



EUROPEAN UNION

REPUBLIC OF KENYA



Kenya Rural Roads
Authority

**IMPLEMENTATION OF AFD/EU/GOK ROADS 2000 CLIMATE
PROOFED ARID AND SEMI – ARID (ASAL) RURAL ROADS
PROGRAMME**

AREA 1MERU COUNTY – BATCH 3

**LABOUR BASED REHABILITATION AND IMPROVEMENT, AND
PERFORMANCE BASED ROUTINE MAINTENANCE WORKS
FOR GICHANINE – MARIARA (D1190) ROAD – NTUTI PRIMARY
SCHOOL CSR PROJECT**

TENDER No. AFD/EU/ME/GR/2/2023/24

**RESERVED FOR YOUTH
JUNE 2026**

**REGIONAL DIRECTOR- MERU
KENYA RURAL ROADS AUTHORITY
P. O. BOX 442 - 60200
MERU**

**DIRECTOR (PLANNING, DESIGN AND
ENVIRONMENT)
KENYA RURAL ROADS AUTHORITY
P. O. BOX 48151 - 00100
NAIROBI**

**(LABOUR BASED REHABILITATION AND IMPROVEMENT,
AND PERFORMANCE BASED AND INSTRUCTED ROUTINE
MAINTENANCE WORKS)**

INVITATION TO TENDER

PART 1: TENDERING PROCEDURES

Section I: Instructions to Tenderers (ITT)

Section II: Tender Data Sheet (TDS)

Section III: Evaluation and Qualification Criteria

Section IV: Tendering Forms

PART 2: WORKS REQUIREMENTS

Section V: Drawings

Section VI: Specifications

Section VII: Bill of Quantities

PART 3: CONDITIONS OF CONTRACT AND CONTRACT FORMS

Section VIII: General Conditions of Contract

Section IX: Special Conditions of Contract

Section X: Contract Forms

INVITATION TO TENDER

Kenya Rural Roads Authority,

P.O. Box 442–60200,

MERU.

Email : meru@kerra.go.ke

IMPLEMENTATION OF AFD/EU/GOK ROADS 2000 CLIMATE PROOFED ARID AND SEMI – ARID (ASAL) RURAL ROADS PROGRAMME

LABOUR BASED REHABILITATION AND IMPROVEMENT, AND PERFORMANCE BASED ROUTINE MAINTENANCE WORKS FOR GICHANINE – MARIARA (D1190) ROAD - NTUTI PRIMARY SCHOOL CSR PROJECT

TENDER No: AFD/EU/ME/GR/2/2023/24

The (*Kenya Rural Roads Authority*) Invites Sealed Tenders from Eligible Candidates For (**Labour Based Rehabilitation and Improvement, and Performance Based Routine Maintenance Works for Gichanine – Mariara (D1190) Road - Ntuti Primary School CSR Project**)

1. Tendering will be conducted under open competitive method using a standardized tender document.
2. This Tender is OPEN to all registered Contractors in Meru County.
3. Tenderers who have more than 4 No. on-going contracts whose % completion is less than 70% as at date of the tender closure will not be eligible to bid
4. All contractors who have an ongoing Gravel or LVS contract under Batch One (1) of this programme whose physical verifiable progress is less than 60% do not qualify to bid.
5. Qualified and interested tenderers may obtain further information and inspect the Tender Documents during office hours between 0900 to 1600 hours at the address given below:
**The Regional Director
Kenya Rural Roads Authority,
P. O. Box 442-60200, Meru, Kenya.**
6. Tender documents shall be obtained electronically from the Authority's Website (www.kerra.go.ke).
7. Tender documents may be viewed and downloaded for free from the website (www.kerra.go.ke). Tenderers who download the tender document must forward their particulars immediately to procurement@kerra.go.ke to facilitate any further clarification or addendum.
8. All Tenders must be accompanied by a *NIL* Tender Security.
9. The Tenderer shall chronologically **serialize all pages** of the tender documents submitted.
10. Completed tenders must be delivered to the address below on or before **12th June 2026 at 10:00am**. Electronic Tender submission **shall not** be permitted.
11. Tenders will be opened immediately after the deadline date and time specified above. Tenders will be publicly opened in the presence of the Tenderers' designated representatives who choose

to attend at the address below.

12. Late tenders will be rejected.
13. Bidders may participate in several tenders but they will be considered for award in only one under this tender notice
14. The addresses referred to above are:

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

Physical address for hand Courier Delivery to an office or Tender Box

Kenya Rural Roads Authority,
Meru regional office,
Mwendantu Road,
P. O. Box 442-60200, Meru, Kenya.

The officer to be contacted:
Senior Supply Chain Management officer,
Email : rmmeru@kerra.go.ke

B. **Address for Submission of Tenders (Office or Tender Box)**

Physical address for hand Courier Delivery to office or Tender Box

The Regional Director,
Kenya Rural Roads Authority,
Meru Regional Office
P. O. Box 442-60200,
MERU

C. **Address for Opening of Tenders.**

Kenya Rural Roads Authority,
Meru Regional Office
P. O. Box 442-60200,
MERU

Regional Director –Meru region

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PART 1 - TENDERING PROCEDURES

SECTION I: INSTRUCTIONS TO TENDERERS

A General Provisions

1. Scope of Tender

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

2. Fraud and Corruption

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

3. Eligible Tenderers

- 3.1 A Tenderer may be a firm that is a private entity, a state-owned enterprise or institution subject to ITT 3.7 or any combination of such entities in the form of a joint venture (JV) under an existing agreement or with the intent to enter into such an agreement supported by a letter of intent. Public employees and their close relatives (*spouses, children, brothers, sisters and uncles and aunts*) are not eligible to participate in the tender. In the case of a joint venture, all members shall be jointly and severally liable for the execution of the entire Contract in accordance with the Contract terms. The JV shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the members of the JV during the tendering process and, in the event the JV is awarded the Contract, during contract execution. The maximum number of JV members shall be specified in the **TDS**.
- 3.2 Public Officers of the Procuring Entity, their Spouses, Child, Parent, Brothers or Sister. Child, Parent, Brother or Sister of a Spouse, their business associates or agents and firms/organizations in which they have a substantial or controlling interest shall not be eligible to tender or be awarded a contract. Public Officers are also not allowed to participate in any procurement proceedings.
- 3.3 A Tenderer shall not have a conflict of interest. Any tenderer found to have a conflict of interest

shall be disqualified. A tenderer may be considered to have a conflict of interest for the purpose of this tendering process, if the tenderer:

- a) Directly or indirectly controls, is controlled by or is under common control with another tenderer; or
- b) Receives or has received any direct or indirect subsidy from another tenderer; or
- c) Has the same legal representative as another tenderer; or
- d) Has a relationship with another tenderer, directly or through common third parties, that puts it in a position to influence the tender of another tenderer, or influence the decisions of the Procuring Entity regarding this tendering process; or
- e) Any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the works that are the subject of the tender; or
- f) any of its affiliates has been hired (or is proposed to be hired) by the Procuring Entity as Engineer for the Contract implementation; or
- g) Would be providing goods, works, or non-consulting services resulting from or directly related to consulting services for the preparation or implementation of the contract specified in this Tender Document or
- h) Has a close business or family relationship with a professional staff of the Procuring Entity who:
 - i) are directly or indirectly involved in the preparation of the Tender document or specifications of the Contract, and/or the Tender evaluation process of such contract; or
 - ii) would be involved in the implementation or supervision of such Contract unless the conflict stemming from such relationship has been resolved in a manner acceptable to the Procuring Entity throughout the tendering process and execution of the Contract.

3.4 A tenderer shall not be involved in corrupt, coercive, obstructive, collusive or fraudulent practice. A tenderer that is proven to have been involved any of these practices shall be automatically disqualified.

3.5 A Tenderer (either individually or as a JV member) shall not participate in more than one Tender, except for permitted alternative tenders. This includes participation as a subcontractor in other Tenders. Such participation shall result in the disqualification of all Tenders in which the firm is involved. A firm that is not a tenderer or a JV member may participate as a subcontractor in more than one tender. Members of a joint venture may not also make an individual tender, be a subcontractor in a separate tender or be part of another joint venture for the purposes of the same Tender.

3.6 A Tenderer may have the nationality of any country, subject to the restrictions pursuant to ITT 4.8. A Tenderer shall be deemed to have the nationality of a country if the Tenderer is constituted, incorporated or registered in and operates in conformity with the provisions of the laws of that country, as evidenced by its articles of incorporation (or equivalent documents of constitution or association) and its registration documents, as the case may be. This criterion also shall apply to the determination of the nationality of proposed subcontractors or sub- consultants for any part of the Contract including related Services.

3.7 Tenderer that has been debarred from participating in public procurement shall be ineligible to tender or be awarded a contract. The list of debarred firms and individuals is available from the website of PPRA www.ppra.go.ke.

3.8 Tenderers that are state-owned enterprises or institutions may be eligible to compete and be awarded a Contract(s) only if they are accredited by PPRA to be (i) a legal public entity of the state Government and/or public administration, (ii) financially autonomous and not receiving any significant subsidies or budget support from any public entity or Government, and (iii) operating under commercial law and vested with legal rights and liabilities similar to any commercial enterprise to enable it compete with firms in the private sector on an equal basis.

3.9 A Firms and individuals may be ineligible if their countries of origin (a) as a matter of law or official regulations, Kenya prohibits commercial relations with that country, or (b) by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the

United Nations, Kenya prohibits any import of goods or contracting of works or services from that country, or any payments to any country, person, or entity in that country. A tenderer shall provide such documentary evidence of eligibility satisfactory to the Procuring Entity, as the Procuring Entity shall reasonably request.

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

3.11 Pursuant to the eligibility requirements of ITT 4.10, a tender is considered a foreign tenderer, if the tenderer is not registered in Kenya or if the tenderer is registered in Kenya and has less than 51 percent ownership by Kenyan Citizens. JVs are considered as foreign tenderers if the individual member firms are not registered in Kenya or if are registered in Kenya and have less than 51 percent ownership by Kenyan citizens. The JV shall not subcontract to foreign firms more than 10 percent of the contract price, excluding provisional sums.

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

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

3.14 A Kenyan tenderer shall provide evidence of having fulfilled his/her tax obligations by producing a valid tax clearance certificate or tax exemption certificate issued by the Kenya Revenue Authority.

4. Eligible Goods, Equipment, and Services

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

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

5. Tenderer's Responsibilities

5.1 The tenderer shall bear all costs associated with the preparation and submission of his/her tender, and the Procuring Entity will in no case be responsible or liable for those costs.

5.2 The tenderer, at the tenderer's own responsibility and risk, is encouraged to visit and examine the Site of the Works and its surroundings, and obtain all information that may be necessary for preparing the tender and entering into a contract for construction of the Works. The costs of visiting the Site shall be at the tenderer's own expense.

5.3 The Tenderer and any of its personnel or agents will be granted permission by the Procuring Entity to

enter upon its premises and lands for the purpose of such visit. The Tenderer shall indemnify the Procuring Entity against all liability arising from death or personal injury, loss of or damage to property, and any other losses and expenses incurred as a result of the inspection.

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

B. Contents of Tender Documents

6. Sections of Tender Document

6.1 The tender document consists of Parts 1, 2, and 3, which includes all the sections specified below, and which should be read in conjunction with any Addenda issued in accordance with ITT 8.

PART 1 Tendering Procedures

- i) Section I - Instructions to Tenderers (ITT)
- ii) Section II - Tender Data Sheet (TDS)
- iii) Section III - Evaluation and Qualification Criteria
- iv) Section IV - Tendering Forms

PART 2 Works Requirements

- i) Section V - Drawings
- ii) Section VI - Specifications
- iii) Section VII - Bills of Quantities

PART 3 Conditions of Contract and Contract Forms

- i) Section VIII - General Conditions of Contract (GCC)
- ii) Section IX - Special Conditions of Contract (SC)
- iii) Section X - Contract Forms

6.2 The Invitation to Tender Document (ITT) issued by the Procuring Entity is not part of the Contract documents.

6.3 Unless obtained directly from the Procuring Entity, the Procuring Entity is not responsible for the completeness of the Tender document, responses to requests for clarification, the minutes of the pre-Tender meeting (if any), or Addenda to the Tender document in accordance with ITT 8. In case of any contradiction, documents obtained directly from the Procuring Entity shall prevail.

The Tenderer is expected to examine all instructions, forms, terms, and specifications in the Tender Document and to furnish with its Tender all information and documentation as is required by the Tender document.

7. Site Visit

7.1 The Tenderer, at the Tenderer's own responsibility and risk, is encouraged to visit and examine and inspect the Site of the Required Services and its surroundings and obtain all information that may be necessary for preparing the Tender and entering into a contract for the Services. The costs of visiting the Site shall be at the Tenderer's own expense.

8. Pre-Tender Meeting

8.1 The Procuring Entity shall specify in the **TDS** if a pre-tender meeting will be held, when and where. The Procuring Entity shall also specify in the **TDS** if a pre-arranged pretender site visit will be held and when. The Tenderer's designated representative is invited to attend a pre-arranged pretender visit of the site of the works. The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.

- 8.2 The Tenderer is requested to submit any questions in writing, to reach the Procuring Entity not later than the period specified in the **TDS** before the meeting.
- 8.3 Minutes of the pre-Tender meeting and the pre-arranged pretender site visit of the site of the works, if applicable, including the text of the questions asked by Tenderers and the responses given, together with any responses prepared after the meeting, will be transmitted promptly to all Tenderers who have acquired the Tender Documents in accordance with ITT 6.3. Minutes shall not identify the source of the questions asked.
- 8.4 The Procuring Entity shall also promptly publish anonymized (*no names*) Minutes of the pre-Tender meeting and the pre-arranged pretender visit of the site of the works at the web page identified in the **TDS**. Any modification to the Tender Documents that may become necessary as a result of the pre-tender meeting and the pre-arranged pretender site visit, shall be made by the Procuring Entity exclusively through the issue of an Addendum pursuant to ITT 8 and not through the minutes of the pre-Tender meeting. Nonattendance at the pre-Tender meeting will not be a cause for disqualification of a Tenderer.

9. Clarification and amendments of Tender Documents

- 9.1 A Tenderer requiring any clarification of the Tender Document shall contact the Procuring Entity in writing at the Procuring Entity's address specified in the **TDS** or raise its enquiries during the pre-Tender meeting and the pre-arranged pretender visit of the site of the works if provided for in accordance with ITT 8.4. The Procuring Entity will respond in writing to any request for clarification, provided that such request is received no later than the period specified in the **TDS** prior to the deadline for submission of tenders. The Procuring Entity shall forward copies of its response to all tenderers who have acquired the Tender Documents in accordance with ITT 6.3, including a description of the inquiry but without identifying its source. If specified in the **TDS**, the Procuring Entity shall also promptly publish its response at the web page identified in the **TDS**. Should the clarification result in changes to the essential elements of the Tender Documents, the Procuring Entity shall amend the Tender Documents appropriately following the procedure under ITT 8.4.

10. Amendment of Tendering Document

- 10.1 At any time prior to the deadline for submission of Tenders, the Procuring Entity may amend the Tendering document by issuing addenda.
- 10.2 Any addendum issued shall be part of the tendering document and shall be communicated in writing to all who have obtained the tendering document from the Procuring Entity in accordance with ITT 6.3. The Procuring Entity shall also promptly publish the addendum on the Procuring Entity's web page in accordance with ITT 8.4.
- 10.3 To give prospective Tenderers reasonable time in which to take an addendum into account in preparing their Tenders, the Procuring Entity shall extend, as necessary, the deadline for submission of Tenders, in accordance with ITT 25.2 below.

C. Preparation of Tenders

11. Cost of Tendering

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

12. Language of Tender

- 12.1 The Tender, as well as all correspondence and documents relating to the tender exchanged by the tenderer and the Procuring Entity, shall be written in the English Language. Supporting documents and

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

13. Documents Comprising the Tender

13.1 The Tender shall comprise the following:

- a) Form of Tender prepared in accordance with ITT 14;
- b) Schedules including priced Bill of Quantities, completed in accordance with ITT 14 and ITT 16;
- c) Tender Security or Tender-Securing Declaration, in accordance with ITT 21.1;
- d) Alternative Tender, if permissible, in accordance with ITT 15;
- e) Authorization: written confirmation authorizing the signatory of the Tender to commit the Tenderer, in accordance with ITT 22.3;
- f) Qualifications: documentary evidence in accordance with ITT 19 establishing the Tenderer's qualifications to perform the Contract if its Tender is accepted;
- g) Conformity: a technical proposal in accordance with ITT 18;
- h) Any other document required in the **TDS**.

13.2 In addition to the requirements under ITT 11.1, Tenders submitted by a JV shall include a copy of the Joint Venture Agreement entered into by all members. Alternatively, a letter of intent to execute a Joint Venture Agreement in the event of a successful Tender shall be signed by all members and submitted with the Tender, together with a copy of the proposed Agreement. The Tenderer shall chronologically serialize pages of all tender documents submitted.

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

14. Form of Tender and Schedules

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

15. Alternative Tenders

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

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

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

16. Tender Prices and Discounts

16.1 The prices and discounts (including any price reduction) quoted by the Tenderer in the Form of Tender

and in the Bill of Quantities shall conform to the requirements specified below.

- 16.2 The Tenderer shall fill in rates and prices for all items of the Works described in the Bill of Quantities. Items against which no rate or price is entered by the Tenderer shall be deemed covered by the rates for other items in the Bill of Quantities and will not be paid for separately by the Procuring Entity. An item not listed in the priced Bill of Quantities shall be assumed to be not included in the Tender, and provided that the Tender is determined substantially responsive notwithstanding this omission, the average price of the item quoted by substantially responsive Tenderers will be added to the Tender price and the equivalent total cost of the Tender so determined will be used for price comparison.
- 16.3 The price to be quoted in the Form of Tender, in accordance with ITT 14.1, shall be the total price of the Tender, including any discounts offered.
- 16.4 The Tenderer shall quote any discounts and the methodology for their application in the Form of Tender, in accordance with ITT 14.1.
- 16.5 It will be specified in the **TDS** if the rates and prices quoted by the Tenderer are or are not subject to adjustment during the performance of the Contract in accordance with the provisions of the Conditions of Contract, except in cases where the contract is subject to fluctuations and adjustments, not fixed price. In such a case, the Tenderer shall furnish the indices and weightings for the price adjustment formulae in the Schedule of Adjustment Data and the Procuring Entity may require the Tenderer to justify its proposed indices and weightings.
- 16.6 Where tenders are being invited for individual lots (contracts) or for any combination of lots (packages), tenderers wishing to offer discounts for the award of more than one Contract shall specify in their Tender the price reductions applicable to each package, or alternatively, to individual Contracts within the package. Discounts shall be submitted in accordance with ITT 16.4, provided the Tenders for all lots (contracts) are opened at the same time.
- 16.7 All duties, taxes, and other levies payable by the Contractor under the Contract, or for any other cause, as of the date 30 days prior to the deadline for submission of Tenders, shall be included in the rates and prices and the total Tender Price submitted by the Tenderer.

17. Currencies of Tender and Payment

- 17.1 Tenderers shall quote entirely in Kenya Shillings. The unit rates and the prices shall be quoted by the Tenderer in the Bill of Quantities, entirely in Kenya shillings. A Tenderer expecting to incur expenditures in other currencies for inputs to the Works supplied from outside Kenya shall device own ways of getting foreign currency to meet those expenditures.

18. Documents Comprising the Technical Proposal

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

19. Documents Establishing the Eligibility and Qualifications of the Tenderer

- 19.1 Tenderers shall complete the Form of Tender, included in Section IV, Tender Forms, to establish Tenderer's eligibility in accordance with ITT 4.
- 19.2 In accordance with Section III, Evaluation and Qualification Criteria, to establish its qualifications to perform the Contract the Tenderer shall provide the information requested in the corresponding information sheets included in Section IV, Tender Forms.
- 19.3 A margin of preference will not be allowed. Preference and reservations will be allowed, individually or in joint ventures. Applying for eligibility for Preference and reservations shall supply all information

required to satisfy the criteria for eligibility specified in accordance with ITT 33.1.

- 19.4 Tenderers shall be asked to provide, as part of the data for qualification, such information, including details of ownership, as shall be required to determine whether, according to the classification established by the Procuring Entity, a contractor or group of contractors qualifies for a margin of preference. Further the information will enable the Procuring Entity identify any actual or potential conflict of interest in relation to the procurement and/or contract management processes, or a possibility of collusion between tenderers, and thereby help to prevent any corrupt influence in relation to the procurement process or contract management.
- 19.5 The purpose of the information described in ITT 19.4 above overrides any claims to confidentiality which a tenderer may have. There can be no circumstances in which it would be justified for a tenderer to keep information relating to its ownership and control confidential where it is tendering to undertake public sector work and receive public sector funds. Thus, confidentiality will not be accepted by the Procuring Entity as a justification for a Tenderer's failure to disclose, or failure to provide required information on its ownership and control.
- 19.6 The Tenderer shall provide further documentary proof, information or authorizations that the Procuring Entity may request in relation to ownership and control which information on any changes to the information which was provided by the tenderer under ITT 6.3. The obligations to require this information shall continue for the duration of the procurement process and contract performance and after completion of the contract, if any change to the information previously provided may reveal a conflict of interest in relation to the award or management of the contract.
- 19.7 All information provided by the tenderer pursuant to these requirements must be complete, current and accurate as at the date of provision to the Procuring Entity. In submitting the information required pursuant to these requirements, the Tenderer shall warrant that the information submitted is complete, current and accurate as at the date of submission to the Procuring Entity.
- 19.8 If a tenderer fails to submit the information required by these requirements, its tender will be rejected. Similarly, if the Procuring Entity is unable, after taking reasonable steps, to verify to a reasonable degree the information submitted by a tenderer pursuant to these requirements, then the tender will be rejected.
- 19.9 If information submitted by a tenderer pursuant to these requirements, or obtained by the Procuring Entity (whether through its own enquiries, through notification by the public or otherwise), shows any conflict of interest which could materially and improperly benefit the tenderer in relation to the procurement or contract management process, then:
- i) if the procurement process is still ongoing, the tenderer will be disqualified from the procurement process,
 - ii) if the contract has been awarded to that tenderer, the contract award will be set aside,
 - iii) the tenderer will be referred to the relevant law enforcement authorities for investigation of whether the tenderer or any other persons have committed any criminal offence.
- 19.10 If a tenderer submits information pursuant to these requirements that is incomplete, inaccurate or out-of-date, or attempts to obstruct the verification process, then the consequences ITT 6.7 will ensue unless the tenderer can show to the reasonable satisfaction of the Procuring Entity that any such act was not material, or was due to genuine error which was not attributable to the intentional act, negligence or recklessness of the tenderer.

20. Period of Validity of Tenders

- 20.1 Tenders shall remain valid for the Tender Validity period specified in the **TDS**. The Tender Validity period starts from the date fixed for the Tender submission deadline (as prescribed by the Procuring Entity in accordance with ITT 24). A Tender valid for a shorter period shall be rejected by the

Procuring Entity as non-responsive.

20.2 In exceptional circumstances, prior to the expiration of the Tender validity period, the Procuring Entity may request Tenderers to extend the period of validity of their Tenders. The request and the responses shall be made in writing. If a Tender Security is requested in accordance with ITT 21.1, it shall also be extended for thirty (30) days beyond the deadline of the extended validity period. A Tenderer may refuse the request without forfeiting its Tender security. A Tenderer granting the request shall not be required or permitted to modify its Tender, except as provided in ITT 20.3.

20.3 If the award is delayed by a period exceeding the number of days to be specified in the **TDS** days beyond the expiry of the initial tender validity period, the Contract price shall be determined as follows:

- a) in the case of **fixed price** contracts, the Contract price shall be the tender price adjusted by the factor specified in the **TDS**;
- b) in the case of **adjustable price** contracts, no adjustment shall be made; or in any case, tender evaluation shall be based on the tender price without taking into consideration the applicable correction from those indicated above.

21. Tender Security

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

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

- a) an unconditional Bank Guarantee issued by reputable commercial bank); or
- b) an irrevocable letter of credit;
- c) a Banker's cheque issued by a reputable commercial bank; or
- d) another security specified **in the TDS**,

21.3 If an unconditional bank guarantee is issued by a bank located outside Kenya, the issuing bank shall have a correspondent bank located in Kenya to make it enforceable. The Tender Security shall be valid for thirty (30) days beyond the original validity period of the Tender, or beyond any period of extension if requested under ITT 20.2.

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

21.5 If a Tender Security is specified pursuant to ITT 21.1, the Tender Security of unsuccessful Tenderers shall be returned as promptly as possible upon the successful Tenderer's signing the Contract and furnishing the Performance Security and any other documents required in the **TDS**. The Procuring Entity shall also promptly return the tender security to the tenderers where the procurement proceedings are terminated, all tenders were determined nonresponsive or a bidder declines to extend tender validity period.

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

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

- e) if a Tenderer withdraws its Tender during the period of Tender validity specified by the Tenderer on the Form of Tender, or any extension thereto provided by the Tenderer; or
- f) if the successful Tenderer fails to:

- i) sign the Contract in accordance with ITT 50; or
- ii) furnish a Performance Security and if required in the **TDS**, and any other documents required in the **TDS**.

21.8 Where tender securing declaration is executed, the Procuring Entity shall recommend to the PPRA that PPRA debar the Tenderer from participating in public procurement as provided in the law.

21.9 The Tender Security or the Tender-Securing Declaration of a JV shall be in the name of the JV that submits the Tender. If the JV has not been legally constituted into a legally enforceable JV at the time of tendering, the Tender Security or the Tender-Securing Declaration shall be in the names of all future members as named in the letter of intent referred to in ITT 4.1 and ITT 11.2.

21.10 A tenderer shall not issue a tender security to guarantee itself.

22. Format and Signing of Tender

22.1 The Tenderer shall prepare one original of the documents comprising the Tender as described in ITT 13 and clearly mark it "ORIGINAL." Alternative Tenders, if permitted in accordance with ITT 15, shall be clearly marked "ALTERNATIVE." In addition, the Tenderer shall submit copies of the Tender, in the number specified in the **TDS** and clearly mark them "COPY." In the event of any discrepancy between the original and the copies, the original shall prevail.

22.2 Tenderers shall mark as "CONFIDENTIAL" all information in their Tenders which is confidential to their business. This may include proprietary information, trade secrets, or commercial or financially sensitive information.

22.3 The original and all copies of the Tender shall be typed or written in indelible ink and shall be signed by a person duly authorized to sign on behalf of the Tenderer. This authorization shall consist of a written confirmation as specified in the **TDS** and shall be attached to the Tender. The name and position held by each person signing the authorization must be typed or printed below the signature. All pages of the Tender where entries or amendments have been made shall be signed or initialed by the person signing the Tender.

22.4 In case the Tenderer is a JV, the Tender shall be signed by an authorized representative of the JV on behalf of the JV, and to be legally binding on all the members as evidenced by a power of attorney signed by their legally authorized representatives.

22.5 Any inter-lineation, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the Tender.

D. Submission and Opening of Tenders

23. Sealing and Marking of Tenders

23.1 Depending on the sizes or quantities or weight of the tender documents, a tenderer may use an envelope, package or container. The Tenderer shall deliver the Tender in a single sealed envelope, or in a single sealed package, or in a single sealed container bearing the name and Reference number of the Tender, addressed to the Procuring Entity and a warning not to open before the time and date for Tender opening date. Within the single envelope, package or container, the Tenderer shall place the following separate, sealed envelopes:

- a) In an envelope or package or container marked "ORIGINAL", all documents comprising the Tender, as described in ITT 11; and
- b) In an envelope or package or container marked "COPIES", all required copies of the Tender; and
- c) If alternative Tenders are permitted in accordance with ITT 15, and if relevant:
 - i) In an envelope or package or container marked "ORIGINAL –ALTERNATIVE TENDER", the alternative Tender; and

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

The inner envelopes or packages or containers shall:

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

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

24. Deadline for Submission of Tenders

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

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

25. Late Tenders

25.1 The Procuring Entity shall not consider any Tender that arrives after the deadline for submission of tenders, in accordance with ITT 24. 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.

26. Withdrawal, Substitution, and Modification of Tenders

26.1 A Tenderer may withdraw, substitute, or modify its Tender after it has been submitted by sending a written notice, duly signed by an authorized representative, and shall include a copy of the authorization in accordance with ITT 22.3, (except that withdrawal notices do not require copies). The corresponding substitution or modification of the Tender must accompany the respective written notice. All notices must be:

- a) prepared and submitted in accordance with ITT 22 and ITT 23 (except that withdrawals notices do not require copies), and in addition, the respective envelopes shall be clearly marked “WITHDRAWAL,” “SUBSTITUTION,” “MODIFICATION;” and
- b) received by the Procuring Entity prior to the deadline prescribed for submission of Tenders, in accordance with ITT 24.

26.2 Tenders requested to be withdrawn in accordance with ITT 26.1 shall be returned unopened to the Tenderers.

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

27. Tender Opening

27.1 Except in the cases specified in ITT 23 and ITT 26.2, the Procuring Entity shall publicly open and read out all Tenders received by the deadline, at the date, time and place specified in the **TDS**, in the presence of Tenderers' designated representatives who chooses to attend. Any specific electronic Tender opening procedures required if electronic Tendering is permitted in accordance with ITT 24.1, shall be as specified in the **TDS**.

- 27.2 First, envelopes marked “WITHDRAWAL” shall be opened and read out and the envelopes with the corresponding Tender shall not be opened, but returned to the Tenderer. No Tender withdrawal shall be permitted unless the corresponding withdrawal notice contains a valid authorization to request the withdrawal and is read out at Tender opening.
- 27.3 Next, envelopes marked “SUBSTITUTION” shall be opened and read out and exchanged with the corresponding Tender being substituted, and the substituted Tender shall not be opened, but returned to the Tenderer. No Tender substitution shall be permitted unless the corresponding substitution notice contains a valid authorization to request the substitution and is read out at Tender opening.
- 27.4 Next, envelopes marked “MODIFICATION” shall be opened and read out with the corresponding Tender. No Tender modification shall be permitted unless the corresponding modification notice contains a valid authorization to request the modification and is read out at Tender opening.
- 27.5 Next, all remaining envelopes shall be opened one at a time, reading out: the name of the Tenderer and whether there is a modification; the total Tender Price, per lot (contract) if applicable, including any discounts and alternative Tenders; the presence or absence of a Tender Security or Tender-Securing Declaration, if required; and any other details as the Procuring Entity may consider appropriate.
- 27.6 Only Tenders, alternative Tenders and discounts that are opened and read out at Tender opening shall be considered further for evaluation. The Form of Tender and pages of the Bills of Quantities are to be initialed by the members of the tender opening committee attending the opening. The number of representatives of the Procuring Entity to sign shall be specified in the **TDS**.
- 27.7 At the Tender Opening, the Procuring Entity shall neither discuss the merits of any Tender nor reject any Tender (except for late Tenders, in accordance with ITT 25.1).
- 27.8 The Procuring **Entity shall prepare minutes of the Tender Opening that shall include, as a minimum:**
- a) the name of the Tenderer and whether there is a withdrawal, substitution, or modification;
 - b) the Tender Price, per lot (contract) if applicable, including any discounts;
 - c) any alternative Tenders;
 - d) the presence or absence of a Tender Security, if one was required.
 - e) number of pages of each tender document submitted.
- 27.9 The Tenderers' representatives who are present shall be requested to sign the minutes. The omission of a Tenderer's signature on the minutes shall not invalidate the contents and effect of the minutes. A copy of the tender opening register shall be distributed to all Tenderers upon request.

E. Evaluation and Comparison of Tenders

28. Confidentiality

- 28.1 Information relating to the evaluation of Tenders and recommendation of contract award shall not be disclosed to Tenderers or any other persons not officially concerned with the Tender process until information on Intention to Award the Contract is transmitted to all Tenderers in accordance with ITT 46.
- 28.2 Any effort by a Tenderer to influence the Procuring Entity in the evaluation of the Tenders or Contract award decisions may result in the rejection of its tender.
- 28.3 Notwithstanding ITT 28.2, from the time of tender opening to the time of contract award, if a tenderer wishes to contact the Procuring Entity on any **matter related to the tendering process, it shall do so in writing.**

29. Clarification of Tenders

- 29.1 To assist in the examination, evaluation, and comparison of the tenders, and qualification of the tenderers, the Procuring Entity may, at its discretion, ask any tenderer for a clarification of its tender, given a reasonable time for a response. Any clarification submitted by a tenderer that is not in response to a request by the Procuring Entity shall not be considered. The Procuring Entity's request for clarification and the response shall be in writing. No change, including any voluntary increase or decrease, in the prices or substance of the tender shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered by the Procuring Entity in the evaluation of the tenders, in accordance with ITT 33.
- 29.2 If a tenderer does not provide clarifications of its tender by the date and time set in the Procuring Entity's request for clarification, its Tender may be rejected.

30. Deviations, Reservations, and Omissions

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

31. Determination of Responsiveness

- 31.1 The Procuring Entity's determination of a Tender's responsiveness is to be based on the contents of the tender itself, as defined in ITT 13.
- 31.2 A substantially responsive Tender is one that meets the requirements of the Tender document without material deviation, **reservation, or omission. A material deviation, reservation, or omission is one that, if accepted, would:**
- a) Affect in any substantial way the scope, quality, or performance of the Works specified in the Contract; or
 - b) Limit in any substantial way, inconsistent with the tender document, the Procuring Entity's rights or the tenderer's obligations under the proposed contract; or
 - c) If rectified, would unfairly affect the competitive position of other tenderers presenting substantially responsive tenders.
- 31.3 The Procuring Entity shall examine the technical aspects of the tender submitted in accordance with ITT 18, to confirm that all requirements of Section VII, Works' Requirements have been met without any material deviation, reservation or omission.
- 31.4 If a tender is not substantially responsive to the requirements of the tender document, it shall be rejected by the Procuring Entity and may not subsequently be made responsive by correction of the material deviation, reservation, or omission.

32. Non-material Non-conformities

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

its tender.

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

33. Arithmetical Errors

33.1 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.

33.2 Provided that the Tender is substantially responsive, the Procuring Entity shall handle errors on the following basis:

- a) Any error detected if considered a major deviation that affects the substance of the tender, shall lead to disqualification of the tender as non-responsive.
- b) Any errors in the submitted tender arising from a miscalculation of unit price, quantity, and subtotal and total bid price shall be considered as a major deviation that affects the substance of the tender and shall lead to disqualification of the tender as non-responsive. and
- c) If there is a discrepancy between words and figures, the amount in words shall prevail

33.3 Tenderers shall be notified of any error detected in their bid during the notification of a ward.

34. Currency provisions

34.1 Tenders will priced be in Kenya Shillings only. Tenderers quoting in currencies other than in Kenya shillings will be determined non-responsive and rejected.

35. Margin of Preference and Reservations

35.1 No margin of preference shall be allowed on contracts for small works.

35.2 Where it is intended to reserve the contract to specific groups under Small and Medium Enterprises, or enterprise of women, WOMEN and/or persons living with disability, who are appropriately registered as such by the authority to be specified in the **TDS**, a procuring entity shall ensure that the invitation to tender specifically indicates that only businesses/firms belonging to those specified groups are the only ones eligible to tender. Otherwise if no so stated, the invitation will be open to all tenderers.

36. Nominated Subcontractors

36.1 Unless otherwise stated in the **TDS**, the Procuring Entity does not intend to execute any specific elements of the Works by subcontractors selected in advance by the Procuring Entity.

36.2 Tenderers may propose subcontracting up to the percentage of total value of contracts or the volume of works as specified in the **TDS**. Subcontractors proposed by the Tenderer shall be fully qualified for their parts of the Works.

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

37. Evaluation of Tenders

37.1 The Procuring Entity shall use the criteria and methodologies listed in this ITT and Section III, Evaluation and Qualification Criteria. No other evaluation criteria or methodologies shall be permitted. By applying the criteria and methodologies the Procuring Entity shall determine the Best Evaluated

Tender in accordance with ITT 40.

37.2 To evaluate a Tender, the Procuring Entity shall consider the following:

- a) Price adjustment due to discounts offered in accordance with ITT 16;
- b) converting the amount resulting from applying (a) and (b) above, if relevant, to a single currency in accordance with ITT 39;
- c) Price adjustment due to quantifiable nonmaterial non-conformities in accordance with ITT 30.3; and
- d) Any additional evaluation factors specified **in the TDS** and Section III, Evaluation and Qualification Criteria.

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

37.4 In the case of multiple contracts or lots, Tenderers shall be allowed to tender for one or more lots and the methodology to determine the lowest evaluated cost of the lot (contract) combinations, including any discounts offered in the **Form of Tender, is specified in Section III, Evaluation and Qualification Criteria.**

38. Comparison of Tenders

38.1 The Procuring Entity shall compare the evaluated costs of all substantially responsive Tenders established in accordance with ITT 38.2 to determine the Tender that has the lowest evaluated cost.

39. Abnormally Low Tenders

39.1 An Abnormally Low Tender is one where the Tender price, in combination with other elements of the Tender, appears so low that it raises material concerns as to the capability of the Tenderer in regards to the Tenderer's ability to perform the Contract for the offered Tender Price or that genuine competition between Tenderers is compromised.

39.2 In the event of identification of a potentially Abnormally Low Tender, the Procuring Entity shall seek written clarifications from the Tenderer, including detailed price analyses of its Tender price in relation to the subject matter of the contract, scope, proposed methodology, schedule, allocation of risks and responsibilities and any other requirements of the Tender document.

39.3 After evaluation of the price analyses, in the event that the Procuring Entity determines that the Tenderer has failed to demonstrate its capability to perform the Contract for the offered Tender Price, the Procuring Entity shall reject the Tender.

40. Abnormally High Tenders

40.1 An abnormally high price is one where the tender price, in combination with other constituent elements of the Tender, appears unreasonably too high to the extent that the Procuring Entity is concerned that it (the Procuring Entity) may not be getting value for money or it may be paying too high a price for the contract compared with market prices or that genuine competition between Tenderers is compromised.

40.2 In case of an abnormally high tender price, the Procuring Entity shall make a survey of the market prices, check if the estimated cost of the contract is correct and review the Tender Documents to check if the specifications, scope of work and conditions of contract are contributory to the abnormally high tenders. The Procuring Entity may also seek written clarification from the tenderer on the reason for the high tender price. The Procuring Entity shall proceed as follows:

- i) If the tender price is abnormally high based on wrong estimated cost of the contract, the Procuring Entity may accept or not accept the tender depending on the Procuring Entity's budget considerations.
- ii) If specifications, scope of work and/or conditions of contract are contributory to the abnormally high tender prices, the Procuring Entity shall reject all tenders and may retender

for the contract based on revised estimates, specifications, scope of work and conditions of contract, as the case may be.

40.3 If the Procuring Entity determines that the Tender Price is abnormally too high because genuine competition between tenderers is compromised (*often due to collusion, corruption or other manipulations*), the Procuring Entity shall reject all Tenders and shall institute or cause competent Government Agencies to institute an investigation on the cause of the compromise, before retendering.

41. Unbalanced and/or Front-Loaded Tenders

41.1 If in the Procuring Entity's opinion, the Tender that is evaluated as the lowest evaluated price is seriously unbalanced and/or front loaded, the Procuring Entity may require the Tenderer to provide written clarifications. Clarifications may include detailed price analyses to demonstrate the consistency of the tender prices with the scope of works, proposed methodology, schedule and any other requirements of the Tender document.

41.2 After the evaluation of the information and detailed price analyses presented by the Tenderer, the Procuring Entity may as appropriate:

- a) Accept the Tender; or
- b) Require that the total amount of the Performance Security be increased at the expense of the Tenderer to a level not exceeding a 30% of the Contract Price; or
- c) Agree on a payment mode that eliminates the inherent risk of the Procuring Entity paying too much for undelivered works; or
- d) Reject the Tender,

42. Qualifications of the Tenderer

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

42.2 The determination shall be based upon an examination of the documentary evidence of the Tenderer's qualifications submitted by the Tenderer, pursuant to ITT 19. The determination shall not take into consideration the qualifications of other firms such as the Tenderer's subsidiaries, parent entities, affiliates, subcontractors (other than Specialized Subcontractors if permitted in the Tender document), or any other firm(s) different from the Tenderer.

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

42.4 An Abnormally Low Tender is one where the Tender price, in combination with other elements of the Tender, appears so low that it raises material concerns as to the capability of the Tenderer in regards to the Tenderer's ability to perform the Contract for the offered Tender Price.

42.5 In the event of identification of a potentially Abnormally Low Tender, the Procuring Entity shall seek written clarifications from the Tenderer, including detailed price analyses of its Tender price in relation to the subject matter of the contract, scope, proposed methodology, schedule, allocation of risks and responsibilities and any other requirements of the Tender document.

42.6 After evaluation of the price analyses, if the Procuring Entity determines that the Tenderer has failed to demonstrate its capability to perform the Contract for the offered Tender Price, the Procuring Entity shall reject the Tender.

43. Best Evaluated Tender

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

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

44. Procuring Entity's Right to Accept Any Tender, and to Reject Any or All Tenders.

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

F. Award of Contract

45. Award Criteria

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

46. Notice of Intention to enter into a Contract

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

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

47. Standstill Period

47.1 The Contract shall not be signed earlier than the expiry of a Standstill Period of fourteen (14) days to allow any dissatisfied tender to launch a complaint. Where only one Tender is submitted, the Standstill Period shall not apply.

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

48. Debriefing by the Procuring Entity

48.1 On receipt of the Procuring Entity's Notification of Intention to Enter into a Contract referred to in ITT 46, an unsuccessful tenderer may make a written request to the Procuring Entity for a debriefing on specific issues or concerns regarding their tender. The Procuring Entity shall provide the debriefing within five days of receipt of the request.

