



Kenya National Highways Authority

Quality Highways, Better Connections

TENDER NO. KeNHA/R5/275/2026

**PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD
LIGHTING OF NGONG ROAD INTERCHANGE - GITARU (A8S) ROAD
(ALL)**

JUNE 2026

DIRECTOR (MAINTENANCE)

**KENYA NATIONAL HIGHWAYS
AUTHORITY**

P.O. BOX 49712-00100

NAIROBI

DIRECTOR GENERAL

**KENYA NATIONAL HIGHWAYS
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SECTION I - INVITATION FOR TENDERS

SECTION 1: INVITATION TO TENDER

TENDER NO. KeNHA/R5/275/2026 – PERFORMANCE BASED CONTRACT FOR MAINTENANCE OF ROAD LIGHTING OF NGONG ROAD INTERCHANGE – GITARU (A8S) ROAD

The Kenya National Highways Authority (KeNHA) is a State Corporation established under the Kenya Roads Act, 2007, responsible for the management, development, rehabilitation, and maintenance of national roads.

The Authority invites bids from eligible construction companies registered with the **National Construction Authority (NCA)** in Category **NCA 1, 2, 3, 4, 5 or 6 (Electrical)** and registered with the Energy and Petroleum Authority EPRA in **Class A, B or C** for the **PERFORMANCE BASED CONTRACT FOR MAINTENANCE OF ROAD LIGHTING OF OLE SERENI – NGONG ROAD INTERCHANGE (A8S) ROAD** to be funded through Road Maintenance Fuel Levy Fund (RMLF).

SCOPE OF WORK

The scope of work shall be as described in the tender document.

QUALIFICATION FOR TENDERING

Mandatory Requirements

The following **MUST** be submitted together with the bid;

1. Copy of Certificate of Incorporation
2. Copy of **Valid** Annual Practicing Licence with the National Construction Authority in the classes specified above
3. Copy of **Valid** Annual Practising Licence with the Energy and Petroleum Regulatory Authority in the classes specified above
4. Copy of **Valid** Tax Compliance Certificate
5. Copy of recent CR 12 form (Issued within the last Six 6 months from the Tender Opening Date).
6. Bidders shall sequentially serialise all pages of each tender submitted. A Guide Note on Serialization is outlined in the Notes below
7. A copy of the PBC Certificate for at least one of the Directors.

Other Requirements

As specified in the respective tender documents covering the following: -

1. Similar previous experience where applicable.
2. Professional and Technical Personnel.
3. Current work load.
4. Eligibility
 - a. To enhance equity, bidders shall bid for a maximum of Two (2) Tenders, but can only be Awarded a Maximum of One (1) Tenders, under this Tender Notice. Bidders who participate in more than Two (2) tenders shall be disqualified.
 - b. Director (s) and Bidders who have been awarded Tenders in this Financial Year (FY 2025-2026) are not eligible to bid for this Tender Notice.
 - c. Director (s) bidding under different companies for the same tender shall be disqualified
 - d. Director (s) bidding under different companies should not participate in more than Two (2) tenders
 - e. Directors and Companies who have ongoing works as of the tender closing/opening date are not eligible to bid for this tender notice.
 - f. Only those bidders registered in the Category as indicated in the tender document shall bid for the respective tenders

- g. Bidders to comply with Section 157 of the Public Procurement and Asset Disposal Act, 2015 (PPADA, 2015) on participation of candidates in preference and reservations.
- h. Any form of Canvassing will lead to disqualification

5. Source of indices and base values

Notes:

1. All submitted Documents may be verified from the issuing agencies, KeNHA Reserves the right to verify all submitted documents.
2. The bidders to ensure that their rates in the bills of quantities are within the known prevailing market rates for similar works pursuant to Section 70(6) (b) of PPADA, 2015 read together with Regulation 43(4) of the Public Procurement and Asset Disposal Regulations, 2020.
3. The Procuring Entity Own Market rates are published on the website: <https://kenha.co.ke/wp-content/uploads/2026/06/Price-Reference-Guide-May-2026-v1.pdf>

Procurement shall be based on the post-qualification method and the above details will be submitted with the priced bid.

There shall be **a mandatory pre-tender site visits** as specified in the detailed tender notice above and as uploaded onto the KeNHA website.

NOTE:

Every Bidder shall be represented by one Technical Person with a Minimum qualification of a Diploma in Electrical and Electronic Engineering. The Individual SHALL bring along the following in hard copies:

1. **Original ID/Passport and a CERTIFIED Copy**
2. **CERTIFIED copy of Diploma/H. Dip./Degree Certificate**
3. **CERTIFIED Copy of Registration Certificate and proof of current subscription by the Engineers Board of Kenya (EBK)/ Kenya Engineering Technology Registration Board (KETRB)/ Institute of Engineering Technologists and Technicians (IET)**
4. **Original Introductory letter bearing the Company letterhead and an Official Stamp authorizing them to represent them in the specific pre-tender site visit/Pre-Tender Conference. The letter shall be duly signed. Photocopies or any other media shall not be accepted.**
 - The copies of ID/Passport, Academic Certificates, Professional Registration Certificate, proof of current subscription **SHALL** be certified by commissioner of oaths or Notaries public
 - All the above documents shall be retained by the Procuring Entity's and may be verified later for authenticity.

One (1) person shall only represent one (1) company per Tender.

The detailed tender notice is available in the KeNHA website and Public Procurement Information Portal (PIIP). Clarifications and Questions may be sent to procurement@kenha.co.ke as indicated in the Tender Notice.

NOTE:

1. Every bidder shall make their own arrangements to familiarize themselves with the site conditions and the Road and its features.
2. **Clarity on Serialization of Tender Documents by Prospective Bidders**
Please note that all pages of the tender documents submitted by bidders shall be sequentially serialized numerically that is; 1,2,3,4,5...etc. That is, serialization shall be undertaken by the bidder, by doing fresh numbering on its documents. The pagination of the tender documents as downloaded from the KeNHA website should not be used as a means of Serialization. The bidder's serialization should follow the same logical sequence from the first page to the end.
3. Bidders are advised to ensure that their bid documents are securely, neatly and properly bound (mere stapling shall not be considered adequate binding).

Interested eligible candidates may obtain further information and inspect tender documents from the **Procurement Office, Kenya National Highways Authority, - Nairobi Regional Office, Ministry of Works Offices, Machakos Road**, as indicated in the Tender Notice during normal working hours.

A complete set of tender documents may be obtained by interested tenderers from the Kenya National Highways Authority website: www.kenha.co.ke or PPIP portal: www.tenders.go.ke free of charge. Bidders are encouraged to download tender documents to minimise physical visits to the respective **KeNHA Regional Offices**.

Completed tender documents are to be enclosed in plain sealed envelope clearly marked with tender name, reference number and submitted to: -

**Office of the Regional Director – Nairobi Region,
Kenya National Highways Authority,
P.O. Box 200-00507,
NAIROBI, KENYA**

Or Deposited in the Tender Box at the reception area, **KeNHA Nairobi Region, Ministry of Works Offices, Machakos Road** so as to be received on or before **the Date and Time as indicated in the Tender Notice**.

All interested bidders are required to continually check the Kenya National Highways Authority website: www.kenha.co.ke for any tender addendums or clarifications that may arise before submission date.

Tenders will be opened immediately thereafter in the presence of Tenderers/Representatives who wish to attend at the KeNHA Nairobi Regional Office Board Room.

**PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD OF NGONG ROAD
INTERCHANGE – GITARU (A8S) ROAD**

Deputy Director, Supply Chain Management

For: DIRECTOR GENERAL

PART 1 – TENDERING PROCEDURES

SECTION II - INSTRUCTIONS TO TENDERERS

SECTION 2 - INSTRUCTIONS TO TENDERERS

A. GENERAL

1. Scope of Tender

- 1.1 The Procuring Entity, as indicated in the TDS, issues this tendering document for the procurement of Works and Services as listed below for the award of a Performance-based Road Contract. The name, identification, and number of lots (contracts) of this ITT are specified in the TDS. The Works and Services under the Performance- based Contract will cover the Roads indicated in the TDS and will consist of:
- a) Maintenance Services or “Services” consisting of all interventions on the Roads which are to be carried out by the contractor in order to achieve and keep the Road performance stand defined by the Service Level included in Section VII, Specifications for Works and Services of this tendering document, and all activities related to the management and evaluation of the road network under contract;
 - b) Rehabilitation Works, when requested in the TDS for the sections of the Road(s) indicated in the TDS, consisting of specific types of civil works described in the Specifications;
 - c) Improvement Works, when requested in the TDS, consisting of a set of specific interventions indicated in the Specifications to add new characteristics to the Roads in response to existing or new traffic and safety or other considerations;
 - d) Works consisting of activities needed to reinstate the Roads and reconstruct their structure or their right of way which has been damaged as a result of natural phenomena with imponderable consequences, such as strong storms, flooding, and earthquakes.

2. Interpretations

Throughout this tendering document:

The term “in writing” means communicated in written form (e.g. by mail, e-mail, and fax, including if specified in the TDS, distributed or received through electronic-procurement system used by the Procuring Entity) with proof of receipt;

if the context so requires, “singular” means “plural” and vice versa; and “Day” means calendar day, unless otherwise specified as a “Business Day.” A Business Day is any day that is a working day of the Procuring Entity. It excludes the Procuring Entity's official public holidays.

3. Fraud and Corruption

- 3.1 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.
- 3.2 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.

- 3.3 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.
- 3.4 Tenderers shall permit and shall cause their agents (where declared or not), subcontractors, sub consultants, service providers, suppliers, and their personnel, to permit the Procuring Entity to inspect all accounts, records and other documents relating to any initial selection process, prequalification process, tender submission, proposal submission, and contract performance (in the case of award), and to have them audited by auditors appointed by the Procuring Entity.

4. Eligible Tenderers

- 4.1 A Tenderer may be a firm that is a private entity, a state-owned enterprise or institution subject to ITT 4.6 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 Form of intent. In the case of a joint venture, all members shall be jointly and severally liable for the execution of the entire Contract in accordance with the Contract terms. The JV shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the members of the JV during the Tendering process and, in the event the JV is awarded the Contract, during contract execution. Members of a joint venture may not also make an individual tender, be a subcontractor in a separate tender or be part of another joint venture for the purposes of the same Tender. The maximum number of JV members shall be specified in the TDS.
- 4.2 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 with such relatives are also not allowed to participate in any procurement proceedings.
- 4.3 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) Or 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) Or any of its affiliates has been hired (or is proposed to be hired) by the Procuring Entity or 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 project specified in the TDS ITT 2.1 that it provided or were provided by any affiliate that directly or indirectly controls, is controlled by, or is under common control with that firm; 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 tendering 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.

- 4.4 A firm that is 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.
- 4.5 A Tenderer may have the nationality of any country, subject to the restrictions pursuant to ITT 4.9. A Tenderer shall be deemed to have the nationality of a country if the Tenderer is constituted, incorporated or registered in and operates in conformity with the provisions of the laws of that country, as evidenced by its articles of incorporation (or equivalent documents of constitution or association) and its registration documents, as the case maybe. 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.
- 4.6 Tenderer that has been debarred from participating in public procurement shall be ineligible to be prequalified for a tender or be awarded a contract. The list of debarred firms and individuals is available from the website of PPRA www.ppra.go.keoremailcomplaints@ppra.go.ke.
- 4.7 Tenderers that are state-owned enterprises or institutions in Kenya may be eligible to compete and be awarded a Contract(s) only if they can establish that they (i) are legally and financially autonomous (ii) operate under commercial law, and (iii) are not under supervision of the Procuring Entity.
- 4.8 Tenderer shall not be under suspension from Tendering by the Procuring Entity as the result of the operation of a Tender-Securing or Proposal-Securing Declaration.
- 4.9 Firms and individuals may be ineligible if so indicated in Section V and (a) as a matter of law or official regulations, if 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.
- 4.10 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”.
- 4.11 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.

- 4.12 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 for foreign contractors 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.
- 4.13 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 an 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 the opportunity to seek such exemption as a condition of award and signature of contract. Application for exemption from the Competition Authority of Kenya may be accessed from the website www.cak.go.ke
- 4.14 A Tenderer may be considered ineligible if he/she offers 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.
- 4.15 A Kenyan tenderer shall provide evidence of having fulfilled his/her tax obligations by producing a valid tax compliance or tax exemption certificate issued by the Kenya Revenue Authority.

5. Eligible Materials, Equipment, and Services

- 5.1 The materials, equipment and services to be supplied under the Contract may have their origin in any eligible country and all expenditures under the Contract will be limited to such materials, equipment, and services. At the Procuring Entity's request, Tenderers may be required to provide evidence of the origin of materials, equipment and services.
- 5.2 For purposes of ITT 5.1 above, “origin” means the place where the materials and equipment are mined, grown, produced or manufactured, and from which the services are provided. Materials and equipment are produced when, through manufacturing, processing, or substantial or major assembling of components, a commercially recognized product results that is substantially different in its basic characteristics or in purpose or utility from its components.

B. Contents of Tendering Document

6 Sections of Tendering Document

- 6.1 The tendering document consists of Parts 1, 2, and 3, which include all the Sections indicated below, and should be read in conjunction with any Addenda issued in accordance with ITT 10.

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 and Services' Requirements

Section V - Specifications

PART 3-Conditions of Contract and Contract Forms

Section VI - General Conditions of Contract

Section VII - Special Conditions of Contract Section VIII-Contract Forms

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

7 Site Visit

- 7.1 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 the Services. The costs of visiting the Site shall be at the Tenderer's own expense.

8 Pre-Tender Meeting and a pre-arranged pretender site visit

- 8.1 The Procuring Entity shall specify in the TDS if a pre-tender conference will be held, when and where. The Procuring Entity shall also specify in the TDS if a pre-arranged pretender visit of the site of the works 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 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 shall be made by the Procuring Entity exclusively through the issue of an Addendum pursuant to ITT 10 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 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 so specified in the TDS, the Procuring Entity shall also promptly publish its response at the web page identified in the TDS. Should the clarification result in changes to the essential elements of the Tender Documents, the Procuring Entity shall amend the Tender Documents appropriately following the procedure under ITT 10.

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 website 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 24.2 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 translation of the relevant passages in 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 Bills 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, or continued qualified status, as the case may be, 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 13.1, Tenders submitted by a JV shall include a copy of the Joint Venture Agreement entered into by all members. Alternatively, a Form 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.

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 Bills 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. All blank spaces shall be filled in with the information requested. The Tenderer chronologically serialize all pages of the tender documents submitted.

15 Alternative Tenders

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

15.2 When alternative times for reaching the required Service Levels or for the completion of Rehabilitation or Improvement Works are explicitly invited, a statement to that effect will be included in the TDS, as will the method of evaluating different times for completion.

15.3 Except as provided under ITT 15.4 below, Tenderers wishing to offer technical alternatives to the requirements of the tendering document must first price the Procuring Entity's design as described in the tendering document 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 Best Evaluated Tender conforming to the basic technical requirements shall be considered by the Procuring Entity.

15.4 When specified in the TDS, Tenderers are permitted to submit alternative technical solutions for specified parts of the Rehabilitation and/or Improvement Works, and such parts will be identified in the TDS, as will the method for their evaluating, and described in Section VII, Works and Services' Requirements.

16 Tender Prices and Discounts

16.1 The prices and discounts quoted by the Tenderer in the Form of Tender and in the Bills 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 and Services described in

the Bills of Quantities. Items against which no rate or price is entered by the Tenderer will not be paid for by the Procuring Entity when executed and shall be deemed covered by the rates for other items and prices in the Bills 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, excluding 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 16.1.
- 16.5 Unless otherwise provided in the TDS and the Contract, the rates and prices quoted by the Tenderer are subject to adjustment during the performance of the Contract in accordance with the provisions of the Conditions of Contract. 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 If so indicated in ITT 1.1, Tenders are being invited for individual lots (contracts) or for any combination of lots (packages). Tenderers wishing to offer any price reduction for the award of more than one Contract shall specify in their tender the price reductions applicable to each package, or alternatively, to individual Contracts within the package. Discounts shall be submitted in accordance with ITT 14.4, provided the Tenders for all lots (contracts) are submitted and 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 28 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 The currency (ies) of the Tender and the currency (ies) of payments shall be the same and shall be as specified in the TDS.
- 17.2 Tenderers may be required by the Procuring Entity to justify, to the Procuring Entity's satisfaction, their foreign currency requirements, and to substantiate that the amounts shown in the Summary of Payment Currency Schedule, in which case a detailed breakdown of the foreign currency requirements shall be provided by Tenderers.

18 Documents Comprising the Technical Proposal

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

19 Documents Establishing the Qualifications of the Tenderer

- 19.1 To establish Tenderer's eligibility in accordance with ITT 4, Tenderers shall complete the Form of Tender, included in Section IV, Tendering Forms.
- 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, Tendering Forms.

- 19.3 If a margin of preference applies as specified in accordance with ITT 36.1, domestic Tenderers, individually or in joint ventures, applying for eligibility for domestic preference shall supply all information required to satisfy the criteria for eligibility specified in accordance with ITT 36.1.
- 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 particular contractor or group of contractors qualifies for a margin of preference. Further the information will enable the Procuring Entity identify any actual or potential conflict of interest in relation to the procurement and/or contract management processes, or a possibility of collusion between tenderers, and thereby help to prevent any corrupt influence in relation to the procurement process or contract management.
- 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 19.4. The obligations to require this information shall continue for the duration of the procurement process and contract performance and after completion of the contract, if any change to the information previously provided may reveal a conflict of interest in relation to the award or management of the contract.
- 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 tenderer will be rejected. Similarly, if the Procuring Entity is unable, after taking reasonable steps, to verify to a reasonable degree the information submitted by a tenderer pursuant to these requirements, then the tender will be rejected.
- 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 19.9 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 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, 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 26.3.

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.
- 21.1 A Tender-Securing Declaration shall use the form included in Section IV, Tendering Forms.
- 21.2 The Tender Security shall be a demand guarantee at the Tenderer's option, in any of the following forms:
- a cash;
 - i. a bank guarantee;
 - ii. a guarantee by an insurance company registered and licensed by the Insurance Regulatory Authority listed by the Authority; or
 - iii. a guarantee issued by a financial institution approved and licensed by the Central Bank of Kenya, from a reputable source, and an eligible country.
 - iv. Other forms of Security as specified in the TDS.
- 21.3 If the unconditional guarantee is issued by a non-bank financial institution located outside Kenya, the issuing non-bank financial institution shall have a correspondent financial institution located in Kenya to make it enforceable unless the Procuring Entity has agreed in writing, prior to Tender submission, that a correspondent financial institution is not required. In the case of a bank guarantee, the Tender Security shall be submitted either using the Tender Security Form included in Section IV, Tendering Forms, or in another substantially similar format approved by the Procuring Entity prior to Tender submission. 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 24.2.
- 21.4 If a Tender Security or Tender-Securing Declaration is specified pursuant to ITT 21.1, 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. The Procuring Entity shall also promptly return the tender security to the tenderers where the procurement proceedings are terminated, all tenders were determined non-responsive or a bidder declines to extend tender validity period.
- 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.
- 21.7 The Tender Security may be forfeited or the Tender-Securing Declaration executed:

- a if a Tenderer withdraws its Tender during the period of Tender validity specified by the Tenderer on the Form of Tender or any extension thereto provided by the Tenderer; or
- b if the successful Tenderer fails to:
 - i. sign the Contract in accordance with ITT 48; or
 - ii. furnish a performance security.

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

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 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 Form of intent referred to in ITT 4.1 and ITT 13.2.

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 so as 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 13; 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.

23.2 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.

23.3 Where a tender package or container cannot fit in the tender box, the procuring entity shall:

- a Specify in the TDS where such documents should be received.
- b Maintain a record of tenders received and issue acknowledgement receipt note to each tenderer specifying time and date of receipt.
- c Ensure all tenders received are handed over to the tender opening committee for opening at the specified opening place and time.

23.4 If all envelopes are 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 and no later than the date and time indicated 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 tendering document in accordance with ITT 10, 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 22. Any Tender received by the Procuring Entity after the deadline for submission of Tenders shall be declared late, rejected, and returned unopened to the Tenderer.

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 20.3, (except that withdrawal notices do not require copies). The corresponding substitution or modification of the Tender must accompany the respective written notice. All notices must be:
- a prepared and submitted in accordance with ITT 20 and ITT 21 (except that withdrawals notices do not require copies), and in addition, the respective envelopes shall be clearly marked “WITHDRAWAL,” “SUBSTITUTION,” “MODIFICATION;” and
 - b received by the Procuring Entity prior to the deadline prescribed for submission of Tenders, in accordance with ITT 22.

- 26.2 Tenders requested to be withdrawn in accordance with ITT 24.1 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 Form or any extension thereof.

27 Tender Opening

- 27.1 Except in the cases specified in ITT 23 and ITT 24.2, the Procuring Entity shall publicly open and read out in accordance with this ITT all Tenders received by the deadline, at the date, time and place specified in the TDS, in the presence of Tenderers' designated representatives and anyone who chooses to attend. Any specific electronic Tender opening procedures required if electronic tendering is permitted in accordance with ITT 22.1, shall be as specified in the TDS.
- 27.2 First, envelopes marked “WITHDRAWAL” shall be opened and read out and the envelope 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, 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. The Form of Tender and the Bill of Quantities are to be initialed by representatives of the Procuring Entity attending Tender opening in the manner specified in the TDS.
- 27.7 The Procuring Entity shall neither discuss the merits of any Tender nor reject any Tender (except for late Tenders, in accordance with ITT 23.1).
- 27.8 The Procuring Entity shall prepare a record of the Tender opening that shall include, as a minimum:
- i. The name of the Tenderer and whether there is a withdrawal, substitution, or modification;
 - ii. The Tender Price, per lot (contract) if applicable, including any discounts;
 - iii. Any alternative Tenders;
 - iv. The presence or absence of a Tender Security, if one was required.
 - v. Number of pages of each tender document submitted
- 27.9 The Tenderers' representatives who are present shall be requested to sign the record. The omission of a Tenderer's signature on the record shall not invalidate the contents and effect of the record. A copy of the record shall be distributed to all Tenderers. A copy of the tender

opening register shall be issued to a Tenderer upon request

E. Evaluation and Comparison of Tenders

28 Confidentiality

29.0 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 such process until information on Intention to Award the Contract is transmitted to all Tenderers in accordance with ITT 43.

29.1 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.

29.2 Notwithstanding ITT 28.2, from the time of Tender opening to the time of Contract award, if any Tenderer wishes to contact the Procuring Entity on any matter related to the Tendering process, it may 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. 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 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 Contracting Agency'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 tendering document; “Reservation” is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the tendering document; and
- b “Omission” is the failure to submit part or all of the information or documentation required in the tendering 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 tendering document without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that:

- a. If accepted, would:
 - i. Affect in any substantial way the scope, quality, or performance of the Works specified in the Contract; or
 - ii. Limit in any substantial way, in consistent with the tendering document, the Procuring Entity's rights or the Tenderer's obligations under the proposed Contract; or
- b. 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 ITT18, Technical Proposal, in particular, to confirm that all requirements of Section VII, Specifications for Works and Services have been met without any material deviation, reservation or omission.
- 31.4 If a Tender is not substantially responsive to the requirements of the tendering 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 of time, to rectify nonmaterial non- conformities in the Tender related to documentation requirements. Requesting information or documentation on such non-conformities shall not be related to any aspect of the price of the Tender. Failure of the Tenderer to comply with the request may result in the rejection of its Tender.
- 32.3 Provided that a Tender is substantially responsive, the Procuring Entity shall rectify 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 Correction of 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 anyway 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, 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 award.

34 Conversion to Single Currency

- 34.1 For evaluation and comparison purposes, the currency(ies) of the Tender shall be converted into a single currency which is Kenya Shillings. The source of the exchange rates shall be the Central Bank of Kenya.

35 Nominated Subcontractors

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

- 35.2 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.
- 35.1 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 so by the Procuring Entity in the TDS as can be met by subcontractors referred to here after 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.

36 Margin of Preference and Reservations

- 36.1 A margin of preference on local contractors may be allowed only when the contract is open to international competitive tendering where foreign contractors are expected to participate in the tendering process and where the contract exceeds the value/threshold specified in the Regulations.
- 36.2 A margin of preference shall not be allowed unless it is specified so in the TDS.
- 36.3 Contracts procured on basis of international competitive tendering shall not be subject to reservations exclusive to specific groups as provided in ITT 36.5.
- 36.4 An individual firm is considered a Kenyan tenderer for purposes of the margin of preference if it is registered in Kenya, has more than 51 percent ownership by nationals of Kenya, and if it does not subcontract more than 10 percent of the contract price, excluding provisional sums, to foreign contractors. JVs are considered as Kenyan Tenderer and eligible for domestic preference only if the individual member firms are registered in Kenya or have more than 51 percent ownership by nationals of Kenya, and the JV shall be registered in Kenya. The JV shall not subcontract more than 10 percent of the contract price, excluding provisional sums, to foreign firms.
- 36.5 Where it is intended to reserve a contract to a specific group of businesses (these groups are Small and Medium Enterprises, Women Enterprises, Youth Enterprises and Enterprises of persons living with disability, as the case may be), and who are appropriately registered as such by a competent authority, a procuring entity shall ensure that the invitation to tender specifically indicates that only businesses or firms belonging to the specified group are eligible to tender. No tender shall be reserved to more than one group. If not so stated in the Invitation to Tender and in the Tender documents, the invitation to tender will be open to all interested tenderers.

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 39.
- 37.2 To evaluate a Tender, the Procuring Entity shall consider the following:
- a Price adjustment due to discounts offered in accordance with ITT 16.4;
 - b Price adjustment due to quantifiable non-material non-conformities in accordance with ITT 32.3;
 - c converting the amount resulting from applying (a) and (b) above, if relevant, to a single currency in accordance with ITT 34; 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 are allowed to tender for one or more lots and the methodology to determine the lowest evaluated cost of the lot (contract) and for combinations, including any discounts offered in the Form of Tender, is specified in Section III, Evaluation and Qualification Criteria.
- 37.5 The price of the Rehabilitation and Improvement Works included in each Tender shall not be higher than the threshold indicated in the TDS. If the Tenderer estimates that its costs for the Rehabilitation and Improvement Works are higher than the threshold indicated in the TDS, it shall include the portion above the threshold in its price for the Maintenance Services. If the Tender price in the Best Evaluated Tender is above the threshold indicated in the TDS for the Rehabilitation and Improvement Works, the Procuring Entity may reject the Tender.

38 Comparison of Tenders

- 38.1 The Procuring Entity shall compare the evaluated costs of all substantially responsive Tenders in accordance with ITT 34.2 to determine the Tender that has the lowest evaluated cost.
- 38.2 After application of the criteria established in ITT 37.1 to ITT 37.5, the Evaluated Tender Price for comparison of Tenders will be:
- a The lump-sum price offered by the Tenderer for the Maintenance Services; plus
 - b The lump-sum price offered by the Tenderer for the Rehabilitation Works, if the tendering document requires prices for this type of works; plus
 - c the total price of the priced Bill of Quantities for the Improvement Works, if the tendering document requires prices for this type of works; plus
 - d the total price of the priced Bill of Quantities for the Emergency Works.

39 Abnormally Low Tenders

- 39.1 An Abnormally Low Tender is one where the Tender price, in combination with other constituent elements of the Tender, appears unreasonably low to the extent that the Tender price raises material concerns as to the capability of the Tenderer to perform the Contract for the offered Tender price.
- 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 tendering 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 Tenders or Front Loaded

41.1 If the Tender that is evaluated as the lowest evaluated cost is, in the Procuring Entity's opinion, seriously unbalanced 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 tendering 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 amount of the Performance Security be increased at the expense of the Tenderer to a level not exceeding 20% of the Contract price; or
- c) Reject the Tender.

42 Qualification of the Tenderer

42.1 The Procuring Entity shall determine to its satisfaction whether the 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 or, if prequalification has taken place, continues to be eligible and continues to meet the qualifying 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 19.2. 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 TDS when prequalification has not taken place) 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 next lowest evaluated Tender to make a similar determination of that Tenderer's qualifications to perform satisfactorily.

43 Lowest Evaluated Tender

43.1 Having compared the evaluated costs 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 tendering document; and
- b) The lowest evaluated cost.

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 Tendering 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.

45 Notice of Intention to enter in to a Contract

- 45.1 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 © 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;

46 Standstill Period

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

47 Debriefing by the Procuring Entity

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

F. Contract Negotiations and Award of Contract

48 Negotiations

- 48.1 Before signature of contract, the procuring Entity may conduct negotiations with the best evaluated tenderer. The negotiations will be held at the date and address indicated in the TDS with the Tender's Representatives who must have written power of attorney to negotiate a Contract on behalf of the Tenderer.
- 48.2 The Procuring Entity shall prepare minutes of negotiations that are signed by the Procuring Entity and the Tender's authorized representative.

- 48.3 The negotiations include discussions of the Schedule of Requirements, the proposed methodology, the Procuring Entity's inputs, the Special Conditions of the Contract, and finalizing the “Works and Services' Requirements” part of the Contract. These discussions shall not substantially alter the original scope of services or the terms of the contract, lest the quality of the final product, its price, or the relevance of the initial evaluation be affected.
- 48.4 The financial negotiations include the clarification of the tax liability in Kenya and how it should be reflected in the Contract. If the selection method included cost as a factor in the evaluation, the total price stated in the Financial Proposal for a Lump-Sum contract shall not be negotiated. The Procuring Entity may ask for clarifications and, if the costs are very high, ask to change the rates.
- 48.5 The negotiations are concluded with a review of the finalized draft Contract, which then shall be initialed by the Procuring Entity and the Tender's authorized representative. If the negotiations fail, the Procuring Entity shall inform the Tender in writing of all pending issues and disagreements and provide a final opportunity to the Tenderer to respond. If disagreement persists, the Procuring Entity shall terminate the negotiations informing the Tenderer of the reasons for doing so. The Procuring Entity will invite the next-ranked Tenderer to negotiate a Contract. Once the Procuring Entity commences negotiations with the next-ranked Tenderer, the Procuring Entity shall not reopen the earlier negotiations.

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 44.1, 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 Performance Security

- 51.1 Within twenty-one (21) days of the receipt of the Letter of Award from the Procuring Entity, the successful Tenderer shall furnish the Performance Security and if required in the TDS, using for that purpose the Performance Security Forms included in Section VIII, Contract Forms, or another form acceptable to the Procuring Entity. If the Performance Security furnished by the successful Tenderer is in the form of a bond, it shall be issued by a bonding or insurance company that has been verified by the successful Tenderer to be acceptable to the Procuring Entity. A foreign institution providing a bond shall have a correspondent financial institution located in Kenya, unless the Procuring Entity has agreed in writing that a correspondent financial institution is not required.
- 51.2 Failure of the successful Tenderer to submit the above-mentioned Performance Security 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 Publication of Procurement Contract

52.1 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; names of all Tenderers that submitted Tenders, and their Tender prices as read out at Tender opening.

53 Procurement Related Complaints

53.1 The procedures for making a Procurement-related Complaint are as specified in the TDS.

SECTION III - TENDER DATA SHEET

SECTION 3 - TENDER DATA SHEET

The following specific data for the Works and Services to be procured 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.

A. General	
	The reference number of the Invitation to Tender is: <u>KeNHA/R5/275/2026</u> The Procuring Entity is: <u>Kenya National Highways Authority (KeNHA)</u> The number and identification of lots (contracts) comprising this ITT is: <u>Not Applicable</u> The Road Lighting is: <u>Ngong Road Interchange – Gitaru (A8S) Road</u>
ITT 4.1	Maximum number of members in the JV shall be: <i>N/A</i>
ITT4.10	Citizen contractors are encouraged to source locally manufactured items/materials and locally assembled machines, equipment, vehicles, labour etc.
ITT4.11	The Tenderer will require to register with whose contact addressed are: <i>Not Applicable</i>
B. Contents of Tender Document	
ITT 8.1	There shall be mandatory pre-tender site visit as specified in the tender notice.
ITT 8.2	The Tenderer will submit any questions in writing, to reach the Procuring Entity _____ not later than <i>7 days to the submission date</i>
ITT 8.4	The Procuring Entity's website where Minutes of the pre-Tender Site Visit and any clarifications will be published is <u>www.kenha.co.ke</u>
ITT 9.1	For Clarification of Tender purposes, for obtaining further information and for purchasing tender documents, the Procuring Entity's address is: <i>As indicated in the tender notice</i>
C. Preparation of Tenders	
ITP 13.1 (h)	The Tenderer shall submit the following additional documents in its Tender: <i>As indicated in the Qualification Criteria</i>
ITT 15	<i>[The following provision should be included and the required corresponding information inserted <u>only</u> if alternative Tenders will be considered. Otherwise omit.]</i>

	Alternative Tenders <u><i>shall not be permitted.</i></u>
ITT 15.2	Alternative times for reaching the required Service Levels and for the completion of the Rehabilitation and/or Improvement Works <u><i>will not be permitted.</i></u>
ITT 15.4	Alternative technical solutions for the Rehabilitation and/or Improvement Works shall be permitted for the following parts of the Works: <u><i>Not Applicable</i></u>
ITT 16.5	The Tenderer is required to furnish the indices and weightings for the price adjustment formulae in the Schedule of Adjustment Data.
ITT 17.1	The currency(ies) of the Tender and the payment currency(ies) shall be in Kenya Shillings
ITT 20.1	The Tender validity period shall be <u><i>140days</i></u> from the specified date of opening as indicated in the invitation to Tender
ITT 21.1	A Bid Security IS required. A Bid-Securing Declaration IS NOT required. The amount and currency of the bid security shall be Kenya Shillings One Hundred Thousand (KShs. 100,000.00). The Bid Security shall be an unconditional demand guarantee issued by a bank.
ITT 21.2 (iv)	Other types of acceptable securities: <u><i>Not Applicable</i></u>
ITT 21.7	<i>[The following provision should be included and the required corresponding information inserted <u>only</u> if a Tender Security is not required under provision ITT 21.7 and the Procuring Entity wishes to declare the Tenderer ineligible for a period of time should the Tenderer perform any of the actions mentioned in provision ITT 21. 7 (a) or (b), Otherwise omit.]</i> If the Tenderer performs any of the actions prescribed in ITT 21.7 (a) or (b), the Procuring Entity will declare the Tenderer ineligible to be awarded contracts by the Procuring Entity for a period of <u><i>two (2)</i></u> years.
ITT 22.1	In addition to the original of the Tender, the number of copies is: <u><i>NONE</i></u>
ITT 22.3	The written confirmation of authorization to sign on behalf of the Tenderer shall consist of: <u><i>Certificate of Independent Tender Determination Part B of Form of Tender</i></u>

D. Submission and Opening of Tenders

ITT 24.1	(A) For <u>Tender submission purposes</u> only, the Procuring Entity's address is: As indicated in the Invitation to Tender Tenders shall not be submitted electronically.
ITT 27.1	The Tender opening shall take place at: <u>As indicated in the invitation to Tender</u> The electronic Tender opening procedures shall be: <i>Not applicable</i>
ITT 27.6	The Form of Tender and summary page of the priced Bills of Quantities shall be initialed by representatives of the Procuring Entity attending Tender opening. If initialization is required, it shall be conducted as follows: • <i>By all members of the Tender opening committee</i> • <i>Form of Bid and Summary page of the BOQs</i>

E. Evaluation and Comparison of Tenders

ITT 32.3	The adjustment shall be based on average price of the item or component as quoted in other substantially responsive Tenders. If the price of the item or component cannot be derived from the price of other substantially responsive Tenders, the Procuring Entity shall use its best estimate.
ITT 35.1	The Procuring Entity does not intend to execute any specific elements of the Works by subcontractors selected/nominated by the Procuring Entity.
ITT 35.2	The maximum volume of works that can be subcontracted is 40% of the total contract price.
ITT 35.3	The sub contractor's qualifications shall not be used by the Tenderer to qualify for the Works.
ITT 36.2	A margin of domestic preference shall apply. <i>[If a margin of preference applies, the application methodology shall be defined in the Evaluation and Qualification Criteria]</i>
ITT 37.2 (a)	The Tender price shall be adjusted by the following factor(s): <u>Not Applicable</u>
ITT 37.2 (d)	Additional requirements apply. These are detailed in the evaluation criteria in the Evaluation and Qualification Criteria.
ITT 37.5	The combined price for the Rehabilitation and Improvement Works may not exceed the following threshold: <u>NOT APPLICABLE</u> % of the total contract price excluding provisional sums
ITT 39	Abnormally low Tenders shall be treated as per the procedure outlined in Section IV, Evaluation and Qualification Criteria
ITT 40	Abnormally high Tenders shall be treated as per the procedure outlined in Section IV, Evaluation and Qualification Criteria

ITT 41	Unbalanced or Front loaded Tenders shall be treated as per the procedure outlined in Section IV, Evaluation and Qualification Criteria
ITT42.2	Where prequalification has not taken place, the Procuring Entity <i>shall not</i> permit that specific experience for parts of the Works and Service may be met by Specialized Subcontractors.
ITT 48.1	Contract negotiations with the best evaluated tenderer will be held at: <i>(Not Applicable)</i>
ITT 53.1	The procedures for making a Procurement-related Complaint are available from the PPRA website info@ppra.go.ke or 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 Procuring Entity: Kenya National Highways Authority (KeNHA) Email address: dg@kenha.co.ke In summary, a Procurement-related Complaint may challenge any of the following: (i) the terms of the Tender Documents; and (ii) the Procuring Entity's decision to award the contract.

