each day that the Completion Date is later than the Intended Completion Date. The total amount of liquidated damages shall not exceed the amount defined in the **Contract Data Sheet**. The Procuring Entity may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor’s liabilities.
- 52.2 If the Intended Completion Date is extended after liquidated damages have been paid, the Project Manager shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment certificate. The Contractor shall be paid interest on the overpayment, calculated from the date of payment to the date of repayment, at the rates specified in Sub-Clause 46.1.
- 52.3 If the Contractor has not corrected a defects within the time specified in the Procuring Entity’s notice, the Procuring Entity will assess the cost of having the defect corrected, the Contractor will pay this amount, and a penalty for lack of performance calculated as described in Clause 38.

## **53. Bonus**

- 53.1 The Contractor shall be paid a Bonus calculated at the rate per calendar day stated in the **Contract Data Sheet** for each day (less any days for which the Contractor is paid for acceleration) that the Completion is earlier than the Intended Completion Date. The Project Manager shall certify that the Works are complete, although they may not be due to be complete.

## **54. Advance Payment**

- 54.1 The Procuring Entity shall make advance payment to the Contractor of the amounts stated in the **Contract Data Sheet** by the date stated in the **Contract Data Sheet**, against provision by the Contractor of an Unconditional Bank Guarantee in a form and by a bank acceptable to the Procuring Entity in amounts and currencies equal to the advance payment. The Guarantee shall remain effective until the advance payment has been repaid, but

the amount of the Guarantee shall be progressively reduced by the amounts repaid by the Contractor. Interest will not be charged on the advance payment.

54.2 The Contractor is to use the advance payment only to pay for Equipment, Plant, Materials, and mobilization expenses required specifically for execution of the Contract. The Contractor shall demonstrate that advance payment has been used in this way by supplying copies of invoices or other documents to the Project Manager.

54.3 The advance payment shall be repaid by deducting proportionate amounts from payments otherwise due to the Contractor, following the schedule of completed percentages of the Works on a payment basis. No account shall be taken of the advance payment or its repayment in assessing valuations of work done, Variations, price adjustments, Compensation Events, Bonuses, or Liquidated Damages.

## **55. Performance Securities**

55.1 The Performance Security shall be provided to the Procuring Entity no later than the date specified in the Letter of Acceptance and shall be issued in an amount and form and by a bank or surety acceptable to the Procuring Entity, and denominated in the types and proportions of the currencies in which the Contract Price is payable. The Performance Security shall be valid until a date 28 days from the date of issue of the Certificate of Completion in the case of a Bank Guarantee, and until one year from the date of issue of the Completion Certificate in the case of a Performance Bond.

## **56. Day works**

56.1 If applicable, the Day works rates in the Contractor's Tender shall be used for small additional amounts of work only when the Project Manager has given written instructions in advance for additional work to be paid for in that way.

56.2 All work to be paid for as Day works shall be recorded by the Contractor on forms approved by the Project Manager. Each completed form shall be verified and signed by the Project Manager within two days of the work being done.

56.3 The Contractor shall be paid for Day works subject to obtaining signed Day works forms.

## **57. Cost of Repairs**

57.1 Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Defects Correction periods shall be remedied by the Contractor at the Contractor's cost if the loss or damage arises from the Contractor's acts or omissions.

# **E. Finishing the Contract**

## **58. Completion Certificate**

58.1 The Contractor shall request the Project Manager to issue a certificate of Completion of the Works, and the Project Manager will do so upon deciding that the work is completed.

- 59. Taking Over**      59.1 The Procuring Entity shall take over the Site and the Works within seven days of the Project Manager's issuing a certificate of Completion.
- 60. Final Account**      60.1 The Contractor shall supply the Project Manager with a detailed account of the total amount that the Contractor considers payable under the Contract before the end of the Defects Liability Period. The Project Manager shall issue a Defects Liability Certificate and certify any final payment that is due to the Contractor within 56 days of receiving the Contractor's account if it is correct and complete. If it is not, the Project Manager shall issue within 56 days a schedule that states the scope of the corrections or additions that are necessary. If the Final Account is still unsatisfactory after it has been resubmitted, the Project Manager shall decide on the amount payable to the Contractor and issue a payment certificate.
- 61. Operating and Maintenance Manuals**      61.1 If "as built" Drawings and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates stated in the **Contract Data Sheet**.
- 61.2 If the Contractor does not supply the Drawings and/or manuals by the dates stated in the **Contract Data Sheet**, or they do not receive the Project Manager's approval, the Project Manager shall withhold the amount stated in the **Contract Data Sheet** from payments due to the Contractor.
- 62. Termination**      62.1 The Procuring Entity or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract.
- 62.2 Fundamental breaches of Contract shall include, but shall not be limited to, the following:
- (a) The Contractor stops work for 28 days when no stoppage of work is shown on the current Programme and the stoppage has not been authorized by the Project Manager;
  - (b) The Project Manager instructs the Contractor to delay the progress of the Works, and the instruction is not withdrawn within 28 days;
  - (c) The Procuring Entity or the Contractor is made bankrupt or goes into liquidation other than for a reconstruction or amalgamation;
  - (d) A payment certified by the Project Manager is not paid by the Procuring Entity to the Contractor within 84 days of the date of the Project Manager's certificate;
  - (e) The Project Manager gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Project Manager;
  - (f) The Contractor does not maintain a Security, which is required; and

- (g) The Contractor has delayed the completion of the Works by the number of days for which the maximum amount of liquidated damages can be paid, as defined in the **Contract Data Sheet**.
- (h) If the Contractor, in the judgment of the Procuring Entity has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.

For the purpose of this paragraph:

“corrupt practice” means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution and includes inter alia, bribery and extortion or coercion which involves threats of injury to person , property or reputation, and.

“fraudulent practice” means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Procuring Entity, and includes collusive practice among 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.

- 62.3 When either party to the Contract gives notice of a breach of Contract to the Project Manager for a cause other than those listed under Sub-Clause 62.2 above, the Project Manager shall decide whether the breach is fundamental or not.
- 62.4 Notwithstanding the above, the Procuring Entity may terminate the Contract for convenience.
- 62.5 If the Contract is terminated, the Contractor shall stop work immediately, make the Site safe and secure, and leave the Site as soon as reasonably possible.

### **63. Payment upon Termination**

- 63.1 If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Project Manager shall issue a certificate for the value of the work done and Materials ordered less advance payments received up to the date of the issue of the certificate and less the percentage to apply to the value of the work not completed, as indicated in the **Contract Data Sheet**. Additional Liquidated Damages shall not apply. If the total amount due to the Procuring Entity exceeds any payment due to the Contractor, the difference shall be a debt payable to the Procuring Entity.
- 63.2 If the Contract is terminated for the Procuring Entity’s convenience or because of a fundamental breach of Contract by the Procuring Entity, the Project Manager shall issue a certificate for the value of the work done, Materials ordered, the reasonable cost of removal of Equipment, repatriation of the Contractor’s personnel employed solely on the Works, and the Contractor’s costs of protecting and securing the Works, and less advance

payments received up to the date of the certificate.

**64. Property**

64.1 All Materials on the Site, Plant, Equipment, Temporary Works, and Works shall be deemed to be the property of the Procuring Entity if the Contract is terminated because of the Contractor's default.

**65. Release from Performance**

65.1 If the Contract is frustrated by the outbreak of war or by any other event entirely outside the control of either the Procuring Entity or the Contractor, the Project Manager shall certify that the Contract has been frustrated. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all work carried out before receiving it and for any work carried out afterwards to which a commitment was made.

**66. Suspension of Financing**

66.1 In the event that the source of financing is suspended to the Procuring Entity, from which part of the payments to the Contractor are being made:

- (a) The Procuring Entity is obligated to notify the Contractor of such suspension within 7 days of having received the financing agency's suspension notice.
- (b) If the Contractor has not received sums due it within the 28 days for payment provided for in Sub-Clause 46.1, the Contractor may immediately issue a 14-day termination notice.

## **SECTION V: CONTRACT DATA SHEET (CDS)**

## Contract Data Sheet

### Instructions for completing the Contract Data Sheet

CDS Clause	GCC Clause	Description
1	1.1	<p><b>A. General</b></p> <p><b>(Itemized Definitions to take the same numbering as per the General Conditions)</b></p> <p>The Procuring Entity is  <b><i>Director Supply Chain Management,  County Government of Bomet,  P.O. Box 19 – 20400,  Bomet, Kenya</i></b></p> <p>The Defects Liability Period is <b><i>365(Three hundred and sixty-five) days.</i></b></p> <p>The Project Manager is  <b><i>Chief Executive Officer,  Department of Water and Irrigation,  P.O. Box. 19 – 20400</i></b></p> <p>The name and identification number of the Contract is  Name: <b>Rehabilitation of Itare (Mogogosiek-Kapletundo-Kaplong) Water Supply Pipeline</b>  Tender Number: <b>CGB/W&amp;I/001/2019/2020</b></p> <p>The Works consist of  <b>-Pipe trenching</b>  <b>-Pipeline laying</b>  <b>-Construction of inspection manholes</b></p> <p>The objective of the contract is <b><i>to supply reliable potable water to residents of Bomet County (Sotik and Konoin Sub-County)</i></b></p> <p>The Start Date shall be <b><i>10<sup>th</sup> May 2020</i></b></p> <p>The Intended Completion Date for the whole of the Works shall be <b><i>2<sup>nd</sup> November 2020</i></b></p> <p>The following documents also form part of the Contract:  <b><i>Notification of award</i></b>  <b><i>Letter of acceptance</i></b></p>

		<p><b><i>Work programme</i></b></p> <p><b><i>Performance bond</i></b></p> <p><b><i>General conditions of contract</i></b></p> <p><b><i>Specifications</i></b></p> <p><b><i>Priced bill of quantities</i></b></p> <p>The Site is located at <b>Bomet County-Kapletundo Ward and Mogogosiek Ward of Sotik and Konoin Sub-Counties Respectively</b></p>
2.	2.2	Indicate whether there is sectional completion: <i>-N/A</i>
3.	2.3(9)	List other documents that form part of the contract if any:
4.	3.1	<p>The language of the Contract documents is <b><i>English.</i></b></p> <p>The law that applies to the Contract is the Kenyan Law.</p>
5.	9.1	Include the Schedule of Other Contractors, if any.
6.	10.1	Include the Schedule of Key Personnel: <b><i>Refer to Tender Datasheet TDS Reference No. 16</i></b>
7.	14.1	<p>The minimum insurance covers shall be: as per the Kenyan Laws</p> <ul style="list-style-type: none"> <li>(a) loss of or damage to the Works, Plant, and Materials <i>[insert amount]</i>;</li> <li>(b) loss of or damage to Equipment <i>[insert amount]</i>;</li> <li>(c) loss of or damage to property (except the Works, Plant, Materials, and Equipment) in connection with the Contract <i>[insert amount]</i>; and</li> <li>(d) Personal injury or death <i>[insert amount]</i>.</li> </ul>
8.	15.1	<p>Site Investigation Reports available to the Tenderers are:</p> <ul style="list-style-type: none"> <li>a) Inspection reports</li> <li>b) Non-Conformance Reports</li> <li>c) Inspection Certificates</li> </ul>
9.	22.4	<p>The other measures include:</p> <ul style="list-style-type: none"> <li>a. Minimizing the number of migrant workers employed on the project and household in the site camp</li> <li>b. Providing access to voluntary counselling and testing (VCT)</li> <li>c. Providing psychological support and health care including prevention and treatment of opportunistic infections for workers infected and affected, as well as their families</li> <li>d. Providing condoms (male and female) to workers</li> </ul>
10.	24.1 & 47.1	The Site Possession Date shall be <b><i>at least 7 (seven) days after signing the contract</i></b>



11.	28.2	Hourly rate of Fees payable to the Adjudicator is:..... [insert hourly fee in Ksh..]  Types of reimbursable expenses to be paid to the Adjudicator include: [insert types of reimbursable expenses]. a).....N/A..... b)..... c).....
12.	28.3	Arbitration will take place at [insert the place] in accordance with rules and regulations published by ..... [state the institutions] and [insert rules and regulations]
13.	29.1	Appointing Authority for the Adjudicator: <b>Chairman IEK</b>
<b>B. Time Control</b>		
14.	30.1	The Contractor shall Submit a Programme for the Works within <b>(5) Five days of</b> delivery of the Letter of Acceptance.
15.	30.3	The period between Programme updates is <b>7(seven)</b> days.
16.	30.3	The amount to be withheld by the Project Manager in the case the contractor does not submit an updated programme is: <b>Ksh. 50,000 (Fifty thousand Kenya shillings).</b>
<b>C. Quality Control</b>		
17.	38.1	The Defects Liability Period is <b>365(Three hundred and sixty-five days)</b>
<b>D. Cost Control</b>		
18.	45.7	Minimum Amount of Interim Payment Certificate will be <b>minimum 25 % of the contract sum.</b>
19.	46.1	The interest rate shall be ...N/A..... % above prevailing interest rate for commercial borrowing from the contractor's bank
20.	47.1(a)	The Site Possession Date shall be <b>7(seven) days after signing the contract</b>
21.	50	The contract <b>is not</b> subject to price adjustment in accordance with Clause 50 of the General Conditions of Contract.
22.	51.1	The amount of retention is <b>10%</b> of value of works of Interim Payment Certificate".
		Limit of retention will be [insert percent] of contract price.

23.	52.1	The rate of liquidated damages is <b>0.15%</b> of the contract price per day
	52.1 62.2 (g)	The maximum amount of liquidated damages is <b>5% of the contract price</b>
24.	53.1	The bonus for early completion is <i>N/A</i> .
25.	54.1	The amount of advance payment shall be 10% of the contract sum payable within 10 (ten) days upon the Contractor availing the Unconditional Bank Guarantee as per Clause 54 GCC.
		Recovery of Advance Payment: <b>12.5 % (Twelve and half) percent of amount of Interim Payment Certificate.</b>
26.	55.1	The Performance Security shall be <b>10 % (Ten) percent of the contract price.</b>
		<b>E. Finishing the Contract</b>
27.	61.1	As built drawings shall be supplied by the contractor by <i>N/A</i> days after handing over of the works.  Operating manual shall be supplied by the contractor by <i>N/A</i>
28.	61.2	The amount to be withheld by the Project Manager in the case the contractor does not submit as built drawings is: <i>N/A</i>  The amount to be withheld by the Project Manager in the case the contractor does not submit operating manual is: <i>N/A</i>
29.	63.1	The percentage to apply to the value of the work not completed, representing the Procuring Entity's additional cost for completing the Works, is <i>[percent]</i> .

## **SECTION VI: TECHNICAL SPECIFICATIONS**

# TECHNICAL SPECIFICATIONS

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## **TECHNICAL SPECIFICATIONS**

### **1.0 GENERAL SPECIFICATIONS**

#### **1.1 Introduction**

These specifications cover the construction of the works as shown on the drawings and listed in the Bills of Quantities and shall be read in conjunction with the contract documents as listed in volume 1, instructions to Tenderer.

All references given are intended solely for the convenience of those using the above clauses in the documents, which may, in the opinion of the Engineer have any bearing on the point in question.

#### **1.2 Extent of Contract**

The works specified under this contract shall include all general works preparatory to the construction of the works and materials and work of any kind necessary

#### **1.3 Precedence of Contract Documents**

Should the provisions of any clauses of any or all of the Contract Document to be shown to be mutually at variance or exclusive, the following order of precedence shall be applied in order to establish which of the said provisions, mutually at variance or exclusive, shall be deemed to be true and correct intent of the contract entered into by Employer, and the contractor shall forthwith be absolved from any liability under the provisions not so proved to be the true and correct intent of the contract, provided that in the execution of the contract the contractor has, or shall have complied with such true and correct intent.

- (i) Provision of the Standard or Special Specifications shall take precedence over those of the General Conditions of Contract.
- (ii) Provision of Special Specifications shall take precedence over the standard specifications unless otherwise indicated.
- (iii) Details shown or noted on the contract drawings shall take precedence over the requirements of both the standard and the Special Specifications.
- (iv) Detailed drawing shall take precedence over General Drawings.
- (v) Within the Standard Specifications, the provisions of any section particular to the provisions at variance shall take precedence over the general section, and within any section clauses particular to the provisions at variance shall take precedence over those not so particular. The foregoing order of precedence shall apply also to sections and clauses of the special specifications.
- (vi) Where there is conflict in units of measurement quoted in standard specifications and units quoted in Bills of Quantities the units in latter will apply.

Notwithstanding any fore written provisions, should the application of the foregoing order of precedence fail to resolve any variance or mutual exclusions as to the true and correct intent of the contract to the satisfaction of the Engineer, the Engineer may exercise the right to arbitrarily give a ruling as to the true and correct intention of the contract, and the contractor

shall have the right to claim additional payment for any additional expense incurred by him as a consequence of such variance or exclusion and arbitrary ruling.

#### **1.4 Standards**

In the specifications, Bills of Quantities, and Drawings reference has been made to relevant British Standard Specifications and Codes of Practice- to which the materials and workmanship should comply with. However, the materials and workmanship complying with equivalent Kenya Bureau of Standards (K.B.S) or International Standards Organisation (I.S.O.) Standard for that particular material or workmanship will also be acceptable.

Mixture of different standards in one trade will not be allowed. For instance, if pipes are to be provided to I.S.O Standard, then all the pipes in the works are to be to I.S.O. Standard.

Where the dimension in one standard does not completely correspond to the dimensions of the other standard, which is being used for construction of works, ruling of the Engineer will be sought and any decision given by the Engineer will be final and binding upon the contractor.

#### **1.5 Quality of Materials and Workmanship**

The materials and workmanship shall be of the best of their respective kinds and shall be to the approval of the Engineer. In reading of these specifications, the words "to the approval of the Engineer" shall be deemed to be included in the description of all materials incorporated in the works, whether manufactured or natural, and in the description of all operations for the due execution of the works.

No materials of any description shall be used without prior approval by the Engineer and any condemned as unfit for use in the works shall be removed immediately from the site, and without recompense to, the contractor. All works or parts thereof shall be in accordance with the latest edition of either Kenya Bureau of Standards (K.B.S.) specification or British Standard (B.S.) specifications and British Codes of Practice (C.P.) as published by British Standards Institution.