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

49. Letter of Award

49.1 Prior to the expiry of the Tender Validity Period and upon expiry of the Standstill Period specified in ITT 42.1, upon addressing a complaint that has been filed within the Standstill Period, the Procuring

Entity shall transmit the Letter of Award to the successful Tenderer. The letter of award shall request the successful tenderer to furnish the Performance Security within 21 days of the date of the letter.

50. Signing of Contract

50.1 Upon the expiry of the fourteen days of the Notification of Intention to enter into contract and upon the parties meeting their respective statutory requirements, the Procuring Entity shall send the successful Tenderer the Contract Agreement.

50.2 Within fourteen (14) days of receipt of the Contract Agreement, the successful Tenderer shall sign, date, and return it to the Procuring Entity.

50.3 The written contract shall be entered into within the period specified in the notification of award and before expiry of the tender validity period

51. Appointment of Adjudicator

51.1 The Procuring Entity proposes the person named in the **TDS** to be appointed as Adjudicator under the Contract, at the hourly fee specified in the **TDS**, plus reimbursable expenses. If the Tenderer disagrees with this proposal, the Tenderer should so state in his Tender. If, in the Letter of Acceptance, the Procuring Entity does not agree on the appointment of the Adjudicator, the Procuring Entity will request the Appointing Authority designated in the Special Conditions of Contract (SCC) pursuant to Clause 23.1 of the General Conditions of Contract (GCC), to appoint the Adjudicator.

52. Performance Security

52.1 Within twenty-one (21) days of the receipt of the Letter of Acceptance from the Procuring Entity, the successful Tenderer shall furnish the Performance Security and, any other documents required in the **TDS**, in accordance with the General Conditions of Contract, subject to ITT 40.2 (b), using the Performance Security and other Forms included in Section X, Contract Forms, or another form acceptable to the Procuring Entity. A foreign institution providing a bank guarantee shall have a correspondent financial institution located in Kenya, unless the Procuring Entity has agreed in writing that a correspondent bank is not required.

52.2 Failure of the successful Tenderer to submit the above-mentioned Performance Security and other documents required in the **TDS**, or sign the Contract shall constitute sufficient grounds for the annulment of the award and forfeiture of the Tender Security. In that event the Procuring Entity may award the Contract to the Tenderer offering the next Best Evaluated Tender.

52.3 Performance security shall not be required for contracts estimated to cost less than Kenya shillings five million shillings.

53. Publication of Procurement Contract

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

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

54. Procurement Related Complaints and Administrative Review

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

54.2A request for administrative review shall be made in the form provided under contract forms.

Section II - Tender Data Sheet (TDS)

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

ITT REFERENCE	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
	A. General
ITT 1.1	The name of the contract is Labour Based Rehabilitation and Improvement, and Performance Based Routine Maintenance Works for Gichanine – Mariara (D1190) Road - Ntuti Primary School CSR Project The Tender Number is AFD/EU/ME/GR/2/2023/24 Engineer's Estimate 1,000,000
ITT 2.0	<i>Add the following paragraph.</i> 2.5: The tenderer shall read and understand the AFD Policy on Corrupt and Fraudulent Practices and Environmental and Social Responsibility. In addition, they shall include a declaration not to engage in any corrupt or fraudulent practices and implement environmental and social risks mitigation measures as per the Environmental and Social Management Plan (ESMP)
ITT 2.3	The Information made available on competing firms is as follows: N/A
ITT 2.4	The firms that provided consulting services for the contract being tendered for are: RUNJI CONSULTING GROUP LTD P. O. Box 68053-00200, Nairobi.
ITT 3.1	Maximum number of members in the Joint Venture (JV) shall be: N/A .
	B. Contents of Tender Document
8.1	There shall be NO Pre-Tender site meeting. However, a Pre-arranged Pre-Tender site visit is MANDATORY at a venue, date and time specified in the long advert of this bid, and Bidders are required to thereafter collect a duly signed Pre-Tender Site Visit Certificate from the KeRRA Regional Director as indicated in the Instruction to Bidders
ITT 8.2	The Tenderer will submit any questions in writing, to reach the Procuring Entity not later than 14 days before the date of tender opening. N/A
ITT 8.4	The Procuring Entity's website where Minutes of the pre-tender meeting and the pre-arranged pretender site visit will be published is: N/A
ITT 9.1	For Clarification purposes and obtaining further information, - The Procuring Entity's address is: Kenya Rural Roads Authority, MERU Regional office - Meru P. O. Box 442-60200, MERU, Kenya Email: meru@kerra.go.ke - Physical address for hand courier delivery to an office or Tender Box Kenya Rural Roads Authority, MERU Regional office - Meru P. O. Box 442-60200, MERU, Kenya Email: meru@kerra.go.ke The Tenderer will submit any questions in writing, to reach the Procuring Entity <u>not later than 14 days prior to the submission deadline.</u>
	C. Preparation of Tenders

ITT REFERENCE	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
ITT13.1 (h)	The Tenderer shall submit the following additional documents in its Tender: - Certified Copy of Certificate of incorporation under Companies Act (from a Commissioner of Oaths) - Current Certified copy of Form CR12 (List of Directors) issued by the Registrar of Companies (from a Commissioner of Oaths) - Current Certificate of Registration with National Construction Authority building in the Category “NCA 6, 7 or 8” and a valid Practicing License. - Provide proof of overall financial soundness (attach bank statements, letter of credit & signed and stamped audited accounts for the last 3 years). - Minimum average annual construction works turnover for the last 3 years – KES 20 Million; - Access to or has available liquid assets minimum - KES 5.0 Million. - Certified copies of log books or current lease agreement of appropriate Equipment (see the list on standard form EQU) (from a Commissioner of Oaths) - Certified copy of Valid Tax Compliance Certificate from Kenya Revenue Authority (KRA) (from a Commissioner of Oaths) - Address of the Principal place of Business - Authority to seek references from Tenderer’s Bankers (the letter should be written in Tenderer’s letterhead and copied to their bank) - Written Power of Attorney authorising the signatory of the bid to commit the bidder witnessed by a Commissioner of Oaths. - Additionally, the tenderer is required to comply with AfD’s policy on integrity, environmental and social responsibility.
ITT 15.1	Alternative Tenders <i>shall not be</i> considered.
ITT 15.2	Alternative times for completion <i>shall not be</i> permitted.
ITT 15.4	Alternative technical solutions shall be permitted for the following parts of the Works: <i>N/A</i>
ITT 16.5	The prices quoted by the Tenderer <i>shall be fixed</i>
ITT 16.7	Add the following The Employer will assist in initiating the process of tax exemption certificate for VAT. Bidders should note that the withholding income tax (3%) will apply as per the law.
ITT 20.1	The Tender validity period shall be 210 days.
ITT 20.3 (a)	(a N/A
ITT 21.1	A Tender Security <i>shall not be</i> required. If a Tender Security shall be required, the amount and currency of the Tender Security shall be <u>Nil per Tender document</u>
ITT 21.2 (d)	Another security specified: A guarantee from an insurance company registered and licensed by the Insurance Regulatory Authority
ITT 21.5	On the Performance Security, other documents required shall be an Unconditional Demand Bank Guarantee
ITT 22.1	In addition to the original of the Tender, the number of copies is: 1 (One)
ITT 22.3	The written confirmation of authorization to sign on behalf of the Tenderer shall consist of:

ITT REFERENCE	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
	written power of attorney drawn by commissioner of oaths and signed by the Directors providing the power of attorney.
D. Submission and Opening of Tenders	
ITT 24.1	(A) For <u>Tender submission purposes only</u>, the Procuring Entity's address is: Kenya Rural Roads Authority, MERU Regional office - Meru P. O. Box 442-60200, MERU, Kenya Email: meru@kerra.go.ke The Tenders must be submitted no later than: Date 12th June 2026 Time: 10:00AM EAT Tenderers shall not submit tenders electronically.
ITT 27.1	The Tender opening shall take place at the time and the address for Opening of Tenders provided below: Kenya Rural Roads Authority, MERU Regional office - Meru P. O. Box 442-60200, MERU, Kenya Email: meru@kerra.go.ke Date and time of tender opening. Date: 12th June 2026 Time: 10.00 AM EAT
ITT 27.1	If Tenderers are allowed to submit Tenders electronically, they shall follow the electronic tender submission procedures <i>N/A</i>
ITT 27.6	The number of representatives of the Procuring Entity to sign is All members of the opening committee.
E. Evaluation, and Comparison of Tenders	
ITT 32.3	The adjustment shall be based on the highest price of the item or component as quoted in other substantially responsive Tenders. If the price of the item or component cannot be derived from the price of other substantially responsive Tenders, the Procuring Entity shall use its best estimate.
ITT 35.2	The invitation to tender is extended to the following groups that qualify for Reservations - N/A
ITT 36.2	Contractor's may propose subcontracting: Maximum percentage of subcontracting permitted is: 0% of the total contract amount.
ITT 51.1	The person named to be appointed as Adjudicator is as nominated by the Procuring Entity who is registered by the CIARB at an hourly fee <u>as provided by CIARB</u>
ITT 52.2	Other documents required are: Form No. 8 Beneficial Ownership Disclosure Form.
ITT 54.1	The procedures for making a Procurement-related Complaints are detailed in the "Regulations" available from the PPRA Website www.ppra.go.ke or email complaints@ppra.go.ke. If a Tenderer wishes to make a Procurement-related Complaint, the Tenderer should submit its complaint following these procedures, in writing (by the quickest means available, that is either by hand delivery or email to: For the attention: [Director General] Title/position: [Director General] Procuring Entity: [Kenya Rural Roads Authority <i>KeRRA</i>] Email address: [procurement@kerra.go.ke] In summary, a Procurement-related Complaint may challenge any of the following:

ITT REFERENCE	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
	(i) the terms of the Tender Documents; and (ii) the Procuring Entity's decision to award the contract.

SECTION III - EVALUATION AND QUALIFICATION CRITERIA

1. Evaluation and contract award Criteria

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

2. Preliminary examination for Determination of Responsiveness

The Procuring Entity will be examining all tenders to ensure they meet in all respects the eligibility criteria and other requirements in the ITT, and that the tender is complete in all aspects in meeting the requirements of “Part 2 – Procuring Entity's Works Requirements”, including checking for tenders with unacceptable errors, abnormally low tenders, abnormally high tenders and tenders that are front loaded. Tenders that do not pass the Preliminary Examination will be considered irresponsible and will not be considered further.

A. PRELIMINARY EXAMINATION

Tenderers shall provide evidence satisfactory to the Employer of their eligibility and of their capability and adequacy of resources to effectively carry out the subject Contract. To this end, the tenderer shall be required to provide latest information set out below:

Table 1:

Item No.	Evaluation Criteria / Condition / Requirement Description	Clause Ref.	Requirement Priority
A. PRELIMINARY EVALUATION CRITERIA			
1)	Provide a Tender Security of Kshs. 0 in the required format. The tender guarantee (security) will remain in force up to and including thirty (30) days after the end of the two hundred and ten (210) days, from the date of Tender opening. a) A bank guarantee; or b) A guarantee by an insurance company registered and licensed by the insurance regulatory authority listed by the authority; or c) A guarantee (irrevocable letter of credit or bankers' cheque) issued by a financial institution approved and licensed by the Central Bank of Kenya, from a reputable source, and an eligible country.	ITT 21.0 ITT 11.1 TDS ITT 21.1 – 21.2 SECTION IV: 10	N/A
2)	Properly and dully filled, signed and stamped Form of Tender by the authorized person through the power of attorney. with a bid validity of two hundred and ten (210) days, from the date of Tender opening. In addition: a) The Tenderer must prepare this Form of Tender on stationery with its letterhead clearly showing the Tenderer's complete name and business address. b) The Form of Tender shall include the following Forms duly completed and signed by the Tenderer. - Properly and dully filled, signed and stamped Tenderer's Eligibility; Confidential Business Questionnaire – to establish that the Tenderer are not in any conflict to interest.	ITT 13.1 (a) ITT 19.1 and 19.2 TDS ITT 13.1(h): (j) ITT 14 SECTION IV: (5) – (9)	Must be submitted

Item No.	Evaluation Criteria / Condition / Requirement Description	Clause Ref.	Requirement Priority
	- Properly and dully filled, signed and stamped Certificate of Independent Tender Determination – to declare that the Tenderer completed the tender without colluding with other tenderers. - Properly and dully filled, signed and stamped Self-Declaration of the Tenderer– to declare that the Tenderer will, if awarded a contract, not engage in any form of fraud and corruption. - Properly and dully filled, signed and stamped Declaration and commitment to the Code of Ethics for Persons Participating in Public Procurement and Asset Disposal 2015. c) Person signing the Tender shall have the power of attorney given by the Tenderer to be attached with the Tender		
3)	Certified Certificate of Incorporation issued by Registrar of Companies (from a Commissioner of Oaths).	TDS ITT 13.1 (h): (a)	Must be submitted
4)	Current Certified CR12 Certificate (<i>dated within 6 Months before date of opening by a Commissioner of Oaths</i>) from the Registrar of Companies. This should be provided with Identification Documents of Directors and all individuals listed on the CR12. (<i>ID or Passport</i>). For Corporate Directors, CR12 or its equivalent for the corporate directors, Identification Documents for the corporate Director and its directors MUST be provided. Certified by a Commissioner of Oath	TDS ITT 13.1 (h): (b)	Must be submitted
5)	Valid certified Current Single Business permit (Certified by a Commissioner of Oath)	TDS ITT 13.1 (h): (h)	Must be submitted
6)	Valid Tax Compliance Certificate.	TDS ITT 13.1 (h): (g)	Must be submitted
7)	Current Certificate of Registration with National Construction Authority building in the Category “NCA 6,7 or 8” together with a valid NCA practicing license	TDS ITT 13.1 (h): (d)	Must be submitted
8)	Pre-Tender Site Visit Certificate duly endorsed by the Authorized KeRRA Staff.	ITT 8 TDS ITT 8.1	Must be submitted
9)	Certified copies of Training Certificates of one Director and two Technical Supervisors who have completed Labour Based Course (Gravel) offered by Kenya Institute of Highways and Building Technology (KIHBT) or Kisii Training Center (KTC) (certified by a Commissioner of Oaths)	TDS ITT 13.1 (h): (c)	Not a Must be submitted
10)	Submit a written power of attorney authorizing the signatory of the bid to commit the Bidder Witnessed by a Commissioner of Oaths and signed by the firm’s directors.	ITT 19.1 TDS ITT 13.1 (h): (h)	Must be submitted
11)	Chronological Serialization of all the pages of the tender document (<i>this should be sequential in the format of 1,2,3,4,5.....</i>) from the first page to the last page.		Must be Serialized

Item No.	Evaluation Criteria / Condition / Requirement Description		Clause Ref.	Requirement Priority
12)	The Tender submission SHALL be as follows: - One Original hard copy clearly marked “ORIGINAL”, - One hard copy CLEARLY marked “COPY”		ITT 22.1 TDS ITT 22.1	Must be submitted
13)	Provide Properly and dully filled, signed and stamped proof of Eligible Goods, Equipment, and Services (<i>Bidders to demonstrate that goods, equipment and services to be supplied under the contract to have their origin in any country that is not determined ineligible under ITT 4.1</i>).		ITT 4.0 TDS ITT 13.1 (h): (f) SECTION IV: Form EQU	Must be submitted
14)	Provide a Properly and dully filled, signed and stamped proof of having not been declared ineligible by the PPRA as described in ITT 3.7		ITT 3.7	Must be submitted
15)	Submission of Audited Accounts to the Employer, for the last three [3] years to demonstrate: the current soundness of the applicant’s financial position and its prospective long-term profitability, and capacity to have a cash flow amount, turnover and working capital (<i>attach valid license of the auditor from ICPAK</i>),		TDS ITT 13.1(h) – (e) SECTION IV: Form FIN 4	Must be submitted
16)	Provide a Properly and dully filled, signed and stamped Bill of Quantities (<i>any alterations should be counter-signed by the authorized person</i>)		ITT 16.2	Must be Filled
17)	Provide a properly and dully filled, signed and stamped, the following schedules of supplementary information. NOTE: <i>Bidders should not alter the format of any of the forms under this section. Any alteration shall lead to disqualification of the bid</i>			
17a	FORM EQU:	Properly and dully filled, signed and stamped form of Equipment (<i>A separate Form shall be prepared for each item of equipment listed, or for alternative equipment proposed by the Tenderer</i>)	ITT 4; TDS ITT 13.1(h) – (f)	Must be Filled
17b	FORM PER 1 & 2:	Properly and dully filled, signed and stamped Contractor's Representative and Key Personnel Schedule (<i>Tenderers should provide the names and details of the suitably qualified Contractor's Representative and Key Personnel to perform the Contract separately for each personnel/ candidate; with declaration for both parties; data on their experience should be provided</i>).	ITT 18	Must be Filled
17c	FORM 4:	Properly and dully filled, signed and stamped form of tenderers qualification without pre-qualification.	ITT 13.1 ITT 18.0	Must be Filled
17d	FORM ELI-1.1	Properly and dully filled, signed and stamped form of Tenderer Information FORM ELI-1.1 (Properly and dully filled, signed and stamped form of Tenderer Information) Attach copies of original documents of [<i>check the box(es) of the</i>	ITT 13.1 ITT 18 SECTION IV: FORM ELI-1.1	Must be Filled

Item No.	Evaluation Criteria / Condition / Requirement Description		Clause Ref.	Requirement Priority
		<i>attached original documents]</i> 1) Articles of incorporation (or equivalent documents of constitution or association), and /or documents of registration of the legal entity named above, in accordance with ITT 4.4. 2) A current tax clearance certificate or tax exemption certificate issued by the Kenya Revenue Authority, if tender s a Kenyan tenderer, in accordance with ITT 4.15. 3) In case of state-owned enterprise or institution, in accordance with ITT 4.6 documents establishing: Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.		
17e	FORM CON- 2	Properly and dully filled, signed and stamped form of Historical Contract Non-Performance, Pending Litigation and Litigation History	ITT 18 SECTION IV: FORM CON-2	Must be Filled
17f	FORM FIN -3.1	Properly and dully filled, signed and stamped of Financial Situation and Performance	ITT 18 SECTION IV: FORM FIN 3.1	Must be Filled
		Properly and dully filled, signed and stamped form of Sources of Finance		
		Properly and dully filled, signed and stamped form of financial documents		
17g	FORM FIN – 3.2	Properly and dully filled, signed and stamped form of Average Annual Construction Turnover	ITT 18 SECTION IV: FORM FIN 3.2	Must be Filled
17h	FORM FIN –3.3	Properly and dully filled, signed and stamped form of Financial Resources	ITT 18 SECTION IV: FORM FIN 3.3	Must be Filled
17i	FORM FIN-3.4	Properly and dully filled, signed and stamped form of Current Contract Commitments / Works in Progress	ITT 18 SECTION IV: FORM FIN 3.4	Must be Filled
17j	FORM EXP-4.1	Properly and dully filled, signed and stamped form of General Construction Experience	ITT 18.0 SECTION IV: FORM- EXP 4.1	Must be Filled
17k	FORM EXP - 4.2(a)	Properly and dully filled, signed and stamped of Specific Construction and Contract Management Experience.	ITT 18.0 SECTION IV: FORM- EXP 4.2 (a)	Must be Filled

Item No.	Evaluation Criteria / Condition / Requirement Description		Clause Ref.	Requirement Priority
17l	FORM EXP - 4.2(b)	Properly and dully filled, signed and stamped form of Construction Experience in Key Activities	ITT 18 SECTION IV: FORM- EXP 4.2(b)	Must be Filled
17m	FORM SD1:	Properly and dully filled, signed and stamped form of Self-declaration that the person/tenderer is not debarred in the matter of the public procurement and asset disposal act 2015.	ITT 18 SECTION IV: FORM- SD1	Must be Filled
17n	FORM SD2	Properly and dully filled, signed and stamped form of Self-declaration that the person/tenderer will not engage in any corrupt or fraudulent practices.	ITT 18 SECTION IV: FORM- SD2	Must be Filled
17o	FORM SD2 (a):	Must submit - statement of integrity, eligibility, and Environmental and Social responsibility as per AFD’s Policy, - and declaration and commitment to the code of ethics.	ITT 18 SECTION IV: FORM- SD2(a)	Must be Filled
		APPENDIX 1 form of -fraud and corruption must be attached (Appendix 1 shall not be modified).	ITT 18.0	Must be Submitted
B. DETAILED EVALUATION CRITERIA				
TECHNICAL & FINANCIAL CAPACITY EVALUATION CRITERIA				
Technical Evaluation Criteria will be as per Table 3 & 4 given below. Tenders that do not pass the Technical & Financial Capacity Examination will be considered non- responsive and will not be considered further.				
C. ERROR CHECK				
	– The tender sum as submitted and read out during the tender opening shall be absolute and final and shall not be the subject of correction, adjustment or amendment in anyway by any person or entity. – Provided that the Tender is substantially responsive, the Procuring Entity shall handle errors on the following basis: A. Any error detected if considered a major deviation that affects the substance of the tender, shall lead to disqualification of the tender as non-responsive. B. Any errors in the submitted tender arising from a miscalculation of unit price, quantity, subtotal and total bid price shall be considered as a major deviation that affects the substance of the tender and shall lead to disqualification of the tender as non-responsive. C. If there is a discrepancy between words and figures, the amount in words shall prevail D. Abnormally low tenders, abnormally high tenders or any other indications of potential bid rigging practices, and tenders that are front loaded.		ITT 30 ITT 31 ITT 32 ITT 33 ITT 39 ITT 40 ITT 41	Must Meet with Supporting Evidence
D. POST QUALIFICATION AND CONTRACT AWARD				

Item No.	Evaluation Criteria / Condition / Requirement Description	Clause Ref.	Requirement Priority
	A. The Tenderer shall demonstrate that it has access to, or has available, liquid assets, unencumbered real assets, lines of credit, and other financial means (independent of any contractual advance payment) sufficient to meet the construction cash flow as per the provisions of the Qualification Criteria Matrix in Table 3 below B. Minimum average annual turnover as per the provisions of the Qualification Criteria Matrix in Table 3 below. C. Specific experience requirement as per the provisions of the Qualification Criteria Matrix in Table 3 below.	ITT 42	Must Meet with Supporting Evidence

Table 3: Technical & Financial Capacity Evaluation

Qualification Criteria				Compliance Requirements			Documentation
No.	Subject	Requirement	Single Entity	Joint Venture			Submission Requirements
				All Parties Combined	Each Party	One Party	
1. Historical Contract Non-Performance							
1.1	History of Non-Performing Contracts	Non-performance of a contract did not occur within the last five (5) years prior to the deadline for application submission based on all information on fully settled disputes or litigation. A fully settled dispute or litigation is one that has been resolved in accordance with the Dispute Resolution Mechanism under the respective contract, and where all appeal instances available to the applicant have been exhausted.	Must meet requirement	N/A	N/A	N/A	Form CON-2
1.2	Pending Litigation	All pending litigation shall in total not represent more than thirty percent (30%) of the Applicant's net worth and shall be treated as resolved against the Applicant.	Must meet requirement	N/A	N/A	N/A	Form CON-2
2. Financial Situation							
2.1	Financial Performance	Submission of audited accounts or if not required by the law of the applicant's country, other financial statements acceptable to the Employer, for the last [3] years to demonstrate: a) The current soundness of the applicants' financial position and its prospective long-term profitability, and b) Capacity to have a cash flow amount of min. KShs. 5,000,000.00 equivalent working capital	Must meet requirement a. Must meet requirement b. Must meet requirement	N/A	N/A	N/A	Form FIN - 3.1, with Supporting Evidence
2.2	Average Annual Construction Turnover	Minimum average annual construction turnover KShs 20,000,000.00 calculated as an annual average of the total payments received from construction works within the last Three (3) years .	Must meet requirement	N/A	N/A	N/A	Form FIN - 3.2 with Supporting Evidence

Qualification Criteria				Compliance Requirements			Documentation
No.	Subject	Requirement	Single Entity	Joint Venture			Submission Requirements
				All Parties Combined	Each Party	One Party	
3. Experience							
3.1	General Construction Experience	Experience under construction contracts in the role of contractor, subcontractor, or management contractor for at least the last three (3) years prior to the applications submission deadline	Must meet requirement	N/A	N/A	N/A	Form EXP - 4.1 Experience
3.2(a)	Specific Construction Experience	Participation as contractor, management contractor or subcontractor, in Two (2) contracts with a cumulative value of at least KShs. 10 Million within the last Three (3) Years that have been successfully and substantially completed and that are similar to the proposed works. The similarity shall be based on the physical size, complexity, methods/technology or other characteristics as described in the scope of works. For subcontracted Works the Bidder should provide the following: · Award letter of the Main Contract · Award letter of the subcontract · Completion letter of the Subcontract & Proof of payment (attach payment certificates and certified bank statements indicating proof of payment) Certified by a Commissioner of Oath .The Employer reserves the right to verify the same with the banks without further reference to the bidder	Must meet requirement	N/A	N/A	N/A	Form EXP.4.2(a) Must Provide Supporting Evidence (Letters of Award and Completion Certificates)
3.2b	Specific Construction Experience	For the above or other contracts executed during the period stipulated in 3.2(a) above, a minimum construction experience in at least one (1) of: Other similar road works (gravel, concrete structures etc.)	Must meet requirement	N/A	N/A	N/A	Must Provide Supporting Evidence

Qualification Criteria				Compliance Requirements			Documentation
No.	Subject	Requirement	Single Entity	Joint Venture			Submission Requirements
				All Parties Combined	Each Party	One Party	
4. Current Workload							
4.1	Ongoing works/ current commitments	Tenderers who have more than 4 No. on-going contracts whose % completion is less than 70% at date of the tender closure will NOT be eligible Tenderers who have an ongoing Gravel or LVS contract under Batch One (1) of this programme whose physical verifiable progress is less than 60% at date of the tender closure will NOT be eligible to bid.)	Must meet requirement	N/A	N/A	N/A	Must Provide Supporting Evidence (Form Fin 3.4)
5. Work Methodology							
5.1	Work Methodology	Submission of a work methodology	Should demonstrate understanding of the scope of works and other general requirements	N/A	N/A	N/A	
6. Site Staff							
	The site staff shall possess minimum levels set below;						
6.1	Site Agent	Qualification = Diploma in Civil Eng. General Experience= 5 yrs Specific Experience = 3 Yrs	Must meet requirement	N/A	N/A	N/A	Must Provide Supporting Evidence (CV & Certificates/ Testimonials) (Certified by the commissioner of oaths)
6.2	Senior Foreman	Qualification =Diploma in Civil Eng. General Experience = 3 yrs, Specific Experience = 2 Yrs	Must meet requirement	N/A	N/A	N/A	Must Provide Supporting Evidence (CV & Certificates/ Testimonials) (Certified by the commissioner of oaths)
6.3	Site Surveyor	Qualification =Diploma in Survey or equivalent General Experience = 4 yrs,	Must meet requirement	N/A	N/A	N/A	Must Provide Supporting Evidence (CV &

Qualification Criteria				Compliance Requirements			Documentation
No.	Subject	Requirement	Single Entity	Joint Venture			Submission Requirements
				All Parties Combined	Each Party	One Party	
		Specific Experience = 2 Yrs					Certificates/ Testimonials) (Certified by the commissioner of oaths)
6.4	Material Technician	Qualification =Diploma in Civil Eng. or equivalent General Experience =5 yrs, Specific Experience =3 Yrs OR Qualification = Occupational Grade Test 2 Certificate General Experience = 10 yrs, Specific Experience = 5 Yrs	Must meet requirement	N/A	N/A	N/A	Must Provide Supporting Evidence (CV & Certificates/ Testimonials) (Certified by the commissioner of oaths)
7. Key Equipment							
7.1	Contractors must meet requirements on key equipment as listed in table 4 below;						Must Provide Supporting Evidence

Table 4: Equipment Holding

Contractors must meet requirements on key equipment as listed below;

Item No.	Equipment Details	Minimum Number Required for the execution of the Contract
A) General plant		
1.	Primary/Secondary/Crusher Unit/Power Screen Min capacity 60/hr	0
2.	Concrete batching plant Min Cap 20m3/hr	0
	Subtotal for A	0
B) Bituminous Plants		
1.	Bitumen pressure distributor	0
2.	Bitumen heater tank (10,000 litres)	0
3.	Asphalt plant	0
4.	Paver	0
5.	Chip's spreader	0
	Subtotal for B	0
C) Compactors		
1.	Vibrating compaction plate 300mm wide	1
2.	Vibrating compaction plate 600mm wide	0
	Subtotal for C	1
D) Mobile Compressors		
1.	Medium rock drill (1.5 m3/min)	Optional
2.	Heavy rock drill (1.5 m3/min)	0
	Subtotal for D	0
E) Concrete Equipment		
1.	Mobile concrete mixers	1
2.	Truck mounted mixers	Optional
	Subtotal for E	1
F) Transport (Tippers, dumpers, water tankers)		
1.	Tippers payload 7-12 tonnes	1
2.	Tippers payload 16-20 tonnes	
3.	4x2 tippers payload 7-12 tonnes	Optional
4.	6x4 tippers payload 16-20 tonnes	Optional
5.	Articulated trailers (low loaders)	Optional
6.	Dump trucks	Optional
7.	Flatbed lorries	Optional
8.	Water tankers (18,000- 20,000 lts capacity)	Optional
9.	Water tankers (8,000- 10,000 lts capacity)	1
	Subtotal for F	2
G) Earth moving equipment		
1.	Tractor dozers with dozer attachment (D6-D9)	Optional
2.	Tracked loaders	Optional

Item No.	Equipment Details	Minimum Number Required for the execution of the Contract
3.	Wheel loaders	Optional
4.	Motor scrappers	Optional
5.	Motor graders (93-205KW)	0
6.	Trench excavators	Optional
	Subtotal G	0
H) Diesel Generators		
	Diesel generators (15- 200KVa)	Optional
	Subtotal H	0
I) Excavators		
	Hydraulic crawler mounted (7-10 tonnes) – 0.25-0.4m3 SAE bucket	0
	Hydraulic wheel mounted (10-16 tonnes)– 0.4- 0.6m3 SAE bucket	Optional
	Subtotal for I	0
J) Rollers		
	Self-propelled single drum vibrating (various types, 8 tonnes and above)	0
	Pneumatic rubber tyre (1- 2 tonnes/wheel)	0
	Sheep foot roller	Optional
	Double drum vibrating pedestrian roller	0
	Subtotal for J	0
K) Stabilization		
	Pulvimixer	0
	Subtotal for K	0

SECTION IV: TENDERING FORMS

QUALIFICATION FORMS

FORMEQU: EQUIPMENT

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

Item of equipment		
Equipment information	Name of manufacturer	Model and power rating
	Capacity	Year of manufacture
Current status	Current location	
	Details of current commitments	
Source	Indicate source of the equipment ☐ Owned ☐ Rented ☐ Leased ☐ Specially manufactured	

Omit the following information for equipment owned by the Tenderer.

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

FORM PER -1

Contractor's Representative and Key Personnel Schedule

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

Contractor' Representative and Key Personnel

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

FORM PER-2:**Resume and Declaration - Contractor's Representative and Key Personnel.**

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

Name of Tenderer

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

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

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

Declaration

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

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

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

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

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

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

Signature: _____

Date: (day month year): _____

Countersignature of authorized representative of the Tenderer:

Signature: _____ Date: (day month
year): _____

FORM 4 TENDERER'S QUALIFICATION WITHOUT PRE-QUALIFICATION

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

FORM ELI -1.1

Tenderer Information Form

Date: _____

ITT No. and title: _____

Tenderer's name
Tenderer's actual or intended country of registration: <i>[indicate country of Constitution]</i>
Tenderer's actual or intended year of incorporation:
Tenderer's legal address [in country of registration]:
Tenderer's authorized representative information Name: _____ Address: _____ Telephone/Fax numbers: _____ E-mail address: _____
1. Attached are copies of original documents of ☐ Articles of Incorporation (or equivalent documents of constitution or association), and/or documents of registration of the legal entity named above, in accordance with ITT 3.6 ☐ In case of JV, letter of intent to form JV or JV agreement, in accordance with ITT 3.5 ☐ In case of state-owned enterprise or institution, in accordance with ITT 3.8, documents establishing: • Legal and financial autonomy • Operation under commercial law • Establishing that the Tenderer is not under the supervision of the Procuring Entity
2. Included are the organizational chart and a list of Board of Directors.

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

Tenderer's Name: _____

Date: _____

ITT No. and title: _____

Non-Performed Contracts in accordance with Section III, Evaluation and Qualification Criteria			
☐ Contract non-performance did not occur since 1 st January [insert year] specified in Section III, Evaluation and Qualification Criteria, Sub-Factor 2.1.			
☐ Contract(s) not performed since 1 st January [insert year] specified in Section III, Evaluation and Qualification Criteria, requirement 2.1			
Year	Non- performed portion of contract	Contract Identification	Total Contract Amount (current value, currency, exchange rate and Kenya Shilling equivalent)
[insert year]	[insert amount and percentage]	Contract Identification: [indicate complete contract name/ number, and any other identification] Name of Procuring Entity: [insert full name] Address of Procuring Entity: [insert street/city/country] Reason(s) for nonperformance: [indicate main reason(s)]	[insert amount]
Pending Litigation, in accordance with Section III, Evaluation and Qualification Criteria			
☐ No pending litigation in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.3.			
☐ Pending litigation in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.3 as indicated below.			

Year of dispute	Amount in dispute (currency)	Contract Identification	Total Contract Amount (currency), Kenya Shilling Equivalent (exchange rate)
		Contract Identification: _____ Name of Procuring Entity: _____ Address of Procuring Entity: _____ Matter in dispute: _____ Party who initiated the dispute: _____ Status of dispute: _____	
		Contract Identification: _____ Name of Procuring Entity: _____ Address of Procuring Entity: _____ Matter in dispute: _____ Party who initiated the dispute: _____ Status of dispute: _____	
Litigation History in accordance with Section III, Evaluation and Qualification Criteria			
☐ No Litigation History in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.4.			
☐ Litigation History in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.4 as indicated below.			
Year of award	Outcome as percentage of Net Worth	Contract Identification	Total Contract Amount (currency), Kenya Shilling Equivalent (exchange rate)

<i>[insert year]</i>	<i>[insert percentage]</i>	Contract Identification: [indicate complete contract name, number, and any other identification] Name of Procuring Entity: <i>[insert full name]</i> Address of Procuring Entity: <i>[insert street/city/country]</i> Matter in dispute: <i>[indicate main issues in dispute]</i> Party who initiated the dispute: <i>[indicate “Procuring Entity” or “Contractor”]</i> Reason(s) for Litigation and award decision <i>[indicate main reason(s)]</i>	<i>[insert amount]</i>
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FORM FIN – 3.1:
Financial Situation and Performance

Tenderer's Name: _____

Date: _____

ITT No. and title: _____

Financial Data

Type of Financial information in _____ (currency)	Historic information for previous _____ years, _____ (amount in currency, currency, exchange rate*, USD equivalent)				
	Year 1	Year 2	Year 3	Year 4	Year 5
Statement of Financial Position (Information from Balance Sheet)					
Total Assets (TA)					
Total Liabilities (TL)					
Total Equity / Net Worth (NW)					
Current Assets (CA)					
Current Liabilities (CL)					
Working Capital (WC)					
Information from Income Statement					
Total Revenue (TR)					
Profits Before Taxes (PBT)					
Cash Flow Information					
Cash Flow from Operating Activities					

*Refer to ITT 15 for the exchange rate

Sources of Finance

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

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

Financial documents

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

- (a) reflect the financial situation of the Tenderer or in case of JV member, and not an affiliated entity (such as parent company or group member).
 - (b) be independently audited or certified in accordance with local legislation.
 - (c) be complete, including all notes to the financial statements.
 - (d) correspond to accounting periods already completed and audited.
- ☐ Attached are copies of financial statements¹ for the _____ years required above; and complying with the requirements

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

FORM FIN – 3.2:**Average Annual Construction Turnover**

Tenderer's Name: _____

Date: _____

ITT No. and title: _____

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

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

FORM FIN – 3.3:**Financial Resources**

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

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

FORM FIN – 3.4:**Current Contract Commitments / Works in Progress**

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

Current Contract Commitments					
	Name of Contract	Procuring Entity's Contact Address, Tel,	Value of Outstanding Work [Current Kenya Shilling /month Equivalent]	Estimated Completion Date	Average Monthly Invoicing Over Last Six Months [Kenya Shilling /month]
1					
2					
3					
4					
5					

FORM EXP - 4.1

General Construction Experience

Tenderer's Name: _____

Date: _____

ITT No. and title: _____

Page _____ of _____ pages

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

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

Tenderer's Name: _____

Date: _____

ITT No. and title: _____

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

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

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

FORM EXP - 4.2(b)**Construction Experience in Key Activities**

Tenderer's Name: _____

Date: _____

ITT No. and title: _____

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

1. Key Activity No One: _

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

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

2. Activity No. Two

3.

OTHER FORMS

FORM OF TENDER

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

INSTRUCTIONS TO TENDERERS

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

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

Tender Name and Identification:[insert identification]

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

To: [Insert complete name of Procuring Entity]

Dear Sirs,

1. **Tender Sum 1 (Improvement Works):** In accordance with the Conditions of Contract, Specifications, Drawings and Bills of Quantities for the execution of the above named Works, we, the undersigned offer to construct and complete the Works and remedy any defects during the contract period therein for the sum of Kenya Shillings _____ [Amount in figures Kenya Shillings _____
_____ [amount in words] – **VAT INCLUDED**
2. **Tender Sum 2 (Performance Based Routine Maintenance):** We offer to execute in conformity with the Bidding Document the routine maintenance and repairs on and off carriageway and emergency works as instructed for a Contract period of **36months**. Our bid price is Kenya Shillings _____
[Amount in figures] Kenya Shillings _____
[amount in words] – **VAT INCLUDED.**
3. **Total Tender Sum:** Being the sum of Improvement Works and Performance Based Routine Maintenance. Our bid price is Kenya Shillings _____ [Amount in figures] Kenya Shillings _____ [amount in words] – **VAT INCLUDED.**
4. We undertake, if our tender is accepted, to commence the Works as soon as is reasonably possible after the receipt of the Engineer's notice to commence, and to complete the whole of the Works comprised in the Contract within the time stated in the Special Conditions of Contract.
5. We agree to adhere by this tender until _____ [Insert date], and it shall remain binding upon us and may be accepted at any time before that date.
6. 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. We further understand that you are not bound to accept the lowest or any tender you may receive.
7. We, the undersigned, further declare that:

- i) No reservations: We have examined and have no reservations to the tender document, including Addenda issued in accordance with ITT 28;
- ii) Eligibility: We meet the eligibility requirements and have no conflict of interest in accordance with ITT 3 and 4;
- iii) Tender-Securing Declaration: We have not been suspended nor declared ineligible by the Procuring Entity based on execution of a Tender-Securing or Proposal-Securing Declaration in the Procuring Entity's Country in accordance with ITT 19.8;
- iv) Conformity: We offer to execute in conformity with the tendering documents and in accordance with the implementation and completion specified in the construction schedule, the following Works: *[insert a brief description of the Works]*;
- v) Tender Price: The total price of our Tender, excluding any discounts offered in item 1 above is: *[Insert one of the options below as appropriate]*
- vi) Option 1, in case of one lot: Total price is: *[insert the total price of the Tender in words and figures, indicating the various amounts and the respective currencies]*; Or
Option 2, in case of multiple lots:
 - a) Total price of each lot *[insert the total price of each lot in words and figures, indicating the various amounts and the respective currencies]*; and
 - b) Total price of all lots (sum of all lots) *[insert the total price of all lots in words and figures, indicating the various amounts and the respective currencies]*;
- vii) Discounts: The discounts offered and the methodology for their application are:
- viii) The discounts offered are: *[Specify in detail each discount offered.]*
- ix) The exact method of calculations to determine the net price after application of discounts is shown below: *[Specify in detail the method that shall be used to apply the discounts]*;
- x) Tender Validity Period: Our Tender shall be valid for the period specified in TDS 18.1 (as amended, if applicable) from the date fixed for the Tender submission deadline specified in TDS 22.1 (as amended, if applicable), and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- xi) Performance Security: If our Tender is accepted, we commit to obtain a Performance Security in accordance with the Tendering document;
- xii) One Tender Per Tender: We are not submitting any other Tender(s) as an individual Tender, and we are not participating in any other Tender(s) as a Joint Venture member or as a subcontractor, and meet the requirements of ITT 3.4, other than alternative Tenders submitted in accordance with ITT 13.3;
- xiii) Suspension and Debarment: We, along with any of our subcontractors, suppliers, Engineer, manufacturers, or service providers for any part of the contract, are not subject to, and not controlled by any entity or individual that is subject to, a temporary suspension or a debarment imposed by the Public Procurement Regulatory Authority or any other entity of the Government of Kenya, or any international organization.
- xiv) State-owned enterprise or institution: *[select the appropriate option and delete the other]* *[We are not a state-owned enterprise or institution]* / *[We are a state-owned enterprise or institution but meet the requirements of ITT 3.8]*;
- xv) Commissions, gratuities, fees: We have paid, or will pay the following commissions, gratuities, or fees with respect to the tender process or execution of the Contract: *[insert complete name of each Recipient, its full address, the reason for which each commission or gratuity was paid and the amount and currency of each such commission or gratuity]*.

Name of Recipient	Address	Reason	Amount

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

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

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

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

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

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

Signature of the person named above: [insert signature of person whose name and capacity are shown above] **Date signed** [insert date of signing] day of [insert month], [insert year]

Date signed _____ day of _____, _____

Notes

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

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

TENDERER'S ELIGIBILITY- CONFIDENTIAL BUSINESS QUESTIONNAIRE

Instruction to Tenderer

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

(a) Tenderer's details

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

General and Specific Details

b) Sole Proprietor, provide the following details.

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

c) Partnership, provide the following details.