SECTION IV - EVALUATION AND QUALIFICATION CRITERIA

SECTION IV - EVALUATION AND QUALIFICATION CRITERIA

1. General Provisions

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

Evaluation and contract award Criteria

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

2. Preliminary examination for Determination of Responsiveness

The Procuring Entity will start by examining all tenders to ensure they meet in all respects the eligibility criteria and other requirements in the ITT, and that the tender is complete and meets all the requirements of “Part 2 – Works and Services 'Requirements”, including checking for tenders with unacceptable errors, abnormally low tenders, abnormally high tenders and tenders that are front loaded. The Standard Tender Evaluation Report Document for Goods and Works for evaluating Tenders provides very clear guide on how to deal with review of these requirements. Tenders that do not pass the Preliminary Examination will be considered unresponsive and will not be considered further.

[The Procuring Entity will provide the preliminary evaluation criteria. To facilitate, a template may be attached or clearly described all information and list of documentation to be submitted by Tenderers to enable preliminary evaluation of the Tender]

3. Assessment of adequacy of Technical Proposal with Requirements (if Applicable)

The Procuring Entity will evaluate the Technical Proposals of all unresponsive tenders using the following criteria, sub-criteria, and point system for the evaluation of the Technical Proposals:

- i) History of non-performance
- ii) Financial capability
- iii) General and specific experience
- iv) Key personnel
- v) Contractors Plant and Equipment

- vi) Adequacy and quality of the proposed methodology, and work plan in responding to the schedule of Requirements:

Total points for the five criteria: 100points. The minimum technical score (St) required to pass is: *75points.*

Tenderers who score less than the required pass will be automatically disqualified. Tenderers who pass the technical evaluation will be evaluated further.

4. Tender Evaluation (ITT 35)

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

- i) Alternative Completion Times, if permitted under ITT 13.2, will be evaluated as follows:
.....NA.....
- ii) Alternative Technical Solutions for specified parts of the Works, if permitted under ITT 13.4, will be evaluated as follows:
.....NA.....
- iii) Other Criteria; if permitted under ITT 35.2 (e):
NA.....

5. Multiple Contracts

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

OPTION 1

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

OPTION 2

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

6. Alternative Tenders (ITT 13.1)

An alternative if permitted under ITT 13.1, will be evaluated as follows:

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

7. Margin of Preference

- 7.1 If the TDS so specifies, the Procuring Entity will grant a margin of preference of fifteen percent (15%) to be loaded one valuated price of the foreign tenderers, where the percentage of shareholding of Kenyan citizens is less than fifty-one percent (51%).
- 7.2 Contractors applying for such preference shall be asked to provide, as part of the data for qualification, such information, including details of ownership, as shall be required to determine whether, according to the classification established by the Procuring Entity, a particular contractor or group of contractors qualifies for a margin of preference.
- 7.3 After Tenders have been received and reviewed by the Procuring Entity, responsive Tenders shall be assessed to ascertain their percentage of shareholding of Kenyan citizens. Responsive tenders shall be classified into the following groups:
- i) *Group A:* tenders offered by Kenyan Contractors and other Tenderers where Kenyan citizens hold shares of over fifty one percent (51%).
 - ii) *Group B:* tenders offered by foreign Contractors and other Tenderers where Kenyan citizens hold shares of less than fifty one percent (51%).
- 7.4 All evaluated tenders in each group shall, as a first evaluation step, be compared to determine the lowest tender, and the lowest evaluated tender in each group shall be further compared with each other. If, as a result of this comparison, a tender from Group A is the lowest, it shall be selected for the award. If a tender from Group B is the lowest, an amount equal to the percentage indicated in Item 3.1 of the respective tender price, including unconditional discounts and excluding provisional sums and the cost of day works, if any, shall be added to the evaluated price offered in each tender from Group B. All tenders shall then be compared using new prices with added prices to Group B and the lowest evaluated tender from Group A. If the tender from Group A is still the lowest tender, it shall be selected for award. If not, the lowest evaluated tender from Group B based on the first evaluation price shall be selected.

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

- a) In case the tender was subject to post-qualification, the contract shall be awarded to the lowest evaluated tenderer, subject to confirmation of prequalification data, if so required.
- b) In case the tender was not subject to post-qualification, the tender that has been determined to be the lowest evaluated tenderer shall be considered for contract award

QUALIFICATION CRITERIA

Item No.	Qualification Subject	Qualification Requirement	Document To be Completed/provided by Tenderer	For Procuring Entity's Use (Qualification met or Not Met)
A. PRELIMINARY EVALUATION				
1.	Nationality	Nationality in accordance with ITT 4.10	Forms ELI - 1.1, 1.2 and 1.3, with attachments	
2.	Goods, equipment and services to be supplied under the contract	To have their origin in any country that is not determined ineligible under ITT 5.1	Forms ELI - 1.4	
3.	Conflict of Interest	No conflicts of interest in accordance with ITT 4.3	Form of Tender	
4.	PPRA Eligibility	Not having been declared ineligible by the PPRA as described in ITT 4.6	Form of Tender - Form SD 1	
5.	State-owned Enterprise	Meets conditions of ITT 4.7	Forms ELI - 1.1 and 1.2, with attachments	
6.	Appendix to Form of Bid	Form properly filled & signed	Appendix to Form of Bid in the Prescribed Format	
7.	Suspension Based on Execution of Tender/Proposal Securing Declaration by the Procuring Entity	Not under suspension based on-execution of a Tender/Proposal Securing Declaration pursuant to ITT 4.8.	To be confirmed from Internal records by the procuring entity	
8.	Pending Litigation	Tender's financial position and prospective long-term profitability still sound according to criteria established in 3.1 and assuming that all pending litigation will NOT be resolved against the Tenderer.	Form CON - 1	
9.	Litigation History	No consistent history of court/arbitral award decisions against the Tenderer for the last three (3) years.	Form CON - 1	
10.	Declaration of Fair employment laws and practices	Bidders shall declare they are not guilty of any serious violation of fair employment laws and practices and will be bound to abide by the industry CBA at minimum	Form CON - 2	

PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD OF NGONG ROAD INTERCHANGE – GITARU (A8S) ROAD

Item No.	Qualification Subject	Qualification Requirement	Document To be Completed/provided by Tenderer	For Procuring Entity's Use (Qualification met or Not Met)
11.	Certificate of Tenderer's Visit to Site	-Attend Pre-Tender Site Visits as per TDS, ITT 8.1 - Bidders to sign attendance register - Certificate must be signed by the Employer's representative - Bidders to send technical persons for the Site Visit- Min Qualifications – Diploma in Civil Engineering	Form CON - 3	
12.	Tender Security	Tender Security Form	a) Form in the Prescribed Format b) Digital Tender Securities will be accepted	
13.	Priced Bill of Quantities	- Fill all rates, prices and amounts, - NO Alterations of the Quantities accepted, - All bidders own Corrections must be Countersigned - NO ERRORS noted in the Bills of Quantities	Bills of Quantity in the Prescribed Format	
14.	Annual Practicing License with the National Construction Authority	Proof of registration with the National Construction Authority in Class 1, 2, 3, 4, 5 or 6 (Electrical) as Electrical Works Contractor	Copy of Current NCA Practicing License	
15.	Annual Practicing License with the Energy and Petroleum Regulatory Authority	Proof of registration with the National Construction Authority (EPRA) in Class A, B or C	Copy of Current EPRA Practicing License	
16.	Tax Obligations for Kenyan Tenderers	Has produced a current tax clearance certificate or tax exemption certificate issued by the Kenya Revenue Authority in accordance with ITT 4.15.	<i>Provide Valid Tax Compliance Certificate</i>	
17.	PBC Certificate	Bidders Bidding for PBC Tenders, at least one of the Directors of the bidding company MUST have been trained in Performance Based Road Maintenance as a	Copy of PBC Certificate	

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Item No.	Qualification Subject	Qualification Requirement	Document To be Completed/provided by Tenderer	For Procuring Entity's Use (Qualification met or Not Met)
		Contractor (PBC) by Kenya Institute of Highways and Building Technology (KIHBT) or any other Accredited Institution Registered in Kenya		
18.	Serialization of the Bid	Bidders shall sequentially serialize all pages of each tender submitted. Any written Pages or document attached or inserted Documents MUST be sequentially serialized.	The Serialization MUST be numerically sequential starting from Numeric 1.	
19.	Completeness of tender document	The person or persons signing the bid shall initial all pages of the bid where entries have been made. Bidders shall own all alterations made to the tender document. Bidders shall duly fill all relevant forms/schedules provided for in the document that requires entries	All pages with entries (Typed or hand written) must be initialed. Any alterations made in the tender document must be countersigned. All relevant Forms/ Schedules shall be duly filled including it being signed, dated, and stamped	
20.	Proposed weightings	Bidder to provide published data to support Sources of indices, Base values and dates	Bidder to fill Schedule H: Basic Prices for Materials and Labour	
21.	Rates Derivation	Bidder shall provide current (at least 30 days before tender opening) proof of cost of materials e.g. Proforma Invoices/quotation	Bidder to fill Schedule G: Part I. Schedule of Materials; -Basic Prices Part II. Schedule of rates derivation	
B. TECHNICAL EVALUATION				
1.	History of Non-Performing Contracts	Non-performance of a contract did not occur as a result of contractor default for the last three (3) years.	Form CON-1 <i>If a bidder fails to disclose, shall be disqualified</i> <i>Reference to be made to procuring Authority's records</i>	5 Marks

PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD OF NGONG ROAD INTERCHANGE – GITARU (A8S) ROAD

Item No.	Qualification Subject	Qualification Requirement	Document To be Completed/provided by Tenderer	For Procuring Entity's Use (Qualification met or Not Met)
		Non-performance shall be deemed to have occurred by evidence of: • <i>Termination Letter</i> • <i>Liquidated Damages</i>	<i>A bidder (Company and/or Director(s)) with any history of non-performance losses 5 marks</i>	
2.	Financial Capabilities	(i) Bidders shall provide audited balance sheets or, if not required by the laws of the Tenderer's country, other financial statements acceptable to the Procuring Entity, for the last 3 years shall be submitted and must demonstrate the current soundness of the Tenderer's financial position and indicate its prospective long-term profitability (as demonstrated by Financial Evaluation ratios). (ii) The Tenderer shall demonstrate that it has access to, or has available, liquid assets, unencumbered real assets, lines of credit, and other financial means (independent of any contractual advance payment) sufficient to meet the construction cash flow requirements estimated at a minimum of 10% of Bid price for the subject contract(s) net of the Tenderer's other commitments. The Tenderers shall also demonstrate, to the	Form FIN - 3.1, with attachments Attachments include: <i>i. Audited accounts</i> <i>All pages must be initialed and stamped by both a practicing Auditor registered with ICPAK and one of the Directors. Auditor's practicing membership number from ICPAK must be indicated and a valid practicing license shall be provided.</i> <i>The Financial ratio Form to be signed by the Auditor registered with ICPAK and one of the Directors</i> • Financial Ratios Computation shall be made for the following Ratios and marks awarded to each of the ratios: -Working Capital - Debt to Equity Ratio - Current ratio - Operating Cash Flow ratio • <i>Line of Credit</i> • <i>Bank statements</i> <i>Etc.</i>	2 Marks 4 Marks 4 Marks

PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD OF NGONG ROAD INTERCHANGE – GITARU (A8S) ROAD

Item No.	Qualification Subject	Qualification Requirement	Document To be Completed/provided by Tenderer	For Procuring Entity's Use (Qualification met or Not Met)
		satisfaction of the Procuring Entity, that it has adequate sources of finance to meet the cash flow requirements on works currently in progress and for future contract commitments.		
3.	Average Annual Construction Turnover	Minimum average annual construction turnover of Kenya Shillings 15 Million (Fifteen Million), equivalent calculated as total certified payments received for contracts in progress and/or completed within the last 3-year years, divided by 3 years	Form FIN - 3.2 <i>Attachments include Financial Statements</i>	4 Marks
4.	Ongoing Works	Value of outstanding works shall not be more than the bid price	Form FIN - 3.4 If the value of the outstanding Works and the new commitment is more than the operating cash flow (based on the last audited financial statement) of the bidder, the bidder loses 2marks	2 Marks
5.	General Construction Experience	Experience under construction contracts in the role of prime contractor, JV member, sub-contractor, or management contractor, substantially completed in the last [5 years] prior to the applications submission deadline.	Form EXP -4.1 <i>Attach Letters of Award and Completion Certificates</i>	3 Marks (1 Mark for each General Construction project)
6.	Specific Construction & Contract Management Experience	Participation in contract(s) of a similar nature with minimum cumulative value of KSh. 20 Million (Twenty Million) as filled in Form EXP 4.2(a) that have been satisfactorily and substantially completed by the bidder, as a prime contractor, joint venture member,	Form EXP 4.2 (a) & (b) <i>Provide Letters of Award and Completion Certificates</i> <i>For subcontracted works, the bidder should provide the following;</i> <i>Award letter of the main contractor</i> <i>Award letter of the subcontract.</i> <i>Completion letter of the</i>	11 Marks

PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD OF NGONG ROAD INTERCHANGE – GITARU (A8S) ROAD

Item No.	Qualification Subject	Qualification Requirement	Document To be Completed/provided by Tenderer	For Procuring Entity's Use (Qualification met or Not Met)	
		management contractor or sub-contractor in the last [5 years] prior to the applications submission deadline. The similarity shall be based on the physical size, complexity, methods/technology or other characteristics	<i>subcontract.</i> <i>Subcontract approval from the Engineer/supervision Authority</i>		
7.	Contractor's Representative and Key Personnel	Curriculum Vitae (CVs) of the Proposed Key Staff must be presented in the provided format and duly signed by the proposed individual. Copies of certificates and Annual Practicing Licenses (for Engineers) and Academic Certificates for all staff is mandatory;	Schedule F (Form PER. 1 and PER. 2)	10 Marks	
		Site Agent / Road Manager	Certification	PBC Certificate from KIHBIT or other recognized institution	3
				Current EBK or IET-K License	3
			Qualifications	1. Degree or Diploma/HND Electrical and Electronic Eng. 2. Current/Valid Registration by EBK/IET-K	2
			Experience	Above 5 years	2
				0-5 years	0
8.	Contractors key equipment	Bidders shall declare they have possession/Ownership of various equipment as proposed to be used in the Project by providing Logbooks that demonstrate proof	Schedule D of Technical Proposal	35 Marks	

PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD OF NGONG ROAD INTERCHANGE – GITARU (A8S) ROAD

Item No.	Qualification Subject	Qualification Requirement	Document To be Completed/provided by Tenderer	For Procuring Entity's Use (Qualification met or Not Met)																													
		of ownership For Bidders planning to hire, they shall provide an Active Lease Agreement in Place that can be used during the Project Life. The copy of logbooks of the lessor(s) shall also be provided.																															
9.		<table> <tr> <th rowspan="2">Main Scope of Works of this Tender</th><th rowspan="2">Main Equipment</th><th rowspan="2">Quantity (No) (Minimum)</th><th colspan="2">Marks (Score)</th></tr> <tr> <th>Owned</th><th>Hired/ Leased</th></tr> <tr> <td rowspan="4">Road Lighting Maintenance</td><td>Man lift crane (Minimum of 15m height)</td><td>2</td><td>15</td><td>7.5</td></tr> <tr> <td>Truck crane (Minimum of 3 tonnes)</td><td>1</td><td>10</td><td>5</td></tr> <tr> <td>Double Cabin Patrol Vehicle</td><td>1</td><td>5</td><td>2.5</td></tr> <tr> <td>Other Equipment: 1. Generator 2. Welding Machine, 3. Grinder, 4. Drilling Machine, 5. Lux Meter</td><td>1 of each</td><td>5</td><td>2.5</td></tr> <tr> <td colspan="3">Total</td><td>35</td><td>17.5</td></tr> </table>			Main Scope of Works of this Tender	Main Equipment	Quantity (No) (Minimum)	Marks (Score)		Owned	Hired/ Leased	Road Lighting Maintenance	Man lift crane (Minimum of 15m height)	2	15	7.5	Truck crane (Minimum of 3 tonnes)	1	10	5	Double Cabin Patrol Vehicle	1	5	2.5	Other Equipment: 1. Generator 2. Welding Machine, 3. Grinder, 4. Drilling Machine, 5. Lux Meter	1 of each	5	2.5	Total			35	17.5
Main Scope of Works of this Tender	Main Equipment	Quantity (No) (Minimum)	Marks (Score)																														
			Owned	Hired/ Leased																													
Road Lighting Maintenance	Man lift crane (Minimum of 15m height)	2	15	7.5																													
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Total			35	17.5																													
10.	Proposed methodology	Adequacy and quality of the proposed methodology	Technical approach and methodology - Provide a detailed Work Methodology - Procedure on execution of activities as outlined in the BoQs - Allocation of machinery/labour in execution the activities - Procedures in quality control of the activities described in BoQs Provide a Methodology on	3 Marks																													

PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD OF NGONG ROAD INTERCHANGE – GITARU (A8S) ROAD

Item No.	Qualification Subject	Qualification Requirement	Document To be Completed/provided by Tenderer	For Procuring Entity's Use (Qualification met or Not Met)
			safety during the construction period • Personal protective equipment • Signage • Delineation of construction and passage of traffic • Passage of traffic at night	2 Marks
11.			Work plan/ Program of Works (PoW) • PoW Resourced with Equipment-Min. allocation pursuant to the <i>Schedule E of Technical Proposal</i> - – To be submitted in A3 Size Paper well legible Fonts • PoW captures Monthly outputs for each activity • PoW details BoQ Quantities, Units and Rates • PoW is superimposed with Cashflow Projections as detailed in <i>Schedule A</i> of the technical proposal Site Organization and staffing (Schedule B of Technical proposal)	4 Marks 2 Marks 2 Marks 2 Marks 3 Marks

PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD OF NGONG ROAD INTERCHANGE – GITARU (A8S) ROAD

Item No.	Qualification Subject	Qualification Requirement	Document To be Completed/provided by Tenderer	For Procuring Entity's Use (Qualification met or Not Met)
12.	Quality Management Plan	Specific, adequacy and quality of the Quality Management Plan	• Provide a specific Quality management plan that covers the following: 1. Scope Management 2. Time Management 3. Material Quality Management 4. Financial Management 5. Risk Management 6. Health & Safety Management 7. Environmental Management 8. Communication Management 9. Procurement Management 10. Human Resource Management 11. Stakeholder Management	2 Marks
13.	Knowledge Transfer <i>[When transfer of knowledge is a particularly important component of the assignment, the following sub-criteria may be provided]</i>	Transfer of knowledge (training) program (relevance of approach and methodology)	a) Relevance of training program <i>[Not Applicable]</i> b) Training approach and methodology <i>[Not Applicable]</i> c) Qualifications of experts and trainers <i>[Not Applicable]</i>	

Tenderers who score less than the required pass (75%) will be automatically disqualified. Tenderers who meet the minimum pass mark in the technical evaluation will be evaluated further.

C. FINANCIAL EVALUATION:

The lowest evaluated bidder shall be subjected to Financial Evaluation which include but not limited to **sensitivity analysis** of the **rates** to **detect abnormally low bids or abnormally high bids or unbalanced tenders or front loaded**.

Treatment of Abnormally Low Bid/Abnormally high Bid/ Unbalanced bid

The Procuring Entity may undertake an analysis of bidders' rates which are potentially lower/higher than the known prevailing market rates. The bidders shall be required to provide objective justification including supporting documents on derivation of their rates to the Procuring Entity (*See Schedule G, Part I&II on Derivation of Rates*).

In addressing the above criteria, the following steps shall be undertaken by the Procuring Entity;

PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD OF NGONG ROAD INTERCHANGE – GITARU (A8S) ROAD

Item No.	Qualification Subject	Qualification Requirement	Document To be Completed/provided by Tenderer	For Procuring Entity's Use (Qualification met or Not Met)
a. Identify: The Procuring Entity identifies a potential Abnormally Low/High Bid based on comparison with known prevailing market rates or with the project's total cost estimate. b. Evaluate: The procuring Entity fully analyzes the Bidder's justification provided on Schedule G to verify if it is an Abnormally Low/High Bid. Due diligence may be carried out by the Procuring Entity on the bidder's documentation. c. Determination: The Procuring Entity fully documents the decision to accept or reject the Bid and executes appropriate action(s)/recommendation(s) including but not limited to rejection of the bid or enhancement of the performance security. Performance Security will be increased at the expense of the Tenderer to a level not exceeding 20% of the Contract price In view of the above, the procuring Entity shall evaluate and analyze the Bidders' submissions against the known prevailing market rates and cost estimation guidelines. The analysis of the bidder's justification shall take into account all evidence provided. Accordingly, the Procuring Entity's relevant committee shall make a recommendation to the Accounting Officer				
D. POST QUALIFICATION: The procuring entity may verify the documents provided by the bidder with the issuing authority.				

Appendix to Qualification Criteria

ITEM	DESCRIPTION			POINT SCORE SCALE
1	HISTORY OF NON-PERFORMANCE			Max 5
	History of Non-Performance			0 or 5
2	FINANCIAL CAPACITY			Max 14
	Audited Statements			0-2
	Computation of Financial Ratios			0-4
	Working capital to be at least 10% of the Bid price			0-4
	Turnover			0-4
3	EXPERIENCE			Max 16
	General Experience			0-3
	Specific experience in related works			0-11
	Workload Analysis			0-2
4	KEY PERSONNEL			Max 10
	Site Agent / Road Manager	Certification	PBC Certificate from KIHBIT or other recognized institution	3
			Current EBK License	3
		Qualification	1. Degree or Diploma/HND 2. Current / Valid Registration by EBK/IET-K	2
			Relevant experience	Above 5 years
		0-5 years		0
5	PLANT AND EQUIPMENT			Max 35
	Relevant Equipment (As Detailed in Schedule D)	Owned (Max 35marks)		0-35
		100% Leased (Max 17.5 marks)		0-17.5
6	PROGRAM OF WORKS AND WORK METHODOLOGY			Max 20
6a	Work Methodology	Provided a detailed Work Methodology		0-3
		Provided a Methodology on safety during the construction period		0-2
		Provided a specific Quality management plan		0-2
6b	Program of Works	PoW Resourced with Equipment-Min. allocation pursuant to the Schedule E of Technical Proposal - To be submitted in A3 Size Paper well legible Fonts		0-4
		PoW captures Monthly outputs for each activity		0-2

PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD OF NGONG ROAD INTERCHANGE – GITARU (A8S) ROAD

ITEM	DESCRIPTION		POINT SCORE SCALE
		PoW details BoQ Quantities, Units and Rates	0-2
		PoW is superimposed with Cashflow Projections as detailed in Schedule A of the technical proposal	0-2
7	Organization and Staffing (Schedule B of Technical proposal) Equivalent of Site Base facilities		0-3
	TOTAL		MAX 100

SECTION V - TENDERING FORMS

SECTION V - TENDERING FORMS

1. TENDERER’S QUALIFICATION FORMS

Form ELI-1.1- Tenderer Information Form

Form ELI- 1.2- Tenderer JV information

Form ELI - 1.3- Qualification of Foreign Contractors

Form ELI - 1.4- Declarations of materials, equipment and labor sources

2. FORM OF TENDER

A. TENDERER'S ELIGIBILITY - CONFIDENTIAL BUSINESS QUESTIONNAIRE

B. CERTIFICATE OF INDEPENDENT TENDER DETERMINATION

C. SELF-DECLARATION FORMS

FORM SD1

FORM SD2

FORM SD3

APPENDIX TO FORM OF TENDER

3. CONTRACTUAL FORMS

FORM CON – 1

FORM CON – 2

FORM CON – 3

4. FINANCIAL FORMS

FORM FIN- 3 .1

FORM FIN- 3.2

FORM FIN- 3.3

5. TECHNICAL EXPERIENCE

FORM EXP - 4.1

FORM EXP - 4.2 (A)

FORM EXP - 4.2 (B)

6. TECHNICAL PROPOSAL

SCHEDULE A. Projected Cash Flow

SCHEDULE B. Site Organizations

SCHEDULE C. Subcontractors

SCHEDULE D. Contractor's Equipment

SCHEDULE E. Initial Tentative Program of Performance

SCHEDULE F. Key Personnel Proposed

FORM PER -1

FORM PER -2

SCHEDULE G. Schedule of Materials; -Basic Prices

7. FORM OF TENDER SECURITY - DEMAND GUARANTEE

8. FORM OF TENDER SECURITY (TENDER BOND)

9. FORM OF TENDER-SECURING DECLARATION

TENDERER'S QUALIFICATION FORMS

FORM ELI-1.1- TENDERER INFORMATION FORM

Form ELI-1.1
Tenderer Information Form
Date: _____
Tender No. _____
Tender title: _____
Tenderer's name:
In case of Joint Venture (JV), name of each member:.....
Tenderer's actual or intended country of registration: <i>[indicate country of Constitution]</i>
Tenderer's actual or intended year of incorporation:
Tenderer's legal address [in country of registration]:
Tenderer's authorized representative information Name: Address: Telephone/Fax numbers: E-mail address:
1. Attached are copies of original documents of: I. <i>Certificate of Incorporation and CR12</i> of the legal entity named above, in accordance with ITT 4.1. II. <i>Copies of National Identification documents for Directors</i> ☐ In case of a JV, Form of intent to form JV or JV agreement, in accordance with ITT 4.1. ☐ In case of a state-owned enterprise or institution, in accordance with ITT 4.7. documents establishing: • Legal and financial autonomy • Operation under commercial law • Establishing that tenderer is not under the supervision of the Procuring Entity,
2. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership (<i>Applicable</i>).

FORM ELI- 1.2- TENDERER JV INFORMATION

Tenderer's JV Information Form

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

Date: _____

Tender No. _____

Tender title: _____

Tenderer's JV name:
JV member's name:
JV member's country of registration:
JV member's year of constitution:
JV member's legal address in country of constitution:
JV member's authorized representative information Name: _____ Address: _____ Telephone/Fax numbers: _____ E-mail address: _____
1. Attached are copies of original documents of: i. Certificate of Incorporation and CR 12 of the legal entity named above, including Registered JV agreement (Registration of Documents Act), in accordance with ITT 4.1. ii. Copies of National Identification documents for all Directors ☐ In case of a state-owned enterprise or institution, documents establishing legal and financial autonomy, operation in accordance with commercial law, and that they are not under the supervision of the Procuring Entity, in accordance with ITT 4.7. 2. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership (<i>Applicable</i>).

FORM ELI - 1.3- QUALIFICATION OF FOREIGN CONTRACTORS

Qualification of Foreign Tenderers

Pursuant to ITT 4.10, a foreign tenderer must complete this form to demonstrate that the tender fulfils this condition (the 40% Rule).

ITEM	Description of Work Item	Describe location of source	COST in K. shillings	Comments, if any
A	Local Labour			
1				
2				
3				
4				
5				
B	Sub contracts from Local sources			
1				
2				
3				
4				
5				
C	Local materials			
1				
2				
3				
4				
5				
D	Use of Local Plant and Equipment			
1				
2				
3				
4				
5				

PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD OF NGONG ROAD INTERCHANGE – GITARU (A8S) ROAD

E	Add any other items			
1				
2				
3				
4				
5				
6				
7				
	TOTAL COST LOCAL CONTENT		xx	
	PERCENTAGE OF CONTRACT PRICE		xx	

FORM ELI - 1.4- DECLARATIONS OF MATERIALS, EQUIPMENT AND LABOUR SOURCES

Pursuant to ITT 5.1, tenderers must complete this form to demonstrate that the tender fulfils this condition

ITEM	Description of Work Item	Describe location of source	Comments, if any
A	Materials		
1			
2			
3			
4			
5			
6			
B	Equipment		
1			
2			
3			
4			
5			
C	Labour		
1			
2			
3			
4			
5			
6			
	TOTAL COST LOCAL CONTENT		
	PERCENTAGE OF CONTRACT PRICE		

FORM OF TENDER

INSTRUCTIONS TO TENDERERS

- (i) The Tenderer must prepare this Form of Tender on stationery with its letterhead clearly showing the Tenderer's complete name and business address.
- (ii) All italicized text is to help Tenderer in preparing this form.
- (iii) Tenderer must complete and sign and TENDERER'S ELIGIBILITY- CONFIDENTIAL BUSINESS QUESTIONNAIRE, CERTIFICATE OF INDEPENDENT TENDER DETERMINATION, and the SELF DECLARATION OF THE TENDERER, all attached to this Form of Tender.
- (iv) The Form of Tender shall include the following Forms duly completed and signed by the Tenderer.
 - A) Tenderer's Eligibility- Confidential Business Questionnaire
 - B) Certificate of Independent Tender Determination
 - C) Self-Declaration of the Tenderer

FORM OF TENDER

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

Invitation to Tender No.: *[insert identification]* Alternative No.: *[Not Applicable]*

To:

We, the undersigned, declare that:

- a) *No reservations:* We have examined and have no reservations to the tendering document, including Addenda issued in accordance with Instructions to Tenderers (ITT) ;
- b) *Eligibility:* We meet the eligibility requirements and have no conflict of interest in accordance with ITT4;
- c) *Tender-Securing Declaration:* We have not been suspended nor declared ineligible by the Procuring Entity based on execution of a Tender-Securing Declaration or Proposal-Securing Declaration in Kenya in accordance with ITT 4.8.
- d) *Conformity:* We offer to execute in conformity with the tendering document and in accordance with the construction or service schedule the following Works:
[Tender Number and Name]
- e) *Tender Price:* The total price of our Tender is [name of currency] (*amount in figures and words*).
- f) *Combined Price:* We hereby confirm that our combined price for Rehabilitation Works and Improvement Works does not exceed the threshold given in the TDS ITT 37.5, which is *[NOT APPLICABLE]*.
- g) *Tender Validity Period:* Our Tender shall be valid for a period specified in TDS 18.1 (or as amended if applicable) from the date fixed for the Tender submission deadline specified in TDS 22.1 (or as amended if applicable), and it shall remain binding upon us and may be accepted at any time before the expiration of that period;

PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD OF NGONG ROAD INTERCHANGE – GITARU (A8S) ROAD

- h) *Performance Security:* If our Tender is accepted, we commit to obtain a Performance Security in accordance with the tendering document;
- i) *One Tender per Tenderer:* We are not submitting any other Tender (s) as an individual Tenderer, 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 4.4, other than alternative Tenders submitted in accordance with ITT 13;
- a) *Suspension and Debarment:* We, along with any of our subcontractors, suppliers, consultants, 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 Procuring Entity. Further, we are not ineligible under Kenya laws or official regulations or pursuant to a decision of the United Nations Security Council;
- b) *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 4.7];
- c) *Commissions, gratuities and fees:* We have paid, or will pay the following commissions, gratuities, or fees with respect to the Tendering 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.”).

- d) *Binding Contract:* We understand that this Tender, together with your written acceptance thereof included in your Form of Acceptance, shall constitute a binding contract between us, until a formal contract is prepared and executed;
- e) *Not Bound to Accept:* We understand that you are not bound to accept the lowest evaluated cost Tender, the Best Evaluated Tender or any other Tender that you may receive;
- f) *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;
- g) *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.
- r) We undertake to adhere by the Code of Ethics for Persons Participating in Public Procurement and Asset Disposal, copy available from www.ppra.go.ke during the procurement process and the execution of any resulting contract.
- s) We, the Tenderer, have completed fully and signed the following Forms as part of our Tender:
- a) Tenderer's Eligibility; Confidential Business Questionnaire – to establish we are not in any conflict to interest.
- b) Certificate of Independent Tender Determination – to declare that we completed the tender without colluding with other tenderers.
- a) Self-Declaration of the Tenderer – to declare that we will, if awarded a contract, not engage in any form of fraud and corruption.
- b) Declaration and commitment to the Code of Ethics for Persons Participating in Public Procurement and Asset Disposal.
- t) 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.

PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD OF NGONG ROAD INTERCHANGE – GITARU (A8S) ROAD

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]

Name_____

in the capacity of_____

Signed_____

Duly authorized to sign the Tender for and on behalf of M/s_____

Dated on_____ day of_____, _____

A. TENDERER'S ELIGIBILITY - CONFIDENTIAL BUSINESS QUESTIONNAIRE

Instruction to Tenderer

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

a) Tenderer's details

	ITEM	
1	Name of Procuring Entity	Kenya National Highways Authority
2	Reference Number of the Tender	KeNHA/R5/275/2026
3	Date and Time of Tender Opening	As indicated in the Tender Notice
4	Name of Tenderer	
5	Full Address and Contact Details of the Tenderer	Country City Location Building Floor Postal Address Name and email of contact person Telephone Number
6	Current Trade License Registration Number and Expiring date	

PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD OF NGONG ROAD INTERCHANGE – GITARU (A8S) ROAD

	Name, country/county and full address (postal and physical addresses, email, and telephone number) of Registering Body/Agency	
7	Description of Nature of Business	
8	Maximum value of business which the Tenderer handles	
9	State if Tenders Company is listed in stock exchange, give name and full address (postal and physical addresses, email, and telephone number) 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.

	Name 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.

	Name of Directors	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.

	Name 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 or is under common control with another tenderer.		
2	Tenderer receives or has received any direct or indirect subsidy from another tenderer.		
3	Tenderer has the same legal representative as another tenderer		
4	Tender has a relationship with another tenderer, directly or through common third parties, that puts it in a position to influence the tender of another tenderer, or influence the decisions of the Procuring Entity regarding this tendering process		
5	Any of the Tenderer's affiliates participated as a consultant in the preparation of the design or technical specifications of the works that are the subject of the tender.		
6	Tenderer would be providing goods, works, non-consulting services or consulting services during implementation of the contract specified in this Tender Document.		
7	Tenderer has a close business or family relationship with a professional staff of the Procuring Entity who are directly or indirectly involved in the preparation of the Tender document or specifications of the Contract,		

PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD OF NGONG ROAD INTERCHANGE – GITARU (A8S) ROAD

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

B. CERTIFICATE OF INDEPENDENT TENDER DETERMINATION

I, the undersigned, in submitting the accompanying Letter of Tender to the KENYA NATIONAL HIGHWAYS

AUTHORITY for: _____ [Name of tender]

_____ [Tender number]

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 and Title _____

Date _____

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

C. SELF-DECLARATION FORMS

FORM SD 1: 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 ofin 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 SD 2: SELF DECLARATION THAT THE TENDERER WILL NOT ENGAGE IN ANY CORRUPT OR FRAUDULENT PRACTICE

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

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

.....
(Title)

.....
(Signature)

.....
(Date)

Bidder's Official Stamp

FORM SD 3: 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.....

APPENDIX TO FORM OF TENDER

(This appendix forms part of the bid)

Conditions	Sub-Clause	Data
Employer's name and address	1.1.2.2	Director General, Kenya National Highways Authority, P.O. Box 49712 – 00100, <u>NAIROBI</u>
Engineer's name and address	1.1.2.4	Director – Maintenance, Kenya National Highways Authority, P.O. Box 49712 – 00100, <u>NAIROBI</u>
Time for Completion	1.1.3.3	Contract Period: Nine (9) Months
		Performance Based Works Period: Nine (9) Months
Defects Notification Period	1.1.3.7	N/A
Site	1.1.6.7	Ngong Road Interchange - Gitaru (A8S) Road
Communications	1.3(b)	The Employers address is: The Director General, Kenya National Highways Authority (KeNHA), P.O. Box 49712 - 00100 <u>NAIROBI</u> The Engineer's address is: The Director, Maintenance, Kenya National Highways Authority (KeNHA), P.O. Box 49712 - 00100 <u>NAIROBI</u> The Contractor address is: Name..... P.O Box.....