All materials shall be of approved manufacture and origin and the best quality of their respective kind, equal to sample and delivered on to the site a sufficient period before they are required to be used in the works to enable the Engineer to take such samples as he may require for testing or approval, and the contractor shall furnish any information required by the Engineer as to the quality, weight, strength, description, etc. of the materials.

#### **1.6 Trade Names**

Trade Names and Catalogue Reference are given solely as the guide to the quality and alternative manufacturers of the materials or goods of equivalent quality will be accepted at the discretion of the Engineer.

#### **1.7 Testing**

As provided in clause 36 of the conditions of contract and in accordance with the specification quoted for any material used on works of this contract, tests may be called upon by the Engineer to be carried out at the place of manufacture or on the site. The contractor may assume that the tests will be required on soils, workmanship, and materials whether natural or manufactured to verify their compliance with the specifications. Samples of all



such materials and manufactured articles together with all necessary labour, materials, plant and apparatus for sampling and for carrying out of the tests shall be supplied by the contractor at his own expense.

### **1.8 Programmes for the Execution of Works**

- (i) In accordance with CDS clause 14 of the conditions of contract, the contractor upon receiving Engineer's order to commence shall within 3 days draw up a working programme setting out order in which the works are to be carried out with appropriate dates thereof together with delivery dates for materials. The contractor shall together with his work programme supply an expenditure chart showing monthly anticipated expenditure.
- (ii) The programme shall be deemed to have taken into account normal variations in climatic conditions to provide for completion of the works in the order and within the times specified therein.
- (iii) The order in which it is proposed to execute the permanent works shall be subject to adjustment and approval by the Engineer, and contractor's price shall be held to include for any reasonable and necessary adjustment required by the Engineer during the course of the works.
- (iv) The contractor shall carry out the contract in accordance with the programme agreed with the Engineer, but he shall in no manner be relieved by the Engineer's approval of the programme of his obligations to complete the works in the prescribed order and by the prescribed completion date and he shall from time to time review his progress and make such amendments to his rate or executions of the works as may be necessary to fulfil these obligations.
- (v) Once the proposed programme is approved by the Engineer, the contractor shall not depart from the programme without the written consent of the Engineer. In the event of unforeseen difficulties or disturbances arising, which forces the contractor to depart from the approved programme of works, he shall advise the Engineer in writing of such occurrences without delay and submit proposals for any necessary remedial measures, for which he shall obtain the Engineer's approval before putting such measures into effect.
- (vi) The contractor shall furnish the Engineer with a monthly statement of all works done on the contract and of all materials on site.

### **1.9 Substantial (Practical) Completion**

Substantial or Practical Completion of works is to be understood as a state of completion, which leaves out only minor outstanding items that can be readily completed within a period of less than one month without interfering with the normal operation of the works.

The works will not be considered as substantially or practically completed without the works being capable of being used by the Employer in accordance with the purpose of the works. This means amongst other things, that all final tests have been carried out, the pumping stations and treatment plant fully operational to the required capacity, all storage tanks filled up, operation manuals provided, and clearance of the site upon completion of the works has been carried out, all to the satisfaction of the Engineer.

The contractor shall allow for a period of one month for the completion by others of as built drawings before the works are handed over to the Employer.

### **1.10 Nominated Sub-contractors and Nominated suppliers**

The contractor shall be responsible for Nominated Sub-contractor in every respect. In particular, it shall be the Contractor's responsibility to ensure that each sub-contractor commences and completes the work in a manner so as to conform with the working programme, as specified above.

It is also the responsibility of the contractor to ensure a satisfactory progress of the works and to ensure that the works are completed to a standard satisfactory to the Engineer.

The contractor shall accept liability for and bear the cost of General and Specific Attendance on Nominated Sub-contractors which shall be deemed to include for: -

- (i) Allowing the use of standing scaffolding, providing special scaffolding, maintenance and alteration of all scaffolding, retention of all scaffolding until such time as all relevant Sub-contractor's works are complete and removal of all scaffolding on completion.
- (ii) Providing equipment and labour for unloading and hoisting sub-contractor's materials.
- (iii) Providing space for office accommodation, and for storage of plant and materials; allowing use of sanitary accommodation; the supply of all necessary water, power, lighting and watching and clearing away all rubbish.

Cutting away for and making good after the work of sub-contractors as may be required will be measured and valued separately in the Bills of Quantities.

Before placing any orders with nominated sub-contractors or nominated suppliers, the contractor should enter into an agreement with the nominated sub-contractor/nominated suppliers to ensure that the conditions and delivery of materials to site comply with the conditions of contract and the working programme.

Particular clause should be inserted in the agreement with the nominated supplies ensuring the validity of the rates for the supply of materials as per the delivery schedule.

Nominated suppliers who are unable to meet the delivery schedule will not be given allowance for any increases in prices incurred after the delivery time agreed in the delivery schedule.

### **1.11 Entry upon Land, Working site and Adjoining Lands**

The community shall provide land, right of ways and leaves for the works specified in the contract.

If nothing else is mentioned, the contractor will be allotted for execution of the works only the actual area as necessary for the extent of the construction.

The contractor shall give notice to the Engineer at least 30 days before he wishes to enter onto the land required to carry out the contract.

The contractor shall not enter onto any land or commence any operations until such time as he receives formal confirmation from the Engineer that all necessary compensation formalities have been completed and that permission has been obtained from the landowner to enter the land and commence operations. Should the contractor enter onto land or commence

operations without first obtaining this confirmation, he shall be liable in whole or in part, at the sole discretion of the Engineer, for all additional costs and/or legal charges which might arise therefore.

The contractor shall on his own accord obtain rights of admission, and rights of using all other areas which are necessary for storing and manufacturing or for setting up site offices and resident engineer's office or whatsoever will be necessary.

No separate payment will be made to the contractor on account of these items and the contractor must make due allowance for them in his rates.

The contractor shall take care to prevent injury, damage and trespass on lands, fences and other properties near and adjacent to the works and must in this connection make all necessary arrangements with adjoining landowners, or into the case of Government property with officers appointed for this purpose, and ensure the workmen's observance of all Government rules and ordinances regarding game protection and other matters and provide, maintain and clear away on completion of the works, all temporary fencing which may be required for execution of the works.

Before completion of the works, the contractor must make good or compensate any such injury, damage or trespass on lands, fences and other properties which have not otherwise been provided for in the contract

#### **1.12 Preservation of Survey Beacons**

Ordinance Survey Beacons, Bench marks, etc., or around the site of the works shall not be disturbed unless permission has been obtained by the Engineer from the Survey of Kenya.

In the event of unauthorised disturbance of such beacons, bench marks, etc., in the course of the works being carried out, the contractor shall be responsible for reporting same to the Engineer and the Survey of Kenya, and for payment of any fees due to said Survey of Kenya for replacement of such disturbed beacons, bench marks, etc. The contractor shall not replace such disturbed beacons bench marks, etc. on his own accord.

#### **1.13 Land for Campsites**

The community shall make available free of charge to the contractor all land on under or through which the works other than Temporary works are to be executed or carried out all as indicated onto the drawings or as detailed in the specifications. Such land shall exclude land for Resident Engineer's offices and the land required by the contractor for his own camps, offices, houses, temporary works or any other purpose.

#### **1.14 Existing Services**

Drains, pipes, cables and similar services encountered in the course of the works shall be guarded from damage by the contractor at his own costs to safeguard a continued uninterrupted use to the satisfaction of the owners thereof, and the contractor shall not store materials otherwise occupy any part of the site in a manner likely to hinder the operation of such services.

The contractor shall on the Engineer's direction arrange for the construction of permanent or temporary diversions of the said drains etc., together with their reinstatement in liaison with the respective departments, bodies, corporations or authorities. No services may

be tampered with by the contractor and all works in connection with any kind of services shall be carried out by their respective owners.

It is the responsibility of the contractor to inform the Engineer immediately any existing service is exposed.

#### **1.15 Damage to Services**

The contractor shall be held liable for all damage and interference to mains and pipes, to electric cables or lines of any kind either above or below ground caused by him or his sub- contractors in execution of the works, whether such services are located on the contract drawings or not. The contractor must make good or report to the appropriate authorities the same without delay and do any further work considered by the Engineer or owner. The contractor shall provide for these contingencies in his rates.

#### **1.16 Temporary Roads and Traffic**

The contractor shall provide and maintain all temporary roads, bridges and other work required for the construction of the works including access to quarries, borrow-pits, accommodation etc.

#### **1.17 Road Closure**

Where a road used by the contractor for delivery of any materials used in the works is closed under section 71 of the Traffic Ordinance Act 1962 or amendments thereto, the contractor shall obey such closure order and use alternative roads.

#### **1.18 Road and Railway Crossing and Traffic Control**

Wherever the pipeline is crossing the classified roads and railway line, the contractor will contact the relevant authorities in advance and obtain necessary permission to dig across the road and railway-line in accordance with requirements of the authorities concerned and shall pay any royalties connected with this work, and the contractor will provide temporary detour road together with any warning signs necessary. There will be no separate payment for this and cost of all expenses connected with road and railway crossing for which no separate items have been included in the Bills of Quantities.

#### **1.19 Protection from Water**

Unless otherwise mentioned, the contractor shall keep the whole of the works free from water and allow in his rates for all dams, coffer dams, pumping, pilling, shoring, temporary drains, slumps, etc., necessary for this purpose and shall make good at his own costs all damage caused thereby.

#### **1.20 Weather Conditions**

The contractor shall be deemed to take into account all possible weather conditions when preparing his tender and he shall not be entitled for extra payment by the reason of the occurrence or effect of high winds, excessive rainfall, temperature or any other meteorological phenomena.

#### **1.21 Protection from Weather**

All materials shall be stored on site in a manner approved by the Engineer's Representative and the contractor shall carefully protect from the weather all works and materials which may be affected thereby.

No separate payment will be made for this and contractor will allow in his rates for this.

### **1.22 Explosives and Blasting**

At works requiring the use of explosives, the contractor shall employ men experienced in blasting, and these men must be in possession of a current blasting certificate. The purchase, transport, storage and use of explosives shall be carried out in accordance with the most recent Explosives Ordinance and rules issued by the Government and the contractor shall allow in his rates for excavation and quarrying for all expenses incurred in meeting these requirements, including the provision of suitable stores. Blasting operations shall be carried out with as little interference as possible to traffic or persons and the rates shall include for all flagging, watching, barricades and clearance of debris.

In all cases previous permission from the Engineer must be obtained before commencing any blasting operation.

If, in the opinion of the Engineer, blasting would be dangerous to persons or property, or it is carried out in a reckless manner, the Engineer can prohibit any further use of explosives.

### **1.23 Liaison with Police, etc.**

The contractor shall keep himself in close contact with the police, Labour Officers and other officials in the areas concerned regarding their requirements in the control of workmen, passage through townships, or other matters and shall provide all assistance and/or facilities which may be required by such officials in execution of their duties in connection with the works.

### **1.24 Provision of Water**

The contractor shall provide water for use in the works. He shall supply all hydrants, hose, cocks, vessels and appliances necessary for the distribution there-of and shall provide pumps, tanks, carts, vessels and appliances, transport and labour when and where-ever it is necessary for water to be carted for use at the works. All water used in connection with the works shall if possible be obtained from a public water supply and the contractor shall make all necessary arrangements and pay all the charges for connections to mains and for water used.

### **1.25 Temporary Lighting and Power**

The contractor shall provide all artificial lighting and power for use on the works, including all sub-contractors and Specialists' requirements and including all temporary connections, wiring, fittings, etc., and clear away on completion. The contractor shall pay all fees and charges and obtain all permits in connection therewith.

### **1.26 Sanitation**

The site shall be kept in a clean and proper sanitary condition. No nuisance shall be committed on or around the work, and latrines for the workmen and staff shall be provided in accordance with the requirements of the Medical Officer or Sanitary Authorities. The contractor shall be responsible for the sanitary discipline of his labour.

### **1.27 Medical Facilities**

The contractor's attention is drawn to Legal Notice No. 79 of 22nd September, 1978 by which it is mandatory that every contractor employing more than twenty people should appoint (in writing) a safety supervisor. A safety supervisor advise the management on all matters regarding safety, hygiene and welfare of the people affected by the Contractor's undertaking on the site. The safety officer may in addition carry out other duties.

The contractor shall provide adequate first aid equipment on the site, and ensure that at least two of his site staff are competently trained in first aid.

### **1.28 Signboards**

The contractor shall erect signboards in prominent positions adjacent to the works to the satisfaction of the Engineer.

### **1.29 Holes and Trenches**

The contractor shall immediately upon approval of any work at his own expense and to the satisfaction of the Engineer backfill all holes, trenches and temporary quarries which have been made.

### **1.30 Inspection of Works**

The contractor must give due notice in writing to the Engineer's Representative when any part of the works are ready for inspection.

### **1.31 Testing of Water Retaining Structures**

All water retaining structures shall on completion be tested for water tightness in the following manner: -

The structure shall be filled with portable water in stages and held at each stage for such time as the Engineer may require. Should any dampness or leakage occur at any stage, the water shall be drained off and the defects made good. The procedure shall be continued and finally the structure shall after a period allowed for absorption remain full for seven days. Within those seven days, the level of the structure of the water should be recorded and measurements made at intervals of 24 hours. The total leak must not exceed 0.3% of the total volume of water in the tested structure.

If the structure does not satisfy the conditions of the test, and the daily drop in water level is decreasing, the period of test may be extended for a further 7 days, and if the specified limit is then not exceeded, the structure may be considered as satisfactory.

### **1.32 Working Hours**

The contractor shall inform the Engineer in writing, at the time of submitting the work programme, the normal working hours. The contractor shall respect all public holidays. Where the contractor wishes to work outside these hours, he shall request the Engineer in writing at least 24 hours in advance for consideration.

### **1.33 Compliance with Statutes and Local Regulations**

In addition to requirements of clause 26 of the general conditions of contract, the contractor shall be responsible for acquainting himself with all current valid statute ordinance or bye-

laws or regulations which may affect the works and shall include these in the item provided in the Bills of Quantities. This applies to training levy and other similar taxes for which no claim on the part of the contractor other than the one inserted in the bills of quantities will be allowed.

#### **1.34 Accommodation for Workmen**

The contractor shall provide and maintain suitable shelters and mess facilities for his workmen and supervisory staff. The contractor shall throughout the contract provide an adequate supply of potable water for the workmen.

#### **1.35 Storage Spaces and sheds**

Suitable temporary stores and workshops shall be erected and later removed on completion of the works.

#### **1.36 Removal of Camps**

On the completion of the Contract, the Contractor shall if so requested take down and remove all structures connected with his camp, and shall take up all pipes, drains and culverts, backfill trenches, fill up all latrine pits, soak ways and other sewage disposal excavations and shall restore the site as far as practicable to its origin condition and leave it neat and tidy to the satisfaction of the Engineer.

#### **1.37 Site Meetings**

Site meetings will normally be held monthly, but will be called for whenever the progress of the works so require or when demanded by the Engineer.

The Contractor shall at all meetings be represented by a responsible representative other than the Site Agent, who has the powers to commit the contractor in all matters concerning the contract.

In the event, no responsible representative of the contractor is present at the meetings; any decision taken by the Engineer at the meeting will be binding upon the contractor.

### **2.0 SITE CLEARANCE**

#### **2.1 Clearance of Trees, Bushes etc.**

The contractor shall unless otherwise directed cut down all trees, remove bushes, plantations, crops and other vegetable growth and grub up all roots, take down all huts, buildings, walls fence and any other obstruction except services mentioned in clause 2.13 and handle and transport salvaged usable materials, to a site approved by the Engineer. All salvaged and usable materials are the property of the respective owners. The clearing and demolition here- in described shall be carried out to a width of the minimum excavation plus 1.50m on either side. With exception of the salvaged material fore-mentioned, the contractor shall destroy or otherwise remove the whole of the rubbish from the site to an approved tip or number of tips provided by him.

Trees shall be cut down to as near the ground level as possible and the rates entered in the Bills of Quantities shall include for cutting down, removing branches and foliage, cutting into suitable lengths, grubbing up stumps and roots, stacking up, burning or disposing of as directed.

Before commencing any site clearance, general clearance, clearance of pipelines etc., the contractor shall inform the Engineer's Representative of his intention. The Engineer's Representative will be visiting the section of works concerned, determine the extent of the clearance expressly required.

## **2.2 Damage to Lands, etc.**

Except where necessary for the proper execution of the works, the contractor shall not interfere with any fence, hedge, trees, land or crop forming the boundary of the site, or elsewhere. In the event of any interference, the contractor shall make good any damage to such fence, hedges, tree, land or crop to the satisfaction of the Engineer and the owner thereof.

Where the work is to be executed in private land, the Employer will be responsible for negotiating and obtaining rights of way and the serving of all notices as may be required upon the owners and/or occupiers of the land and it shall be the obligation of the contractor to keep the Employer and the Engineer fully informed concerning the rate of progress and of his intention to enter and begin work within any way leave as provided for under the condition of contract and required by this specification.

## **1.3 Clearing the Site on Completion**

On completion of the works, the contractor shall clear the site of all plant, building, spoils, dumps, rubbish, etc. and leave the site to the satisfaction of the Engineer.

Borrow pits and temporary quarries shall be made good and covered with vegetable soil. Dumps for waste material shall be covered with at least 0.5m of soil of which at least a 0.10m layer in top shall be vegetable soil.

## **3.0 EARTHWORKS**

### **3.1 General**

Excavation shall be made to such lengths, depths and inclinations as may be necessary for the construction of the works or as shown on the drawings or as the Engineer may direct.

### **3.2 Classification of Excavation**

The Engineer or his Representative and the Contractor or his Representative shall be present during classification of materials.

Where the terms "rock excavation" and "common excavation" or "excavation" are used in these specifications, the following definitions shall apply.

#### **3.2.1 Rock Excavation**

Rock excavation includes all solid rock in place which cannot be removed until loosened by blasting, barring, wedging, and all boulders or detached pieces of solid rock more than 0.25 cubic metres in volume. Solid rock under this class is defined as sound rock of such hardness and texture that it cannot be loosened or broken down by hand- drifting picks.

All materials containing more than 50% by volume of boulders exceeding 0.25 cubic metres in volume shall be classified as rock excavation.