	Names of Partners	Nationality	Citizenship	% Shares owned
1				
2				
3				

d) Registered Company, provide the following details.

i) Private or public Company _____

ii) State the nominal and issued capital of the Company _____

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

Kenya Shillings (Equivalent).....

iii) Give details of Directors as follows.

	Names of Director	Nationality	Citizenship	% Shares owned
1				
2				
3				

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

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

If yes, provide details as follows.

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

ii) Conflict of interest disclosure

	Type of Conflict	Disclosure YES OR NO	If YES provide details of the relationship with Tenderer
1	Tenderer is directly or indirectly controls, is controlled by or is under common control with another tenderer.		
2	Tenderer receives or has received any direct or indirect subsidy from another tenderer.		
3	Tenderer has the same legal representative as another tenderer		
4	Tender has a relationship with another tenderer, directly or through common third parties, that puts it in a position to influence the tender of another tenderer, or influence the decisions of the Procuring Entity regarding this tendering		

	Type of Conflict	Disclosure YES OR NO	If YES provide details of the relationship with Tenderer
	process.		
5	Any of the Tenderer's affiliates participated as a consultant in the preparation of the design or technical specifications of the works that are the subject of the tender.		
6	Tenderer would be providing goods, works, non-consulting services or consulting services during implementation of the contract specified in this Tender Document.		
7	Tenderer has a close business or family relationship with a professional staff of the Procuring Entity who are directly or indirectly involved in the preparation of the Tender document or specifications of the Contract, and/or the Tender evaluation process of such contract.		
8	Tenderer has a close business or family relationship with a professional staff of the Procuring Entity who would be involved in the implementation or supervision of the such Contract.		
9	Has the conflict stemming from such relationship stated in item 7 and 8 above been resolved in a manner acceptable to the Procuring Entity throughout the tendering process and execution of the Contract.		

f) Certification

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

Full Name _____ Title or

Designation _____

(Signature)

(Date)

CERTIFICATE OF INDEPENDENT TENDER DETERMINATION

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

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

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

Name _____ Title _____ Date _____

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

SELF - DECLARATION FORMS

FORM SD1

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

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

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

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

Bidder Official Stamp

FORM SD2

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

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

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

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

Bidder's Official Stamp

FORM SD2 (a)

STATEMENT OF INTEGRITY, ELIGIBILITY, AND ENVIRONMENTAL AND SOCIAL RESPONSIBILITY

Tender No.: _____

Tender Name.: _____

To: The Director General- Kenya Rural Roads Authority (KeRRA) (The "**Contracting Authority**")

1. We recognise and accept that *Agence Française de Développement* ("**AFD**") only finances projects of the Contracting Authority subject to its own conditions which are set out in the Financing Agreement which benefits directly or indirectly to the Contracting Authority. As a matter of consequence, no legal relationship exists between AFD and our company, our joint venture or our suppliers, contractors, subcontractors, consultants or subconsultants. The Contracting Authority retains exclusive responsibility for the preparation and implementation of the procurement process and performance of the contract. The Contracting Authority means the Purchaser, the Employer, the Client, as the case may be, for the procurement of goods, works, plants, consulting services or non-consulting services.
2. We hereby certify that neither we nor any other member of our joint venture or any of our suppliers, contractors, subcontractors, consultants or subconsultants are in any of the following situations:
 - 2.1 Being bankrupt, wound up or ceasing our activities, having our activities administered by the courts, having entered into receivership, reorganisation or being in any analogous situation arising from any similar procedure;
 - 2.2 Having been:
 - a) convicted, within the past five years by a court decision, which has the force of res judicata in the country where the Contract is implemented, of fraud, corruption or of any other offense committed during a procurement process or performance of a contract (in the event of such conviction, you may attach to this Statement of Integrity supporting information showing that this conviction is not relevant in the context of the Contract);
 - b) subject to an administrative sanction within the past five years by the European Union or by the competent authorities of the country where we are constituted, for fraud, corruption or for any other offense committed during a procurement process or performance of a contract (in the event of such sanction, you may attach to this Statement of Integrity supporting information showing that this sanction is not relevant in the context of the Contract);
 - c) convicted, within the past five years by a court decision, which has the force of res judicata, of fraud, corruption or of any other offense committed during the procurement process or performance of an AFD-financed contract;
 - 2.3 Being listed for financial sanctions by the United Nations, the European Union and/or France for the purposes of fight-against-terrorist financing or threat to international peace and security;
 - 2.4 Having been subject within the past five years to a contract termination fully settled against us for significant or persistent failure to comply with our contractual obligations during contract performance, unless this termination was challenged and dispute resolution is still pending or has not confirmed a full settlement against us;

- 2.5 Not having fulfilled our fiscal obligations regarding payments of taxes in accordance with the legal provisions of either the country where we are constituted or the Contracting Authority's country;
- 2.6 Being subject to an exclusion decision of the World Bank and being listed on the website <http://www.worldbank.org/debar> (in the event of such exclusion, you may attach to this Statement of Integrity supporting information showing that this exclusion is not relevant in the context of the Contract);
- 2.7 Having created false documents or committed misrepresentation in documentation requested by the Contracting Authority as part of the procurement process of the Contract.
3. We hereby certify that neither we, nor any of the members of our joint venture or any of our suppliers, contractors, subcontractors, consultants or subconsultants are in any of the following situations of conflict of interest:
 - 3.1 Being an affiliate controlled by the Contracting Authority or a shareholder controlling the Contracting Authority, unless the stemming conflict of interest has been brought to the attention of AFD and resolved to its satisfaction.
 - 3.2 Having a business or family relationship with a Contracting Authority's staff involved in the procurement process or the supervision of the resulting Contract, unless the stemming conflict of interest has been brought to the attention of AFD and resolved to its satisfaction;
 - 3.3 Being controlled by or controlling another bidder or consultant, or being under common control with another bidder or consultant, or receiving from or granting subsidies directly or indirectly to another bidder or consultant, having the same legal representative as another bidder or consultant, maintaining direct or indirect contacts with another bidder or consultant which allows us to have or give access to information contained in the respective applications, bids or proposals, influencing them or influencing decisions of the Contracting Authority;
 - 3.4 Being engaged in a consulting services activity, which, by its nature, may be in conflict with the assignments that we would carry out for the Contracting Authority;
 - 3.5 In the case of procurement of goods, works or plants:
 - a) Having prepared or having been associated with a consultant who prepared specifications, drawings, calculations and other documentation to be used in the procurement process of the Contract;
 - b) Having been recruited (or being proposed to be recruited) ourselves or any of our affiliates, to carry out works supervision or inspection for the Contract.
4. If we are a state-owned entity, and to compete in a procurement process, we certify that we have legal and financial autonomy and that we operate under commercial laws and regulations.
5. We undertake to bring to the attention of the Contracting Authority, which will inform AFD, any change in situation with regard to points 2 to 4 here above.
6. In the context of the procurement process and performance of the corresponding contract:
 - 6.1 We have not and we will not engage in any dishonest conduct (act or omission) deliberately indented to deceive others, to intentionally conceal items, to violate or vitiate someone's consent, to make them circumvent legal or regulatory requirements and/or to violate their internal rules in order to obtain illegitimate profit;
 - 6.2 We have not and we will not engage in any dishonest conduct (act or omission) contrary to our legal or regulatory obligations or our internal rules in order to obtain illegitimate profit;

- 6.3 We have not promised, offered or given and we will not promise, offer or give, directly or indirectly to (i) any Person who holds a legislative, executive, administrative or judicial mandate within the State of the Contracting Authority regardless of whether that Person was nominated or elected, regardless of the permanent or temporary, paid or unpaid nature of the position and regardless of the hierarchical level the Person occupies, (ii) any other Person who performs a public function, including for a State institution or a State-owned company, or who provides a public service, or (iii) any other person defined as a Public Officer by the national laws of the Contracting Authority's country, an undue advantage of any kind, for himself or for another Person or entity, for such Public Officer to act or refrain from acting in his official capacity;
- 6.4 We have not promised, offered or given and we will not promise, offer or give, directly or indirectly to any Person who occupies an executive position in a private sector entity or works for such an entity, regardless of the nature of his/her capacity, any undue advantage of any kind, for himself or another Person or entity for such Person to perform or refrain from performing any act in breach of its legal, contractual or professional obligations;
- 6.5 We have not and we will not engage in any practice likely to influence the contract award process to the detriment of the Contracting Authority and, in particular, in any anti-competitive practice having for object or for effect to prevent, restrict or distort competition, namely by limiting access to the market or the free exercise of competition by other undertakings;
- 6.6 Neither we nor any of the members of our joint venture or any of our suppliers, contractors, subcontractors, consultants or subconsultants shall acquire or supply any equipment nor operate in any sectors under an embargo of the United Nations, the European Union or France;
- 6.7 We commit ourselves to comply with and ensure that all of our suppliers, contractors, subcontractors, consultants or subconsultants comply with international environmental and labour standards, consistent with laws and regulations applicable in the country of implementation of the Contract, including the fundamental conventions of the International Labour Organisation (ILO) and international environmental treaties. Moreover, we shall implement environmental and social risks mitigation measures when specified in the environmental and social commitment plan (ESCP) provided by the Contracting Authority.
7. We, as well as members of our joint venture and our suppliers, contractors, subcontractors, consultants or sub consultants authorise AFD to inspect accounts, records and other documents relating to the procurement process and performance of the contract and to have them audited by auditors appointed by AFD.

Name: _____ In the capacity of: _____

Duly empowered to sign in the name and on behalf of²: _____

Signature: _____ Dated: _____

² In case of joint venture, insert the name of the joint venture. The person who will sign the application, bid or proposal on behalf of the applicant, bidder or consultant shall attach a power of attorney from the applicant, bidder or consultant.

DECLARATION AND COMMITMENT TO THE CODE OF ETHICS

I (person) on behalf of (*Name of the Business/ Company/Firm*) declare that I have read and fully understood the contents of the Public Procurement & Asset Disposal Act, 2015, Regulations and the Code of Ethics for persons participating in Public Procurement and Asset Disposal and my responsibilities under the Code.

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

Name of Authorized signatory.....

Sign.....

Position.....

Office address.....

Telephone.....

E-mail.....

Name of the Firm /
Company.....

Date.....

(Company Seal/ Rubber Stamp where applicable)

Witness

Name Sign.....

Date.....

B. APPENDIX 1- FRAUD AND CORRUPTION

(Appendix 1 shall not be modified)

1. Purpose

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

3. Requirements

The Government of Kenya requires that all parties including Procuring Entities, Tenderers, (applicants/proposers), Consultants, Contractors and Suppliers; any Sub-contractors, Sub-consultants, Service providers or Suppliers; any Agents (whether declared or not); and any of their Personnel, involved and engaged in procurement under Kenya's Laws and Regulation, observe the highest standard of ethics during the procurement process, selection and contract execution of all contracts, and refrain from Fraud and Corruption and fully comply with Kenya's laws and Regulations as per paragraphs 1.1 above.

Kenya's public procurement and asset disposal act (*no. 33 of 2015*) under Section 66 describes rules to be followed and actions to be taken in dealing with Corrupt, Coercive, Obstructive, Collusive or Fraudulent practices, and Conflicts of Interest in procurement including consequences for offences committed. A few of the provisions noted below highlight Kenya's policy of no tolerance for such practices and behavior: -

- 1) a person to whom this Act applies shall not be involved in any corrupt, coercive, obstructive, collusive or fraudulent practice; or conflicts of interest in any procurement or asset disposal proceeding;
- 2) A person referred to under subsection (1) who contravenes the provisions of that sub-section commits an offence;
- 3) Without limiting the generality of the subsection (1) and (2), the person shall be: -
 - a) disqualified from entering into a contract for a procurement or asset disposal proceeding; or
 - b) if a contract has already been entered into with the person, the contract shall be voidable;
- 4) The voiding of a contract by the procuring entity under subsection (7) does not limit any legal remedy the procuring entity may have;
- 5) An employee or agent of the procuring entity or a member of the Board or committee of the procuring entity who has a conflict of interest with respect to a procurement: -
 - a) shall not take part in the procurement proceedings;
 - b) shall not, after a procurement contract has been entered into, take part in any decision relating to the procurement or contract; and
- c) shall not be a subcontractor for the bidder to whom was awarded contract, or a member of the group of bidders to whom the contract was awarded, but the subcontractor appointed shall meet all the requirements of this Act.
- 6) An employee, agent or member described in subsection (1) who refrains from doing anything prohibited under that subsection, but for that subsection, would have been within his or her duties shall disclose the conflict of interest to the procuring entity;
- 7) If a person contravenes subsection (1) with respect to a conflict of interest described in subsection (5)(a) and the contract is awarded to the person or his relative or to another person in whom one of them had a direct or indirect pecuniary interest, the contract shall be terminated and all costs incurred by the public entity shall be made good by the awarding officer. Etc.

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

- a) Defines broadly, for the purposes of the above provisions, the terms set forth below as follows:
- i) “corrupt practice” is the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;
 - ii) “fraudulent practice” is any act or omission, including misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain financial or other benefit or to avoid an obligation;
 - iii) “collusive practice” is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;
 - iv) “coercive practice” is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;
 - v) “obstructive practice” is:
 - deliberately destroying, falsifying, altering, or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede investigation by Public Procurement Regulatory Authority (PPRA) or any other appropriate authority appointed by Government of Kenya into allegations of a corrupt, fraudulent, coercive, or collusive practice; and/or threatening, harassing, or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or
 - acts intended to materially impede the exercise of the PPRA's or the appointed authority's inspection and audit rights provided for under paragraph 2.3 e. below.
- b) Defines more specifically, in accordance with the above procurement Act provisions set forth for fraudulent and collusive practices as follows:
- "fraudulent practice" includes a misrepresentation of fact in order to influence a procurement or disposal process or the exercise of a contract to the detriment of the procuring entity or the tenderer or the contractor, and includes collusive practices amongst tenderers prior to or after tender submission designed to establish tender prices at artificial non-competitive levels and to deprive the procuring entity of the benefits of free and open competition.
- c) Rejects a proposal for award¹ of a contract if PPRA determines that the firm or individual recommended for award, any of its personnel, or its agents, or its sub-consultants, sub-contractors, service providers, suppliers and/ or their employees, has, directly or indirectly, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for the contract in question;
- d) Pursuant to the Kenya's above stated Acts and Regulations, may sanction or recommend to appropriate authority (ies) for sanctioning and debarment of a firm or individual, as applicable under the Acts and Regulations;
- e) Requires that a clause be included in Tender documents and Request for Proposal documents requiring (i) Tenderers (applicants/proposers), Consultants, Contractors, and Suppliers, and their Sub-contractors, Sub-consultants, Service providers, Suppliers, Agents personnel, permit the PPRA or any other appropriate authority appointed by Government of Kenya to inspect² all accounts, records and other documents relating to the procurement process, selection and/or contract execution, and to have them audited by auditors appointed by the PPRA or any other appropriate authority appointed by Government of Kenya; and
- f) Pursuant to Section 62 of the above Act, requires Applicants/Tenderers to submit along with their Applications/Tenders/Proposals a “Self-Declaration Form” as included in the procurement document declaring that they and all parties involved in the procurement process and contract execution have not engaged/will not engage in any corrupt or fraudulent practices.

¹ For the avoidance of doubt, a party's ineligibility to be awarded a contract shall include, without limitation, (i) applying for pre-qualification, expressing interest in a consultancy, and tendering, either directly or as a nominated sub-contractor, nominated consultant, nominated manufacturer or supplier, or nominated service provider, in respect of such contract, and (ii) entering into an addendum or amendment introducing a material modification to any existing contract.

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

AFD Policy – Corrupt and Fraudulent Practices – Environmental and Social Responsibility

1. Corrupt and Fraudulent Practices

The Contracting Authority and the suppliers, contractors, subcontractors, consultants or subconsultants must observe the highest standard of ethics during the procurement process and performance of the contract. The Contracting Authority means the Purchaser, the Employer, the Client, as the case may be, for the procurement of goods, works, plants, consulting services or non-consulting services.

By signing the Statement of Integrity the suppliers, contractors, subcontractors, consultants or subconsultants declare that (i) “it did not engage in any practice likely to influence the contract award process to the Contracting Authority’s detriment, and that it did not and will not get involved in any anti-competitive practice”, and that (ii) “the procurement process and the performance of the contract did not and shall not give rise to any act of corruption or fraud”.

Moreover, AFD requires including in the Procurement Documents and AFD-financed contracts a provision requiring that suppliers, contractors, subcontractors, consultants or subconsultants will permit AFD to inspect their accounts and records relating to the procurement process and performance of the AFD-financed contract, and to have them audited by auditors appointed by AFD.

AFD reserves the right to take any action it deems appropriate to check that these ethics rules are observed and reserves, in particular, the rights to:

- a) Reject a proposal for a contract award if it is established that during the selection process the bidder or consultant that is recommended for the award has been convicted of corruption, directly or by means of an agent, or has engaged in fraud or anti-competitive practices in view of being awarded the Contract;
- b) Declare misprocurement when it is established that, at any time, the Contracting Authority, the suppliers, contractors, subcontractors, consultants or subconsultants their representatives have engaged in acts of corruption, fraud or anti-competitive practices during the procurement process or performance of the contract without the Contracting Authority having taken appropriate action in due time satisfactory to AFD to remedy the situation, including by failing to inform AFD at the time they knew of such practices.

AFD defines, for the purposes of this provision, the terms set forth below as follows:

- a) Corruption of a Public Officer means:
 - The act of promising, offering or giving to a Public Officer, directly or indirectly, an undue advantage of any kind for himself or for another Person³ or entity, for such Public Officer to act or refrain from acting in his official capacity; or
 - The act by which a Public Officer solicits or accepts, directly or indirectly, an undue advantage of any kind for himself or for another Person or entity, for such Public Officer to act or refrain from acting in his official capacity.
- b) A Public Officer shall be construed as meaning:
 - Any person who holds a legislative, executive, administrative or judicial mandate (within the country of the Contracting Authority) regardless of whether that natural Person was nominated or elected, regardless of the permanent or temporary, paid or unpaid nature of the position and regardless of the hierarchical level the natural Person occupies;
 - Any other natural Person who performs a public function, including for a State institution or a State-owned company, or who provides a public service;

³ Means any Person whether natural or legal, firm, company, corporation, government, state or state agency or any association, or group of two or more of the foregoing (whether or not having separate legal status).

- Any other natural Person defined as a Public Officer by the national laws of the country of the Contracting Authority.
- c) Corruption of a Private Person⁴ means:
- The act of promising, offering or giving to any Private Person, directly or indirectly, an undue advantage of any kind for himself or for another Person or entity, for such Private Person to perform or refrain from performing any act in breach of its legal, contractual or professional obligations; or;
 - The act by which any Private Person solicits or accepts, directly or indirectly, an undue advantage of any kind for himself or for another Person or entity, for such Private Person to perform or refrain from performing any act in breach of its legal, contractual or professional obligations.
- d) Fraud means any dishonest conduct (act or omission), whether or not it constitutes a criminal offence, deliberately intended to deceive others, to intentionally conceal items, to violate or vitiate consent, to circumvent legal or regulatory requirements and/or to violate internal rules in order to obtain illegitimate profit.
- e) Anti-competitive practices mean:
- Any concerted or implied practices which have as their object or effect the prevention, restriction or distortion of competition within a marketplace, especially where they (i) limit access to the marketplace or free exercise of competition by other undertakings, (ii) prevent free, competition-driven price determination by artificially causing price increases or decreases, (iii) restrict or control production, markets, investments or technical progress; or (iv) divide up market shares or sources of supply;
 - Any abuse by one undertaking or a group of undertakings which hold a dominant position on an internal market or on a substantial part of it;
 - Any practice whereby prices are quoted or set unreasonably low, the object of which is to eliminate an undertaking or any of its products from a market or to prevent it from entering the market.

2. Environmental and Social Responsibility

In order to promote sustainable development, AFD seeks to ensure that internationally recognised environmental and social standards are complied with. Suppliers, contractors, subcontractors, consultants or subconsultants for AFD-financed contracts shall consequently undertake in the Statement of Integrity to:

- a) Comply with and ensure that all their subcontractors or subconsultants comply with international environmental and labour standards, consistent with applicable law and regulations in the country of implementation of the contract, including the fundamental conventions of the International Labour Organisation (ILO) and international environmental treaties;
- b) Implement environmental and social risks mitigation measures when specified in the environmental and social management plan (ESMP) provided by the Contracting Authority.

⁴ Means any natural Person other than a Public Officer.

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

Beneficiary: _____

Request for Tenders No: _____

Date: _____

TENDER GUARANTEE No.: _____

Guarantor: _____

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

[signature(s)]

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

FORMAT OF TENDER SECURITY [Option 2–Insurance Guarantee]

TENDER GUARANTEE No.: _____

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

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

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

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

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

[Date]

[Witness]

[Signature of the Guarantor]

[Seal]

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

TENDER-SECURING DECLARATION FORM

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

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

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

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

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

Signed:.....

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

Name:

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

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

Appendix to Tender

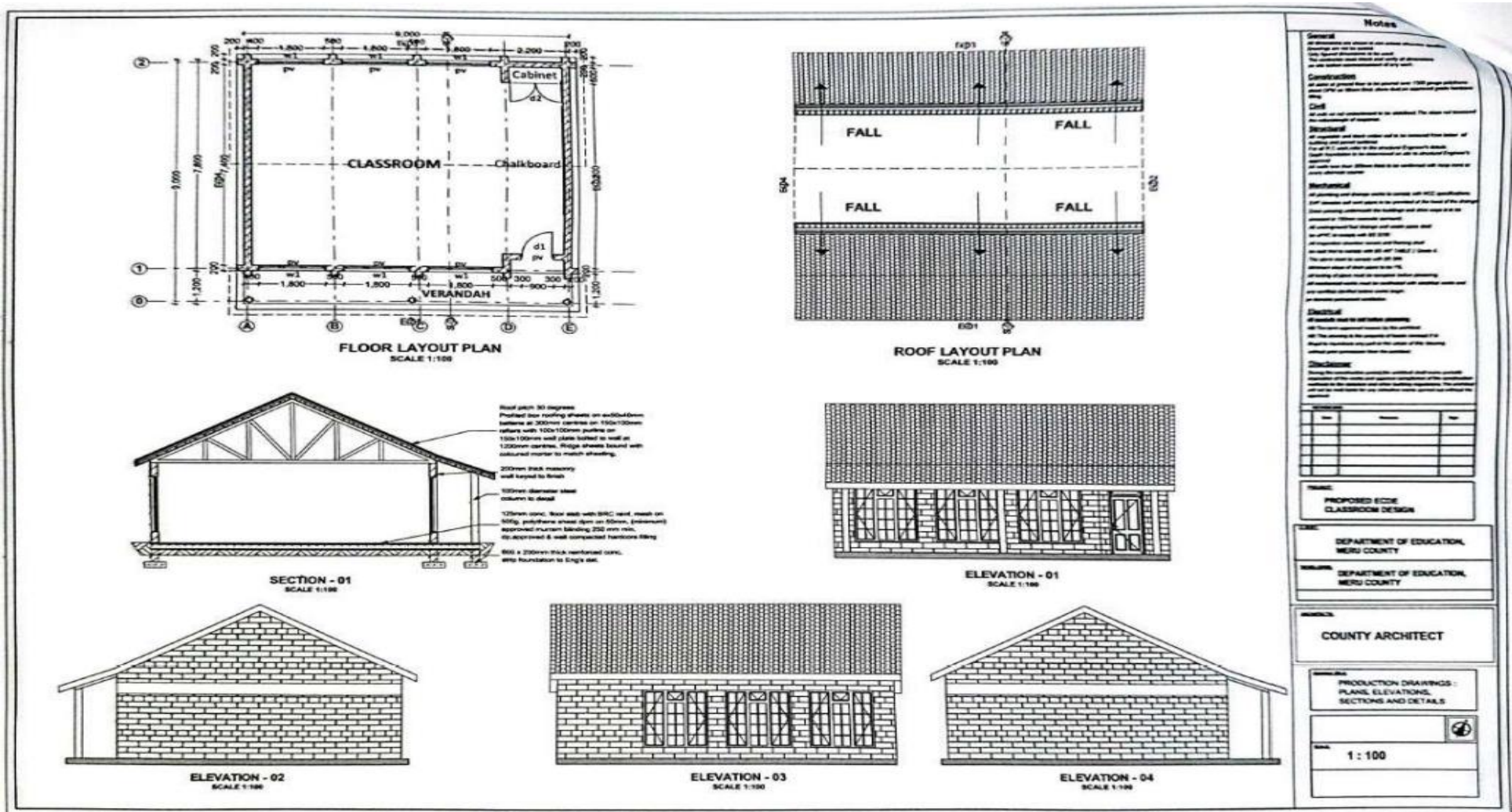
Schedule of Currency requirements

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

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

PART II - WORK REQUIREMENTS

SECTION V – DRAWINGS



SECTION VI - SPECIFICATIONS

SECTION VIII – SPECIFICATIONS AND BILLS OF QUANTITIES

A. SPECIFICATIONS

A. SITE CLEARANCE

All grass, vegetable matter etc., must be removed from or burned on site at the commencement of the contract over areas such as directed by the Architect.

B. WHITE ANT-INSECTICIDE TREATMENT

The Contractor must destroy any white ant's nests found within the perimeter of the buildings and within a distance of 20 metres from the buildings externally and take out and destroy queen ants, impregnate holes and tunnels with approved insecticides and back-fill with hard materials well rammed and consolidated.

C. EXCAVATION

- i. The excavations are to be executed to the widths shown on the Drawings, and to the depth below existing ground levels as directed by the Architect in order to obtain satisfactory foundations. If the contractor excavates to any widths or depths greater than those shown on the drawings or as instructed by the Architect, he shall at his own expense fill in such widths or depths of excavation beyond that instructed or shown with concrete to the satisfaction to the Architect.
- ii. Level and ram bottoms of all excavations to receive concrete, form stepping if necessary or directed to allow for sloping ground, and well water excavations before pouring concrete.
- iii. The contractor shall report to the Architect when secure bottoms to the excavations have been obtained. Any concrete work executed before the excavations have been inspected and approved shall, if so directed, be removed and new work substituted after the excavations have been approved all at the contractor's expense.
- iv. Excavations made below required levels shall be filled with mass concrete (1:4:8) at the contractor's expense.

D. ROCK

(a) Definition

Rock is defined as any material met within the excavations which is of such size or position that it can only be removed by means of wedges, compressed air plant, or other special plant and the Architects' opinion shall be final.

(b) Other materials to be taken with normal excavations

Excavations in any material such as compacted murrum, soft tuff, stiff clay or similar materials which in the opinion of the Architect can reasonably, be removed by pick, excavator or similar, means will be deemed to be included in the prices of normal excavation.

E. HARDCORE FILLING

Hardcore for filling under floors etc., shall be good hard stone, ballast or quarry waste (not Magadi or similar soft stone) to the approval of the Architect broken to pass not greater than a 150mm ring or to be 75% of the finished thickness of the layers being compacted whichever is the lesser and graded to contain sufficient smaller pieces to fill all voids so that it can be thoroughly compacted. The filling is to be laid in layers each of a consolidated thickness not exceeding 225mm and well-watered and compacted by hand or mechanical tampers. The top surface of the hardcore shall be levelled or graded to falls as required and blinded with a 75 mm layer of similar material finely crushed and well rolled and watered immediately before concrete is laid.

F. FILLING OBTAINED FROM THE EXCAVATIONS

Filling obtained from surplus excavated materials is to be free from all weeds, roots, vegetable or other unsuitable materials and is to be filled in layers each of not more than 225 mm finished thickness. Each layer to be well watered and consolidated before the subsequent layer is filled in.

G. MATERIALS FOUND IN THE EXCAVATIONS

No sand, aggregate or other materials found in the excavations is to be used in the works without the written permission of the Architect.

H. INSECTICIDE / ANTI-TERMITE TREATMENT

The top surface of all filling shall be treated with an approved chemical treatment, applied in accordance with the manufacturers printed instructions. The approved specialist treatment shall include a ten-year guarantee against termites.

I. PROTECTION OF PIPES, CABLES ETC.

Before commencing works which include excavations or ground levelling by manual or mechanical excavation the contractor shall at his expense ascertain in writing from the Post Office, K.P. & L. Co. Ltd., Engineer's Department (water & sewers section) and all other public bodies, companies and persons who may be affected, the positions and depths of their respective ducts, cables mains or pipes and appurtenances. He shall thereupon search for and locate such services.

The contractor shall at his own expense effectually prop, protect, underpin, alter, divert, restore and make good as may be necessary all pipes, cables or ducts, poles or wires and their appurtenance disturbed or damaged during the progress of the works, or in consequence thereof.

Except that such services as required to be removed or altered by virtue of the layout of the permanent work and not the manner in which the work is carried out, shall be so removed or altered at the expense of the Employer. The contractor shall be liable for the cost of repairs to any damaged services as a result of carrying out the works and shall further be liable for any damage which may be shown during the period of maintenance, to have arisen through the execution of these works.

The rates for excavation, including excavation in rock, must include trimming, levelling and preparing bottoms and all faces to receive concrete, etc., and for and extra excavation required for planking and strutting. Prices shall include for excavating in any material encountered unless specifically otherwise described, handling, etc., of extra bulk after excavating, or before consolidating, any extra excavation required for formwork or planking and strutting, circular work, grubbing up any old drains, roots, etc., that may be encountered, for trimming sides and levelling and ramming bottoms, forming steppings and trimming excavation or filling of embankments and batters as required.

In his price for the item, keep excavations free from all water, the contractor shall allow and make provision for keeping the whole of the work thoroughly drained and clear of water below the lowest level of any part of them so long as may be required and if considered necessary by the Architect, continuously day and night by petrol or hand pumps or other mechanical appliances, pipes, chutes, dams, manholes, sumps, diversions or any other means necessary for the purpose. Water pumped from the trenches shall be allowed to run down the road channels but shall be conveyed to the nearest surface water sewer, ditch or river through troughs, chutes or pipes.

J. RATES OF DISPOSAL

Rates of disposal of excavated material are to include for the selection of spoil as it arises and for all double handling and re-excavation from spoil heaps not specifically ordered by the Architect.

K. POLYTHENE SHEETING

Polythene sheeting shall be 1000 gauge or as described obtained from an approved manufacturer. Joints in sheeting shall be treble folded with 150 mm fold and taped at 300 mm intervals with 50 mm wide black plastic adhesive tape as manufactured by sellotape limited. The sheeting shall not be laid loose with sufficient wrinkles to permit shrinkage up to 15%.

L. GRASSED AREAS

Areas to be grassed shall be cleared of all debris and roots and dug up to a depth of 300 mm. Where outcrops of rock or murrum occur, these will be covered with suitable soil to a depth of 150 mm.

PART FOUR - CONCRETE WORK SPECIFICATIONS

CONCRETE WORK

A. BENDING SCHEDULES

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

B. APPROVALS

Well before construction commences the Contractor shall supply to the Engineer for his approval details of his proposed layouts of concreting plant and on site workshop; details of formwork systems and the

construction devices, e.g., cranes, chutes, scaffolding, which he proposes to use for structural work. The information is to be sufficiently detailed to enable the Engineer to approve or otherwise.

The Contractor should note that further approvals are required by the Specification before construction starts. The contractor is wholly responsible for obtaining these approvals and no claim for delays will be entertained due to the contractor's failure to obtain such approvals in adequate time.

MATERIALS

C. CEMENT

Cement, unless otherwise specified, shall be ordinary Portland Cement complying with BS12. The contractor shall obtain a manufacturer's certificate of test in accordance with the appropriate standard for each consignment of cement delivered to the site and shall immediately forward copies of the same to the Engineer for his retention.

Notwithstanding the manufacturer's certificate the Engineer may require that any cement delivered to the site be sampled and tested. Any batch tested which fails to comply with this specification will be rejected.

All cement shall be delivered to the site in the original sealed bags of the manufacturer or in approved bulk containers.

Cement, unless delivered in bulk, shall be stored in a weatherproof shed, the floor of which shall be raised at least 150 mm above the ground to allow free air circulation. Cement delivered in bulk shall be stored in a weatherproof silo. All cement shall at all times be protected from deterioration.

Each consignment of cement shall be kept separate, identified and used in order of delivery. No two types of cement shall be used in combination.

Any cement which upon inspection is considered by the Engineer to have deteriorated in any way will be rejected.

D. AGGREGATES OF CONCRETE

Aggregates for concrete shall, unless otherwise specified, be aggregates from natural sources complying with BS 882. Additionally, the flakiness index when determined by the sieve method described in BS 812 shall not exceed 35 for any size of concrete aggregate. Fine aggregate within or finer than zone 4 of BS 882 shall not be used.

When tested for soundness in accordance with ASTM Test C 88 -73 the loss of weight after 5 cycles shall not exceed 5 percent for any aggregate.

Aggregate which is potentially reactive when tested in accordance with ASTM Test C289-71 for the alkali aggregate reaction shall not be used. The standard for acceptance being that test shall plot to the left of the solid which is shown in figure 2 of the test standard.

Well before any concreting work, the Contractor shall forward to the Engineer for approval details of his proposed source of supply of aggregate giving the aggregate group classification and typical physical properties as required by BS 882.

The Contractor shall provide the Engineer with a certificate for his retention showing that all aggregate regularly comply with the requirements of his Specification.

The Engineer may require that any aggregate be tested for soundness in accordance with ASTM Test C88 - 73 before giving approval to any proposed source of supply. The Engineer may require that any aggregate be tested for potential reactivity in accordance with ASTM Test C289-71.

Notwithstanding any certificate of compliance, the Engineer may at any time require that any aggregate delivered to the site be sampled and tested. Any aggregate so tested which fails to comply with this specification will be rejected.

Coarse aggregate shall be delivered ready screened or screened on site separate nominal single sizes within the limits given in BS 882.

Aggregates of different sizes of types shall be stored in different hoppers or different stockpiles or approved

well drained paved areas which shall be separated from each other.

Stockpiles shall be protected against contamination from any source.

Any aggregate which has become contaminated or which does not conform with the above requirements may be rejected by the Engineer.

E. WATER FOR USE WITH CEMENT

Water for use in mixing with cement or for curing concrete shall be from any approved source, clean, fresh and free from organic and other deleterious matter.

The Engineer may require that any water be sampled and tested by the method given in BS 3148. Water failing the criteria given in the appendix to BS 3148 will be rejected.

Water for use in mixing with cement shall neither be hotter than 25 degrees centigrade (77 degrees fahrenheit) nor colder than 5 degrees centigrade (41 degrees Fahrenheit) at the time of mixing.

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F. STEEL ROD REINFORCEMENT

Steel rod reinforcement shall consist of:

- a. Mild steel bar complying with BS 4449 or KS 02-22
- b. Hot rolled high yield bars complying with BS 4449.
- c. Cold worked high yield bars complying with BS 4461 as described in the drawing.

Where cold worked high yield bars are to be used these shall be thermal mechanically twisted and NOT square twisted bars formed by a torsion-controlled process.

The contractor shall obtain a manufacturer's certificate of test in accordance with the appropriate standard for each steel batch relating to reinforcement delivered to site and shall immediately forward copies of the same to the Engineer for his retention.

Where hot rolled high yield deformed bar are to be used the results of bond tests to ASTM 234-71, using concrete of the same quality as that to be used in the works, shall be forwarded to the Engineer.

Notwithstanding the manufacturer's certificate, the Engineer may require that any reinforcement delivered to the site be sampled and tested. Any reinforcement so sampled and tested which fails to comply with this specification will be rejected.

All reinforcement shall be stored in clean conditions in an orderly manner to the satisfaction of the Engineer such that the batch to which each piece belongs can be readily identified.

G. STEEL FABRIC REINFORCEMENT

Steel fabric reinforcement shall be electrically cross welded steel mesh reinforcement complying with BS 4483 and of the size and weight specified and made of wire to B.S. 4482.

H. TYING WIRE

Tying wire for fixing reinforcement shall be either:

- (a) No. 16 gauge soft annealed iron wire, or
- (b) No. 18gauge stainless steel wire.

I. SPACERS

Spacers block required for ensuring that the reinforcement is correctly positioned shall be as small as possible consistent with their purpose, of a shape acceptance to the Engineer, and designed so that they will not overturn when the concrete is placed. Unless otherwise approved they shall be made of concrete with 10 mm maximum aggregate size and mix proportions to produce the same strength as the adjacent concrete.

Wire shall be cast in the block for the purpose of tying it to the reinforcement. Spacer block of concrete shall not be used until at least 7 days old.

J. ADMIXTURES

No admixtures or cements containing additives shall be used in concrete unless specified or approved by the engineer. Such approval will not be given unless in the Engineer's opinion specific benefit to the density or quality of the concrete will result.

K. WALL TIES

Wall Ties between concrete and adjoining block or block walling shall be "Abbey" slots and anchors as supplied by Abbey Building supplies Ltd or similar approved.

L. JOINT FILLERS

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

M. JOINT SEALANTS

Joint sealants shall be as described in the drawings and approved by the Engineer. Sealant shall be used strictly in accordance with the manufacturer's instructions.

N. HOLLOW CLAY POTS

Pots shall be burnt clay blocks conforming to BS 3921 or similar approved. They shall be true to shape and free from cracks or distortion.

O. WATER STOPS

Water stops unless otherwise stated shall be. Sika water bar. As manufactured by Sika International or similar approved and placed and joined in accordance with the manufacturer's instructions.

WORKMANSHIP

P. FIXING STEEL REINFORCEMENT

Reinforcement shall be bent accurately in accordance with BS 4466 to the shape and dimensions shown in the schedules. All reinforcement shall be bent at temperatures in the range of 5 and 100 degrees centigrade.

Cold worked or any high yield bars shall not be straightened or bent again once they have been bent. When it is necessary to bend mild steel reinforcement already cast in the concrete the internal diameter of such bends shall be not less than twice the diameter of the bar.

No welding of reinforcement shall be carried out without the approval of the Engineer. All reinforcement shall at the time of concreting be free from mud, oil mortar droppings, loose rust, paint grease, mill scale or other deleterious still "blue" from the mill shall not be used.

All reinforcement shall be fixed in the position shown on the Drawings by the adequate use of spacers, tying wires, chairs, stools etc., and shall be so maintained during the concreting operations.

Laps in reinforcement shall be indicated on the Drawings or approved by the Engineer. Unless otherwise indicated the minimum lap length for rod reinforcement shall be 40 diameters and for mesh reinforcement two complete meshes.

A steel fixer shall be in attendance at all times when concreting is in progress to correct any errors, omissions or movement in the reinforcement.

In severe test conditions reinforcement shall be shaded from direct sunlight and hosed down with clean water prior to concreting to keep the reinforcement below 25 degrees centigrade (77 degrees Fahrenheit).

(a) Nominal Concrete Cover to Reinforcement

Unless otherwise directed the nominal concrete cover to steel reinforcing bars (including links and distribution)

in any face shall be:-

Foundations against earth face	75mm
Foundation against blinding	50mm
Columns (main bars)	40mm
Slabs and stairs	20mm
Wall (main bars)	20mm

The tolerance on placing of bars achieve nominal cover 15mm

Q. FORMWORK

Formwork shall include all temporary or permanent forms required for forming the concrete, together with all temporary construction required for their support.

All formwork shall be so constructed that there shall be no loss of material from the concrete. After hardening the concrete shall be in the position and of the sample, dimensions, and surface finish described in this specification or on the Drawings.

1. General Specifications

Where internal metal ties are permitted, they or their removable parts shall be extracted without damage to the concrete and the remaining holes filled with mortar. No permanently embedded metal part shall have less cover than that indicated for adjacent steel reinforcement.

When holes are to be provided in formwork for weep holes and the like they shall be neatly trimmed to fit the pipe and caulked with the approved material to form a grout tight joint.

When concrete is to be deposited to a steeper slope than 15 degrees to the horizontal top forms shall be used to enable the concrete to be properly compacted. The Engineer may require details and/or calculations of any proposed formwork to be submitted for approval prior to work starting. Such approval if given shall not in any way relieve the contractor of his responsibilities for the safety or adequacy of such for its purposes.

The inside surfaces of forms, except for permanent formwork, or unless agreed by the Engineer, shall be coated with an approved material to prevent adhesion of the concrete. Such approved material shall be applied strictly and shall not come into contact with reinforcement or other cast-in items.

Immediately before concreting all forms shall be thoroughly cleaned out. In the case of deep sections an opening shall be left at the base to enable such cleaning to be adequately completed.

In the case of beams, slabs or like members the formwork shall be so arranged that the sides or edges may be removed without disturbance to the soffit or propping system. The erection, easing and striking of the formwork shall be done under the personal supervision of a competent foreman.

Formwork shall be struck at such a time and in such a manner as to cause no damage to the structure. The contractor shall inform the Engineer before he intends to strike any formwork. The time at which the formwork is struck shall be the contractor's responsibility but the minimum periods between the completion of any concreting bay and the removal of forms shall be as follows:

Vertical formwork	24 hours
Soffits to beams	21 days
Soffits to slabs	14 days
Cantilevers	28 days

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

Where the structure is of multi storey construction props with head trees and braces shall be provided to distribute the imposed load below the floor being cast. This will normally be 2 storey height below the floor being cast unless otherwise stated.

Where sawn formwork finish is specified or in all cases where no alternative finish is specified the surface of the concrete shall be not worse than that obtained by the use of properly designed moulds of closed jointed sawn boards. Small surface blemishes caused by entrapped air will be permitted but the surface should be free of voids, honeycombs or other defects.

Where “fair faced” finish is specified the irregularities of the finish shall be no greater than those obtained from the use of wrought thickened square edge boards arranged in a uniform pattern. The concrete surface shall be smooth, free from fins, lipping, board marks or other irregularities, and even with sharp true arises. Only very minor blemishes or voids shall occur and there shall be no staining or discoloration.