Conditions	Sub-Clause	Data
		City/Town..... Email: Telephone.....
Governing Law	1.4	Laws of the Republic of Kenya
Ruling and Communications Language	1.4	English
Contract Agreement	1.6	Within the bid validity period
Assignment	1.7	Not applicable
Care and Supply of documents	1.8	One (1) Contract document to be supplied to the Contractor
Right of access to the Site	2.1	Within Twenty-Eight (28) days of the Notice of Commencement Date
Performance Security	4.2	The Performance Security shall be in the form of an unconditional Bank Guarantee in the amount(s) of 5% of the Accepted Contract Amount and in the same currency (ies) of the Accepted Contract Amount.
Subcontractors	4.4	40%
Parts of the Works for which subcontracting is not permitted	4.4	N/A
Progress reports	4.21	Softcopies
Normal working hours	6.5	Weekdays: 8am – 5pm (With 1hour break) Saturdays: 8am – 12 Noon
Commencement of Works	8.1	Fourteen (14) days after order to commence
Programme	8.3	• Softcopy (Electronic through the CPM tool) • One (1) Hard copy Within 28days

Conditions	Sub-Clause	Data
Delay damages payable for each day of delay	8.7	0.05% of the Accepted Contract Amount
Maximum amount of delay damages	8.7	5% of the Accepted Contract Amount
Take Over of Parts of the Works	10.2	Not applicable
Provisional Sums	13.5 (b)(ii)	As specified in the Schedule of rates
Advance payment	14.2	Not Applicable
Application for interim payment certificates (Statements)	14.3	1 hard copy and 1 soft copy
Percentage of retention	14.3(c)	5% of the Accepted Contract Amount
Limit of Retention Money	14.3(c)	5% of the Accepted Contract Amount
Schedule of payments	14.4	Not applicable
Period of payment of Advance Payment to the Contractor	14.7(a)	Not Applicable
Period for the Employer to make interim payments to the Contractor	14.7b	Ninety (90) days
Period for the Employer to make final payment to the Contractor	14.7(c)	Ninety (90) days
Delayed payment	14.8	Simple interest at a rate equal to two percentage points above the mean Base Lending Rate obtained from the Central Bank of Kenya
Number of additional paper copies of draft Final Statement	14.11	1 hard copy and 1Soft copy
Currencies of Payment	14.15	Kenya Shillings (KES)
Maximum total liability of the Contractor to the Employer	17.6	The accepted contract amount
Periods for submission of insurance	18.1	a. evidence of insurance – 14days b. relevant policies – 28 days

Conditions	Sub-Clause	Data
Maximum amount of deductibles for insurance of the Employer's risks	18.2(d)	Not Applicable
Minimum amount of third-party insurance	18.3	Limited to Accepted Contract Amount for each occurrence, with unlimited number of occurrences
Date by which the DB shall be appointed	20.2	As and when required
The DB shall be comprised of	20.2	One Member (ad hoc)
Appointment (if not agreed) to be made by:	20.3	Chartered Institute of Arbitrators (Kenya)
Place and Seat of arbitration	20.6(a)	Nairobi, Kenya

Signature of Tenderer..... Date

FORM CON – 1 HISTORICAL CONTRACT NON-PERFORMANCE, PENDING LITIGATION AND LITIGATION HISTORY

Tenderer's Name: _____

Date: _____

JV Member's Name _____

Tender No. _____

Tender title: _____

Non- Performed Contracts in accordance with Section III, Evaluation and Qualification Criteria			
☐ Contract non-performance did not occur for the last three (3) years from the day of tender opening. ☐ Contract(s) not performed for the last three (3) years from the day of tender opening			
Year	Non-performed portion of contract	Contract Identification	Total Contract Amount (Kenya Shilling equivalent)
<i>[insert year]</i>	<i>[insert amount and percentage]</i>	Contract Identification: <i>[indicate complete contract name/number; and any other identification]</i> Name of Procuring Entity: <i>[insert full name]</i> Address of Procuring Entity: <i>[insert street/city/country]</i> Reason(s) for nonperformance: <i>[indicate main reason(s)]</i>	<i>[insert amount]</i>
Pending Litigation, in accordance with Section III, Qualification Criteria and Requirements			
☐ No pending litigation in accordance with Section III, Qualification Criteria and Requirements, Sub-Factor 8. ☐ Pending Litigation in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 9 as indicated below			
Year of dispute	Amount in dispute (currency)	Contract Identification	Total Contract Amount (Kenya Shilling equivalent)
		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 (Kenya Shilling equivalent)

FORM CON – 2: DECLARATION FORM – FAIR EMPLOYMENT LAW AND PRACTICES

Date

To

The Director General,

Kenya National Highways Authority (KeNHA),

P.O. Box 49712-00100

NAIROBI

We (name and address)_____

_____ declare the following:

1. Have not been involved in and will not be involved in violation of fair employment laws and practices.
2. THAT what is declared hereinabove is true to the best of my knowledge, information and belief

Name of Bidder's authorized Representative

.....
Signature

Date

(To be signed by authorized representative and officially stamped)

FORM CON – 3: CERTIFICATE OF BIDDER’S VISIT TO SITE

This is to certify that

[Name/s].....

.....

Being the authorized representative/Agent of [Name of bidder]

.....

.....

participated in the organized inspection visit of the site of the works for the

**PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD
LIGHTING OF NGONG ROAD INTERCHANGE – GITARU (A8S) ROAD**

held on.....day of.....20.....

Signed.....

(Employer’s Representative)

.....

.....

(Name of Employer’s Representative)

.....

(Designation)

NOTE: This form is to be completed at the time of the organized site visit.

FORM FIN – 3.1: FINANCIAL SITUATION AND PERFORMANCE

PART 1

Tenderer's Name: _____

Date: _____

JV Member's Name _____

Tender No. _____

Tender title: _____

1. Financial data

Type of Financial information (Kenya Shillings)	Historic information for previous <u>3</u> years, (amount in Millions (KSh.))		
	2023	2024	2025
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			

2. Sources of Finance

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

No.	Source of finance	Amount (Kenya Shilling equivalent)
1	Letter of line of Credit from a recognized Financial Institution	
2	Bank account balance (<i>demonstrated by bank statements</i>)	

3. Financial documents

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

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

Attached are copies of financial statements for the three (3) years required above; and complying with the requirements

PART 2

Detailed Financial Situation Evaluation

No.	Description	Auditors Assessment 2023	Auditors Assessment 2024	Auditors Assessment 2025	Evaluation Score Award Criteria
1.	Financial Ratios				Max score=4 Marks
a.	Current Ratio= <u>Current Assets</u> Current Liabilities				Current Ratio more than 1 = 1 marks
b.	Debt to Equity Ratio = <u>Total Liabilities</u> Total Equity				Equity Capital Ratio less than 1 = 1 Marks
c.	Working Capital = Current Assets- Current Liabilities				Positive Working Capital = 1 marks
d.	Operating Cash Flow Ratio = Cash Flow from <u>Operations</u> Current Liabilities				Operating Cash- flow more than 1 = 1 marks
2.	Working Capital in Ksh.				Working Capital is equal or more than 10% of Bid price = 4 Marks

The above Financial Ratios have to be derived from first Principles from the Audit Statements. The Auditor who has undertaken the analysis has to demonstrate the financial ratios and append his signature and stamp to the Document as below:

The Auditor shall be required to provide his/her workings and demonstrate the source of the workings from the various Audited statements by including the Page Numbers and references of the source of the figures used in the computation of the assigned values.

The Auditor undertaking the above Financial Analysis MUST duly fill the Contact Sheet below in all aspects and attach current annual practising license.

Financial ratios Computed by a Certified Public Accountant:

CPA: Name	
ICPAK Number	
Telephone Number	
Email Address	
Postal Address	
Physical Address	
Contact Person	
Mobile Contact of the Contact Person	
Signature	
Date	
Personal/Corporate Stamp	

Ratios attested by the Company Director:

Director's Name	
ID/Passport Number	
Telephone Number	
Email Address	
Postal Address	
Physical Address	
Signature	
Date	
Personal/Corporate Stamp	

FORM FIN – 3.2: AVERAGE ANNUAL CONSTRUCTION TURNOVER

Tenderer's Name: _____

Date: _____

JV Member's Name _____

Tender No. _____

Tender title: _____

		Annual turnover data (construction only)		
Year	Amount Currency <i>[insert amount and indicate currency]</i>	Exchange Rate (where applicable)	Kenya Shilling equivalent	
2023				
2024				
2025				
Average Annual Construction Turnover*				

* See Section III, Evaluation and Qualification Criteria.

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

FORM FIN - 3.3: 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 Form of intent or acceptance has been received, or for contracts approaching completion, but for which an unqualified, full completion certificate has yet to be issued.

Current Contract Commitments					
No.	Name of Contract	Procuring Entity's Contact Address, Tel, Fax	Value of Outstanding Work (Kenya Shilling equivalent)	Estimated Completion Date	Average Monthly Invoicing Over Last Six Months [KSh./month]

FORM EXP - 4.1: GENERAL CONSTRUCTION EXPERIENCE

Tenderer's Name: _____

Date: _____

JV Member's Name _____

Tender No. _____

Tender title: _____

Starting Year	Ending Year	Contract Identification	Role of Tenderer
		Contract name: Brief Description of the Works and Services performed by the Tenderer: Amount of contract: Name of Procuring Entity: Address:	Main Contractor/ Subcontractor/ Management Contractor
		Contract name: Brief Description of the Works and Services performed by the Tenderer: Amount of contract: Name of Procuring Entity: Address:	
		Contract name: Brief Description of the Works and Services 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: _____

JV Member's Name _____

Tender No. _____

Tender 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 Shillings	
If member in a JV or sub-contractor, specify participation in total Contract amount				
Procuring Entity's Name:				
Address: Telephone/fax number E-mail:				
Description of the similarity in accordance with Sub-Factor 4.2(b) of Section III:				
1. Amount				
2. Physical size of required Works and Services 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: _____

Tenderer's JV Member _____

Sub-contractor's Name (as per ITT 33.2): _____

Tender No. _____

Tender title: _____

All Sub-contractors for key activities must complete the information in this form as per ITT 33.2 and Section III, Qualification Criteria and Requirements, Sub-Factor 4.2.

1. Key Activity No One: _____

	Information			
Contract Identification				
Award date				
Completion date				
Role in Contact	Prime Contractor ☐	Member in JV ☐	Management Contractor ☐	Sub- Contractor ☐
Total Contract Amount			Kenya Shillings	
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)*(ii)	
Year 1				
Year 2				
Year 3				
Year 4				
Procuring Entity's Name: Address: Telephone/fax number E-mail:				

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

If applicable

Activity No. Two

3.

TECHNICAL PROPOSAL

The Tenderer's Technical Proposal shall include the following elements:

SCHEDULE A. Projected Cash Flow

SCHEDULE B. Site Organizations

SCHEDULE C. Subcontractors

SCHEDULE D. Contractor's Equipment

SCHEDULE E. Initial Tentative Program of Performance

SCHEDULE F. Key Personnel Proposed

SCHEDULE G. PART I. SCHEDULE OF MATERIALS; -BASIC PRICES

 PART II. SCHEDULE OF RATES DERIVATION

SCHEDULE H. BASIC PRICES FOR MATERIALS AND LABOUR

Instructions on how to present the various schedules of the Technical Proposal are given on the following pages

SCHEDULE A

Projected Cash Flow

- 1) Tenderers shall tabulate below estimates, based on their preliminary work programme, of:
 - a) On the expenditure side, the value of the work which will be carried out;
 - b) On the revenue side, the net payments to which they will become entitled with due allowance for the advance payment and repayment, materials prepayments, and retention money, but excluding price adjustments for rise and fall and provisional sums for emergency works.
 - c) The projected net cash flow during the contract period.
- 2) The prospective successful Tenderer may be required to submit full details to substantiate his estimates.

Period (Months)	Cost of Maintenance Services	Cost of Rehabilitation and Improvement Works	Net Payment to be received	Net Cashflow
1-3				
4-6				
7-9				
ETC				

SCHEDULE B

Site Organization

Tenderers shall give below full particulars of the organization they propose to establish, direct, and administer the performance of the Contract. In particular, Tenderers shall indicate the location of site camps and the resources they intend to allocate to Self-Control Units for planning and monitoring purposes.

1. SITE ORGANIZATION CHART
 - i. ORANOGRAM
 - ii. SITE ORGANIZATION LAYOUTS
 - iii. SITE LOCATION MAP
2. NARRATIVE DESCRIPTION OF SITE ORGANIZATION CHART

SCHEDULE C

SUB-CONTRACTORS / PARTNERS

Tenderers shall list below those parts of the Works and Services which they propose to subcontract, and state the approximate value of those parts and the names and addresses of the proposed subcontractors, if those are known at Tendering stage. Tenderers shall also list other business partners involved in the execution of the contract and their respective roles and responsibilities.

Part of Works / Services:

Approximate value:

Name and address of proposed subcontractor / partner:

Part of Works / Services:

Approximate value:

Name and address of proposed subcontractor / partner:

Part of Works / Services:

Approximate value:

Name and address of proposed subcontractor / partner:

Part of Works / Services:

Approximate value:

Name and address of proposed subcontractor / partner:

SCHEDULE D

Contractor's Equipment Form EQU

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 in Section B (Technical Evaluation) of Qualification Form/Criteria

Equipment information and current status for equipment leased from government agencies including MTF may be omitted

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 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	
Agreements	Details of rental/ lease/ manufacture agreements specific to the project	

SCHEDULE E

Initial Tentative Program of Performance

To demonstrate a clear understanding of the requirements of the Contract, Tenderers shall provide the following:

- i) A bar chart sub-divided into sections for each road showing the major activities to be carried out for Maintenance Services, Rehabilitation Works and Improvement Works, if any. The activities shall be shown against time, with linkages shown between related/sequential activities as far as possible and appropriate.
- ii) A bar chart or schedule showing the usage of major plant, including those listed in Schedule D (Contractor's Equipment).

SCHEDULE F

Form PER -1 Key Personnel Schedule

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

Key Personnel

1.	Title of position: Site Agent	
	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/weeks/months that has been scheduled for this position]</i>
	Expected time schedule for this position:	<i>Full time site presence</i>
2.	Title of position: Foreman	
	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/weeks/months that has been scheduled for this position]</i>
	Expected time schedule for this position:	<i>Full time site presence</i>

Countersignature of authorized representative of the Tenderer:

Signature: _____

Date: (day month year): _____

Form PER -2

Resume and Declaration – Key Personnel (*Resume to be provided in this format*)

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 Tendering Entity:	
	Telephone:	Contact (manager/personnel officer):
	Fax:	
	Job title:	Years with present 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 Key Personnel, 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 Key Personnel is available to work on this contract]</i>
Time commitment:	<i>[insert the number of days/weeks/months that this Key Personnel will be engaged]</i>
Time commitment:	<i>[insert the number of days/weeks/months that this Key Personnel will be engaged]</i>

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

- be taken into consideration during Tender evaluation;

- b) my disqualification from participating in the Tender;
- c) my dismissal from the contract.

Name of Key Personnel: *[insert name]*

Signature: _____

Date: (day month year): _____

Countersignature of authorized representative of the Tenderer:

Signature: _____

Date: (day month year): _____

SCHEDULE G

PART I. SCHEDULE OF MATERIALS; - BASIC PRICES

ITEM NO	DESCRIPTION	NAME OF SUPPLIER	COUNTRY OF ORIGIN	UNIT	BASE Price
					KSHS.
1.	Double Arm Poles			No.	
2.	200W LED Fittings			No.	
3.	Control Panel and Accessories			No.	
4.	Copper Cables			No.	
5.	Copper Earth Electrodes			No.	

Note:

- Prices of imported materials to be quoted CIF Mombasa or Nairobi as appropriate depending on whether materials are imported by the tenderer directly or through a local agent.

I certify that the above information is correct

.....

(Title)

.....

(Signature)

.....

(Date)

PART II. SCHEDULE OF RATES DERIVATION

A Sample Schedule to guide bidders on filling the schedule in the next section.

Form for Detailed Breakdown of Cost Comparison																																
Bill item No.	16-80-001																															
Description	Provide, lay and roll asphalt concrete type 1 (bitumen content 5-6% by weight) as pothole patching and regulation - hot mix.																															
Units	M ³	(Assumed production is 160m3 per day)																														
Quantity	4,680																															
Rate build up a) Direct cost (DC) i) Unit work Price																																
1) Material Cost <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">Description</th> <th style="width: 10%;">Units</th> <th style="width: 10%;">Quantity</th> <th style="width: 15%;">Market Price</th> <th style="width: 15%;">Amount</th> </tr> </thead> <tbody> <tr> <td>AC Type 1</td> <td>M³</td> <td>1</td> <td>20,900.00</td> <td>20,900.00</td> </tr> <tr> <td colspan="4" style="text-align: right;">Sub Total For Material</td> <td>20,900.00</td> </tr> </tbody> </table>					Description	Units	Quantity	Market Price	Amount	AC Type 1	M ³	1	20,900.00	20,900.00	Sub Total For Material				20,900.00													
Description	Units	Quantity	Market Price	Amount																												
AC Type 1	M ³	1	20,900.00	20,900.00																												
Sub Total For Material				20,900.00																												
2) Labour Price <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Personnel</th> <th style="width: 10%;">No. Required</th> <th style="width: 15%;">Rate /day</th> <th style="width: 15%;">Amount</th> </tr> </thead> <tbody> <tr> <td>Skilled Labour overseer</td> <td>2</td> <td>1,800.00</td> <td>22.50</td> </tr> <tr> <td>Skilled Labour - Operator</td> <td>6</td> <td>2,045.00</td> <td>76.69</td> </tr> <tr> <td>Artisans Grade II</td> <td>12</td> <td>1,612.00</td> <td>120.90</td> </tr> <tr> <td>Unskilled labour</td> <td>15</td> <td>873.00</td> <td>81.84</td> </tr> <tr> <td colspan="3" style="text-align: right;">Sub Total For Labor</td> <td>301.93</td> </tr> <tr> <td colspan="2">Productivity ratio</td> <td colspan="2"></td> </tr> </tbody> </table>					Personnel	No. Required	Rate /day	Amount	Skilled Labour overseer	2	1,800.00	22.50	Skilled Labour - Operator	6	2,045.00	76.69	Artisans Grade II	12	1,612.00	120.90	Unskilled labour	15	873.00	81.84	Sub Total For Labor			301.93	Productivity ratio			
Personnel	No. Required	Rate /day	Amount																													
Skilled Labour overseer	2	1,800.00	22.50																													
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Sub Total For Labor			301.93																													
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3) Machinery <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Machinery type</th> <th style="width: 10%;">No. Required</th> <th style="width: 15%;">Rate /day</th> <th style="width: 15%;">Amount</th> <th style="width: 10%;">Hired/Owned</th> </tr> </thead> <tbody> <tr> <td>Roller</td> <td>1</td> <td>38,720.00</td> <td>242.00</td> <td>Hired</td> </tr> <tr> <td>PTR</td> <td>1</td> <td>29,200.00</td> <td>182.50</td> <td>Hired</td> </tr> <tr> <td>Air Compressor</td> <td>1</td> <td>9,625.00</td> <td>60.16</td> <td>Hired</td> </tr> <tr> <td>Bitumen Sprayer H/Operated</td> <td>1</td> <td>4,400.00</td> <td>27.50</td> <td>Hired</td> </tr> </tbody> </table>					Machinery type	No. Required	Rate /day	Amount	Hired/Owned	Roller	1	38,720.00	242.00	Hired	PTR	1	29,200.00	182.50	Hired	Air Compressor	1	9,625.00	60.16	Hired	Bitumen Sprayer H/Operated	1	4,400.00	27.50	Hired			
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		AC Paver	1	50,504.00	315.65	Hired
		Sub Total for Machinery			827.81	
		Productivity ratio				
		Sub-total of unit price				
		Sum (1+2+3)		22,029.74		
		ii) Haulage Cost		1,104.49		
Sub-totals of DC				23,131.22		
b) Indirect Cost				2,313.12		
c) Overheads and Profits				6,939.37		
Total Cost						
Sum (a+b+c)						
Forwarded to the BoQ (16-80-001)				32,383.71		

Notes:

- Attach current (atleast 30 days before tender opening date) proof of cost of materials e.g. Proforma Invoices/quotations.
- This form has been based on the principles of Cost Estimation Manual. The Cost Estimation Manual can be downloaded from the following website: <https://krb.go.ke/downloads>
- The Procuring Entity Own Market rates are published on the website: <https://kenha.co.ke/>

I certify that the above information is correct.

.....
(Title)

.....
(Signature)

.....
(Date& Official Stamp)

PART II. SCHEDULE OF RATES DERIVATION

Form for Detailed Breakdown of Cost Comparison																																																																																												
Bill item No.																																																																																												
Description																																																																																												
Units																																																																																												
Quantity																																																																																												
Rate build up																																																																																												
a) Direct cost (DC) i) Unit work Price	1) Material Cost <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 35%;">Description</th> <th style="width: 15%;">Units</th> <th style="width: 15%;">Quantity</th> <th style="width: 15%;">Market Price</th> <th style="width: 20%;">Amount</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr> <td colspan="4" style="text-align: right;">Sub Total For Material</td> <td> </td> </tr> </tbody> </table> 2) Labour Price <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 35%;">Personnel</th> <th style="width: 15%;">No. Required</th> <th style="width: 15%;">Rate /day</th> <th style="width: 35%;">Amount</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr> <td colspan="3" style="text-align: right;">Sub Total For Labor</td> <td> </td> </tr> <tr> <td colspan="2">Productivity ratio</td> <td colspan="2"> </td> </tr> </tbody> </table> 3) Machinery <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 35%;">Machinery type</th> <th style="width: 15%;">No. Required</th> <th style="width: 15%;">Rate /day</th> <th style="width: 15%;">Amount</th> <th style="width: 20%;">Hired/Owned</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr> <td colspan="4" style="text-align: right;">Sub Total for Machinery</td> <td> </td> </tr> <tr> <td colspan="2">Productivity ratio</td> <td colspan="3"> </td> </tr> </tbody> </table>				Description	Units	Quantity	Market Price	Amount																					Sub Total For Material					Personnel	No. Required	Rate /day	Amount																	Sub Total For Labor				Productivity ratio				Machinery type	No. Required	Rate /day	Amount	Hired/Owned																Sub Total for Machinery					Productivity ratio				
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I certify that the above information is correct

.....
(Title)

.....
(Signature)

.....
(Date & Official Stamp)

SCHEDULE H:

BASIC PRICES FOR MATERIALS AND LABOUR

Index Code*	Index Description*	Source of Index*	Base Value and Date*	Bidder's Weighting	Weighting Range
Fixed	Non-adjustable	KNBS 2019 Civil Engineering Cost Indices	28 days before tender opening date	N/A	A= 0.20
EQ	Equipment			N/A	B= 0.1 – 0.3
LL	Labour			N/A	C= 0.09 - 0.18
MT	Materials			N/A	D= 0.29 - 0.41
TF	Transport & Fuel			N/A	E= 0.01 - 0.09
Total				1.0	

I certify that the above information is correct.

.....
(Title)

.....
(Signature)

.....
(Date)

NOTE

1. Only sources of indices that publish data to the public and are freely accessible to the Employer shall be used. Reference prices are not acceptable as sources of indices.
2. Sources of indices must be supported by copies of relevant published data
3. Base values and dates must be supported by copies of relevant published data

FORM OF TENDER SECURITY - DEMAND GUARANTEE

Beneficiary: _____

Invitation to Tender No: _____

Date: _____

TENDER GUARANTEE No.: _____

Guarantor: _____

We have been informed that _____ (herein after called "the Applicant") has submitted or will submit to the Beneficiary its Tender (hereinafter called "the Tender") for the execution of under Invitation to Tender No. ____ ("the ITT").

Furthermore, we understand that, according to the Beneficiary's conditions, Tenders must be supported by a Tender guarantee.

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 Form of Tender ("the Tender Validity Period"), or any extension there to be 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 be provided by the Applicant, (i) has 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 Beneficiary's Tendering document.

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, issued to the Beneficiary in relation to such contract agreement; 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.

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)]

PART 2 – WORKS REQUIREMENTS

SECTION VI - SPECIFICATIONS

SECTION VI-A: PERFORMANCE SPECIFICATIONS

1. Description of the Road

The Road is in the Nairobi City and Kiambu Counties.

It commences at the Ngong Road Interchange and ends at Gitaru a distance of 14.1 km

The Road Lighting has the following major physical features.

1. 10m double arm galvanized steel poles
2. 10m single arm galvanized steel poles
3. 30m high masts
4. 20m high masts
5. Ground mounted control pillars
6. Underground power cables
7. LED fittings
8. Tunnel lights
9. Footbridge lights
10. Solar-powered fittings

As a general reference on the Road, the information shown below is provided to the Contractor. The Employer provides this information to the best of his knowledge, but does not guarantee its correctness, and the Contractor may not make any claim based on potential errors or omissions in the information provided.

Other notable features of this Road are frequent motor accidents averaging five per month resulting in damage to road lighting furniture and vandalism incidents.

2. Works and Services to be provided

2.1 Works

The Works are what the Contract requires the Contractor to supply, install, and turnover to the Employer, as covered under Rehabilitation Works and Improvement Works.

2.1.1 Rehabilitation Works (Instructed Works)

Rehabilitation Works are a set of measurable inputs to be executed by the Contractor during the Initial Mobilization Period to allow the Road to achieve the performance standards required under the contract. Rehabilitation Works shall be carried out by the Contractor in accordance with the Bill of Quantities. Rehabilitation Works will be paid for as measured items in accordance with the unit rates in the Bill of Quantities.

The major scope of the instructed works comprises the following but not limited to;

1. General: Office Administration and Overheads
2. Installation of double arm poles
3. Installation of new control pillars complete with their accessories and switch gears
4. Micro-tunnelling for power supply cables
5. Trenching and laying of power supply cables
6. Performance based maintenance of the Road Lighting to the required service level

7. Any other works as may be instructed by the Engineer

The lighting standard values of the Road with continuous lighting shall meet the requirements shown below:

Road Section	Lighting Class	$\bar{E}$ (lx)
Road	M2	17.25 – 22.5
Conflict Area	M1	24 - 30

Repairs and maintenance works will be paid for as measured items in accordance with the unit rates in the Bill of Quantities. These works shall be instructed and done concurrently during the Maintenance Period.

2.1.2 Improvement Works

Improvement Works are a set of interventions to be executed by the Contractor to allow the Road to acquire new characteristics under the contract. Improvement Works will be paid for as measured items in accordance with the unit rates in the Bill of Quantities.

2.1.3 Emergency Works

Emergency Works are a set of necessary inputs to be executed by the Contractor to allow the Road to be reinstated under the contract in case of inflicted damages as a result of natural phenomena with imponderable consequences, such as strong storms, flooding and earthquakes.

In the event of an emergency, the Contractor shall draw to the attention of the Engineer that certain works need to be carried out to reinstate the carriageway and other road features to restore the safe passage of traffic and ensure the integrity of the Road.

The Engineer, who will determine the quantities of activities to reinstate the roads, shall make the payments according to the measured works.

2.1.4 Design Responsibility for Works

All Works, Rehabilitation Works, Improvement Works and Emergency Works shall be designed by the Employer in accordance with the latest specifications adopted by the Employer.

2.2 Maintenance Services

The services to be provided by the Contractor include all activities, physical and others, which the Contractor needs to carry out in order to improve, maintain and comply with the service levels as set out in Table 3.1. (Service Level Requirements).

The Contractor is expected to come up with a methodology of complying with the Service Levels, and other output in the performance criteria as indicated in the contract, or with any other requirements of the contract. These include management tasks and physical works associated with the road-related assets and items.

The road lighting comprises of:

- Grid power supply
- Poles
- Luminaires

- d. Control Pillars
- e. Power Supply Cables
- f. Protection Devices
- g. Solar components

Performance based routine maintenance services will be paid for as a fixed **lump sum per lamp per month, with payment reductions made for non-compliance**, if appropriate.

It is expected that the Contractor shall include in his rate the cost of bringing the road to required service levels as stipulated in the Contract and the same shall not be paid for separately in the bills of quantities. These works shall include but not limited;

- a. 24-hour patrol and surveillance (Day and Night Patrols)
- b. Weekly cleaning of solar panels
- c. Replacement of power supply cables and related accessories including splicing kits
- d. Replacement of damaged or worn out fittings
- e. Repair/ Replacement of Knocked poles and arms, fittings, control pillars and high-masts complete with all the accessories
- f. Repair/ Replacement of Vandalized poles and arms, fittings, control pillars and high-masts complete with all the accessories
- g. Anchoring and strengthening of (leaning) poles to upright position using approved gravel material or equivalent.
- h. Joint monthly meter reading
- i. Provision of security to deter vandalism of the road lighting furniture
- j. Liaising and follow ups with KPLC to restore power in case of an outage or other emergencies
- k. Insurance follow up for compensation in case of any damage to road lighting furniture
- l. Pruning of overgrown tree branches obstructing the luminaires in liaison with Nairobi and Kiambu County Governments spoiling the cuttings
- m. Documentation
 - i. Defect detection and rectification list,
 - ii. Detail self-inspection result report form,
 - iii. Summary of self-inspection report form,
 - iv. Payment reduction calculation table,
 - v. Summary of statement for payment account (monthly statement)
- n. Road stakeholder engagement to ensure smooth running of the project (Kenya Police, KPLC, Public, Nairobi City and Kiambu County Governments, and Area Chiefs)

The PBC Contractor must clean luminaires, clearly mark all the control pillars and poles with unique numbering/identification within the first three (3) months of commencement of works, after which the Contractor shall perform this for all the newly installed road lighting furniture quarterly until the end of the contract. The rates for carrying out these works shall be included in the monthly PBC rate. Failure to carry out these works shall result in monthly deductions until compliance is achieved.

For guidance, the activities to be undertaken by the Contractor include, but are not limited to, management tasks and physical works associated with the following:

- a. Inspect the road lighting for safety defects
- b. Inspect road lighting, troubleshoot and restore power outages
- c. Clean poles, luminaires and control pillars
- d. Repair and replace faulty accessories
- e. Vegetation control, grass cutting, bush clearing, tree pruning
- f. Replace knocked road lighting furniture
- g. Replace vandalized road lighting furniture

The Contractor shall prepare and submit Routine Maintenance strategy for approval by Engineer. Management tasks and physical works include, but not limited to the following;

- a. Maintain road usability
- b. Maintain road lighting user comfort
- c. Maintain road lighting durability
- d. Maintain control of the Road by patrolling, data collection, conducting inspections, and reporting

Maintenance Services shall be paid for as a fixed lump sum per lamp per month, with payment reductions made for non- compliance, if appropriate.

1. Introduction on Service Level Categories

a. Service Criteria

The Table 3.1 below shows the list of service criteria under each Service Category and Service Scope.

Table 3.1 List of Service Criteria

Service Category	Service Scope
Road Safety	No obstruction of the road lighting poles or other electrical appliances, fallen trees or branches
Road Lighting Furniture	Power Supply
	Control Pillars
	Switchgear Accessories
	Poles
	Uprightness of Poles
	Pole Cleanliness
	Luminaires/Fittings
	Solar Modules
Vegetation Control	Pruning of Trees
	Carting Away
Patrol	24hrs 7days a week
Documentation	Contractor to provide during the formal inspection

b. Compliance with Service Level Criteria Requirements

The Initial Mobilization Period for the Road to be brought to Service Level requirements is 2 months after the issuance of the Actual Start Date by the Contractor. However, the period should vary depending on the initial condition of the road as defined and specified in the SCC. In the Contract. Within the first 2 months, compliance with the Service Levels will be adjusted as shown in Table 3.2 to allow the Contractor to properly mobilize the team within the Initial Mobilization Period.

Table 3.2 Timetable for Compliance with Service Level Requirements

Contract Month	Road Usability (Compliance required on % of contract road)	Road Comfort User	Durability Compliance required on % of contract road

		Compliance required on % of contract road	
1	75	75	75
2	100	100	100
3	100	100	100
4 until end of Contract	100	100	100

c. PB Maintenance Handing Over within the Contract Period

The Contractor shall at times be required to hand over site and all maintenance works as directed by the Engineer. The site shall be handed over in sections shown in Table 3.3. Handing Over shall result in the implementation of a reduction factor on the Service Level **lump sum per lamp per month** from the section and month of handing over to the end of the contract period Table 3.3. In accordance with Clause 14.1 of the General Conditions of Contract (CC), the Contractor shall submit a Program of Performance within not later than Twenty Eight (28) days after issuance of Order to Commence in the format Prescribed in the Tender Document. The program shall include, but not be limited, to the following items:

4.1 Contractor's Quality Assurance Plan

The purpose of the Contractor's Quality Assurance Plan is to integrate the requirements of the contract and the Contractor's quality assurance systems to deliver the Works and Services.

The Contractor's Quality Assurance Plan describes the methods and procedures which the Contract will apply for the execution of the Contract, including how the Contractor will:

- Identify the quality requirements specific to the contract,
- Plan and execute the Works and Services to satisfy those requirements
- Inspect and/or test the Works and Services to ensure compliance with the quality requirements
- Record and monitor the results as evidence of compliance, and
- Ensure that prompt action is taken to correct non-compliance.

The Contractor's Quality Assurance Plan must clearly describe the systems, procedures and methods that will be used to deliver and monitor compliance of the Works and Services.

4.2 Traffic Management Plan

If required in the Conditions of Contract (CC) the Program of Performance shall include a Traffic Management Plan. The Traffic Management Plan establishes the practices for traffic management at work sites. The Traffic Management Plan must be developed by the Contractor and agreed with the Engineer.

The objectives of the Traffic Management Plan are to:

- provide appropriate transitions and enable safe and efficient traffic flow into, through and out of work sites
- protect the Contractor's personnel at all times
- protect the Assets and the Contractor's resources at all times.

d Meet the operational requirements for the road

The Traffic Management Plan must include at least the following:

Lay out diagrams, method statements etc. for implementation of traffic control while undertaking each aspect of the Works and Services (including site specific layout diagrams and method statements if the Services require traffic control measures not covered by standard codes of practice)

A documented process for preparation, review and approval of the Traffic Management Plan

A document tracking and control system to ensure that only the latest operative copy of the Traffic Management Plan is in circulation

Contact details for Contractor, Principal, emergency services and other stakeholders.

4.3 Safety Management Plan

If required in the Conditions of Contract (CC) the Program of Performance shall include a Safety Management Plan submitted within 28 days after receipt of Order to commence. The Safety Management Plan establishes the practices for safety management at work sites. The Safety Management Plan must be developed by the Contractor and agreed with the Engineer.

The objectives of the Safety Management Plan are to:

- a clearly define and document the responsibilities and chain of command for the development, implementation and management of safety control measures and systems
- b establish the minimum requirements for the safety of workers, road users and community people using the Road
- c protect the Contractor's personnel at all times.

Contractor shall observe the following measures with a view to enhance Road Safety to the Road Users and Site Workers:

- i. Prepare and submit a comprehensive Road Safety Implementation Plan within 28 days after receipt of Order to commence for the Engineer's Approval. The plan shall include but not limited to the following:
 - Night driving
 - Safety of workers
 - Traffic management Plan
- ii. The Contractor should identify, evaluate and monitor potential traffic and road safety risks to workers and road users throughout the Contract life cycle and develop measures and plans to address them.
- iii. The Contractor shall install and maintain standard approved traffic warning signs, directional signs, secure the working areas and deploy flagmen at active construction sites.
- iv. The Contractor shall assess each phase of the works, monitor incidents and accidents indicating the mitigation measures undertaken and prepare monthly reports to be submitted to the Resident Engineer.
- v. The Contractor shall factor the cost of implementation of the Road Safety Plan in the rates for the Works.

The Safety Management Plan must include at least the following:

Method statements for implementation of work safety undertaking on each aspect of the Works and Services (including safety gears for workers, use of tool box meetings for safety awareness,

provision of work safety signs, training of workers on safe use of tools and equipment, safety inspection under the patrolling by Self Control Unit and commitment by the Contractor on adherence to the Occupational Safety and Health Act, 2007 amended on 2010.)

A documented process for preparation, review and approval of the Safety Management Plan

A document tracking and control system to ensure that only the latest operative copy of the Safety Management Plan is in circulation

Contact details for Contractor, Engineer, emergency services and other stakeholders.

4.4 Environmental Management Plan

If required in the Conditions of Contract (CC) the Program of Performance shall include an Environmental Management Plan. The Environmental Management Plan establishes the practices for environmental management at work sites. The Environmental Management Plan must be developed by the Contractor and agreed with the Engineer.

The objectives of the Environmental Management Plan are to:

- a clearly define and document the responsibilities and chain of command for the development, implementation and management of environmental control measures and systems
- b establish the minimum requirements for environmental control measures for maintaining the adequate environment for workers, road users and community people using the Road
- c maintain the awareness of the Contractor's personnel on environmental protection at all times

The Environmental Management Plan must include at least the following:

Method statements for maintaining the adequate environmental on work sites undertaking on each aspect of the Works and Services (including specific dumping locations of debris and materials unwanted from the Road, use of tool box meetings for environmental protection awareness, training of workers on environmental control measures, inspection under the patrolling by Self Control Unit and commitment by the Contractor on adherence to the regulations and acts enacted by the government of Kenya under National Environmental Management Authority.)

A documented process for preparation, review and approval of the Environmental Management Plan

A document tracking and control system to ensure that only the latest operative copy of the Environmental Management Plan is in circulation

Contact details for Contractor, Engineer, emergency services and other stakeholders

4.5 Emergency Procedures and Contingency Plan

If required in the Conditions of Contract (CC) the Program of Performance shall include an Emergency Procedures and Contingency Plan which shall establish the roles, practices and procedures during specific types of emergency events identified in the plans and contingency plans associated with the closure of roads. The Emergency Procedures and Contingency Plan must be developed by the Contractor and agreed with the Engineer and any other stakeholders the Engineer may identify.

The purpose of the Emergency Procedures and Contingency Plan is to ensure the safety of the Contractor's personnel and road users in the case of emergency and/or road closure. It should include: an effective communication and event recording system the name, contact number and specific duties of the Contractor's personnel nominated to respond to an emergency even the contact number of other parties who need to be notified in cases of emergency events, e.g. police detailed response procedures for all emergency events possible detour routes in the event of road closure

5 Service Criteria

The Contractor is required to carry out the Maintenance Services and to maintain the specific road related assets and items as stipulated in Clause 3 of the Performance Specifications during the contract duration in compliance with the Road Performance Standards as defined by the Service Criteria as stipulated hereunder.

The Employer requires the Contractor to maintain the road lighting under the contract to be safe and efficient together with the satisfactory level of availability to road users. In order that the Contractor can achieve such, service criteria are established for guidance and classified into five Service Categories: Road Safety, Road Lighting Furniture, Vegetation Control, Patrol and Documentation.