### **3.2.2 Common Excavation**

Common excavation includes all material other than rock excavation: including, but not restricted to earth, gravel, and also such hard and compact material as hardpan, cemented gravel, and soft or disintegrated rock together with all boulders or detached pieces of solid rock not exceeding 0.5 cubic meter in volume.

## **3.3 Stripping of Topsoil**

### **3.3.1 Stripping**

Stripping shall consist of removing, transporting and disposing of topsoil, stumps, roots, buried logs, debris, humus and similar objectionable matter.

Areas to be stripped are all areas required for the permanent constructional works, borrow-pits and embankment fills.

The limits of stripping shall extend 2 meters beyond the limits of excavation or toes of fills.

The depth of stripping shall normally be 0.2m, but deeper stripping might be needed to remove stumps.

### **3.3.2 Disposal**

Materials from stripping suitable as topsoil shall be spread in approved areas. All other non-combustible materials shall be buried in approved disposal area; covered with a minimum of 0.5m of excavation spoil. These disposal areas shall be left with neatly graded surfaces and stable slopes that assure drainage. Alternatively, the non-combustible material shall be removed from the area by the contractor.

### **3.3.3 General**

All open cut excavation shall be performed in accordance with this section to the lines, grades and dimensions shown on the drawings or as directed by the Engineer. The Engineer reserves his right to at any time during the progress of the work to vary the slopes or dimensions of the excavations from those previously specified.

Any damage to the works due to the contractor's operations, including shattering of the material beyond the required excavation lines, shall be repaired at the expense of and by the contractor. All excess excavations and over-excavation shall be filled with compacted concrete grade 10 furnished and placed at the expense of and by the contractor.

All excavation for structure foundations shall be performed in the dry.

If excavations are carried out in roads, footpaths, separators, or within 5m of buildings, the contractor is requested to execute the work in a way that will minimise damage and disturbances.

### **3.3.4 Mechanical Excavation**

(a) A mechanical excavator shall be employed only if the sub-soil is suitable and will allow timbering of trenches or other excavations to be kept sufficiently closed up to ensure that no slips fall or disturbance of the ground takes place or there are no pipes, cables, mains or other services or property which may be disturbed or damaged by its use.

(b) When mechanical excavators are used, a sufficient depth of material shall be left over the bottom of the excavation to ensure that the ground at finished excavation level is not damaged

or disturbed in any way. The excavations shall then be compacted by hand to the finished levels required.

### **3.3.5 Rock Excavation**

The contractor shall trim all rock faces in cuttings according to the dimensions shown on the drawings and upon completion leave them safe from rock falls to the satisfaction of the Engineer.

### **3.4.1 Foundation for Structures**

#### **(a) Common Material**

The bottom and side slopes of common material upon or against which concrete is to be placed shall be finished accurately to the established lines and grades, and loose materials on surfaces so prepared shall be moistened with water and tamped or rolled with suitable tools and equipment to form a firm foundation for the concrete structure. If, at any point, material is excavated beyond the established excavation lines, then the over-excavation resulting voids shall be filled with consolidated concrete grade 10 at the contractor's expense.

If the excavation is carried out in advance, a protective layer of 150mm thickness shall be left above the foundation level until immediately before the contractor is ready to pour the blinding concrete.

#### **(a) Rock Materials**

The bottom and side slopes of rock material upon or against which concrete is to be placed shall be excavated to the required dimensions as shown on the drawings or established by the Engineer. No material will be permitted to extend within the neat lines of the structure. If at any point in the rock material, material is excavated beyond the limits required to receive the structure, the additional excavation shall be filled solidly with concrete grade 10.

### **3.4.2 Trench Excavations for Pipe Laying**

All surface material including top soil which differs in any nature whatsoever from the sub-strata shall in every case be carefully set aside and stored separately from other excavated material. No extra claim will be allowed for setting aside surface matter or topsoil for later use.

Trench excavation shall be carried out with great care, true to line and gradient and as near as practicable to the size required for construction of the permanent work. Nowhere shall the external dimensions of the excavations be less than the dimensions of the permanent work shown on the drawings or as directed by the Engineer.

If the bottom of the excavation becomes weathered prior to pipe laying, due to fault of the contractor, the weathered soil shall be replaced with suitable compacted material to the original formation level at the contractor's expense. The pipe trench shall be excavated to a depth of 150mm below the invert level of the pipe and refilled with sand, gravel or other selected materials free from stones and well rammed in order to provide a smooth bed for the pipes.

Where concrete pipes are laid in concrete, the pipe trench shall be excavated to a depth of 150mm below the invert level of the pipe and the width shall be equal to the breadth of concrete bedding for the pipes plus 150mm on either side.

Excavation for pipe trenches shall be of sufficient depth to give a minimum cover of 600mm over the top of the pipe. Where pipes/sewers cross under roads, minimum cover shall be 900mm, or such cover as may be directed by the Road Authority.

Where the pipeline is required to be laid at depth, which does not satisfy the minimum cover conditions set out above, the ground surfaces shall be brought up to the required level by banking the backfill or as directed by the Engineer.

No pipes shall be laid and no excavation filled in or covered with concrete until the formation has been inspected and permission to proceed with the work obtained.

Where P.V.C. or Polythene pipes are being laid, the bottom of the trench must be completely free from stones, and a smooth bed of fine material must be provided. Where the bed of the trench for P.V.C. or Polythene pipes is excavated in rock, it must be excavated to a depth of not less than 100mm below the bottom of the pipe, and refilled with selected fine granular material to make a smooth bed for the pipe.

The width of the trench to be excavated will depend on the size and type of pipe being laid. Sufficient width must be excavated to allow the pipe to be correctly bedded and aligned, and to allow for the joints to be correctly made.

Any excavated material stored on site for backfilling or other purposes shall be deposited alongside the excavation at a minimum distance of 0.5m in such a manner that it will cause no damage and as little inconvenience as possible.

Any instruction given by the Engineer will be directed to the provision of stronger support than that proposed by the contractor, and will be given only when, in the opinion of the Engineer, the support proposed by the contractor is insufficient.

Where timber has been used in excavations any such timber left in position shall be at the expense of the contractor except where the Engineer has ordered the timber to be left in place or if any timber should be left in place with the prior approval of the Engineer. the timber approved or ordered to be left in place will be paid for at the rates entered in the Bills of Quantities.

For the purpose of this clause, the words "timber" and "timbering" shall be construed to include trench sheeting and steel or concrete sheet, piling or any other means adopted by the contractor for supporting excavations.

### **3.4.3 Backfilling Excavations**

The backfilling of excavations shall be commenced as soon as practicable after the permanent works have been tested where so required and inspected and approved by the Engineer. In particular, the back filling of trenches shall be carried out expeditiously to reduce lengths of trenches open at any one time.

Backfilling shall be executed with selected materials in 150mm layers (300mm layers of a mechanical hammer are used) each layer being well rammed and watered to obtain the maximum compaction. Care shall be taken to ensure that no stone or other material, which could damage pipes or other work, is placed within 300mm of such work.

As soon as P.V.C. or Polythene pipes are laid and jointed in their final positions, they should be protected from possible damage by carefully backfilling of fine granular material brought

up to about 150mm over the top of the pipe, for the full width of the trench, and well compacted.

Joints must be left open for inspection until the pressure test is completed.

Backfilling over steel pipes shall be generally as described above, except that the initial protective filling around the pipe is not necessary.

#### **3.4.4 Reinstatement of Surfaces**

Generally, all trenches and backfilled excavations shall be reinstated to equal surfaces as before excavation.

Trenches in any existing road shall be refilled to the level of natural soil below the road with sub-soil in 75mm layers, each layer being carefully tamped with rammers. The remaining top layer shall be filled to the road surface with materials equal in type, quantity and compaction to materials used for the existing road.

The trench shall then be left to settle for 30 days. At the expiration of this period, the surface shall be made up to level and tamped or rolled to the approval of the Engineer, who will decide on the particular surfacing employed in accordance with the existing surface of the road.

Before expiration of the maintenance period, the contractor shall make good any defaults in reinstatements.

#### **3.4.5 Hardcore Filling**

Hardcore fill shall consist of clean hard broken stone or rubble with measurements not below 200mm and not exceeding 500mm in any one direction with sufficient murrum added to fill the interstices. The hardcore shall be well packed, rammed and where possible rolled with a 5ton roller. Where rolling is impossible, compaction shall be by hand or by mechanical tampers. Before any concrete is laid on hardcore, the hardcore shall be levelled and blinded with fine stone chipping, rolled and watered as necessary. Hardcore filling is measured after compaction

### **4.0 CONCRETE WORKS**

#### **4.1 General**

All materials and workmanship for concrete shall comply with BS 8110 and BS 8007 where applicable.

#### **4.2 Materials**

All materials shall be the best of their respective kinds and free from defects. The materials in all stages of transportation handling and stacking shall be kept clean and injury from breaking, bending and distortion prevented.

All steel and steel sections shall comply with BS 4, BS 4360 and BS 4848.

All steel shall be of approved manufacture and the contractor shall on request deliver to the Engineer a manufacturer's test certificate for all steel used.

All structural steel shall be of grade 43A according to BS 4360.

Steel for handrails, screens etc. can be of lower grade, but all steel shall be welded and the grade shall be approved by the Engineer.

Electrodes shall be of a class appropriate to the steel. Bolts and nuts shall be according to BS 4190.

#### **4.2.1 Cement**

Cement shall be ordinary Portland cement complying with BS 12. The cement shall be delivered in properly sealed, unbroken bags.

Rapid hardening Portland cement complying with BS 12 may be used with the approval of the Engineer.

Quantities in excess of one ton shall be stored in a water-proof shed with a raised floor. The cement shall be used in the order in which it has been received.

Quantities of less than one ton for early use may be stored on a raised floor and covered by a water-proof tarpaulin.

Any cement damaged by water or proving defective shall be removed from the site immediately.

#### **4.2.2 Aggregates for Concrete**

The aggregate shall comply in all respects with the requirements of BS 882.

The aggregate shall be free from dust, decomposed material, clay, earthy matter, foreign substance or friable, then or laminated material. The fine aggregate shall be of approved river sand.

Coarse and fine aggregate shall be stored on the sites in separate heaps so that no possibility of any intermixing of the two shall occur. Any materials, which have been intermixed, shall be removed by the Contractor forthwith.

A sample of all aggregates shall be delivered to the site for the approval of the Engineer, and it shall remain on the site until all concrete work is finished.

Should the Engineer so require, the Contractor shall furnish a certificate from an approved testing laboratory in connection with each source of fine and coarse aggregates showing that materials comply with the specification. All such testing shall be carried out at the Contractor's expense.

#### **4.2.3 Water**

All water to be used for concrete, mortar and curing shall be of good drinkable quality, free from humus acid, chemicals, salts or other matters that in any way whatsoever, may be harmful to the concrete, either by diminishing the strength or causing a discolouration of the concrete.

Generally, water from public mains shall be used, but if this is not possible, the Contractor shall obtain water from other sources approved by the Engineer. The Contractor may be requested to provide test analysis according to BS 3148 from an approved laboratory.

#### **4.2.4 Admixture**

Admixture of any kind of accelerating the setting of cement, plasticisers, water proofers, etc. shall not be used except by written permission of the Engineer. The Contractor must by request supply all details of any admixture.

#### **4.2.5 Concrete Mixes**

Concrete shall be "Designed mixes" for reinforced concrete and "Nominal Mixes for Mass Concrete" to BS 8110 and used as shown on the drawings and in the Bills of Quantities. The concrete mixes, maximum aggregate sizes, maximum water/cement ratio and minimum cement content shall be in accordance with the following table.

#### **4.2.6 Steel Reinforcement**

Steel for reinforced concrete shall be stored under cover clear of the ground and shall comply with BS 4449, BS 4461 and BS 4483.

All steel reinforcement shall be supplied by an approved manufacturer, and the Contractor may be required to obtain a manufacturer's test certificate in respect of steel reinforcement supplied. In the absence of such a test certificate, the Contractor may be required to submit samples to be tested at the Contractors expense in such a manner as the Engineer may determine.

#### **4.2.7 Inspection of Reinforcement and Formwork**

No concreting shall commence until the reinforcement and formwork have been inspected and approved by the Engineer. Reinforcement in walls and columns shall be inspected and approved before being enclosed in the formwork. Before concreting any part of the work, the Contractor shall give at least 24 hours' notice in writing to the Engineer and obtain his approval.

The concrete shall be placed in layers as directed by the Engineer over the whole area to be concreted and the second layer shall not be commenced until the first is completed. Sloping beds will not be allowed when placing concrete. Should any accidental segregation occur, the affected area shall be thoroughly turned over by hand until homogeneous mix has been obtained.

#### **4.2.8 Mixing Concrete**

Concrete for grade 20 and grade 25 shall be mixed by weight batching only, unless approval has been obtained from the Engineer for the concrete materials to be mixed by volume. Concrete for grade 10 and 15 can be mixed by volume.

The weight of coarse and fine aggregate in each batch shall be so computed that each batch contains one or more full 50 Kg bags of cement.

All concrete is to be mechanically mixed in a batch mixer of an approved type. The dry materials for concrete shall be mixed in the mixer until a uniform colour is obtained after which the gauged quantity of water shall be gradually added. After all the water has been added, the mixer shall continue to mix for a period of not less than two minutes.

The mixers shall be equipped with an adjustable device capable of supplying a predetermined amount of water.

On the completion of each mixed batch of concrete, the mixer drum shall be completely emptied before a fresh batch is placed therein. On the cessation of work, the mixer and all handling plant shall be washed out and shall always be left clean and free from hardened concrete.

Any mix considered to be unsatisfactory by the Engineer for any reason, will be discharged to waste at the Contractor's expense, as and where directed by the Engineer, well clear of all mixed and placing operations in such a manner as to avoid the risk of defective concrete being incorporated in the works.

The mixer shall be maintained in a first-class condition throughout the contract and any mixer or plant, which is faulty in any respect, shall not be used. The drums of all mixers shall revolve at the speed recommended by the makers. A mixer which has been out of use for more than 20 minutes shall be thoroughly cleaned out before any fresh concrete is mixed.

The Contractor shall always have one spare mixer ready on the site to avoid interruption in the mixing and casting of concrete.

#### **4.2.9 Compaction**

After the concrete has been placed in a position it shall be compacted by vibration with a rigid poker type with internal vibrator approved by the Engineer. The Concrete shall be worked well up against the form, joints and around the reinforcement and be free from voids and other imperfections. Under no circumstances shall the concrete be shifted or transported inside the form with vibrator.

The Contractor shall always have one spare vibrator ready on the site to avoid interruption in the mixing, casting and vibrating of concrete.

In the case of reinforced concrete, a competent steel fixer shall be in constant attendance during the placing of concrete to adjust and correct the position of the reinforcement, if so required, immediately before the concrete is placed. In no case shall the vibrators be attached to or be allowed to come into contact with the reinforcement.

Each freshly placed layer of concrete must be thoroughly compacted and worked into the preceding one but care shall be taken that no damage is done to previous work that has already set. Excessive compaction of concrete shall be avoided.

The upper surface of slabs shall be compacted by approved external vibrator.

#### **4.2.9 Curing and protection of Concrete**

Curing shall be as soon as the surface of the concrete has hardened sufficiently. All exposed concrete surfaces shall be cured for a period of seven days by covering them with a layer of sand, hessian canvas or other approved material kept damp. Concrete shall be protected from sun, wind, heavy rains and flowing water for at least three days after placing.

#### **4.2.11 Mould Oil**

All faces of formwork that will come in contact with wet concrete shall be treated with approved mould oil or other coating to prevent adherence to the concrete. Such coatings shall be insoluble in water, non-staining, nor injurious to the concrete, shall not become flaky and shall not be removable by rain or wash-water. Liquids that retard the setting of cement shall only be applied to the shuttering when approved. Mould oils and similar coatings shall be kept free from contact with the reinforcement.

#### **4.2.12 Holes for Pipes, Cast-in Items etc., General**

The Contractor shall be responsible for the co-ordination with the sub-contractors for the setting out and fixing of all pipes and holes, pockets and chases for pipes. Sleeves provided by the sub-contractors are to be accurately set out and cast in and cutting away in completed concrete work is to be minimized.

Details of all holes etc. required in a structural work for services must be submitted to the Engineer who will assess the necessity for extra trimming reinforcement.

No opening, holes, chases, etc., are to be formed in the concrete without the approval of the Engineer and details of fixtures or fixings to be cast in must be approved.

#### **4.2.13 Pipes through Water Retaining Walls**

Pipes passing through water retaining walls and floors shall, wherever possible, be built into the structure in-situ. Shuttering shall be formed closely to the outside of the pipe, and concrete shall be placed and compacted thoroughly round the pipe.

Pipes, bolts and other steel items cast into the concrete in water retaining structures must not in any way be in contact with the steel reinforcement.

When not possible to build in place, pipes shall pass through preformed holes. Holes shall be formed with formwork which shall be stripped cleanly and without shock to the concrete. As soon as the shuttering is tripped, the hole shall be thoroughly wire brushed to expose the aggregate. The hole shall be as neat as possible to allow the pipe to be passed through the wall, while the corners shall be chamfered or rounded.

The pipe shall be set and the hole filled up as soon as possible. Immediately before filling, the hole shall be continuously soaked so as to saturate the concrete, and the surface coated with a stiff mix of 1:1 sand grout. Shutters shall be fixed true to the faces of the wall, and stiff mix of concrete packed in until the hole is completely filled, particulate care to be taken to ensure that the spaces beneath the invert of the pipes and beneath the slopping soffit of the hole are completely filled. Shuttering shall be stripped as soon as possible and filling rubbed smooth. The filling and the surrounding concrete shall be kept wet for 7 days after filling.

#### **4.2.14 Removal of Formwork**

Formwork shall be left in position until the concrete has attained sufficient strength to be self-supporting. The Contractor shall be responsible for the safe removal of the formwork without shock or vibration - which would damage the concrete.