R. CONSTRUCTION, CONTRACTION AND EXPANSION JOINTS

Construction joints will be permitted only at the positions shown on the Drawings and as instructed on the site by the engineer.

These joints will in general be spaced to allow a maximum plan area for any bay of 100 sqm. of maximum length of 12 m in any one dimension.

Vertical construction joints shall be properly made to form a vertical grout tight joint. Where reinforcement passes through the face of the joint the stopping off board shall be drilled so that the bars pass through, or the board shall be made in sections with half round indentation in the joint faces for each bar. Under no circumstances shall concrete when being deposited be allowed to, tail off. Construction joints formed with expanded metal or similar will not be permitted for reinforced concrete work.

S. CONCRETE MIXES - DESIGNS MIX

Mixes for each class of concrete specified or shown on the drawings shall be designed by the contractor to achieve the specified minimum cube strength combined with high density and adequate workability for the purpose. In order to allow for unavoidable variation the design strength should exceed the specified works cube strength by twice the expected standard deviation. In the absence of previous information, a standard deviation of 7MN/M2 should be assumed.

Details of any proposed mix design shall be forwarded to the Engineer not less than 60 days before that class of concrete is required to be used on the work for his approval in principle. The details shall include at least the following information:-

- (a) Source nature and grading of coarse and fine aggregate.
- (b) Source of cement
- (c) Nominal maximum size of aggregate
- (d) Cement content
- (e) Aggregate/Cement ratio
- (f) Water/Cement ratio
- (g) Design density
- (h) Design slump or compacting factor
- (i) Design strength

Classes of concrete will be referred to by the minimum 28 days work cube strength and the maximum size of aggregate. Classes of concrete shall meet the criteria shown in Table I. The maximum water/cement ratio is herein defined as the ratio of the weight of the “free” water to the weight of the cement. The “free” water is that quality of water available for cement. Any water required to be absorbed by aggregate is excluded.

The workability of the concrete shall be the minimum consistent with producing a dense, well compacted mass. Due regard shall be paid to size and shape of the section together with any congestion of reinforcement.

After the Engineer has approved a design mix in principle the contractor shall prepare a trial mix on site using the plant and materials intended for the works. Each batch of concrete shall be sampled and the following prepared, in accordance with BS1881:

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

No structural concrete shall be placed in the works until the Engineer has approved the preliminary tests. Thereafter, the approved mix proportions shall be adhered to throughout the work and may only be varied with the prior approval of the Engineer.

T. CONCRETE MIXES - NOMINAL MIXES

Mixes for each class of concrete specified or shown on the Drawings shall be used by the contractor. They shall be mixed to achieve high density combined with adequate workability for the purpose.

Details of any proposed mix shall be forwarded to the Engineer not less than 5 days before that class of the concrete is required to be used on the works for his approval in principle.

Classes of concrete will be referred to by their nominal mix proportions. Classes of concrete shall meet the criteria shown in Table II.

The workability of the concrete shall be the minimum consistent with producing a dense, well-compacted mass. Due regard shall be paid to the size and shape of the section together with any congestion of reinforcement. The Engineer may at his discretion require preliminary tests of concrete quality for nominal mixes unless satisfactory evidence of strength is produced from reliable sources.

Where required, these tests shall be in accordance with BS 1881.

U. CONCRETE MIXES - GENERAL

The standard of acceptance of any preliminary tests will be similar to the standard for normal works cubes, slump or compacting factor, except that the minimum cube strengths required shall be those given "minimum Preliminary cube strength at 28 days" in Table I or II.

For all structural concrete the following representative samples shall be taken and tested in accordance with BS 1881.

One each day on which less than 50 cm of concrete is being poured:

- (a) six 150mm cubes - three for test at 7 days and three for test at 28 days; and
- (b) two slump tests; or
- (c) two compacting factor tests

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

All cubes shall be marked with the date of casting and a reference number. For each cube a record shall be kept of the position in which the batch of concrete from which it was sampled was placed. All cubes shall be tested by an approved testing authority.

The concrete cubes tested at 7 days are intended to be indicative only and the target works strengths at 7 days given in Table I are not normally mandatory. It should be noted however, that it is unlikely that cubes failing the 7 days target will subsequently pass the 28 days cube strength. The concrete cubes tested 28 days shall be taken to represent the concrete placed in the works. The standard of acceptance for cube strength tests shall be as follows:

The cube strength shall be calculated from the maximum load sustained by the cube at failure. The appropriate strength requirements as given in Table I, shall be considered to be satisfied if

- (a) None of the strength of the three cubes is below the specified cube strength, or if
- (b) The average strength of the three cubes is not less than the specified cube strength

and the difference between the greatest and the least strengths is not more than 20 percent of that

average.

V. READY MIXED CONCRETE

Ready mixed concrete shall be used only with the approval of the Engineer. When such approval is given it shall be supplied in accordance with BS 1926 except where this conflicts with this specification shall prevail.

W. PLACING AND COMPACTING CONCRETE

All concrete shall be vibrated unless otherwise specified. The vibration shall be carried out by experienced operators and with immersion type vibrators to the Engineer's satisfaction.

Placing of concrete shall be carried out in layers not exceeding 60mm deep and in sequence from one end of the form to the other.

Concrete in foundation and other underground work shall be protected from contamination with fallen earth or rock during and after placing.

Any concrete which shows signs of initial setting before or during placing shall not be used, it shall be removed at the contractor's expense. Sufficient vibrators shall be provided to correspond with the rate of deposition of concrete. The vibration shall be continuous throughout the placing of the concrete. Standby vibrators shall be on site during all concrete placing.

Vibration must not be allowed to disturb any recently placed concrete that has begun to set. Any water accumulating on the surface of newly placed concrete shall be removed by approved means and no further concrete shall be placed thereon until such water is removed.

Suitable means shall be provided to ensure that the temperature of the concrete on placing does not exceed 30 degrees centigrade (86 degrees Fahrenheit). Concrete shall not be placed around reinforcement or against surfaces which are at temperatures above 30 degrees centigrade (86 degrees Fahrenheit). All surfaces shall be thoroughly damped immediately prior to placing fresh concrete to prevent excessive absorption of water.

X. UNFORMED FINISHES FOR CONCRETE

Where a concrete surface is specified for receiving a further applied finish or in all cases where no other finish is specified the concrete shall be uniformly levelled and screeded to produce a ridged surface. No further work shall be applied to the surface.

Where a concrete surface is specified as exposed with no further applied finish the concrete shall be uniformly levelled and screeded to produce a plain surface. After the concrete has hardened sufficiently, the surface shall be hand or machine floated sufficiently only to produce a uniform surface free from screed marks.

Y. CURING AND PROTECTING CONCRETE

Immediately after compacting and for 7 days thereafter concrete shall be protected against harmful effects of weather including rain, rapid temperatures changes, and from drying out. The methods of protection used shall be subject to the approval of the Engineer. The method of curing used shall prevent loss of moisture from the concrete.

During the curing period horizontal surfaces shall be protected by the following or other approved means:

- a) Covering with damp hessian canvas sacks or similar absorbent materials kept constantly damp and wholly covering the exposed concrete surface.
- b) Covering with an impermeable material raised approximately 50mm over the surface so to prevent loss of moisture
- c) An approved membrane curing compound.

During the curing period other surfaces shall be protected by the following or other approved means:

- a) Formwork in close contact with the concrete but kept cool at all times.
- b) Direct and continuous application of water preferably in the form of mist so as not to damage the surface.
- c) Covering as (a) to (c) above

All concrete faces or edges, particularly those which are exposed without rendering in the final structure, shall be adequately protected from damage and discoloration at all times.

Concrete structures shall not be loaded until the concrete is at least 21 days old or 28 days in the case of

cantilevers. With the prior approval of the Engineer the structure may be loaded after this time but in no case will loading greater than the final design loading be permitted.

A. PRECAST CONCRETE

The materials for precast work shall be similar to the materials for in situ work. The workmanship for precast work shall comply with CP 116 except where this conflicts with this specification when the specification shall prevail.

The contractor shall prepare, for each type of precast unit, a drawing indicating his proposed formwork construction, casting methods, de-molding and handling procedure for the Engineer's approval.

Molds and formwork shall be so constructed that the dimensions of the finished concrete members are within the specified permissible tolerance given clause 407 of CP 116: part 2:1969.

Where precast concrete is described as "fair faced" the mold shall be of metal, or are to have metal or hardboard linings, or are to be other approved molds which will produce a smooth, dense fair face to the finished concrete and free from all shutter marks, holes, pitting, etc.

The method of lifting, position of lifting points and curing time before lifting shall be agreed with the Engineer before casting of any units.

Extreme care should be taken when handling precast units and any units damaged during the transporting and/or positioning shall be replaced at the contractor's expense.

AB. CONCRETE FOR WATER RETAINING STRUCTURES

Concrete and its constituents for water retaining structures, in addition to the general and particular provisions in this specification shall comply with the following requirements in this section. In addition to the requirements of clause 4.5 aggregates for concrete in water retaining structures shall have a low drying shrinkage and absorption, as measured in accordance with BS 812 not greater than 3 percent. The Engineer may before approval is given to an aggregate or at any time thereafter require that the aggregate be tested for absorption in accordance with BS 812. Any aggregate failing to comply with this specification will be rejected.

In addition to the requirements of clause 4.20 concrete for the water retaining structures shall have a maximum cement content of 400 kg/m³.

Blinding concrete under water retaining structures shall be a maximum of 75 mm thick and shall be in class 15/40 concrete.

Class 15/40 concrete shall comply with the following requirements: -

Minimum works cube strength at 28 days 15MN/M²

Maximum size of aggregate 40mm

Mix proportions 1 cement:2.5 fine aggregate:

5 coarse aggregate

This is a nominal mix and no cubes will be required to be taken.

For water retaining structures the provisions of clause 4.19 paragraph are modified. The construction joints will in general be spaced to allow a maximum plan area for any bay of 40 sqm or maximum lengths of 7.5m in any one dimension.

For water retaining structures the provisions of clause 4.19 paragraph five are modified. At least 96 hours shall be left between the completion of concreting one bay and the start of concreting any adjacent bay.

A kicker of a minimum height 150mm shall be cast integrally with the base slab for all water retaining structures.

(a) Precast Concrete

General

Unless otherwise approved by the Engineer, all precast concrete construction shall be carried out on the Site and shall conform to requirements given elsewhere in these preambles.

The maximum size of coarse aggregate concrete shall not exceed 20mm except for thickness less than 75mm where it shall not exceed 10mm.

The compacting of precast concrete shall conform with requirements given elsewhere in these preambles except for thin slabs where use of immersion type vibrators is not practicable. The

Concrete in these slabs may be consolidating on a vibrating table or by any other methods approved by the Engineer.

(b) Precast Concrete Cladding Units

These shall be cast to the general details shown on the drawings. The Contractor shall submit working/shop drawings for each type of the cladding panels to the Engineer for approval before he commences casting operations

The panels shall be cast in special yards and shall be cured adequately before being hoisted into position in the structure, taking care that no parts are broken in the process. The units shall then be joined together with insitu concrete and flexibility connected to the top and bottom beams to allow for limited movement of the combined unit.

PART FIVE

WALLING SPECIFICATIONS

MATERIALS

A. CEMENT

Cement used for making mortar shall be as described in concrete work.

B. 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 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 and moist for not less than two weeks before being used in the works.

C. 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 Architect. 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 Architect.

E STONE

All stone shall comply with the requirements of CP121.202 for masonry and rubble walls respectively except where amended or extended by the following clauses.

Unless otherwise noted, all masonry walls shall be course 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 block 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 100mm square on the exposed face. Stone for masonry shall have a minimum compressive strength of 10 N/mm². (stone shall not be required to be tested to failure). The density of stone for masonry shall be not less than 230 kg/m³. 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 Architect 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 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 building constructed with stone from the same quarry and which has been exposed to the same environment condition for at least ten years. The maximum projection from the face of stone for rubble walls shall be 20mm beyond the specified face of the wall.

The contractor shall provide six samples of stone measuring 150mm x 150mm for testing prior to delivering any stone to site. As work proceeds the contractor shall provide six samples 150 x 150 x 150mm for testing from every 300m² of work. All stone shall be stacked on prepared dry areas free of clinker, ashes and sulphate bearing strata.

F. WALL REINFORCEMENT

Where described walls and partitions shall be reinforced with a 25mm wide strip of No.20S.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 115mm into abutting walls at junctions.

G. WALL TIES

To be 3mm diameter galvanized mild steel wire twisted butterfly wall ties

H. DAMP - PROOF COURSES

The bituminous felt sheeting for damp-proof courses shall be hessian based bituminous felt complying with BS743 TYPE 4A weighing not less than 3.85 Kgs per square metre. The sheeting is to be lapped 150mm at running joints and the full width of walls at angles.

WORKMANSHIP

I. 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.

J. MIXING 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.

K. 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 Architect.

(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 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 into the space between the walling and frames with cement

mortar well tamped into the channel of the frames and point all round externally.

All frames must be set plumb 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.

L. 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. Walls to be kept wet three days after building. All walls throughout the works shall be carried up evenly in 200mm 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 metres height of wall shall be laid in any one day.

(b) Bonding

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

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 ± 3 mm in any one metre length and a maximum overall deviation of 10mm for lengths of wall exceeding 3 metres. Walls shall be plumb with a maximum deviation of ± 3 mm in any metre height of wall with a maximum deviation of ± 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 should be straight with a maximum deviation of ± 3 mm in any one metre length and a maximum overall deviation of 10mm in any length exceeding 3 metres.

All bed and vertical joints shall be an average of 10mm thick with a maximum deviation of ± 3 mm of block work, and stone rubble walls. Joints for stone masonry walls shall be 6mm ± 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) Cavities

Cavity walls shall be of the overall thickness shown on the drawings.

Cavities above ground level between leaves of block or masonry shall be free of mortar droppings or their debris. The Contractor shall take proper precautions to prevent mortar or debris entering the cavity.

Cavity below ground level shall be filled with mortar for cavities up to 75mm wide and for cavities over 75mm wide filling shall be concrete mix 1:3:6. Cavities shall be filled such that there is maximum of three times the thickness of the thinner leaf of the wall filled with wet mortar or concrete unless the wall is

continuously supported for the depth.

(f) 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.

M. 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 15mm to form a square recess. The joints shall then be wetted and new mortar shall be forced into joints and finished as directed.

PART SIX

ROOFING & RAINWATER PIPES SPECIFICATIONS

A. GALVANIZED CORRUGATED IRON SHEETS

Galvanized or pre-painted corrugated mild steel sheets for roofing and cladding shall be of the gauge and profile required and obtained from an approved manufacturer. They shall be fixed with approved crook bolts, washers, etc., to 'Z' purlins.

B. TIMBER ROOF TRUSSES

All timber to be used shall be as described in carpentry and Joinery hereafter.

Roof construction is to include for all necessary timbers, dragon ties, ridges, hips, purlins, valleys, eaves, timbers, etc., and for any eaves soffits, fascias, gangboards as specified or shown on the Drawings. Generally trusses are to be set vertical and level, spiked to wall plates and secured with the wall ties.

No timbers used for ties, rafters or purlins shall be over 5.0 metres in length. All joints shall be scarfed and bound with continuous 20 mm hoop iron binding, pitched at 35mm centres scarfs in purlins shall occur at trusses but in ties and rafters they shall occur approximately central between joints. The prices for roof trusses shall include for all the foregoing and nails, bolts, etc., necessary to make the required joints.

C. ALUMINIUM FLASHINGS

Aluminium flashings shall be formed out of 22-gauge super purity aluminum with natural mill finish to BS 1470. Where flashings are built into joints or tucked into grooves the minimum depth is to be 25mm and they are to be secured by folded aluminum wedges at 450mm centres and pointed in cement mortar (1:3).

D. PVC RAINWATER PIPES

PVC rainwater pipes and fittings are to comply with BS 4576 with solvent welded or rubber ring seal joints.

Pipes are to be case into concrete or to be fixed to the structure with PVC holder bats built-in or plugged and screwed at maximum 2 metre centers.

Bends, swan necks, discharge chutes and fittings generally are to be fixed where necessary to facilitate the flow of water.

Rainwater outlets shall be PVC suitable for the roof finish in which they occur with domical PVC grating.

E. PROTECTION

The contractor is to take all necessary precautions to protect the finished work and must ensure no damage occurs to the roofing until completion of the works.

F. COMPLETION OF THE WORKS

On completion of the works, the contractor shall clear away, ensure that rainwater outlets are clear and generally leave the roof areas in a clean and watertight conditions to the satisfaction of the Architect.

PART SEVEN

CARPENTRY & JOINERY SPECIFICATIONS

CARPENTRY & JOINERY

A. GENERALLY

All woodwork shall be carried out in accordance with the drawing and the principals of first class joinery construction. Unless specifically stated otherwise, sizes shown on drawings are finished sizes and the contractor must allow for wrot faces.

MATERIALS

B. QUALITIES OF TIMBER

- (a) The qualities of timber stated hereinafter are in accordance with the latest Kenya Government Grading Rules.
- (b) All timber described as prime Grade is to be first Grade (Grade 1)
- (c) All timber described as selected Grade is to be second Grade (Grade 11)
- (d) All hardwood is to be prime Grade (Grade 1)
- (e) All timber for permanent use in the building shall before use be approved for quality in accordance with the foregoing specification for its respective grade. Any timber not so approved by the Architect shall be removed from the site forthwith.

C. INSECT DAMAGE

All timber, whether graded or ungraded, and including shuttering, scaffolding and the like shall be free of live borer beetle or other insect attached when brought upon the site. The contractor shall be responsible up to the end of the maintenance period for executing at his own cost all work necessary to eradicate insect attack of timber which becomes evident including the replacement of timbers attacked, or suspected of being attacked, notwithstanding that the timber concerned may have been inspected and passed as fit for use.

D. SEASONING OF TIMBER

All carpentry timbers are timbers are to be seasoned to an average moisture content of not more 20%. All joinery timbers are to be seasoned to an average moisture content of not more than 15%. The contractor is to make available on site a metre of testing moisture content of all timber delivered.

E. PREPARATION AND PROTECTION OF TIMBER

- (i) All timber necessary for the works is to be purchased immediately the contract is signed, and when delivered is to be open stacked for such further seasoning as may be necessary. Preparation of the timber is to be commenced simultaneously with the commencement of the works generally.
- (ii) All timber and assembled woodwork is to be protected from the weather and stored in such a way as to prevent attack by decay fungi, termites or other insects.

F. PRESSURE IMPREGNATED TIMBER

(i) All timber described as pressure impregnated shall be impregnated under vacuum and pressure with secure. or Tanalith. Wood preservative with an average absorption of not less than 6.7kgs. of dry salt per cubic metre. In case of resistant species where this retention cannot be obtained the timber shall be treated to refusal point. All treated timber shall not be exposed to wet conditions for at least 14 days after treatment has been carried out.

All cut ends, drilling or fabrications on the site producing new surfaces shall be thoroughly brushed or soaked with celcure B. salts applied in accordance with the manufacturer's instructions.

Any other method of timber impregnations will only be allowed at the Architect's approval.

G. HARDWOOD

All hardwood will comply with the requirement of BS 1186 part 1 BS 4047. It shall show a straight and regular grain throughout.

Hardwood shall be free from wooly texture, soft heart, sap wood, splits, shakes, all evidence of insect or fungi attack and rot and all

faults caused by compression failure. There shall be no waney edges. Hardwood shall be free from knots on exposed faces. Any hardwood showing visible imperfections will be rejected.

Preservatives shall not be used without the Architect's permission. Where indicated on the drawings, internal hardwoods will be treated with clear sealants as specified elsewhere.

H. SOFTWOOD

Softwood timber for carcassing work shall be either podocarpus or cypress to the approval of the Architect and shall be dimensions specified on the drawings.

Timber shall be accordance with the Groups listed in this clause.

All softwood shall comply with the requirements of BS1186 part 1. Timber shall be free from wooly texture, soft heart, sap wood, splits, shakes, pith showing on the surface, sloping grain exceeding one in eight checks, knots exceeding 25mm of diameter, loose knot or knot holes and any evidence of insect or fungi attack. There shall be no waney edges.

Where indicated on the drawings , the softwood will be treated with clear sealer or painted with gloss paint. All softwood is to be pressure impregnated against insect attack before delivery to site. Any ends cut after treatment shall be given two liberal coats of preservative.

I. PLYWOOD

All plywood shall comply with the requirements of BS 1455, be obtained from a manufacturer to be approved by the Architect and be of the thickness shown on the drawings. Plywood shall be Exterior Grade except where otherwise stated. Plies shall be bonded together with adhesives complying with the requirements of BS 1203 grade WBP. Plywood shall be free from end joints (including joints in veneers) overlaps in core veneers, dead knots, patches and plugs, open defects, depressions due to defects in cure, insect attack (except isolated pinworm holes through face veneers only), fungal attack and from discolouration differing from that normally associated with species.

Face veneers shall be hard and durable and shall be capable of being finished to a smooth surface. Face veneers shall closely match the general joinery timber supplied.

J. CHIPBOARD

Chipboard shall be medium density wood particle board complying with BS 2604 part 2, produced in factories by an approved process.

K. BLOCKBOARD

Blackboard shall be of approved local or imported manufacture to BS 3444 glued throughout and softwood or hardwood faced as hereinafter specified and equal to a sample to be deposited with the Architect for approval and which when so approved shall form the standard for the works.

L. TIMBER DOORS

Generally, the requirement for flush doors is that they have a minimum thickness of 40mm. They shall be faced both sides and there shall be hardwood lippings to all edges. Hollow core and semi-solid types shall contain adequate provision within the core for ironmongery (e.g. lock blocks etc).

All hollow and semi-solid doors shall be faced with WBP bonded Exterior grade plywood. Except where indicated doors shall have hardwood veneered faces.

Vision panels where required shall be 150mm wide 900mm deep.

Flush doors shall be obtained from a supplier to be approved by the Architect. Flush doors shall comply with the requirements of BS 459 parts 1,2 and 3. All edges shall be lipped with hardwood tongued into edge of the door.

Fire resistant flush doors are to be constructed in accordance with BS 459 part 3.

The core of solid core flush doors shall be constructed of longitudinal laminations of precision planed timber, butt joined and glued with resin based adhesive under hydraulic pressure, the whole forming a rigid fire resistant raft.

Where doors are indicated as fire resistant they shall be constructed so as to exceed the requirements stated when tested in accordance with BS 476 part (1972) section 7.

M. HARDWOOD VENEERS

- (a) Veneer facings shall be selected to the approval of the Architect.
- (b) No glass or synthetic fibre stitching will be permitted for jointing veneer leaves together.
- (c) Veneer shall be free from splits, knots, glue, stains insect or fungi attack and rot.
- (d) Filling or inlaying of any kind will not be accepted.
- (e) All wood veneers shall be bonded to the core material in such a way that no lifting and blistering shall occur.

N. CARPENTRY WORK

- (a) All carpentry shall be executed with workmanship of the best quality. Scantlings and board shall be accurately sawn and shall be uniform in width and thickness throughout and shall be as long as possible and practicable in order to eliminate joints
- (b) All work shall be left with a smooth surface except where specified to be wrot.
- (b) All work shall be accurately set out and in strict accordance with the drawings, and shall be framed together and securely fixed in the best possible manner with properly made joints. Provide all brails, nails, screws etc., as necessary and as directed and approved.
- (c) Actual dimensions of scantling for carpentry shall not vary from the specified dimensions by
- (d) more than +3mm or -1mm. Sizes and thickness of wrot carpentry timber are nominal, that is to say a variation of 3mm from the specified sizes will be allowed from each wrot surface unless the thickness or size is described as finished in which case no variation from the stated thickness or size will be permitted.

O. JOINERY WORK

All joinery work shall be wrot unless otherwise described.

- (a) Sizes and thickness of joinery are nominal that is to say a variation of 3mm from the specified sizes will be allowed from each wrot surface unless the thickness or size is described as finished in which case no variation from the stated thickness or size will be permitted.
- (b) No joinery to be put in hand until the details have been supplied or approved by the Architect and in all cases the details are to be worked to.
- (c) All joinery shall be executed with workmanship of the best quality in strict accordance with the detailed drawings, moulding shall be accurately and truly run on the solid and all work planed, sandpapered and finished to the approval of the Architect. All arches to be slightly rounded. All framed work shall be cut out and framed together as soon after the commencement of the building as is practicable but should not be wedged up until the building is ready for fixing the same and any portions that warp, get in winding, develop shakes or other defects shall be replaced with new. In-door frames etc., the heart face of the timber shall be fixed away from the wall. As soon as required for fixing in the building the framing shall be glued together with glue as described and properly wedged or pinned etc.,

as directed.

- (d) All beads, fillets and small members shall be fixed with round or oval braids or nails well punched in and stopped. All larger members shall be fixed with screws, the screws let in and pelleted over with wood pellets to match the grain.
- (e) Cups and screws for fixing beads and fillets shall be spaced 150mm apart and 25mm from angles.
- (f) All joinery immediately upon delivery to the site is to be sorted and protected from the weather.
- (g) All joinery is to be primed before fixing but no work is to be primed until it has been approved by the Architect.
- (h) All fixed joinery which is liable to become bruised or damaged in any way, shall be properly cased and protected by the contractor until completion of the work.
- (i) When natural finish is specified, the timber in adjacent pieces shall be matched and uniform or symmetrical in colour and grain.

P. SOFTWOOD

Fixing shall be by means of non-rusting screws with counter sunk heads to proprietary plugs or ground. Nails will not be permitted.

Sections shall be neatly and accurately cut so as to avoid splitting of the wood.

Q. HARDWOODS

Hardwoods are as described.

In jointed panels each piece shall be of the same species. Joinery for oiling shall have all surfaces of the same species and same character of grain.

Fixing shall be by means of brass screws with countersunk heads to proprietary plugs or grounds. Where work is face screwed heads of screws shall finish not less than 6mm below the surface and be covered with round teak pellets of appropriate thickness.

Pellets shall be chosen and fixed so as to match colour and pattern of grain so far as is practical. Nailing will not be permitted.

Sections shall be neatly and accurately cut with fine toothed saws.

R. PLYWOOD

Plywood of the required thickness shall be used. The Contractor will not be allowed to make up thickness by gluing together sheets of thinner plywood.

Where cutting is required it shall be neatly and accurately performed with fine toothed saws so as to avoid splitting the face veneers and intermediate plies.

S. CHIPBOARD

Where cutting is necessary it shall be neatly and accurately performed with fine toothed saws so as to avoid splitting the face veneers. Where raw edges arise from cutting these shall be faced with a matching hardwood fillet cut pinned and glued to match factory produced edges.

T. BLOCKBOARD

Where cutting is necessary it shall be neatly and accurately performed with fine toothed saws so as to avoid splitting the face veneers. Where raw edges arise from cutting these shall be faced with a matching hardwood cut pinned and glued to match factory produced edges.

U. LAMINATED PLASTIC VENEER

Laminated plastic veneers are to be fixed with an approved adhesive, care being taken to eliminate all air from beneath the laminate on fixing. The laminate is to be free from chipped or cracked portions and work so disfigured is to be moved and replaced. When the adhesive is set the laminate is to be neatly beveled off along all rises with a plane.

Where plastic laminate is fixed to doors or shelves etc., without a laminate to the outer edge, a raised lipping is to be provided and the laminate finished flush against the lipping.

V. FIXING DOORS AND FRAMES

Doors shall be properly fitted to give a uniform clearance of not more than 3mm all round and the hinges shall be let into doors.

Doors frames shall be properly framed at angles. Door stops shall be housed into grooves in frames. Architraves shall be provided to conceal finishes. Frames shall be fixed to grounds or plugs. Fixing shall be by means of non-rusting screws with countersunk heads. For hardwood frames screw heads shall be finished not less than 6mm below surface of the wood and shall be covered with matching round hardwood pellets of appropriate thickness. Pellets shall be chosen and fixed so as to match colours and pattern of grain so far as is practical. Nailing will not be permitted.

Except where indicated doors shall be kept clean for clear polyurethane varnish.

Door frames shall be treated to match doors.

Glazing shall be wired glass 6mm thick with edges wrapped in wash-leather and secured with hardwood glazing bead size 10mm x 15mm metered at angles secured with brass screws and cups.

W. CONSTRUCTION OF DOORS

- a) Flush doors specified as solid construction shall have a 100% solid core of vertical laminate Cedar or equal and approved.
- b) Flush doors specified as semi-solid construction shall be constructed with timber stiles and rails, in filled with horizontal intermediate rails spaced equally apart and tenoned into stiles.
- c) Unless otherwise specified, doors scheduled to receive a clear or veneered finish shall be lipped on all edges.
- d) Where panels over doors are specified, such panels shall be constructed in the same way and with the same materials as the doors above in which they are situated, and the panels shall match the doors in every respect.
- e) For doors specified as plywood faced, the plywood shall not be less than 3mm thick, complying with the requirements of BS 1455, WBP type. Face veneers shall be Grade 1 for painted doors in every respect.
- f) All doors shall be provided with lock blocks of minimum size 300mm x 75mm.
- g) Glass beading strips shall be approved wash-leather self-adhesive tape turned up over both sides of the glass and glazing surfaces and turned to the straight line.
- h) All screws shall be countersunk and screwed and pelleted in un-painted work.
- i) Timber pellets shall be glued and tapped into the hole, making sure the grains line up, and are carefully trimmed back flush with joinery to give a clear, smooth overall surface.

X. FITTINGS AND FIXTURES

The fittings, etc., are to be accurately constructed in accordance with the detailed drawings. The doors, drawers, etc., are all to fit and open and close smoothly and all work next to walls, floors and ceilings is to be soundly fixed and scribed to fit snugly against same.

AA. COMPLETION OF WORKS

Protection of all joinery and ironmongery must be maintained until completion of the contract as a whole. All joinery and glass is to be thoroughly cleaned before the building is handed over.

AB. DEFECTIVE WORK

All work judged to be defective must be removed and replaced as directed by the Architect.

IRONMONGERY

AC. GENERALLY

- a) Ironmongery shall be fixed with suitable screws to match and prices shall include for this
- b) All locks and ironmongery shall be fixed before the woodwork is painted, handles shall be removed before the painting commences carefully stored and refixed after completion of painting.
- c) All locks, springs and other items of ironmongery with moveable parts shall be properly tested, cleaned and adjusted where necessary to ensure proper working order at the completion of the works and left in perfect working order by the contractor.
- d) The keys of all locks shall have labels attached with door references marked on before handing to the Architect.
- e) All locks shall be provided with a master key system and prices shall include for this as required by the client, and as instructed by the Architect. The client's requirements are to be obtained by the contractor before ordering.

PART EIGHT

STRUCTURAL STEELWORK AND OTHER METAL WORK SPECIFICATIONS

A. STEEL QUALITY

Structural steel shall comply with the requirements of B.S.4360 and shall be new and unused. It shall be free of imperfections, distortion, rust, scales of other deterioration or contamination by grease, paint and similar items.

B. TESTING

The Engineer may, where he so desires call manufacturer's work test certificates in respect of all steel, which tests shall have been performed in accordance with B.S.18. The Engineer may also carry out such further tests as he may consider necessary.

C. SECTIONS

The dimensions and properties of hot rolled structural steel sections and hollow sections shall be in accordance with B.S.2, part 1 and 2, or B.S.4848 for metric sized sections.

D. MINIMUM THICKNESS

All steelwork sections other than gauge metal sections, including cleats, gusset plates, etc. shall be not less than 8mm thick unless specifically indicated on the Drawings.

E. FORGING

All steel for forging and all forgings shall comply with the requirements of B. S. 29, and shall be subject to inspection and approval of the Engineer.

F. CASTING

All material used in the manufacture of castings and all castings shall comply with the requirements of B.S. 309, 1452 and 3100 and shall be subject to inspection and approval of the Engineer.

G. GAUGE METAL SECTIONS

Sections shall be manufactured from continuously hot dipped galvanized steel coil to B.S.2989 using steel to B.S.1449, part 1A and 1B, classification CR4 with a guaranteed minimum yield stress of 280 N/mm².

The sections shall be cold formed to the basic shapes given in B.S 2994 with the design and details conforming to Addendum No. 1 to B.S.449 (PD4064).

Section shall be sawn and holes may be punched so as to produce a neat round hole with no distortion . Holes and cut ends shall be painted with zinc rich paint as soon as possible after cutting.

H. "Z" PURLINS

“Z” purlins shall be fabricated in the longest practicable lengths with staggered joints. All connections shall have a minimum of four bolts. Sag rods and apex ties shall be provided where indicated.

STRUCTURAL STEELWORK AND OTHER METAL WORK SPECIFICATIONS

I. TUBULAR SECTIONS

For tubular construction, due allowance is to be made for sealing the ends of all tubes and hollow square or rectangular sections with welding or welded plates. Where end make connections to other members, they shall be welded on true and square.

Shop joints required in tubular members shall be full penetration but welds on to split backing rings.

J. STORAGE

Steel shall be stored at least 150mm above the ground and protected against rust and corrosion.

K. FABRICATION

Structural steelwork shall be fabricated in accordance with B.S.449.

L. SHOP DRAWINGS

The contractor shall prepare fully detailed working drawings of the structural steelwork and obtain the Engineer's approval before commencing any fabrication. The drawing to be submitted at least one week before it is planned to start fabrication.

M. EDGE PREPARATION

The longitudinal edges of all plates and cover plates forming plate girders or built-up girders and columns and all edges of gusset plates over 12mm thick shall be machined. Edges which are subsequently wholly incorporated in weld may be machine flame cut. The abutting ends of the parts of all compression members including the caps and bases of stanchions, built-up columns and stiffeners transmitting load through direct contact shall be machined after the members have been fabricated so that all the parts shall be in close contact when the joint is made. The edges of the other members may be machine flame cut, sawn, sheared or cropped but hand flame cutting will not be permitted. All burrs shall be removed by grinding, and sheared and cropped edges shall be dressed.

N. STRAIGHTENING

All plates, bars and rolled sections shall be carefully trued, straightened and taken out of winding by pressure before they are drilled. Heating or hammering rolled sections and plates will not be permitted.

O. TEMPLATES

The templates throughout the work shall be mild steel. In cases where actual members have been used as templates for drilling similar pieces, the engineer will decide whether they are fit to be used in the finished structure.

P. HOLES

All holes in the steelwork shall be drilled out and not punched. Whenever holes are drilled in one operation through two or more separate parts the parts shall be separated after drilling and the burrs removed by grinding. All slotted holes shall be finished with sides of the holes straight and parallel.

Q. JOINTS

No joints shall be made in any plate, bar or rolled sections except where shown on the Drawings or described in the specification.

R. ASSEMBLING AND MARKING

All steelworks shall be inspected in the fabricator's yard by the Engineer and where directed the steelwork shall be assembled to check the accuracy and interchangeability of the work. Before dispatch from the fabricator's yard all steelworks shall be cleaned down and clearly marked in paint or stenciled and stamped to facilitate sorting at the site. The markings shall be in conformity with the approved working and erection drawings.

S. WELDING GENERALLY

No welds will be permitted in any part of the permanent work except where shown or described on the approved working Drawings.

All welding of steel shall be executed in accordance with the provisions of B.S.5135 and the workmanship shall be of the highest quality in all respects throughout. All welds shall be of the appropriate dimensions, they shall be sound, free from porosity, slag inclusion, undercutting and other defects, and shall be of clean and regular appearance throughout, and the execution shall be such as to ensure that the parts connected are properly aligned and positioned, free from distortion and so fixed together as to produce a homogeneous section of the correct dimensions. As much of the welding as is practicable shall be executed by means of automatic or semi-automatic processes and manual welding shall be kept to a minimum.

All welders shall have completed the tests described in part 6 or B.S.449 and may be required to carry out any of those tests in the presence of the Engineer.

T. ELECTRODES

All covered electrodes for the manual metal arc welding of grades of steel to B.S.4360 shall comply with the requirements of B.S.639 and B.S.1719: part 1. All electrode wires and fluxes for the submerged arc welding of grades of steel to B.S.4360 shall comply with the requirements of B.S. 4164.

All electrodes shall be of a type, size and quality appropriate to the class of work for which they are intended and shall be supplied by approved manufacturers and shall be of the heaviest gauge consistent with obtaining adequate penetration. Each batch of electrodes shall be accompanied by the manufacturer's certificates stating the date of manufacture, together with certificates giving the results of the initial test and of the most recent periodic check tests.

All electrodes shall be stored in their original unbroken bundles or packages in a warm dry and well ventilated place to which the Engineer shall have access.

All electrodes for welding shall be used strictly in accordance with manufacturer's instructions and shall be so chosen that the properties of the deposited metal are in no way inferior to those of the parent metal. Under no circumstances shall electrodes be used in a damp condition and any electrodes which have parts of the flux covering broken away or damaged in any respect whatsoever shall be discarded.

U. WELDING TRIALS

Whenever so directed by the Engineer and prior to the commencement of fabrication, welding and flame cutting procedure trials shall be carried out on typical examples of the various types and categories of welded members and joints using representative samples of the materials to be employed in the work. These trials shall demonstrate to the satisfaction of the Engineer the suitability and adequacy of the methods and procedures to be adopted in the fabrication.

The samples of material to be used in the aforesaid trials shall be selected and marked by the Engineer when the materials are inspected at the rolling mills and the various types and categories of members and joints shall be welded in a manner simulating the most unfavorable conditions that will be experienced during fabrication or assembly. After completion of welding the various examples shall be sectioned for subsequent examination and testing.

Any approval by the Engineer of the welding methods and procedures shall in no way limit or restrict the right and authority of the Engineer to subsequently reject any welds or welded joints that in his opinion fall below the standard appropriate to the class of work.

V. WELD TESTING

The contractor, his subcontractor and/or his fabricator shall be responsible for the preparation of all welded test pieces as and when required by the Engineer and for the provision, maintenance and efficiency of all apparatus and equipment necessary to the conducting of such tests in accordance with the procedure laid down in B.S.709.

Non-destructive testing of welds on completed member and joints shall be carried out by the Engineer during the course of fabrication as required and any length of weld or any welded joints exhibiting any defects shall be rejected and all such defects shall be cut out and replaced with sound work. The entire cost of making good or replacing any such rejection shall be borne by the contractor.

The contractor, his sub-contractor and/or his fabricator, shall be responsible for all preparations necessary for the carrying out of non-destructive testing of welds on completed members and completed members and joints to the satisfaction of the Engineer and shall provide all assistance required for conducting such tests

W. WELDING PLANT

All plant used for shop and site welding shall be capable of maintaining at the fusion face the voltage and current specified by the manufacturer of the electrodes and the contractor, his sub-contractor and/or his fabricator shall provide the necessary instruments for measuring the voltage and current as and when required by the engineer.

Black bolts and nuts shall be in accordance with B.S. 4190 and shall have their bearing faces machined. Close tolerance bolts and nuts shall be in accordance with B.S.3692 and shall have their bearing faces machined, be turned on the shank and shall be screwed with unified coarse threads to B.S.1580. Flat and taper steel washers shall be in accordance with B.S.4320. Washers shall be provided under the nuts of all black bolts and close tolerance bolts so that the nut, when screwed up tight, does not bear on the shank of the bolt.

Taper washers of correct angle of taper shall be provided under all bolt-heads and nuts that are required to bear on bevelled surfaces.

X. BOLTS

Black bolts and nuts shall be in accordance with B.S. 4190 and shall have their bearing faces machined. Close tolerance bolts and nuts shall be in accordance with B.S.3692 and shall have their bearing faces machined, be turned on the shank and shall be screwed with unified coarse threads to B.S.1580. Flat and taper steel washers shall be in accordance with B.S.4320. Washers shall be provided under the nuts of all black bolts and close tolerance bolts so that the nut, when screwed up tight, does not bear on the shank of the bolt.

Taper washers of correct angle of taper shall be provided under all bolt-heads and nuts that are required to bear on bevelled surfaces.

Y. HIGH STRENGTH FRICTION GRIP BOLTS

High strength friction grip (H.S.F.) bolts, nuts and washers shall be of either high strength load indicating bolts or nuts of an approved pattern or shall be provided with load indicators of an approved pattern under the heads of the bolts. The dimension of high strength friction grip bolts and nuts shall be in accordance with B.S.4395 except only for the dimensions of the load indicating washers shall be supplied by manufacturers approved by the Engineer.

Non load indicating bolts or washers may be used with prior approval of the Engineer. The part-turn method of tightening shall be used with these bolts.

All bolts shall have clear distinctive marks to identify them. The bolts and washers shall be electro-zinc plated or zinc coated sheradizing and the nuts cadmium plated by the manufacturer to ensure that the nuts do not cease under tension.

USE OF HIGH STRENGTH FRICTION GRIP BOLTS

The use of high Strength friction Grip Bolts shall be in accordance with B.S.4604.

A. SURFACES

Surfaces of plates in joints shall be free of paint or any other applied finish (except galvanizing), oil, dirt, rust, loose scale, burrs or other defects which would prevent solid seating of the parts or would interfere with the development of friction between them.

B. MINIMUM PLY THICKNESS

General Grade Bolts - no outer ply, and wherever possible no inner ply, shall be smaller in thickness than half the bolt diameter or 10mm whichever is the less.

High Grade Bolts - no outer ply, and wherever possible no inner ply, shall be less than 10mm.

C. SPACING OF BOLTS

This shall be as shown on the Drawings or otherwise in accordance with B.S.449. The tool to be used for tightening should be taken into account when arranging the disposition of bolts in a joint.

D. ASSEMBLY OF JOINT

Holes shall be lined up with draft pins until bolts in the remaining holes are fully tightened. Driving of bolts will not be permitted. The ends of the bolts and nuts shall be clear and lightly lubricated. No lubricant shall come into contact with the ply faces. Each bolt and nut shall have a flat round washer and taper washer as necessary. Load indicating washers shall be fitted with the protrusions against the bolt head or against a special nut face washer when fitted at the nut end.