- 1) Road Safety - The road user must be able to travel at a certain level of safety, unobstructed by by road lighting poles or other electrical appliances, fallen trees or branches. The criteria for determining the service levels for safety are given in Table 5.1. The enforcement of these criteria is expected to be an immediate priority of the contractor due to the critical importance of road safety, and 100% compliance is expected from Month 1, as shown in the Timetable in Table 3.1. Compliance will be determined by Visual Inspection.

Table 5.1 Service Levels for Road Safety

Item	Service level	Measurement/Detection	Time Allowed
Road Safety	The road must always be clear of any obstruction by damaged or knocked road lighting poles. This must be removed within the time given if they pose: ○ A high danger of traffic: such as fallen light poles or any other electrical appliances and fittings, tree branches across the carriageway and is obstructing safe passage of traffic. ○ A lesser (medium) danger to traffic: such as fallen light poles or any other electrical appliances and fittings, tree branches within the road reserve but not on the carriageway and is not obstructing safe passage of traffic: etc:	Visual Inspection	Immediately 6 hours

- 2) Road Lighting Furniture Service Level

is a description that encompasses the scope of operational performance indicators of road assets from the road user comfort perspective. The criteria for determining the service levels for safety are given in Table 5.2.

Table 5.2

Item	Service Level	Measurement/Detection	Time allowed for repairs or Tolerance permitted
Road Lighting Furniture	Power Supply: Absence of power supply and all related items including energization, metering and functionality, is not allowed	Visual Inspection	Nonconforming items must be attended to within 48 hours
	Control Pillar	Visual Inspection	Nonconforming, Damaged/vandalized or otherwise Control Pillar must be attended to within 24 hours
	Switchgear: All other associated electrical fittings & accessories including cabling	Visual Inspection	All Nonconforming, Damaged/vandalized or otherwise electrical fittings and accessories must be attended to within 24 hours
	Poles: No missing poles on site.	Visual Inspection	Missing poles must be attended to within 30 days . This may entail fabrication or replacement.
	All poles must be upright and standing straight in good condition, undamaged / without dent.	Visual Inspection	All Nonconforming. Poles must be attended to within 3 days
	All poles must be clean, well-painted, numbered and free of dirt, soot, unauthorized stickers or markings and bird nests.	Visual Inspection	All Nonconforming. Poles must be attended to within 7 days
	Luminaires & Solar Modules: Absence of lighting is not allowed.	Visual Inspection	Damaged or nonfunctional luminaires must be attended to within 24 hours

3) Vegetation Control

Table 5.3

Item	Service Level	Measurement/Detection	Time allowed for repairs or Tolerance permitted
Vegetation Control	Vegetation encroachment on all road lighting furniture is not allowed.	Visual Inspection	Nonconforming items must be attended to within 7 days .

4) Patrol and Surveillance

Table 5.4

Item	Service Level	Measurement/Detection	Time allowed for repairs or Tolerance permitted
Patrol and Surveillance	Lack of patrol and surveillance on the entire road is not allowed	Visual Inspection and Patrol Records	Nonconforming items must be attended to Immediately

5) Documentation

Item	Service Level	Measurement/Detection	Time allowed for repairs or Tolerance permitted
Documentation	Lack of documentation as listed in Clause 2.2 is not allowed	Submitted Documents during Formal Inspection.	Nonconforming items must be attended to 24 hours

6 Self-Control Unit (SCU)

The Contractor is required to establish a Self-Control Unit within his project organization throughout execution and completion of the Works and Services to the satisfaction of the Engineer. The roles of the SCU:

1. For conducting self-inspection to verify the degree of compliance with the Road Lighting Performance Standards as defined by the Service Levels and maintain the reporting system of self-inspection.
2. Assessment of the Road Lighting. The Self-Control Unit shall have a complete knowledge of the Lighting condition at all times by carrying out patrolling, to the satisfaction of the Engineer.
3. The Self-Control Unit is responsible for gathering information required by the Contractor to prepare the Monthly Statement.
4. The carrying out, in close cooperation with the Engineer, the Formal and Informal Inspections of Service Levels which will take place as required.

The Contractor is required to assign a technically qualified and trained person, or persons, to continuously verify the degree of compliance of Service Levels. The Contractor is also required to arrange a satisfactory means of mobility for conducting patrolling to the satisfaction of the Engineer.

7 Site Inspection and Patrolling/Reporting

The Contractor is required to undertake the following management tasks to ensure the full integrity of the Road Lighting throughout execution and performance of the Works and Maintenance Services.

7.1 Site Condition Assessment before Commencement of Works and Services

The Contractor shall conduct initial site condition assessment before commencement of the Works and Services under the contract. In case any defects and deficiencies are discovered under the assessment, the Contractor shall notify the Engineer by submitting the Defect Detection and Rectification List as attached to the Appendix 1 of the Performance Specifications and upon

agreement of the Engineer, the Contractor shall carry out rectification works as the Rehabilitation Works.

7.2 Patrolling/Reporting

The Contractor shall carry out patrolling of the Road as required under the contract. Such patrolling shall be reported to the Engineer without delay through submission of the Daily Work Record, Daily Patrol Record, Monthly Photo Record and Incident Report as attached to the Appendices 2, 3, 4 and 5 of the Performance Specifications.

In case the Contractor discovers cases of illegal power tapping, vandalism or illegal actions by third parties, the Contractor shall notify the Engineer for further instructions as required.

7.3 Ad hoc Inspection

The Engineer may carry out ad-hoc inspections to verify the degree of compliance with the Road Lighting Performance Standards as defined by the Service Levels. He may do so on his own initiative, at anytime and anywhere on the roads under the contract. If he detects any road sections where the Service Level criteria are not met, he is required to notify the Contractor within 24 hours in writing as the Corrective Order, to enable the Contractor to take remedial action as soon as possible. The results of ad-hoc inspections may not be used by the Engineer for purposes of correcting the Contractor's monthly statements or applying penalties, except for cases in which the traffic flow on the road has been completely interrupted due to the negligence and tardy action by the Contractor.

8 Monthly Statement

8.1 Preparation for Monthly Statement

For the Maintenance Services. The Contractor shall take the following actions;

- 1) Prior to compilation of the Monthly Statement for each month, the Contractor is required to prepare the Payment Reduction Calculation Table for the month by utilizing the result of the most recent self- inspection recorded in Self Inspection Result Record Form to determine the total length of non-compliant sections for each Service Scope and for calculation of the reductions required for the month by determining the percentages of non-compliant sections for each Service Scope. The formats of Payment Reduction Calculation Table are attached as Appendix 8.
- 2) The prepared Payment Reduction Calculation Table shall become the basis of the payment request for the Maintenance Services.
- 3) Upon completion of Formal Inspection, the amounts indicated on the Monthly Statement and the Payment Reduction Calculation Table will be adjusted, if required. Such modified Monthly Statement and Payment Reduction Calculation Table shall be countersigned by the Engineer to sign it and present it to the Employer for payment, and to the Contractor for information.

Payment Reduction Calculation Table (SAMPLE)										
CONTRACT: PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD LIGHTING OF NGONG ROAD INTERCHANGE – GITARU (A8S) ROAD										
Contract No. xxx		Statement Month/ Year and Elapse of Month			Contract Month: xx			Region: Corridor A		
Contractor: M/s xxx Company Limited		Contract Period: 9 months			Lamps on the road: xxx			Road Length: xx kms		
Service Level	Required Compliance	Compliance Criteria			Weight	Formula for Reduction Computation	Non-compliance		Payment	
Criteria	T= Target	Ref.		Compliance criteria	%		Lamps	Reduction %	Reduction (KSh)	
1. Road Safety	100%	4.3		No obstruction of the road by road lighting poles or other electrical appliances, fallen trees or branches	5	R(KSh.) = $W\% \times M \times L1 / L$ Where; W – Weight assigned to the compliance criteria M – Monthly Maintenance Lump sum L1 – Non Conforming lamps L – Project Road Lamps				
2. Road Lighting Furniture	100%	2.2		Missing poles	20					
	100%	2.2		Luminaires/Fittings	20					
	100%	2.2		Control Pillars	15					
	100%	2.2		Uprightness of poles	10					
				Switchgear accessories	10					
3.Vegetation Control	75%	2.2		Pruning of trees	5					
	75%	2.2		Carting away	5					
4.Patrol;	100%	2.2		24hrs 7 days a week	5					
5.Documentation	100%	2.2		Contractor to provide during the formal inspection	5					
Total Payment Reduction										
Lamps on the road for payment this month										
Total payment due this month			=	Monthly Maintenance Lump sum <i>M</i>	Payment Reduction <i>R</i>			xxxx		
= M - R				xxxxxx	xxxxxx					
Less reductions for non - rectified previous non compliance			=		-					
Total payment due this month			=		-					

8.2 Reduction Weighting for Non-Compliance on Maintenance Services

In accordance with the relevant clauses of the Performance Specifications and CC, payment reduction is applied in case of non-compliance with Service Levels.

In accordance with the relevant clauses of the Conditions of Contract, Payment Reductions are applied in case of non-compliance with Service Level requirements, while Liquidated Damages are applied in the case of non-compliance with required Repair, Maintenance and Emergency Works.

The results of each formal inspection of the Service Levels and other performance criteria will be recorded by the Engineer in the form of a Memorandum. The Memorandum will state the type and location of any non-compliance detected, in particular those non-compliances already shown in the standard tables provided by the Contractor as part of the monthly statement. For each individual case of non-compliance, the Engineer will determine a date by which the Contractor must have completed the necessary measures in order to remedy the cause of the non-compliance. A follow-up site visit is therefore necessary at the date fixed by the Engineer, or soon thereafter, in order to verify that the Contractor has indeed remedied the cause of non-compliance.

If at the date indicated in the Memorandum, the Contractor has not remedied the cause for non-compliance, independent of the reason given for their failure to do so, the Contractor is subject to Payment Reductions in accordance with the relevant clauses of the Conditions of Contract.

Payment Reductions are variable over time. If the Contractor fails to remedy a cause of non-compliance for which a payment reduction has already been applied, the amount of the payment reduction increases month by month for that particular cause of non-compliance, without a ceiling being applied, until compliance is established.

The calculation of the initial (first month) amounts of payment reductions, and the formula for their adjustment over time, is to be based on the following rules given in Table 2.8.

PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD OF NGONG ROAD INTERCHANGE – GITARU (A8S) ROAD

Table 2.8: Amounts of Payment Reductions, and the Formula for Their Adjustment over Time

CATEGORY	CONDITIONS FOR APPLICATION OF PAYMENT REDUCTIONS	UNIT RATES FOR NON-COMPLIANCE	REFERENCE TO PERFORMANCE SPECIFICATIONS (PARAGRAPH NO.)
Road safety	<i>Cleanliness of road free of any obstruction by fallen poles or trees: observed anywhere in a one km section that does not comply with the service levels</i>	<i>5% of the monthly lump-sum for one lamp applied to lamp sections which do not comply</i>	
Road Lighting Furniture	<i>Poles: all upright, in good condition, undamaged/without dent and free of dirt, soot and bird nests</i> <i>Luminaires/Fittings: Absence of lighting is not allowed at all</i> <i>Control pillar</i> <i>All other associated electrical fitting & compliances including cabling</i>	<i>75% of the monthly lump-sum for one lamp applied to lamp sections which do not comply</i>	
Vegetation/ pruning of trees	<i>Tree branches are not to block view/illumination from road lighting poles.</i> <i>Contractor shall liaise and coordinate with county governments to prune Tree branches that block the view/illumination from the road lighting poles</i>	<i>10% of the monthly lump-sum for one lamp applied to lamp sections which do not comply</i>	
Patrol and Surveillance	<i>24 hours, 7 days a week</i>	<i>5% of the monthly lump-sum for one lamp applied to lamp sections which do not comply</i>	
Documentation	<i>Contractor to provide during the formal inspection</i>	<i>5% of the monthly lump-sum for one lamp applied to</i>	

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CATEGORY	CONDITIONS FOR APPLICATION OF PAYMENT REDUCTIONS	UNIT RATES FOR NON-COMPLIANCE	REFERENCE TO PERFORMANCE SPECIFICATIONS (PARAGRAPH NO.)
		<i>lamp sections which do not comply</i>	

NOTE:

1. Payment reduction is a % of the monthly lump sum for one lamp applied to each one-lamp section which does not comply.
2. Penalties can also be applied based on non-compliance as spelt out in the ***PBC Guidelines Developed by the Ministry of Transport, Infrastructure, Housing, Urban Development and Public Works (MoTIHUD & PW) Edition 1.1 of February 2016.***

Note: (i) The Unit Rates of payment reductions (“PR_u”) shown in the above table are applicable during the first 30 days of non-compliance.

(ii) If the non-compliance has not been remedied within thirty days, liquidated damages for periods beyond 30 days are calculated based on the following formula:

$$PR = 2^n PR_p \quad \text{considering:}$$

PR = New noncompliance rate to be applied

J = number of days of non-compliance

$$n = \left\lceil \frac{J-1}{30} \right\rceil \text{ rounded up to full number (without decimals)}$$

PR_p = Percentage of rate of non-compliance of the previous month i.e.

$$\text{Month 1} = PR_u$$

$$\text{Month 2} = 2^n (PR_u)$$

$$\text{Month 3} = 2^n \{2^n (PR_u)\}$$

$$\text{Month 3} = 2^n \{2^n \{2^n (PR_u)\} \dots\dots\dots$$

(iii) Payment reductions and Liquidated damages will be charged as penalties and are non-recoverable in subsequent monthly payment certificates.

(iv) Failure to comply with the required service levels for a sequential/continuous period of **three (3)** months will lead to termination of the Contract by the Employer as stipulated in clause 15.2 of the Condition of Contract. This failure should not exceed 30% of the overall monthly PBC amount per month.

PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD OF NGONG ROAD INTERCHANGE – GITARU (A8S) ROAD

A notice shall be served by the Engineer when the 30% reduction on the monthly payment of PBC is noted.

Determination of Liquidated Damages

For **Emergency Works**, the liquidated damages are **0.05% of the contract price bill item for emergency works**,

For the particular item delayed, per calendar day of delay, of the payment normally due for the specific Works for which completion is delayed, the liquidated damages are up to a limit of 10% of the contract price for the Repair Works.

9 Formal Inspection

The Formal Inspection shall be carried out jointly by the Engineer and the Road Manager at the end of each month. The Engineer shall notify the Contractor that he intends to carry out Formal Inspection in writing within 7 days of notification. The Contractor shall inform the Engineer of the proposed date and time and shall prepare for Formal Inspection. The main purpose of carrying out the Formal Inspection is to enable the Engineer to verify the information presented in the Contractor's Monthly Statement with the actual observed and measured conditions on the site.

9.1 Procedure for Formal Inspection

The Contractor shall submit the following documents as indicated in Table 10.1 to the Engineer for scrutiny prior to the Formal Inspection after the receipt of notification of carrying out Formal Inspection. The Contractor shall provide sufficient time to the Engineer to allow full scrutiny of the submitted documents.

Table 10.1 List of Documents for Formal Inspection

Appendices	Names of Documents	Mandatory Submission	Submission, if requested by the Engineer
1	Defect Detection and Rectification Lists		
2	Daily Work Records		
3	Daily Patrol Records		
4	Monthly Photo Records		
5	Incident Condition & Activity Reports		
6	Detail Self – Inspection Result Record Form		
7	Payment Reduction Calculation Table		

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The criteria of each Service Level shall be checked jointly by the Engineer and the Road Manager 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-lamp section in which the deficit occurs will be judged non-compliant in accordance with the Self Inspection Result Record Form.

The Engineer shall prepare a brief Memorandum describing

- 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, and
- iii) The time granted by the Engineer to the Contractor to remedy the detected defects.

The results of Formal Inspection on Service Levels will be recorded by the Engineer in this Memorandum. The Memorandum will state the type and location of any non-compliance detected, in particular those non-compliances already shown in the most recent Self Inspection Result Record Form provided by the Contractor as part of the Monthly Statement. For each individual case of non-compliance, the Engineer will determine a date by which the Contractor must have completed the necessary measures in order to remedy the cause of the non-compliance. A follow-up site visit is therefore necessary at the date fixed by the Engineer, or soon thereafter, in order to verify that the Contractor has indeed remedied the cause of non-compliance. If at the date indicated in the Memorandum, the Contractor has not remedied the cause for non-compliance, independent of the reason given for their failure to do so, the Contractor is subject to payment reduction in accordance with the relevant clauses of the Performance Specifications and GCC.

Based on the outcome of the Formal Inspection and subsequent remedies by the Contractor or otherwise, the Engineer will correct any possible errors or misrepresentations in the Contractor's Monthly Statement, countersign it and present it to the Employer for payment, and to the Contractor for information.

10 Performance Monitoring by the Employer

The Contractor shall acknowledge that the Employer encourages adoption of proactive approach by the Contractor on performing the Maintenance Services. To maintain such approach, the Employer shall have the power to entrust the Engineer to conduct monthly performance monitoring on the Contractor.

The Contractor, shall within seven (7) days of commencement, prepare and submit for the Engineer's approval the forms listed herein and any other that will be required for monitoring, recording and checking the compliance of service levels during the implementation of Contract.

These forms are;

- ✓ Daily Work Record Form
- ✓ Daily Patrol Record Form
- ✓ Photo Record Form
- ✓ Incident Report Form

PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD OF NGONG ROAD INTERCHANGE – GITARU (A8S) ROAD

- ✓ Defect Detection and Rectification List
- ✓ Detail Self-Inspection Result Report Form
- ✓ Summary Self-Inspection Report Form
- ✓ Payment Reduction Calculation Table
- ✓ Summary of Statement for Payment Account (Monthly Statement)

- 1) Performance monitoring will be conducted on service level compliance, self-control unit performance, work safety performance, performance on environment and social management, corrective order management and statutory compliance. The format of Monthly Evaluation Form is attached as Appendix 9, for the purpose of performance monitoring.
- 2) The result of performance monitoring of each month will be used for the evaluation of the Contract or at the end of each year. Evaluation of the Contractor shall be carried out by the Engineer using the Contract Evaluation Tally Sheet, which is attached as Appendix 10.

The total aggregate weighting of 100% is applied to 6 criteria in 1) above, with the weighting of 50% on service level compliance, 20% on work safety performance, 0% on statutory compliance and the remaining criteria each weighing 10%.

- 3) The result of each month on each criterion will be evaluated either a pass or a fail. The tally will be made at the end of each month, collected to the end of the year and to arrive at the performance of the criterion as the percentage of pass attained during the year. The respective weight will be applied to arrive at the evaluation score, with the maximum score of 100 and the minimum score of 0. For statutory compliance, the evaluation score will not be tabulated, but a penalty of 20 will be imposed in case the Contractor faces violation on statutory compliance at least once in a year.

11 Handover Report

Immediately prior to the completion of the contract, the Contractor shall prepare a Handover Report and submit to the Employer. The purpose of the Handover Report is to provide a smooth transition to the next contract and ensure that the next contractor is aware of any outstanding issues. The Report will:

- a) Summarize any unresolved issues;
- b) Include the most recent complete set of data on the roads covered by the contract, and
- c) Provide the following details as shall be agreed by the Engineer:
 - i) A schedule of outstanding defects.
 - ii) Any unresolved issues, especially those that may impact on the next Contractor.
 - iii) Details of any sensitive issues.
 - iv) Any on-going special monitoring/maintenance needs

12 GIS Data and Spatial Information Requirements

Scope

PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD OF NGONG ROAD INTERCHANGE – GITARU (A8S) ROAD

This Section defines the requirements for the collection, management, and submission of **Geographical Information System (GIS)** data for all road assets and maintenance activities covered under this Contract.

The objective is to ensure accurate, up-to-date spatial records of the road corridor and related assets, enabling the Authority to maintain a centralized GIS database for planning, monitoring and performance evaluation.

All Contractors shall collect, process, and submit GIS datasets for all features listed in this specification in accordance with the approved GIS data schemas and attributes prescribed herein.

Personnel and Responsibilities

Contractor's GIS Officer

Contractor shall appoint a qualified GIS Officer to manage all spatial data-collection and reporting tasks under this Contract. The GIS Officer shall possess:

- A degree in GIS, Cartography, Survey, Geoinformatics, or Geospatial Engineering (or equivalent).
- Membership with the Institution of Surveyors of Kenya (ISK) or an equivalent recognized institution.

A minimum of two (2) years of experience in the creation and management of GIS **databases**.

GIS Database Standards

1. The GIS database shall consist of separate shapefiles or geodatabases representing each physical feature and maintenance activity undertaken under this Contract.
2. All attribute tables shall conform to the data schemas defined in the tables below which specify for each data set requirement
3. The Contractor shall use open-source GIS platforms such as **QGIS Desktop** and compatible mobile data-collection applications (e.g. QField, Kobo Toolbox, or equivalent).

All raster datasets (including maps, scanned drawings, and photographs) shall be **geotagged** and referenced to the relevant GIS features

Data to be Collected

1.1 Utilities on road reserves

A GIS data set for Points features and polylines for linear features

Sno	Field Name	Variables	Field Type	Length
1	Utility Type	Electricity, Water, Fibre Etc	Text	50
2	Service Provider	Kplc, Nairobi Water, Safaricom Etc		

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3	Location	Under Ground, On Surface, Overhead, Road Crossing		
4	Road Number		Text	8
5	Road Class		Text	8
6	Road Name		Text	150
7	Category		Text	50
8	Material		Text	50
9	Condition		Text	30
10	Geo-tagged Photo			

1.2 Road Lighting

Sno	Field Name		Field Type	Length
1	Rdnum	Road Number	text	50
2	Rdsection	Road Section	text	50
3	Rdname	Road Name	text	100
4	Lighting Condition	Good, dim, not working	Text	50
5	Pole Defects	Straight, Bent, Missing	Text	50
6	Survey Date	Date of survey	date	
7	Geo_tagged Photo			
8	Remarks		Text	100

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SECTION VI-B: SPECIFICATIONS ON INSTRUCTED WORKS

The following specifications shall be used in the Tender

1. STANDARD SPECIFICATIONS – Refers to the Standard Specifications of Road and Bridges, 1986 Edition
2. British Standard and British Standard European Specifications.
 - BS EN 13201–2:2003 ‘Road Lighting (Performance Requirements)’
 - BS 7671 ‘Requirements for Electrical Installations’
 - BS 5489: Parts 1 – 10 ‘Code of Practice for Road Lighting’
 - BS EN 60529: ‘Specification for Clarification of Degrees of Protection provided by Enclosures’
 - BS EN 60598 – 2-3: 1994, Luminaires for Road and Street Lighting
 - KS IEC 61215 / 61730 / 62124 (PV modules & system testing)
 - KS IEC 61427 (battery performance)
 - KS 1937 / BS 5649 (lighting columns)
 - ISO 1461 (galvanization & corrosion protection)
 - BS5649: ‘Lighting Columns’
 - BS EN 40-1:1992 Lighting Columns. Definitions and Terms
 - BS EN.40-2: 2004 Lighting Columns. General Requirements
 - BS EN 40-1:191, EN 1990, EN 1991-1-4-2005 & 40-3-1-2000 Design and Verification for characteristic loads.
 - BS EN 40-3-2:2013 Lighting Columns. Designs and Verification. Verification by Testing
 - BS 40-3-3:2013 Lighting Columns. Design by Verification. Verification by Calculation
 - BS 40-5-2002 Lighting Columns. Requirements for Steel Columns
 - BS 40-6:2002 Lighting Columns. Requirements for Aluminum lighting columns
 - BS 5469-5:1982, EN 40-5:1982 Lighting Columns. Specification for base compartments and cableways
3. The Standard Road Maintenance Manual
4. The Special Specifications – Detailed hereunder

PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD OF NGONG ROAD INTERCHANGE – GITARU (A8S) ROAD

101 SPECIAL SPECIFICATIONS

Special specification is supplementary to the Standard Specifications and the two must be read in conjunction. In any case where there appears to be conflict between the two then the Special Specifications will take precedence.

102 LOCATION OF CONTRACT

The Road is in Nairobi and Kiambu Counties. It commences at the Ngong Road Interchange and ends at Gitaru a distance of 14.1 km

103 EXTENT OF CONTRACT

The works to be executed under the Contract comprise mainly but not limited to the following as shall be directed by the Engineer;

1. General: Office Administration and Overheads

2. Rehabilitation and Improvement Work

Improvement, Repairs and Maintenance work will be carried out by the Contractor when specifically instructed by the Engineer. Activities include:

- Repair and replacement of knocked/damaged or vandalized road lighting poles, control pillars, high masts and associated accessories at the beginning of Contract. This will only be limited to those facilities that are evaluated to be non-functional before possession of Site by the Contractor. Thereafter, the Contractor shall be responsible for uninterrupted functioning of all road lighting including repair of all damages resulting for whatsoever cause.

Improvement, repair and maintenance works will be paid for as measured items in accordance with the unit rates in the Bill of Quantities.

3. Performance Based Maintenance Services

The services to be provided by the Contractor include all activities, physical and others, which the Contractor needs to carry out in order to comply with the Service Levels and other output and performance criteria indicated in the Contract, or with any other requirements of the Contract. In particular, they include management tasks and physical works associated with the following road-related assets and items:

- 24-hour patrol and surveillance (Day and Night Patrols)
- Replacement of cables and related accessories including splicing kits
- Replacement of damaged or worn out fittings
- Repair/ Replacement of Knocked poles and arms, fittings, control pillars and high-masts complete with all the accessories
- Repair/ Replacement of Vandalized poles and arms, fittings, control pillars and high-masts complete with all the accessories
- Anchoring and strengthening of (leaning) poles to upright position using approved gravel material or equivalent.
- Joint monthly meter reading
- Provision of security to deter vandalism of the road lighting furniture

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- Liaising and follow ups with KPLC to restore power in case of an outage or other emergencies.
- Insurance follow up for compensation in case of any damage to road lighting furniture
- Pruning of overgrown tree branches obstructing the luminaires in liaison with Nairobi and Kiambu County Governments and spoiling the cuttings
- Documentation
- Road stakeholder engagement to ensure smooth running of the project (Kenya Police, KPLC, Public, Nairobi City and Kiambu County Governments, and Area Chiefs)
- Any other works as may be instructed by the Engineer.

Performance based routine maintenance service will be paid for as a fixed lump-sum per lamp per month, with payment reductions made for non-compliance, if appropriate.

The objectives of the assignment are:

1. To provide sustainable road lighting to ensure a safe, secure and attractive visual environment for pedestrian and vehicular traffic, during times of inadequate natural lighting, taking into consideration economic efficiency, and appropriate technology choice
2. To provide a management framework that will ensure the road lighting attains the highest standards and reliability
3. Pay for operational expenses such as electricity bills, etc.

In carrying their work, the Bidder shall co-operate fully with the concerned agencies of the Government of Kenya, in particular the Maintenance Department and Planning & Environment Department, Kenya National Highways Authority, Nairobi County Government, Kiambu County Government, Provincial Administration, amongst others. The Bidder shall provide the necessary support services related to and necessary for the successful implementation of the assignment.

The road lighting furniture includes all the lighting facilities along the project road. These are:

- a) 10m single arm galvanized steel poles
- b) 10m double arm galvanized steel poles
- c) 30m high masts
- d) 20m high masts
- e) Ground mounted control pillars
- f) Underground power cables
- g) Footbridge and tunnel lighting
- h) LED fittings
- i) Solar components

The assignment has two major components:

1. Road lighting
2. Safety control

The works shall include maintenance of current and new installations of road lighting:

103 EXTENT OF CONTRACT

The works to be executed under the Contract comprise mainly but not limited to the following as shall be directed by the Engineer;

1. General: Office Administration and Overheads
2. Installation of publicity signs;
3. Performance based maintenance of Road Lighting to the required service level

The works shall include maintenance of current and new installations of road lighting.

(i) Maintenance Personnel

All personnel undertaking road lighting maintenance activities shall have the appropriate qualifications, training, experience and registration with relevant professional bodies necessary to undertake their designated activities in a professional and safe manner. These shall include working in a high-speed road environment and formal electrical qualifications. Appropriate training of personnel is the responsibility of the Contractor. KeNHA will undertake random audits to ensure compliance.

(ii) Maintenance Plant and Equipment

Due to the height of road lighting installations, Elevated Work Platform (EWP) vehicles shall be used. Every operator shall possess a valid relevant driver's license and shall have an appropriate level of experience in EWP operation and shall be trained in safe work procedures.

iii) Replacement Parts

All replacement parts shall comply with existing installations unless the contractor at his own cost is willing to provide a substitute with similar or superior performance with the approval of KeNHA. The photometric and electrical characteristics of replacement luminaries shall be such that the lighting and electrical integrity of the installations are not compromised. Where identical luminaries are not available, design verification for compliance with the standards shall be carried out by an appropriately qualified and experienced electrician.

iv) Traffic Management

Safety and traffic control plans shall be approved by KeNHA before maintenance work is conducted.

All signage used during road lighting maintenance shall be in accordance with the relevant standards. Where road lighting is expected to be non-operational for more than 2 days from when the fault is identified, the temporary sign "ROAD LIGHTING UNDER REPAIR" shall be displayed.

v) Reporting Requirements

The progress of any maintenance regime being undertaken shall be continually tracked and reported. Periodic maintenance meeting shall be schedule between the Contractor and KeNHA

The meeting shall cover as a minimum the following items: -

- Review of performance of the road lighting installation

PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD OF NGONG ROAD INTERCHANGE – GITARU (A8S) ROAD

- Review of performance of the Management Contractor
- Reporting of current progress against expected – for example staffing levels/changes budgeting/expenditure and
- Discussion of issues/problems and how they are being addressed.

vi) Record Keeping

All road lighting maintenance activities shall be logged in order to monitor road lighting performance and to trend failure and outage rates.

Minimum details required to be logged and reported include:

- Item management – pole, pit, switchboard, lamp, luminaire, re-openable junction box etc.
- Identification number
- Date installed
- Date maintained
- Type of maintenance service – damage/fault, bulk lamp replacement, routine spot etc.
- Name of maintenance service provider (Contractor company name and maintenance personnel)
- Name of Road/Section and
- Lamp replacement date

vii) Scheduled Maintenance

1 Electrical

Periodic inspections and tests are required on the electrical installation ensure compliance with the standards. Full inspections and tests shall be carried out at a maximum of 2-week intervals. Where the risk of degradation of the installation due to environmental or other factors is considered high, more frequent inspections shall be carried out. Spot check audits on parts of high-risk installations shall be carried out at a maximum of 3-month intervals. Typical high-risk factors may include corrosive environments, susceptibility to flood/submergence, devices nearing end of life, vermin habitats and high pedestrian activity.

Immediate electrical risks (including exposed live conductors, unearthed equipment and incorrect polarity) must be made safe and rectified when discovered and KeNHA should be notified of the same.

Control Pillar Maintenance

Maintenance shall be carried out to ensure the electrical integrity of the switchboard. As the switchboard is the point where lighting circuits originate and are controlled, it is important that all the components are in good condition.

Inspection shall include but not necessarily be limited to:

- Ingress of water and vermin

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- Deterioration of weatherproof seals and other components
- Cracking and deterioration of the concrete cover case
- Damage by rodents
- Detection of poor connections and joints
- Correct earthing
- Protection against direct and indirect contact with LV terminals/surfaces
- Correct internal labelling of components

Electrical test shall be carried out and documented in accordance with the existing standards.

Cable and Connection Maintenance

Electrical cabling and connections shall be maintained to ensure a low impedance path for the electricity supply. While road lighting cable is expected to last in excess of 25 years under standard operating conditions, a number of factors (such as those previously mentioned) can reduce service life. Consequently, scheduled visual observations and electrical tests are required.

Where cable temperatures are significantly raised due to poor electrical connections, insulation damage can occur, which may ultimately result in fire. Clean cable termination surfaces, correct fixing tightness, and the application of protecting grease to terminations can assist in maintaining the integrity. Thermal imaging can be used where practical and cost effective to aid early detection of high resistance joints.

Where water proof cable termination is not properly installed and maintained, water ingress can be a problem subsequent degradation of the cable. Within the cable termination enclosure, the sheath shall be carefully peeled back clear of the insulation and the bottom of the enclosure filled with a proprietary sealant to fill the area around the cable and the enclosure. The sealant shall encase the insulation/sheath interface so that any moisture tracking between the insulation and sheath cannot enter the enclosure. Proper closure of the enclosure and maintenance of seals will assist in maintaining a waterproof termination. Poorly fitting enclosures shall be replaced at the cost of the contractor.

Rodents and vermin attack as well as poor installation methods, can also affect the integrity of the cable sheath. Where damage has occurred, moisture ingress and degradation will occur.

Where the rate insulation resistance degradation reasonably suggest that the cable insulation will not comply at the next periodic inspection interval, inspection frequency shall be increased or rectification undertaken.

Inspection items shall include, but not limited to:

- Joints, connections, and terminations for corrosion
- Poor, loose, overheated, or unsecured connections
- Damaged insulation
- Exposed conductors

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- General condition of the cable
- Evidence of rodent/vermin activity

Pits and Conduit Maintenance

Pits and conduits shall be inspected visually. Once it has been determined that the conduits installation complies with the required depth, this need no longer be checked except where work to the ground surface has been carried out in the vicinity of the conduit.

Pit lids shall be intact, undamaged and properly fitted to the pit. Pit shall be free of damage, with no collapse of ground around the pit, no collapse of the inside of the pit, and with the pit top level with the surrounding surface. Pit shall be free draining.

Maintenance of pits and conduits shall include but not limited to:

- Ensuring adequate drainage
- Replacement of broken or chipped pit lids
- Rectifying collapsed pit side walls and other damage
- Maintaining ground/pit surface level and pit surrounds

2. Lighting

Periodic inspections of the lighting installation shall be undertaken to ensure the lighting is operating as designed. Bulk lamp changes if necessary and luminaire cleaning shall be carried out regularly during the contract period. Where the risk of degradation of the installation due to storms, environmental or other factors is considered high, more frequent inspections/maintenance shall be carried out. After bulk lamp replacement has been initiated, spot lamp replacement inspection shall be carried out more frequently if warranted by the number of failures reported. The rate of lamp mortality is not linear over time.

Luminaire Maintenance

Maintenance of luminaries shall include but not be limited to:

- Cleaning of all optical surfaces of the luminaire, both internal and external.
- Checking of gaskets for deterioration and replacement where necessary.
- Replacement of damaged/weathered diffuser
- A visual check of the electrical components and wiring for signs of overheating
- Checking of all accessible screws, nuts and fixings for tightness
- Realigning of the luminaire as per designs specification as required.

Optical levels are designed to comply with the relevant standards at the time of installation. Sight lighting measurements are not required where an appropriate maintenance programme is followed. Hence it is important that light output be maintained throughout the life of the road lighting in accordance with the standards.

Where luminaires are installed in high pollution areas, more frequent cleaning may be required.

Bulk Lamp Replacement (BLR)

Bulk lamp replacement shall be carried out at least once every three years. BLR is where all lamps are replaced at one time irrespective of their operational status. The contractor is required to ascertain the possibility of carrying this exercise during the condition survey and he should factor this in his bid.

As there may be a significant number of lamps to be replaced in, BLR may be carried out over a three-year period where for example, a third of the lamps are replaced each year.

Spot Lamp Replacement

In addition to the programmed BLR, periodic lamp inspection patrols must be undertaken to detect spot lamp outages does not exceed 5% of the total lamp population.

Luminaire Replacement

Luminaires shall be replaced at end of life (nominal life 20 years). Where possible, an equivalent type shall be used to maintain integrity of the lighting design. In the event the Contractor wishes to replace the luminaires in order to save on his operating costs, then this cost should be borne by the Contractor in consultation with the client.

Replacement of luminaires with a different type may impact on the lighting performance, prior to replacement, compliance with current lighting standards shall be verified. Where performance will not meet required standards, the installation shall be upgraded.

3. Structural

Periodic visual inspections shall be undertaken to ensure at least the following items are examined for compliance with the relevant standards.

- Steel poles
- Other luminaire supports (for example, under overpasses)

Steel Pole Maintenance

Generally, once steel poles have been installed and commissioned, minimal maintenance is required. However, the following aspect shall be inspected as a minimum:

- Testing the thickness of galvanic protection at the pole base and other areas
- Pole vertical alignment tolerance check
- Surrounding area assessment

Road lighting poles can suffer damage from both major and minor incidents. They shall be replaced at the cost of the Contractor when any of the following damage is evident.

- Horizontal cut(s) or tear(s) exist and exceeds 20% of the pole circumference, or
- Deformation of pole due to impact exceeds 20% of the pole diameter, or
- Hatchway door cannot be securely fastened or is damaged to the extent it cannot be replaced or repaired, (even if the pole is not damaged).

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Where sharp edges are present, but it is not considered necessary to replace the pole, the edges shall be rectified to remove the risk of personal injury. Where hatchway doors and/or fixing are damaged and can be replaced without the need for replacing the pole, the damaged part(s) shall be replaced.

Welding on poles shall only be undertaken at the initial pole fabrication stage. No additional welding of poles shall be undertaken.

4. Environmental

Tree Planting and Maintenance

The Contractor shall provide, plant and maintain approved trees as directed by the Engineer on site.