Any work showing sign of damage through premature removal of formwork or through premature loading shall be entirely reconstructed at the contractor's expense. The Engineer may delay the time of removal of formwork if necessary. Subject to the above, the minimum

#### **4.2.15 Reinforcement**

All bending, cutting and fixing to comply with BS 8110 and BS 4466. Normally bending schedules are incorporated into the Contract Drawings, but the Contractor shall satisfy himself about their accuracy and about their complete coverage of the work involved. Any omission, inaccuracy or other errors observed by the Contractor shall be reported to the Engineer before commencement of the work.



In case of errors in bending schedules, no extra payment will be approved, provided the reinforcement is shown correctly on the contract drawings.

Bars shall be of the shown lengths, and lapping, except where indicated on the drawings, is not permitted unless approved by the Engineer.

Spacing between bars shall not differ more than 5mm from the required spacing. Any inaccuracy in the total length of a bar as cut shall be compensated for in the end hooks or other approved parts of the bar.

The internal radius of a bend shall neither be less than allowed by BS 4466 nor less than the radius given in the Bending Schedule. The steel reinforcement shall be assembled and fixed in the form of a rigid case. To prevent displacement before or during concreting the bars shall be secured one to the other with approved binding wire at each intersection. In slabs and walls binding at every second intersection is sufficient.

Concrete cover blocks (mix 1:3) shall unless otherwise directed be used between the reinforcement, the bottoms and sides of the forms to ensure the specified concrete cover to the bars. Variations of cover shall be kept within plus/minus 3mm from the specified cover.

The minimum clear horizontal distance between adjacent bars shall be of 25mm or the diameter of the bar whichever is the biggest, and 25mm vertically. Space bars shall be inserted at such intervals that the bars do not perceptibly sag. Projecting bars shall be adequately protected against displacement both during and after concreting.

At the time of fixing and when concrete is being placed, all reinforcement shall be free from oil, painting, grease, dust and scale or any other coating which would destroy and bond with the concrete. The Contractor must obtain the Engineer's approval of the reinforcement when places, before any concreting is commenced.

## **5.0 MASONRY AND BLOCKWORK**

### **5.1 General**

All masonry work shall be constructed from building stone or approved concrete blockwork for walls, facing and other exposed works the stone shall, unless otherwise specified, be medium chisel-dressed.

### **5.2 Workmanship**

All masonry work is to be constructed in compliance with BS 5.

The Contractor shall provide and use proper setting-out rods for all work.

Stones and blocks shall be well soaked before use and the tops of walls shall be kept wet as the work proceeds. The stones and blocks shall be properly bonded so that no vertical joint in a course is within 115mm of a joint in the previous course. Alternate courses of walling at angles and intersections shall be carried through the full thickness of the adjoining walls. All perpend, reveals and other angles of the walling shall be built strictly true and square.

The stones and blocks shall be bedded, jointed and pointed in mortar (1:3) with beds and joints 9mm thick flushed up and grouted solid as the work proceeds.

### **5.2 Cement**

Cement used for making mortar shall be as described in the Engineering specifications for "Materials".

### 5.3 Lime

The lime for making mortar shall be obtained from an approved source and shall comply with BS 890 Class A for non-hydraulic lime. The lime to be run to putty in an approved lined pit or container. The water to be first run into the pit or container and the lime to be added until it is completely submerged, stirred vigorously until all lumps are disintegrated and shall be kept constantly covered with water and regularly stirred for at least four weeks. The resulting milk-lime then to be run through a fine sieve and run into a pit or other container and kept clean and moist for not less than two weeks before being used in the works.

### 5.3 Sand

Sand used for making mortar shall be clean well graded siliceous sand of good sharp hard quality equal to samples which shall be deposited with and approved by the Engineer. It shall be free from lumps of stone, earth, loam, dust, salt, organic matter and other deleterious substances, passed through a fine sieve and washed with clean water if so, directed by the Engineer.

### 5.4 Water

Shall be as described in "Concrete Work"

### 5.5 Concrete Blocks

Concrete blocks shall comply with the requirements of BS 2028, 1384 except where amended or extended by the following clause. Blocks shall have square arises and corners. For fairfaced work damage to arises and corners shall not exceed the removal of 6 mm of the block's depth or thickness.

Concrete blocks shall have a minimum crushing strength of 3.5 N/mm<sup>2</sup> except when below the damp course level or in contact with soil when they shall have a minimum crushing strength of 7 N/mm<sup>2</sup>, unless noted otherwise on drawings. Hollow concrete blocks shall not be used below the damp course level or in contact with soil.

Concrete blocks used for external walls shall be Class 'A' and for internal load bearing walls they shall be at least Class 'B'. Class 'C' blocks shall only be used for non-load bearing partitions.

No precast blocks shall be incorporated into the works unless approved by the Engineer. The delivery of present blocks from which samples tested do not comply with this specification shall be deemed defective. Any work constructed with blocks from which samples tested do not comply with this specification shall be deemed to be defective.

From every 1,000 precast concrete blocks delivered to site ten blocks samples shall be provided for testing. The precast block samples shall be selected in accordance with BS 2028, 1364. Samples of precast concrete blocks for testing shall be tested for the following properties in accordance with the methods given in BS 2028, 1364 and the test results shall comply with the requirements of BS 2018, 1364 except where amended by this specification: -

(a) Drying shrinkage (b) Compressive strength or transverse breaking load (as applicable) (c) Wetting expansion \* (d) Density (e) Dimensional Tolerance (f) Cavity size

\*Test only applicable for concrete blocks made with clinker aggregate.

Blocks shall also be tested to determine the suction rate. The test shall consist of weighing the block, placing in a tray of water such that only 3 mm of the block side is immersed for a period of sixty seconds +/- 2 seconds; quickly wiping off excess water and reweighing. The suction rate is the increase in weight due to water absorbed and shall not exceed 2kg/m<sup>2</sup>/minute. Blocks which have a suction rate exceeding 2kg/m<sup>2</sup>/minute may be used if the Contractor uses an approved water reactive additive in the mortar or can show that the blocks are wetted such that the blocks will have a suction rate not exceeding 2kg/m<sup>2</sup>/minute for a period of 24 hours from being laid and provided the blocks comply with all other requirements.

Concrete blocks shall be stacked on prepared dry areas free of clinker, ashes and sulphate bearing strata. Blocks of different strengths shall be stacked separately and clearly marked to differentiate the strengths.

Blocks shall not be used for a minimum of 7 days after manufacture and shall not be loaded for at least 14 days after laying. For the first 7 days after manufacture, blocks shall be cured by maintaining in a damp condition, e.g. covering with polythene sheeting after wetting blocks.

## **5.6 Stone**

All stone shall comply with the requirements of CP 121.202 for masonry and rubble walls respectively except where amended or extended by the following clauses.

Unless otherwise noted, all masonry walls shall be coursed squared rubble walling with mortar joints.

The size of stones for rubble walling shall be such that the length of stone does not exceed three times its height. For coursed squared rubble walls blocks shall not exceed 300 mm in height and shall be not less than 150 mm in height.

Where snecked rubble walls are specified, the snecks shall not be less than 100 mm square on the exposed face.

Stone for masonry shall have a minimum compressive strength of 10 N/mm<sup>2</sup>. (Stone shall not be required to be tested to failure). The density of stone for masonry shall be not less than 2300 kg/m<sup>3</sup>. The drying shrinkage of stone shall not exceed 0.05%

Samples of stone provided for testing shall be tested for the following in accordance with the methods given in BS 2028, 1364 and the test results shall comply with the requirements of this specification.

(a) Compressive strength (b) Density (c) Drying shrinkage

The colour and texture of stone shall be uniform and consistent. Prior to delivering any stone to site, the Contractor shall supply the Engineer with a sample of stone in order that he may approve the colour and texture. The Contractor shall ensure that sufficient suitable stone is available for the whole of the project prior to ordering the stone.

Where cast stone including stone described as artificial stone, reconstructed stone, etc., is specified the stone shall comply with the requirements of BS 1217.

Masonry shall be of stone, having no irregular faces and only the back face if not visible shall be left as from the saw.

Prior to ordering dry stone the Contractor shall demonstrate that the stone is durable. This may be done by supplying details of buildings constructed with stone from the same quarry and which has been exposed to the same environmental condition for at least ten years.

The maximum projection from the face of stone for rubble walls shall be 20 mm beyond the specified face of the wall.

The Contractor shall provide six samples of stone measuring 150 mm x 150 mm for testing prior to delivering any stone to site. As work proceeds the Contractor shall provide six samples 150 x 150 x 150 mm for testing from every 300 m<sup>2</sup> of work.

All stone shall be stacked on prepared dry areas free of clinker, ashes and sulphate bearing strata.

## **5.7 Wall Reinforcement**

100mm Thick walls and where described other walls and partitions shall be reinforced with a 25 mm wide strip of No. 20 S.W.G. hoop iron built into alternate horizontal joints in the wall centre. The reinforcement shall be lapped and hooked at running joints, angles and intersections and carried at least 115 mm into abutting walls at junctions.

## **5.8 Cement Mortar**

Mortar described as cement mortar 1:4 shall be composed of 1 cubic metre (1498 Kgs.) of Portland cement and 4 cubic metres of sand. Other mixes such as 1:3, 1:5 etc. shall be similarly construed.

## 5.9 Mixing of Mortar

The constituent materials shall be measured separately when dry in specially prepared gauge boxes of sizes to give the proportions specified without consolidation of the contents by ramming and shaking. The mortar shall be mixed in an approved power-driven mixer for not less than two minutes per batch and using the minimum quantity of water necessary to obtain a working consistency. The mixer shall be used as close as practicable to the works and mortar shall be used within 30 minutes of mixing. No partially or wholly set mortar will be allowed to be used or re-mixed.

### 5.10 General Construction

(a) Setting out The Contractor shall provide proper setting out rods and set out all work on same for course, openings, heights etc., and shall build the walls, piers etc., to the widths, depths and heights indicated on the Drawings and as directed by the Engineer.

(b) Building in Wood Frames Openings for doors, ventilators etc., are to be set out and left unbuilt until the wooden frames have been fixed in position.

(c) Building in Metal Windows and Doors Openings for metal frames are to be wide enough for the frames to fit without being forced into position. Build the lugs into the joints of the walling and fill in the space between the walling and frame with cement mortar well tamped into the channel of the frames and point all round externally.

All frames must be set plum and level and free from twist.

(d) Walls to Receive Plaster & Similar Finishes All faces of walls to be plastered etc., to have all projections dressed off and joints raked out as key.

### 5.11 Building Walling

(a) Laying and Jointing All blocks shall be well wetted before being laid and the top of walling where left off shall be well wetted before commencing building. Walls to be kept wet three days after building. All walls throughout the works shall be carried up evenly in 200 mm courses except where courses of less depth are required to bring walling up to level of floors, windows and the like and where otherwise described, no part being allowed to be carried up more than one metre higher at one time than any other part and in such cases the joining shall be made in long steps so as to prevent cracks arising and all walls shall be levelled round at each stage. Not more than 3 metre height of wall shall be laid in any one day.

(b) Bonding The blocks shall be properly bonded together and, in such manner, that no vertical joint in any one course shall be within 115 mm of a similar joint in the courses immediately above or below. All walling of 300 mm thickness or less shall be built in single thickness of blocks. Walling exceeding 300 mm in thickness shall be built with through bonders not more than 1070 mm apart in each course as directed by the Engineer.

Alternate courses of walling at all angles and intersections shall be carried through the full thickness of the adjoining wall. All perpend, reveals and other angles of the walling shall be built strictly true and square.

(c) Tolerances All courses of walls shall be level with a maximum deviation of  $\pm 3$  mm in any one metre length and a maximum overall deviation of 10 mm for lengths of wall exceeding 3 metres. Walls shall be plumb with a maximum deviation of  $\pm 3$  mm in any metre height of wall with a maximum deviation of  $\pm 10$  mm in the total height of the wall or any storey.

All corners of walls which are shown as being at right angles shall be square with a maximum deviation of 3 in 1000. All walls shall be straight with a maximum deviation of  $\pm 3$  mm in any one metre length and a maximum overall deviation of 10 mm in any length exceeding 3 metres. All bed and vertical joints shall be an average of 10 mm thick with a maximum deviation of  $\pm 3$  mm of blockwork, and stone rubble walls. Joints for stone masonry walls shall be 6 mm  $\pm 1$  mm thick.

(d) Curing

All walls shall be maintained in a damp condition for at least 24 hours after laying. Walls under construction shall be dampened by applying water with a brush and no hosing directly on to the wall shall be permitted. When work ceases on any section of wall polythene or

hessian shall be draped over the wall, for at least 24 hours. If hessian is used, it shall be maintained continuously wet.

(e) Backfilling

Earth backfilling against walls shall be carried out such that the level of the backfill is always equal on each side of the wall.

When a wall has filling material on one side only to a fill width of more than three times the wall thickness, the wall shall be continuously supported during backfilling.

Backfilling shall not be carried out until at least seven days have elapsed since the laying of the blocks or stone.

5.12 Reinforced Walls

Steel reinforcing bars in walls shall be carefully placed and spacers used to ensure that a minimum of 20 mm cover is given to the reinforcement unless otherwise specified.

Horizontal reinforcement in mortar joints shall be laid such that the reinforcement is not in contact with the blocks or stone.

5.13 Wall Ties

Wall ties shall be provided to connect walls to steel or concrete columns and beams to connect two unbounded leaves of wall.

Wall ties shall be provided at 450 mm centres both vertically and 900 mm centres horizontally and shall be staggered when used to connect two leaves of unbonded wall. Wall ties shall be embedded into each material by a minimum of 50 mm.

5.14 Fair Face

All concrete and hollow clay blockwork described as finished with a fair face is to be built to a true and even face with the joints finished as specified hereinafter.

5.15 Pointing

Pointing of walls shall be carried out as the work proceeds wherever possible. When coloured mortar is specified for pointing only the pointing shall be carried out after work has been completed.

Existing walls shall be prepared for pointing by raking out all loose friable material to a minimum depth of 15 mm to form a square recess. The joints shall then be wetted and new mortar shall be forced into the joints and finished as directed.

5.16 Holes, Cutting and Chasing

(a) All putlog holes shall be not less than one course deep and carefully filled with a block cut to fit size of opening with beds and joints filled with mortar well tamped in after scaffolding is removed, and if in faced walls to match facing.

(b) Where walling is cut, holed or chased for conduits, pipes and the like all such cuttings etc., shall be filled in solid with cement mortar (1:4) prior to the application of finishes.

## **6.0 FINISHINGS**

### **6.1 Samples**

The Contractor shall prepare at his own cost sample areas of the paving, plastering and rendering as directed until the quality, texture and finish required is obtained and approved by the Engineer after which all work executed shall conform with the respective approved samples.

### **6.2 Finished thicknesses**

The thicknesses of floor finishes quoted in this section of the specification shall be the minimum requirements.

The finished floor surface will equally have a constant level and any adjustment needed to achieve this effect with the varying floor finish materials is to be made in the screeds beneath the same.

Slabs bearing on the ground may be cast to varying levels, and be of constant thickness with varying formation levels, or have varying thicknesses at the option of the Contractor. This stipulation in no way relieves the Contractor of the requirements of the specification for structural work.

### **6.3 Materials generally**

All materials shall be of high quality, obtained from manufacturer's to be approved by the Engineer.

Cement, sand and water shall be as described under Concrete Work and Blockwork.

#### **9.5 Bonding**

Bonding compounds, etc., for use in applying plaster and similar finishes direct to surfaces without the use of backings or screeds are only to be used if approved by the Engineer and are to be used strictly in accordance with the manufacturer's printed instructions.

### **6.4 Chases, openings and holes**

All chases, holes and the like which were not formed in the concrete or walling shall be cut, and all service pipes shall be fixed and all holes and chases filled with mortar before paving and plaster work is commenced. In no circumstances will the Contractor be permitted to cut chases, holes and the like in finished pavings or plasterwork.

### **6.5 In situ finishings**

#### **6.5.1 General**

The term plastering refers to the operation internally and rendering to the same operation externally but for ease of reference the term plastering has generally been used in this specification to describe both operations.

#### **6.5.2 Mixes**

The methods of measuring and mixing plaster shall be as laid down under Concrete Work and the proportions and minimum thickness of finished plaster shall be in accordance with drawing or bill of quantities. The following: -

To obtain greater plasticity a small quantity of lime may be added to the mixes for external plastering at the Engineer's discretion but in any case, this is not to exceed 1/4-part lime to 1-part cement.

With regard to the lime mortars gauged with cement, the addition just before use, of the cement to small quantities of the lime/sand mix shall preferably take place in a mechanical mixer and mixing shall continue for such time as will ensure uniform distribution of materials and uniform colour and consistency.

It is important to note that the quantity of water used shall be carefully controlled. Plaster may be mixed either in a mechanical mixing machine or by hand.

Hand mixed plaster shall first be mixed in the dry state being turned over at least three times. The required amount of water should then be added and the mix again turned over three times or until such time as the mass is uniform in colour and homogeneous.

The plaster shall be completely used within thirty minutes of mixing and hardened plaster shall not be remixed but removed from the site.

#### **6.5.3 Preparation of surfaces for plaster etc.**

Irregularities in the surfaces to be plastered or rendered shall be filled with mortar, without lime, twenty-four hours before plastering is commenced. Joints in blockwork, etc., are to be

well raked out before plastering to form a good key. Smooth concrete surfaces to be plastered shall be treated with an approved proprietary bonding agent or hacked to provide an adequate key for the plaster.

All surfaces to be plastered or rendered shall be clean and free from dust, loose mortar and all traces of salts.

All surfaces shall be thoroughly sprayed with water and all free water allowed to disappear before plaster is applied.

As far as practical, plastering shall not be commenced until all mechanical and electrical services, conduits, pipes and fixtures have been installed.

Before plastering is commenced all junctions between differing materials shall be reinforced. This shall apply where walls join columns and beams, particularly where flush, and similar situations where cracks are likely to develop and as directed by the Engineer. The reinforcement shall consist of a strip of galvanized wire mesh 'Expamet' or equal approved 15 cm wide which shall be plugged, nailed or stapled as required at intervals not exceeding 45 mm at both edges. The surfaces to which such mesh shall be applied shall be painted with one coat bituminous paint prior to fixing the mesh.