E. TIGHTENING

Tightening shall be in a staggered pattern agreed with the Engineer beforehand, working from the centre of joint outwards. Each bolt tightening operation shall be carried out speedily until the required gap under the load indicating washer is reached. This shall be measured using a feeler gauge.

Appropriate allowance shall be made in the gap for the location of the indicating washer relative to the bolt.

Tightening may be carried out using manual or power wrenches but not torque wrenches and must be carried out until the bolt reaches the minimum specified tension.

Full details must be obtained from the manufacturer regarding details of the installation, tightening and use of load indicating washer to confirm the correct tension has been developed in the bolts.

F. BOLT FAILURE

If after final tightening a nut or bolt is slackened off for any reason, or becomes slack, the nut, bolt and washer must be discarded and not used again.

G. PAINTING

The gap under the load indicating device shall be filled with paint.

H. PART TURN TIGHTENING

In certain circumstances the part turn method may be permitted. The sequence tightening bolts in a group shall be agreed beforehand with the Engineer. The bolts shall be tightened initially with a standard podgier spanner to bring the joint surfaces into close contact. This must be checked before the tightening process is completed.

A permanent mark shall be cut on the nut and protruding end of the bolt using a cold chisel and the nut finally tightened with an impact wrench to turn it relative to the bolt and specified amount to produce the required minimum tension.

I. SHOULDERED BOLTS AND NUTS

Shouldered bolts and nuts shall be black bolts and nuts in accordance with B.S.2078 and shall be screwed with unified coarse threads to B.S. 1580 and shall be of the dimensions shown on the Drawings. Shouldered bolts shall be provided at all expansion and other sliding joints and shall be supplied with all necessary washers.

J. ANCHOR BOLTS AND NUTS

Anchor bolts and nuts for setting in concrete shall be as shown on the Drawings or as approved by the Engineer and shall be fixed in accordance with the manufacturer's technical information sheets giving full particulars of the bolts including the mechanical properties of the bolts, the safe working loads and methods of fixing and usage.

K. PACKING FOR SHIPMENT

All cleats, gussets, stiffeners, brackets and other projecting material arising out of fabrication shall be protected from damage while being transported in such a manner as to prevent distortion. All machine surfaces shall be suitably protected. All straight bars, except small pieces, shall be shipped in bundles of convenient size and shall be temporarily bolted together or bound with annealed steel wire.

All bolts, nuts, washers, screws, small pieces and other small articles shall be adequately packed in crate or other suitable containers. Each piece, packing, bundle and crate shall be clearly marked with its weight and with the appropriate shipping marks before dispatch from the fabricator's yard.

L. ERECTION OF STRUCTURAL STEELWORK

The erection of all structural steelwork at the site shall be in accordance with the provision of B.S.449. When lifting and fitting steelwork into position care shall be taken that the members are not twisted, bent or damaged.

Suitable slings, blocks, tackles, shear legs, derrick, cranes and other types of lifting appliances and equipment shall be provided and every care and precaution shall be taken to ensure the safety of all persons engaged in such work.

The erection of the steelwork shall be carried out in such a manner as not to subject any of the members to overstressing, or reversal of loading, which the members are not designed to support. During erection the steelwork shall be securely braced, propped or otherwise temporarily supported until such time as the steelwork is lined, levelled and braced and bolted in its final position.

M. BEDDING OF BASE PLATES

Steel stanchions with base plates shall be supported on steel shims or wedges to obtain the correct line and level of the stanchions and the holding down bolts tightened by hand. Prior to bedding the base plates, the space under the plates shall be cleaned out.

The base plates shall be bedded using cement/sand 1:2 mortar with sufficient water to make the mortar flow under pressure or by vibration or by rodding until the whole space under the base is completely filled. The steel shims or wedges shall be left in. After hardening of the mortar the holding down bolt shall be tightened by spanner as required.

N. CONCRETING IN OF MEMBERS

Where any portion of a steel member is designed to be cast into concrete, the surfaces in contact with concrete shall be thoroughly cleaned of paint or other adherent matter.

When members are to be concrete in, whether supplied with temporary positioning bolts or otherwise, they shall be lined and levelled and plumbed and firmly supported before concreting in.

If base plates are shown on the drawings, these shall be grouted in as above prior to concreting.

O. NAILS, SCREWS AND BOLTS

Nails, screws and bolts shall be of best quality mild steel of lengths and weights approved by the Architect. Nails shall be to B.S.1202 and bolts to B.S.916.

Bolts shall project at least two threads through nuts and all bolts passing through timber shall have washers under heads and nuts.

P. FIXING METAL WINDOWS, DOORS, ETC

The contractor's prices for fixing metal windows, doors, etc., shall include for assembling and fixing, including screwing to wood frames and cutting mortises for lugs in concrete or walling and running with cement mortar (1:4), bedding frames in similar mortar and pointing in mastic, bedding sills, transoms, mullions in mastic, making good plaster around both sides, and fixing, oiling and adjusting all fittings and frames.

Q. METAL WINDOWS

Metal windows shall be steel standard section windows supplied and installed by the contractor or an approved specialist, sub-contractor. In the case of a specialist sub-contractor, the contractor shall provide any general or special attendance as may be required by the sub-contractor.

PART NINE

FINISHES SPECIFICATIONS

GENERAL

A. OTHER SPECIFICATIONS

All other specifications of this contract where applicable are deemed to apply equally to the finishings specifications.

B 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 Architect after which all work executed shall conform with the respective approved samples.

C FINISHED THICKNESSES

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

Suspended floors shall have a constant structural thickness and have level top surfaces. The finished floor surface will equally have 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 specifications for the structural work.

D MATERIALS GENERALLY

All materials shall be of high quality, obtained from manufacturer's to be approved by the Architect. Cement, sand and water shall be as described under concrete work and Block work.

E 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 architect and are to be used strictly in accordance with the manufacturer's printed instructions.

F. 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 finishes pavings or plasterwork.

INSITU FINISHINGS

GENERALLY

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.

H 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 the following:-

Item of work Mix Minimum Thickness and finish

Internal Plaster 1 part cement 16mm finish to walls and ceilings.

¼ part lime wood float finish unless otherwise
4 parts sand specified.

External Render 1 part cement 12mm finish in two coats
4 parts sand

Tyrolean finish Ditto 6mm finished thickness in two
coats
on 10mm plastered backing

To obtain greater plasticity a small quantity of lime may be added to the mixes for external plastering at the Architect's discretion but in any case this is not to exceed ¼ part lime to 1 part cement.

With regard to the lime mortars gauged with cement, 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 quality 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.

I 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 block work 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 Architect. The reinforcement shall consist of a strip of galvanized wire mesh. Expansion or equal approved 15cm wide which shall be plugged, nailed or stapled as required at intervals not exceeding 45mm 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.

J 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 be so hard 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.

Tyrolean finish shall be applied with an approved machine to give a finish of even texture and thickness. The sprayed finish shall be applied in two separate coats allowing time for drying between coats.

Application in one continuous operation to build up a thick layer will not be permitted. The total finished thickness of the two sprayed coats shall be not less than 6mm.. the sprayed finish shall not be applied until all repairs and making good to the undercoat are completed. Any plaster which adheres to pipes, doors, windows and the like shall be carefully removed before it has set. Curing shall take place after the application of the second coat. The pressed finish as directed by the Architect. Where coloured tyrolean is required this shall be

obtained by the addition to the mix of any approved colour pigment.

All plastering and rendering shall be executed in a neat workman like 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.

K 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.

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

C ANGLE BEADS

Where required by the Architect, 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 450mm at both edges.

A. PLASTER STOPS

Where shown on details, plasterwork shall be stopped against “expanded” galvanized steel plaster stop reference 565 which shall be securely nailed to wall in the positions indicated on the drawings.

B. CEMENT AND SAND SCREEDS

Screed shall be mixed and formed as described.

C. GRANOLITHIC PAVING

The granolithic paving shall be laid by a specialist floor layer and constructed as follows:-

Curing compounds if specified or approved by the Architect shall be used in strict accordance with the manufacturer’s instructions.

Surface hardening solutions of sodium silicate if purchased as liquid shall be of the grade sold for this purpose. Fourteen days after curing the surface shall be sprayed with three coats of sodium silicate solution and spread evenly with a mop or soft brush.

Unabsorbed silicate left on the surface after the last application is to be washed off.

Solution is to 1:4 by volume for first coat, 1:3 for second, 1:2 for third, applied at 24 hour intervals.

The base concrete structural floor shall be finished with a tamped surface. Shortly before the granolithic topping is to be laid the surface of the base concrete is to be thoroughly prepared to provide a good bond. The base concrete shall be hacked by hand or mechanically so that its laitance is completely removed to expose clean coarse aggregate. All traces of dust formed as a result of hacking etc., shall be removed. The base concrete shall be thoroughly wetted prior to laying. Any excess water shall be removed prior to the grouting.

The prepared surface of the base concrete shall be covered with a grout consisting of one part cement and one part sand mixed to the consistency of thick cream and it shall be scrubbed into the surface with a stiff broom.

The granolithic topping shall be mixed in the following proportions by weight:-

1 part cement, 1 part fine aggregate and 2 parts coarse aggregate.

The water content of the granolithic topping shall be kept as low as possible consistent with obtaining full compaction of the topping the plant available in order to avoid segregation of excessive laitance and in no

circumstances must water/cement ratio exceed 0.42 by weight.

The granolithic topping shall be mixed for a period of not less than 11/2 minutes after all the materials have been placed in the mixer drum. No concrete shall be removed from the drum so that some water will enter the drum before the cement and aggregates.

Each batch shall be discharged completely before the next batch is introduced. No extra water or other material shall be added to the mix after it has left the mixer.

If electrical conduit, trunking or any other items are required to be buried within the granolithic topping and the thickness is reduced at any point the contractor is to ensure that steps are taken to eliminate the possibility of cracking in the granolithic topping by means of galvanized wire mesh reinforcement in the flooring or other approved method. The extent of buried conduits, etc., should be ascertained prior to tendering and allowance for complying with this requirement will be deemed to be included in the rates for granolithic flooring.

The granolithic topping shall be laid in areas not exceeding 14M². The length of any bay should not exceed 1½ times the width of that bay. Joints shall be made in the granolithic topping over all joints in the base concrete and over all supporting beams for suspended floors.

D. INSITU TERRAZZO WORK

The terrazzo pavings and screeds under are to be laid and polished complete by an approved specialist firm.

Where the screed is to be bonded to the concrete structural sub-floor, the latter shall be finished with a tamped surface and left clean and free from dust and grease.

Before laying the screed the surface shall be covered with a grout of one part sand and one part cement brushed in with stiff broom.

The screed is to be laid before the grout has set.

All screeds under in-situ and precast terrazzo paving are to be laid by the approved specialist firm. The screeds shall consist of one part ordinary Portland cement to three parts sharp washed sand. This mix may be varied by agreement on the responsibility of the approved specialist firm.

The screed is to be reinforced with 22-gauge galvanized steel wire netting with mesh not exceeding 1" laid direct on the sub-floor of bays exceeding 1 square meter.

The screed backing in-situ skirtings is to be such as to adhere firmly to the various materials of the walls.

The thickness of in-situ terrazzo finishes are minimal and they may be increased if the specialist considers it necessary with corresponding reductions to the screed thicknesses providing the overall thickness of the finished flooring is maintained and without adjustment to the price quoted. The following thicknesses are assumed in measuring the terrazzo:-

Finish Bedding Screed Total

In-situ paving 25 -	40
In-situ margins 25 -	40
In-situ skirtings 8 -	12

If electrical conduit, trunking or other items are required to be buried within the depth of the screed and flooring and the total thickness is reduced at any point the flooring specialist is to ensure that steps are taken to eliminate the possibility of cracking in the screed and consequent damage to floor finish by means of galvanised wire mesh reinforcement in the screed and flooring or other approved method. The extent of buried conduit, etc., should be ascertained prior to tendering and allowance for complying with this requirement will be deemed to be included in the rates for terrazzo pavings and screeds under.

The in-situ terrazzo paving is to consist of two parts of white marble chippings to one part of white Portland

Cement to B.S.1014.

The marble chippings to be fine (graded 3mm to 6mm in equal proportions) rounded granular clean and free from dust and impurities.

In-situ terrazzo paving should be laid on the screed as soon as practicable and not more than three days after the laying of the screed. After laying the surfaces are to be kept moist until ready for polishing.

The in-situ terrazzo paving should be laid in panels separated by dividing strips in the positions shown on the drawings. Dividing strips are to be white plastic the full depth of the paving and screed and bedded into the screed with the tip edges truly levelled with the finish polished floor level. The thickness of the dividing strips is to be 5mm.

Polishing of in-situ terrazzo paving is to be carried out by a mechanical polisher with graded abrasives and any necessary water.

Making good of any defects during polishing is to be done with cement grout matching in colour that used in the terrazzo paving.

The finish of in-situ terrazzo pavings is to be smooth and imperforable and is to be approved by the Architect.

The terrazzo pavings is to be washed clean on completion and covered with a thick bed of sawdust or other approved protective layer. This should be maintained and renewed as necessary and cleared away on completion.

Lay in-situ skirtings to match paving or of approved colour and finish coved at junction with paving of floor finish to 20mm radius.

Execute all required angles and stopped or fair returned ends.

Vertical dividing strips to match those used in paving are required at not more than three feet intervals. A diving strip is required between paving and skirting at the commencement of the coving.

Facing of diving strip nearest to wall to be 200mm from face of skirting.

A horizontal diving strip is required at top skirting finished flush with wall finish over.

Where in-situ terrazzo skirtings are required under door frames, etc., a pencil round junction is to be made threshold paving in lieu of coving as shown on drawings.

In-situ margins shall have dividing strips to match those used in pavings. They shall be positioned at junctions with paving and skirting and transversely at not more than three feet intervals to continue vertical strip in skirting.

All internal angles and coves are to be rubbed by hand with carborundum block to be polished finish matching the finish of the paving to the Architect's approval.

E. GLAZED WALL TILES

Glazed wall tiles shall be in accordance with B.S.1281 and shall be 150mm x 150mm x 6mm tiles from the standard colour range with cusion edges. Wall tiling shall be carried out in accordance with C. P.212.

F. PRECAST CONCRETE PAVING SLAB

To be all in accordance with B.S.368. The slabs are to be of the sizes given herein and bedded, jointed and pointed in cement lime mortar. (1:2:9).

G. RATES

The rates for tile, slab and block finishings shall include for rounded edge tiles and angles, cutting and fitting up to boundaries and around pipes, brackets, etc., and waste; for work in narrow widths, small and isolated areas and for all other incidental labours.

PART TEN GLAZING

A. GENERAL

Glass used in glazing and for mirrors shall be best quality clear glass free from visible defects so as to afford uninterrupted vision or reflection as appropriate, and without obvious distortion.

B. STANDARDS

Glass for glazing and mirrors shall be of approved manufacture and is to comply with B.S.952 in all respects free from flaws, bubbles, specks and other imperfections.

C. CLEAR SHEET GLASS ETC.

The clear sheet glass shall be ordinary glazing (OG) quality.

D. PLATE GLASS

To be of type described and as approved by the Architect.

E. OBSCURED GLASS

To be of type described and as approved by the Architect.

I Putty

(a) The putty for glazing to wood sashes is to be linseed oil putty all as B.S.544.

(b) The putty for glazing to metal windows is to be gold size metal window putty specially designed for tropical use, or patent mastic putty if approved by the Architect.

(c) All putty shall be delivered on site in the original manufacturer's sealed cans or drums and used direct therefrom, with the addition only of pure linseed oil if necessary. No mineral or other oils may be used in the putty except genuine linseed oil.

A. MIRRORS

Mirrors shall be polished float glass silvering quality, protected at back with electro-copper backing coated with shellac varnish and paint. The mirrors are to be fixed with chromium plated dome headed mirror screws with plastic or rubber distance pieces and washers unless otherwise stated and rates shall include for this.

WORKMANSHIP

B. GENERAL

Glazing of all types and in all locations shall be carefully executed by artisans skilled in this type of work and in conformance with recommendations of C.P.152. Glazing shall be carefully fitted so that it is not subject to pressure and stress imposed by being an over tight fit within the framing.

C. MEASUREMENTS

Each element (door, window etc.) to receive glass shall be accurately measured to ensure a perfect fit subsequently.

D. SINGLE GLAZING

Single glazing shall be executed with glass of the various types described herein. Ordinary (non –safety) glass may be pre-cut or cut on site.

E. WIRED GLASS

Wired glass shall be cut so that the wires embedded are truly vertical and horizontal (i.e at right angles to the cut edges).

F. SAFETY GLASS

Safety glass shall be factory cut before delivery to site. Site cutting will not be permitted.

G. TORAGE AND HANDLING

Glass shall be delivered to site in stout containers and clearly marked. The containers shall incorporate sling attachment points for lifting bridles. Glass shall be stored under cover so that the panes are truly vertical.

H. PROTECTION

After fixing glass shall be boldly marked with paper or whitewash so that it is clearly visible. In positions where damage due to construction traffic or activity is likely to occur stout screens composed of hardboard or fibreboard on battens shall be arranged to protect the glass.

A. DAMAGE

Should any glass delivered to site be found to be damaged it shall not be incorporated into the works without the express permission of the Architect. Should glazing installed be damaged for any reason it shall be removed and replaced free of charge to the satisfaction of the Architect. Should any adjacent works be damaged this shall equally be reinstated free of charge to the satisfaction of the Architect.

B. DEFECT WORK

All glass shall be checked before installation to ensure that defective glass is not installed. Notwithstanding this, if in the opinion of the Architect, any installed glazing is defective it shall be removed and replaced free of charge to the satisfaction of the Architect.

C. GLAZING TO WOOD

Glazing shall be secured to wood framing with hardwood beads. Edges shall be wrapped in wash leather so that the wash leather finishes just below the surface of the bead. No adhesives shall be used.

D. GLAZING TO METAL

Glazing shall be secured to metal framing with clip in butyl rubber gaskets.

E. GLASS THICKNESS

Glass thickness shall conform to the recommendations of C.P.152 and the manufacturer's recommendations for sizes of panes relative to the position in the building and the effects of wind pressure (both negative and positive).

PART ELEVEN

SPECIFICATIONS PAINTING & DECORATING

PAINTING AND DECORATING

MATERIALS

A. MANUFACTURERS

Except where stated all materials shall be obtained from approved manufacturers. The contractor shall state the name and address of the manufacturer whose materials he proposes to use. Once approval has been given the contractor shall not obtain materials from other sources without the prior written agreement of the Architect.

B. GENERAL

Each succeeding coat of priming, undercoating and finishing (pigment) or clear coating shall be sufficiently different in colour as to be readily distinguishable.

All primers and paints in one system upon a particular surface shall be obtained from the same manufacturer.

The mixing of paints, etc, of difference brands before or during application will not be permitted.

C. EMULSION PAINTS

Emulsion paints shall be matt to satin finish vinyl emulsion paint. The first (mist) coat shall be thinned in accordance with the manufacturer's instructions.

D. GLOSS PAINT

Gloss paint shall be hard gloss finish oil paint.

E. LEAD BASED PAINT

The use of lead based paints will not be permitted.

F. CLEAR FINISHES

Clear finishes internally shall be clear polyurethane varnish (one pack).

G. PRIMERS AND UNDERCOATS

Unless otherwise specified, primers and undercoats shall be the type recommended by the manufacture of the finishing coats specified for a particular surface. Primer for external bare metalwork surfaces shall comply with B.S 2523.

H. KNOTTING

Shellac knotting shall comply with B.S 1336

A. WHITE SPIRIT

The white spirit shall comply with B.S. 245.

B. TIMBER STAIN

Timber stain shall be oil based pigmented stain. The application of this materials shall be strictly in accordance with the manufacturers written instructions. Tint and degree of application shall be to the approval of the Architect.

C. STOPPING

The stopping shall be as follows:-

- (a) plasterwork shall be plaster based filler.
- (b) Concrete and brick work shall be similar material to the background and finished in a similar texture.
- (c) Internal woodwork, plywood and block board shall be putty complying with B.S.544.
- (d) External woodwork shall be white lead paste complying with B.S 2029.
- (e) Internal clear wood finishes: the stopping shall be that recommended by the clear lacquer manufacturer.

D. FILLERS

The fillers for internal joinery shall be the type recommended by the paint manufacturer for use with his type of paint or lacquer.

Stopper and fillers shall be tinted to match the under coat, and shall be compatible with both undercoats and primers.

All materials shall be used strictly in accordance with manufacturer's instructions.

E. TEXTURED COATING

Textured coating is to be of proprietary manufacture approved by the architect and of an approved colour. Technical information concerning the coating is to be submitted to the Architect before ordering, but the minimum qualities of the coating are to as follows:-

- (a) Suitable for application internally and externally, plastered, rendered, concrete, block stone, brick, asbestos and timber surfaces.

- (b) Minimum durability of 10 years even in exposed conditions
- (c) Maintenance free
- (d) Built- in mould resistant fungicide.

WORKMANSHIP

A GENERAL

Workmanship generally shall be carried out in accordance with B.S.C.P 231, unless otherwise specified. Before painting is commenced floors shall be swept and washed over; surfaces to be painted shall be cleaned before applying paint as specified, and all precautions taken to keep down dust whilst work is in progress. No paint shall be applied to surfaces structurally or superficially damp and all surfaces must be ascertained to be free from condensation, efflorescence, etc., before the application of each coat. No painting shall be carried out externally during humid, rainy, damp, foggy or freezing conditions, or conditions where surfaces have attained excessively high temperatures or during dust storms. No new primed or undercoated woodwork and metal work shall be left in an exposed or unsuitable situation for an undue period before completing the process.

No dilution of paint materials shall be allowed except strictly as detailed by the manufacturer's own direction, either on the containers, or their literature, and with special permission of the Architect. For external work dilution of paints will not be allowed whatsoever. For internal work, where permitted by the Architect, undercoats may be thinned by the addition of not more than 5% thinners. Gloss finish shall not be thinned at all.

Metal fittings such as ironmongery etc., not required to be painted shall first be fitted and then removed before the preparatory processes are commenced. When all painting is completed the fittings shall be cleaned as necessary and refixed in position.

B BRUSHWORK

Unless otherwise specified, all primers and paints shall be brush applied. Written permission must be obtained from the Architect's if an alternative method of application is to be used.

C STOPPING AND FILLING

Unless otherwise specified by the manufacturer all primers and undercoats shall be stopped flush and rubbed down to a smooth surface with an abrasive paper and all dust removed before each succeeding coat is applied. Care shall be taken to prevent burnishing of the surface.

D STIRRING

Unless otherwise specified by the paint manufacturer all paint materials shall be thoroughly mixed and/or stirred before and during use, and suitably strained as and when necessary.

E INSPECTION

No priming coats shall be applied until the surfaces have been inspected and the preparatory work has been approved by the Architect. No undercoats or finishing coats shall be applied until the previous coat has been similarly inspected and approved.

A. PAINT APPLICATION

Each coat of paint shall be so applied as to produce a film of uniform thickness. All paint shall be applied in accordance with the manufacturer's instructions. Special attention shall be given to ensure that all surfaces including edges, corners, crevices, welds and rivets receive a film thickness equivalent to that of adjacent painted surfaces.

B DRYING

All coats shall be thoroughly dried before succeeding coats are applied. Allow a minimum of 24 hours between application on any one surface, unless otherwise specified by the manufacturer.

C UPRIMED WOODWORKS

Unprimed woodwork scheduled to be painted shall be rubbed down with abrasive paper and dusted off. Care shall be taken to prevent 'burnishing' of the surface. All knots and resinous areas shall be coated with two coats of knotting. Pitch on large, open unseasoned knots and all other beads or streaks of pitch shall be scrapped off, or if still soft, shall be removed with white spirit before applying the knotting.

Apply one coat of priming to all surface, two coats to all end grain, to be subsequently painted. Backs of all wood frames in contact with concrete, brickwork, blockwork, and metalwork or similar materials shall be primed before fixing. After priming all joints, holes, cracks shall be stopped and filled, rubbed down and dusted off.

D. PRIMED WOODWORK

Woodwork delivered primed shall be lightly rubbed down with abrasive paper, and dusted off. Touch up bare areas with a similar priming including open grained ends. After touch priming all joints holes, cracks and open grained ends shall be stopped and filled, rubbed down and dusted off.

E PLYWOOD AND BLOCKBOARD

Edges of exterior plywood and block board shall be sealed with two coats of aluminium primer and the backs treated with a lead primer.

F CLEAR FINISHED WOODWORK

All woodwork scheduled to receive a clear finish shall be well sanded with the grain removing all dirt etc., to give as smooth a surface as possible. Resinous timber shall be swabbed down with white spirit and dried thoroughly.

Split or end grain shall be filled with suitable filler recommended by the clear lacquer manufacturer in accordance with their instructions, and of the appropriate shade.

G BARE METALWORK

Bare metalwork shall be thoroughly cleaned off all dirt, grease, rust and scale by means of chipping, scrapping and wire brushing; particular attentions should be given to the cleaning of welded, brazed and soldered joints. Wash down with white spirit and wipe dry with clean rags. Apply a coat of metal primer immediately the cleaned surfaces have been approved by the Architect.

A GALVANIZED METALWORK

Galvanized metalwork scheduled for painting shall be thoroughly cleaned of dirt, grease dusted and washed down with white spirit and wiped dry with clean rags. Any minor areas of rust shall be removed by wire brushing and spot primed with a zinc rich primer.

Apply at least one coat of calcium plumbate primer at all surfaces subsequently to be painted.

B PRIMED METALWORK

If the priming coat of pre-primed metalwork has suffered damage in transit, or during erection on site, the affected areas shall be cleaned off by wire brushing abrading and dusting off, the bared patches touched up with a primer of a similar type to that already applied.

C COPPER

Copper scheduled for painting shall be lightly abraded with emery cloth, washed with white spirit and wiped dry with clean rags.

Apply a coat of each primer immediately the cleaned surfaces have been approved.

D BRICKWORK, CONCRETE ETC.

All brickwork, block work, concrete, rendered and plaster surfaces scheduled to be painted shall be brushed down, all holes and cracks filled, all projections such as plaster or mortar splashes etc., removed to leave a suitable dust free surface. All traces of mould oil shall be removed from concrete surfaces by scrubbing with water, detergent and rinsing with clean water. All these surfaces shall be thoroughly dry before any primer or paints are applied. Apply a coat of alkali resisting primer where surfaces are to be finished with oil paints or alkylid emulsion.

Asbestos cement surfaces scheduled for painting shall be brushed down to remove powdery deposits, and a coat

of alkali resisting primer applied where such surfaces are to be finished with oil paints or alkyed resin type emulsion.

E COLOURS

The colour will, be selected by the Architect from the paint manufacturer's standard colour range.

F TOXIC WASH

Concrete, blockwork, plaster and timber surfaces which are to be painted shall be washed down prior to painting with a toxic wash applied by brush or spray. A second wash shall be applied two days after the first wash. The surfaces shall be then allowed to dry out completely before application of paint.

G PROTECTION

Proper care must be taken to protect surfaces while still wet by use of screens and 'wet paint' signs where necessary.

A DAMAGE

Care must be taken when preparing surfaces, or painting etc., not to stain or damage other work. Dust sheets and covers to the satisfaction of the Architects shall be used to protect adjacent work. Any such stains or damage shall be removed and made good at the Contractor's expense.

B CLEANLINESS

All brushes, tools, pails, kettles and equipment shall be clean and free from foreign matter. They shall be thoroughly cleaned after use and before being used for different colours, types of classes of material. Painting shall not be carried out in the vicinity of other operations that may cause dust. Waste liquids, oil soaked rag etc., shall be removed from the building each day. Waste liquids shall not be thrown down in any sanitary fittings or drains.

C PERFORMANCE

If, while the work is in progress, the paint appears to be faulty, such as consistency of colour, drying time, or quality of finish, the work shall be stopped at once and the manufacturer consulted.

The manufacturer's of the materials shall be given every facility for inspecting the work during progress in order to ascertain that the materials are being used in accordance to their directions, and to take samples of their products from the site if they so desire for tests.

The finishing coats of the various paints or surface finishings shall be free from sags, brush marks, runs, wrinkling, dust, bare or 'starved patches, variations in colour and texture, and other blemishes.

When the work has been completed, the finished surfaces shall not be inferior in quality, colour and finish to the samples approved by the Architect, and imperfections in manufacture shall not be apparent through these finished surfaces.

In the event that the Architect is not satisfied that the quality of finish does not comply with the required standards and/or the sample panel the contractor will be required to repaint at his own expense, such work to the satisfaction of the Architect. If in the opinion of the Architect it is necessary to remove completely the unsatisfactory paintwork this shall also be done under the direction of the Architect at the expense of the contractor.

D Packaging, Delivery and Storage

All paints and surface coatings shall be delivered in sound sealed containers, labelled clearly by the manufacturers, the label or decorated container must state the following:-

- (a) The type of product
- (b) The brand name and colour
- (c) The use for which it is intended
- (d) The manufacturer's batch number
- (e) The B.S number if applicable
- (f) All labels shall be printed – containers bearing type written labels will not be acceptable

Materials shall be stored under cover in accordance with the manufacturer's instructions, and with local fire and safety regulations.

The store itself must be maintained at temperature of not less than 50 degrees f (10 degrees C) and must not be subjected to extreme changes of temperature.

A VINYL EMULSION PAINT

Surfaces to be painted shall receive one mist coat followed by two full coats of vinyl emulsion paint. Application may be by means of rollers or brushes.

B GLOSS FINISH PAINT

Surfaces to be painted shall be primed then painted with two undercoats followed by one coat gloss finish paint.

C CLEAR POLYURETHANE VARNISH

Surface to be clear varnished shall be treated with two coats polyurethane varnish

D TEXTURED COATING

The manufacturer's instructions concerning application of the coating are to be strictly followed under the direction of the Architect.

All surfaces to receive textured coatings are to be clean and dry with surfaces scrapped and brushed before application of the coating.

Application of the coating is to be with textured roller or fibre brush as directed by the Architect with a minimum spreading capacity of 1 kilogram per square meter. Under no circumstances is the coating to be thinned.

PART TWELVE

SPECIFICATIONS DRAINAGE

GENERAL

A. REGULATIONS ETC.

The whole of the drainage is to be executed by a registered plumber and drain layer in strict accordance with the Regulations of local Authorities and to the satisfaction of the Architect.

B. CEMENT, SAND ETC

The description of material and workmanship contained in the foregoing sections shall apply equally hereto.

MATERIALS

C. PITCH FIBRE PIPES

All pitch fibre pipes and fittings for external services shall be manufactured in accordance with the requirements of B.S 2760. Pipes shall be connected by means of purpose made tapered joints manufactured in accordance with B.S 2760.

D. PRECAST CONCRETE PIPES

Precast concrete pipes for surface water and sewage shall comply with the requirements of B.S. 556 class 1.

Where flexible spigot and socket type of flexible rebated type joints are specified, rubber gaskets complying with the requirements of B.S 2494 shall be used except where oil products are likely to be present, in which case gaskets shall comply with the requirements of B.S 3514.

Where ordinary spigot and socket type ordinary rebated type joints are specified, the joints shall be made with a cement mortar mix.

Porous concrete pipes shall comply with the requirements of B.S 1194.

E ASBESTOS CEMENT PIPES

Asbestos cement sewerage pipes and fittings shall comply with the requirements of B.S 3656 with asbestos cement sleeve joints with rubber rings complying with the requirement of B.S 2494 class C.

F. CAST IRON PIPES

Cast iron drain pipes for building drainage shall comply with the requirements of B.S 437. Fittings for cast iron pipes shall comply with the requirements of B.S 78 or B.S 2035. Pipes and fittings will be coated internally and externally with an approved bituminous composition, except those parts to be encased in concrete which shall be coated internally only in the concrete area.

A CLAY PIPES

Clay pipes and fittings for sewerage or surface water shall comply with the requirements of B.S 65 and B.S 540 with Type 1 sockets and supplied complete with the manufacturer's flexible joint.

Clay pipes for use in the construction of french drains shall be British surface water pipes glazed or unglazed manufacture in accordance with B.S 65 and B.S 540 with Type 2 sockets or plain ended and supplied with sleeve couplings. Type 1 socketed and sleeve coupled pipes shall be perforated.

B P.V.C DRAIN PIPES

P.V.C drain pipes and fittings shall comply with the requirements of B.S 4660:1973.

C PRECAST CONCRETE MANHOLES

Concrete manhole ring sections shall be unreinforced ogee jointed complying with the requirements of B.S. 556. Shaft and chambers slabs shall be either mild steel reinforced heavy or light duty type, as specified.

D PRECAST CONCRETE OPEN CHANNELS

Precast concrete invert and side blocks shall be of dense precast concrete free from cracks and spalls. The concrete used shall be nominal 1:2:4 mix.

Precast concrete invert and side blocks shall be cast in steel moulds. All arises shall be true well defined.

E GULLIES

Precast concrete gullies shall be unreinforced and shall comply with the requirements of B.S 556.

Glazed ware gullies shall comply with the requirements of B.S 539. Cast iron gullies shall be of approved manufacture and shall conform with the dimensions and weight specified.

Gulley gratings and frames shall comply with the requirements of B.S 497.

F MANHOLE COVERS AND FRAMES

Manhole covers and frames shall be of cast iron in accordance with the requirements of B.S 497.

G MANHOLES LADDERS

Manhole ladders and fixings shall be of galvanized mild steel. The steel shall be mild steel grade 43 in accordance with B.S 4360 and shall be galvanized after manufacturer has been completed.

H MANHOLE SAFETY CHAINS

Manhole safety chains shall be of 10 mm galvanized mild steel short link chain and will comply with the requirements of B. S. 590. One end of the chain shall securely attached to 16 mm diameter galvanized mild steel

eyebolt and the other end shall have a galvanized hook of attaching to a similar eyebolt.

A MANHOLE STEP IRONS

Manhole step irons shall comply with the requirements of B.S 1247. For brick or block manholes, step irons shall be of galvanized malleable cast iron general purpose pattern with 230 mm long tails complying with the requirements of B.S 556.

B FILTER BACKFILL MATERIAL

Filter backfill material for field or french drains shall consist of hard clean rock, crushed slag or gravel having a grading within the limits given below for Type 'D' or 'E'. The aggregate crushing value of the material as determined by the tests in B.S 8.2 shall not exceed 30%. The material passing 420 microm sieve shall be non-plastic when tested in accordance with B.S 1377.

Sieve Sized Percentage by passing Weight
Type 0 Type E

63 mm	- 100
37.5mm	100 85 – 100
20mm	- 0 - 20
10mm	45 - 100
3.35mm	0 - 5 25 - 80 -
600 microns	8 - 45
75 microns	0 - 10

WORKMANSHIP

C UNDERGROUND PIPELINES

The contractor shall construct the pipelines using the designs of pipe, bed, haunch and surround details on the drawings.

'Rigid pipes' shall mean pipes of cast or spun iron concrete, asbestos cement, clay or similar materials. 'Flexible pipes' shall mean pipes of steel PVC or other plastic, pitch fibre, ductile iron or similar materials.

'Rigid joints' shall mean joints made by bolting together flanges intergral with the barrels of the pipes, by welding together the barrels of the pipes by caulking sockets with non-deformable materials, such as cement mortar, run lead or by similar techniques.

'Flexible joints' shall mean joints made with factory made jointing materials, loose collars, rubber rings etc., and which allow some degree of flexing, however small, between adjacent pipes.

A TRENCH EXCAVATION

Trenches for pipes other than those forming part of a field or french drain shall be excavated to a sufficient depth and width, subject to the following restrictions, to enable the pipe, joints, bed, haunch and surround to be accommodated.

From the bottom of the trench to a level 300 mm above the crown of the pipe trench widths shall not be less than the minimum nor greater than the maximum figures shown in the Table A.

Battering the sides of trenches shall only be permitted above this level where approved.

The minimum width of trench shall be used for measurement purposes.

Table A- pipe Trench widths

Nominal Diameter (mm)	Internal Width (mm)	Min. Trench Width (mm)	Max. Trench Width (mm)
100	430	630	
150	500	700	
200	550	750	
225	580	780	
300	680	880	
375	950	1150	
400	1000	1200	
450	1030	1230	
525	1120	1320	
600	1240	1440	
675	1330	1530	
750	1400	1600	
825	1490	1690	
900	1920	2120	
1250	2100	2300	
1200	2290	2490	

Above 1200 Outside dia. Of Outside dia.

Above 1200 Pipes plus 800 mm of pipes plus 1000mm

All sheeting and supports are to be out with the minimum width stated.

The contractor shall provide whatever additional pipe protection is directed should the specified maximum width be exceeded due to his method of working.

The contractor shall fill up with well compacted granular bedding material with 1:2:4 mix concrete where ordered by the Architect, any excessive depth or trench arising from his method of working.

Where the trench formation is in ground that, in the opinion of the Architect, is too soft to afford proper support to the pipes, either

(i) The trench shall be excavated down to solid ground and the extra shall be refilled with lean mix concrete, granular bedding material, gravel or broken stone, as the Architect directs, well compacted to form even bed or:

(ii) The pipe shall be supported by facines, piles or such other means as the Architect may direct.

The contractor shall avoid unduly disturbing the finished trench formation and shall make good disturbed areas and excavate any wet or puddled material which might result from his failure to do so. Voids shall be made good as the previous clause.

Where directed trenches close to existing structures be opened in short lengths and refilled or partly filled with lean mix concrete or other approved material.

The material excavated in forming pipelines shall if unsuitable be run to spoil and replaced with suitable materials as so defined.

Suitable material shall be set aside for use as backfill. Unsuitable material shall comprise all material such as material from bogs, marshes, swamp peat, logs, stumps, perishable material, clays having a liquid limit exceeding 80 or a plasticity content greater than 30% of the dry weight.

All surplus excavated material shall be disposed of to spoil hips provided by the contractor.

A PIPELAYING – GENERAL

On arrival at the site, pipes shall be carefully inspected for damage ends, cracks or other defects and any found to be faulty shall be marked and set aside for a decision from the Architect as to their acceptability.

Pipes with damaged ends shall be either completely replaced or have the ends to the extent, and trimmed, as directed by the Architect.

The contractor shall ensure that all pipes are properly hauled both by his staff and by any cartage contractor employed by him.

During transport, pipes shall not be allowed to rest on narrow cross members of vehicles or anything else that might give concentrated loads due to the weight of the pipe or bumping of the vehicle but must be properly supported on soft material.

Sufficient labour and equipment must be handed before unloading is commenced and under no circumstances must any pipes be dropped or thrown from a vehicle.

The Architect shall have the right to reject consignments or stocks of piping from which failed pipes have been drawn, or order them to be pressure tested outside the pipelines at the contractor's expense even though no defects are apparent, if there is reason to believe that mishandling has taken place.

Flat braided wire slings or band slings shall be used for slinging all pipes except externally coated pipes and plastic pipes for which only special band slings not less than 300 mm wide shall be used. Chain or rope slings, hooks or other devices working on scissors or grab principles must not be used.

Subject to the requirements of inspection before acceptance protective bolsters, caps or discs on the ends of flanges, specials or fittings shall not be removed until the pipes, special or fittings are about to be lowered into the trench.

Before a pipe is lowered into the trench it shall be thoroughly examined to ensure that the internal coating or lining and the outer coating or sheathing are undamaged. Where necessary the interiors of pipes, specials and fittings shall be carefully brushed clean.

Any damaged parts of the coatings or lining shall, before a pipe is used, be made good as directed. Pipe laying shall not commence until the bottom of the trench and the pipe bed have been approved. Flexible pipes, rigidly jointed, may be joined on the ground surface before lowering into the trench. All joints shall be supported by slings as the pipes are lowered and the pipe-line must not be deformed to a greater extent than recommended by the manufacturer.

Pipes must be brought to the correct alignment and inclination, concentric with the pipes already laid.

All pipes less than 600 mm in diameter with flexible joints must be accurately marked prior to laying to ensure that the correct gap is left in the joint. An indelible mark shall be made on the spigot end on top of the pipe barrel to the depth of the socket less the detailed or specified joint gap. After correct jointing the mark should be flush with the face of the socket.

PVC pipes must be stored and handled carefully and must be in accordance with the manufacturer's recommendations.

A WITHDRAWAL OF SUPPORTS

During the placing of bedding, haunching, surrounding or anchoring material, temporary side supports and sheeting shall be removed except where directed to be left in and the full width of the trench will be in filled with bedding haunching, surrounding or anchoring materials.

B BEDDING AND PROTECTING PIPES – GENERAL

Bedding, haunching, surrounding and anchoring pipes shall be to the arrangement and dimensions shown on the drawings. A cavity of adequate size shall be excavated in the sides and bottom of the trench or left in the pipes bed at each joint and at each sling position.

The bottom of the trench or surface of the bed shall be finished to a smooth even surface at the correct levels to permit the barrel of the pipe to be solidly and evenly bedded throughout its whole length between joint and sling holes.

The preparation of the trench bottom or surface of the bed shall be completed for at least one full pipe length in advance of the pipe laying, except where in exceptional circumstances another arrangement is approved. No

bedding material shall be place in trenches containing water.

Where granular bedding is to be used, stones, bricks or similar materials shall not be used below or against the pipe to locate them in position in the trench or to level the pipes. Sufficient infill materials shall be placed around the barrels of pipes to prevent movement.

Where directed, puddle clay dams 500 mm thick shall be constructed around the pipe and across the trench as haunching and surrounding proceeds. The dams shall be at intervals not exceeding 30 metres or as directed and their height shall be determined by the Architect.

Where directed by the requirements for testing pipelines the method of haunching and surrounding pipes shall be modified to leave pipe joints exposed. Where there is a high ground water table all pipes shall be surrounded in an approved free drainage material.

A CONCRETE BEDDING, HAUNCHING, SURROUNDING AND ANCHORING

Concrete for bedding, haunching or surrounding pipes shall be 1:2:4 nominal mix concrete and no back filling of the trench shall be done until the concrete has reached a strength of 15 N.mm2.