Payment shall be made in instalments in accordance with the following conditions: -

- (a) 50% when the trees are accepted by the Engineer and planted
- (b) 30% in equal monthly instalments from the date the Engineer accepts the trees and planted over the remainder of the Contract period. This payment shall be deemed to cover the securing and maintenance of the trees and the Engineer may withhold or reduce payment if the contractor fails in these obligations
- (c) 20% at the end of contract period
- (d) Each instalment will be subject to the deduction of retention money

Vegetation Management

The growth of vegetation near luminaries has the potential to significantly reduce the effectiveness of road lighting installations. Where vegetation or other obstructions have or may have an impact on road lighting performance, they shall be removed or otherwise treated to remove the risk at the cost of the Contractor in consultation with relevant authorities.

Vegetation may also reduce security, increase the likelihood of vermin and/or hinder access to switchgear and electrical pits and shall be managed accordingly. Concrete surrounds should be installed around equipment, particularly switchboards.

Vermin

Evidence of vermin infestation shall be removed, and damage caused by vermin shall be rectified. The installation shall be treated/modified to prevent/minimize the likelihood of re-infestation.

Maintenance Access

Where necessary, access to sites shall be remedied to allow safe, all weather access by maintenance personnel.

General tidy up around road lighting poles

Each site shall be cleaned of all waste/rubbish so as to present a clean, tidy area that reflects well maintained Roads.

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Any other activity not listed above in either category but deemed to be necessary by the Engineer, shall be subject to the Engineer's formal instructions within the mode of payment stipulated either by day works or on a measured basis.

104 PROGRAM OF EXECUTION OF THE WORKS

The contractor shall provide the works programme, required under clause 8.3 of the Conditions of Contract, within 28 days of receipt of the Engineer's Order to commence work.

The programme shall be co-ordinated with climatic and other conditions to provide for the completion of the works in the order and by the time specified.

The Contractor shall carry out the contract in accordance with the programme agreed with the Engineer, but he shall in no manner be relieved by the Engineer's approval of the programme, of his obligation to complete the works in the prescribed order and by the prescribed completion date and he shall from time to time review his progress and make such amendments to his rate of execution of the works as may be necessary to fulfil his obligations.

105 ORDER OF EXECUTION OF WORKS

In addition to Clause 105 of the Standard Specification the Contractor shall carry out the Works such that a continuous and consecutive output of fully completed work is achieved.

107 TAKING OVER CERTIFICATE

The minimum length of the road for which a certificate will be issued under clause 10 of the conditions of Contract shall be a whole length of the road substantially completed.

109 NOTICE OF OPERATIONS

(a) Add the following sub- Clause.

Notification Terms

It shall be the Contractor's responsibility to notify the Engineer when any item of works scheduled are completed and ready for approval, and the contractor shall give sufficient notice to allow control test to be performed.

120 PROTECTION OF EXISTING WORKS AND SERVICES

The Contractor shall acquaint himself with the position of all existing services such as sewers, water drains, cables for electricity and telephone, lighting and telephone poles, water mains, etc., before commencing any excavation or other work likely to affect the existing services.

The cost of all plant, equipment and materials, labour, technical and professional staff, transport and the like necessary for determining the locations of existing services, including the making good of any damage caused to such services all to the satisfaction of the Engineer, shall be deemed to be included in the tender rates. No other payment shall be made for the costs of such operations, nor for the making good of damage caused thereby to the existing services.

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The Contractor shall be held responsible for injury to existing structures, works or services and shall indemnify and keep indemnified the Employer against any claims in this respect (including consequential damages).

124 LAND FOR ALL CAMPS SITES AND FOR THE CONTRACTOR'S OWN PURPOSES, INCLUDING TEMPORARY WORKS.

Notwithstanding Clause 124 of the Standard Specification all requirements of land for temporary works and construction purposes shall be to the approval of the Engineer but the Contractor will make all necessary arrangements with the property owners concerned and pay all charges arising therefrom. On or before completion of the Contract, the Contractor shall remove all temporary works and shall restore all such land to the condition in which it was immediately prior to the occupation thereof as far as is reasonable and practicable. No separate payment will be made to the Contractor on account of these items and the Contractor must make due allowance for them in his rates.

Notwithstanding Clause 120 of the Standard Specifications, the Contractor shall be required to appoint competent surveyors who will liaise with the Engineer on matters related to the demarcation of the existing road reserve, site measurements, removal and reinstatement of existing services.

After extraction of materials, all borrows pits shall be backfilled to the satisfaction of the Engineer. In particular borrow pits near the project road shall be backfilled in such a way that no water collects in them.

Spilling of bitumen fuels Oils and other pollutants shall be cleared up.

Including removal of excavated material from the pavement to spoil.

128 STORAGE OF MATERIALS

All materials shall be stored on Site in a manner approved by the Engineer and the Contractor shall carefully protect from the weather all work and materials which may be affected thereby.

129 TEST CERTIFICATES

When instructed by the Engineer the Contractor shall submit certificates of test from the suppliers of materials and goods required in connection with the works as the Engineer may require.

Such certificates shall certify that the materials or goods concerned have been tested in accordance with the requirements of the specifications and shall give the results of all the tests carried out. The Contractor shall provide adequate means of identifying the materials and goods delivered to the site with the corresponding certificates.

131 SIGNBOARDS

The Contractor shall provide and erect two (2) publicity signs on the site as directed. The Engineer shall, as shown in the Drawings, direct the minimum dimensions and thickness of the steel framework and sheet. The framework and sheet shall be prepared and painted black, while the ring at the top of the supporting frames shall be painted white. The wordings and KeNHA's logo shall be printed on backlit sticker paper resistant to the effects of weather using reflectorized paint or material approved by the Engineer. The colours, fonts and heights of the letters shall be as indicated on the attached drawings and as directed by the Engineer.

Payment for the Publicity signboards shall be made in instalments in accordance with the following conditions: -

- (e) 50% when the signboards are accepted by the Engineer fully installed
- (f) 30% in equal monthly instalments from the date Engineer accepts the signboards fully installed over the remainder of the Contract period. This payment shall be deemed to cover the securing and maintenance of the signboards and the Engineer may withhold or reduce payment if the contractor fails in these obligations
- (g) 20% when the signboards has been removed and the site cleared at the end of contract period or earlier if the Engineer has no further use of the signboards
- (h) Each instalment will be subject to the deduction of retention money

Signboard shall be removed and transported to KeNHA's Yard at the end of Defects Liability Period.

132.1 ENGINEER'S REPRESENTATIVE OFFICE

The Contractor may be instructed by the Engineer under clause 58 of the General Conditions of Contract to make payments of general receipted accounts for such items as stationery, stores, furniture and equipment, claims and allowances for supervision personnel and any miscellaneous claims or the Engineer may direct the Contractor to purchase or pay for the above. The Contractor will, on provision of receipts, be paid under appropriate bill items in the BoQ.

132.3 COMMUNICATION FOR THE ENGINEER

Internet and e-mail services

Where directed, the contractor shall provide 24 hours terrestrial or wireless internet connectivity with minimum throughput speed of 128 kilobytes per second for the exclusive use by the Engineer, including all accessories and Terminal Equipment and pay for all associated installation, maintenance and usage charges throughout the duration of the contract.

137 ATTENDANCE UPON THE ENGINEER AND HIS STAFF

Add the following:

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- (a) The Contractor shall pay wages (including all overtime and all allowances) to fulfil the requirements of Clause 137 of the Standard Specification.

The Contractor will be paid for the wages on a prime cost basis plus a percentage for overheads and profits under appropriate items in the Bills of Quantities. Overtime will be the Contractor's responsibility and rates to be used for the payment of overtime will be the salary levels defined by the Resident Engineer for his staff.

The costs, for attendance required by this Clause 137, shall be as specified in the attached table:

Designation	Number
Deputy Director/RE	1
Senior Engineer (Electrical, Project)/A.R.E	1
Inspector (Electrical, Project)	1
Drivers (Project)	1

and shall be paid for under Item 01-80-030A of the Bill of Quantities.

In addition to the above listed staff, the Employer will attach under training or internship/Industrial attachment additional number of technical staff comprising Engineers and Inspectors. These staff shall be paid a stipend as shall be directed by the Engineer and the Contractor shall be reimbursed under Item 01-80-030A of the Bill of Quantities.

Payment of the RE's staff wages shall be made at the end of every month, when instructed. Failure to pay the wages within the stipulated time shall attract penalties as stipulated in the appendix to form of tender. **Note: The contractor shall ONLY be reimbursed upon issuance of Appointment letters to the RE's supervision team, and evidence of submission of statutory deductions.**

138 VEHICLES AND DRIVERS FOR THE ENGINEER AND HIS STAFF AND METHOD OF PAYMENT

In addition to provisions of the Clause 138 of the Standard Specification, the Contractor shall, when instructed to do, so provide and maintain in good working conditions, the number and type of vehicle specified in the Bill of Quantities for exclusive use of the Engineer and his staff throughout the Contract. The type and brand of the vehicle must be approved by the Engineer before supply by the Contractor. **Provided vehicle must not exceed odometer reading of 50,000km.**

The Contractor shall insure comprehensively the vehicles for any licensed driver during normal working hours and whenever required by the Engineer.

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The Contractor shall provide, and load with cash whenever instructed, a fuel card for each vehicle. Further, the Contractor shall meet all costs of all road tolls as may be instructed by the Engineer. Reimbursement for this provision shall be made under item 01-80-026 of the Bill of Quantities.

Should any vehicle supplied not be in road worthy condition, the Contractor shall provide equivalent replacement vehicle until such time as the original vehicle is repaired to the satisfaction of the Engineer and returned for use.

Payment for the vehicles up to 4,000Km shall be by months. Payment for mileage above 4,000Km shall be made at a rate per kilometre. The payment shall be inclusive of all lubricants, servicing, insurance, maintenance and repairs. Payment shall be made under relevant items in Bills of Quantities No. 1.

Failure to provide fuel as instructed by the Engineer will result in a deduction in the payment for the provision of the project vehicle, prorated on a daily basis equivalent to the number of days of which there was delay in the provision of the required fuel.

Note: Payment for vehicles will be done upon approval of the vehicles by the RE and submission of monthly fuel card statements

The vehicles provided under this clause shall revert to the Contractor

139 MISCELLANEOUS ACCOUNTS

The Contractor may be instructed by the Engineer to make payments of general miscellaneous accounts for such items as stationary, stores and equipment and miscellaneous supervision personnel and claims or the Engineer may direct the Contractor to purchase or pay for the above. The Contractor will be paid on a prime cost basis plus a percentage for overheads and profits under appropriate items in the Bills of Quantities.

140 PAYMENT OF OVERTIME FOR ENGINEER'S JUNIOR STAFF

Delete in the last line the words "shall be at the Contractor's own expense" and substitute with "including the specified percentage for administrative overheads shall be paid by the Contractor to the Engineer".

Add the following

If the Contractor wishes to execute permanent work outside the Engineer's normal working hours, as stated in Clause 108 of this Specification, then the payment for the overtime for Engineer's support staff shall be paid by the Contractor, at the latest Ministry of Labour rate.

141 MEASUREMENT AND PAYMENT

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Delete Sub-Clause 141 (a) entirely and substitute with:

(a) No Preliminary item has been included in this Contract. All Contractor's mobilization and general costs shall therefore be included in relevant rates in the Bill of Quantities.

142 ENVIRONMENTAL PROTECTION (Where applicable)

The Contractor shall comply with the Statutory Regulations in force in Kenya regarding environmental protection and waste disposal, and shall liaise with the National Environmental Management Agency (NEMA).

SECTION 2: MATERIALS AND TESTING OF MATERIALS

All materials testing shall be in accordance with section 2 of the Standard Specifications

SECTION 24: ELECTRICAL AND ROAD LIGHTING INSTALLATION

2401 GENERAL

This specification is to be read in conjunction with the Drawings which are issued with it. The items of work comprising Bill of Quantities shall be carried out in accordance with this specification.

The works comprise a complete installation of road lighting system for the section of road that shall be determined by the Engineer. The Works include trenching for and installation of electrical cables, erection of lighting columns and mounting of road lighting luminaires, installation of controls and all associated electrical wiring, liaison and payment of fees to the electrical power provider, and testing and commissioning of the full system.

2402 STANDARD OF MATERIALS

Where the material and equipment are specifically described and named in the Specification followed by approved equal, they are so named or described for the purpose of establishing a standard to which the Contractor shall adhere.

Should the Contractor install any material not specified herein before receiving approval from the proper authorities, the Engineer shall direct the Contractor to remove the material in question immediately. The fact that this material has been installed shall have no bearing or influence on the decision by the Engineer.

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All materials condemned by the Engineer as not approved for use, are to be removed from the premises and suitable materials delivered and installed in their place at the expense of the Contractor. All materials required for the works shall be new and the best of the respective kind and shall be of a uniform pattern.

2403 WORKMANSHIP

The workmanship and method of installation shall conform to the best standard practice. All work shall be performed by skilled tradesmen and to the satisfaction of the Engineer. Helpers shall have qualified supervision.

Any work that does not in the opinion of the Engineer, conform to the best standard practices will be removed and reinstated at the Contractor's expense.

Permits, Certificates or Licenses must be held by all tradesmen for the type of work in which they are involved where such Permits, Certificates or Licenses exist under Government Legislation.

The Contractor shall comply with the following: -

1. Government Electricity Specifications No. 1 and 2.
2. All requirements of Kenya Power and Lighting Company Limited, IEE wiring regulations Communications Authority of Kenya (CAK) and the Energy and Petroleum Regulatory Authority (EPRA)

2404 PROCUREMENT OF MATERIALS

The Contractor is advised that no assistance shall be given in the procurement or allotment of any materials or product to be used in or necessary for the construction and completion of the works.

Contractor is warned that he must make his own arrangements for the supply of materials and/or products specified in or required for the Contract. The Contractor may be called upon to show evidence that satisfactory arrangements have been made for the procurement of any or all materials and/or products required to complete the works. Copies of purchase orders to suppliers may be requested.

The Contractor shall be responsible for all site and drawing measurements required for completion of quantities or materials required the proper execution of Works.

The Contractor shall order material based on quantities taken from his own approved working drawings and as verified and approved by the Engineer and not from the quantities shown on the Contractor Drawings or in the Bill of Quantities.

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No claims or extra payment will be considered on the ground of insufficient knowledge, inaccurate measurements or other errors on the part of Contractor.

2405 WORKING DRAWINGS

Before manufacture or fabrication is commenced the Contractor shall submit two (2) copies of details Drawings of all control pillars, meter cubicles, medium voltage switchboards including their components showing all pertinent information including sizes, capacities, construction details, etc, as may be required to determine the suitability of the equipment for the approval of Engineer. Approval of the detailed Drawings shall not relieve the Contractor of the full responsibility of errors or the necessity of checking the drawings himself or of furnishing the materials and equipment and performing the work required by the plans and Specifications.

2406 AS BUILT DRAWINGS

These diagrams and Drawings shall show the completed installation including sizes, runs and arrangements of the installation. The Drawings shall to scale not less than 1:50 and shall include plan views and section.

The Drawings shall include all the details which may be useful in the operation, maintenance or subsequent modifications or extensions to the installation.

Three sets of diagrams and Drawings, including one electronic copy, shall be provided, all to the approval of the Engineer.

One colored set of line diagrams relating to operating and maintenance instructions shall be framed and, mounted in a suitable location.

2407 REGULATIONS AND STANDARDS

All work executed by the Contractor shall comply with the current edition of the “Regulations” for the Electrical Equipment of Buildings, issued by the Installation Electrical Engineers and with the Regulations of the Local Electricity Authority.

Where the two sets of regulations appear to conflict, they shall be clarified by Engineer. All materials used shall comply with relevant Kenya Bureau of Standards Specifications.

2408 SETTING OUT WORK

The Contractor, at his own expenses, is to set out works and take all measurements and dimensions required for the erection of his materials on Site; making any modifications in details as may be found necessary during the progress of the Works; submitting any such modifications or alterations in detail to the Engineer before proceeding and must allow his Tender for all such modifications and for the provision of any such sketches or Drawings related thereto.

2409 POSITIONS OF ELECTRICAL PLANT AND APPARATUS

The routes of cables and approximate positions of switchboards etc, as shown on the Drawings shall be assumed to be correct for purpose of Tendering, but exact positions of all electrical Equipment and routes of cables must be agreed on site with Engineer before any Work is carried out.

2410 MCB DISTRIBUTION PANELS AND CONSUMER UNITS

All cases of MCB Panels and consumer units shall be constructed in heavy gauge sheet hinged covers.

Removable undrilled gland plates shall be provided on the top and bottom of the cases. Miniature circuit breakers shall be enclosed in modeled plastics with the tripping mechanism and are chambers separate and sealed from the cable terminals.

The operating dolly shall be trip free with a positive movement in both make and break position. Clear indication of the position of the handle shall be incorporated.

The tripping mechanism shall be on inverse characteristic to prevent tripping in temporary overloads and shall not be affected by normal variations in ambient temperature.

The breakers shall be grouped in distribution panels as specified with all live metal being shrouded or concealed during normal use.

A locking plate shall be provided for each of breaker. A complete list of circuit details on typed cartridge paper glued to stiff cardboards and covered with a sheet of Perspex, and held in position with four suitable fixings, shall be lifted to the inner face of the lids of each distribution panel. The appropriate MCB ratings shall be stated on the circuit chart against each circuit in use.

Ivory labels shall be secured to the installation barriers in such a manner as to indicate the number of the circuits shown on the circuit chart. Insulated barriers shall be fitted between phases, and neutrals in all boards, and to shroud live parts.

Neutral cables shall be connected to the neutral bar in the same sequence as the phase cables are connected to the MCB's. This shall also apply to earth bars when installed.

2411 FUSED SWITCHGEAR, ISOLATORS AND CUTOUTS

All fused switchgear and isolators whether mounted on machinery, walls or industrial panels shall conform to the requirements of KS 04-226 part 1: 1985.

All contacts are to be fully shrouded and are to have a breaking capacity on manual operations as required by KS 04-182: 1980.

Fuse links for fused switches are to be of high rupturing capacity cartridge type, conforming to KS 04 – 183: 1978.

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Isolators shall be load breaking/fault making isolators.

Fused switches and isolators are to have separate metal enclosures. Mechanical interlocks are to be provided between the door and main switch operating mechanism so arranged that the door may not be opened with the switch in the “ON” position. Similarly; it shall not be possible to close the switch with the door open except that provision to defeat the mechanical interlock and close the switch with the door in the isolators shall be clearly indicated by a mechanical flag indicator or similar device. In T.P and N fused switch units, bolted neutral links are to be fitted.

2412 CONDUITS AND CONDUIT RUNS

Conduit systems are to be installed so as to allow the loop-in loop out system of wiring.

All conduits shall be black rigid super high impact heavy gauge Class “A” PVC in accordance with KS 04-179: 1988 and IEE Regulations. No conduit less than 20mm in diameter shall be used anywhere in this installation.

Conduit shall be installed buried in plaster work and floor screed except when run on wooden or metal surface when they will be installed surface supported with saddles every 600mm. conduit run in chases shall be firmly held in position by means of substantial pipe hooks driven into wooden plugs.

The Contractor attention is drawn to the necessity of keeping all conduits entirely separate from other piping services such as water and no circuit connections will be permitted between conduits and such pipes.

All conduits shall be arranged wherever possible to be self-draining to switch boxes and conduit outlet points for fittings.

The systems, when installed and before wiring shall be kept plugged with well switch boxes and when short conduit pieces are used as plugs, they shall be doubled over and tied firmly together with steel wire. Before wiring all conduit systems shall have been carried out until the particular section of the conduit installation is complete in every respect.

The sets and bends in conduit runs are to be formed on Site using appropriate size bending springs and all radii of bends must not be less than 2.5 times the outside diameter of the conduit. No solid or inspection bends, tees or elbows will be used.

Conduit connections shall either be by a demountable (screwed up) assembly or adhesive fixed and water tight by solution. The tube and fittings must be clean and free of all grease before applying the adhesive. When connections are made between the conduit and switch boxes, circular or non-screwed boxes and care must be taken to ensure that no rough edges of conduit stick out into the boxes.

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Runs between draw in boxes are not to have more than two right angle bends or their equivalent. The Contractor may be required to demonstrate to the Engineer that wiring in any particular run easily withdrawable and the Contractor may, at no extra cost to the Contract; be required to install additional draw-in boxes required. If conduit is installed in straight runs in excess of 6,000mm, expansion couplings as manufactured by Engtube, shall be used at intervals of 6,000mm.

Where conduits runs are to be concealed in pillars and beams, the approval of the Engineer, shall be obtained. The Contractor shall be responsible for making the accurate position of all holes, chases etc., on site, or if the Engineer so directs, shall provide the Contractor with dimensional Drawings to enable him to mark out and form all holes and chases. Should the Contractor fail to inform the Engineer of any inaccuracies in this respect, they shall be rectified at the Contractor's expenses.

It will be the Contractors responsibility to ascertain from site, the details of reinforced concrete or structural steelwork and check from the builder's Drawings the positions of walls, structural concrete and finishes. No reinforced concrete or steelwork may be drilled without first obtaining the written permission of the Engineer.

The Drawings provided with these specifications indicate the appropriate positions only of points and switches, and it shall be the Contractors responsibility to mark out and centre on Site the accurate positions where necessary in consultation with the Engineer. The Contractor shall be responsible for the accuracy of the final position.

2413 CONDUIT BOXES AND ACCESSORIES

All conduit outlets and junction boxes are to be either malleable iron and of standard circular pattern of the appropriate type to suit saddles being used or super high impact PVC manufactured KS 04 - 179: 1983.

Small circular pattern boxes are to be used with conduits up to and including 25mm outside diameter and larger. Rectangular pattern adaptable boxes are to be used for conduits of 32mm outside diameter and larger. For Drawing in of cables in exposed runs of conduit, standard pattern through boxes are to be used:

Boxes are to be not less than 50mm deep and of such dimensions as will enable the largest appropriate number of cables for the conduit sizes to be drawn in without excessive bending.

Outlet boxes for lighting fittings are to be of the loop-in type where conduit installation is concealed and the Contractor shall allow one such box per fitting, except where fluorescent fittings are specified when two such boxes per fitting shall be fitted flush with ceiling and if necessary fitted with break joint rings. Pattresses shall be fitted where required to outlets on surface conduit runs.

Adaptable boxes are to be of PVC or mild steel (of not less than 12swg) and black enameled or galvanized finish according to location. They shall be square or oblong shape location. They shall be of square or oblong shape complete with lids secured by four 2 BA brass roundhead screws. No

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adaptable box shall be less than 75mm x 75mm x 50mm or larger than 300mm x 300mm x 75mm and shall be adequate in depth in relation to the size of conduit entering it. Conduit shall only enter boxes by means of conduit bushes.

2414 LABELS

Labels fitted to switches and fuse boards: -

- i Shall be Ivorine engraved black on white.
- ii Shall be secured by R.H. brass screws of same manufacturing throughout.
- iii Shall indicate on switches:-
 - a) Reference number of switch
 - b) Specified current rating
 - c) Item of equipment controlled.
- iv Shall indicate on MCB panels:-
 - a) Reference number
 - b) Type of board, i.e., lighting, sockets, etc.
 - c) Size of cable supplying panel
 - d) Where to isolate feeder cable
- v Shall be generally not less than 75 x 50mm.
- vi All units or CPs shall have a Nameplate detailing: Name of the Authority, Road Name and No., CP No., Supply Authority, Supply Voltage, Maximum Connected Load, Maximum Current Rating, No. of Lighting Circuits, Earthing System, Warning, Manufacturer/Contractor, Serial No., Year of Installation.

2415 EARTHING

The earthing of the installation shall comply with the following requirements; -

- i. It shall be carried out in accordance with the appropriate sections of the current edition of the Regulations, for the Electrical Equipment of Building issued by Institute of Electrical Engineers of Great Britain.
- ii. At all main distribution panels and main service positions a 25mm x 3mm minimum cross section area Copper tape shall be provided and all equipment including the lead sheath and armouring of cables, distribution boards and metal frames shall be bonded thereto.
- iii. The earth tape in Sub-Clause (ii) shall be connected by mean of a copper tape or cable of suitable cross-sectional area to an earth electrode which shall be a copper earth rod (see later Sub-Clause).
- iv. All tapes to be soft high conductivity copper, untinned except where otherwise specified and where run underground on or through walls, floors, etc., it shall be served with corrosion resisting tape or coated with corrosion compound and braided.

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- v. Where the earth electrode is located outside the building a removable test link shall be provided inside the building as near as possible to the point of entry to the tape, for isolating the earth electrode for testing purposes.
- vi. Earthing of sub-main equipment shall be deemed to be satisfactory where the sub-main cables are M.I.C.S. or conduit with separate earth wire, and installation is carried out in accordance with the figures stated in the current edition of the I.E.E. Regulations.
- vii. Where earth rod is specified (see Sub-Clause (iii)) it shall be proprietary manufactured, solid hand drawn copper 15mm diameter driven into the ground to a minimum depth of 3.6m. It shall be made up to 1.2m sections with internal screw and socket joints and fitted with hardened steel tip and driving cap.
- viii. Earth plates will not be permitted.
- ix. Where an earth rod is used the earth resistance shall be tested in the manner described in the edition of the I.E.E Regulations, by the Contractor in the presence of the Engineer and the Contractor shall be responsible for the supply of all test equipment.
- x. Where copper tape is fixed to the building structure, it shall be by means of purpose made non-ferrous saddles which space the conductor away from the structure a minimum distance of 20mm. Fixings shall be made using purpose made plugs. No fixings requiring holes to be drilled through the tape will be accepted.
- xi. Joints in copper tape shall be tinned before assembly riveted with a minimum of two copper rivets and seated solid.
- xii. Where holes are drilled in the earth tape for connection to items of equipment the effective cross-sectional area must not be less than required to comply with the IEE Regulations.
- xiii. Bolts, nuts and washers for any fixing to the earth tape must be of non-ferrous material.
- xiv. Attention is drawn to the need for the earthing metal parts of lighting fittings and for bonding ball joint suspension in lighting fittings

Nominal Size		Rod Length	
mm	Inches	mm	Feet
12.51	½ “	1200	4’
16	5/8”	1500	5’
20	¾ “	2100	7’
25	1”	3000	12’
* The imperial sizes have been replaced by the metric sizes in this specification for clarity.			

2416 CABLES AND FLEXIBLE CORDS

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These shall be 600/1000volt grade manufactured to KS 04 – 194: 198 and KS 04 – 187/188 with copper stranded conductors.

The wire armour of the cable shall be used wholly as an earth continuity conductor and the resistance of the wire armour shall have a resistance not more than twice of the largest current carrying conductor of the cables.

The cables in this specification shall conform to IEC 60228, BS 6004, KS 04-194 for 2.5mm², KS 04-187 and for 10mm² PVC SWA cable. Underground cables shall consist of stranded copper conductors, PVC extruded bedding, a concentric layer of steel wire armour, overall PVC sheathing suitable for operation in an earthed system and of rated voltage 600/1000 volts at 50Hz, all in accordance with BS 6346 for metric cable.

All luminaires shall be delivered pre-wired with 8m of 1.5 mm² - 3 core arctic flex: 16.16 Standards: BS7919 Table 44, VDE281. The conductor shall be Class 5 flexible plain copper conductors to IEC 60228 size 2 x 1.5mm² and size 2.5mm² with earth but shall be class 2 for armoured 2-core cables in accordance with IEC 60228. 4.14.5.

All armoured cable cores shall be of equal cross-sectional area of 16 mm² minimum and be of such a size that the requirements of the current IEE Wiring Regulation, BS 7671, are met and allow for a disconnection time not exceeding 5 seconds. Internal wiring between the terminal block in the lantern and the components in the base of the column shall be PVC insulated and sheathed cable of 300/500V grade, have a copper conductor size of not less than 2.5 mm².

All cores shall be correctly colour coded and cables for continuous earth bonding shall be green/yellow PVC insulated single core copper cable of minimum cross section 16 mm² PVC SWA cable rated 600/1000V grade conforming to BS 6004 and KS 04-1122.

The Contractor will, at Engineer's discretion, be required to submit samples of cables for the Engineer's approval. The Engineer reserves the right to call for the cables of an alternative manufacture without any extra cost being incurred.

PVC/SWA/PVC cables shall be terminated using "Telecom B" type or approved equal or approved equal glands and a PVC tapered sleeve shall be provided to shroud each gland. Where cables rise from floor level to switchgear etc., they shall be protected by PVC conduit, to a height of 600mm from finished floor level, whether the cable is run on the surface or recessed into the wall.

The cables shall be laid on 100mm bed sifted soil and covered with a 200mm layer of concrete mix. When passing under roadways and/or driveways, 50 mm ducting as specified shall be provided. No trench shall be backfilled without the approval of the Engineer. Failure to comply with this clause may lead to re-excavation at the Contractor's own expense. Cables shall be "snaked" along their route to allow for ground subsidence and a 2% allowance shall be added to the measured route length.

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All cable measurements shall be deemed to include allowance for the above precautions. “Loop-in” and “Loop-out” arrangements shall be used at every pole and there shall be no joints whatsoever. Wiring to the lanterns on each pole shall be with 2.5mm P.V.C. twin insulated and sheathed cable with earth wire and shall be protected by 6A cartridge fuse. Cables across the roads and at the entrance of the poles shall be laid in ducts. No underground joints shall be permitted.

Aluminum cables shall only be allowed where specifically instructed in writing by the Engineer. Special care shall be taken when terminating aluminum conductors. Conductors to be terminated in a pillar type shall be mechanically sagged and fitted with a phosphor bronze sleeve, whilst those to be terminated with lags shall have these fitted with a purpose made compression tool.

No deviation from the cable route shown on the Contract drawings shall be made for economy or for any other reason without the written approval of the Engineer.

Cable markers of the Standard design shall be installed where shown on the drawings. After installation the cables shall be tested and the results recorded.

2418 CABLE SUPPORTS, MARKERS AND TILES

All PVC/SWA/PVC cables run inside the control pillar shall be by BICC claw type cleating system with die-cast cleats and galvanized mild steel back straps or similar approved equal method. For one or two cables run together the cleats shall be fixed a special channel section supports or back straps described above which shall in turn be secured to walls or ceilings of ducts by raw bolts.

In excessively damp or corrosive atmospheric conditions special finishes may be required and the Contractor shall apply to the Engineer for further instructions before ordering cleats and channels for areas.

The above type of hooks and clamps and channels or cleats and black straps shall also be used for securing cables in vertical ducts.

Cables supports shall be fixed at 50mm maximum intervals, the supports being supplied and erected under this Contract. Saddles shall not be used for supporting cables nor any other type of fixing other than one of the two methods described above or other system which has received prior approval of the Engineer.

Cables are to be kept clear of all pipe work and the Contractor shall work in close liaison with others services Contractors.

The Contractor shall include for the provision of fixing of approved type of coloured slip on cables end markers to indicate permanently the correct phase and neutral colours on all ends.

Provisions shall be made for supplying and fixing approved non-corrosive metal cable markers to be attached to the outside of all PVC/SWA/PVC cables at 15mm intervals indicating cable size and distinction.

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Where PVC/SWA/PVC cables are outside the enclosure they shall be laid underground 750mm deep with protecting concrete interlocking cover tiles laid over which shall be provided and laid under this Contract.

All necessary excavations and reinstatement of ground including sanding or trenches will be carried out by the Contractor, unless otherwise stated.

Cable markers of the Standard design shall be installed where shown on the drawings. Cable route markers shall be installed at 15m intervals. All necessary excavations and reinstatement of ground including sanding or trenches will be carried out by the Contractor, unless otherwise stated After installation the cables shall be tested in accordance with Government Electrical Specification No. 2 and the results recorded.

2422 CABLE ENDS AND PHASE COLOURS

All cables ends connected up in switchgear, MCB panels etc., shall have the insulation carefully cut back and the ends sealed with Hellerman rubber slip on cable end markers.

The markers shall be of appropriate phase colour for switch and all other live feeds to the details of the “Cable Insulation Colours” Clause. Black cable with black end markers shall only be used for neutral cables.

2423 CABLE INSULATION COLOURS

Unless otherwise stated in later clauses, the insulation colours shall be in accordance with table below.

Where other systems are installed the cable colours shall be in accordance with the details stated in the appropriate clause.

System, Lighting & Power	Insulation Colour	Cable End Marker
Main and Sub-mains		
a) Phase b) Neutral	Red Black	Red Black
Sub-Circuits Single Phase		
a) Phase b) Neutral	Red Black	Red Black

2425 SPACE FACTOR

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The maximum number of cables that may be accommodated in given size of conduit or trunking or duct is not to exceed the number in Tables B.5 and B.6 or as stated in Regulations B.91, and B.118 of the I.E.E Regulations whichever is appropriate.

2426 INSULATION

The insulation resistance to earth and between poles of the whole wiring system, fittings and lamps, shall not be less than the requirements of the latest edition of the I.E. Regulations. Complete tests shall be made on all circuits by the Contractor before the installations are handed over.

A report of all tests shall be furnished by the Contractor to the Engineer. The Engineer will then check test with his own instruments if necessary.

2431 CONNECTORS

These shall be as directed by the Engineer with appropriate rating. These shall be fitted lighting fitted at all conduit box lighting point outlets for jointing of looped PVC cables with flexible cables of specified quality.

2433 LAMPS

All lamps shall be suitable for normal stated supply voltage and the number and sizes of lamps detailed on the Drawings shall be supplied and fixed. The Contractor must verify the supply voltage with the supply authority before ordering the lamps.

2434 LIGHTING FITTINGS AND ROAD LIGHTING LUMINAIRE

LED and LED Module Drivers

Drivers shall comply with EN61000-3-2:2000, EN61347-2-13:2006, EN61000-3-3- 2001, BS EN 61347-1, BS EN 61347-2-1, BS EN 61347-2-8, BS EN 61347-2-9 and BS EN 60921:2004 and BS EN 60923:1966 and subsequent amendments as appropriate and be tap selected to specified operating voltage.

All LED drivers shall be contained within the lanterns housing and shall have voltage range of 180 – 250 volts and conform to BS EN 61347-2- 9:2001, BS EN 60921:2004 and BS EN 60923:1996 and subsequent amendments. The LED driver, operating at constant current, shall be housed in a separate gear compartment to LED modules. The driver shall have a minimum operating efficiency of 90%. All terminals shall be shrouded to IP2X so that live parts cannot be accidentally touched.

Drivers shall be compatible with all other components including LED. Drivers shall be stable power consumption over full operating voltage range. Drivers shall indicate all wiring connections and operating voltages via indelible markings. The LED driver shall be protected against overheating by an over-temperature sensing system and have surge protection of 6KV. Failure rate of external

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control gear shall be included in the overall assessment of total life/failure rate. Lumen Maintenance life time testing shall be in accordance with LM80 or equivalent.

Maintained Luminous Flux at 25% rated life shall be greater than 90%, ie Lumen Maintenance LED flux and luminaire data shall be presented for an ambient temperature of 15% Celsius. Led light source data shall be measured at a junction temperature of 25% Celsius. Colour temperature (CCT) of the LED's shall be 3500 (Kelvin). Colour Temperature tolerances beyond a 5 step Macadam ellipse are not acceptable. Rated Colour Rendering Index shall be code 7 (CRI) range 67-76) or greater. Each LED shall be mounted beneath an individual lens providing photometric footprint base on an overlay methodology be mounted within a self-contained module (LED module) that can be removed, replaced using simple tools and lenses and manufactured from optical grade polycarbonate or PMMA acrylic thermoplastic. The proposed equipment shall be flexible and allow for easy installation of upgrades and replacements.

All luminaires shall comply in all respects with the latest edition of the British Standard and European Norms, be suitable for residential road lighting as defined 14.3 in 14.3 BS 5489-1:2013, BS EN13201-2:2003 and BS EN13201-3:2003, BS EN 13032:1 2004, and subsequent amendments. All Electrical Equipment shall be installed to that levels of radio interference given in BS EN 55014-1 or equivalent are not exceeded. The system power factor shall be greater than 0.85 at full power. All luminaires shall be supplied fully assembled in all respects with LED.

This Contract shall include for the provision, handling charges, taking the delivery, safe storage, wiring (including internal wiring) assembling and erecting of all lighting fittings shown on the Drawings.

All fittings and pendants shall be fixed to the conduit boxes with brass R/H screws. These to be in line with metal finishing of fittings. The lighting fittings are detailed for the purpose of establishing a high standard of finish and under no circumstances will substitute fittings be permitted.

The whole of the metal work of each lighting fittings shall be effectively bonded to earth. In the case of ball and/or knuckle joints short lengths of flexible cable shall be provided, bonded to the metal work on either side of the joints. If the above provisions are not made by the manufacturers, the Contractor shall include cost of additional work necessary in this tender. See "Flexible Cords" Clause for details of internal wiring of lighting fittings. Minimum size of internal wiring shall be 20/0.2mm (23/0067). Each lighting fitting shall be provided with number type and suspended as shown on the Drawings.

Road lighting luminaires shall be side entry for 200W LED Road Lighting Luminaire, CCT 3500K, with minimum 18000Lm lighting output, over 50,000hours lamp life, corrosion proof to IP65; The Luminaire should be engraved with KeNHA Logo and colours as directed by the Engineer.

2435 POSITIONS OF POINTS AND CONTROL PILLARS

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Although the approximate positions of all points are shown on the Drawings enquiry shall be made as to the exact positions of all MCB panels, lighting points, etc., before it is actually commenced. The Contractor must approach the Engineer with regard to the final layout of all lights on the road.