#### **6.5.4 Application of plaster and render**

After preparation of the surfaces a key coat of cement slurry shall be applied to the wetted surface to be plastered. When this coat is dry the plaster coat shall be applied, by means of a trowel, between screeds laid, ruled and plumbed as necessary. This coat which shall be to the required thickness shall be allowed to dry and then cured as described. Surfaces are to be finished with a wood or steel float to a smooth flat surface free from all marks.

All plastering and rendering shall be executed in a neat workmanlike manner. All faces except circular work shall be true and flat and angles shall be straight and level or plumb. Plastering shall be neatly made good around pipes or fittings. Angles shall be rounded to 6 mm radius.

All tools, implements, vessels and surfaces shall be at all times kept scrupulously clean and strict precautions shall be taken to prevent the plaster or other materials from being contaminated by pieces of partially set material which would tend to retard or accelerate the setting time.

#### **6.5.5 Curing of plaster**

Each coat of plaster is to be maintained in a moist condition for at least three days after it has developed enough strength not to be damaged by water.

#### **6.5.6 Angle beads**

Where required by the Engineer, salient external angles of plastered walls shall be protected with galvanized mild steel angle beads complying with BS 1246 Fig. 7 Profile C3.

They shall be securely plugged, nailed or stapled as required at intervals not exceeding 450 mm at both edges.

#### **6.5.7 Plaster stops**

Where shown on details, plasterwork shall be stopped against "Expamet" galvanized steel plaster stop, reference 565 which shall be securely nailed to walls in the positions indicated on the drawings.

#### **6.5.8 Cement and sand screeds**

Screeds shall be mixed and formed as described.

## **7.0 PIPE WORKS**

### **7.1 Sluice Valves**

Sluice valves shall comply with BS 5163, PN 10. They shall be flanged in accordance with BS 4772, PN 10.

### **7.2 Pre-cast Concrete Covers**

Concrete covers to be manufactured according to the detailed drawings.

### **7.3 Cast Manhole Covers**

Should comply with specification in BQs and in accordance to the detailed drawings.

### **7.4 Steel Work**

All steel to be hot dip galvanized according to BS 729. All steel surfaces exposed to sewage shall be coated with black bitumen coating to BS 3416, TYPE 1 material.

## **7.3 Handling and Storing Materials**

### **7.3.1 General**

The method of transportation, handling and storing of pipes and fittings shall be in accordance with the manufacturer's recommendations.

Pipes, valves, specials and other materials shall be handled, moved, lifted or lowered with the least possible impact. Handling equipment shall be of approved type. In slinging pipes, only flat slings shall be used and the use of chain slings, hooks or other devices working on scissors or grab principles shall not be permitted. Pipes shall be slung from two or more points as the Engineer may direct and the slinging, lifting and lowering shall be in the hands of a competent and experienced man. Care shall be taken to keep pipes and fittings clean and free from soil, mud, dirty water, solvents chemicals etc.

Subject to the requirements of inspection before acceptance, protective bolsters, caps or discs on the ends of flanges of pipes or specials shall not be removed until the pipes or specials are about to be lowered into the trench. Every precaution shall be taken to prevent damage to internal linings of external coatings.

Pipes in storage shall be supported clear of the ground on approved supports and adequately braced to prevent rolling. They shall not be stacked more than four tiers high without the approval of the Engineer.

Materials of different classification shall be stored separately.

All pipes and associated material shall at all times be protected from sun and weather to the satisfaction of the Engineer.

No valves shall be lifted by the spindle.

No valves, fittings or specials shall be stacked more than one tier high without the permission of the Engineer, and they shall not be stored in a dirty place or condition and shall not be allowed to become embedded in earth, sand, stone, aggregate, water, fuel, or any other deleterious matter.



Valves and their ancillary equipment shall be protected before and after erection against collapse of earthworks, falls of materials, concrete and cement droppings, wood and other matter.

Shortly before the laying or fixing any valve, pipe or fitting the contractor shall in the presence of the Engineer or his representative carefully examine each valve, pipe and fittings during loading, unloading, handling, storage and transportation. All damage and all defects revealed by this examination shall be repaired and remedied by the contractor.

### **7.3.2 Transport of PVC pipes**

The full length of the pipe shaft shall rest on the loading area of the lorry. Overhanging of pipes, to prevent sagging and deformation shall be avoided. Rough handling and dragging of pipes and fittings shall be avoided.

### **7.3.3 Storing of PVC pipes**

PVC pipes shall not be stored on each other to a height exceeding 1.5m. Pipes shall be staggered to prevent the sockets to rest on the shaft of the pipes. The first tier shall be placed on a well-drained layer of sand. All pipes and fittings shall be protected from sunlight by use of tarpaulins. Grass cover will not be accepted.

## **7.4 Excavation of Trenches**

### **7.4.1 Trench Width**

The minimum trench width shall be according to the detailed drawings, corresponding to the specified depth.

### **7.4.2 Laying and Jointing**

### **7.4.3 General**

All laying and jointing of pipes except jointing of PVC and Polythene pipes shall be in conformity with CP 301 and CP 2010.

The bottom of the trench or surface of the bed shall be finished to a smooth even surface at the correct level to permit the barrel of the pipe to rest on the surface throughout its whole length between joint and sling holes. If considered necessary by the Engineer, fine screened material shall be placed and consolidated in the trench bottom to provide such a bed. The bottom of the trench and pipe bed shall be inspected by the Engineer, and only when passed as satisfactory shall pipe laying commence.

Each pipe shall be laid accurately to line, level and gradient so that, except where otherwise directed, the finished pipe line shall be in a straight line both in horizontal and vertical plans.

The levels and gradients shown on the drawing shall be rigidly adhered to unless otherwise ordered by the Engineer.

Where lines of pipe are to be constructed, the contractor shall provide and fix, at such points as may be directed, properly painted and securely positioned sight rails, the levels and positions of which shall be examined and checked by the Engineer before the rails are used and as often thereafter as may be necessary.

There shall at no time be less than three sight rails in position on each length of pipeline under construction to any one gradient, and the sight rails shall be situated vertically above the line of pipes or immediately adjacent thereto.

Pipes shall be lowered singly into the trench, brought to the correct alignment and inclination bedded throughout their length, and properly jointed strictly in accordance with the manufacturer's instructions. Unless otherwise approved by the Engineer, pipes shall be laid in an upstream direction and the socket of the pipes shall face upstream and every pipe shall be concentric with the previous.

Notwithstanding any flexibility provided in pipe joints, pipes must be securely positioned to prevent movement during and after the making of a joint. On screw and socket joints threads shall be coated with an approved tape to ensure water tightness.

Long radius curves in the pipeline shall be negotiated by deflections taken up in the joints or pipes of one or more lengths of pipes. The deflection at each of the various types of joint of pipes used in the works shall not exceed the manufacturer's specifications.

The contractor shall take care that all pipes and couplings are clean and free of foreign matter before subsequent sections are jointed.

The contractor shall obtain from the manufacturer or other approved supplier the necessary tackle required for the proper jointing of the pipes.

The contractor shall make himself and his employees acquainted with and comply with the instructions issued by the manufacturers of the various types of proprietary joints and couplings for incorporation in the works. The contractor shall be responsible for obtaining copies of such instructions.

Pipes shall not be cut without the permission of the Engineer. The cut shall be made with an approved mechanical pipe cutter and the edges of the cut shall be clean, true and square. Threading of steel pipes shall be done with an approved device.

Subject to the permission of the Engineer, pipes shall be covered over with approved fill material upon successful completion of laying and joining. Joints shall be left exposed until completion of the pressure test.

Adequate precautions shall be taken by way of back-filling or other means to anchor each pipe securely to prevent flotation of the pipeline in the event of the trench being flooded or

## **7.5 PVC Pipes**

The pipes shall be laid on smooth soil and must never be surrounded with concrete. The soil must not contain hard lumps.

In road reserves, all PVC pipes should be protected by concrete slabs, when the distance from road surface to top of pipe is less than 1200mm.

## **7.6 Steel Pipes**

Steel pipes and fittings shall conform to the relevant BS or KBS standards.

## **7.7 Concrete Manholes and Valve Chambers**

Manholes shall be constructed to the specified standard and size at a designated point.

## **7.8 Testing**

A water test shall be applied for all the works completed to ascertain its functionality before it is approved.

Precautions should be taken by strutting or otherwise to prevent any movement of the pipeline during the test.

## **7.9 Backfilling of Trenches**

All trenches should be refilled to the required level and ensure that no pipes and or any other fittings are exposed.

## **7.10 Manholes**

Manholes shall be constructed along pipe lines where control valves chambers and other fittings have been designed to be installed.

The manholes shall be constructed in accordance with drawings of typical and special manholes.

Manholes of pre-cast concrete rings to be carried out as per BS 556.

## **7.11 Ladders**

Ladders or steps irons as detailed on the drawings shall be provided in and outside the tanks. Ladders in tanks etc. shall be galvanized steel pipes in accordance with BS 1387 "Medium class and shall be made to the dimensions on the drawing or as described

## **7.12 Chain Link**

The chain link fencing shall be supplied in rolls of 2130mm (7feet) width and shall be with 65mm mesh of 12 1/2 gauges, fitted to 4 rows of line wires with binding wire at 130mm centres.

The cranked top of the posts shall be fitted with 3 strands of 12 1/2-gauge barbed wire with four-point barbs at 150mm centres. All members of the fencing shall be hot dip galvanized.

## **7.12 Gates**

If not otherwise stated, gates shall be 4metres wide double leaf gates, made from 40mm galvanized steel tube frame (medium class) with 8-gauge galvanized weld mesh to the frame. Bracing, hinges, tower bolts and locking arrangement shall be as shown on the drawing or of other approved type. The top of the gates shall be fitted with 3 strands of 12 1/2-gauge barbed wire.

## **7.13 Handing Over**

The Contract works shall be considered complete and the maintenance and defects liability period should be one year. This shall commence only when the contract work and supporting services has been tested, commissioned and operated to the satisfaction of the Engineer and officially approved and accepted by the Employer.

## **SECTION VII: DRAWINGS**

## **SECTION VIII: BILL OF QUANTITIES**

**Tender document for Rehabilitation of Itare-Mogogosiek to Kaplong Water Supply Project**

ITEM	DESCRIPTION	UNIT	QNTY	RATE	AMOUNT
				(KShs)	(KShs)
	<b>BILL No. 1</b>				
<b>1.00</b>	<b>GENERAL OBLIGATIONS</b>				
	<i>All in accordance to Conditions of Contract</i>				
1.10	Provide and maintain First Aid Equipment	Item	1		
1.11	Allow for provision of Insurance against Accident to Workmen, damages to property and third party in accordance with Clause 15.1 of Conditions of Contract.	Item	1		
<b>1.20</b>	<b>SPECIFIED REQUIREMENTS</b>				
	<i>Facilities for Engineer's Staff -Services/Allowances</i>				
1.21	Allow a P.C. Sum of Kshs. 200,000 for provision of furniture and Item equipment for the Resident Engineer/ Clients Representative Offices the List of Furniture & Equipment to be procured will be provided by the Resident Engineer prior to commencement of Works. The furniture and equipment to revert to the Employer at the end of the Contract. All furniture to be made in good working order before returned to the Employer.	Item	PC		
1.22	Provisional Sum of Kshs. 100,000 to cover for Engineer's (Appointed by Procuring entity) miscellaneous expenses including communication facilities Item and services (telephone, internet, fax, postal, courier services, etc.) for the Project / Site Offices, site photographs and the reports and office consumables.	Item	PC		
1.23	Provide Laptop; HP envy 15" X360 Touchscreen, preinstalled Windows 10, Intel Core i7-Processor, 16GB Memory, 1TB Hard Drive + 256gb SSD Color: Silver.	Item	2		
1.24	Allow a P.C. Sum of Kshs. 400,000 to be used as directed by the project manager / Employer to cover for site meetings facilitations, beverage etc. for entire contract period which is estimated to be 0-6 months for project supervision, administrations, transport allowances etc.	Item	PC		
1.25	Purchase of 1 No. Motorcycle of 249cc air-cooled, 4-stroke single 2valves, Compression Ration 9.5:1, Ignition- Transistor Controlled Ignition, Transmission- 5speed; multiplate wet clutch	Item	1		
1.27	All profits and overheads on items 1.21, 1.22, 1.23, 1.24, and 1.25	%	1		
<b>1.30</b>	<b>OTHER COSTS</b>				
1.31	Allow a P.C. Sum of Kshs. 100,000 for Inspection and Witness Testing of Pipes, Fittings and Equipment at manufacturer's premises and during Construction Works by the Employer, Engineer and their representatives.	Item	1		

1.32	Test Running of the Project: Allow for Test Running all the Project Components for a period of 4 weeks upon completion and official commissioning of the Works. Test Running to be carried out in close liaison with the Water Services Provider's Staff.	Item	1		
1.33	Allow a P.C Sum of 50,000 for Engineer's Testing of materials -concrete tests, testing of works	Item	1		
1.34	All profits and overheads on items 1.31 and 1.33	%	1		
<b>1.40</b>	<b>ENVIRONMENTAL, SOCIAL, HEALTH AND SAFETY</b>				
1.41	Allow a P.C Sum of Kshs 50,000 for Environmental Audit by NEMA body	Item	1		
1.42	Allow a P.C Sum of Kshs 150,000 for Carrying out stakeholder engagement and community sensitization	Item	1		
1.43	All profits and overheads on items 1.41 and 1.42	%	1		
<b>1.50</b>	<b>SETTING OUT &amp; SURVEY WORKS</b>				
1.51	Allow for establishment of Level Datum Survey and Topographical Item Survey, Setting Out of the Works in accordance with Clauses 104 and 105 of the Specifications. This shall include pegging of pipeline Routes and preparation of Setting Out Survey Report to the Engineer for approval.	Item	PC		
1.52	The Setting Out Works / Survey Works include the production of Survey Drawings to an agreed scale and will include Engineering Survey of Water Distribution Main.	Item	PC		
1.53	Allow for provision of As-Built Drawings in accordance with Clause 147 of the Specifications.	Item	1		
	<b>TOTAL BILL NO.1 CARRIED TO SUMMARY</b>				

ITEM	DESCRIPTION	UNIT	QNTY	RATE	AMOUNT
				(KShs)	(KShs)
	<b>BILL No. 2</b>				
<b>2.0</b>	<b>SITE CLEARANCE</b>				
2.10	Allow for provision, erection and maintenance of Project Sign Boards at the sites indicated by the Engineer's Representative, within the Project Area and in accordance with the Conditions of Contract. The rate quoted by the Contractor to include for payment of all statutory charges to the relevant Authority. Details of the Sign Board are shown on Drawing No.	No.	2		
2.11	Site clearance demolish and cart away natural and artificial articles, objects and obstructions which are above the original surface, 1.5 m on either side of the proposed pipeline.	M <sup>2</sup>	35,000		
2.12	Trees of girth 200mm -500 mm measured 1.0m above ground level (Provisional)	Nr	10		
2.13	Ditto but girth 500 mm - 1 m	Nr	6		
<b>2.20</b>	<b>PIPEWORK-PIPES. uPVC pipes /GI pipes</b>				
	Rates for excavation, backfilling in trench and plumbing shall include for trimming trench bottom and for providing selected bedding and surround materials from the excavations with the specifications, placing and joining the pipes as directed by engineer on site.				
2.21	Excavate and backfill trenches both in common soil materials and soft rock depth equal or exceeding 1.5m and 1m wide for Trunk main pipeline from Mogogosiek- MG24 junction to Chebirbelek storage tank location, preferably use of back-hole or excavator machine to achieve the desired depth and width as directed by resident engineer	M <sup>3</sup>	6,000		
2.22	Provide, lay and joint 315 mm diameter PN12.5 uPVC Pipe class 'D' in trenches for Trunk mainline from Mogogosiek- MG24 junction to Chorwet center (rate to include testing and sterilization of the pipeline)	M	3,000		
2.23	Provide, lay and joint 280 mm diameter PN12.5 uPVC Pipe class 'D' in trenches for Trunk mainline from Chorwet center to 200 m <sup>3</sup> storage tank at Chebirbelek center (rate to include testing and sterilization of the pipeline)	M	3,700		
2.24	Excavate and backfill trenches both in common soil materials and soft rocks depth not exceeding 1.5m or otherwise specified for Trunk main pipeline from Kapletundo storage tank to Kamirai- Kaplong Junction as directed by resident engineer	M <sup>3</sup>	2,400		
2.25	Provide, lay and joint 160mm diameter PN12.5 uPVC Pipe in trenches for trunk mainline from Kapletundo tank to Kamirai- Kaplong Junction. (rate to include testing and commissioning)	M	4,800		



2.26	Provide, lay and joint 300 mm (12") diameter GI Pipe in trenches for valleys and road crossings (rate to include testing and sterilization of the pipeline)	M	24		
2.27	Provide, lay and joint 150 mm (6") diameter GI Pipe in trenches for valley and road crossings (rate to include testing and sterilization of the pipeline)	M	72		
<b>2.3</b>	<b>HDPE Pipeline</b>				
2.31	Excavate and backfill trenches both in common soil materials and soft rocks depth not exceeding 1.5m or otherwise specified for Trunk main pipeline from Kapletundo storage tank to Kimawit Storage Tank as directed by resident engineer	M <sup>3</sup>	1,650		
2.32	Provide, lay and joint 90 mm (3") diameter HDPE PN12.5 Pipe in trenches excavated (rate to include all necessary fittings, testing and commissioning of the pipeline)	M	4,700		
	<b>TOTAL BILL NO.2 CARRIED TO SUMMARY</b>				

ITEM	DESCRIPTION	UNIT	QNTY	RATE	AMOUNT
				(KShs)	(KShs)
	<b>BILL No. 3</b>				
<b>3</b>	<b>VALVES AND PIPEWORK-FITTINGS</b>				
	<b>All fittings arrangements in accordance with site conditions and design drawings provided</b>				
3.10	Provide all Equipment and fittings and fix DAV, DN80 on DN 315 mm Upvc pipeline.	Nr	3		
3.11	Provide all Equipment and fittings and fix DAV, DN80 on DN 280 mm Upvc pipeline.	Nr	3		
3.12	Provide all Equipment and fittings and fix 2" SAV on DN 160 mm Upvc pipeline.	Nr	12		
3.12	Provide all Equipment and fittings and fix 2" SAV on DN 90 mm HDPE pipeline.	Nr	4		
3.13	Provide and install wash out arrangements on the Trunk mains DN 315 mm (Provide for 6"sluice valve and wash-out pipe arrangements)	Nr	2		
3.14	Provide and install wash out arrangements on the Trunk mains DN 280 mm (Provide for 6"sluice valve and wash-out pipe arrangements)	Nr	2		
3.15	Provide and install wash out arrangements on the Trunk mains DN 160 mm (Provide for 4"sluice valve and wash-out pipe arrangements)	Nr	8		
3.15	Provide and install wash out arrangements on the Trunk mains DN 90 mm HDPE Pipeline (Provide for 4"sluice valve and wash-out pipe arrangements)	Nr	2		
3.16	Excavate for, provide all materials and construct complete valve chamber of internal dimensions 1200 x 1200 x 1200 m. Rates to including thrust blocks, pipe supports and covers as shown in the drawings.	Nr	36		
3.17	Provide and install market posts written AV, PL or WO. As directed by engineer	Nr	36		
	<b>TOTAL BILL NO.3 CARRIED TO SUMMARY</b>				

### SUMMARY

BILL NO	DESCRIPTION	AMOUNT
		(KShs)
1	Preliminary and General Items	
2	Pipework	
3	Valves and Pipework fittings	
	<b>SUB-TOTAL</b>	
	ADD 5% CONTINGECIES	
	<i>N/B Rates include all taxes unless otherwise stated in Particular Bill Items</i>	
	<b>GRAND TOTAL CARRIED TO FOR OF TENDER</b>	

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# **1 PREAMBLE TO ENGINEER'S COST ESTIMATES**

## **1.1 General Directions**

In this Bill of Quantities, the sub-headings and item descriptions identify the work covered by the respective items. The exact nature and extent of the work to be performed shall be ascertained by reference to the Drawings, Specification and Conditions of Contract, as the case may be read in conjunction with the matters listed against the relevant headings in the Preamble.