Before placing concrete, pipes shall be supported near each joint on a precast concrete block or on engineering bricks with a padding of two layers of hessian based damp proof course or material of similar yield between the barrel of the pipe and the supporting block. The surface of the support shall be perfectly smooth for at lease 75 mm by 75 mm under the pipe, and the size of the blocks shall be as directed.

Concreting of bedding, haunching or surrounding shall not be done until the pipes have been jointed and inspected. The concrete shall be vibrated into place under the pipe and concrete shall be in full contact with the underside of the pipe throughout its length.

The concrete shall be placed in one operation and shall be well worked form a homogeneous mass. There shall be no horizontal construction joint in the concrete below the level of the half pipe. The pipe shall be carefully anchored against flotation. Concrete beds, haunches and surrounds of pipes with rigid joints shall be formed in lengths not exceeding 10.0 metres which shall be separated by a soft wood joint filter 25 mm thick.

Concrete bedding, haunching pipes shall be discontinuous at flexible pipe joints. Shaped formwork made from fibreboard or other equally compressible material of the thickness stated in the contract and of size and shape equal to the next section of the concrete protection to the pipes shall be used and left at the pipe joint as shown on the drawings. The formwork shall be neatly cut and properly supported by temporary strut and rails where necessary.

PVC pipes shall be wrapped in polythene sheet or roofing felt about 2 mm thick before being haunched or anchored in concrete.

Nominal 1:2:4 mix concrete shall be placed at all bends, tees, junctions, changes of direction and gradients to prevent movements of pipelines due to thrust from water pressure, in such positions and quantities as directed.

Concrete pipe anchorages and thrust blocks in trench shall be placed against undisturbed ground. Any loose or disturbed material shall be removed immediately before the concrete is placed.

Concrete anchorages to PVC pipes shall be placed to support half the circumference of the pipe. The pipe must not be encase. Where compliance with the requirement would result in concrete above the pipe, the anchorage concrete shall be placed beneath the pipe and the pipe will be restrained by straps as shown on the drawings.

A PLUG

Immediately after laying, the open end of a pipe shall be sealed with wooden plug or approved stopper of appropriate size to prevent the entry of material which might contaminate the pipelines, damage the linings, obstruct the waterway or effect the working of valves, meter etc. Plugs shall be unperforated and shall be shaped to fit exactly so that water from the trench excavations shall not be allowed to gain access to the pipeline.

The plugs in sewers may, with the Architects approval, be provided with small holes for drainage purposes, but water from the trench excavation which is heavily charged with silt shall not be allowed to gain access to the pipe.

Where work is interrupted for a period, the plug left in position shall be regularly inspected for their fixing to ensure that there has been no tampering by unauthorized persons. Whenever any plug is removed, the immediate length of pipe shall be examined for dirt or obstructions and shall be cleaned as required.

Adequate precautions must be taken by way of backfilling or other means to anchor each pipe securely to prevent flotation of the pipeline in the event of the trench being flooded. No equipment, clothing or apparel must be left or sorted inside pipelines.

B JOINTING PIPES

Joints shall be made strictly in accordance with the manufacturer's instructions. The contractor shall make use of the technical advisory services offered by manufacturers for instructing pipe jointers in the methods of assembling joints. Where manufacturers recommend the use of special jointing tackles, the contractor shall use these for the assembly of all joints to pipes. Sockets shall be laid looking uphill unless otherwise approved.

Before making any joints, all jointing surfaces shall be thoroughly cleaned and dried and maintained in such condition until the joints have been completely made or assembled. Notwithstanding any flexibility provided in the pipe joints, pipes must be securely positioned to prevent avoidable movement during and after the making of the joint.

The space between the end of the spigot and the shoulder of the socket of flexibly jointed pipes when jointed shall be as recommended by the manufacturer or ordered by the architect. After flexibility jointed pipes, other than

PVC pipes have been jointed the gaps between the barrel of the pipes and the internal face of the socket shall be sealed with puddle clay, uncaulked rope yarn or other approved material. The rope yarn or other material must have been treated so as not to support bacterial growth.

Where loose collars are used to join pipes cut for closers, special tools shall be employed to keep the inside of the pipes flush and the collar concentric with the pipe while the joint is being made. Pipes provided with spigot and socket joints of the self centering, instantaneous joint type, such as the rubber ring push fit joint, shall be laid and jointed strictly in accordance with the makers instructions. Generally the joint ring shall be cleaned and inspected for cuts and defect, and socket spigot examined to ensure free recommended lubricant will be used.

A CAST IRON JOINT FITTINGS

Cast iron detachable joint collars and flanges shall be tested by striking lightly with a spanner immediately before they are placed and if they fail to ring true shall be set aside and not incorporated in the work until proven sound. The flanges shall be correctly positioned and the component parts including any insertion ring cleaned and dried.

Insertion rings shall be fitted smoothly to the flange without folds or wrinkles. The face and bolt holes shall be brought fairly together and the joints shall be made by gradually and evenly tightening bolts on diametrically opposed positions. Only standard length spanners shall be used to tighten the bolts. The protective coating, if any, of the flange shall be made good when the joint is completed. Bolts threads shall be wrapped with PTFE tape where directed before use.

No washers shall be used on flanged pipework to be laid below ground. Bolts shall be as specified and shall be the correct length, leaving a maximum of two threads exposed.

B CEMENT MORTAR JOINTS

The spigots and sockets of concrete pipes shall be thoroughly moistened before cement mortar joints are made. In making ogee joint to concrete pipes a thick layer of cement shall be applied to the butting faces, the pipe being laid shall be well driven against the other, and the jointed finished off inside, flush with the pipe wall. The outside of the joint shall be pointed up with a 75mm wide x 25mm thick mortar fillet all round and central about the joint. In making yarn and mortar joints for concrete and clay pipes, the spigot of the last pipe laid until it bears on the back face of the socket and shall be centred in the socket. Two turns of tarred yarn shall then be firmly caulked into the back of the socket with a proper caulking tool. Mortar consisting of 2 parts of sand to 1 part of cement shall then be pressed firmly into the joint to fill the socket completed and shall be neatly bevelled off at 45 degrees from the outside edge of the socket. Joints made with cement mortar shall remain exposed for at least 3 hours to allow for the initial set of the cement. All joints shall be examined and approved before the refilling of the trench is commenced

C BACKFILLING TRENCHES

If the contractor allows material to become unsuitable, which when excavated was suitable for re-use, and it is unsuitable when required for backfilling, he shall run it to spoil and make good by replacing with suitable material.

Where required to meet the specification for testing pipelines, trenches shall be partially backfilled to provide anchorage, but joints shall be left exposed.

Backfilling shall whenever practicable be undertaken immediately the specified operations preceding it have been completed. No backfill material shall be placed in trench containing water.

In trenches in roads, verges and where shown on the drawings above 300mm over the crown of the pipe backfill, material shall be deposited in layers each not exceeding 225mm thickness and each compacted to 100% with a moisture content between with the moisture content between 0.8 and 1.05. M.C. Power rammers or vibrating plate compactors shall be used to compact the backfilling from one metre above the crown level of the pipe to the surface.

In trenches in fields or open country backfill material above 300mm over the crown of the pipe may be placed by machines provided the method of operation ensure that the materials slides or rolls into position and does not drop from a height.

The backfill material must not include any stones or boulder of dimensions exceeding 150mm in any position. Sufficient space shall be left to receive the original thickness of solid, turf or other materials removed from the surface. The surfaces shall be restored by replacing the materials in their proper order and form, and by compacting then to such a level as shall ensure that after settlement is complete the surface level of refilled trenches shall be within 30mm of that of the adjacent undisturbed ground.

Where directed, trenches shall be backfilled with lean mix concrete made with 1kg cement to 12 kg aggregate. The aggregate will be as, clinker, gravel, stone or other hard material, approved by the architect, and free from sulphates, dust and other deleterious material.

A FIELD OR FRENCH DRAINS

Trenches for drains up to 150mm in diameter shall be excavated to a width of at least four times the normal diameter of the pipe; above 150mm diameter the width shall be the diameter plus 450mm.

Where shown on the drawings pipes for drains shall be bedded on a 75mm thickness of lean mix concrete which shall also be brought up until at least one-third of the depth of the pipe is supported and in the case of perforated pipes, no line of operations is thereby blocked. Non-circular pipes shall be bedded as shown on the drawings. Socketed pipes shall be laid with a space of about 12mm between the spigot and the inner end of the socket. Ogee jointed porous concrete and perforated clay pipes with rebated joints shall be dry jointed. Perforated pitch fibre pipes may be jointed with any of the joints specified in B.S.2760.

Trenches for drains shall be backfilled with materials approved by the architect.

The pipes, the filter materials and the surface over drains shall at all times be kept free of obstructions.

B OPEN SURFACE WATER CHANNELS

Excavation shall be carried out generally as described for pipework. The invert shall be finished to a true line and fall and sides shall be trimmed to the slopes indicated.

Invert blocks and sides slabs shall be laid on a 100mm thick bed of suitable approved granular material formed and well compacted. They shall be jointed by thickly covering the joint face with mortar and driving the next unit firmly against that previously laid. The excess mortar squeezed out of the joint shall be neatly trowelled off. Channels ends shall be saturated with water and newly completed joints shall be protected and cured as for concrete pipes.

C MANHOLE INSITU CONCRETE

Manholes of insitu concrete will be formed as for block work manholes, the block work being replaced by nsitu mass 1:2:4 nominal mix concrete.

Precast concrete manholes for sewers of up to 1200mm diameter shall be constructed as detailed on drawings using precast concrete component.

Manhole cover slabs may be cast insitu using reinforced nominal 1:2:4 mix concrete precast using reinforced nominal 1:1½:3 mix concrete.

Unreinforced precast concrete chamber rings shall be surrounded with a minimum thickness of 150mm nominal 1:3:6 mix mass concrete as detailed on the drawings.

Step irons 230mm long shall be set into the external concrete surround to the manhole and the slots through the chamber rings filled with cement mortar.

A CHAMBERS

Chambers for access to valves and fittings on pressure pipelines for water or sewage, unless otherwise directed shall be constructed in concrete block work.

B SEPTIC TANKS

Septic tanks shall be constructed to the dimensions and general arrangement detailed on the drawings and in the contract. Tanks with block work shall be constructed as for manholes.

C TESTING FOR SEPTIC TANKS

Septic tanks and other chambers shall be tested by filing with water after completion of backfilling.

The first 1.0 metre of depth may be filled as quickly as the supply permits. Between this and top water level the rate of filling must not exceed 1.0 metre in 24 hours. After filling to top water level no further water shall be introduced for 2 days. At the end of this period the tanks shall be topped up to top water level and allowed to stand for 24 hours. The test shall be considered satisfactory if the fall in water level in 24 hours does not exceed 15mm.

In the event of a fall exceeding the above tank will be emptied and any defects made good prior to retest as before, all at the contractor's expense.

D CONNECTION TO SEWER

All connections to sewers are to be made with angle junctions set at the correct angle to minimize the use of bends. All angles shall not exceed 45 degrees.

The open ends of all house connections and other pipes not required for immediate use shall be sealed up with purpose made stoppers secured in position. The ends of connections and all junction positions will be clearly marked by posts and painted boards of a type and size to be approved by the Architect and the board shall be plainly marked with the letter 'S' and the size and depth below kerb level or ground level. A length of 4.5 mm galvanized iron wire shall be fixed to the face of the last pipe and the marking post.

Every care shall be taken to prevent the marking boards being disturbed and the contractor shall take responsibility for their safety.

The information shall also be painted on the kerbs in an approved manner when all works are complete and the contractor shall record the position of all branches fixing distances from the manhole immediately downstream of the branch.

A TESTING SEWER

Wherever possible, testing shall be carried out from manhole to manhole. Short branch drains connected to main

sewer between manholes shall be tested as one system with the main sewer. Long branches shall be tested separately. Pipes not exceeding 750mm nominal diameter shall be tested in one of the following ways:-

i. WATER TEST

A test pressure of 1.2 metres head of water above the soffit of the sewer shall be applied at the high end but not more than 6 metres at the low end by means of a stand-pipe. Steeply graded sewers shall be tested in stages where the above maximum head shall be exceeded if the whole section is tested in stages where the above maximum head shall be exceeded if the whole section is tested at once. A period of one hour shall be allowed for absorption. The loss of water over a period of 30 minutes shall be measured by adding water from a measuring vessel at regular intervals of 10 minutes and noting the quantity required to maintain the original water level in the standpipe. The average quantity of water added for sewers up to 300mm nominal bore must not exceed 0.06 litre per hour per 100 linear metres per mm of nominal bore of sewer. For sewers exceeding 300mm nominal bore the average quantity of water added must not exceed 0.12 litre per hour per 100 linear metres per mm of nominal bore of the sewer.

ii. AIR TEST

The length of sewer under test shall be effectively plugged and air pumped in by suitable means e.g. a hand pump, until a pressure of 100mm head of water is indicated in a U-tube connected to the system. The air pressure must not fall to less than 75mm head of water during a period of 5 minutes, without further pumping, after a period of 2 minutes for requisite stabilization.

Sewers will be tested:

i. after laying and placing concrete if any but before backfilling over joints and after backfilling has been completed.

Sewers constructed of steel, spun iron or other materials designed for high pressure shall be tested in accordance with the provisions of clause 33.00 below. Pipes exceeding 750mm nominal diameter shall be tested as required by the contract.

Where required by the contract the sewer shall be tested for obstruction by the insertion and pulling through of twin-coupled rubber plunges of the same diameter as the sewer.

Sewer shall be tested for infiltration after backfilling. All inlets to the system shall be effectively closed and the residual flow shall be deemed to be infiltration. The following limits of infiltration must be exceeded:-

ii. for sewers not exceeding 750mm nominal internal diameter, 0.08 litre per hour per 100 linear metres per mm of nominal bore of the sewer.

iii. for sewer exceeding 750mm nominal internal diameter 0.16 litre per hour per 100 linear metres per mm of nominal bore of the sewer.

Infiltration to manhole must not exceed 5 litres per hour per manhole

A MANHOLES AND CHAMBERS

Manholes and chambers shall be constructed in accordance with the drawings and specifications and in the positions as detailed on the drawings or directed by the Architect.

Pipes in and out of manholes are to be as short as practicable and shall be built in monolithically with the manhole and the manhole made watertight. Where line, level and pipe diameter permit and where approved by the architect, the pipeline may be laid broken through the manhole position subject to the pipe joints external to the manhole not exceeding 600mm from the inner face of the manhole wall.

The depth of the main channel must not be less than the diameter of the largest pipe. Where pipes have been laid unbroken through the manhole position the crown of the pipe shall be broken out to the half diameter over the full length of the manhole and the benching completed as directed by architect.

Branch bends shall be curved in the direction of flow and will be trowelled smooth with a steel float finish. Spaces between branch bends shall be completely filled with concrete and the faces above the main and branch

channel inverts shall be trowelled smooth with a steel float finish.

Bases and benching shall be formed in 1:2:4 nominal mix concrete trowelled smooth with a steel float finish

Manholes inside buildings and elsewhere as shown in the contract shall have cast iron pipes with access openings and bolted cover plates with the requisite branches in lieu of open channels and branch bends. The bottom of the manhole shall be brought up in concrete to the underside of the cast iron cover plate of the access pipe and benched up at slope of 1:12 and trowelled smooth.

Manhole covers and frames shall be fixed in the position shown, the frame shall be solidly bedded in cement mortar so that generally the cover when in position are fair and even with the adjacent surfaces except where directed by the architect when they shall be kept 75mm above the adjacent surfaces. Where shown or directed frames shall be bedded on one or two courses of blockwork in cement mortar.

Step irons are not required where the depth to benching is less than 900mm and the diameter of the largest pipe is less than 450mm. Channels more than 450mm in depth shall have one or more step irons in a recess, or toe holes and hand rail or post within easy reach, as detailed. A manhole shaft (excluding the 1-2 courses of block work under the cast iron cover) shall not be constructed unless the complete length shall exceed 1.0 metres.

Where depth from ground level to top of benching exceeds 4.5 metres a ladder may be used instead of a step iron where directed.

Manhole ladders shall have brackets (not less than two pairs per ladder) of material equal to the stingers built into the block work or concrete at intervals of not more than 2.0 metres.

In deep manholes suitable rest chambers shall be provided at about 6 metre intervals, each with a landing platform incorporating a hinged trap door immediately under the ladder as detailed in the contract.

Cover slabs of manholes shall be reinforced as shown on the drawings, minimum cover to steel 40mm, and the concrete shall be as detailed in the contract. All manholes on sewers of 600mm diameter and over shall be provided with safety chains across the mouth of the sewer on the downstream side and handholds or a 25mm solid bar handrail shall be provided on the edges of all benching platforms etc., as detailed or directed. The contractor shall supply two sets of lifting keys for each pattern of manhole cover incorporated in the work. General Specifications All manholes and chambers when completed must be watertight and to the satisfaction of the architect.

A CONCRETE BLOCKWORK MANHOLES

Concrete block work manholes for sewers up to 750 mm diameter shall be constructed as detailed on the drawings, using concrete blocks as specified laid in English bond beds and vertical joints shall be completely filled with mortar as the blocks are laid. External joints shall be flush pointed and internal joints shall be raked out to receive rendering as work proceeds. Cuts blocks shall only be incorporated when necessary for closures.

Where built into manhole walls, pipes of 375mm diameter and above shall have 150mm thick concrete relieving arches turned over to the full thickness of the block work. Where the depth of the invert exceeds 5.0 metres below the finished ground level the arch shall be 300mm thick. Walls of manholes up to 2.0 metres deep and up to 4.0 metres shall be increased in thickness to 400mm block work. Walls over 4.0 metres deep and up to 7.0 metres shall be 600mm block work and over 7.0 metres deep manholes shall be precast concrete or insitu concrete as directed by the architect. Overall manhole deep manholes shall be adjusted to the nearest half block size with the approval of the architect.

Manhole shafts shall be 750mm by 675mm and where ladders are used this size shall be increased to 825mm by 675mm with the shaft top corbelled as necessary.

Step iron having tail 230mm long shall be built in at 300mm vertical intervals as shown with the uppermost step iron from 60mm to 900mm from the top of the manhole cover as detailed.

SECTION VII - BILLS OF QUANTITIES

PREAMBLE TO BILL OF QUANTITIES

1. The Bills of Quantities forms part of the Contract Documents and are to be read in conjunction with the Instructions to Bidders, Conditions of Contract Parts I and II, Specifications and Drawings
2. The brief description of the items in the Bills of Quantities is purely for the purpose of identification, and in no way modifies or supersedes the detailed descriptions given in the conditions of Contract and Specifications for the full direction and description of work and materials.
3. The Quantities set forth in the Bills of Quantities are estimated, representing substantially the work to be carried out, and are given to provide a common basis for bidding and comparing of Bids. There is no guarantee to the Contractor that he will be required to carry out all the quantities of work indicated under any one particular item or group of items in the Bill of Quantities. The basis of payment shall be the Contractor's rates and the quantities of work actually done in fulfilment of his obligation under the Contract.
4. Payments for emergency and/or instructed works will be paid as and when they occur using submitted rates and/or day works and shall require prior approval of the Employer.
5. The prices and rates inserted in the Bills of Quantities will be used for valuing the work executed, and the Engineer will only measure the whole of the works executed in accordance with this Contract.
6. A price or rate shall be entered in ink against every item in the Bills of Quantities with the exception of items that already have Provisional sums affixed thereto. The bidders are reminded that no “nil” or “included” rates or “lump-sum” discounts will be accepted. The rates for various items should include discounts if any. Bidders who fail to comply will be disqualified.
7. Provisional sums (including Day-works) in the Bills of Quantities shall be expended in whole or in part at the discretion of the Engineer.
8. The price and rates entered in the Bills of Quantities shall, except in-so-far as it is otherwise provided under the Contract, include all Constructional plant to be used, labour, insurance, supervision, compliance testing, materials, erection, maintenance of works, overheads and profits, taxes and duties, together with all general risks, liabilities and obligations set out or implied in the Contract, transport, electricity and telephones, water, use and replenishment of all consumables, including those required under the contract by the Engineer and his staff.
9. Unless otherwise stated, all measurements shall be net taken on the finished work carried out in accordance with the details shown on the drawings or instructed, with no allowance for extra cuts or fills, waste or additional thickness necessary to obtain the minimum finished thickness or dimensions required in this Contract. Any work performed in excess or the requirements of the plans and specifications will not be paid for, unless ordered in writing by the Engineer.
10. Unbalanced tenders and/or unrealistic rates shall lead to the tenderer being subjected to enhanced Performance Security requirements pursuant to Instruction to Tenderers section **41.2**.
11. The contractor is envisioned to use mainly local labour in the implementation of works; hence accommodation is not required from the contractor for his local personnel. However, the contractor is expected to include transportation cost within his unit rate to enable localized movement to area of works.

BILL NO.1: PRELIMINARIES					
ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>The contractor is advised to read and understand all preliminary items. Prices SHALL BE INSERTED against items of preliminaries. The Contractor shall be deemed to have included in his prices for all costs involved in complying with all the requirements for the proper execution of the whole of the works in the Contract.</u>				
A	<u>BID SECURITY</u> The contractor shall provide a bid security duly signed, sealed and stamped from an approved Bank or Insurance company of required the amount				
B	<u>SIGNBOARD</u> Allow for providing, erecting, maintaining throughout the course of the Contract and afterwards clearing away a signboard as designed, specified and approved by the Project Manager.				
C	<u>PERFORMANCE BOND</u> A bond of 5 % of the contract sum will be required. In form of Bank Guarantee from an approved Bank or from an Insurance Company. No payment on account for the works executed will be made to the contractor until he has submitted the Performance Bond to the Project Manager duly signed, sealed and stamped.				
D	<u>INSURANCE</u> The Contractor shall insure as required in Conditions No. 30 of the Conditions of Contract. No payment on account of the work executed will be made to the Contractor until he has satisfied the PROJECT MANAGER either by production of an Insurance Policy or and Insurance Certificate that the provision of the foregoing Insurance Clauses have been complied with in all respects. Thereafter the PROJECT MANAGER shall from time to time ascertain that premiums are duly paid up by the Contractor who shall if called upon to do so, produce the receipted premium renewals for the PROJECT MANAGER's inspection.				
TOTAL CARRIED TO COLLECTION					

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
A	<u>COMPLIANCE WITH LABOUR LAWS</u> Allow for complying with all Government Labour Law and Regulations in regard to the safety, health and welfare of the workers. This should include allowing for provision of site sq feet training and provision of safety gear.				
B	<u>LABOUR CAMPS</u> The Contractor shall not be allowed to house labour on site. Allow for transporting workers to and from the site during the tenure of the contract.				
C	<u>PROJECT MANAGER OFFICE</u> The Contractor shall provide, erect and maintain where directed on site and afterwards dismantle a site office complete with furniture and necessary sanitation facilities. The office and closet shall be completed before the Contractor is permitted to commence the works. The Contractor shall make available on the Site as and when required by the "PROJECT MANAGER" a modern and accurate level together with leveling staff, ranging rods and 50 metre metallic or linen tape.				
D	<u>SITE SECURITY</u> The Contractor shall be entirely responsible for the security of all the works stores, materials, plant, personnel, etc., both his own and sub-contractors' and must provide all necessary watching, lighting and other precautions as necessary to ensure security against theft, loss or damage and the protection of the public.				
TOTAL CARRIED TO COLLECTION					

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
A	<u>WATER AND ELECTRICITY SUPPLY FOR THE WORKS</u> The Contractor shall provide at his own risk and cost all necessary water, electric light and power required for use in the works. The Contractor must make his own arrangements for connection to the nearest suitable water main and for metering the water used. He must also provide temporary tanks and meters as required at his own cost and clear away when no longer required and make good on completion to the entire satisfaction of the PROJECT MANAGER. The Contractor shall pay all charges in connection herewith. No guarantee is given or implied that sufficient water will be available from mains and the Contractor must make his own arrangements for augmenting this supply at his own cost. Nominated Sub--contractors are to be made liable for the cost of any water or electric current used and for any installation provided especially for their own use. <u>SANITATION OF THE WORKS</u> The Sanitation of the works shall be arranged and maintained by the Contractor to the satisfaction of the Government and/or Local Authorities, Labour Department and the PROJECT MANAGER <u>STORAGE OF MATERIALS</u> The Contractor shall provide at his own risk and cost where directed on the site weather proof lock-up sheds and make good damaged or disturbed surfaces upon completion to the satisfaction of the PROJECT MANAGER Nominated Sub-Contractors are to be made liable for the cost of any storage accommodation provided especially for their use. <u>HOARDING</u> The Contractor shall secure the site during the construction with strong nets to ensure no dangerous objects falls to the ground thus avoiding any injuries to people moving around the building.				
	TOTAL CARRIED TO COLLECTION				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
A	<u>SAMPLES</u> The Contractor shall furnish at his own cost any samples of materials or workmanship including concrete test cubes required for the works that may be called for by the PROJECT MANAGER for his approval until such samples are approved by the PROJECT MANAGER and the PROJECT MANAGER, may reject any materials or workmanship not in his opinion to be up to approved samples. The PROJECT MANAGER shall arrange for the testing of such materials as he may at his discretion deem desirable, but the testing shall be made at the expense of the Contractor and not at the expense of the PROJECT MANAGER. The Contractor shall pay for the testing in accordance with the current scale of testing charges laid down by the Ministry of Public Works. The procedure for submitting samples of materials for testing and the method of marking for identification shall be as laid down by the PROJECT MANAGER The Contractor shall allow in his tender for such samples and tests except those in connection with nominated sub- contractors' work. <u>EXISTING SERVICES AND PROPERTY</u> Prior to the commencement of any work, the Contractor is to ascertain from the relevant authority the exact position, depth and level of all existing services in the area and he/she shall make whatever provisions may be required by the authorities concerned for the support, maintenance and protection of such services. The Contractor shall take every precaution to avoid damage to all existing property including roads, cables, drains and other services and he will be held responsible for and shall make good all such damage arising from the execution of this contract at his own expense to the satisfaction of the PROJECT MANAGER				
TOTAL CARRIED TO COLLECTION					

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
A	<u>PROTECTION OF THE WORKS.</u> Provide protection of the whole of the works contained in the Bills of Quantities, including casing, casing up, covering or such other means as may be necessary to avoid damage to the satisfaction of the PROJECT MANAGER and remove such protection when no longer required and make good any damage which may nevertheless have been done at completion free of cost to the Government.				
B	<u>PLANT, TOOLS AND VEHICLES</u> Allow for providing all scaffolding, plant, tools and vehicles required for the works except in so far as may be stated otherwise herein and except for such items specifically and only required for the use of nominated Sub-Contractors as described herein. No timber used for scaffolding, formwork or temporary works of any kind shall be used afterwards in the permanent work.				
C	<u>CLEARING AWAY</u> The Contractor shall remove all temporary works, rubbish, debris and surplus materials from the site as they accumulate and upon completion of the works, remove and clear away all plant, equipment, rubbish, unused materials and stains and leave in a clean and tidy state to the reasonable satisfaction of the Project Manager.				
D	The whole of the works shall be delivered up clean, complete and in perfect condition in every respect to the satisfaction of the Project Manager.				
TOTAL CARRIED TO COLLECTION					

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>PRELIMINARIES SUMMARY</u> <i>Brought forward from page PR/1 Brought forward from page PR/2 Brought forward from page PR/3 Brought forward from page PR/4 Brought forward from page PR/5</i>				
	TOTAL FOR PRELIMINARIES CARRIED TO GRAND SUMMARY				

Item	Description	Quantity	Unit	Rate	Amount
	<u>PROPOSED CONSTRUCTION OF ECDE CLASSROOM BLOCK.</u>				
	ELEMENT NO. 1				
	Allow prime cost for supervisory staff	1	PC Sm	50,000.00	
	<u>SUBSTRUCTURE (ALL PROVIONAL);</u>				
A	Clear site off bushes, scrubs undergrowth and the like including grubbing up their roots and burn the arising on	81	SM		
B	Excavate to reduce level and remove fop vegetable soil average 300 mm deep from the existing ground level and cart away and dispose the arising to a location authorised by the local town council.	24	CM		
C	Excavate trenches in normal soil for strip foundation not exceeding 1.50 M deep from the reduced level.	26	CM		
D	Load, cart away and spread extra excavation material on sited as directed by the Architect.	35	CM		
E	Return, fill and ram selected excavated materials to sides of foundation wall.	15	CM		
	<u>Wall;</u>				
F	200 mm rough dressed natural stone wall in cement: sand mortar (1:4).	32	SM		
	<u>Filling</u>				
G	300 mm thick approved hardcore filling well compacted layers not exceeding 150 mm thick to make up levels.	81	SM		
H	50 mm thick murrum or other equal and approved blinding material to surface of hardcore (m.s.).	81	SM		
J	Gladiator” or other equal and approved anti-termite insecticide to hardcore surface applied in accordance with Manufacturer*s written instructions.	81	SM		
	TOTAL CARRIED TO COLLECTION				

Item	Description	Quantity	Unit	Rate	Amount
	PROPOSED CONSTRUCTION OF ECDE CLASSROOM BLOCK.				
	ELEMENT NO. 1				
	SUBSTRUCTURE (ALL PROVIONAL);				
A	Clear site off bushes, scrubs undergrowth and the like including grubbing up their roots and burn the arising on	81	SM		
B	Excavate to reduce level and remove fop vegetable soil average 300 mm deep from the existing ground level and cart away and dispose the arising to a location authorised by the local town council.	24	CM		
C	Excavate trenches in normal soil for strip foundation not exceeding 1.50 M deep from the reduced level.	26	CM		
D	Load, cart away and spread extra excavation material on sited as directed by the Architect.	35	CM		
E	Return, fill and ram selected excavated materials to sides of foundation wall.	15	CM		
	Wall;				
F	200 mm rough dressed natural stone wall in cement : sand mortar (1:4).	32	SM		
	Filling				
G	300 mm thick approved hardcore filling well compacted layers not exceeding 150 mm thick to make up levels.	81	SM		
H	50 mm thick murrum or other equal and approved blinding material to surface of hardcore (m.s.).	81	SM		
J	Gladiator” or other equal and approved anti-termite insecticide to hardcore surface applied in accordance with Manufacturer*s written instructions.	81	SM		
	TOTAL CARRIED TO COLLECTION				

Item	Description	Quantity	Unit	Rate	Amount
	Plain Concrete (1:4:8) as described in;				
<u>A</u>	50 mm thick under strip <u>foundation</u> Reinforced concrete 1:2:4 as described in;	20	SM		
B	Foundations	4	CM		
<u>D</u>	<u>100 mm floor</u> slab Sawn formwork as described to :-	81	SM		
E	Edges of strip footing 150 - 225 mm girth	72	LM		
F	Edges <u>of</u> slab 75 mm - 150 mm girth High Tensile Reinforcement Bars to B.S 4461 including cutting, bending and all necessary spacer blocks: (Provisional)	42 240	LM		
G	10mm diameter	67	<u>KG</u>		
<u>H</u>	<u>8 mm diameter</u>	<u>50</u>	<u>KG</u>		
<u>I</u>	<u>B.</u> R. C. A 98 mesh reinforcement to Engineer's specification.	81	SM		
J	1000 gauge polythene damp proof membrane	81	SM		
	TOTAL CARRIED TO COLLECTION				

Item	Description	Quantity	Unit	Rate	Amount
	Plunking <u>and</u> Strutting				
A	Allow for plunking <u>and</u> strutting to sides of all <u>excavation</u> to keep excavation free from all fallen materials		ITEM		
	Plinth finishes				
B	12 mm thick plaster to plinth	11	SM		
C	Prepare and apply two coats black bituminous paint <u>to</u> plastered surface	11	SM		
	Total carried to collection				
	COLLECTION				
	Carried forward from page 1/1				
	Carried forward from page 1/2				
	Brought down from above				
	TOTAL CARRIED TO SUMMARY				

Item	Description	Quantity	Unit	Rate	Amount
	ELEMENT <u>NO.</u> ROOF (PROVISIONAL) All cypress timber <u>to</u> be well seasoned 2nd grade <u>timber</u> pressure impregnated with Tanalith 'C' <u>The following in 9 No. Trusses Type "T1" spanning 10,800mm with a height 1800mm</u> raised 3100mm from the ground <u>level</u>				
		<u>9</u>			
<u>A</u>	<u>100 x 50 mm rafters</u>	<u>90</u>	<u>LM</u>		
<u>B</u>	<u>75 x 50 mm king/end</u> posts, struts/ ties	108	LM		
C	100 x 50 mm top and ceiling joists	72	LM		
	Seasoned Celcured 2nd Grade Cypress				
D	100 x 50 mm common rafters	90	LM		
E	75 x 50 mm purlins	60	LM		
<u>F</u>	<u>100 x 50 mm</u> wall plate	40.4	LM		
G	150 x 50 mm valley, ridge and hip rafters	20	LM		
	Roof Covering :-				
	Supply and fix prepainted gauge30 IT5 roof cover or other equal and approved roof <u>covering:</u> measured net without <u>allowing for</u> headlaps or side laps laid on and <u>including 50x38 mm pressure impregnated cypress</u> batten as described <u>in</u> :-				
H	Roof coverings	108	SM		
I	250 mm diameter half round ridge, valley and hip cap.	12	LM		
	TOTAL CARRIED TO SUMMARY				

Item	Description	Quantity	Unit	Rate	Amount
	ELEMENT NO. 4 WINDOWS Supply and fix <u>the following</u> standard louvered casement windows divided Into small equal panes complete with <u>12mm</u> square burglar proofing bars neatly welded behind the openable panes and <u>in the same pattern as the panes including heavy duty closers and stay, fixing lugs and one coat red oxide primer all as per Architect's details;</u>				
<u>A</u>	<u>Window size 1800 x 1700 mm high</u>	<u>3</u>	<u>NO</u>		
<u>B</u>	<u>Ditto size 1700 x 1750 mm</u> window	3	NO		
	Glazing :-				
	4 mm thick clear sheet glass fixed to metal frames with				
C	Panes 0.1 - 0.5 square metres	31	SM		
	Prepare and apply three <u>coats oil</u> paint to :				
D	Metal surfaces	31	SM		
	Window Cill				
E	150 x 20 mm thick clay window cill jointed and pointed in coloured cement : sand (1:5) mortar	12	<u>LM</u>		
	TOTAL CARRIED TO SUMMARY				

Item	Description	Quantity	Unit	Rate	Amount
	ELEMENT NO. 5				
	DOORS (All to Architects <u>details</u>)				
	<u>Glazed</u> Metal Doors;				
A	900 x 2100mm high mild steel panel door <u>comprising 1No. openable leave with</u> 40 x 25 x 3mm frame infilled with and including 25 <u>x 25 x</u> 3mm SHS diagonal braces and I6 x 8mm thick square bars all cut and welded together in approved decorative pattern and hang to and including 50 x 25 x 3mm thick mild steel plugged frame all round including inbuilt hinges, hasps and locking facility and priming the whole door with red lead oxide after fabrication.	1	NO		
B	Prepare and apply three coats of oil General metal surfaces	4	SM		
	TOTAL CARRIED TO SUMMARY				

Item	Description	Quantity	Unit	Rate	Amount
	SUMMARY				
	Substructure	1/3			
	<u>Reinforced</u> Concrete Superstructure	1/4			
	Roof	1/8			
	Walling	1/5			
	Windows	1/7			
	Doors	1/10			
	Finishes	1/11			
	GRAND SUMMARY CARRIED TO THE FORM OF TENDER {VAT INCLUSIVE]				

PART III - CONDITIONS OF CONTRACT AND CONTRACT FORMS

SECTION VIII - CONDITIONS OF CONTRACT

PART I - GENERAL CONDITIONS AS PRESCIBED BY THE PUBLIC PROCUREMENT AND REGULATION AUTHORITY (PPRA)

SECTION VIII - GENERAL CONDITIONS OF CONTRACT

These General Conditions of Contract (GCC), read in conjunction with the Special Conditions of Contract (SCC) and other documents listed therein, should be a complete document expressing fairly the rights and obligations of both parties.

These General Conditions of Contract have been developed on the basis of considerable international experience in the drafting and management of contracts, bearing in mind a trend in the construction industry towards simpler, more straightforward language.

The GCC can be used for both smaller admeasurement contracts and lump sum contracts.

General Conditions of Contract

A. General

1. Definitions

1.1 Bold face type is used to identify defined terms.

- a) **The Accepted Contract Amount** means the amount accepted in the Letter of Acceptance for the execution and completion of the Works and the remedying of any defects.
- b) **The Activity Schedule** is a schedule of the activities comprising the construction, installation, testing, and commissioning of the Works in a lump sum contract. It includes a lump sum price for each activity, which is used for valuations and for assessing the effects of Variations and Compensation Events.
- c) **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 GCC 23.
- d) **Bill of Quantities** means the priced and completed Bill of Quantities forming part of the Bid.
- e) **Compensation Events** are those defined in GCC Clause 42 hereunder.
- f) **The Completion Date** is the date of completion of the Works as certified by the Engineer, in accordance with GCC Sub-Clause 53.1.
- g) **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 GCC Sub-Clause 2.3 below.
- h) **The Contractor** is the party whose Bid to carry out the Works has been accepted by the Procuring Entity.
- i) **The Contractor's Bid** is the completed bidding document submitted by the Contractor to the Procuring Entity.
- j) **The Contract Price** is the Accepted Contract Amount stated in the Letter of Acceptance and thereafter as adjusted in accordance with the Contract.
- k) **Days** are calendar days; months are calendar months.
- l) **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.
- m) **A Defect** is any part of the Works not completed in accordance with the Contract.
- n) **The Defects Liability Certificate** is the certificate issued by Engineer upon correction of defects by the Contractor.
- o) **The Defects Liability Period** is the period **named in the SCC** pursuant to Sub-Clause 34.1 and calculated from the Completion Date.
- p) **Drawings** means the drawings of the Works, as included in the Contract, and any additional and modified drawings issued by (or on behalf of) the Procuring Entity in accordance with the Contract, include calculations and other information provided or approved by the Engineer for the execution of the Contract.

- q) **The Procuring Entity** is the party who employs the Contractor to carry out the Works, **as specified in the SCC**, who is also the Procuring Entity.
- r) **Equipment** is the Contractor's machinery and vehicles brought temporarily to the Site to construct the Works.
- s) **“In writing” or “written”** means hand-written, type-written, printed or electronically made, and resulting in a permanent record;
- t) The Initial Contract Price is the Contract Price listed in the Procuring Entity's Letter of Acceptance.
- u) **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 SCC**. The Intended Completion Date may be revised only by the Engineer by issuing an extension of time or an acceleration order.
- v) **Materials** are all supplies, including consumables, used by the Contractor for incorporation in the Works.
- w) **Plant** is any integral part of the Works that shall have a mechanical, electrical, chemical, or biological function.
- x) **The Engineer** is the person **named in the SCC** (or any other competent person appointed by the Procuring Entity and notified to the Contractor, to act in replacement of the Engineer) who is responsible for supervising the execution of the Works and administering the Contract.
- y) **SCC** means Special Conditions of Contract.
- z) **The Site** is the area of the works as **defined as such in the SCC**.
- aa) **Site Investigation Reports** are those that were included in the bidding document and are factual and interpretative reports about the surface and subsurface conditions at the Site.
- bb) **Specification** means the Specification of the Works included in the Contract and any modification or addition made or approved by the Engineer.
- cc) **The Start Date** is **given in the SCC**. 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.
- dd) **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.
- ee) **Temporary Works** are works designed, constructed, installed, and removed by the Contractor that are needed for construction or installation of the Works.
- ff) **A Variation** is an instruction given by the Engineer which varies the Works.
- gg) **The Works** are what the Contract requires the Contractor to construct, install, and turn over to the Procuring Entity, **as defined in the SCC**.

2 Interpretation

- 21 In interpreting these GCC, words indicating one gender include all genders. Words indicating the singular also include the plural and words indicating the plural also include the singular. Headings have no significance. Words have their normal meaning under the language of the Contract unless specifically defined. The Engineer shall provide instructions clarifying queries about these GCC.
- 22 If sectional completion is specified in the SCC, references in the GCC 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).
- 23 The documents forming the Contract shall be interpreted in the following order of priority:
 - a) Agreement,
 - b) Letter of Acceptance,
 - c) Contractor's Bid,
 - d) Special Conditions of Contract,
 - e) General Conditions of Contract, including Appendices,
 - f) Specifications,

- g) Drawings,
- h) Bill of Quantities⁶, and
- i) any other document **listed in the SCC** as forming part of the Contract.

⁶In lump sum contracts, delete “Bill of Quantities” and replace with “Activity Schedule.”

3 Language and Law

- 31 The language of the Contract is English Language and the law governing the Contract are the Laws of Kenya.
- 32 Throughout the execution of the Contract, the Contractor shall comply with the import of goods and services prohibitions in the Procuring Entity's Country when
- a) as a matter of law or official regulations, Kenya prohibits commercial relations with that country; or
 - b) by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, Kenya prohibits any import of goods from that country or any payments to any country, person, or entity in that country.

4 Engineer's Decisions

- 41 Except where otherwise specifically stated, the Engineer shall decide contractual matters between the Procuring Entity and the Contractor in the role representing the Procuring Entity.

5 Delegation

- 51 Otherwise **specified in the SCC**, the Engineer may delegate any of his duties and responsibilities to other people, except to the Adjudicator, after notifying the Contractor, and may revoke any delegation after notifying the Contractor.

6 Communications

- 61 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.

7 Subcontracting

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

8 Other Contractors

- 81 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 SCC**. 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.

9 Personnel and Equipment

- 91 The Contractor shall employ the key personnel and use the equipment identified in its Bid, to carry out the Works or other personnel and equipment approved by the Engineer. The Engineer shall approve any proposed replacement of key personnel and equipment only if their relevant qualifications or characteristics are substantially equal to or better than those proposed in the Bid.
- 92 If the Engineer 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.
- 93 If the Procuring Entity, Engineer or Contractor determines, that any employee of the Contractor be determined to have engaged in Fraud and Corruption during the execution of the Works, then that employee shall be removed in accordance with Clause 9.2 above.