The Contractor must consult with the Engineer on site regarding the positions of all alterations made necessary by the non-compliance with the Clause.

2436 ROAD LIGHTING COLUMNS

General requirement

The design, manufacture and installation of lighting columns and brackets shall comply with BS EN 40-1 & 2; BS EN 40-3-1 and BS EN 40-3-3 (BS 5649 – relevant parts) for the design; BS EN 1991-1-4 for wind actions; BS EN 1993-1-1 for structural strength.

The design life shall not be less than 25 years, unless otherwise. Columns and brackets shall be designed to satisfy the relevant ultimate limit states and the serviceability limit state, including, for steel structures, meeting fatigue criteria in accordance with EN 1993-1-1 especially for:

- a. The flanges – at the weld throat between the column and flange; in the parent metal adjacent to the weld; any stiffening between the column and the flange
- b. Door openings - at welded attachments and at poorly finished cut edges;
- c. Shoulder joints - at the weld throat and in the parent metal adjacent to the weld.

The dimensional requirements for lighting columns shall be in accordance with EN40-2. The overall dimensional limitations for the lighting brackets and columns covered by this specification shall be:

- a. Post top columns (for floodlights) – 12m nominal height
- b. Columns with brackets (for LED luminaire) 8m and 10m nominal height
- c. Bracket projections - not exceeding the lesser of 0.25 x nominal height or 3 m

The minimum thickness of structural steel sections used in column and bracket design shall be as follows:

- Plates and sections other than hollow sections shall be 6 mm
- Hollow sections effectively sealed by welding, other than a small drain hole with a diameter of between 10mm and 15mm shall be 5 mm

The end plates measuring 375 x 375mm shall be joined by continuous structural quality welding to BS EN 1011: Parts 1 and 2. Should there be a possibility of water entering and subsequently freezing, then drain holes shall be provided. The size of the hole shall be appropriate to the void being drained, but shall not be less than 10 mm or greater than 15 mm diameter. Hollow sections in non-corrosive or galvanized steel shall be provided with such drain holes at all low points. The method of joining

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the base section and the shaft shall be by a swage joint with an internal centralizing washer. All welding procedures shall be in accordance with the requirements of BS EN 288 and all welders approved to the requirements of BS EN 287 with welding carried out in accordance with BS EN 1011: Parts 1 and 2.

Where a separate bracket is fixed to a column, the assembly of the column shaft and bracket shall incorporate a mechanical locking system using stainless steel bolts, in addition to high tensile socket headed securing screws and it shall be possible to fix the bracket in any of 4 x 90° positions relative to the door opening. When correctly fixed, the design of the bracket shall not allow any movement of the bracket either vertically or horizontally with respect to the column. At the point of interconnection, the cross-section of the bracket shall, preferably, equal that of the column shaft. Brackets shall blend with their columns, in material, finish and colour and shall be as short as practicable.

Base compartments shall afford easy access to cable terminations and wiring. All electrical equipment mounted in the base compartment shall be securely fixed to a 15mm minimum thickness backboard which shall be of a non-hygroscopic material of sufficient size to accommodate any control gear and cable termination units.

Doors, shall be sealed to minimum IP33, shall be provided with a substantial and positive, triangular-headed, tamper proof lock. The locking mechanism shall be lubricated with grease immediately following installation and if necessary prior to adoption. The earthing terminal shall be provided for steel columns and their doors shall comprise a brass or stainless-steel bolt, size M8, complete with nuts and washers. The column shall have a cable entry slot 75mm in width.

Columns and brackets shall be manufactured from welded carbon steel tube to BS EN 10210, steel grade S355J2, with minimum tensile strength of 470-630 MPa, minimum yield strength of 355 MPa and minimum percentage elongation of 22% or equivalent as detailed below:

- (i) Circular tubular steel manufactured from cold-formed hollow sections without heat treatment with constant shaft diameter above the base compartment.
- (ii) Continuously tapered steel with either circular cross-section.

Sizes

The size of the columns shall be 8m and the brackets shall be 1.2m in accordance with the drawings. Columns complete with brackets shall be supplied and installed together as complete. All columns shall be fastened/bolted in anchor bolts on a 300mm concrete foundations.

2437 TIMING CONTROL SWITCH

These shall be installed with a 24-hour Timer switch with 200hr reserve (Omron) which will operate on a present timing. It shall be installed in every Control Pillar to serve the lighting fittings served by that particular control pillar. The initial adjustment will be done with the approval of the Engineer.

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The timer for road lighting shall be a digital-type timer rated 230V AC, 50Hz in single frame of size capable of carrying a load of 6 kW to 12 kW manufactured to IEC60439-3. The timers shall be of type 50Hz net-synchronization or type quartz control with a self-power reserve to secure the time setting and program storage in case a power interruption does occur. The timers shall allow one to set the ON and OFF time. The switching of road lighting shall be repeated every day as per the set time through Programmable 24 hours' Time Switch / Programmable Astronomical Time Switch.

The program shall consist of a closing time and an opening time for a circuit. The timers shall have a Programmable Time Switch (PTS) that shall automatically adjust the set time along with seasonal variation to control ON /OFF for lighting on purpose of realizing that light is turned ON when sun sets & turned OFF when sun rises. This time switch is programmed on latitude base for whole year for sun rise and sun set timing. The timer selection mode shall be by Auto or Manual Selector switch. The timers shall be for wall mounting on cubicles and shall be pre-wired ready for use.

The technical characteristics (depending on type) of the timers shall be:

- ii) Modular design.
- iii) Time adjustment by 50 Hz net, quartz.
- iv) Maximum two (2) channel output.
- v) Manual override switching function.
- vi) Power reserve for all quartz and DCF controlled timers.

The following features shall be present:

- a) Easily programmable on front of device.
- b) Computer aided programming software available.
- c) Compact 18 mm design for restricted space opportunities.
- d) Separate IP40 covers are available for direct wall mounting.
- e) High level of accuracy.
- f) Maximum lamp load test data for reference.
- g) Automatic time adjustment.
- h) Holiday & Random program settings.
- i) High power reserve up to 10 years.

2438 WIRING SYSTEM FOR ROAD LIGHTING

Cables shall be 10mm² 4-core as indicated on the Drawings, and shall be laid in a cable trench 600mm deep along the road side and 900mm deep across the roads and 900mm away from the road kerb or 1,500mm away from the edges of the road. "Loop-in" and "loop-out" arrangement shall be used at every pole. Wiring to the lanterns on each pole shall be with 2.5mm² PVC twin insulated and sheathed cable with earth wire. Underground cables shall be laid at least 600mm below the finished road level on a compact bed of murrum at least 50mm thick and covered with a concrete surrounded 300mm x 100 mm thick.

2439 METAL CONTROL PILLAR

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The control pillars shall be designed and manufactured in accordance with IEC 61439-1 and IEC 61439-3. The pillar shall be constructed from not less than 3mm thick galvanized mild steel with the minimum galvanization thickness of 85µm in accordance with ISO 1461, and a further treatment of the galvanized surface by degreasing and left with a smooth finish to prepare for painting.

The pillar shall be sealed to minimum IP65 on the doors. They shall include a full-size backboard of varnished marine plywood at least 15mm thick or other approved non-hygroscopic material. Alternatively, a purpose-designed equipment mounting system may be used. The designed shall be fitted with tamper-proof “O locks”, all locks being identical in pattern. The locking mechanism shall be lubricated with grease immediately following installation. All doors are to be provided with an earthing strap.

The ventilation shall be provided to prevent the build-up of condensation and in such cases the control pillar shall be protected by vermin proof screens. The control pillars shall be suitable for mounting on a 300mm thick foundation of concrete mix complying with BS 5328 – 1:1997. They shall be rooted or provided with fixing bolts to enable the unit to be securely located. The entry for cables shall be via the root.

The control pillars shall be sized according to the drawings attached but shall be sufficient to accommodate:

1. The incoming supply cable including cut-out.
2. MCCB/A lockable double pole isolator [if not included in the cut-out].
3. Any contactor and/or photocell relay.
4. A distribution board for all highways electrical feeds including sufficient spare capacity to accommodate at least one extra circuit.
5. MCBs.
6. At least 25% spare space on the backboard upon completion.
7. Timers
8. ELCB/RCD (Residual current Device)
9. KPLC Meter

Distribution fuse boards of the HRC type shall be provided with an external earth, phase barriered and colour coded. They shall be fitted with the same number of live and neutral bus bar terminals as there are outgoing circuits plus at least one spare way. A circuit diagram and labelling showing details of interconnection of equipment and the connection of cables to and from the pillar, all indelibly drawn or engraved on a material not subject to damage by the environment or normal use, shall be securely fixed internally to each feeder pillar after completion of the installation.

An earthing system shall be provided in each control pillar. It shall accept the incoming earth facility from the supply authority onto an earthing bar or terminal strip and interconnect all outgoing cable earth connections and the bonding of the feeder pillar. The earthing facility shall accommodate up to 25mm² earth conductors. All control pillars shall be fitted with a durable warning sign, fitted

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externally and in a prominent position, indicating “**DANGER 415 VOLTS**” or “**DANGER 240 VOLTS**” as appropriate and a ‘lightning flash’ in black on yellow. The Contractor shall cover the control pillars in concrete covers as directed by the Engineer.

2440 CURRENT OPERATED EARTH LEAKAGE CIRCUIT BREAKER

The Earth Leakage Circuit Breaker (ELCB) shall be current operated with a sensitivity of 30mA and shall conform to IEC 61008 and BS 4293. The ELCB shall incorporate a residual current operated electromagnetic release which operates without any auxiliary source of supply to open a circuit automatically in the case of an earth leakage fault between phase and earth greater than or equal to $I_{\Delta n}$. The ELCB shall operate and switch off the circuit within 30 milliseconds in case of a fault. The ELCB shall be suitable for the circuit of 50Hz, rated voltage 230/400V, and rated current at least 40Amps.

Features The ELCB shall have the following features;

1. Overload, short circuit and over voltage protect functions.
2. Electrical distribution system to prevent electric shock.
3. A trip free mechanism that operate even on neutral failure.
4. A test button to simulate leakage and to test the ELCB.

No.	Particulars	Requirement
1.	Number of Poles	1P+N
2.	Rated Current (A)	40
3.	Rated Residual Operating Current ($I_{\Delta n}$)(mA)	30
4.	Rated Residual Non-operation Current (I_{no})(mA)	$0.5I_{\Delta n}$
5.	Rated Voltage (V)	230/400
6.	Residual Current Off-time	0.1S
7.	Short Circuit Capacity (I_{cu})	3000A
8.	Endurance	4000A

Current operated earth leakage breaker shall conform to B.S.S. 4293: 68 rated at 240volts D.P. 50cycles AC Mains.

The breaker shall be provided with test switch and fitted in weather proof enclosure for surface mounting. The rated load current and earth fault operating current shall be specified in the Drawings. These shall be as manufactured by Crabtree, Siemens or other equal and approved. They shall be of the high sensitivity type i.e. they will trip in 0.030milliseconds for a leakage current of 30mA and shall be of a type not requiring a mains supply to operate the trip mechanism under fault conditions such as the Crabtree or the Siemens 30Ma model.

CONTACTORS

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The contactor shall be three-pole contactors on three-phase a.c designed and manufactured in accordance with IEC 61095 and IEC 60947-4-1 standards. The contactor shall be suitable for switching of lamp loads in both utility as well as industrial areas. The contactor shall be very specific due to the applied operating coil and the construction of the main contacts. They shall be designed with AC coils to ensure silent operation and enhanced low power consumption. The contactor with its enclosure shall be designed and constructed to withstand the stresses occurring during installation and normal use and, in addition, shall provide a specified degree of resistance to abnormal heat and fire as per clause 8.1 of IEC 61095.

The moving contacts of the contactors intended to make and break together shall be so mechanically coupled that all poles make and break substantially together whether operated manually or automatically. The contactors shall close satisfactorily at any value between 85 % and 110 % of their rated control supply voltage U_s . Where a range is declared, 85 % shall apply to the lower value and 110 % to the higher as per clause 8.2 of IEC 61095. The contactors shall offer optimal contacts and low heat dissipation to guarantee a long lifetime and a wide range of characteristics. The following features shall be part of the design of the lighting contactors:

- vii) It shall be an AC current operated type rated 120A with double-pole contacts and optional add-on auxiliary contact.
- viii) The coil voltages shall be at least 230 V ac
- ix) Shall have a DIN modular profile. Spacers available to extend lifetime (it is recommended to use 1 spacer between every 2 contactors installed).
- x) Day/night operation with manual override function.
- xi) Low inrush power for all ac types.
- xii) Integral contact indication.

The contactor shall be suitably rated for operating lighting circuits of luminaires rated 200W respectively and shall be rated.

2442 STEEL CONDUITS AND STEEL TRUNKING

Conduits shall be of heavy gauge class “B” welded to Standard Specification KS 04-180 :1985. In no case will conduit smaller than 20mm diameter be used on the works. Conduits installed within buildings shall be black enameled finish except where specified otherwise. Where installed externally or in damp conditions they shall be heavy galvanized. Conduit fittings, accessories or equipment used in conjunction with galvanized conduit shall also be galvanized or otherwise as approved by the Engineer.

Metal trunking shall be fabricated from mild steel of not less than 18swg. All sections of trunking shall be rigidly fixed together and attached to the framework of fabric or the building at intervals of not less than 1.2m. Joint trunking shall not overhang fixing points by more than 0.5m.

All trunks fittings (i.e bends, tees, etc.) shall leave the main through completely clear of obstructions and continuously open except through walls and floors at which points suitable fire resisting barriers

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shall be provided as may be necessary. The inner edge of bend and tees shall be chamfered where cables larger than 35mm² are employed.

Screws and bolts securing covers to trunking or sections of covers together shall be arranged so that damage to cables cannot occur either when fixing covers or when installing cables in the through. Where trunking is used to connect switchgear of fuse boards, such connections shall be made by trunking fittings manufactured for this purpose and not by multiple conduit couplings.

Where vertical sections of trunking are used which exceed 4.5m in length, staggered tie off points shall be provided at 4.5m intervals to support the weight of cables. Unless otherwise stated, all trunking systems shall be painted as for conduit. Where a wiring system incorporates galvanized conduit and trunking, the trunking shall be deemed to be galvanized unless specified otherwise. The number of cables to be installed in trunking shall be such as to permit easy drawing in without damage to the cables, and shall in no circumstances be such that space factor of 45% is exceeded.

Conduit and trunking shall be mechanically and electrically continuous. Conduit shall be tightly screwed between the various lengths so that they butt at the socketed joints. The internal edges of conduit and all fittings shall be smooth, free from burrs and other defects. Oil and any other insulating substance shall be removed from the screw threads. Where conduits terminate in fuse gear, distribution boards, adaptable boxes, non-spouted switchboxes, etc., they shall, unless otherwise stated, be connected thereto by means of smooth bore male brass bushes, compression washers and sockets.

All exposed threads and abrasions shall be painted using an oil paint for black enameled tubing and galvanized tubing immediately after the conduits are erected. All bends and sets shall be made cold without altering the section of the conduit. The inner radius of the bend shall not be less than four (4) times the outside diameter of the conduit. Not more than two right angle bends will be permitted without the inter-position of a draw-in-box. Where straight runs of conduit are installed, draw-in-boxes shall be provided at distances not exceeding 15m. No tees, elbows, sleeves, either of inspection or solid type, will be permitted.

Conduit shall be swabbed out prior to drawing in cables, and they shall be laid so as to drain of all condensed moisture without injury to end connections.

Conduits and trunking shall be run at least 150mm clear of hot water and steam pipes, and at least 75mm clear of cold water and other services unless otherwise approved by the Engineer.

2443 TESTING ON SITE

The Contractor shall conduct during and at the completion of the installation and, if required, again at the expiry of the maintenance period, tests in accordance with the relevant sections of the current edition of the Regulations for Electrical Equipment of Building issued by the I.E.E. of Great Britain, the Government Electrical Specification and the Electric Supply Company's By-Laws.

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- a) Tests shall be carried out to prove that all single pole switches are installed in the “live” conductor and that each earth pins effectively bonded to the earth continuity system. Tests shall be carried out to verify the continuity of all conductors of each circuit.
- b) any faults, defects or omissions or faulty workmanship, incorrectly positioned or installed parts of the installation made apparently by such inspections or tests shall be rectified by the contractor at his own expenses.
- c) The contractor shall provide accurate instruments and apparatus and all labour required to carry out the above tests. The instruments and apparatus shall be made available to the Engineer to enable him to carry out such tests as he may require.

The contractor shall generally attend on other contractors employed on the project and carry out such electrical tests as may be necessary.

The contractor shall test to the Engineer’s approval and as specified elsewhere in this specification or in the standards and regulations already refereed to, all equipment, plant and apparatus forming part of the works and before connecting to any power or other supply and setting to work.

Where such equipment etc. forms part of or is connected to a system whether primarily or of an electrical nature or otherwise (e.g CCTV) the contractor shall attend on and assist in balancing, regulating testing and commissioning, or if primarily an electrical or other system forming part of works, shall balance, regulate, test and commission the system in the Engineer’s approval.

SECTION 25: POLE MOUNTED SOLAR ROAD LIGHTING SYSTEM

This specification is to be read in conjunction with the drawings which are issued with it. Bills of quantities shall be the basis of all additions and omissions during the progress of the works. This specification defines minimum requirements, but tenderers who offer superior facilities will be considered.

This specification defines minimum requirements and covers the following items:

- a) Battery
- b) Solar panel
- c) LED Light
- d) Controllers
- e) PV Bracket, Lamp Pole and Ancillary Equipment
- f) Monitoring system

a) Battery

The battery shall be rated 24V and charge capacity as specified in the bills of quantities. The battery shall be of long-lasting maintenance free capable of a 10-year optimal operation. Any tender which does not comply with the minimum requirements will be rejected.

The battery shall meet the following minimum requirements.

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a) Battery technology:	Nickel metal hydride battery (NIMH) or Lithium Iron Phosphate (LiFePO ₄)
b) Voltage:	24V dc
c) Operating temperature:	from -40°C to +70°C
d) Battery capacity:	135Ah or Based on Contractor's sizing calculation to rationalize chosen/indicated battery capacity.
e) Service life:	>4000 cycles – i.e. service life of 10 years
f) Warranty (manufacturer):	5 years on battery (Contractors to provide warranty document from manufacturer) and 10-year floating design life
g) Battery box	○ The battery must be held in a box independently from the solar panel. ○ The battery box must be BS-IP 65 rated and made of high strength polypropylene with anti-UV treatment. ○ The battery housing/box must be independently installed on the pole away from the solar panel and the luminaire/LED fixture and appropriately ventilated. ○ The battery technology and the energy management system should have a remote monitoring system for ease of remote system operational oversight.
h) Battery position:	Battery shall be installed on top of the pole as an anti-theft mechanism and offer safety.
i) Weight	low weight <25 kgs
j) anti-theft and anti-vandalism design	Battery charge and discharge unique control systems have a mechanism to deter theft and vandalism

b) PV Module

The panel shall be capable of providing power output at maximum solar input (at midday). The minimum power output at the lowest level of sunlight (sunset or cloudy weather shall not be below the specified output.)

The panel shall be fixed securely on a platform. It shall be installed titled at the specified angle designed to maximum sunlight such that the entire sun rays are approximately directly perpendicular to the panel throughout the day.

For the purpose of this specification the sizes of the panels shall be as below:

a) Technology:	Monocrystalline silicon
b) Nominal power:	260 to 310 -watt peak (W_p) Based on attached system sizing Calculation supplied by Contractors to rationalize their chosen W_p
c) Efficiency:	Minimum 16%

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d) IP rating:	IP67
e) Service life:	> 25 years
f) Panel Warranty:	12-years.
g) Production Warranty:	15 years at 90% of nominal power 30 years at 80% of nominal power 40 years of lifetime
h) Solar panel frame:	Anodized aluminum alloy frame
i) Temperature tolerance:	40 - 85°C
j) Marking:	EC
k) STC irradiance:	1000w/m ² , cell temperature 250 centigrade.
l) Standards:	IEC-61215 IEC-61730 I and II with a global 3rd party certification of the indicated standards.
m) Clearance of Deposits at the bottom plane	Clear of any obstruction at the bottom of inclination avoid accumulation of deposits

Panels shall be tested under Standard Test Conditions (STC) at 1000W/M² at air mass of 1.5kg/m³ and cell temperature of 25°C. The result shall be presented in a current/voltage curve or graph.

The nominal peak power for each module as measured in the test in watts peak (WP) shall not be below 32 – 42 Volt range.

Each module shall have at its output terminals Blocking diodes connected in series with a string to protect the module from reverse current flow from either the adjacent module or battery bank.

The panels shall be protected from lightning and surges. The surge protecting devices shall be Circuit Breakers installed at the final output of PV array. It shall protect the array from reverse surges from battery bank or inverters.

Bypass diodes may be placed around a module that is likely to have localized shading. It provides a current path around such a shaded module.

The panels shall be installed tilted to reduce dust accumulation and allow for self-cleaning. The panel should be tilted at a minimum 10° due south. Dust may cause power reduction of about 10% Tilts also allow for rain cleaning of the panels. However, the panels shall be cleaned immediately the works are completed and approved.

c) LED Light

The lamps shall be patented in one design 90 to 150watts LED (Light emitting diode) streetlight. The LED light shall have the following features

- Chips outstanding energy saving performance
- Instant start and flicker free to reduce the eye strain
- Very even light distribution and high uniformity, no glare to eyes

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- Good colour rendering, vivid colours under the light
- 5-year warranty

a) LED chip brands:	Luxeon or equivalent
b) Nominal power:	90-150 watts LED
c) Voltage:	DC-24V
d) Lamp location:	Independent from the solar panel, on a horizontal arm, at the top of the pole
e) Light efficiency:	190 lumens / Watt
f) CRI (Color rendering index):	>75
g) Color temperature:	3500K
h) Operating temperature:	-30°C/+70°C
i) IP rating:	IP 65
j) Manufacturer on life span:	>104 000 h
k) Assembly of the lamp:	on a powder-coated steel arm
l) Heat management	Extruded aluminum heat sink and the heat sink must be in direct contact with the open air
m) Certification	3rd party certification of the LED fixture specs

d) Charge Controller

The controller should meet the following minimum requirements.

a) Device:	Electronic Management card
b) Material:	Composite of reinforced epoxy resin FR4 or equal and approved
c) Coating:	Tropicalized, double varnishing
d) LED control:	DC-DC drivers integrated to the electronic card
e) Lighting program:	Permanent according to the program to Engineer's approval
f) Manufacturer life span to exceed:	15 years with a 10-year minimum working life.
g) IP rating:	IP 65 waterproofing with external temperatures sensors (working temperature -35 to +60)
h) Operation indicator:	Light signal/sensor on the electronic card automatically tracing solar panel max charging current
i) Operation indicator:	Light signal/sensor on the electronic card automatically tracing solar panel max charging current
j) Load control	Protection against overloads Protection against overheating

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	Optimized load control Automatic balance of the cells Evaluation of the battery state of charge with high precision Management and control of the energy: Automatic switch on and off by twilight detection or programmable according to required light profile. Anti-blackout system integrated to the battery on tropicalized circuit board
k) Battery autonomy:	guaranteed lighting 365 nights per year every night.

e) Remote Monitoring System

The bidder will set up a monitoring interface that will enable the solar streetlights park to be monitored remotely. Communication and SIM card costs will be borne by the supplier. The parameters for managing the monitored streetlights must cover their operating status and performance diagnostics (solar panel output, battery charge status, switch-on and switch-off times, CO2 saved, signal status, detection of operating faults, etc.).

The characteristics are as follows:

Communication protocol	LoRa or equivalent
Frequency	868MHz
GSM coverage	3G/4G network
Mapping	Automatic mapping with geolocation of each solar streetlight and display of individual streetlights or groups of streetlights
Data availability	Online via a secure connection

f) PV Bracket, Lamp Pole and Ancillary Equipment

The equipment should meet the following minimum requirements.

- Minimum Manufacturer warranty of 10 years with a working life 25 year.
- Anti-rust Q235 steel pole hot dip galvanized surface treatment along with additional polyester powder coating minimum 3.0mm thickness.
- Compliant with IEC 60598 public lighting safety requirements
- Anti-toppling foundation pole with ability to resist wind speeds exceeding 100 km/hr.
- High visibility anti-accident reflector painting on poles base.
- Battery enclosure to be at the top of the pole.
- A specialized security system individual to each installation preventing theft of components.
- 8.0m high with single/double horizontal arm of at least 100 cm or as specified in the B.Q.
- Cylindrical-conical pole 8 meters (inside & outside as per BSEN ISO 1461 steel pole with additional polyester coating. 6mm thick, top plate diameter of 85mm and root diameter of 247mm with a reflective paint at the bottom with single/double arm and tube 3mm

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thick, 60mm diameter and 800mm long, in hot-dipped galvanized steel with anchor bolts.

- j. Foundation kit, 1200mm deep with a radius of 450mm, casted with class 20 concrete reinforced with 100kg of steel work per cm³ of concrete.
- k. The pole shall be anchored with 4 No. 20mm diameter J – bolt.

1. Standard of Materials

The Contractor shall adhere to the material and equipment specifications described and named in this Specification. Should the Contractors install any material not specified herein before receiving approval from the proper authorities, the Engineer shall direct the Contractor to remove the material in question immediately. The fact that this material has been installed shall have no bearing or influence on the decision by the Engineer.

All materials condemned by the Engineer as not approved for use, are to be removed from the premises and suitable materials delivered and installed in their place at the expense of the Contractor. All materials required for the works shall be new and the best of the respective kind and shall be of a uniform pattern.

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

- a. Technical data sheets
- b. Dialux Simulation reports for the approved LED fittings
- c. Simulation of the solar system for the mini grid
- d. manufacturer's standard samples of Materials and samples specified in the bid documents, all at the Contractor's cost, and
- e. additional samples instructed by the Engineer as a Variation. Each sample shall be labelled as to origin and intended use in the Works. The Engineer's Personnel shall at all reasonable times
- f. during production, manufacture and construction (at the Site and elsewhere), be entitled to examine, inspect, measure and test the materials and workmanship, and to check the progress of manufacture of Plant and production and manufacture of Materials.
- g. The Contractor shall give the Engineer's Personnel full opportunity to carry out these activities, including providing access, facilities, permissions and safety equipment. No such activity shall relieve the Contractor from any obligation or responsibility.

2. Drawings

Before manufacture or fabrication is commenced the Contractor shall organize for a Factory Acceptance Test in addition to the submission of two copies of detailed drawings of all Battery, Solar panel, LED light, Intelligent management and control system, PV bracket, Lamp pole and Ancillary equipment including their components showing all pertinent information including sizes, capacities, construction details, etc., as may be required to determine the suitability of the equipment for the approval of the Engineer.

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3. Record Drawings

These diagrams and drawings shall show the completed installation including sizes, and arrangements of the installation. The drawings shall be to scale not less than 1:50 and shall include plan views and section.

The drawings shall include all the details which may be useful in the operation, maintenance or subsequent modifications or extensions to the installation.

Three sets of diagrams and drawings shall be provided, all to the approval of the Engineer. One colored set of line diagrams relating to operating and maintenance instructions shall be framed and, mounted in a suitable location.

Solar PV design drawings, manuals and software must be provided.

4. Regulations and Standards

All work executed by the Contractor shall comply with the current edition of the “Regulations” for roads and public lighting, issued by the British and European standards (EN40 and EN 13201), and with the Regulations of the Local Electricity Authority or equal and approved codes, or the competent Authority.

Where the two sets of regulations appear to conflict, they shall be clarified with the Engineer. All materials used shall comply with relevant Kenya Bureau of Standards Specification.

5. Tests

11.1 General

Installation tests shall be carried out throughout the works, whenever it is necessary, and at the end of the works. Tests shall be consistent with the specifications of the bid document and the standards in force.

The Contractor shall supply, without any additional payment, all equipment, analytical instruments, and labor necessary for conducting these tests. Analytical instruments shall be sealed and supplied with recent calibration certificates provided by an official laboratory. All tests shall be carried out on the responsibility of the Contractor.

In the event of a failure of the tests, tests shall be repeated after the Contractor has carried out the necessary repairs or replacements.

The results of the tests shall be set out in a report signed by the Engineer or his representative and by the Contractor.

11.2 Types of Tests

Tests shall comprise, but shall not be limited to, the following:

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Visual Inspection

- Checking the state of the equipment and the quality of work;
- Checking levels and alignments;
- Verifying the effective characteristics of the equipment.
- Measurement of the Insulation and Circuitry Continuity

This test shall be conducted on the various circuits after receivers have been removed.

(a) Operation Tests

All electrical equipment shall be tested when operating in order to verify conformity with the specifications of the tender document and the installation regulations.

(b) Performance Tests

These tests shall be conducted in order to verify the features of the installations and conformity with the standards in force.

The Contractor shall conduct any other test deemed necessary by the Engineer in order to verify the condition and the functioning of the installations.

6. Rejection

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

If the Engineer requires this Plant, Materials or workmanship to be retested, the tests shall be repeated under the same terms and conditions. If the rejection and retesting cause the Employer to incur additional costs, the Contractor pay these costs to the Employer in accordance to the with the bid documents.

PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD LIGHTING OF NGONG ROAD INTERCHANGE – GITARU (A8S) ROAD

SUPERVISION CHECKLIST

Supervision Check List

Project Name:		PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD LIGHTING OF NGONG ROAD INTERCHANGE – GITARU (A8S) ROAD										Date	Signatures	
1. This checklist is for Resident Engineer to check Contractor's work execution process. 2. Fill in date of checking as (day/month), mark as indicated in Filling Example, and state remarks. 3. Put this check list in the Monthly Progress Report.												The Engineer's Representative (Project Engineer)		
												Resident Engineer		
Item		Check Point	before	During execution								after	Remarks	
				Date	Date	Date	Date	Date	Date	Date	Date			Date
			/	/	/	/	/	/	/	/	/	/	Reason for unsatisfactory performance (Site diary No.) Corrective order by authority (Date) Excellent point to be specified	
1	Execution system in general	1-1	Works Execution Programme (including its revised version if any) is	☐	☐	☐	☐	☐	☐	☐	☐	☐		

**PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD LIGHTING OF NGONG ROAD INTERCHANGE – GITARU (A8S)
ROAD**

Supervision Check List

			submitted before the date specified in contract document										
		1-2	Works Execution Programme properly reflects the given specifications and site conditions	☐	☐	☐	☐	☐	☐	☐	☐	☐	
		1-3	Execution procedures are in accordance with Works Execution Programme		☐	☐	☐	☐	☐	☐	☐	☐	
2	Equipment holding	2-1	All equipment used are properly mobilized in		☐	☐	☐	☐	☐	☐	☐	☐	

**PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD LIGHTING OF NGONG ROAD INTERCHANGE – GITARU (A8S)
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Supervision Check List

			accordance with Works Execution Programme										
		2-2	All equipment used is well maintained during the execution of works		☐	☐	☐	☐	☐	☐	☐	☐	
3	Contractor's in-house staff	3-1	Qualified technical staff of Contractor are properly assigned as specified in Works Execution Programme		☐	☐	☐	☐	☐	☐	☐	☐	
		3-2	Contractor's in-house key staff understand work process and		☐	☐	☐	☐	☐	☐	☐	☐	

**PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD LIGHTING OF NGONG ROAD INTERCHANGE – GITARU (A8S)
ROAD**

Supervision Check List

			schedule properly										
		3-3	Contractor's in-house staff give technical guidance and direction to workers and operators properly and timely		☐	☐	☐	☐	☐	☐	☐	☐	
		3-4	Communications with authority in writing is properly and timely		☐	☐	☐	☐	☐	☐	☐	☐	
4	Personnel employment	4-1	Workers and operators are deployed in accordance with Works		☐	☐	☐	☐	☐	☐	☐	☐	

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ROAD**

Supervision Check List

			Execution Programme										
		4-2	Wage payment is properly made on time		☐	☐	☐	☐	☐	☐	☐	☐	
5	Site base facilities	5-1	Office and stockyard are prepared in accordance with Works Execution Programme		☐	☐	☐	☐	☐	☐	☐	☐	
		5-2	Site is well maintained during the work execution and cleared on completion		☐	☐	☐	☐	☐	☐	☐	☐	
		5-3	Material stored on site is		☐	☐	☐	☐	☐	☐	☐	☐	

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Supervision Check List

			properly managed during the work execution										
6	Quality and quantity management	6-1	Material testing, structural examination, and measurements are properly and Periodically conducted based on specifications and Works Execution Programme		☐	☐	☐	☐	☐	☐	☐	☐	
		6-2	Results of material testing, structural examination and		☐	☐	☐	☐	☐	☐	☐	☐	

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Supervision Check List

			measurements are within the specifications.										
		6-3	Results of material testing, structural examination, and measurements are properly compiled as reports for confirmation		☐	☐	☐	☐	☐	☐	☐	☐	
7	Work scheduling	7-1	Understanding of critical path and its reflection on scheduling is proper		☐	☐	☐	☐	☐	☐	☐	☐	
		7-2											

**PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD LIGHTING OF NGONG ROAD INTERCHANGE – GITARU (A8S)
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Supervision Check List

			Actual proceedings are periodically compared to the planned schedule described in Works Execution Programme		☐	☐	☐	☐	☐	☐	☐	☐	
		7-3	Changes caused by site conditions are properly handled to keep things on schedule		☐	☐	☐	☐	☐	☐	☐	☐	
		7-4	All works are completed within the contract term or within the extended									☐	

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Supervision Check List

			term as allowed										
8	Work safety management	8-1	No accident occurs to workers, operators, or third-parties.		☐	☐	☐	☐	☐	☐	☐	☐	
		8-2	Safety of workers and operators is considered		☐	☐	☐	☐	☐	☐	☐	☐	
		8-3	Accident prevention efforts for third-parties are proper		☐	☐	☐	☐	☐	☐	☐	☐	
		8-4	Traffic and site safety devices are properly installed and managed		☐	☐	☐	☐	☐	☐	☐	☐	
		8-5											

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Supervision Check List

			Temporary facilities (e.g., scaffolding) are constantly checked		☐	☐	☐	☐	☐	☐	☐	☐		
9	Environmental and social management	9-1	Environmental and social mitigation efforts (e.g., against noise, vibration, emission, and dust) are conducted		☐	☐	☐	☐	☐	☐	☐	☐		
		9-2	Waste material from site is properly disposed		☐	☐	☐	☐	☐	☐	☐	☐		
		9-3	Damage to existing roads,		☐	☐	☐	☐	☐	☐	☐	☐		

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Supervision Check List

			works and services is avoided or are repaired when it occurs										
		9-4	No overloading for work-related vehicles is reported										

Filling Example: ✓ Check point is satisfactory ■ Check point is unsatisfactory N/A Not applicable

SECTION VII – BILLS OF QUANTITIES

BILLS OF QUANTITIES

The tender includes the following Bills of Quantities:

- i) Bills of Quantities for Maintenance Services
- ii) Bills of Quantities for Rehabilitation/Improvement Works

A. BOQ SUMMARY

Bill No.	Description	Amount (KES)
1	Preliminaries & General Items	
20	Road Lighting Instructed Works	
Sub Total (1+20)		
Sub Total for Rehabilitation/Improvement Works		
26	Performance Maintenance over the Contract Period of 9 Months	
B. Sub Total (Improvement + PBC Works)		
C. Add 16% VAT OF SUBTOTAL B FOR VAT		
D. Add 0.03% OF SUBTOTAL B FOR PUBLIC PROCUREMENT CAPACITY BUILDING LEVY		
E. GRAND TOTAL = B+ C+ D (Carried to the Form of Tender)		

F. BILLS OF QUANTITIES FOR MAINTENANCE SERVICES

1. The Bills of Quantities for Maintenance Services shall be read in conjunction with the Instructions to Tenderers, Conditions of Contract, Specifications and the Drawings.
2. This Bills of Quantities is the basis for payment of maintenance services that are to be provided on a lump sum per lamp basis for maintaining the road lighting covered under the contract, at the Service Levels defined in the Specifications. The rates given by the Tenderer shall, except insofar as is otherwise provided under the Contract, include all plant, equipment, labour, management and supervision, materials, erection, maintenance, insurance, profit, taxes and duties, together with all general risks, liabilities and obligations set out or implied in the Contract.

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3. Payment shall be made in accordance with the actual performance of the Contractor and compliance with the Service Level criteria given in the Specifications for each road. Failure to meet the Service Levels will result in payment reductions in accordance with Clause 8.7 of the General Conditions and the Performance Specifications.
4. The unit rates and prices shall be quoted entirely in local currency but payment will be made in the proportions and currencies quoted in the Schedule of Adjustment Data.
5. A unit rate or price shall be entered by the Tenderer against each item in the Bill of Quantities. The cost of items against which the Tenderer has failed to enter a unit rate or price shall be deemed to be covered by other unit rates and prices entered in the Bill of Quantities.
6. General directions and descriptions of work and materials are not repeated or summarized in the Bill of Quantities. References to the relevant sections of the Contract documentation shall be made before entering rates or prices against each item in the Bill of Quantities.
7. The method of measurement of completed work for payment shall be in accordance with the measurement and payment provisions of the relevant section in the Performance Specifications.
8. Arithmetical errors discovered prior to award of the Contract will be corrected by the Procuring Entity pursuant to the Instructions to Tenderers.