The Tenderer is required to check the numbers of the pages of the Bill of Quantities and should any be found missing or in duplicate or figures or writing indistinct, the Tenderer must notify the Employer at once and have the matter rectified before the Tender is submitted. No liability whatsoever will be entertained in respect of any claim for errors in the Tender resulting from failure to comply with the foregoing.

The quantities of work and material set forth in the Bill of Quantities are an estimate only and are not to be considered as limiting nor as extending the amount of work to be done and material to be supplied by the Contractor. The Works as completed in accordance with the Contract shall be measured and paid for as described in this Bill of Quantities and in accordance with the Conditions of Contract and Specification.

The brief descriptions of items given in the Bill of Quantities are purely for the purpose of identification and in no way modify or supersede the detailed descriptions given in the Conditions of Contract and Specifications. As such, when pricing items, the Tenderer is to make reference to the Conditions of Contract and Specifications for the full directions, description of the work and materials.

The rates and prices entered in the Bill of Quantities shall be deemed to be the full inclusive value of the work described by the several items in the Drawings, Specification and Conditions of Contract including the following unless expressly stated otherwise.

- Labour and plant and all costs in connection therewith
- The supply of materials and goods to site, including costs for purchase, transportation, storage, wastage and any other charges
- Constructional Equipment and all costs in connection therewith
- Fixing, erecting, installing or placing
- All Temporary Works
- Compliance with all conditions, liabilities and risks involved in the execution of the works set forth or reasonably implied in the documents on which the Contract is based
- Establishment charges, overheads and profit
- Locating existing services
- Contractor's accommodation, buildings and services (i.e. water, security, transport, welfare, etc)

## **1.2 Measurement**

The measurement of work shall be computed net from the Drawings unless stated otherwise in the Method of Measurement.

## **1.3 Use of Alternative Materials or Designs**

Where in the Contract a choice of alternative materials or designs is indicated for a given purpose, the description billed and rates inserted shall be deemed to cover any of the permitted alternative materials or designs which the Contractor may elect to use.

## **1.4 Unpriced Items**

The cost of items which do not have a price or rate entered against them in the Bill of Quantities shall be deemed to be covered by the rates and prices entered against the remaining items in the Bill of Quantities.

## **1.5 General Attendance**

General Attendance in connection with Nominated Sub-contractors shall include for affording the use of existing work space, access, temporary roads, erected scaffolding, working shelters, staging, ladders, hoists, storage, latrines, messing, welfare and other facilities existing on Site and the provision of protection, water, telephone, electricity for lighting, and clearing away rubbish and debris arising from the work.

## **1.6 Definitions**

- a) “Conditions of Contract” means the Conditions of Contract contained in these Documents.
- b) Words and expressions defined in the Conditions of Contract shall have the same meaning herein.
- c) “Provisional Item” means an item describing work, the requirement for which is uncertain at the time the Tender documents are issued and which can only be carried out on instruction of the Engineer.
- d) The word “work” includes work to be carried out, goods, materials and services to be supplied, and liabilities, obligations and risks to be undertaken by the Contractor under this Contract.
- e) The expression “expressly required” means shown on the Drawings, described in the Specification or ordered by the Engineer pursuant to the Contract.
- f) “Bill of Quantities” means lists of items giving brief identifying descriptions and estimated quantities of the work comprised in the Contract.
- g) “Daywork” means the method of valuing work on the basis of time spent by the workmen, the materials used and the Equipment employed.
- h) A hyphen between two dimensions means a range of dimensions which includes all dimensions exceeding that preceding the hyphen but not exceeding that following the hyphen.
- i) “Existing Ground Surface” means the surface of the sludge or ground before any work has been carried out.

## 1.7 Progress Payments

Progress payments in the Interim Certificates referred to in the Conditions of Contract in respect of sum items in the Bill of Quantities shall be by means of interim progress instalments, such instalments not exceeding in aggregate, the total of each sum item. Such interim progress instalments shall be assessed by the Engineer based on the extent that the work to be done or liabilities or charges to be incurred by the Contractor under the description of each item bears to the extent of such work, liabilities or charges actually carried out under each sum item from time to time.

Such progress payments in respect of sum items shall be subject to the terms of retention referred to in the Conditions of Contract.

## 1.8 Abbreviations

Abbreviations used herein shall have the following meanings:

Abbreviation	Meaning
mm	Millimetre(s)
cm	Centimetre(s)
Km	Kilometre(s)
m <sup>2</sup>	Square metre(s)
m <sup>3</sup>	Cubic metre(s)
kg	Kilogramme(s)
t	Tonne(s) (1000 kilogrammes)
l	Litre(s)
ha	Hectare(s)
m <sup>3</sup> km	Cubic metre(s) x Kilometre(s)
h	Hour(s)
No.	Number
month	Month(s)
Man.month	Man month(s)
No. month	Number of month(s)
L.S.	Lump Sum
P.C.	Prime Cost Sum
Kshs.	Kenya Shillings



## **2 PARTICULAR INSTRUCTIONS FOR MEASUREMENT AND PAYMENT**

### **2.1 Preliminaries**

Items whose units of measurement are time based shall not be measured:

- between the end of the time for completion or extended time for completion of the Works and the date of completion of the Works as described in the Contract;
- after the expiration of the Maintenance Period where services are required as a consequence of the default of the Contractor.

Payment to the Contractor for Items shall be the actual sum expended by the contractor as substantiated by receipts/invoices. However, in each case such a sum shall not exceed the sum inserted against the corresponding item in the Bill of Quantities.

### **2.2 Services for the Engineer**

#### *2.2.1 Site Offices*

The rates and prices entered in the Bill of Quantities for site offices for the Engineer shall be deemed to include the provision, equipping and maintenance. On completion the site offices shall be the property of the Employer. The sum shall include all costs of furnishing, equipping, cleaning, maintaining, heating and lighting all as specified.

Payment of the sum item shall be made in the following manner:

- a. Lump sum
- b. Retention monies shall be deducted from the above sum, in accordance with the Conditions of Contract

#### *2.2.2 Survey Equipment and Chainmen*

The rates and prices entered in the Bill of Quantities for survey equipment shall cover the full cost of provision and maintenance of all labour, materials and equipment necessary for the proper setting out and checking of the Works. It shall include survey instruments, tapes, ranging rods, poles, staves, staging, moulds, templates, profiles and the like. Equipment to revert to the Contractor after completion of the contract.

Payment of the sum item shall be made in the following manner:

- a. Lump sum
- b. Retention monies shall be deducted from the above sum, in accordance with the Conditions of Contract

## 2.3 Earthworks

### 2.3.1 The Units of Measurement

Table 2-1: Units of Measurements

Site clearance	m <sup>2</sup>
Stripping of 150 mm top soil	m <sup>2</sup>
Bulk excavation and filling	m <sup>3</sup>
Excavation for chambers and manholes	m <sup>3</sup>
Excavation of rock	m <sup>3</sup>
Excavation, filling and compaction of pipelines	m
Preparation of surface, trimming of slopes, pitching, soiling, grassing and wet masonry	m <sup>2</sup>
Overhaul of material	m <sup>3</sup> /km

### 2.3.2 Method of Measurement

#### i. Earthworks measured by m<sup>2</sup>

These shall be measured as plan area instructed by the Engineer.

#### ii. Earthworks measured by m<sup>3</sup>

The measured volume shall be the net-in-situ volume obtained from the difference between the lines, levels and profiles of the ground or rock surface agreed with the Engineer before excavation is commenced and the lines, levels and profiles as shown on the Drawings, or as may be ordered by the Engineer as necessary for the Works. Where the Drawings do not indicate the profiles of the excavation, the measured volume shall be the volume of the voids that would be formed if the completed structure, for which the excavation is performed, were to be lifted vertically out of the ground.

#### iii. Pipelines measured by length

Depths used for classification in the Bill of Quantities shall be measured from the commencing surface to the inverts of the pipes.

#### iv. Over-excavation

No measurement will be taken for material excavated beyond the limits and levels specified above, unless directed by the Engineer.

#### v. Filling

Normal material from store forming embankments shall be measured by volume as the net compacted volume of filling comprised within the sections shown on the Drawings. No extra payment will be made for additional material placed to allow for the effect of settlement.

#### vi. Haulage

Measurement shall be the product of the volume compacted material in situ and the haulage distance in excess of 30km, one way, along the shortest route as determined by the Engineer.

## **vii. Trial Pits**

Trial pits ordered by the Engineer shall be measured by the cubic metre of excavated material. The depth of excavation shall be measured from the commencing surface to the final surface. Trial pits required by the Contractor for his own information and use shall not be measured for payment.

## **viii. Pitching, Wet Masonry, Grassing, Soiling, Trimming, Preparation of Surface**

The area for measurement shall be calculated from the finished dimensions of the surface as shown on the drawings or instructed by the Engineer.

## **ix. Cofferdams and dealing with water**

The Construction, maintenance and removal of temporary cofferdams or diversion works including any pumping required for dealing with water during the execution of the Works shall not be measured. The cost of such measures shall be deemed to be included in the rates entered in the Bill of Quantities.

## **x. Cutting of trees**

The girth shall be measured 1.5m from the ground level. Only girth greater than 1.5m shall be paid.

### **2.3.3 Item Coverage**

No separate payment will be made beyond the rates for excavation for:

- a. All necessary Temporary Works including dealing with water in the excavation.
- b. Any over breakage and any additional working space required and refilling of same.
- c. Making good all slips or falls of materials.
- d. Trimming of excavation to correct lines levels and profiles.
- e. Preparation of foundations as specified except where specifically provided for in separate Bill items.
- f. Location, uplifting, transportation, handling and sorting of approved selected material from the excavations for use in the backfilling of trench and other excavations.
- g. Backfilling and disposal of materials and removal of surplus to spoil dump, including trimming and grading as required by the Engineer.
- h. Providing, storing, transporting and using explosives for rock excavation.
- i. Temporary reinstatement.
- j. Permanent reinstatement except where provided for separately in the Bill of Quantities.

## **2.4 Graded Filters**

### *2.4.1 The Units of Measurement*

Graded filters : m<sup>3</sup>

### *2.4.2 Method of Measurement*

Volume measured shall be as shown on the drawings or as instructed by the Engineer.

### *2.4.3 Item Coverage*

The rate shall include for complying with the specifications in all respects. No overhaul shall be paid for granular materials.

## **2.5 Gabions**

### *2.5.1 The Units of Measurement*

Gabions : m<sup>3</sup>

### *2.5.2 Method of Measurement*

Measurement shall be to neat lines as shown on the drawings or as instructed by the Engineer.

### *2.5.3 Item Coverage*

The rate shall include for excavation or quarrying of suitable stone, supply of wire baskets, transport of stone and gabions to site, preparing the base on which gabions are to be placed, weaving the entire crates, filling the gabions with stones and complying with the specifications in all respects.

## **2.6 Geotextile Filter Cloth and Polythene Sheeting**

### *2.6.1 The Units of Measurement*

Geotextile filter cloth : m<sup>2</sup>

### *2.6.2 Method of Measurement*

Measurement shall be to net surface area as measured on the drawings or as instructed by the Engineer. Overlaps shall not be measured.

### *2.6.3 Item Coverage*

The rate shall include for all overlaps required to ensure continuity.

## 2.7 Concrete and Reinforced Concrete

### 2.7.1 The Units of Measurement

- In-situ concrete other than blinding : m<sup>3</sup>
- Blinding concrete with the thickness stated : m<sup>3</sup>

### 2.7.2 Method of Measurement

All cast-in-situ concrete will be the quantity calculated from the dimensions shown on the Drawings or as approved by the Engineer. No deductions in the measurement will be made for:

- a) Mortar beds.
- b) Chamfers, ducts, chases, fillets, splays, drips, rebates, recesses, grooves and the like, not exceeding 0.01m<sup>2</sup> in cross sectional area.
- c) Bolt holes, pockets, sockets, mortices and the like formed in the concrete not exceeding 0.1cu m in volume.
- d) Cast in components each less than 0.1cu m in volume.
- e) Reinforcement and other metal sections.

### 2.7.3 Item Coverage

No separate payment will be made beyond the rates for concrete for:

- a. Trial mixes (for Specification Classes of concrete only).
- b. Supply of cement, water and processed aggregates.
- c. Supply and placing of mortar beds or rendering as specified.
- d. Mixing, transporting, placing, compacting, surface tamping to provide U1 finish, protecting and curing the concrete.
- e. Hacking, cleaning and roughening by wet sand blasting, scabbling or other means concrete surfaces on or against which further concrete is to be placed.
- f. Rubbing down faces of finished concrete work, or repair of surface defects.
- g. Shuttering and waterstops to construction joints not expressly required by the Engineer, keys and the like.
- h. Providing samples and testing of materials and concrete.
- i. Provision and use of admixtures.
- j. Placing and compacting concrete around steel reinforcement and other cast in components.
- k. Placing and compacting concrete at varying heights.
- l. Creating falls, cambers and shaped profiles.
- m. Formwork to edge of concrete in blinding layers.
- n. All additional concrete to fill overbreak and/or working space.
- o. Where concretes of different cement contents are required to be placed simultaneously in the same lift of concrete.
- p. Placing and compacting concrete to inclined or battered faces including any necessary upper surfaces formwork inclined at an angle of less than 20° to the horizontal.

## **2.8 Movement Joints**

### *2.8.1 Units of Measurement*

These shall be:

- a. Expansion and contraction joints, both horizontal and vertical      m<sup>2</sup>
- b. Waterstops of stated type and width      m

### *2.8.2 Item Coverage*

No separate payment will be made beyond the rates for joints and waterstops for:

- a. Supplying, cutting, joining and fixing waterstops.
- b. Formwork to face of joint.
- c. Bituminous painting of face of joint.
- d. Joint filler to expansion joints.
- e. Forming rebate for sealant, and supply and placing of sealant.
- f. Work and materials involved in debonding dowel bars.

## **2.9 Precast Concrete**

### *2.9.1 Units of Measurement*

- a. Beams, slabs, segmental units of stated dimensions      :      nr
- b. Copings, cills and the like of uniform cross-section      :      m

The term “precast concrete” applies to any concrete unit or member cast on Site but not in its final position and to concrete units or members manufactured off Site.

### *2.9.2 Item Coverage*

No separate payment will be made beyond the rates for precast concrete for:

- a. Trial mixes and testing as specified.
- b. Reinforcement, cement and processed aggregates.
- c. Formwork, surface finishing, lifting devices and bearing plates.
- d. Forming sockets, holes, grooves, rebates, recesses and ducts, except where specifically provided in the Bill of Quantities.
- e. Handling, laying and fixing the units in position.
- f. Aligning members and units, adjustable levels and soffit profiles, and temporary fixing to prevent displacement.
- g. Cutting and trimming copings, cills and the like to size.

## 2.10 Steel of Reinforcement

### 2.10.1 The Units of Measurement

- |    |  |   |                |
|----|--|---|----------------|
| a. | Steel rod reinforcement                    | : | t              |
| b. | Steel fabric reinforcement                 | : | m <sup>2</sup> |
| c. | Steel dowels of stated diameter and length | : | nr             |

### 2.10.2 Method of Measurement

The weight of steel rod reinforcement shall be calculated on the basis that steel weighs 0.00785kg/mm<sup>2</sup> of cross-sectional area per linear metre. The steel rod reinforcement shall be measured as the net theoretical calculated weight of the steel actually used in the work (including laps as specified) in accordance with the bending schedules prepared by the Engineer with no allowance being made in the measurement thereof for rolling margin or otherwise. Tying wire shall not be measured.

Fabric reinforcement shall be measured as the area of work covered excluding laps.

### 2.10.3 Item Coverage

No separate payment will be made beyond the rates for steel reinforcement for:

- Supplying, cutting to length, cleaning, bending, hooking, waste incurred by cutting, handling.
- Placing and fixing in the required position, including binding wire or other approved material.
- Placing supports and spacers.
- Extra fabric reinforcement in laps.
- In the case of dowels - drilling holes or forming pockets in the structure and casting dowels into their final position including application of bituminous paint.

## 2.11 Formwork

### 2.11.1 The Units of Measurement

- |    |  |   |                |
|----|--|---|----------------|
| a. | General formwork                                     | : | m <sup>2</sup> |
| b. | Formwork less than 300mm wide                        | : | m              |
| c. | Boxouts, pockets, etc of stated size                 | : | nr             |
| d. | Rebates, chases, etc of stated size                  | : | m              |
| e. | Columns of constant cross section, dimensions stated | : | m              |

### 2.11.2 Method of Measurement

Subject to the limitations stated below general formwork will be measured as the superficial area of formwork actually in contact with the finished face of the concrete.