10. Procuring Entity's and Contractor's Risks

- 10.1 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.

11. Procuring Entity's Risks

- 11.1 From the Start Date until the Defects Liability 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.
- 11.2 From the Completion Date until the Defects Liability 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
- aa) a Defect which existed on the Completion Date,
 - bb) an event occurring before the Completion Date, which was not itself a Procuring Entity's risk, or
 - cc) the activities of the Contractor on the Site after the Completion Date.

12. Contractor's Risks

- 12.1 From the Starting Date until the Defects Liability 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.

13. Insurance

- 13.1 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 SCC** 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.
- 13.2 Policies and certificates for insurance shall be delivered by the Contractor to the Engineer for the Engineer'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.
- 13.3 If the Contractor does not provide any of the policies and certificates required, the Procuring Entity may effect 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.
- 13.4 Alterations to the terms of an insurance shall not be made without the approval of the Engineer.
- 13.5 Both parties shall comply with any conditions of the insurance policies.

14. Site Data

- 14.1 The Contractor shall be deemed to have examined any Site Data **referred to in the SCC**,

supplemented by any information available to the Contractor.

15. Contractor to Construct the Works

151 The Contractor shall construct and install the Works in accordance with the Specifications and Drawings.

16. The Works to Be Completed by the Intended Completion Date

161 The Contractor may commence execution of the Works on the Start Date and shall carry out the Works in accordance with the Program submitted by the Contractor, as updated with the approval of the Engineer, and complete them by the Intended Completion Date.

17. Approval by the Engineer

171 The Contractor shall submit Specifications and Drawings showing the proposed Temporary Works to the Engineer, for his approval.

172 The Contractor shall be responsible for design of Temporary Works.

173 The Engineer's approval shall not alter the Contractor's responsibility for design of the Temporary Works.

174 The Contractor shall obtain approval of third parties to the design of the Temporary Works, where required.

175 All Drawings prepared by the Contractor for the execution of the temporary or permanent Works, are subject to prior approval by the Engineer before this use.

18. Safety

181 The Contractor shall be responsible for the safety of all activities on the Site.

19. Discoveries

191 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 Engineer of such discoveries and carry out the Engineer's instructions for dealing with them.

20. Possession of the Site

201 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 SCC**, the Procuring Entity shall be deemed to have delayed the start of the relevant activities, and this shall be a Compensation Event.

21. Access to the Site

211 The Contractor shall allow the Engineer and any person authorized by the Engineer 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.

22. Instructions, Inspections and Audits

221 The Contractor shall carry out all instructions of the Engineer which comply with the applicable laws where the Site is located.

222 The Contractor shall keep, and shall make all reasonable efforts to cause its Subcontractors and sub-consultants to keep, accurate and systematic accounts and records in respect of the Works in such form and details as will clearly identify relevant time changes and costs.

223 The Contractor shall permit and shall cause its subcontractors and sub-consultants to permit, the Procuring Entity and/or persons appointed by the Public Procurement Regulatory Authority to inspect the Site and/or the accounts and records relating to the procurement process, selection and/or

contract execution, and to have such accounts and records audited by auditors appointed by the Public Procurement Regulatory Authority. The Contractor's and its Subcontractors' and sub-consultants' attention is drawn to Sub-Clause 25.1 (Fraud and Corruption) which provides, inter alia, that acts intended to materially impede the exercise of the Public Procurement Regulatory Authority's inspection and audit rights constitute a prohibited practice subject to contract termination (as well as to a determination of ineligibility pursuant to the Public Procurement Regulatory Authority's prevailing sanctions procedures).

23. Appointment of the Adjudicator

- 231 The Adjudicator shall be appointed jointly by the Procuring Entity and the Contractor, at the time of the Procuring Entity's issuance of the Letter of Acceptance. If, in the Letter of Acceptance, the Procuring Entity does not agree on the appointment of the Adjudicator, the Procuring Entity will request the Appointing Authority designated in the SCC, to appoint the Adjudicator within 14 days of receipt of such request.
- 232 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 shall 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 SCC at the request of either party, within 14 days of receipt of such request.

24. Settlement of Claims and Disputes

241 Contractor's Claims

- 24.1.1 If the Contractor considers itself to be entitled to any extension of the Time for Completion and/or any additional payment, under any Clause of these Conditions or otherwise in connection with the Contract, the Contractor shall give Notice to the Engineer, describing the event or circumstance giving rise to the claim. The notice shall be given as soon as practicable, and not later than 30 days after the Contractor became aware, or should have become aware, of the event or circumstance.
- 24.1.2 If the Contractor fails to give notice of a claim within such period of 30 days, the Time for Completion shall not be extended, the Contractor shall not be entitled to additional payment, and the Procuring Entity shall be discharged from all liability in connection with the claim. Otherwise, the following provisions of this Sub- Clause shall apply.
- 24.1.3 The Contractor shall also submit any other notices which are required by the Contract, and supporting particulars for the claim, all as relevant to such event or circumstance.
- 24.1.4 The Contractor shall keep such contemporary records as may be necessary to substantiate any claim, either on the Site or at another location acceptable to the Engineer. Without admitting the Procuring Entity's liability, the Engineer may, after receiving any notice under this Sub-Clause, monitor the record- keeping and/or instruct the Contractor to keep further contemporary records. The Contractor shall permit the Engineer to inspect all these records, and shall (if instructed) submit copies to the Engineer.
- 24.1.5 Within 42 days after the Contractor became aware (or should have become aware) of the event or circumstance giving rise to the claim, or within such other period as may be proposed by the Contractor and approved by the Engineer, the Contractor shall send to the Engineer a fully detailed claim which includes full supporting particulars of the basis of the claim and of the extension of time and/or additional payment claimed. If the event or circumstance giving rise to the claim has a continuing effect:
- a) this fully detailed claim shall be considered as interim;
 - b) the Contractor shall send further interim claims at monthly intervals, giving the accumulated delay and/or amount claimed, and such further particulars as the Engineer may reasonably require; and

- c) the Contractor shall send a final claim within 30 days after the end of the effects resulting from the event or circumstance, or within such other period as may be proposed by the Contractor and approved by the Engineer.
- 24.1.6 Within 42 days after receiving a Notice of a claim or any further particulars supporting a previous claim, or within such other period as may be proposed by the Engineer and approved by the Contractor, the Engineer shall respond with approval, or with disapproval and detailed comments. He may also request any necessary further particulars, but shall nevertheless give his response on the principles of the claim within the above defined time period.
- 24.1.7 Within the above defined period of 42 days, the Engineer shall proceed in accordance with Sub-Clause
- 24.1.8 [Determinations] to agree or determine (i) the extension (if any) of the Time for Completion (before or after its expiry) in accordance with Sub-Clause 8.4 [Extension of Time for Completion], and/or (ii) the additional payment (if any) to which the Contractor is entitled under the Contract.
- 24.1.9 Each Payment Certificate shall include such additional payment for any claim as has been reasonably substantiated as due under the relevant provision of the Contract. Unless and until the particulars supplied are sufficient to substantiate the whole of the claim, the Contractor shall only be entitled to payment for such part of the claim as he has been able to substantiate.
- 24.1.10 If the Engineer does not respond within the timeframe defined in this Clause, either Party may consider that the claim is rejected by the Engineer and any of the Parties may refer to Arbitration in accordance with Sub-Clause 24.4 [Arbitration].
- 24.1.11 The requirements of this Sub-Clause are in addition to those of any other Sub-Clause which may apply to a claim. If the Contractor fails to comply with this or another Sub-Clause in relation to any claim, any extension of time and/or additional payment shall take account of the extent (if any) to which the failure has prevented or prejudiced proper investigation of the claim, unless the claim is excluded under the second paragraph of this Sub-Clause 24.3.

242 Amicable Settlement

- 24.2.1 Where a notice of a claim has been given, both Parties shall attempt to settle the dispute amicably before the commencement of arbitration. However, unless both Parties agree otherwise, the Party giving a notice of a claim in accordance with Sub-Clause 24.1 above should move to commence arbitration after the fifty-sixth day from the day on which a notice of a claim was given, even if no attempt at an amicable settlement has been made.

243 Matters that may be referred to arbitration

- 24.3.1 Notwithstanding anything stated herein the following matters may be referred to arbitration before the practical completion of the Works or abandonment of the Works or termination of the Contract by either party:
- a) The appointment of a replacement Engineer upon the said person ceasing to act.
 - b) Whether or not the issue of an instruction by the Engineer is empowered by these Conditions.
 - c) Whether or not a certificate has been improperly withheld or is not in accordance with these Conditions.
 - e) Any dispute arising in respect of war risks or war damage.
 - f) All other matters shall only be referred to arbitration after the completion or alleged completion of the Works or termination or alleged termination of the Contract, unless the Procuring Entity and the Contractor agree otherwise in writing.

244 Arbitration

- 24.4.1 Any claim or dispute between the Parties arising out of or in connection with the Contract not settled amicably in accordance with Sub-Clause 24.3 shall be finally settled by arbitration.
- 24.4.2 No arbitration proceedings shall be commenced on any claim or dispute where notice of a claim or dispute has not been given by the applying party within ninety days of the occurrence or discovery of the matter or issue giving rise to the dispute.
- 24.4.3 Notwithstanding the issue of a notice as stated above, the arbitration of such a claim or dispute shall not commence unless an attempt has in the first instance been made by the parties to settle such claim or dispute amicably with or without the assistance of third parties. Proof of such attempt shall be required.
- 24.4.4 The Arbitrator shall, without prejudice to the generality of his powers, have powers to direct such measurements, computations, tests or valuations as may in his opinion be desirable in order to determine the rights of the parties and assess and award any sums which ought to have been the subject of or included in any certificate.
- 24.4.5 The Arbitrator shall, without prejudice to the generality of his powers, have powers to open up, review and revise any certificate, opinion, decision, requirement or notice and to determine all matters in dispute which shall be submitted to him in the same manner as if no such certificate, opinion, decision requirement or notice had been given.
- 24.4.6 The arbitrators shall have full power to open up, review and revise any certificate, determination, instruction, opinion or valuation of the Engineer, relevant to the dispute. Nothing shall disqualify representatives of the Parties and the Engineer from being called as a witness and giving evidence before the arbitrators on any matter whatsoever relevant to the dispute.
- 24.4.7 Neither Party shall be limited in the proceedings before the arbitrators to the evidence, or to the reasons for dissatisfaction given in its Notice of Dissatisfaction.
- 24.4.8 Arbitration may be commenced prior to or after completion of the Works. The obligations of the Parties, and the Engineer shall not be altered by reason of any arbitration being conducted during the progress of the Works.
- 24.4.9 The terms of the remuneration of each or all the members of Arbitration shall be mutually agreed upon by the Parties when agreeing the terms of appointment. Each Party shall be responsible for paying one-half of this remuneration.

245 Arbitration with National Contractors

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

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

246 Alternative Arbitration Proceedings

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

247 Failure to Comply with Arbitrator's Decision

- 24.7.1 The award of such Arbitrator shall be final and binding upon the parties.

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

248 Contract operations to continue

24.8.1 Notwithstanding any reference to arbitration herein,

- a) the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; and
- b) the Procuring Entity shall pay the Contractor any monies due the Contractor.

25. Fraud and Corruption

251 The Government requires compliance with the country's Anti-Corruption laws and its prevailing sanctions policies and procedures as set forth in the Constitution of Kenya and its Statutes.

252 The Procuring Entity requires the Contractor to disclose any commissions or fees that may have been paid or are to be paid to agents or any other party with respect to the bidding process or execution of the Contract. The information disclosed must include at least the name and address of the agent or other party, the amount and currency, and the purpose of the commission, gratuity or fee.

B. Time Control

26. Program

261 Within the time stated in the SCC, after the date of the Letter of Acceptance, the Contractor shall submit to the Engineer for approval a Program showing the general methods, arrangements, order, and timing for all the activities in the Works. In the case of a lump sum contract, the activities in the Program shall be consistent with those in the Activity Schedule.

262 An update of the Program shall be a program 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.

263 The Contractor shall submit to the Engineer for approval an updated Program at intervals no longer than the period stated in the SCC. If the Contractor does not submit an updated Program within this period, the Engineer may withhold the amount stated in the SCC from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Program has been submitted. In the case of a lump sum contract, the Contractor shall provide an updated Activity Schedule within 14 days of being instructed to by the Engineer.

264 The Engineer's approval of the Program shall not alter the Contractor's obligations. The Contractor may revise the Program and submit it to the Engineer again at any time. A revised Program shall show the effect of Variations and Compensation Events.

27. Extension of the Intended Completion Date

271 The Engineer 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.

272 The Engineer shall decide whether and by how much to extend the Intended Completion Date within 21 days of the Contractor asking the Engineer 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.

28. Acceleration

281 When the Procuring Entity wants the Contractor to finish before the Intended Completion Date, the Engineer shall obtain priced proposals for achieving the necessary acceleration from the Contractor.

If the Procuring Entity accepts these proposals, the Intended Completion Date shall be adjusted accordingly and confirmed by both the Procuring Entity and the Contractor.

282 If the Contractor's priced proposals for an acceleration are accepted by the Procuring Entity, they are incorporated in the Contract Price and treated as a Variation.

29. Delays Ordered by the Engineer

291 The Engineer may instruct the Contractor to delay the start or progress of any activity within the Works.

30. Management Meetings

301 Either the Engineer 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.

302 The Engineer 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 Engineer either at the management meeting or after the management meeting and stated in writing to all who attended the meeting.

31. Early Warning

311 The Contractor shall warn the Engineer 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 Engineer 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.

312 The Contractor shall cooperate with the Engineer 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 Engineer.

C. Quality Control

32. Identifying Defects

321 The Engineer 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 Engineer may instruct the Contractor to search for a Defect and to uncover and test any work that the Engineer considers may have a Defect.

33. Tests

331 If the Engineer 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.

34. Correction of Defects

341 The Engineer 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 SCC. The Defects Liability Period shall be extended for as long as Defects remain to be corrected.

342 Every time notice of a Defect is given, the Contractor shall correct the notified Defect within the length of time specified by the Engineer's notice.

35. Uncorrected Defects

351 If the Contractor has not corrected a Defect within the time specified in the Engineer's notice, the Engineer shall assess the cost of having the Defect corrected, and the Contractor shall pay this amount.

D. Cost Control

36. Contract Price⁷

36.1 The Bill of Quantities shall contain priced items for the Works to be performed by the Contractor. The Bill of Quantities is used to calculate the Contract Price. The Contractor will be paid for the quantity of the work accomplished at the rate in the Bill of Quantities for each item.

37. Changes in the Contract Price⁸

37.1 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 Engineer shall adjust the rate to allow for the change. The Engineer 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.

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

38. Variations

38.1 All Variations shall be included in updated Programs⁹ produced by the Contractor.

38.2 The Contractor shall provide the Engineer with a quotation for carrying out the Variation when requested to do so by the Engineer. The Engineer shall assess the quotation, which shall be given within seven (7) days of the request or within any longer period stated by the Engineer and before the Variation is ordered.

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

38.4 If the Engineer 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.

⁷In lump sum contracts, replace GCC Sub-Clauses 36.1 as follows:

36.1 The Contractor shall provide updated Activity Schedules within 14 days of being instructed to by the Engineer. The Activity Schedule shall contain the priced activities for the Works to be performed by the Contractor. The Activity Schedule is used to monitor and control the performance of activities on which basis the Contractor will be paid. If payment for materials on site shall be made separately, the Contractor shall show delivery of Materials to the Site separately on the Activity Schedule.

⁸In lump sum contracts, replace entire GCC Clause 37 with new GCC Sub-Clause 37.1, as follows: The Activity Schedule shall be amended by the Contractor to accommodate changes of Program or method of working made at the Contractor's own discretion. Prices in the Activity Schedule shall not be altered when the Contractor makes such changes to the Activity Schedule.

⁹In lump sum contracts, add "and Activity Schedules" after "Programs." ¹⁰In lump sum contracts, delete this paragraph.

- 385 The Contractor shall not be entitled to additional payment for costs that could have been avoided by giving early warning
- 386 If the work in the Variation corresponds to an item description in the Bill of Quantities and if, in the opinion of the Engineer, the quantity of work above the limit stated in Sub-Clause 39.1 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
- 387 Value Engineering: The Contractor may prepare, at its own cost, a value engineering proposal at any time during the performance of the contract. The value engineering proposal shall, at a minimum, include the following;
- a) the proposed change(s), and a description of the difference to the existing contract requirements;
 - b) a full cost/benefit analysis of the proposed change(s) including a description and estimate of costs (including life cycle costs) the Procuring Entity may incur in implementing the value engineering proposal; and
 - c) a description of any effect(s) of the change on performance/functionality.
- 388 The Procuring Entity may accept the value engineering proposal if the proposal demonstrates benefits that:
- a) accelerate the contract completion period; or
 - b) reduce the Contract Price or the life cycle costs to the Procuring Entity; or
 - c) improve the quality, efficiency, safety or sustainability of the Facilities; or
 - d) yield any other benefits to the Procuring Entity, without compromising the functionality of the Works.
- 389 If the value engineering proposal is approved by the Procuring Entity and results in:
- a) a reduction of the Contract Price; the amount to be paid to the Contractor shall be the **percentage specified in the SCC** of the reduction in the Contract Price; or
 - b) an increase in the Contract Price; but results in a reduction in life cycle costs due to any benefit described in
(a) to (d) above, the amount to be paid to the Contractor shall be the full increase in the Contract Price.

39. Cash Flow Forecasts

- 39.1 When the Program¹¹, is updated, the Contractor shall provide the Engineer 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.

40. Payment Certificates

- 40.1 The Contractor shall submit to the Engineer monthly statements of the estimated value of the work executed less the cumulative amount certified previously.
- 40.2 The Engineer shall check the Contractor's monthly statement and certify the amount to be paid to the Contractor.
- 40.3 The value of work executed shall be determined by the Engineer.
- 40.4 The value of work executed shall comprise the value of the quantities of work in the Bill of Quantities that have been completed¹².
- 40.5 The value of work executed shall include the valuation of Variations and Compensation Events.
- 40.6 The Engineer 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.
- 40.7 Where the contract price is different from the corrected tender price, in order to ensure the contractor

is not paid less or more relative to the contract price (which would be the tender price), payment valuation certificates and variation orders on omissions and additions valued based on rates in the Bill of Quantities or schedule of rates in the Tender, will be adjusted by a plus or minus percentage. The percentage already worked out during tender evaluation is worked out as follows: *(corrected tender price – tender price)/tender price X 100*.

41. Payments

- 41.1 Payments shall be adjusted for deductions for advance payments and retention. The Procuring Entity shall pay the Contractor the amounts certified by the Engineer within 30 days of the date of each certificate. If the Procuring Entity makes a late payment, the Contractor shall be paid interest on the late payment in the next payment. Interest shall be calculated from the date by which the payment should have been made up to the date when the late payment is made at the prevailing rate of interest for commercial borrowing for each of the currencies in which payments are made.
- 41.2 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.
- 41.3 Unless otherwise stated, all payments and deductions shall be paid or charged in the proportions of currencies comprising the Contract Price.
- 41.4 Items of the Works for which no rate or price has been entered in shall not be paid for by the Procuring Entity and shall be deemed covered by other rates and prices in the Contract.

42. Compensation Events

42.1 The following shall be Compensation Events:

- d) The Procuring Entity does not give access to a part of the Site by the Site Possession Date pursuant to GCC Sub-Clause 20.1.
- e) The Procuring Entity modifies the Schedule of Other Contractors in a way that affects the work of the Contractor under the Contract.
- f) The Engineer orders a delay or does not issue Drawings, Specifications, or instructions required for execution of the Works on time.
- g) The Engineer instructs the Contractor to uncover or to carry out additional tests upon work, which is then found to have no Defects.
- h) The Engineer unreasonably does not approve a subcontract to be let.
- i) Ground conditions are substantially more adverse than could reasonably have been assumed before issuance of the Letter of Acceptance from the information issued to bidders (including the Site Investigation Reports), from information available publicly and from a visual inspection of the Site.
- j) The Engineer gives an instruction for dealing with an unforeseen condition, caused by the Procuring Entity, or additional work required for safety or other reasons.
- k) 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.
- l) The advance payment is delayed.
- m) The effects on the Contractor of any of the Procuring Entity's Risks.
- n) The Engineer unreasonably delays issuing a Certificate of Completion.

42.2 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 Engineer 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.

423 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 Engineer, and the Contract Price shall be adjusted accordingly. If the Contractor's forecast is deemed unreasonable, the Engineer shall adjust the Contract Price based on the Engineer's own forecast. The Engineer shall assume that the Contractor shall react competently and promptly to the event.

¹¹*In lump sum contracts, add "or Activity Schedule" after "Program."*

¹²*In lump sum contracts, replace this paragraph with the following: "The value of work executed shall comprise the value of completed activities in the Activity Schedule."*

424 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 Engineer.

43. Tax

431 The Engineer shall adjust the Contract Price if taxes, duties, and other levies are changed between the date 30 days before the submission of bids 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 GCC Clause 44.

44. Currency of Payment

441 All payments under the contract shall be made in Kenya Shillings

45. Price Adjustment

451 Prices shall be adjusted for fluctuations in the cost of inputs only if **provided for in the SCC**. If so provided, the amounts certified in each payment certificate, before deducting for Advance Payment, shall be adjusted by applying the respective price adjustment factor to the payment amounts due in each currency. A separate formula of the type specified below applies:

$$P = A + B \text{ Im/Io}$$

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

A and B are coefficients¹³ **specified in the SCC**, representing the non-adjustable and adjustable portions, respectively, of the Contract Price payable and Im is the index prevailing at the end of the month being invoiced and IOC is the index prevailing 30 days before Bid opening for inputs payable.

452 If the value of the index is changed after it has been used in a calculation, the calculation shall be corrected and an adjustment made in the next payment certificate. The index value shall be deemed to take account of all changes in cost due to fluctuations in costs.

46. Retention

461 The Procuring Entity shall retain from each payment due to the Contractor the proportion stated in the **SCC** until Completion of the whole of the Works.

462 Upon the issue of a Certificate of Completion of the Works by the Engineer, in accordance with GCC 53.1, half the total amount retained shall be repaid to the Contractor and half when the Defects Liability Period has passed and the Engineer has certified that all Defects notified by the Engineer to the Contractor before the end of this period have been corrected. The Contractor may substitute retention money with an "on demand" Bank guarantee.

47. Liquidated Damages

471 The Contractor shall pay liquidated damages to the Procuring Entity at the rate per day stated in the **SCC** 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 SCC. The Procuring Entity may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor's liabilities.

472 If the Intended Completion Date is extended after liquidated damages have been paid, the Engineer 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 GCC Sub-Clause 41.1.

48. Bonus

481 The Contractor shall be paid a Bonus calculated at the rate per calendar day **stated in the SCC** 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 Engineer shall certify that the Works are complete, although they may not be due to be complete.

49. Advance Payment

49.1 The Procuring Entity shall make advance payment to the Contractor of the amounts stated in the SCC by the date stated in the SCC, 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 shall not be charged on the advance payment.

49.2 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 Engineer.

49.3 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.

50. Securities

50.1 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 **specified in the SCC**, 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 day 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.

51. Dayworks

51.1 If applicable, the Dayworks rates in the Contractor's Bid shall be used only when the Engineer has given written instructions in advance for additional work to be paid for in that way.

51.2 All work to be paid for as Dayworks shall be recorded by the Contractor on forms approved by the Engineer. Each completed form shall be verified and signed by the Engineer within two days of the work being done.

51.3 The Contractor shall be paid for Dayworks subject to obtaining signed Dayworks forms.

52. Cost of Repairs

52.1 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

53. Completion

53.1 The Contractor shall request the Engineer to issue a Certificate of Completion of the Works, and the Engineer shall do so upon deciding that the whole of the Works is completed.

54. Taking Over

54.1 The Procuring Entity shall take over the Site and the Works within seven days of the Engineer's issuing a certificate of Completion.

55. Final Account

55.1 The Contractor shall supply the Engineer 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 Engineer 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 Engineer 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 Engineer shall decide on the amount payable to the Contractor and issue a payment certificate.

¹³The sum of the two coefficients A and B should be 1 (one) in the formula for each currency. Normally, both coefficients shall be the same in the formulae for all currencies, since coefficient A, for the non-adjustable portion of the payments, is a very approximate figure (usually 0.15) to take account of fixed cost elements or other non-adjustable components. The sum of the adjustments for each currency are added to the Contract Price.

56. Operating and Maintenance Manuals

561 If “as built” Drawings and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates stated in the SCC.

562 If the Contractor does not supply the Drawings and/or manuals by the dates stated in the SCC pursuant to GCC Sub-Clause 56.1, or they do not receive the Engineer's approval, the Engineer shall withhold the amount **stated in the SCC** from payments due to the Contractor.

57. Termination

571 The Procuring Entity or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract.

572 Fundamental breaches of Contract shall include, but shall not be limited to, the following:

- a) the Contractor stops work for 30 days when no stoppage of work is shown on the current Program and the stoppage has not been authorized by the Engineer;
- b) the Engineer instructs the Contractor to delay the progress of the Works, and the instruction is not withdrawn within 30 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 Engineer is not paid by the Procuring Entity to the Contractor within 84 days of the date of the Engineer's certificate;
- e) the Engineer 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 Engineer;
- f) the Contractor does not maintain a Security, which is required;
- 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 SCC**; or
- h) if the Contractor, in the judgment of the Procuring Entity has engaged in Fraud and Corruption, as defined in paragraph 2.2 a of the Appendix A to the GCC, in competing for or in executing the Contract, then the Procuring Entity may, after giving fourteen (14) days written notice to the Contractor, terminate the Contract and expel him from the Site.

573 Notwithstanding the above, the Procuring Entity may terminate the Contract for convenience.

574 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.

575 When either party to the Contract gives notice of a breach of Contract to the Engineer for a cause other than those listed under GCC Sub-Clause 56.2 above, the Engineer shall decide whether the breach is fundamental or not.

58. Payment upon Termination

581 If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the

Engineer 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 specified in the SCC. 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.

582 If the Contract is terminated for the Procuring Entity's convenience or because of a fundamental breach of Contract by the Procuring Entity, the Engineer 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.

59. Property

59.1 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.

60. Release from Performance

60.1 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 Engineer 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.

SECTION IX - SPECIAL CONDITIONS OF CONTRACT

Except where otherwise specified, all Special Conditions of Contract should be filled in by the Procuring Entity prior to issuance of the bidding document. Schedules and reports to be provided by the Procuring Entity should be annexed.

Number of GC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract (under this special conditions SCC)
A. General	
GCC 1	<i>Add the following</i> Definitions “Week” means a period of seven (7) consecutive days “Month” means calendar month “Labour-Based Methods” means work methods whereby activities are carried out using labour where technically and economically viable and appropriate equipment is only used when labour alone will not achieve required standards. “Task” means the amount of work to be done by one individual worker or gang in order to earn one day’s wage “R2000 Strategy” means an initiative by the Government of Kenya to improve maintenance of the country’s road network by giving priority to maintenance through network approach, using appropriate technology, labour-based methods, local resources and increased usage of small-scale entrepreneurs.
GCC 1.1 (q)	The Procuring Entity is: Kenya Rural Roads Authority P.O. Box 48151 - 00100 NAIROBI The employer representative is: Regional Director, KeRRA - Meru Region P. O. Box 442 - 60200 <u>MERU</u>
GCC 1.1 (u)	The Intended Completion Date for the whole of the Works shall be 3 Months (Improvement Works) + 3 months Defects Liability Period During the Defects Liability Period, the Contractor will be responsible for rectifying any defects and maintaining the other facilities within the road reserve. No additional payment will be paid for these operations.
GCC 1.1 (x)	The Engineer is: Director (Planning, Design and Environment) Kenya Rural Roads Authority P.O. Box 48151 - 00100 NAIROBI The Engineer’s Representative is: The Design and Supervision Consultant,

Number of GC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract (under this special conditions SCC)
	Runji Consulting Group Ltd P.O Box 68053,00200, NAIROBI.
GCC 1.1 (z)	The Site is located at Meru COUNTY] and is defined in drawings No. CE1045/GD/GM/01
GCC 1.1 (cc)	The Start Date shall be As Prescribed in The Commencement Letter.
GCC 1.1 (gg)	The Works consist of As Prescribed Under Section Six (6).
GCC 2.2	Sectional Completions are: [N/A]
GCC 2.3	<i>Replace GCC 2.3 with the following</i> The documents forming the Contract shall be interpreted in the following order of priority: – The Contract Agreement – The Letter of Acceptance – The Form of Tender – The addenda Nos _____ (if any) – The Conditions of Contract, Part II - Conditions of Particular Application – The Conditions of Contract, Part I - General Conditions of Contract – The Specifications – Drawings – Bills Of Quantities – The completed Schedules and any other documents forming part of the contract.
GCC 3.1	Language of Contract: English
GCC 3.2	Law of Contract: Laws of the Republic of Kenya
GCC 5.1	The Engineer's duties and responsibilities are: i. Give site possession to the Contractor. ii. Give approval of the Contractor's programme of works and Site Agent. iii. Issue site instructions to the Contractor and additional or modified drawings which may be necessary for the execution of the Works and the remedying of any defects, all in accordance with the Contract and in writing. iv. Supervise the execution of the works and in particular ensuring the dimensions and quality of works conforms to the specifications. v. Review the contractor's progress regularly and give notices whenever the contract or is performing poorly or is behind the approved programme of works. vi. Organise measurement of the works jointly with the contractor. vii. Receive contractor's monthly payment certificates, evaluate and approve them. viii. Organise monthly progress review meetings with corresponding minutes. ix. Organise taking-over meetings with corresponding minutes. x. Any other duty attributable to the Engineer as specified in or necessarily to be implied from the Contract. xi. The Engineer may delegate some of his duties and authority to the Engineer's representative and will inform the contractor accordingly in writing.

Number of GC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract (under this special conditions SCC)								
	The Engineer shall obtain specific approval of the Employer before taking any of the following actions: i) Consenting to the sub-contracting of any part of the Works under General Conditions of Contract clause 7 ii) Issuing a variation or certifying additional cost determined under Clause 1(g) and (ff) except in an emergency situation as reasonably determined by the Engineer. iii) Determining an extension of time under Clause 27.2								
GCC 8.1	Schedule of other contractors: <i>[N/A]</i>								
GCC 9.1	Key Personnel <i>add the following:</i> Key Personnel are the Contractor's personnel as agreed by the Procuring Entity prior to Contract signature. <table border="1"> <tr> <td>Site Agent</td><td>Qualification = Diploma in Civil Eng. General Experience= 5 yrs Specific Experience = 3 Yrs</td></tr> <tr> <td>Senior Foreman</td><td>Qualification =Diploma in Civil Eng. General Experience = 3 yrs, Specific Experience = 2 Yrs</td></tr> <tr> <td>Site Surveyor</td><td>Qualification =Diploma in Survey General Experience = 4 yrs, Specific Experience = 2 Yrs</td></tr> <tr> <td>Material Technician</td><td>Qualification =Diploma in Civil Eng. General Experience =5 yrs, Specific Experience =3 Yrs OR Qualification = Occupational Grade Test 2 Certificate General Experience = 10 yrs, Specific Experience = 5 Yrs</td></tr> </table>	Site Agent	Qualification = Diploma in Civil Eng. General Experience= 5 yrs Specific Experience = 3 Yrs	Senior Foreman	Qualification =Diploma in Civil Eng. General Experience = 3 yrs, Specific Experience = 2 Yrs	Site Surveyor	Qualification =Diploma in Survey General Experience = 4 yrs, Specific Experience = 2 Yrs	Material Technician	Qualification =Diploma in Civil Eng. General Experience =5 yrs, Specific Experience =3 Yrs OR Qualification = Occupational Grade Test 2 Certificate General Experience = 10 yrs, Specific Experience = 5 Yrs
Site Agent	Qualification = Diploma in Civil Eng. General Experience= 5 yrs Specific Experience = 3 Yrs								
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Site Surveyor	Qualification =Diploma in Survey General Experience = 4 yrs, Specific Experience = 2 Yrs								
Material Technician	Qualification =Diploma in Civil Eng. General Experience =5 yrs, Specific Experience =3 Yrs OR Qualification = Occupational Grade Test 2 Certificate General Experience = 10 yrs, Specific Experience = 5 Yrs								
GCC 13.1	The minimum insurance amounts and deductibles shall be: a) for loss or damage to the Works, Materials, Plants & Fees-Contractor's All risks: [Contract Sum 1 (Improvement Works) + 15%]. b) For loss or damage to Equipment: <i>[Value of Equipment on Site]</i>. c) for loss or damage to property (except the Works, Plant, Materials, and Equipment) in connection with Contract: <i>[provide insurance cover]</i>. d) Third party injury to persons and damage to property: <i>[KES 100,000]</i>. e) for personal injury or death: <i>As per Workers compensation (WIBA- workers injury benefits policy) work injury benefits act 2007 laws of Kenya</i>								
GCC 14.1	Site Data are: <i>[N/A]</i>								
GCC 20.1	The Site Possession Date(s) shall be: <i>[on order to commence/ Start date]</i>								
GCC 23.1 & GCC 23.2	Appointing Authority for the Adjudicator: <i>[Chairman Chartered Institute of Arbitrators, CIARB Kenya Branch.]</i>. Hourly rate and types of reimbursable expenses to be paid to the Adjudicator: (as determined								

Number of GC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract (under this special conditions SCC)
	by the <i>CIARB</i>].
GCC 24.4	SCC. Add; The Arbitration Rules as published by the Chartered Institute of Arbitrators (Kenya Branch) will apply
GCC 24.3	Delete items 24.3 .1 (a)
GCC 24.5	<i>Add the following to 24.5.1</i> Application for appointment of an Arbitrator shall be to the Association of Consulting Engineers of Kenya (ACEK) or the Institution of Engineers of Kenya (IEK). The Arbitrator so appointed must be a licensed and registered Civil Engineer and a member of the Chartered Institute of Arbitrators (Kenya Branch)
GCC 25.0	<i>Add the following</i> 25.3: AFD requires compliance with its policy in regard to corrupt and fraudulent practices, social and environmental responsibility as per the ESMP
B. Time Control	
GCC 26.1	The Contractor shall submit for approval a Program for the Works within 14 days after issuance of the order to commence.
GCC 26.2	<i>Add the following;</i> Form of programme will be a Resource Based Gantt Chart.
GCC 26.3	Interval updates will be as requested by the Engineer Upon the instruction of the Engineer: the contractor shall submit the revised program within 14 days. The amount to be withheld for late submission of an updated Program is <i>[N/A]</i> .
C. Quality Control	
GCC 34.1	The Defects Liability Period is: 3 months.
GCC 34.2	Period of notifying defects will be: 14 days calculated from the date stated in the notice.
D. Cost Control	
GCC 36.1	<i>Add the following:</i> Valuation of Works shall be by: Re-measurements with Bills of Quantities
GCC 38.9	If the value engineering proposal is approved by the Procuring Entity the amount to be paid to the Contractor shall be N/A % of the reduction in the Contract Price.
GCC 40.0	Minimum Amount of Interim Payment Certificate submitted will be: KES 250,000
GCC 41.1	<i>Amend the second sentence “within 30 days” to within 60 days</i> <i>Delete the last sentence starting “Interest shall be calculated from the date... payments are made” and replace with “Interest shall be calculated from the date by which the payment should have been made up to the date when the late payment is made and shall be calculated based on simple interest at a rate equal to two percentage points above the average bank lending rate obtained from the Central Bank of Kenya”.</i>
GCC 44.1	The currency of the Procuring Entity’s Country is: [Kenya shillings].
GCC 45.1	The Contract IS NOT subject to price adjustment in accordance with GCC Clause 45, and the following information regarding coefficients DOES NOT apply.
GCC 46.1	The proportion of payments retained is: 10% of the interim certificate up to a maximum of 5% of the Contract Sum 1 (Improvement Works)

Number of GC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract (under this special conditions SCC)
GCC 47.1	The liquidated damages for the whole of the Works are 0.05% per day of Contract Sum 1 (Improvement Works) . The maximum amount of liquidated damages for the whole of the Works is 5% of the final Contract Sum 1 (Improvement Works)
GCC 48.1	The Bonus for the whole of the Works is <i>[N/A]</i> .
GCC 49.1	The Advance Payments shall be: 10% of the Contract Sum 1 (Improvement Works). <i>Add the following.</i> Partial payments or non-payment of such advance will not attract interest charges, claim for extension of time or any other claims by the Contractor, nor shall it form any grounds for not starting and progressing with the works as per the contract.
GCC 49	<i>Add the following.</i> This repayment of advance payment shall begin when the value of work certified under contract reaches 20% of the original contract sum 1. It shall have to be completed by the time 80% of this amount is reached. This shall follow the following formula. $R = \frac{A (X^I - X^{II})}{80 - 20}$ Where: R = Amount to be repaid A = Total Amount of the advance Payment that was granted X^I = Amount of proposed cumulative payments as a percentage of the original amount of the Contract sum 1. This figure will exceed 20% but not exceed 80%. X^{II} = Amount of the previous cumulative payments as a percentage of the original amount of the Contract sum 1. This figure will be below 80% but not less than 20%.
GCC 50.1	The Performance Security is Required; (a) Performance Security – Bank Guarantee: in the amount(s) of 5% percent of the Accepted Contract Sum 1 (Improvement Works) and in the same currency(ies) of the Accepted Contract Amount.
E. Finishing the Contract	
GCC 56.1	The date by which operating and maintenance manuals are required is <i>[N/A]</i>. The date by which “as built” drawings are required is <i>[N/A]</i>.
GCC 57.2 (g)	The maximum number of days is: [100 days] .
GCC 58.1	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>[N/A]</i> .

SECTION X: CONTRACT FORMS

FORM No 1: NOTIFICATION OF INTENTION TO AWARD

This Notification of Intention to Award shall be sent to each Tenderer that submitted a Tender. Send this Notification to the Tenderer's Authorized Representative named in the Tender Information Form on the format below.

FORMAT

1. For the attention of Tenderer's Authorized Representative

- i) Name: *[insert Authorized Representative's name]*
- ii) Address: *[insert Authorized Representative's Address]*
- iii) Telephone: *[insert Authorized Representative's telephone/fax numbers]*
- iv) Email Address: *[insert Authorized Representative's email address]*

[IMPORTANT: insert the date that this Notification is transmitted to Tenderers. The Notification must be sent to all Tenderers simultaneously. This means on the same date and as close to the same time as possible.]

2. Date of transmission: *[email]* on *[date]* (local time)

This Notification is sent by (Name and designation) _____

3. Notification of Intention to Award

- i) Procuring Entity: *[insert the name of the Procuring Entity]*
- ii) Project: *[insert name of project]*
- iii) Contract title: *[insert the name of the contract]*
- iv) Country: *[insert country where ITT is issued]*
- v) ITT No: *[insert ITT reference number from Procurement Plan]*

This Notification of Intention to Award (Notification) notifies you of our decision to award the above contract. The transmission of this Notification begins the Standstill Period. During the Standstill Period, you may:

4. Request a debriefing in relation to the evaluation of your tender

Submit a Procurement-related Complaint in relation to the decision to award the contract.

a) The successful tenderer

i) Name of successful Tender _____

ii) Address of the successful Tender _____

iii) Contract price of the successful Tender Kenya Shillings _____ (in words _____)

b) Other Tenderers

Names of all Tenderers that submitted a Tender. If the Tender's price was evaluated include the evaluated price as well as the Tender price as read out. For Tenders not evaluated, give one main reason the Tender was unsuccessful.

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

(Note a) State NE if not evaluated

5. How to request a debriefing

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

6. How to make a complaint

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

- d) Further information: For more information refer to the Public Procurement and Disposals Act 2015 and its Regulations available from the Website info@ppra.go.ke or complaints@ppra.go.ke.
You should read these documents before preparing and submitting your complaint.
- e) There are four essential requirements:
- i) You must be an 'interested party'. In this case, that means a Tenderer who submitted a Tender in this tendering process, and is the recipient of a Notification of Intention to Award.
 - ii) The complaint can only challenge the decision to award the contract.
 - iii) You must submit the complaint within the period stated above.
 - iv) You must include, in your complaint, all of the information required to support your complaint.

7. Standstill Period

- i) DEADLINE: The Standstill Period is due to end at midnight on *[insert date]* (local time).
- ii) The Standstill Period lasts fourteen (14) Days after the date of transmission of this Notification of Intention to Award.
- iii) The Standstill Period may be extended as stated in paragraph Section 5 (d) above.

If you have any questions regarding this Notification please do not hesitate to contact us. On behalf of the Procuring Entity:

Signature: _____ **Name:** _____

Title/position: _____ **Telephone:** __ **Email:** _____

FORM NO. 2 - REQUEST FOR REVIEW

FORM FOR REVIEW (r.203(1))

PUBLIC PROCUREMENT ADMINISTRATIVE REVIEW BOARD

APPLICATION NO..... OF.....20.....

BETWEEN

..... APPLICANT

AND

.....RESPONDENT (Procuring Entity)

Request for review of the decision of the..... (Name of the Procuring Entity of dated the...day of 20.....in the matter of Tender No.....of 20..... for(Tender description).

REQUEST FOR REVIEW

I/We....., the above named Applicant(s), of address: Physical address.....
P. O. Box No..... Tel. No.....Email, hereby request the Public Procurement
Administrative Review Board to review the whole/part of the above mentioned decision on the following
grounds, namely:

- 1.
- 2.

By this memorandum, the Applicant requests the Board for an order/orders that:

- 1.
- 2.

SIGNED (Applicant) Dated on..... day of/...20.....