Formwork shall not be measured:

- a. For forming construction joints (whether shown or not on the Drawings), skewbacks, stunt ends, steppings, bonding chases, keys and the like.
- b. For forming boxouts, pockets, etc., of stated sizes that are measured by number.
- c. For forming rebates, chases, etc., of stated size that are measures by length.
- d. To edge of concrete in blinding layers.
- e. To upper surfaces of concrete inclined at angle of less than 20o to the horizontal.

### 2.11.3 Classification of Formwork

Plane formwork shall be classified according to its angle of inclination as follows:

**Table 2-2: Classification of Formwork**

Class	Angle of inclination to the vertical
Horizontal	85° – 90°
Sloping	10° – 85°
Battered	0° – 10°
Vertical	0°

### 2.11.4 Item Coverage

No separate payment will be made beyond the rates for formwork for:

- a. Falsework, centering, fabricating, assembling, cutting, fitting and fixing in position and taking all measurement necessary to produce the required profiles.
- b. Forming camber or falls.
- c. Linings and taking all measures necessary to produce the required finish to the surfaces of the concrete.
- d. Cutting and fitting around projecting members, pipes reinforcement and the like.
- e. Forming fillets, chamfers, splays, drips, rebates, recesses, grooves and the like not exceeding 0.01 square metre in cross-sectional area, unless itemised in the Bill of Quantities.
- f. Maintaining in place until it is struck and allowing for any variation from the minimum period for striking arising from prevailing weather conditions.
- g. triking, taking down and removing.
- h. Any additional concrete provided in lieu of formwork to fill overbreak or working space.



## 2.12 Built in Plant, Equipment and Pipework

Items appear in the Bill of Quantities for building-in plant, equipment and pipework. The rates in Bill of Quantities shall include for all materials, formwork, etc. required for building-in. No additional payment will be made should the Contractor choose to form boxouts, pockets, etc., and grout in at a later date.

## 2.13 Unshattered surfaces

The unit measurement shall be:

Type U2, type U3 and type U4 finish:  $\text{m}^2$

Unshattered surfaces are described in the Specification. Items are provided where appropriate for the surface finish type U2, U3 and U4 and the rates entered under these items shall include for all material, Equipment and labour required to finish the unshattered concrete as specified.

No measurement shall be made for normal screed finish type U1.

## 2.14 Breaking out Reinforced Concrete and Blockwork

### 2.14.1 The Units of Measurement

- a. Breaking out, section thickness stated or shown on the Drawings :  $\text{m}^3$
- b. Making good perimeter of permanent openings, section thickness statement or shown on the Drawings :  $\text{m}^2$
- c. Building in pipework, etc. of stated size : nr

### 2.14.2 Method of Measurement

- a. Breaking out: The section thicknesses stated or shown on the Drawings are nominal thicknesses only. For measurement and payment purposes the thicknesses of the sections shall be measured on Site.
- b. Making good: For measurement purposes the perimeter shall be that existing after any making good of permanent openings. The perimeters and section of thicknesses shall be as measured on Site. The rates in the Bill of Quantities shall include for all materials, formwork, etc. and for filling of overbreak.

### 2.14.3 Item Coverage

No separate payment will be made beyond the rates for breaking out for:

- a. All equipment necessary.
- b. Any temporary supports, staging and the like.
- c. Any overbreak.
- d. Material for building in pipes and supporting the pipe.
- e. Formwork.
- f. Removal of "broken out" materials off Site.
- g. Cutting through reinforcement.

## **2.15 Pipes and Pipework**

### *2.15.1 The Units of Measurement*

- a. Pipelines : m
- b. Pipework, fittings and valves : nr

### *2.15.2 Method of Measurement*

- a. Lengths of pipelines shall be measured net as laid along their center lines, including fittings.
- b. Short lengths of pipes, the dimensions of which are detailed in the Bill of Quantities, shall be measured by number extra over the pipeline rate if laid in trenches or chambers.
- c. Lengths of drainage pipes built into manholes and other chambers shall be measured from the inside faces of chambers.
- d. Pipeline depth classifications quoted in the Bill of Quantities shall be measured from the commencing surface to the invert of the pipe.

### *2.15.3 Item Coverage*

No separate payment will be made beyond the rates for pipes and pipework for:

- a. Cost of supplying all pipes, jointing materials and short lengths to suit fittings.
- b. All necessary cutting and waste.
- c. All equipment, labour and materials required for handling, distributing, laying and jointing in position.
- d. Testing of the pipe system.
- e. All items listed in Section 2.8.3 of this Particular Instructions.

## **2.16 Pipework Ancillaries**

### *2.16.1 The Units of Measurement*

- a. Beds, haunches and surrounds : m<sup>3</sup>
- b. Concrete stools and thrust and anchor blocks of stated volume : nr

### *2.16.2 Method of Measurement*

- a. Separate measurement shall not be made for beds to hunched or surrounded pipes where the same material is used for beds and haunches or beds and surrounds respectively.
- b. The width of concrete pipe protection shall be taken as 300 mm plus the outside diameter of pipe unless detailed otherwise.

### 2.16.3 Item Coverage

No separate payment will be made beyond the rates for thrust blocks, surrounds and the like for

- a. Excavation and backfilling including working space in the case of thrust blocks.
- b. Formwork type F1 finish.
- c. Providing unshattered surfaces to type U1.
- d. Providing pipe wrapping and jointing as specified.

## 2.17 Structural and Miscellaneous Metalwork

### 2.17.1 The Units of Measurement

Structural and miscellaneous metal work including:

- |  |   |                |
|--|---|----------------|
| a. Gates, stairways, landings, walkways, pipes and platforms |   | t              |
| b. Ladders, handrails and the like                           | : | m              |
| c. Flooring, duct covers and the like                        | : | m <sup>2</sup> |

### 2.17.2 Method of Measurement

The measurement shall be the total weight of the finished member comprising plates, rolled sections, shear connectors, stiffeners, cleats, packs, splice plates and all fittings computed in accordance with the relevant British Standard, with no allowance for tolerances for rolling margins and other permissible deviations from standard weights, and excluding the weights of weld fillets, bolts, nuts and washers, rivet heads, and protective coatings. No deduction shall be made for splays, notches, holes and the like each not exceeding 0.10m<sup>2</sup>.

The weight of steel involved shall comply with the relevant British Standards.

### 2.17.3 Item Coverage

No separate payment will be made beyond the rates for metal work for:

- a. Cost of supplying materials.
- b. Moulding, fabricating, welding, drilling, machining, screwing, galvanising or painting as may be specified.
- c. Handling, transporting, hoisting, fitting and fixing and in position to complete.
- d. Supply of all fixings.
- e. Painting after erection as specified.

## 2.18 Wooden Flow Control Gates

### 2.18.1 The Units of Measurement

- |    |  |   |    |
|----|--|---|----|
| a. | Hardwood wooden gates of stated dimensions | : | nr |
| b. | Hardwood stoplogs of stated dimensions     | : | m  |

### 2.18.2 Item Coverage

No separate payment will be made beyond the rates for:

- a. Cost of supplying materials.
- b. Moulding, fabricating, welding, drilling, machining, screwing, galvanizing or painting as may be specified.
- c. Handling, transporting, hoisting, fitting and fixing and in position to complete.
- d. Supply of all fixings.
- e. Painting after erection as specified

## 2.19 Blockwork, Brickwork and Masonry

### 2.19.1 The Unit of Measurement

- |    |   |   |                |
|----|---|---|----------------|
| a. | Blockwork, brickwork, and masonry not exceeding 1m in thickness | : | m <sup>2</sup> |
| b. | Blockwork, brickwork, and masonry exceeding 1m in thickness     | : | m <sup>3</sup> |
| c. | Damp proof courses, wall thickness stated                       | : | m              |

### 2.19.2 Method of Measurement

- a. Volume and areas measured for blockwork, brickwork and masonry shall include the volumes and areas of joints.
- b. No deduction or addition to the volumes and areas measured shall be made for rebates, projecting courses or other surface features each less than 0.05m<sup>2</sup> in cross sectional area.
- c. No deduction from the volumes and areas measured shall be made for holes and openings in walls or surfaces each less than 0.25m<sup>2</sup> in cross sectional area.
- d. Areas shall be measured at the centre lines of blockwork, brickwork and masonry.

### 2.19.3 Item Coverage

No separate payment will be made beyond the rates for the rates for blockwork, brickwork, and masonry for:

- a. Jointing, pointing and fair-faced work, in any type of bond including all rough and fair cutting.
- b. Plinths, corbels, bull noses, chases, rebates, quoins, brick copings, string course and the like.
- c. Centering and all temporary supports.
- d. Bonding into existing work.
- e. Protection into existing work.
- f. Building in pipes, holdfast, bolts and the like and forming openings less than 0.25m<sup>2</sup> in cross section.
- g. Ties and reinforcement.

## 2.20 Chambers and Manholes

In-situ reinforced concrete chambers and manholes shall be measured under the relevant items for excavation, concrete, formwork, reinforcement, manhole covers, step irons and the like. This section of the Particular Instructions relates to precast concrete chambers and manholes.

### 2.20.1 The Units of Measurement

Precast chambers and manholes of stated size and depth :           nr

### 2.20.2 Method of measurement

The depth for measurement purposes shall be measured from the top of the cover to the top of the base slab.

### 2.20.3 Item Coverage

The rates entered in the Bill of Quantities shall be deemed to cover excavation, provision and placing of precast unit, slabs and covers concrete surrounds, building in pipes and other fittings and all other work necessary to complete the chamber and manhole in accordance with the Drawings and Specification.

## 2.21 Rendering

### 2.21.1 The Units of Measurement

a.     Rendering                                 :           m<sup>2</sup>

### 2.21.2 Method of Measurement

The rate shall include all necessary admixtures and any other relevant works.

## 2.22 Site Roads and Footpaths

### 2.22.1 The Units of Measurement

- |                                       |   |                |
|---------------------------------------|---|----------------|
| a.     Spoil of material              | : | m <sup>3</sup> |
| b.     Preparation of existing ground | : | m <sup>3</sup> |
| c.     Gravel course of stated depth  | : | m <sup>3</sup> |
| d.     Excavation of materials        | : | m <sup>3</sup> |
| e.     Concrete pipe culverts         | : | m              |
| f.     200mm thick blockwork          | : | m <sup>2</sup> |
| g.     Overhaul                       | : | m <sup>3</sup> |

### *2.22.2 Method of Measurement*

The measurement for preparation of the existing ground, gravel course, excavation of materials and overhaul shall include for meeting all the requirements of the Ministry of transport and communication Standard Specification for Road and Bridge Construction.

The haulage of material in excess of 30 km shall be measured per cubic meter kilometer and shall be computed by multiplying the measured quantities of material in cubic meters by the length of approved shortest practicable route measured in kilometers in one direction only.

Measurement for the blockwork shall comply with section 2.19 of the particular instructions for measurement and payment. The rates shall include for reinforcement, rip-rap and rendering as indicated on the drawing.

### **3 DAYWORK SCHEDULE**

Works shall not be executed on a daywork basis except by written order of the Engineer. Tenderers shall enter rates for daywork items in the Schedules, which rates shall apply to any quantity of daywork ordered by the Engineer. Nominal quantities have been indicated against each item of daywork and the extended total for daywork shall be carried forward as a Provisional Sum to the Summary Total Tender Amount. Unless otherwise stated, payments for daywork shall be subject to price adjustment and retention in accordance with the Conditions of Contract.

#### **3.1 Daywork Labour**

In calculating payments due to the Contractor for the execution of dayworks, the hours for labour will be calculated from the time of arrival of the labour at the job site to execute the particular item of daywork to the time of return to the original place of departure, but excluding meal breaks and rest periods. Only the time of classes for labour directly doing work ordered by the Engineer and for which they are competent to perform will be measured. The time of gangers (charge hands) actually doing work with the gangs will be measured but not the time of foremen or other supervisory personnel.

The Contractor shall be entitled to payment in respect of the total time that labour is employed on daywork, calculated at the rates entered by him in the “Schedule of Daywork Rates – Labour”, which shall include the following:

- a. The rates for labour shall cover all direct costs to the Contractor, including (but not limited to) the amount of wages paid to such labour, transportation time, overtime, subsistence allowances, and any sums paid to or on behalf of such labour for social benefits in accordance with the Kenyan law, and;
- b. The rates shall be deemed to cover the Contractor's profit, overheads, superintendence, liabilities and insurances and allowances to labour, timekeeping and clerical and office work, the use of consumable stores, water, lighting and power: the use and repair of stagings, scaffolding, workshops and stores, portable power tools, manual equipment and tools: supervision by the Contractor's staff, foremen and other supervisory personnel; and charges incidental to the foregoing.

#### **3.2 Daywork Material**

The Contractor shall be entitled to payment in respect of materials used for daywork (except for materials for which the cost is included in 3.1 (b) above, at the rates entered by him in the “Schedule of Daywork Rates – Materials” which shall include the following:

- a. the rates for materials shall be calculated on the basis of the invoiced price, freight, insurance, handling expenses, damage, losses, etc., and shall provide for delivery to store for stockpiling at the Site.
- b. the rates shall be deemed to cover the Contractor's profit, overheads, superintendence, liabilities and insurances and allowances for any clerical and office work and charges incidental to the foregoing.

The cost of hauling materials for use on work ordered to be carried out as daywork from the store or stockpile on the Site to the place where it is to be used will be paid in accordance with the terms for Labour and Construction Equipment in this Schedule.

### **3.3 Daywork Construction Equipment**

The Contractor shall be entitled to payments in respect of Constructional Equipment already on site and employed on daywork at the basic rental rates entered by him in the "Schedule of Daywork Rates - Constructional Equipment". The said rates shall be deemed to include due and complete allowance for depreciation, interest, indemnity and insurance, repairs, maintenance, supplies, fuel, lubricants, and other consumables, and all overhead, profit and administrative costs related to the use of such equipment. The cost of drivers, operators and assistants will be paid for separately as described under the section on Daywork Labour.

In calculating the payment due to the Contractor for Constructional Equipment employed on daywork, only the actual number of working hours will be eligible for payment, except that where applicable and agreed with the Engineer, the travelling time from the part of the Site where the Constructional Equipment was located when ordered by the Engineer to be employed on daywork and the time for return journey thereto shall be included for payment.



---

*Note:-*

Reference to section 82 of the Public Procurement and Asset Disposal Act 2015

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

**SECTION IX: TENDER FORMS**

## FORM OF TENDER

(on letterhead of the tenderer)

TO: \_\_\_\_\_ [Name of Employer] \_\_\_\_\_ [Date]  
\_\_\_\_\_ [Name and Identification Number of Contract]

Dear Sir,

- 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, install and complete such Works and remedy any defects therein for the sum of Kshs. \_\_\_\_\_ [Amount in figures] Kenya Shillings \_\_\_\_\_ [Amount in words]
- 2 We undertake, if our tender is accepted, to commence the Works as soon as is reasonably possible after the receipt of the Project Engineer's notice to commence, and to complete the whole of the Works comprised in the Contract within the time stated in the Appendix to Conditions of Contract.
- 3 We agree to abide 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 a binding Contract between us.
- 5 We understand that you are not bound to accept the lowest or any tender you may receive.

Dated this \_\_\_\_\_ day of \_\_\_\_\_ 20 \_\_\_\_\_

Signature \_\_\_\_\_ in the capacity of \_\_\_\_\_

duly authorized to sign tenders for and on behalf of \_\_\_\_\_ [Name of Tenderer] of \_\_\_\_\_ [Address of Tenderer]

Witness; Name \_\_\_\_\_

Address \_\_\_\_\_

Signature \_\_\_\_\_

Date \_\_\_\_\_

## APPENDIX TO FORM OF TENDER

(This appendix forms part of the tender)

CONDITIONS OF CONTRACT	CLAUSE	AMOUNT
Tender Security (Bank Guarantee only)		Two (2) percent of the tender price in the form of Unconditional Bank Guarantee from a local reputable bank
Program to be submitted	14.1	Not later than 14 days after issuance of Order to Commence
Cash flow estimate to be submitted	14.3	Not later than 28days after issuance of Order to Commence
Minimum amount of Third-Party Insurance	23.2	As per applicable laws in Kenya
Period for commencement, from the Engineer's order to commence	41.1	28 calendar days
Time for completion	43.1	8 (Eight) calendar months from commencement date
Amount of liquidated damages	47.1	Kshs. 10,000.00 per day
Limit of liquidated damages	47.1	10% of Contract Value
Defect Liability period	49.1	6 Calendar Months
Advance Payment	60.1(a)	30% of the contract sum (exclusive of provisional & contingency sums) on submission of acceptable advance payment guarantee from a local reputable bank for an equivalent amount.
Percentage of the invoice value of listed materials	60.2	60%
Percentage of Retention	60.5	10% of Interim Payment Certificate
Limit of Retention Money	60.5	10 % of Contract Price
Minimum amount of interim certificates	60.2	Ksh. 1,500,000.00
Time within which payment to be made after Interim Payment Certificate signed by Engineer	60.8	30 days
Time within which payment to be made after Final Payment Certificate signed by Engineer	60.8	60days
Appointer of Arbitrator	67(3)	Chartered Institute of Arbitrators – Kenya Chapter
Notice to Employer and Engineer	68.2	The Employer's address is:  County Secretary County Government of Bomet P. O Box 19-20400 Bomet, Kenya

Name of tenderer.....

Signature of Tender.....Date .....

Stamp.....

## TENDER QUESTIONNAIRE

Please fill in block letters.

1. Full names of tenderer  
.....
2. Full address of tenderer to which tender correspondence is to be sent (unless an agent has been appointed below)  
.....
3. Telephone number (s) of tenderer  
.....
4. Telex address of tenderer  
.....
5. Name of tenderer's representative to be contacted on matters of the tender during the tender period  
.....
6. Details of tenderer's nominated agent (if any) to receive tender notices. This is essential if the tenderer does not have his registered address in Kenya (name, address, telephone, telex)  
.....

Signature of Tenderer:.....

Make copy and deliver to : \_\_\_\_\_ ( *Name of Employer*)

\_\_\_\_\_

## CERTIFICATE OF TENDERER'S VISIT TO SITE

This is to certify that

[*Name/s*].

.....

Being the authorized representative/Agent of [*Name of Tenderer*]

.....

.....

Participated in the organized inspection visit of the site of the works for the **(Name of Contract:**  
.....)

..... day of.....20.....

Signed.....

(Employer's Representative)

.....

NOTE: This form is to be completed whether the site visit is made at the time of the organized site or privately organized.

## FORM OF WRITTEN POWER-OF-ATTORNEY

The Tenderer consisting of a joint venture shall state here below the name and address of his representative who is authorised to receive on his behalf correspondence in connection with the Tender.

.....  
(Name of Tenderer's Representative in block letters)

.....  
(Address of Tenderer's Representative)

.....  
(Signature of Tenderer's Representative)

## LETTER OF NOTIFICATION OF AWARD

Address of Procuring Entity

\_\_\_\_\_  
\_\_\_\_\_

To: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

RE: Tender No. \_\_\_\_\_

Tender Name \_\_\_\_\_

This is to notify that the contract/s stated below under the above-mentioned tender have been awarded to you.

\_\_\_\_\_  
\_\_\_\_\_

1. Please acknowledge receipt of this letter of notification signifying your acceptance.
2. The contract/contracts shall be signed by the parties within 30 days of the date of this letter but not earlier than 14 days from the date of the letter.
3. You may contact the officer(s) whose particulars appear below on the subject matter of this letter of notification of award.

(FULL PARTICULARS) \_\_\_\_\_  
\_\_\_\_\_

SIGNED FOR ACCOUNTING OFFICER



### **A. Tender-Securing Declaration (Mandatory)**

Date: *[insert **date** (as day, month and year)]*

Tender No.: *[insert **number of Tendering process**]*

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

To: *[insert **complete name of Procuring Entity**]*

We, the undersigned, declare that:

We understand that, according to your conditions, Tenders must be supported by a Tender-Securing Declaration.

We accept that we will automatically be suspended from being eligible for Tendering in any contract with the Procuring Entity 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 Tender conditions, because we;

- a) Have withdrawn our Tender during the period of Tender validity specified in the Form of Tender; or
- b) Having been notified of the acceptance of our Tender by the Procuring Entity during the period of Tender 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 ITT.

We understand this Tender Securing Declaration shall expire if we are not the successful Tenderer, upon the earlier of;

- 1) Our receipt of your notification to us of the name of the successful Tenderer; or
- 2) Thirty days after the expiration of our Tender.

Signed: *[insert signature of person whose name and capacity are shown]* \_\_\_\_\_

In the capacity of *[insert legal capacity of person signing the Tender Securing Declaration]*

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

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

Dated on \_\_\_\_\_ day of \_\_\_\_\_, *[insert **date of signing**]*

Corporate Seal (where appropriate)

## B. Confidential Business Questionnaire

**1 Individual Tenderer or Individual Members of joint Ventures**

1.1 Constitution or legal status of Tenderer: *[attach copy]*

Place of registration: \_\_\_\_\_

Principal place of business: \_\_\_\_\_

Power of attorney of signatory of Tender: *[attach]*

Registration certificate *[attach]* current Business License *[attach]*

1.2 Total annual volume of construction work performed in two years, in Kenyan shillings as specified in the Tender Data Sheet; *[insert]* \_\_\_\_\_

1.3 Work performed as prime Contractor on works of a similar nature and volume over the last three years or as specified in the Tender Data Sheet in Kenyan Shillings. Also list details of work under way or committed, including expected completion dates.

Project name and country	Contractors Participation	Type of work performed and year of completion	Name of client and contact person	Value of contract
(a)				
(b)				
(c)				
(d)				
(e)				
(f)				

- 1.4 Major items of Contractor's Equipment proposed for carrying out the works. List all information requested below. Refer also to sub-Clause 12.3 of the Instructions to Tenderers.

<b>Item of equipment</b>	<b>Description, make, and age (years)</b>	<b>Condition (new, good, Poor) and number available</b>	<b>Owned, leased (from whom?) or to be purchased (from whom?)</b>
(a)			
(b)			
(c)			
(d)			
(e)			
(f)			

- 1.5 Qualifications and experience of key personnel proposed for administration and execution of the Contract. Attach biographical data. Refer also to sub-Clause 12.3 of the Instructions to Tenderers and Sub- Clause 10.1 of the General Conditions of Contract.

<b>Position</b>	<b>Name</b>	<b>Years of Experience (general)</b>	<b>Years of experience in proposed position</b>
(a)			
(b)			
(c)			
(d)			
(e)			
(f)			

- 1.6 Proposed sub-contractor and firms involved. Refer to Clause 7 of General Conditions of Contract.

Sections of the Works	Value of subcontract	Subcontractor (name and address)	Experience in similar work
(a)			
(b)			
(c)			

- 1.7 Financial reports for the number of years specified in the Tender Data Sheet.
- 1.8 Evidence of access to financial resources to meet the qualification requirements: cash in hand, lines of credit, etc. List below and attach copies of support documents.
- 1.9 Name, address, and telephone, e-mail address, and facsimile numbers of banks that may provide references if contracted by the Procuring Entity.
- 1.10 Information on current litigation in which the Tenderer is involved.

Other party(ies)	Cause of dispute	Amount involved
(a)		
(b)		

- 1.11 Statement of compliance with the requirements of sub-Clause 3.2 of the Instructions to Tenderers.
- 1.12 Proposed Program (work method and schedule). Descriptions, drawings, and charts, as necessary, to comply with the requirements of the Tendering documents.

## 2. Joint Ventures

- 2.1 The information listed in 1.1 – 1.11 above shall be provided for each partner of the joint venture.
- 2.2 The information in 1.12 above shall be provided for the joint venture.
- 2.3 Attach the power of attorney of the signatory (ies) of the Tender authorizing signature of the Tender on behalf of the joint venture.

2.4 Attach the Agreement among all partners of the joint venture (and which is legally binding on all partners), which shows that:

- (a) all partners shall be jointly and severally liable for the execution of the Contract in accordance with the Contract terms;
- (b) one of the partners will be nominated as being in charge, authorized to incur liabilities, and receive instructions for and on behalf of any and all partners of the joint venture; and
- (c) the execution of the entire Contract, including payment, shall be done exclusively with the partner in charge.

3. **Additional Requirements**

3.1 Tenderers should provide any additional information required in the **Tender Data Sheet** or to fulfil the requirements of sub-Clauses 12.1 of the Instructions to Tenderers, if applicable.

### **C. Integrity Declaration**

#### **UNDERTAKING BY TENDERER ON ANTI – BRIBERY POLICY / CODE OF CONDUCT AND COMPLIANCE PROGRAMME**

1. Each Tenderer must submit a statement, as part of the Tender documents, in either of the two given formats which must be signed personally by the Chief Executive Officer or other appropriate senior corporate officer of the Tendering company and, where relevant, of its subsidiary in the Kenya. If a Tender is submitted by a subsidiary, a statement to this effect will also be required of the parent company, signed by its Chief Executive Officer or other appropriate senior corporate officer.
2. Tenderers will also be required to submit similar No-bribery commitments from their subcontractors and consortium partners; the Tenderer may cover the subcontractors and consortium partners in its own statement, provided the Tenderer assumes full responsibility.
3.
  - a) Payment to agents and other third parties shall be limited to appropriate compensation for legitimate services.
  - b) Each Tenderer will make full disclosure in the Tender documentation of the beneficiaries and amounts of all payments made, or intended to be made, to agents or other third parties (including political parties or electoral candidates) relating to the Tender and, if successful, the implementation of the contract.
  - c) The successful Tenderer will also make full disclosure [quarterly or semi- annually] of all payments to agents and other third parties during the execution of the contract.
  - d) Within six months of the completion of the performance of the contract, the successful Tenderer will formally certify that no bribes or other illicit commissions have been paid. The final accounting shall include brief details of the goods and services provided that they are sufficient to establish the legitimacy of the payments made.
  - e) Statements required according to subparagraphs (b) and (d) of this paragraph will have to be certified by the company's Chief Executive Officer, or other appropriate senior corporate officer.
4. Tenders which do not conform to these requirements shall not be considered.
5. If the successful Tenderer fails to comply with its No-bribery commitment, significant sanctions will apply. The sanctions may include all or any of the following:
  - a) Cancellation of the contract;
  - b) Liability for damages to the public authority and/or the unsuccessful competitors in the Tendering possibly in the form of a lump sum representing a pre-set percentage of the contract value (liquidated).
6. Tenderers shall make available, as part of their Tender, copies of their anti-Bribery Policy/Code of Conduct, if any, and of their-general or project - specific - Compliance Program.
7. The Government of Kenya has made special arrangements for adequate oversight of the procurement process and the execution of the contract, and has invited civil society and other competent Government Departments to participate in the oversight. Those charged with the oversight responsibility will have full access to all documentation submitted by Tenderers for this contract, and to which in turn all Tenderers and other parties involved or affected by the project shall have full access (provided, however, that no proprietary information concerning a Tenderer may be disclosed to another Tenderer or to the public).

**ANTI-CORRUPTION DECLARATION COMMITMENT/ PLEDGE**

*(Sections 39, 40, 41, 42, 43 & of the PPD Act, 2005)*

I/We/Ms..... of

Street, Building, P O Box.....

.....

Contact/Phone/E mail.....

declare that Public Procurement is based on a free and fair competitive Tendering process which should not be open to abuse.

I/We .....

declare that I/We will not offer or facilitate, directly or indirectly, any inducement or reward to any public officer, their relations or business associates, in connection with

Tender/Tender No .....

for or in the subsequent performance of the contract if I/We am/are successful.

Authorized Signature.....

Name and Title of Signatory.....

## D. Letter of Acceptance

*[Letter head paper of the Procuring Entity]*

[date]

To: *[name and address of the Contractor]*

This is to notify you that your Tender dated [date] for execution of the *[name of the Contract and identification number, as given in the Contract Data Sheet]* for the Contract Price of the equivalent of *[amount in numbers and words]* *[name of currency]*, as corrected and modified in accordance with the Instructions to Tenderers is hereby accepted by us.

We confirm that *[insert name proposed by the procuring entity]* to be the Adjudicator.

We accept that *[name proposed by Tenderer]* be appointed as Adjudicator.

Or

We do not accept that *[name proposed by Tenderer]* be appointed as adjudicator, and by sending a copy of this letter of acceptance to *[insert the name of the Appointing Authority]*, we are hereby requesting *[name]*, the Appointing Authority, to appoint the adjudicator in accordance with Clause 44.1 of the Instructions to Tenderers.

You are hereby instructed to proceed with the execution of the said works in accordance with the Contract documents.

Please return the contract dully signed.

Authorized Signature: \_\_\_\_\_

Name and Title of Signatory: \_\_\_\_\_

Name of Agency: \_\_\_\_\_

Attachment: Form of Contract



### **E. Form of Contract Agreement**

This Agreement, made the [day] day of [month], [year] between [name and address of Procuring Entity] (hereinafter called “the Procuring Entity”) and [name and address of Contractor] (hereinafter called “the Contractor”) of the other part.

Whereas the Procuring Entity is desirous that the Contractor execute [name and identification number of contract] (hereinafter called “the Works”) with the objectives of [insert functional objectives of the works] and the Procuring Entity has accepted the Tender by the Contractor for the execution and completion of such works and the remedying of any defects therein in the sum of [contract price in words and figures] (hereinafter called “Contract Price”).

#### **NOW THIS AGREEMENT WITNESSES AS FOLLOWS:**

1. In this Agreement, words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to, and they shall be deemed to form and be read and construed as part of this Agreement;
2. In consideration of the payments to be made by the Procuring Entity to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Procuring Entity to execute and complete the Works and remedy any defects therein in conformity in all respects with the provisions of the Contract;
3. The Procuring Entity hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects wherein 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 thereto have caused this Agreement to be executed the day and year first before written.

The Common Seal of \_\_\_\_\_

Was hereunto affixed in the presence of: \_\_\_\_\_

Signed, Sealed, and Delivered by the said \_\_\_\_\_

In the presence of: \_\_\_\_\_

Tendering Signature of Procuring Entity \_\_\_\_\_

Binding Signature of Contractor \_\_\_\_\_

## F. Letter of notification of award

Address of Procuring Entity

\_\_\_\_\_  
\_\_\_\_\_

To: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

RE: Tender No. \_\_\_\_\_

Tender Name \_\_\_\_\_

This is to notify that the contract/s stated below under the above-mentioned tender have been awarded to you.

\_\_\_\_\_

\_\_\_\_\_

1. Please acknowledge receipt of this letter of notification signifying your acceptance.
2. The contract/contracts shall be signed by the parties within 30 days of the date of this letter but not earlier than 14 days from the date of the letter.
3. You may contact the officer(s) whose particulars appear below on the subject matter of this letter of notification of award.

(FULL PARTICULARS) \_\_\_\_\_

\_\_\_\_\_

SIGNED FOR ACCOUNTING OFFICER

## **SECTION X: FORMS OF SECURITY**

**A. Tender Security (Bank or Insurance Guarantee)**  
**(Mandatory)**

WHEREAS ..... (Hereinafter called “the Tenderer”) has submitted his tender dated ..... for the construction of .....  
..... (*name of Contract*)

KNOW ALL PEOPLE by these presents that WE ..... having our registered office at .....(hereinafter called “the Bank”), are bound unto .....(hereinafter called “the Employer”) in the sum of Kshs..... for which payment well and truly to be made to the said Employer, the Bank binds itself, its successors and assigns by these presents sealed with the Common Seal of the said Bank this ..... Day of .....20.....

THE CONDITIONS of this obligation are:

1. If after tender opening the tenderer withdraws his tender during the period of tender validity specified in the instructions to tenderers  
Or
2. If the tenderer, having been notified of the acceptance of his tender by the Employer during the period of tender validity:
  - (a) fails or refuses to execute the form of Agreement in accordance with the Instructions to Tenderers, if required; or
  - (b) fails or refuses to furnish the Performance Security, in accordance with the Instructions to Tenderers;
  - (c) Rejects a correction or an arithmetic error in the tender.

We undertake to pay to the Employer up to the above amount upon receipt of his first written demand, without the Employer having to substantiate his demand, provided that in his demand the Employer will note that the amount claimed by him is due to him, owing to the occurrence of one or both of the two conditions, specifying the occurred condition or conditions.

This guarantee will remain in force up to and including thirty (30) days after the period of tender validity, and any demand in respect thereof should reach the Bank not later than the said date.

\_\_\_\_\_  
[date]

\_\_\_\_\_  
[signature of the Bank]

\_\_\_\_\_  
[witness]

\_\_\_\_\_  
[seal]

**B. Performance Bank or Insurance Guarantee [Unconditional]**

To: \_\_\_\_\_ (Name of Employer) \_\_\_\_\_ (Date)  
\_\_\_\_\_ (Address of Employer)

Dear Sir,

WHEREAS \_\_\_\_\_ (hereinafter called "the Contractor") has undertaken, in pursuance of Contract No. \_\_\_\_\_ dated \_\_\_\_\_ to execute \_\_\_\_\_ (hereinafter called "the Works");

AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee by a recognised bank for the sum specified therein as security for compliance with his obligations in accordance with the Contract;

AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee:

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Contractor, up to a total of Kshs. \_\_\_\_\_ (amount of Guarantee in figures) Kenya Shillings \_\_\_\_\_ (amount of Guarantee in words), and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of Kenya Shillings \_\_\_\_\_ (amount of Guarantee in words) as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the Contractor before presenting us with the demand.

We further agree that no change, addition or other modification of the terms of the Contract or of the Works to be performed there under or of any of the Contract documents which may be made between you and the Contractor shall in any way release us from any liability under this Guarantee, and we hereby waive notice of any change, addition, or modification.

This guarantee shall be valid until the date of issue of the Certificate of Completion.

SIGNATURE AND SEAL OF THE GUARANTOR \_\_\_\_\_

Name of Bank \_\_\_\_\_

Address \_\_\_\_\_

Date \_\_\_\_\_

### C. Bank or Insurance Guarantee for Advance Payment

To: \_\_\_\_\_ *[name of Employer]* \_\_\_\_\_ *(Date)*  
\_\_\_\_\_ *[address of Employer]*

Gentlemen,

Ref: \_\_\_\_\_ *[name of Contract]*

In accordance with the provisions of the Conditions of Contract of the above-mentioned Contract, We, \_\_\_\_\_ *[name and Address of Contractor]* (hereinafter called "the Contractor") shall deposit with \_\_\_\_\_ *[name of Employer]* a bank guarantee to guarantee his proper and faithful performance under the said Contract in an amount of Kshs. \_\_\_\_\_ *[amount of Guarantee in figures]* Kenya Shillings \_\_\_\_\_ *[amount of Guarantee in words]*.

We, \_\_\_\_\_ *[bank or financial institution]*, as instructed by the Contractor, agree unconditionally and irrevocably to guarantee as primary obligator and not as Surety merely, the payment to \_\_\_\_\_ *[name of Employer]* on his first demand without whatsoever right of objection on our part and without his first claim to the Contractor, in the amount not exceeding Kshs \_\_\_\_\_ *[amount of Guarantee in figures]* Kenya Shillings \_\_\_\_\_ *[amount of Guarantee in words]*, such amount to be reduced periodically by the amounts recovered by you from the proceeds of the Contract.

We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed there under or of any of the Contract documents which may be made between \_\_\_\_\_ *[name of Employer]* and the Contractor, shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

No drawing may be made by you under this guarantee until we have received notice in writing from you that an advance payment of the amount listed above has been paid to the Contractor pursuant to the Contract.

This guarantee shall remain valid and in full effect from the date of the advance payment under the Contract until \_\_\_\_\_ *(name of Employer)* receives full payment of the same amount from the Contract.

Yours faithfully,

Signature and Seal \_\_\_\_\_

Name of the Bank or financial institution \_\_\_\_\_

Address \_\_\_\_\_

Date \_\_\_\_\_

Witness: Name: \_\_\_\_\_

Address: \_\_\_\_\_

Signature: \_\_\_\_\_

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