FOR OFFICIAL USE ONLY Lodged with the Secretary Public Procurement Administrative Review Board
on.....day of 20.....

SIGNED

Board Secretary

FORM NO 3: LETTER OF AWARD

[letterhead paper of the Procuring Entity] [date]

To: *[name and address of the Contractor]*

This is to notify you that your Tender dated *[date]* for execution of the *[name of the Contract and identification number, as given in the Contract Data]* for the Accepted Contract Amount

1. **Contract Sum 1 (Improvement Works):** sum of Kenya Shillings _____

[Amount in figures Kenya Shillings _____]

[amount in words] – VAT INCLUDED

2. **Contract Sum 2 (Performance Based Routine Maintenance):** sum of Kenya Shillings .

_____ *[Amount in figures] Kenya Shillings _____*

_____ *[amount in words] – VAT INCLUDED.*

3. **Total Contract Sum:** Being the sum of Improvement Works and Performance Based Routine Maintenance. Sum of Kenya Shillings _____ *[Amount in figures] Kenya Shillings*

_____ *[amount in words] – VAT*

INCLUDED.

as corrected and modified in accordance with the Instructions to Tenderers, is hereby accepted by
..... *(name of Procuring Entity)*.

You are requested to furnish the Performance Security within 30 days in accordance with the Conditions of Contract, using, for that purpose, one of the Performance Security Forms included in Section VIII, Contract Forms, of the Tender Document.

Authorized Signature:

Name and Title of Signatory:

Name of Procuring Entity.....

Attachment: *Contract Agreement*.....

FORM NO 4: CONTRACT AGREEMENT

THIS AGREEMENT made the _____ day of _____, 20____, between _____ of _____ (hereinafter “the Procuring Entity”), of the one part, and _____ of _____ (hereinafter “the Contractor”), of the other part:

WHEREAS the Procuring Entity desires that the Works known as _____ should be executed by the Contractor, and has accepted a Tender by the Contractor for the execution and completion of these Works and the remedying of any defects therein,

The Procuring Entity and the Contractor agree as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Contract documents referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement. This Agreement shall prevail over all other Contract documents.
 - a) the Letter of Acceptance
 - b) the Letter of Tender
 - c) the addenda Nos _____ (if any)
 - d) the Special Conditions of Contract
 - e) the General Conditions of Contract;
 - f) the Specifications
 - g) the Drawings; and
 - h) the completed Schedules and any other documents forming part of the contract.
3. In consideration of the payments to be made by the Procuring Entity to the Contractor as specified in this Agreement, the Contractor hereby covenants with the Procuring Entity to execute the Works and to remedy defects therein in conformity in all respects with the provisions of the Contract.
4. The Procuring Entity hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the Laws of Kenya on the day, month and year specified above.

Signed and sealed by _____ (for the Procuring Entity)

Signed and sealed by _____ (for the Contractor).

FORM NO. 5 - PERFORMANCE SECURITY

[Option 1 - Unconditional Demand Bank Guarantee]

[Guarantor letterhead]

Beneficiary: _____ *[insert name and Address of Procuring Entity]* **Date:** _____

_____ *[Insert date of issue]*

Guarantor: *[Insert name and address of place of issue, unless indicated in the letterhead]*

1. We have been informed that _____ (hereinafter called "the Contractor") has entered into Contract No. _____ dated _____ with (name of Procuring Entity) _____ (the Procuring Entity as the Beneficiary), for the execution of _____ (hereinafter called "the Contract").
2. Furthermore, we understand that, according to the conditions of the Contract, a performance guarantee is required.
3. At the request of the Contractor, we as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of _____ (in words),¹ such sum being payable in the types and proportions of currencies in which the Contract Price is payable, upon receipt by us of the Beneficiary's complying demand supported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating that the Applicant is in breach of its obligation(s) under the Contract, without the Beneficiary needing to prove or to show grounds for your demand or the sum specified therein.
4. This guarantee shall expire, no later than the Day of, 2.....², and any demand for payment under it must be received by us at the office indicated above on or before that date.
5. The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed *[six months]* *[one year]*, in response to the Beneficiary's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee."

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

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

¹*The Guarantor shall insert an amount representing the percentage of the Accepted Contract Amount specified in the Letter of Acceptance, less provisional sums, if any, and denominated either in the currency of the Contract or a freely convertible currency acceptable to the Beneficiary.*

²*Insert the date twenty-eight days after the expected completion date as described in GC Clause 11.9. The Procuring Entity should note that in the event of an extension of this date for completion of the Contract, the Procuring Entity would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee.*

FORM NO. 6 - ADVANCE PAYMENT SECURITY

[Demand Bank Guarantee]

[Guarantor letterhead]

Beneficiary: _____ *[Insert name and Address of Procuring Entity]*

Date: _____ *[Insert date of issue]*

ADVANCE PAYMENT GUARANTEE No.: _____ *[Insert guarantee reference number]*

Guarantor: _____ *[Insert name and address of place of issue, unless indicated in the letterhead]*

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

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

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

¹~~The Guarantor shall insert an amount representing the amount of the advance payment and denominated either in the currency of the advance payment as specified in the Contract.~~

²Insert the expected expiration date of the Time for Completion. The Procuring Entity should note that in the event of an extension of the time for completion of the Contract, the Procuring Entity would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee.

FORM NO. 7 - RETENTION MONEY SECURITY

[Demand Bank Guarantee]

[Guarantor letterhead]

Beneficiary: _____ [Insert name and Address of Procuring Entity]

Date: _____ [Insert date of issue]

Advance payment guarantee no. [Insert guarantee reference number]

Guarantor: [Insert name and address of place of issue, unless indicated in the letterhead]

1. We have been informed that _____ [insert name of Contractor, which in the case of a joint venture shall be the name of the joint venture] (hereinafter called "the Contractor") has entered into Contract No. _____ [insert reference number of the contract] dated _____ with the Beneficiary, for the execution of _____ [insert name of contract and brief description of Works] (hereinafter called "the Contract").
2. Furthermore, we understand that, according to the conditions of the Contract, the Beneficiary retains moneys up to the limit set forth in the Contract ("the Retention Money"), and that when the Taking-Over Certificate has been issued under the Contract and the first half of the Retention Money has been certified for payment, and payment of [insert the second half of the Retention Money] is to be made against a Retention Money guarantee.
3. At the request of the Contractor, we, as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of [insert amount in figures] _____ ([insert amount in words _____])¹ upon receipt by us of the Beneficiary's complying demand supported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating that the Contractor is in breach of its obligation(s) under the Contract, without your needing to prove or show grounds for your demand or the sum specified therein.
4. A demand under this guarantee may be presented as from the presentation to the Guarantor of a certificate from the Beneficiary's bank stating that the second half of the Retention Money as referred to above has been credited to the Contractor on its account number _____ at _____ [insert name and address of Applicant's bank].
5. This guarantee shall expire no later than the Day of, 2.....², and any demand for payment under it must be received by us at the office indicated above on or before that date.
6. The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed [six months] [one year], in response to the Beneficiary's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee.

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

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

¹The Guarantor shall insert an amount representing the amount of the second half of the Retention Money.

²*Insert a date that is twenty-eight days after the expiry of retention period after the actual completion date of the contract. The Procuring Entity should note that in the event of an extension of this date for completion of the Contract, the Procuring Entity would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee.*

FORM NO. 8 BENEFICIAL OWNERSHIP DISCLOSURE FORM**(Amended and issued pursuant to PPRA CIRCULAR No. 02/2022)****INSTRUCTIONS TO TENDERERS: DELETE THIS BOX ONCE YOU HAVE COMPLETED THE FORM**

This Beneficial Ownership Disclosure Form ("Form") is to be completed by the successful tenderer pursuant to Regulation 13 (2A) and 13 (6) of the Companies (Beneficial Ownership Information) Regulations, 2020. In case of joint venture, the tenderer must submit a separate Form for each member. The beneficial ownership information to be submitted in this Form shall be current as of the date of its submission.

For the purposes of this Form, a Beneficial Owner of a Tenderer is any natural person who ultimately owns or controls the legal person (tenderer) or arrangements or a natural person on whose behalf a transaction is conducted, and includes those persons who exercise ultimate effective control over a legal person (Tenderer) or arrangement.

Tender Reference No.: _____ [insert
identification no] Name of the Tender Title/Description: _____ [insert
name of the assignment] to: _____ [insert complete name of Procuring Entity]

In response to the requirement in your notification of award dated ___ [insert date of notification of award] to furnish additional information on beneficial ownership: ___ [select one option as applicable and delete the options that are not applicable]

I) We here by provide the following beneficial ownership information.

Details of beneficial ownership

Details of Beneficial Ownership						
	Details of all Beneficial Owners		% of shares a person holds in the company Directly or indirectly	% of voting rights a person holds in the company	Whether a person directly or indirectly holds a right to appoint or remove a member of the board of directors of the company or an equivalent governing body of the Tenderer (Yes / No)	Whether a person directly or indirectly exercises significant influence or control over the Company (tenderer) (Yes / No)
1.	Full Name		Directly----- ----- % of shares Indirectly---- ----- % of shares	Directly..... % of voting rights Indirectly----- % of voting rights	1. Having the right to appoint a majority of the board of the directors or an equivalent governing body of the Tenderer: Yes ----No---- 2. Is this right held directly or indirectly?: Direct..... ...	1. Exercises significant influence or control over the Company body of the Company (tenderer) Yes ----No- ---
	National identity card number or Passport number					
	Personal Identification Number (where applicable)					
	Nationality					

	Details of all Beneficial Owners		% of shares a person holds in the company Directly or indirectly	% of voting rights a person holds in the company	Whether a person directly or indirectly holds a right to appoint or remove a member of the board of directors of the company or an equivalent governing body of the Tenderer (Yes / No)	Whether a person directly or indirectly exercises significant influence or control over the Company (tenderer) (Yes / No)
	Date of birth [dd/mm/yyyy]				Indirect.....	2. Is this influence or control exercised directly or indirectly? Direct..... Indirect.....
	Postal address					
	Residential address					
	Telephone number					
	Email address					
	Occupation or profession					
2.	Full Name		Directly----- ----- % of shares	Directly..... % of voting rights	1. Having the right to appoint a majority of the board of the directors or an equivalent governing body of the Tenderer: Yes -----No----	1. Exercises significant influence or control over the Company body of the Company (tenderer) Yes -----No----
	National identity card number or Passport number		Indirectly---- ----- % of shares	Indirectly----- % of voting rights	2. Is this right held directly or indirectly?: Direct..... ...	2. Is this influence or control exercised directly or indirectly? Direct.....
	Personal Identification Number (where applicable)				Indirect.....	Indirect.....
	Nationality(ies)					
	Date of birth [dd/mm/yyyy]					
	Postal address					
	Residential address					
	Telephone number					
	Email address					
	Occupation or profession					
3.						

	Details of all Beneficial Owners		% of shares a person holds in the company Directly or indirectly	% of voting rights a person holds in the company	Whether a person directly or indirectly holds a right to appoint or remove a member of the board of directors of the company or an equivalent governing body of the Tenderer (Yes / No)	Whether a person directly or indirectly exercises significant influence or control over the Company (tenderer) (Yes / No)
e.t.c						

II) Am fully aware that beneficial ownership information above shall be reported to the Public Procurement Regulatory Authority together with other details in relation to contract awards and shall be maintained in the Government Portal, published and made publicly available pursuant to Regulation 13(5) of the Companies (Beneficial Ownership Information) Regulations, 2020.(Notwithstanding this paragraph Personally Identifiable Information in line with the Data Protection Act shall not be published or made public). *Note that Personally Identifiable Information (PII) is defined as any information that can be used to distinguish one person from another and can be used to deanonymize previously anonymous data. This information includes National identity card number or Passport number, Personal Identification Number, Date of birth, Residential address, email address and Telephone number.*

III) In determining who meets the threshold of who a beneficial owner is, the Tenderer must consider a natural person who in relation to the company:

- (a) holds at least ten percent of the issued shares in the company either directly or indirectly;
- (b) exercises at least ten percent of the voting rights in the company either directly or indirectly;
- (c) holds a right, directly or indirectly, to appoint or remove a director of the company; or
- (d) exercises significant influence or control, directly or indirectly, over the company.

IV) What is stated to herein above is true to the best of my knowledge, information and belief.

Name of the Tenderer:*[insert complete name of the Tenderer]_____

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

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

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

Date this [insert date of signing] day of..... [Insert month], [insert year]

Bidder Official Stamp

FORM NO. 9 - STATEMENT OF INTEGRITY, ELIGIBILITY AND ENVIRONMENTAL AND SOCIAL RESPONSIBILITY

Tender No.: _____

Tender Name.: _____

To: The Director General- Kenya Rural Roads Authority (KeRRA) (The "**Contracting Authority**")

1. We recognise and accept that *Agence Française de Développement* ("**AFD**") only finances projects of the Contracting Authority subject to its own conditions which are set out in the Financing Agreement which benefits directly or indirectly to the Contracting Authority. As a matter of consequence, no legal relationship exists between AFD and our company, our joint venture or our suppliers, contractors, subcontractors, consultants or subconsultants. The Contracting Authority retains exclusive responsibility for the preparation and implementation of the procurement process and performance of the contract. The Contracting Authority means the Purchaser, the Employer, the Client, as the case may be, for the procurement of goods, works, plants, consulting services or non-consulting services.
2. We hereby certify that neither we nor any other member of our joint venture or any of our suppliers, contractors, subcontractors, consultants or subconsultants are in any of the following situations:
 - 2.1 Being bankrupt, wound up or ceasing our activities, having our activities administered by the courts, having entered into receivership, reorganisation or being in any analogous situation arising from any similar procedure;
 - 2.2 Having been:
 - a) convicted, within the past five years by a court decision, which has the force of res judicata in the country where the Contract is implemented, of fraud, corruption or of any other offense committed during a procurement process or performance of a contract (in the event of such conviction, you may attach to this Statement of Integrity supporting information showing that this conviction is not relevant in the context of the Contract);
 - b) subject to an administrative sanction within the past five years by the European Union or by the competent authorities of the country where we are constituted, for fraud, corruption or for any other offense committed during a procurement process or performance of a contract (in the event of such sanction, you may

attach to this Statement of Integrity supporting information showing that this sanction is not relevant in the context of the Contract);

- c) convicted, within the past five years by a court decision, which has the force of res judicata, of fraud, corruption or of any other offense committed during the procurement process or performance of an AFD-financed contract;
- 2.3 Being listed for financial sanctions by the United Nations, the European Union and/or France for the purposes of fight-against-terrorist financing or threat to international peace and security;
 - 2.4 Having been subject within the past five years to a contract termination fully settled against us for significant or persistent failure to comply with our contractual obligations during contract performance, unless this termination was challenged and dispute resolution is still pending or has not confirmed a full settlement against us;
 - 2.5 Not having fulfilled our fiscal obligations regarding payments of taxes in accordance with the legal provisions of either the country where we are constituted or the Contracting Authority's country;
 - 2.6 Being subject to an exclusion decision of the World Bank and being listed on the website <http://www.worldbank.org/debarr> (in the event of such exclusion, you may attach to this Statement of Integrity supporting information showing that this exclusion is not relevant in the context of the Contract);
 - 2.7 Having created false documents or committed misrepresentation in documentation requested by the Contracting Authority as part of the procurement process of the Contract.
- 3. We hereby certify that neither we, nor any of the members of our joint venture or any of our suppliers, contractors, subcontractors, consultants or subconsultants are in any of the following situations of conflict of interest:
 - 3.1 Being an affiliate controlled by the Contracting Authority or a shareholder controlling the Contracting Authority, unless the stemming conflict of interest has been brought to the attention of AFD and resolved to its satisfaction.
 - 3.2 Having a business or family relationship with a Contracting Authority's staff involved in the procurement process or the supervision of the resulting Contract, unless the stemming conflict of interest has been brought to the attention of AFD and resolved to its satisfaction;
 - 3.3 Being controlled by or controlling another bidder or consultant, or being under common control with another bidder or consultant, or receiving from or granting subsidies directly or indirectly to another bidder or consultant, having the same legal representative as another bidder or consultant, maintaining direct or indirect contacts

with another bidder or consultant which allows us to have or give access to information contained in the respective applications, bids or proposals, influencing them or influencing decisions of the Contracting Authority;

- 3.4 Being engaged in a consulting services activity, which, by its nature, may be in conflict with the assignments that we would carry out for the Contracting Authority;
- 3.5 In the case of procurement of goods, works or plants:
 - c) Having prepared or having been associated with a consultant who prepared specifications, drawings, calculations and other documentation to be used in the procurement process of the Contract;
 - d) Having been recruited (or being proposed to be recruited) ourselves or any of our affiliates, to carry out works supervision or inspection for the Contract.
4. If we are a state-owned entity, and to compete in a procurement process, we certify that we have legal and financial autonomy and that we operate under commercial laws and regulations.
5. We undertake to bring to the attention of the Contracting Authority, which will inform AFD, any change in situation with regard to points 2 to 4 here above.
6. In the context of the procurement process and performance of the corresponding contract:
 - 6.1 We have not and we will not engage in any dishonest conduct (act or omission) deliberately intended to deceive others, to intentionally conceal items, to violate or vitiate someone's consent, to make them circumvent legal or regulatory requirements and/or to violate their internal rules in order to obtain illegitimate profit;
 - 6.2 We have not and we will not engage in any dishonest conduct (act or omission) contrary to our legal or regulatory obligations or our internal rules in order to obtain illegitimate profit;
 - 6.3 We have not promised, offered or given and we will not promise, offer or give, directly or indirectly to (i) any Person who holds a legislative, executive, administrative or judicial mandate within the State of the Contracting Authority regardless of whether that Person was nominated or elected, regardless of the permanent or temporary, paid or unpaid nature of the position and regardless of the hierarchical level the Person occupies, (ii) any other Person who performs a public function, including for a State institution or a State-owned company, or who provides a public service, or (iii) any other person defined as a Public Officer by the national laws of the Contracting Authority's country, an undue advantage of any kind, for himself or for another Person or entity, for such Public Officer to act or refrain from acting in his official capacity;
 - 6.4 We have not promised, offered or given and we will not promise, offer or give, directly or indirectly to any Person who occupies an executive position in a private sector entity

or works for such an entity, regardless of the nature of his/her capacity, any undue advantage of any kind, for himself or another Person or entity for such Person to perform or refrain from performing any act in breach of its legal, contractual or professional obligations;

- 6.5 We have not and we will not engage in any practice likely to influence the contract award process to the detriment of the Contracting Authority and, in particular, in any anti-competitive practice having for object or for effect to prevent, restrict or distort competition, namely by limiting access to the market or the free exercise of competition by other undertakings;
- 6.6 Neither we nor any of the members of our joint venture or any of our suppliers, contractors, subcontractors, consultants or subconsultants shall acquire or supply any equipment nor operate in any sectors under an embargo of the United Nations, the European Union or France;
- 6.7 We commit ourselves to comply with and ensure that all of our suppliers, contractors, subcontractors, consultants or subconsultants comply with international environmental and labour standards, consistent with laws and regulations applicable in the country of implementation of the Contract, including the fundamental conventions of the International Labour Organisation (ILO) and international environmental treaties. Moreover, we shall implement environmental and social risks mitigation measures when specified in the environmental and social commitment plan (ESCP) provided by the Contracting Authority.
7. We, as well as members of our joint venture and our suppliers, contractors, subcontractors, consultants or subconsultants authorise AFD to inspect accounts, records and other documents relating to the procurement process and performance of the contract and to have them audited by auditors appointed by AFD.

Name: _____ In the capacity of: _____

Duly empowered to sign in the name and on behalf of⁵: _____

Signature: _____ Dated: _____

⁵ In case of joint venture, insert the name of the joint venture. The person who will sign the application, bid or proposal on behalf of the applicant, bidder or consultant shall attach a power of attorney from the applicant, bidder or consultant.

AFD Policy – Corrupt and Fraudulent Practices – Environmental and Social Responsibility

1. Corrupt and Fraudulent Practices

The Contracting Authority and the suppliers, contractors, subcontractors, consultants or subconsultants must observe the highest standard of ethics during the procurement process and performance of the contract. The Contracting Authority means the Purchaser, the Employer, the Client, as the case may be, for the procurement of goods, works, plants, consulting services or non-consulting services.

By signing the Statement of Integrity the suppliers, contractors, subcontractors, consultants or subconsultants declare that (i) “it did not engage in any practice likely to influence the contract award process to the Contracting Authority’s detriment, and that it did not and will not get involved in any anti-competitive practice”, and that (ii) “the procurement process and the performance of the contract did not and shall not give rise to any act of corruption or fraud”.

Moreover, AFD requires including in the Procurement Documents and AFD-financed contracts a provision requiring that suppliers, contractors, subcontractors, consultants or subconsultants will permit AFD to inspect their accounts and records relating to the procurement process and performance of the AFD-financed contract, and to have them audited by auditors appointed by AFD.

AFD reserves the right to take any action it deems appropriate to check that these ethics rules are observed and reserves, in particular, the rights to:

- a) Reject a proposal for a contract award if it is established that during the selection process the bidder or consultant that is recommended for the award has been convicted of corruption, directly or by means of an agent, or has engaged in fraud or anti-competitive practices in view of being awarded the Contract;
- b) Declare misprocurement when it is established that, at any time, the Contracting Authority, the suppliers, contractors, subcontractors, consultants or subconsultants their representatives have engaged in acts of corruption, fraud or anti-competitive practices during the procurement process or performance of the contract without the Contracting Authority having taken appropriate action in due time satisfactory to AFD to remedy the situation, including by failing to inform AFD at the time they knew of such practices.

AFD defines, for the purposes of this provision, the terms set forth below as follows:

- a) Corruption of a Public Officer means:
 - The act of promising, offering or giving to a Public Officer, directly or indirectly, an undue advantage of any kind for himself or for another Person⁶ or entity, for such Public Officer to act or refrain from acting in his official capacity; or
 - The act by which a Public Officer solicits or accepts, directly or indirectly, an undue advantage of any kind for himself or for another Person or entity, for such Public Officer to act or refrain from acting in his official capacity.
- b) A Public Officer shall be construed as meaning:

⁶ Means any Person whether natural or legal, firm, company, corporation, government, state or state agency or any association, or group of two or more of the foregoing (whether or not having separate legal status).

- Any person who holds a legislative, executive, administrative or judicial mandate (within the country of the Contracting Authority) regardless of whether that natural Person was nominated or elected, regardless of the permanent or temporary, paid or unpaid nature of the position and regardless of the hierarchical level the natural Person occupies;
 - Any other natural Person who performs a public function, including for a State institution or a State-owned company, or who provides a public service;
 - Any other natural Person defined as a Public Officer by the national laws of the country of the Contracting Authority.
- c) Corruption of a Private Person⁷ means:
- The act of promising, offering or giving to any Private Person, directly or indirectly, an undue advantage of any kind for himself or for another Person or entity, for such Private Person to perform or refrain from performing any act in breach of its legal, contractual or professional obligations; or;
 - The act by which any Private Person solicits or accepts, directly or indirectly, an undue advantage of any kind for himself or for another Person or entity, for such Private Person to perform or refrain from performing any act in breach of its legal, contractual or professional obligations.
- d) Fraud means any dishonest conduct (act or omission), whether or not it constitutes a criminal offence, deliberately intended to deceive others, to intentionally conceal items, to violate or vitiate consent, to circumvent legal or regulatory requirements and/or to violate internal rules in order to obtain illegitimate profit.
- e) Anti-competitive practices mean:
- Any concerted or implied practices which have as their object or effect the prevention, restriction or distortion of competition within a marketplace, especially where they (i) limit access to the marketplace or free exercise of competition by other undertakings, (ii) prevent free, competition-driven price determination by artificially causing price increases or decreases, (iii) restrict or control production, markets, investments or technical progress; or (iv) divide up market shares or sources of supply;
 - Any abuse by one undertaking or a group of undertakings which hold a dominant position on an internal market or on a substantial part of it;
 - Any practice whereby prices are quoted or set unreasonably low, the object of which is to eliminate an undertaking or any of its products from a market or to prevent it from entering the market.

2. Environmental and Social Responsibility

In order to promote sustainable development, AFD seeks to ensure that internationally recognised environmental and social standards are complied with. Suppliers, contractors, subcontractors, consultants or subconsultants for AFD-financed contracts shall consequently undertake in the Statement of Integrity to:

- a) Comply with and ensure that all their subcontractors or subconsultants comply with international environmental and labour standards, consistent with applicable law and regulations in the country of implementation of the contract, including the fundamental

⁷ Means any natural Person other than a Public Officer.

- conventions of the International Labour Organisation (ILO) and international environmental treaties;
- b) Implement environmental and social risks mitigation measures when specified in the environmental and social management plan (ESMP) provided by the Contracting Authority.

FORM NO. 10 - STATEMENT ON ENVIRONMENT AND SOCIAL MANAGEMENT PLAN

Introduction:

All operations financed by AFD are required to comply with the national regulations of the country where the operation is implemented, including environmental and social issues. Relevant Kenyan Policies, laws, regulations for environmental management in roads projects, the AFD Environmental and Social Risk Management Policy, and the World Bank Environmental and Social Standards that influence various aspects of road infrastructure projects shall be applied to this Project.

Contractor's Responsibilities

The Contractor will be responsible for implementing the Project. They will be contractually required to undertake their activities in an environmentally responsible manner.

The role of the Contractor shall be to:

- ensure that the environmental specifications of this document (including any revisions, additions or amendments) are effectively implemented. This includes the on-site implementation of steps to mitigate environmental impacts;
- Preserve the natural environment by limiting any destructive actions on site;
- Ensure that suitable records are kept and that the appropriate documentation is available to the PM;
- Take into consideration the legal rights of the individual Landowners, Communities and KeRRA's staff;
- Ensure quality in all work done, technical and environmental;
- Underwrite the Project Proponent's Environmental Policy at all times; and
- Ensure that all sub-contractors and other workers appointed by the Contractor are complying with and implementing the ESMP &MP during the duration of their specific contracts.

The responsibilities of the Contractor will be to:

-
- Discuss implementation of and compliance with this document with staff at routine site meetings;
 - Designate, appoint and/or assign tasks to personnel who will be responsible for managing all or parts of the ESMP & MP.
 - Monitor environmental performance and conformance with the specifications contained in this document during site inspections;
 - Report progress towards implementation of and non-conformances with this document at site meetings with the PM;
 - Advise the PM of any incidents or emergencies on site, together with a record of action taken;
 - Report and record all accidents and incidents resulting in injury or death; and
 - Resolve problems and claims arising from damage immediately to ensure a smooth flow of operations.
-

Specification for Environmental and Social Safeguards Management Plan

The Contractor shall ensure that all pertinent permits, certificates and licenses have been obtained prior to any activities commencing on site and are strictly enforced / adhered to. They shall also maintain a record of permits, licenses and authorizations required for the contract as a whole and for pertinent project activities, amongst other workplace records, throughout the Project's implementation.

Item	Mitigation measure
Noise mitigation	· The Contractor shall keep noise level within acceptable limits as per Environmental Management and Co-ordination (Noise and Excessive Vibration. Pollution) (Control) Regulations, 2009, and construction activities shall, where possible, be confined to normal working hours in the settlement centres · Sensitive noise receptors at Gotu and Merti, shall be notified by the Contractor at least 5 days before road construction commences. · Construction workers to be provided with appropriate PPE, i.e., ear muffs when undertaking activities that expose them to high noise levels · Project vehicles should be maintained regularly to reduce noise resulting from friction · Prohibit unnecessary hooting by project vehicles
Air Quality	· Do not carry out dust generating activities (excavation, handling and transport of soils) during windy season; · Water shall be sprayed on the road and at the main centres namely, Gotu and Merti, to settle dust. · Project vehicles delivering soil materials shall be covered to reduce spills and windblown dust; · Project vehicle speeds shall be limited to minimize the generation of dust on site and on diversion and Access · Dust masks shall be provided construction workers at high dust areas
Vegetation Loss	· Follow the excavation plan; avoid removal of native vegetation; · Excavation works with minimal vegetation. This will be done in agreement with the local community
Impacts on soils	· Provide grass cover and other suitable slope stabilization measures on embankment slopes and on stockpile of spoils; · Removal of natural vegetation shall be avoided; · Appropriate native vegetation that retards erosion shall be planted on disturbed areas and other potentially erodible places, to replace those that maybe removed. · As much as possible, construction activities in sloping areas are shall be undertaken during the dry season only and shall follow the excavation plan as designed.
Impacts on water resources	· Develop water use plan in consultation with local municipal authority and community, to minimize water use conflicts with local residents and wildlife; · Proper handling, storage and disposal of oil, fuel, and oil wastes; · Solid waste should not be dumped in or near any water bodies (rivers, streams, etc); · Untreated effluent should not be discharge should be made to existing surface water or land · Water courses, mainly rivers and the seasonal streams (laggas) shall be kept free of excavation spoil and construction debris, floating and submerged; · Earth spoils material and all types of wastes shall be disposed at approved sites

Wastes	· Prepare and implement a Waste Management Plan prior to commencement of Works · Properly labelled and strategically placed waste disposal containers shall be provided at all places of work · Litter bins should have secured lids to prevent animals and birds from scavenging · Recycling of construction material shall be practiced where feasible e.g., containers and oil barrels · Spoils and all types of wastes shall be disposed at approved sites,
Land resources	· ESIA study to be conducted before opening up new material sources (borrow pits); · Restoration of borrow pit sites to original condition to extent possible as per the borrow pit decommissioning plan developed during ESIA · Restoration of vegetation in the rehabilitated sites
Workers' health and Safety	· The contractor should provide the workers with appropriate PPE according to nature of work, and at all times while on site · The contractor should ensure there are warning signs on the construction site and on the road to protect from accidents · The contractor shall provide standard first aid kits at the site · A safety officer who has safety training and knowledge of safety procedures should be present on site to ensure that all workers have guidance on the safety procedures · The contractor should have an insurance cover for all workers · All workers should be trained on the emergency response procedures
Community Health and Safety	· The Contractor shall keep noise level within acceptable limits as per the Environmental Management and Co-ordination (Noise and Excessive Vibration. Pollution) (Control) Regulations, 2009 · Create awareness and sensitize employees and local community on HIV and AIDS · Have HIV and AIDS Information and Educational posters within the work sites · Incorporate HIV/AIDS control programs including distribution of protective contraceptives at strategic points such as within sanitation facilities
Wildlife	· Educate workers regarding the occurrence of important wildlife of conservation value in the area and the importance of their protection, including the appropriate regulatory requirements · Instruct employees, contractors, and site visitors to avoid harassment and disturbance of wildlife. Prohibit feeding of wildlife. · Develop a code of conduct for the workers to ensure none of them get engaged in hunting or harming game in any way · Appropriate waste management by covering all solid waste especially those from the camps and those considered hazardous waste · Fence off the campsites to keep wildlife out · Clear wildlife crossing to be provided at the start at end of the road to alert local community and Project workers on presence of wildlife crossing sites in the area. · Install appropriate speed calming measures near wildlife crossing sites e.g animal crossing and speed limit signage

Community Disruption	· Implement project grievance redress system to help resolve matters related to labour and social relations · Ensure fair treatment, non-discrimination, and equal opportunity of all workers · Develop and implement children Protection Strategy, to ensure that no child under the legal age of 18 years is employed in the Project
Road safety	· Initiate road safety awareness within the project area targeting schools, places of worship and chief's meetings · Install appropriate reflectorized road safety signs along the entire stretch of the road · Livestock crossing signs should be placed close to water pans / water points located along the road to allow easy movement of livestock to water points and reduce accidents · Post speed limit sign preferably 40km/hr on either side at the point the road approaches the wildlife crossings

Method of Formal Inspections

The Engineer and the contractor will carry out formal inspections jointly at the end of each month. The main purpose of the formal inspections is to enable the Engineer to verify the information presented in the Contractor's Monthly inspection statement with the actual observed and measured conditions on the site.

The Engineer will prepare a brief Memorandum describing the following:

- i. The general circumstances of the site visit, including date, road sections visited, persons present, etc.;
- ii. Any non-compliance which may have been detected;
- iii. The time granted by the Engineer to the Contractor to remedy the detected defects.

Based on the outcome of the formal inspection, the Engineer will correct any possible errors or misrepresentations in the Contractor's statement, countersign it and keep a copy as measurement of work sheet for payment, and to the Contractor for information.

Formal inspections will also be scheduled for the follow-up site visits, whose purpose is to verify if the Contractor has remedied the causes of earlier non-compliance, within the period granted by the Engineer and specified in the Memorandum.

Informal Inspections of mitigation compliance

The Engineer may carry out informal inspections as part of his general mandate given to him by the Employer. He may do so on his own initiative, at anytime and anywhere on the roads included in the contract. If he detects any road sections where mitigations criteria are not met, he is obliged to inform the Contractor within 24 hours in writing, in order to enable the Contractor to take remedial action as soon as possible.

Monthly Inspection Statement

The Monthly Statement to be submitted by the Contractor, which gives an example of how the statement is filled out. The statement jointly cross checked by the Engineer and the contractor for compliance as a measurement sheet.

Procedures for Inspection

The visual inspection will be undertaken as part of the Formal and Informal inspections. The criteria for mitigation will be checked at sections selected by the Engineer based on visual appearance. The Engineer shall be the sole judge of compliance. If a specified criterion is not met, the one-kilometre section in which the deficit occurs will be judged non-compliant.

We, confirm that we have read and understood the full content and scope of the Environmental and Social Safeguards Management Plan, and are bound to its implementation.

Signed and sealed by the Contractor:

M/s _____

Name of Contractor

_____ Date _____

(Signature)

_____(Name of the Director)

**IMPLEMENTATION OF CLIMATE PROOFED ASAL RURAL ROAD
PROJECT IMPLEMENTED IN MERU, THARAKA NITHI,
LAIKIPIA, SAMBURU, ISIOLO & MARSABIT COUNTIES
MONTHLY ENVIRONMENTAL & SOCIAL COMPLIANCE
MONITORING TOOL**

Contractor:	Monitored by:
Project Road:	Signature:
LVS/Gravel:	Date:

ENVIRONMENTAL MITIGATION MEASURES MONTHLY INSPECTION STATEMENT					
No.	Item	Mitigation measure	Monitoring Indicators	Percentage Compliance	Comments
1	Excessive Noise and vibration	5 days' notice to Schools, hospitals and other noise-sensitive areas:	Notices issued against notices expected		
		Construction workers to wear earmuffs in areas exposed to excessive noise levels	No. of workers using ear protection against the total no. of workers exposed to noise		
		The Contractor shall keep noise level within acceptable limits and construction activities shall, where possible, be confined to normal working hours in the residential areas	Public complaints		
2	Air pollution	Workers shall be trained on dust minimization techniques	No. of workers trained against the total no. of workers at the site		

		Water sprays shall be used on all active earthworks areas that fall within 200 metres of settlements.	Water sprinkling records during active works		
		Vehicle speeds shall be limited to minimize the generation of dust on site	Records of drivers trained against the total no. of drivers		
3	Vegetation Loss	Clearance of the site for construction purposes shall be kept to a minimum Areas to be cleared should be agreed and demarcated before the start of the clearing operations	Area cleared against area necessary for construction		
		Clearing and removal of vegetation at borrow sites must be carried out in such a way that damage to adjacent areas is prevented or minimized	Area cleared with respect to the borrow pit boundary		
4	Wildlife	Provision of signs at wildlife crossing points	Presence of caution signs at wildlife crossing points		
		Create awareness amongst the workers on protection of wildlife and specifically poaching	Evidence of awareness campaigns		
		The contractor shall ensure workers sign a code of conduct prohibiting poaching and harassment of wildlife	Evidence of duly signed code of conduct		

5	Impacts on soils and drainage	Wherever possible, earthworks should be carried out during the dry season to prevent soil from being washed away by the rain	Weather records in relation to the program of works		
		Excavated materials and excess earth should be kept at appropriate sites	Sites of active dumping against approved sites		
		The Contractor shall protect areas susceptible to flooding by installing necessary temporary and permanent drainage structures	Appropriate drainage structures installed against the total no. of flood prone areas		
		The Contractor shall protect areas susceptible to erosion by implementing necessary erosion control measures	No. of appropriate erosion control measures implemented against erosion prone areas		
		Where new culverts are to be installed, consult with people settled on the lower catchment for their consensus	Record of consultations done and consensus reached where necessary		
		The Contractor shall not divert or modify any watercourse without the approval of WRA	Evidence of WRA approval		
6	Impacts on water resources	The contractor should consult the community on partitioning of access to this resource for construction purposes	Evidence of agreements		

		Abstractions shall be approved by the Water Resources Authority.	Evidence of WRA approval		
7	Solid Waste	All personnel shall be trained on proper disposal of waste	No. of workers trained against the total no. of workers at the site		
		At all places of work, the contractor shall provide appropriate waste receptacles	Availability and use of appropriate waste receptacles		
		The final disposal of the site waste shall be done at the location that shall be approved, after consultation with local administration	Evidence of NEMA approval or approval by the RE		
8	Liquid wastes	No grey water runoff or uncontrolled discharges from the site/working areas	Observable evidence of pollution on soil and water		
		Water containing such pollutants as cement, concrete, lime, chemicals and fuels shall be discharged into a conservancy tank for removal from site			
		Potential pollutants of any kind and in any form shall be kept, stored and used in such a manner that any escape can be contained and the water table not endangered;			
9	Hazardous wastes	The contractor shall seek the services of a licensed hazardous waste handler	Evidence of signed contract with a licensed handler		

		Hazardous materials shall be stored above flood level and at least 20 metres from any watercourse;	Storage locations in relation to hazardous storage requirements		
		Areas for the storage of fuel and other flammable materials shall comply with standard fire safety regulations;	Availability of fuel handling license		
10	Fire risks	The Contractor shall ensure that there is basic fire-fighting equipment available at fire risk areas	No. of firefighting equipment available at fire risk areas		
		Flammable materials should be stored in approved storage areas	Evidence of approved storage areas		
		Smoking shall not be permitted in those areas where there is a fire hazard	Presence of 'No Smoking' signs		
		The Contractor shall train all workers on fire safety	No. of workers trained against total no. of workers on site		
11	Child labour	Ensure all employees are of legal age	Evidence of eligibility		
		The Contractor to sign a code of conduct prohibiting employment of under-age workers on site	Copy of duly signed code of conduct		
12	Public disruption	The Contractor shall keep a 'Complaints register' on site	Evidence of a register		

		Where grievances occur, the Contractor will be required to assist in the process of investigation and resolution of grievances promptly	No. of grievances logged and resolved		
		Residents should be informed of the intended roadwork activities, including likely dates for commencement and completion of works. Public notice to be erected indicating the intended works planned at strategic points along the project	Signed minutes of meetings held/notices issued		
13	Road safety	Sensitization of contractor's drivers on road safety measures	No. of drivers trained against total no. of drivers		
		The Contractor shall provide and maintain caution signs along the road to alert users on the dangers of construction activities in progress to prevent accidents	Sufficiency of road safety signages at high risk areas		
14	Material sites	An environmental impact assessment study should be carried out by the Contractor before the extraction of materials from these sites	Evidence of NEMA license		
		All active quarries/borrow pits should be secured appropriately	Site is appropriately secure		
		Exhausted borrow pits should be rehabilitated.	Clearance certificate from NEMA		

		If a borrow pit is to be used as a water pan, the Contractor should seek approval from NEMA after effective public participation	Copies of agreement/approval from NEMA and community		
15	Gender impacts	Contractor to institute grievance redress mechanisms that will handle any gender related cases reported with full respect and obedience to the laws of Kenya	Evidence of grievance register		
		Contractor to ensure signing and adherence to Code of conduct by all employees	Copies of duly signed code of conduct by all employees		
16	Occupational health and safety	Provision of health and safety training to the workers	No. of workers trained against total no. of workers		
		Provision of information, education and communication (IEC) materials on site	Evidence of posted IEC materials at appropriate points		
		Workers should be provided with suitable PPEs for the kind of work being undertaken	Evidence of PPE register and usage		
		Provide fully equipped first aid kits on-site	No. of fully equipped first aid kits against total no. of employees No. of a fully-equipped first aid kit against no. of active sites		

		Provide workers compensation cover (WIBA)	Valid insurance cover available		
		Provision of appropriate sanitary facilities for use by construction workers.	No. of available sanitary facilities against total no. of employees		
17	Impact on water sources	The contractor should avoid sourcing water from community-owned water sources	Records of approved water sources Evidence of agreements with community		
18	Community health	HIV and STI's awareness and prevention campaigns should be conducted in the camps or workplaces	Evidence of IEC material displayed No. of workers trained on awareness and prevention against the total no. of workers No. of condoms provided against the targeted pop.		
	Total for the Month				
	Total Contract Sum bill item 25.50.002				
	Total Contract Period				
	Monthly				
	Percentage Compliance				
	Amount Due for the Month				

Environmental Licenses/Permits

Validity of licenses and permits to be obtained by the Client and maintained on-site.

No .	License/permits	Issuing Authority	Available	
			Yes	No
1.	EIA license for the road	NEMA		
2.	EIA license for the material sites	NEMA		
3.	Waster handlers license (for transportation and disposal of wastes)	NEMA		
4.	EIA license for the workplace (e.g. campsites)	NEMA		
5.	EIA license for site boreholes	NEMA		
6.	Department of Occupational Safety and Health Services (DOSHS) workplace registration (e.g. contractor's camp)	DOSHS		
7.	Obtain a General Register of accidents/incidents	DOSHS		
8.	Abstract for Occupational Health and Safety Act	DOSHS		
9.	WIBA Insurance (The Work Injury Benefits Act No. 13 of 2007) for project workers	Insurance Agency		
10.	Water Resources Authority (WRA) permit to drill a borehole.	WRA		
11.	Noise and vibration permit	County Government		
12.	Development approval	County Government		
13.	WRA license for surface water abstraction	WRA		