G. BILL OF QUANTITIES FOR REHABILITATION AND IMPROVEMENT WORKS

1. The Bills of Quantities for Rehabilitation Works and for Improvement Works shall be read in conjunction with the Instructions to Tenderers, Conditions of Contract, Specifications and the Drawings.

a) Bill of Quantities for Rehabilitation Works

2. The Bill of Quantities for Rehabilitation Works presents a number of explicit activities considered necessary to rehabilitate particular road lighting sections before some or all of the Service Level criteria for performance-based maintenance defined in the Specifications can be applied. The Tenderer shall undertake a detailed assessment of lighting conditions at the time of Tender. The location and extent of the particular rehabilitation works considered necessary to reach required Service Levels shall be indicated by the Tenderer in his Tender submission.
3. Payment for Rehabilitation Works shall be made in relation to the work outputs satisfactorily completed in conformity with the Specifications as measured by the Contractor and verified by the Engineer, and valued at the unit rates and prices stated in the priced Bill of Quantities. The total price for Rehabilitation Works and Improvement Works, if any, shall not exceed the threshold value or percentage given by the Procuring Entity in the TDS.

b) Bill of Quantities for Improvement Works

4. The Bill of Quantities for Improvement Works lists a set of interventions to be carried out by the contractor that add new characteristics to the Road in response to existing or new conditions, as defined in the TDS and the Specifications.
5. Payment for Improvement Works shall be made in relation to the work items satisfactorily completed in conformity with the Specifications, as measured by the Contractor and verified by the Engineer, and valued at the unit rates and prices stated in the priced Bill of Quantities for Improvement Works.

c) General

6. The unit rates and prices Tender in the priced Bill of Quantities shall, except insofar as is otherwise provided under the Contract, include all plant, equipment, labor, supervision, materials, erection, maintenance, insurance, profit, taxes and duties, together with all general risks, liabilities and obligations set out or implied in the Contract. Unit rates and prices shall also include the cost of engineering design services, and measures needed to prevent or mitigate environmental impacts and safety measures.
7. The unit rates and prices shall be quoted entirely in local currency but payment will be made in the proportions and currencies quoted in the Schedule of Adjustments.
8. General directions and descriptions of work and materials are not repeated or summarized in the Bill of Quantities. References to the relevant sections of the Contract documentation shall be made before entering rates or prices against each item in the Bill of Quantities.
9. The method of measurement of completed work for payment shall be in accordance with the measurement and payment provisions of the relevant section of the Specifications.
10. Arithmetical errors discovered prior to award of the Contract will be corrected by the Procuring Entity pursuant to the Instructions to Tenderers.

PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD LIGHTING OF NGONG ROAD INTERCHANGE - GITARU (A8S) ROAD

Bill No. 1 Preliminaries and General Items

Bill No.	Item Description	Unit	Quantities	Rate (KES)	Amount (KES)
01-80-030A	Payment of Engineers Supervisory Staff including overtime in accordance with clause 137 of Special Specifications and as per Remuneration Rates in Appendix A	SUM	2,053,401.14	1.00	
01-80-031	Include percentage of PC sum in item 01-80-030A for contractor's overhead and profit.	%	2,053,401.14		

Sub Total for Bill 01 (Carried Forward to Summary)

Bill No. 20 Instructed Works (Rehabilitation)

Bill No.	Item Description	Unit	Quantities	Rate (KES)	Amount (KES)
20-40-006	Supply, transport and install circular stepped tapering, fully galvanized road lighting poles minimum thickness 3mm, complete with suitable double arm projection of length 1.2m and flange plate to achieve mounting height of 10m from road surface. The pole shall have arrangement of concealed junction box with 2no.6A SPMCB and branded/engraved with KeNHA Logo and a reflective tape.	M	10.00		
20-40-008	Excavate holes measuring 400mm X 400mm X 800mm deep and make mass concrete foundations for new street poles, inclusive of 50mm ducts provision for power cable and pole anchor bolts	No.	10.00		
20-40-014	Supply, install, test and commission control panel including 1000mm x 1000mm x 300mm concrete base, electro galvanized steel with minimum thickness 2mm c/w padlock, mounting plate, bottom plate, earthing, looping cables, cable lugs, termination kits, phase indicators including painting, labelling with KeNHA Logo and all the necessary switchgear accessories and mechanisms to	No.	1.00		

PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD LIGHTING OF NGONG ROAD INTERCHANGE – GITARU (A8S) ROAD

	measure voltage and current and as attached in the drawings				
20-40-020	Supply, install, test and commission 200W LED road lighting luminaire, CCT 4000 K, with minimum 15000Lm lighting output, over 50,000hours lamp life, corrosion proof to IP65; for the new and existing steel poles. The Luminaire should be engraved with KeNHA Logo.	No.	20.00		
20-40-028	Supply and install 2.5mm Twin with Earth copper cable for lamp feed	M	275.00		
20-40-029	Supply and install 16mm armored copper cable complete with cable glands, splicing kits, and other necessary accessories	M	500.00		
20-40-038	Provide and place concrete case cover for underground cables (concrete class 20/25)	M ³	3.00		
20-60-002	Microtunneling for a 150mm dia. including HDPE duct.	M	10.00		
20-60-061	Trenching, laying and backfilling for armoured electricity cables	M	360.00		
20-60-069	Supply and install 15mm dia., 1.8m earth electrode	No.	4.00		
20-80-016	Provide, place/erect publicity signs directed and shown by the engineer	No.	2		
Sub Total for Bill 20 (Carried Forward to Summary)					
Bill No. 26 Performance Based Maintenance					
Bill No.	Item Description	Unit	Quantities	Rate (KES)	Amount (KES)

PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD LIGHTING OF NGONG ROAD INTERCHANGE – GITARU (A8S) ROAD

26-50-05	Maintenance of all the street lighting on the project road to 100% service levels. This includes: 1. 24-hour patrol and surveillance (Day and Night Patrols) 2. Replacement of bulbs and related accessories 3. Replacement of damaged or worn out fittings 4. Repair/ Replacement of Knocked poles and arms, fittings, control pillars and high-masts complete with all the accessories 5. Repair/ Replacement of Vandalized poles and arms, fittings, control pillars and high-masts complete with all the accessories 6. Anchoring and strengthening of (leaning) poles to upright position using approved gravel material or equivalent. 7. Joint monthly meter reading 8. Provision of security to deter vandalism of the street lighting furniture 9. Liaising and follow ups with KPLC to restore power in case of an outage or other emergencies. 10. Insurance follow up for compensation in case of any damage to Street lighting furniture 11. Documentation 12. Road stakeholder engagement to ensure smooth running of the project (Kenya Police, KPLC, Public, Nairobi City County Government, and Area Chiefs)	Lamp Months	7047		
Bill 26 (Carried Forward to Summary)					

APPENDIX A														
PART I : PAYMENT FOR TRAINING														
No.	Description			No. of Trainings		Rate per training							Total Amount (Kshs.)	
1	PROFESSIONAL DEVELOPMENT TRAINING OF RE'S STAFF													
PART II: KeNHA PROJECT STAFF RENUMERATION SCALE														
KeNHA RE's Payment of Engineers Supervisory Staff														
S/No	Description	Wages & Salaries			Overtime			Perdiem (Others)			Field Allowances			TOTAL (Kshs)
		Duration of Contract	Rate per Month	Amount (Kshs)	No. of hours	Rate per hour	Amount (Kshs)	No. of Days	Rate per day	Amount (Kshs)	No. of Days	Rate per day	Amount (Kshs)	
1	Resident Engineer													
2	Assistant Engineer (Electrical, Project)	9.00	149,500.00	1,345,500.00	3.00	622.92	1,868.75							1,362,318.75
3	Inspector (Electrical, Project)	9.00	75,500.00	679,500.00	3.00	428.98	1,286.93							691,082.39
4	Driver													
GRAND TOTAL CARRIED FORWARD TO APPENDIX A 01-80-030A														2,053,401.14

**PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD LIGHTING OF NGONG
ROAD INTERCHANGE – GITARU (A8S) ROAD**

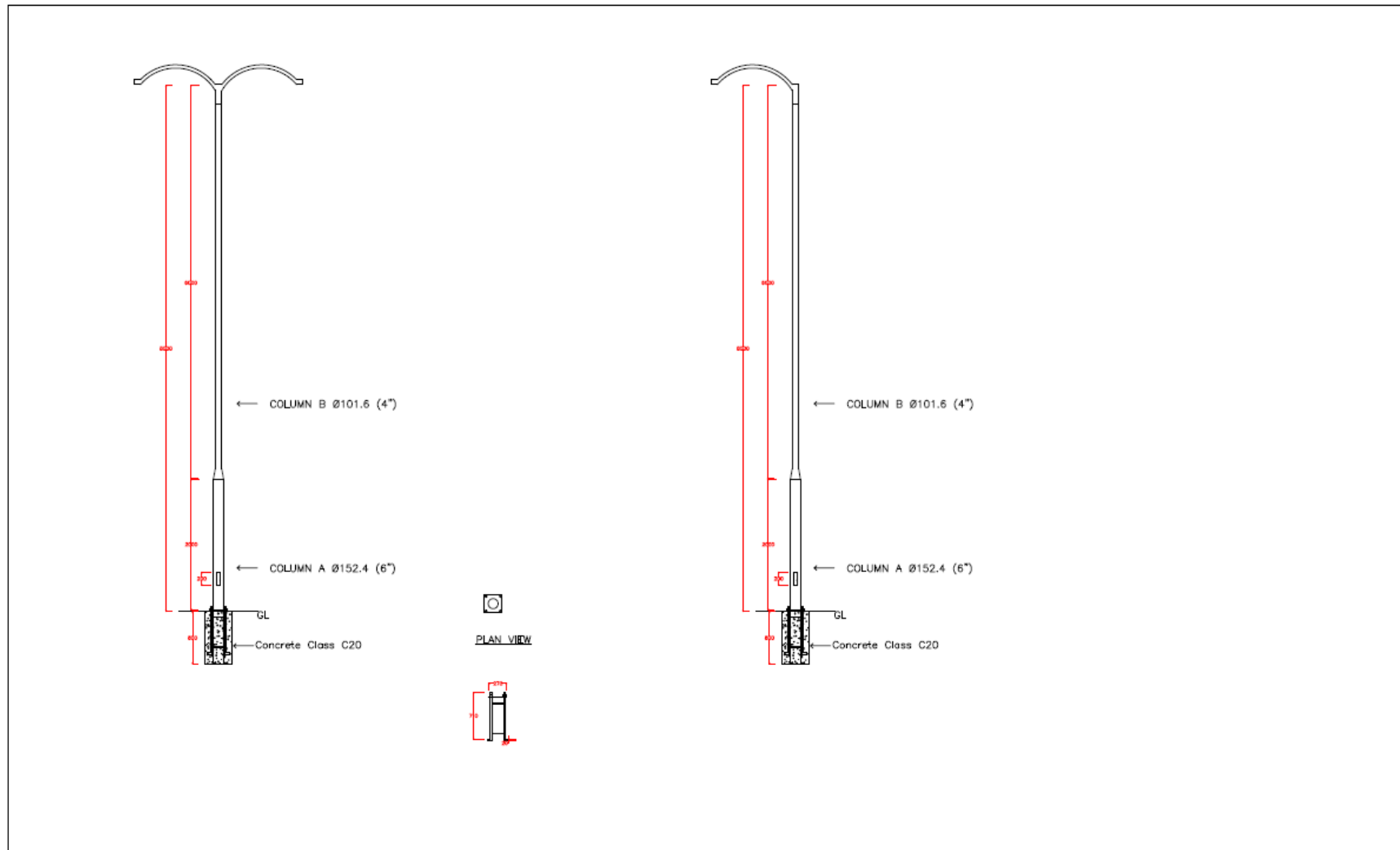
SECTION VIII DRAWINGS

**PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD LIGHTING OF NGONG ROAD INTERCHANGE – GITARU (A8S)
ROAD**

STANDARD

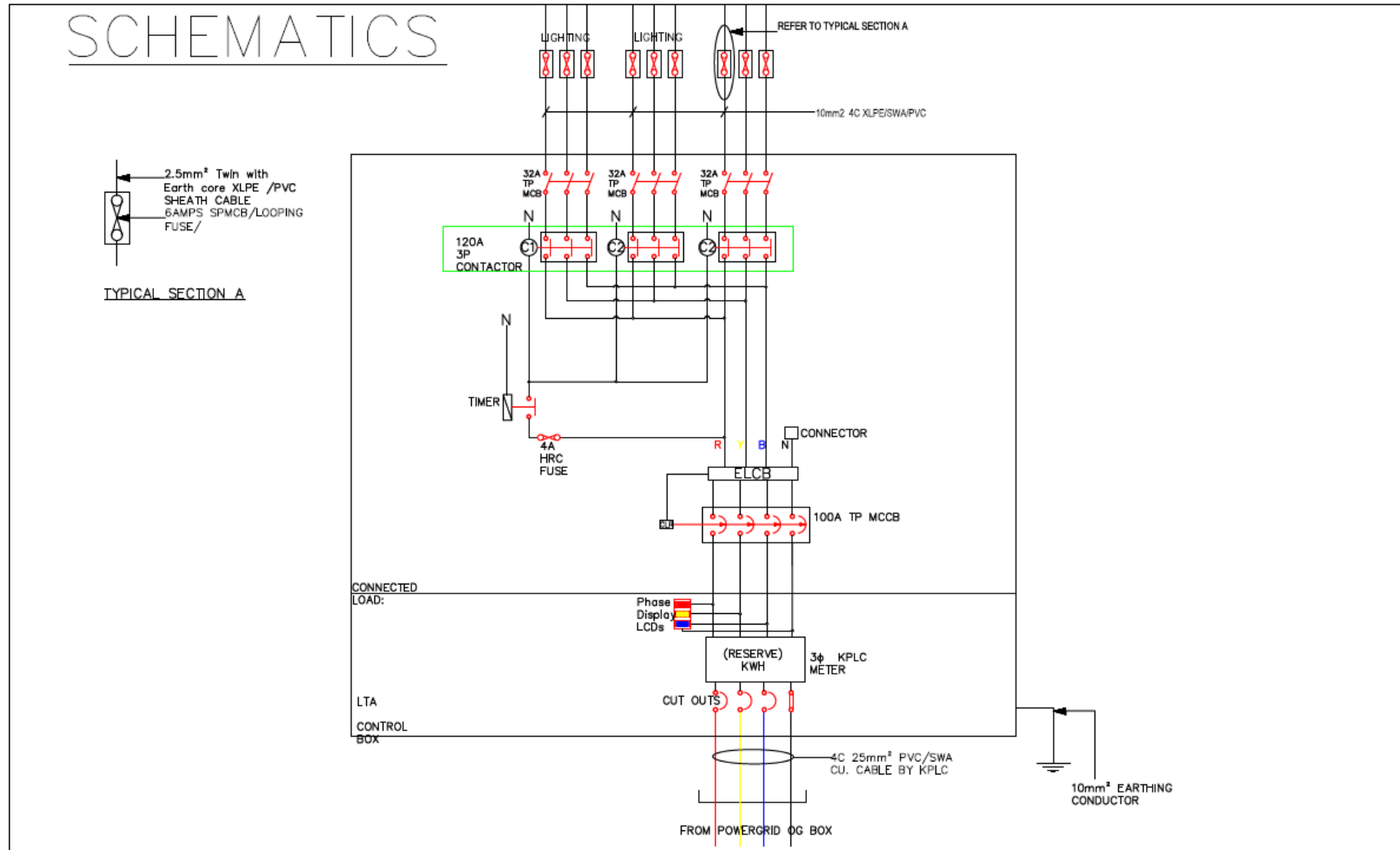
DRAWINGS

PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD LIGHTING OF NGONG ROAD INTERCHANGE – GITARU (A8S) ROAD



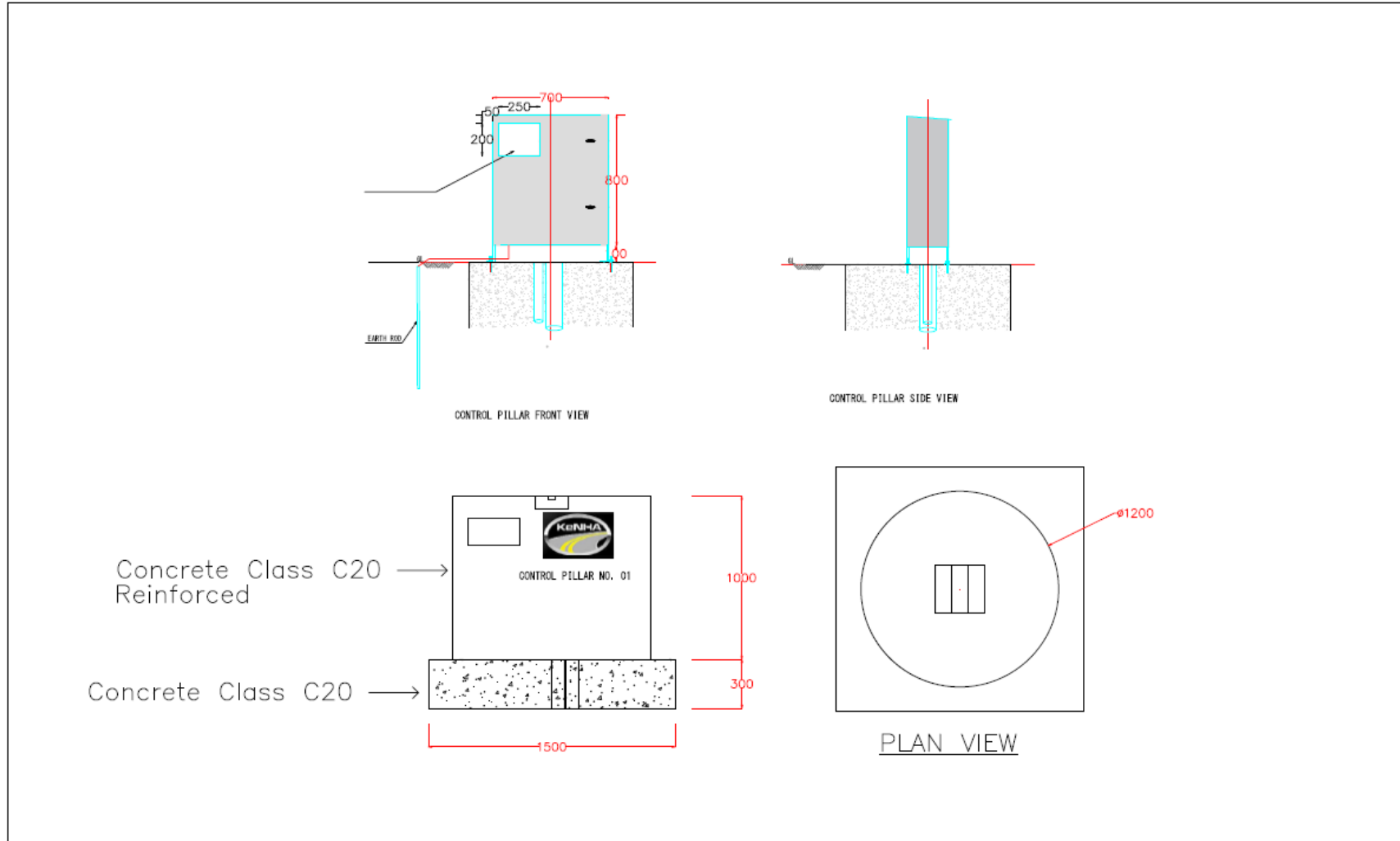
 EMPLOYER: DIRECTOR GENERAL KENYA NATIONAL HIGHWAY AUTHORITY	 ENGINEER'S REP: CORRIDOR DIRECTOR – CORRIDOR A OFF QUARRY 39, ATHI RIVER, P. O. BOX 49712 – 00100, NAIROBI	PROJECT TITLE: PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD LIGHTING ON ATHI RIVER – INTERCHANGE ENKARE (A2) ROAD	DRAWING No. KeNHA/Corr-A2/POLES	REFERENCE: <table border="1"><tr><td>Amendment No.</td><td>N/A</td><td>DATE</td><td>Oct. 2021</td><td rowspan="3">SHEET NO. 1-1</td></tr><tr><td>Date Approved</td><td>N/A</td><td>SCALE</td><td>AS SHOWN</td></tr><tr><td>PREPARED BY:</td><td>VERIFIED BY:</td><td>APPROVED BY:</td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr></table>	Amendment No.	N/A	DATE	Oct. 2021	SHEET NO. 1-1	Date Approved	N/A	SCALE	AS SHOWN	PREPARED BY:	VERIFIED BY:	APPROVED BY:					
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Date Approved	N/A	SCALE	AS SHOWN																		
PREPARED BY:	VERIFIED BY:	APPROVED BY:																			
DRAWING TITLE PLAN AND PROFILE WORKING DRAWINGS																					

PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD LIGHTING OF NGONG ROAD INTERCHANGE – GITARU (A8S) ROAD



 EMPLOYER: DIRECTOR GENERAL KENYA NATIONAL HIGHWAY AUTHORITY	 ENGINEER'S REP: CORRIDOR DIRECTOR – CORRIDOR A OFF QUARRY 39, ATHI RIVER, P. O. BOX 49712 – 00100, NAIROBI	PROJECT TITLE: PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD LIGHTING ON ATHI RIVER INTERCHANGE – ENKARE (A2) ROAD	DRAWING No. KaNHA/Corr-A/CP	REFERENCE: <table><tr><td>Amendment No.</td><td>N/A</td><td>DATE</td><td>October, 2025</td></tr><tr><td>Date Approved</td><td>N/A</td><td>SCALE</td><td>AS DISPLAYED</td></tr><tr><td>PREPARED BY:</td><td>ENG. D. BROGUTHU</td><td>VERIFIED BY:</td><td>ENG. M. KIBOS</td></tr><tr><td></td><td></td><td>APPROVED BY:</td><td>ENG. D. GOROCK</td></tr></table>	Amendment No.	N/A	DATE	October, 2025	Date Approved	N/A	SCALE	AS DISPLAYED	PREPARED BY:	ENG. D. BROGUTHU	VERIFIED BY:	ENG. M. KIBOS			APPROVED BY:	ENG. D. GOROCK
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Date Approved	N/A	SCALE	AS DISPLAYED																	
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DRAWING TITLE PLAN AND PROFILE WORKING DRAWINGS																				

PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD LIGHTING OF NGONG ROAD INTERCHANGE – GITARU (A8S) ROAD



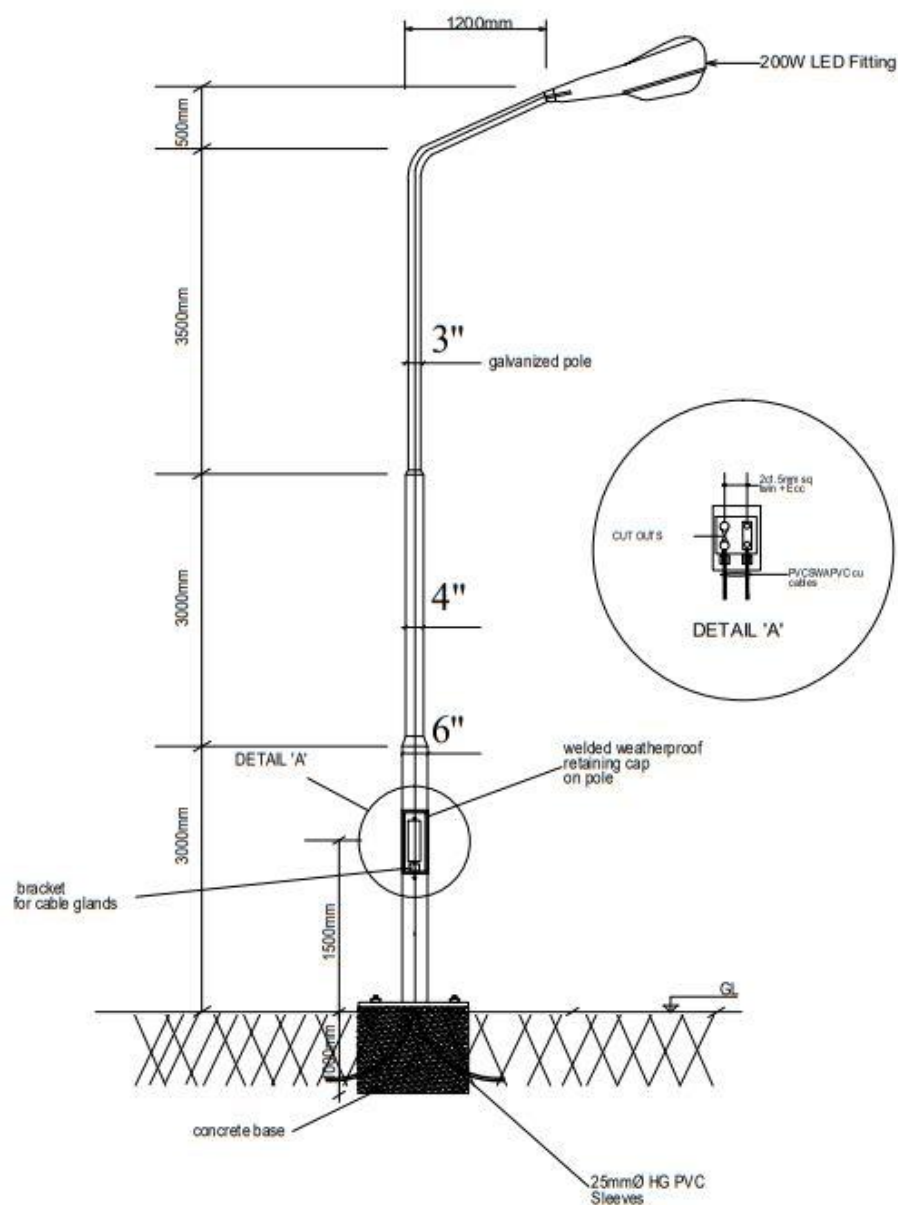
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**PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD LIGHTING OF NGONG ROAD INTERCHANGE – GITARU (A8S)
ROAD**

**PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD LIGHTING OF NGONG
ROAD INTERCHANGE – GITARU (A8S) ROAD**

SINGLE ARM POLE

SINGLE ARM POLE

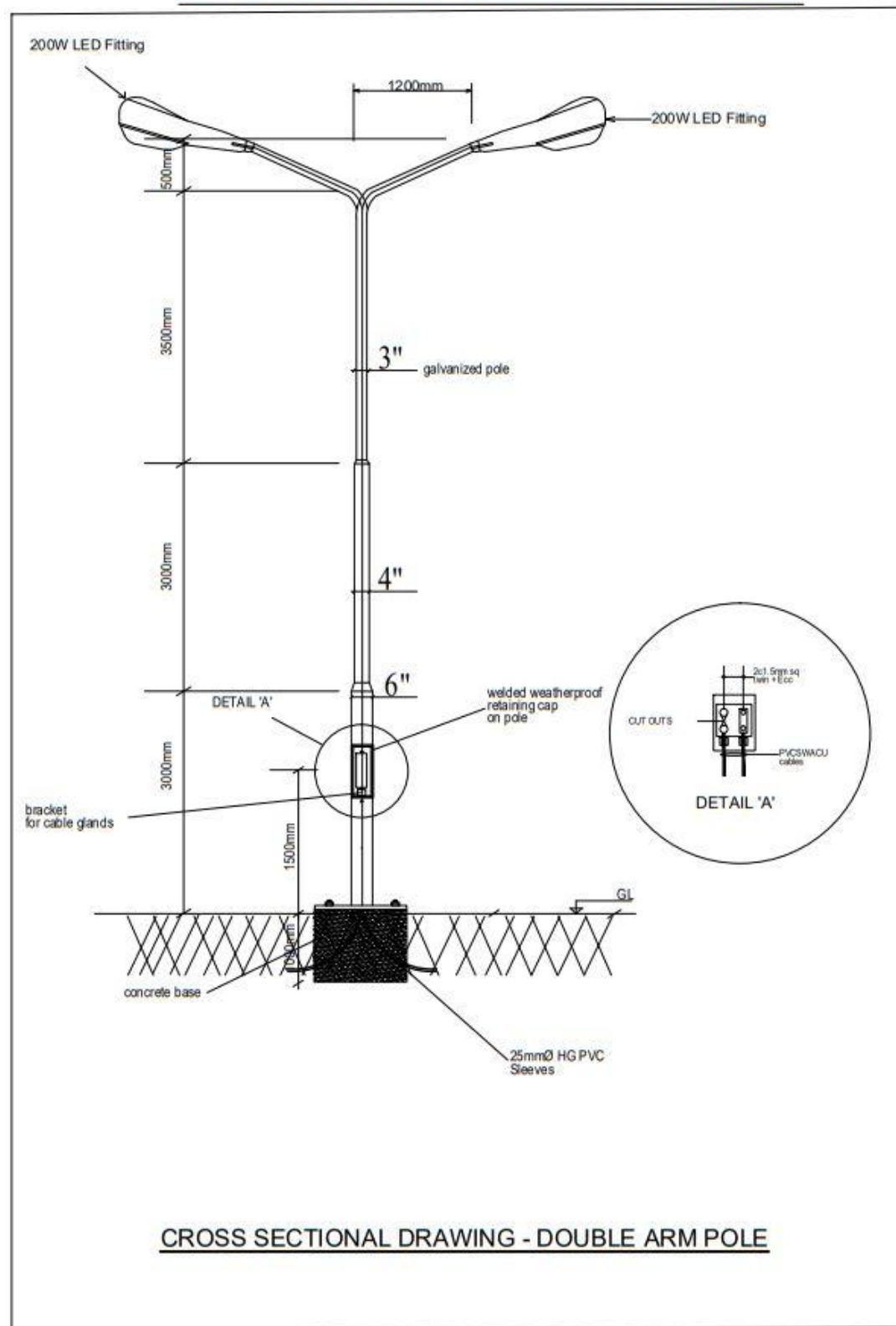


CROSS SECTIONAL DRAWING - SINGLE ARM POLE

**PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD LIGHTING OF NGONG
ROAD INTERCHANGE – GITARU (A8S) ROAD**

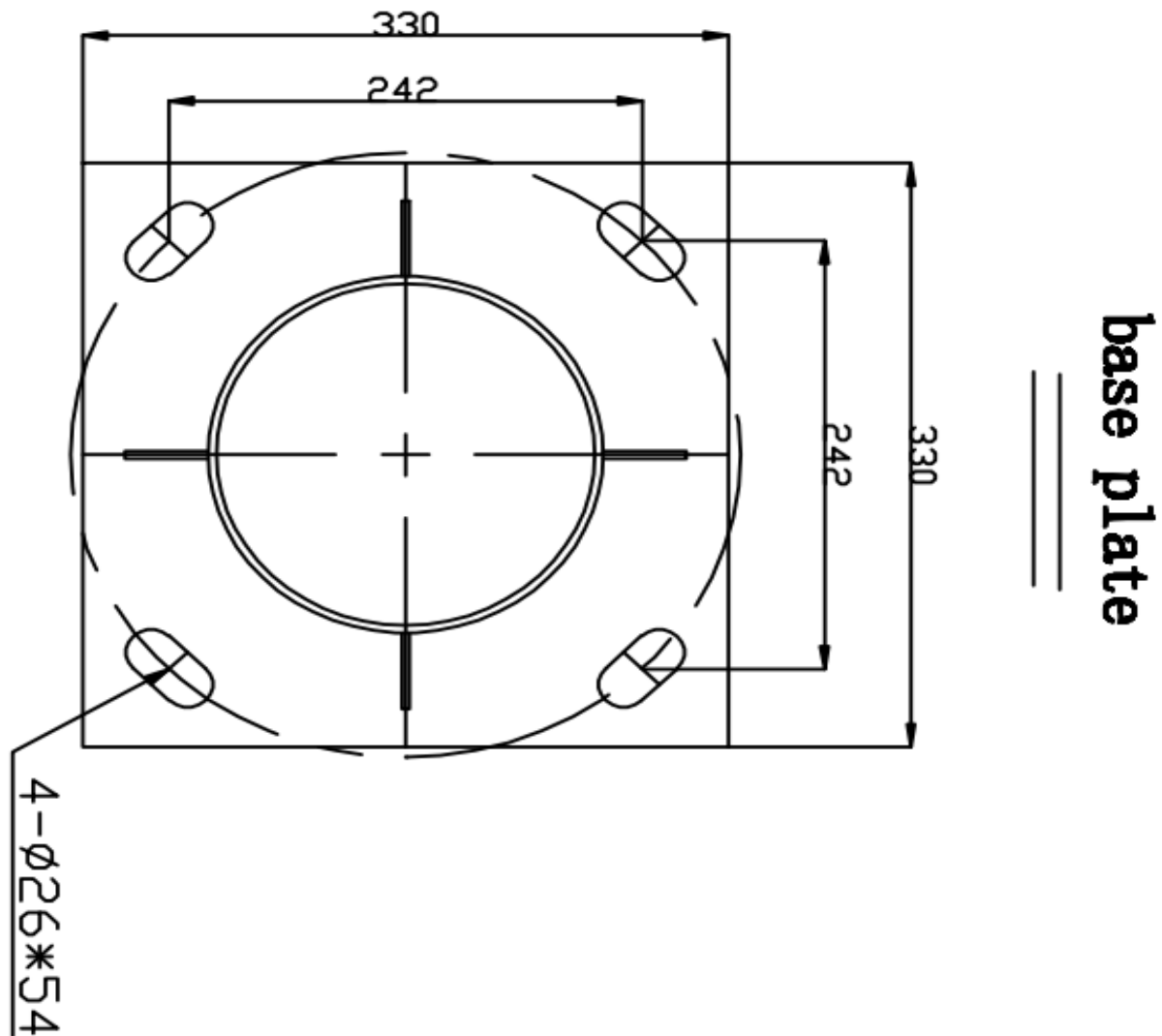
DOUBLE ARM POLE

DOUBLE ARM POLE



**PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD LIGHTING OF NGONG
ROAD INTERCHANGE – GITARU (A8S) ROAD**

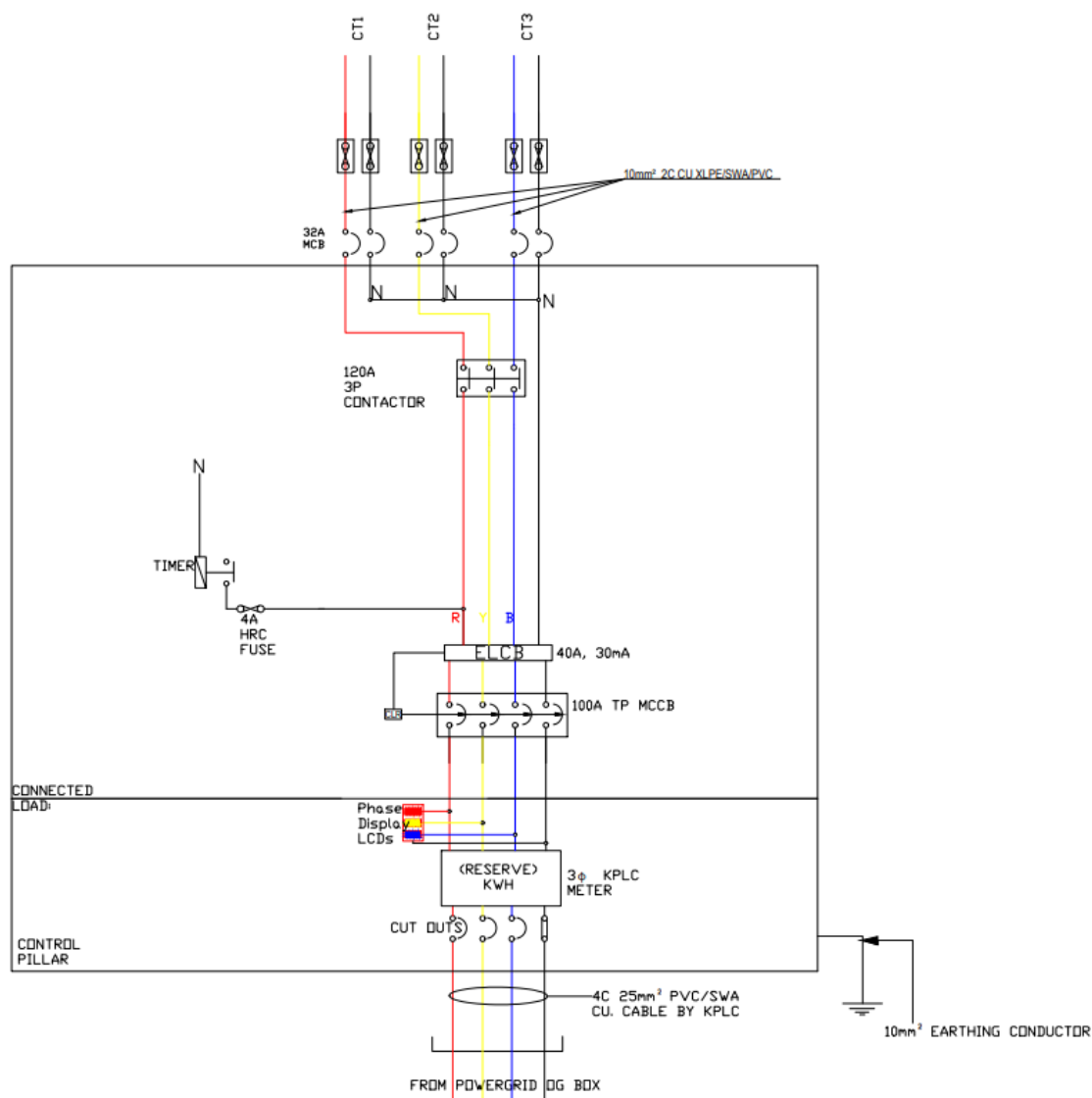
BASE PLATE



**PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD LIGHTING OF NGONG
ROAD INTERCHANGE – GITARU (A8S) ROAD**

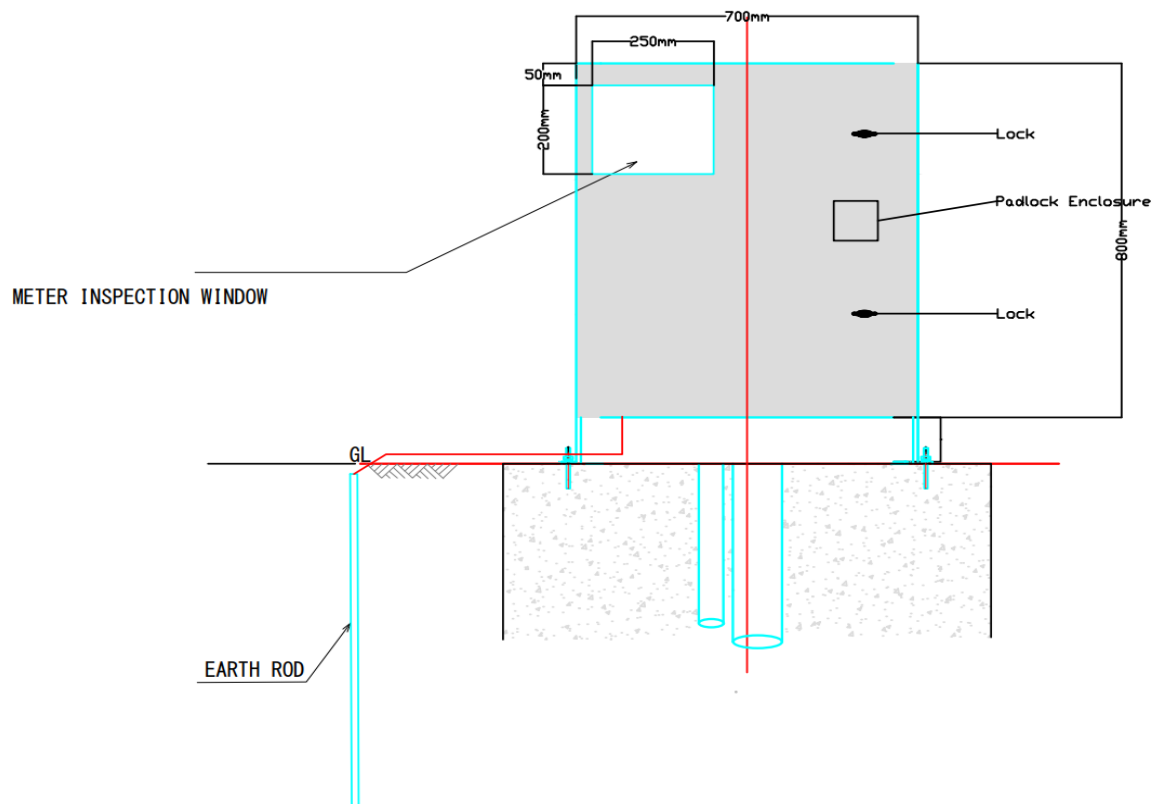
CONTROL PILLAR DRAWINGS

CONTROL PILLAR SCHEMATICS

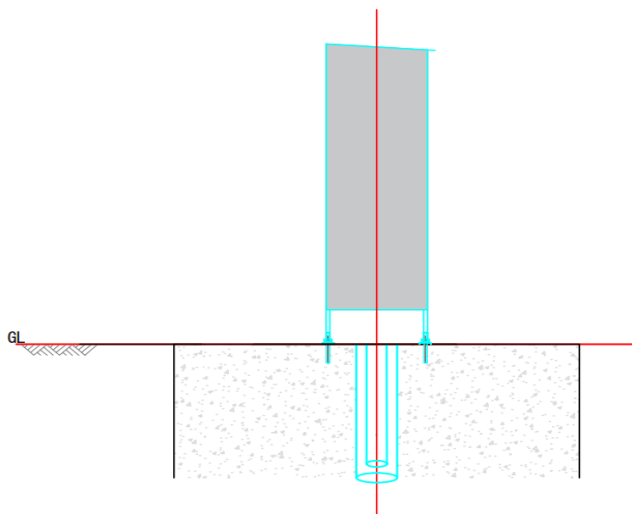


PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD LIGHTING OF NGONG ROAD INTERCHANGE – GITARU (A8S) ROAD

FRONT VIEW

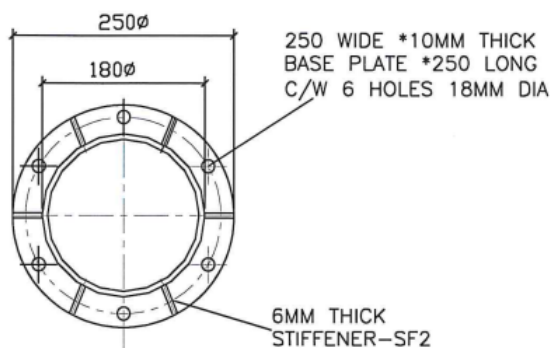


SIDE VIEW

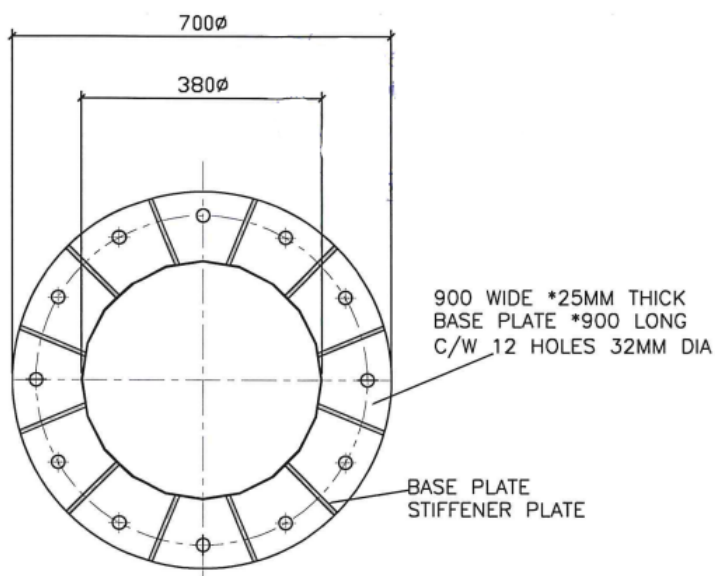


PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD LIGHTING OF NGONG ROAD INTERCHANGE – GITARU (A8S) ROAD

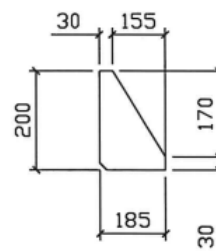
HIGHMAST DRAWING (20M)



TOP FLANGE DETAILS



BASE PLATE DETAILS

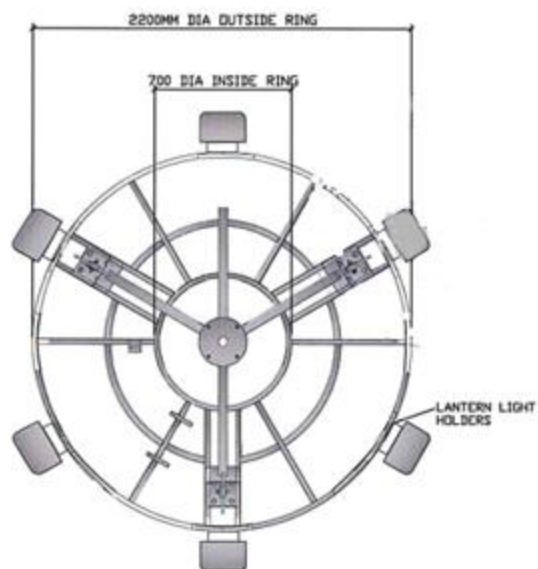


12NOS BASE PLATE
STIFFENER-SF1

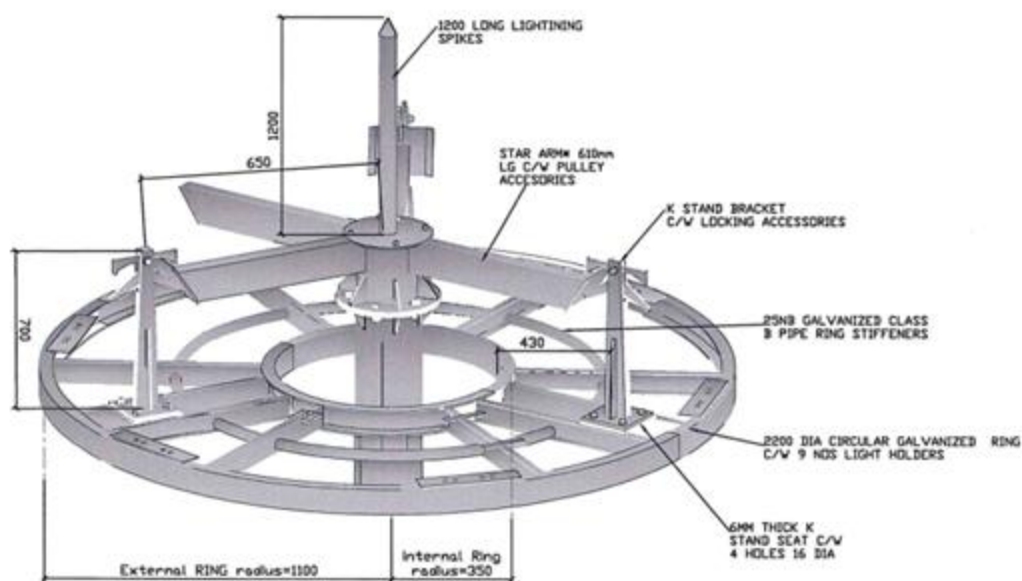
ALL DIMENSIONS ARE IN MILLIMETERS

PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD LIGHTING OF NGONG ROAD INTERCHANGE – GITARU (A8S) ROAD

CARRIAGE RING



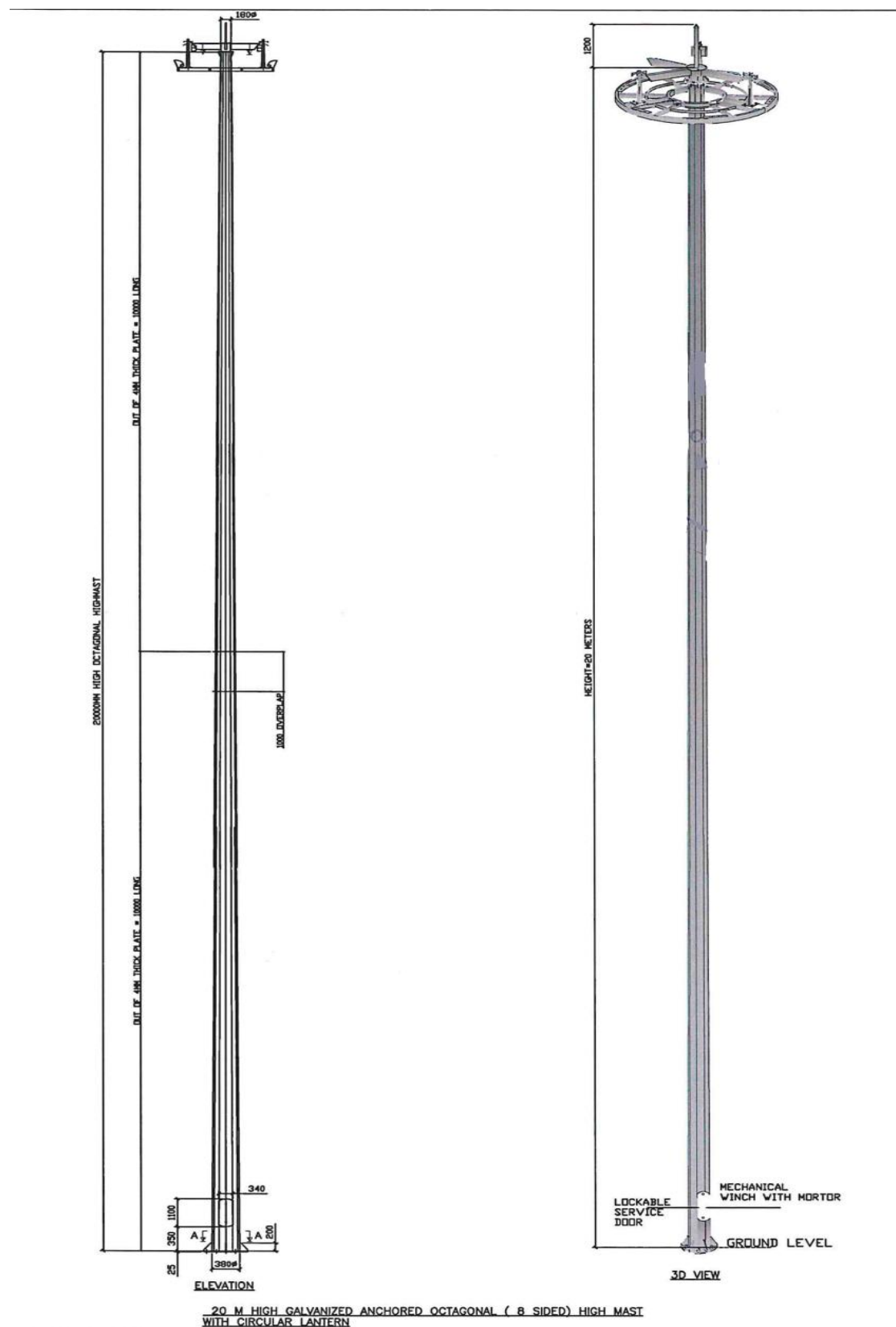
PLAN VIEW OF ENLARGED CARRIAGE RINGS + DETAILS (9 nos of light)



ENLARGED CIRCULAR CARRIAGE RING DETAILS~3D VIEW

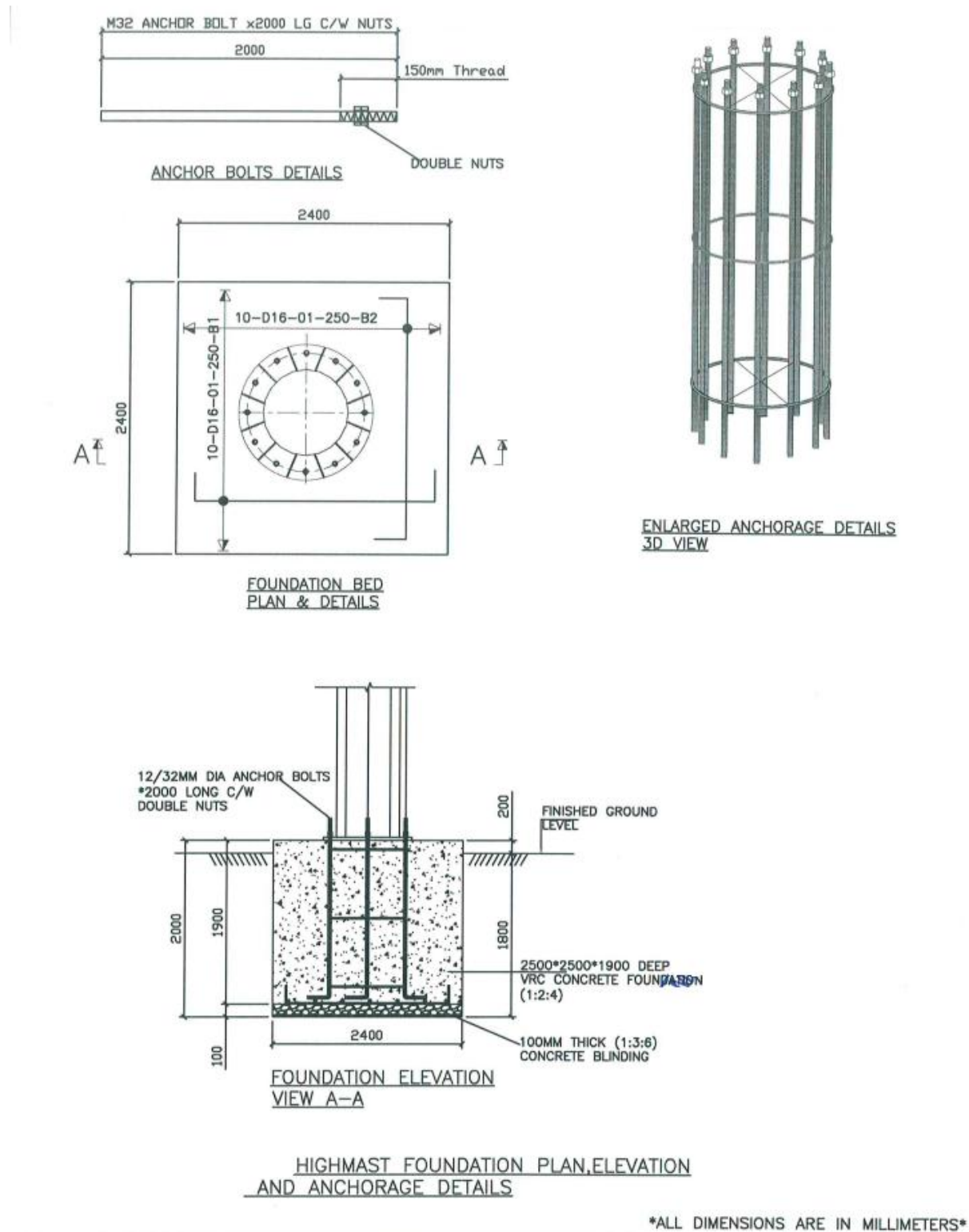
PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD LIGHTING OF NGONG ROAD INTERCHANGE – GITARU (A8S) ROAD

POLE



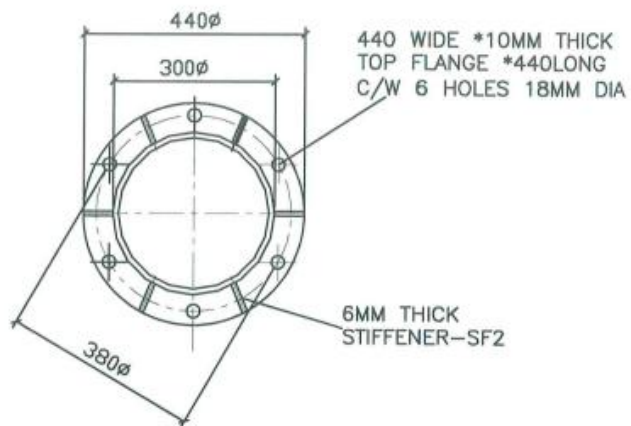
PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD LIGHTING OF NGONG ROAD INTERCHANGE – GITARU (A8S) ROAD

FOUNDATION AND ANCHORAGE

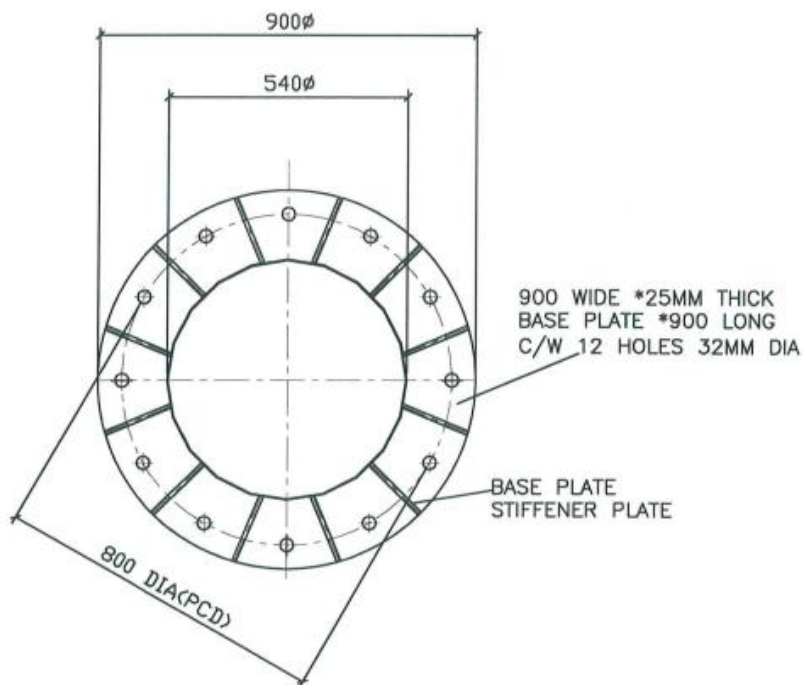


PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD LIGHTING OF NGONG ROAD INTERCHANGE – GITARU (A8S) ROAD

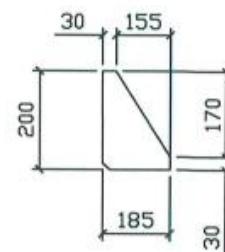
HIGH MAST (35M)



TOP FLANGE DETAILS



BASE PLATE DETAILS

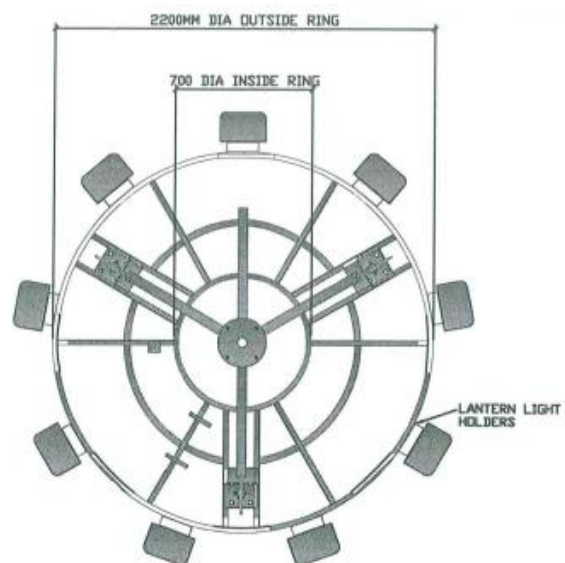


12NOS BASE PLATE
STIFFENER-SF1

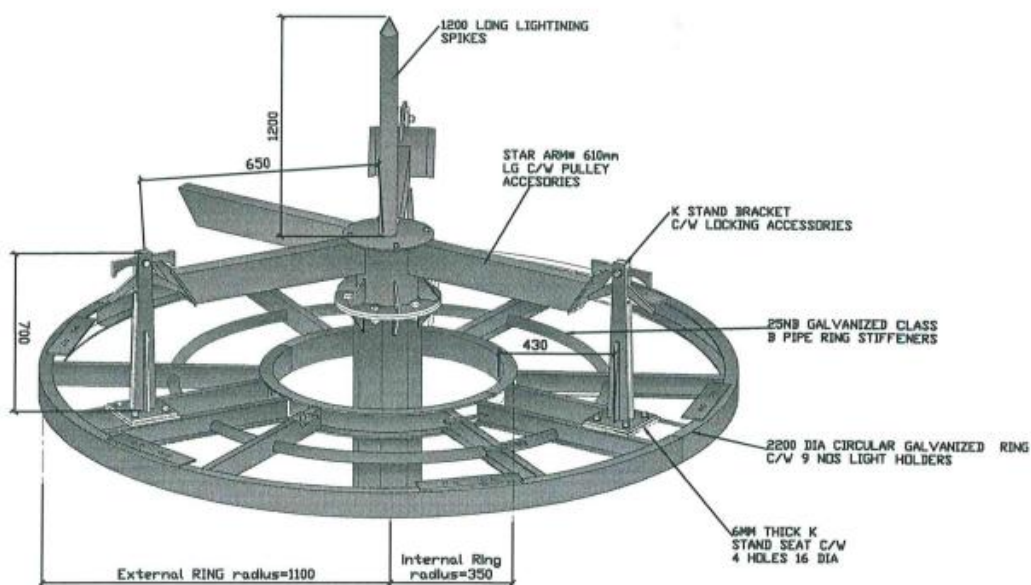
ALL DIMENSIONS ARE IN MILLIMETERS

PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD LIGHTING OF NGONG ROAD INTERCHANGE – GITARU (A8S) ROAD

CARRIAGE RING



PLAN VIEW OF ENLARGED CARRIAGE RINGS + DETAILS (9 nos of light)

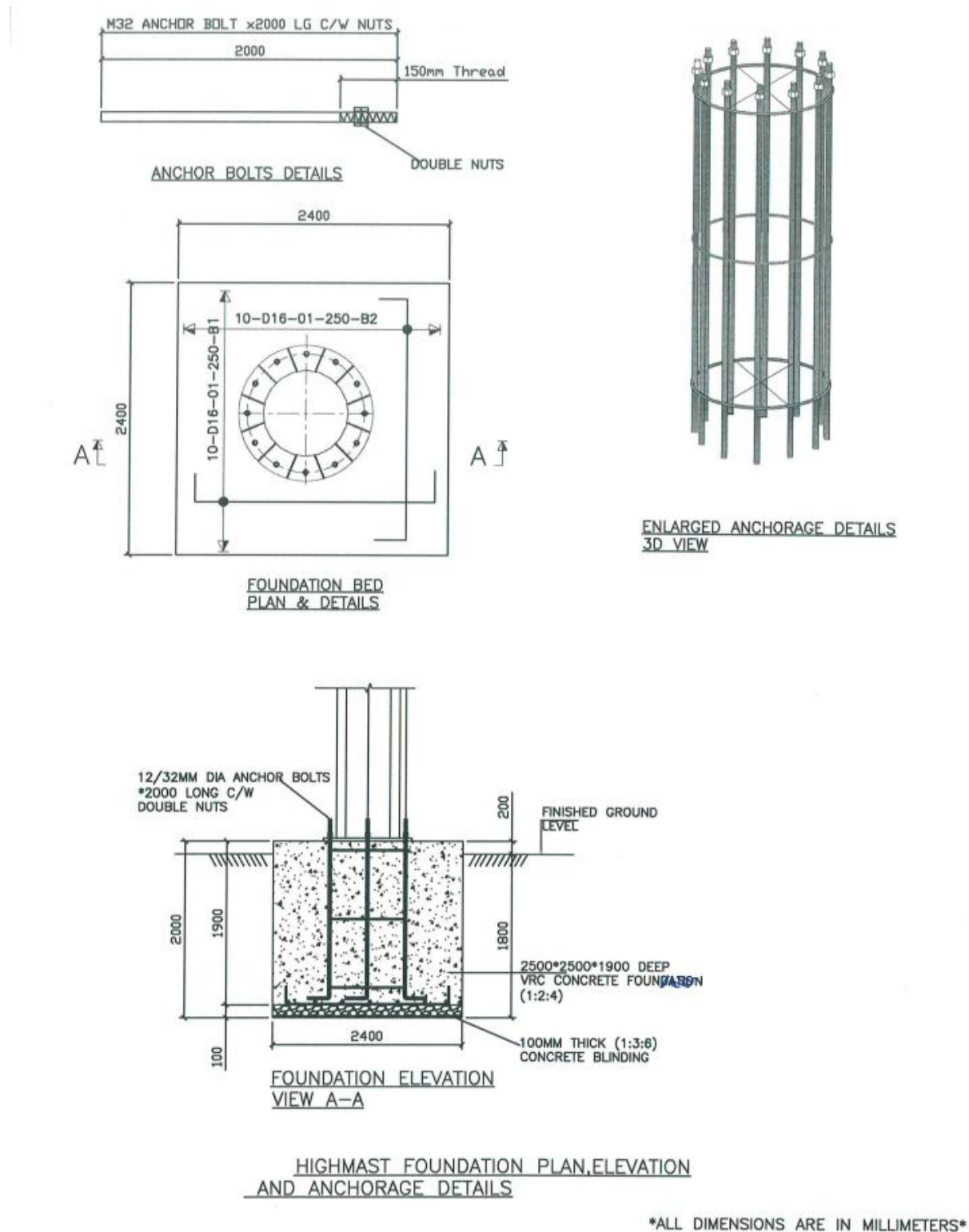


ENLARGED CIRCULAR CARRIAGE RING DETAILS~3D VIEW

ALL DIMENSIONS ARE IN MILLIMETERS

PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD LIGHTING OF NGONG ROAD INTERCHANGE – GITARU (A8S) ROAD

FOUNDATION AND ANCHORAGE



PART 3 – CONDITIONS OF CONTRACT AND CONTRACT FORMS

**PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD LIGHTING OF NGONG
ROAD INTERCHANGE – GITARU (A8S) ROAD**

SECTION IX - CONDITIONS OF CONTRACT PART I -GENERAL CONDITIONS

**SECTION IX CONDITIONS OF CONTRACT PART I: GENERAL CONDITIONS
OF CONTRACT**

Red Book:

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The Conditions of Contract are the “General Conditions” which form part of the “Conditions of Contract for Construction for Building and Engineering Works Designed by the Employer (“Red book”) First Edition 1999” published by the Federation Internationale Des Ingenieurs – Conseils (FIDIC) and the following “Particular Conditions” which comprise of the amendments and additions to such General Conditions.

An original copy of the above FIDIC publication i.e. “*Conditions of Contract for Building and Engineering Works Designed by the Employer*” must be obtained from FIDIC.

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**PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD LIGHTING OF NGONG
ROAD INTERCHANGE – GITARU (A8S) ROAD**

**SECTION X - CONDITIONS OF CONTRACT PART II -CONDITIONS OF PARTICULAR
APPLICATION**

PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD LIGHTING OF NGONG ROAD INTERCHANGE – GITARU (A8S) ROAD

SECTION X: CONDITIONS OF CONTRACT PART II: (CONDITIONS OF PARTICULAR APPLICATION)

The following Special Provisions shall supplement the General Conditions of Contract. Whenever there is a conflict, the provisions herein shall prevail over those in the General Conditions of Contract. The Particular Condition is preceded by the corresponding clause number of the General Condition of Contract to which it relates.

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PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD LIGHTING OF NGONG ROAD INTERCHANGE – GITARU (A8S) ROAD

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SUB-CLAUSE 1.1: DEFINITIONS

Amend these sub-clause as follows:

1.1.1.3 Amend the paragraph by adding the following: Letter of Acceptance is synonymous with Notification of Award.

1.1.1.4: Amend the paragraph by adding the following words at the end: The words Letter of Tender is synonymous with Form of Tender.

1.1.1.7: Insert in line 4 after the prices”, the following, “entered by the Contractor (whether or not such rate be employed in computation of the Accepted Contract Amount),”

1.1.1.8: Amend the paragraph by adding the following words at the end:

The word “Tender” is synonymous with “bid”

1.1.1.9 Amend the paragraph by adding the following words at the end: The words Appendix to Tender or Appendix to Form of Tender is synonymous with Contract Data.

1.1.2.5 Amend the paragraph by adding the following words at the end: The words Contractor’s representative is synonymous with Site Agent or Road Manager.

SUB-CLAUSE 1.4: LANGUAGE AND LAW

Insert:

The Contract shall be drawn up in the ENGLISH LANGUAGE. Communication between both Parties shall be in this given language.

The Laws applicable to this Contract shall be the Laws of The Republic of Kenya.

SUB-CLAUSE 1.5: PRIORITY OF DOCUMENTS

Delete the documents listed (a) – (h) and substitute with the following:

- a) The Contract Agreement (if completed)
- b) The Letter of Acceptance
- c) The Form of Tender
- d) Appendix to Form of Tender
- e) The Particular Conditions
- f) These General Conditions
- g) The Special Specifications
- h) The Standard Specification for Road and Bridge Construction, 1986
- i) The PBC Guidelines Edition 1.1 of February 2016
- j) Road Maintenance Manual, May 2010 Edition and Performance Based Contract Manuals.
- k) The Drawings;
- l) The priced Bills of Quantities
- m) Other documents forming part of the Contract

SUB-CLAUSE 1.6: CONTRACT AGREEMENT

Replace the first sentence of the first paragraph with:

The parties shall sign a Contract Agreement within the period stipulated in the Appendix to Tender.

SUB-CLAUSE 3.1: ENGINEER'S DUTIES AND AUTHORITY

With reference to Sub-Clause 3.1, the following shall also apply:

The Engineer shall obtain the specific approval of the Employer before taking any of the following actions:

- d) Consenting to the subcontracting of any part of the works under Clause 4.4
- e) Determining an extension of time under Sub-clause 8.4
- f) Certifying additional cost determined under Clause 12
- g) Issuing a Variation under Clause 13

SUB-CLAUSE 4.2: PERFORMANCE SECURITY

Replace the text of the first and second Paragraph under Sub-clause 4.2 with the following:

“The Contractor shall provide the Performance Security to the Employer within 21 days after receipt of the Letter of Acceptance. The Performance Security shall be in the form of a bank guarantee as stipulated by the Employer in the Appendix to Tender. The Performance Security shall be issued by a bank incorporated in Kenya. The Contractor shall notify the Engineer when providing the Performance Security to the Employer.

Replace the text of the first sentence under the third paragraph under Sub-clause 4.2 with the following:

The Contractor shall ensure that the Performance Security is valid and enforceable until a date 28 days after the date of issue of the Performance Certificate.

Add the following after the fifth paragraph:

The Employer shall be at liberty to claim part or the entire performance Security without informing or notifying the Contractor provided that the conditions necessitating the claim are contractual.

SUB-CLAUSE 4.3: CONTRACTOR'S REPRESENTATIVE

Add the following at the end of the second paragraph:

The Contractor shall also submit a specimen signature of his proposed Site Agent /Road Manager who **SHALL** be the only signatory to payment of certificates/Monthly statements from the Contractor.

The Contractor's Agent or Representative on the site shall have a minimum qualification of a Registered Technician with Diploma in Electrical and Electronic Engineering, have a Current / Valid Registration by KETRb or IET, have a PBC Certificate from KIHBIT or other recognised institution, minimum relevant experience of 5 years and shall be able to read and write English fluently.

Contractor's Key Staff shall constitute of the following:

1. Road Manager/ Site Agent;
2. Site Technician (Electrical);
3. Foreman (Civil);
4. Foreman (Electrical).

SUB-CLAUSE 4.4: SUBCONTRACTORS

Add after paragraph one the following:

The maximum allowable accumulated value of work subcontracted shall be as stated in the appendix to form of tender.

SUB-CLAUSE 4.8: SAFETY PROCEDURES

Add:

Notwithstanding the Contractor's obligation under Sub-Clause-paragraph (a) – (g) of Sub-Clause 4.8 of the Conditions of Contract, the Contractor shall observe the following measures with a view to enhance Road Safety to the Road Users and Site Workers:

1. Prepare and submit a comprehensive Road Safety Implementation Plan within 28 days after receipt of Order to Commence for the Engineer's Approval. The plan shall include but not limited to the following:
 - Night driving
 - Safety of workers
 - Diversions
 - Traffic management Plan
 - Towing of stalled vehicle
2. The Contractor should identify, evaluate and monitor potential traffic and road safety risks to workers and road users throughout the Contract life cycle and develop measures and plans to address them.
3. The Contractor shall install and maintain standard approved traffic warning signs, directional signs, secure the working areas and deploy flagmen at active construction sites.
4. The Contractor shall assess each phase of the works, monitor incidents and accidents indicating the mitigation measures undertaken and prepare monthly reports to be submitted to the Resident Engineer.
5. The Contractor shall factor the cost of implementation of the Road Safety Plan in the rates for the Works.

Failure by the Contractor to observe the above safety features shall be deemed to be a violation of the Contractor's Obligations and shall be grounds for Suspension and/or Termination.

SUB-CLAUSE 4.18: PROTECTION OF THE ENVIRONMENT

Add:

Notwithstanding the Contractor's obligation under Sub-Clause-paragraph (a), (b) and (c) of Sub-Clause 1 of 4.18 of the Conditions of Contract, the Contractor shall observe the following measures with a view to reducing or elimination adverse environmental effects by the site works:

1. All quarries and borrow pits shall be filled and landscaped to their original state after extraction of construction material
2. Soil erosion due to surface runoff or water from culverts or other drainage structures should be avoided by putting in place proper erosion control measures that shall include, but are not limited to grassing and planting if trees
3. Long traffic diversion roads shall be avoided so as to minimize the effect of dust on the surrounding environment. In any case all diversions shall be kept damp and dust free
4. Spillage of oils, fuels and lubricants shall be avoided and if spilt, shall be collected and disposed of in such a way as not to adversely affect the environment

5. Rock blasting near settlement areas shall be properly coordinated with the relevant officers of the Government so as to minimize noise pollution and community interference.

SUB-CLAUSE 6.1: ENGAGEMENT OF STAFF AND LABOUR

Add the following at the end of clause 6.1:

The Contractor is encouraged, to the extent practicable and reasonable, to employ staff and labour with appropriate qualifications and experience who are Kenya citizens.

Any additional unskilled labour which is required by the Contractor for the works, and which is not in his employment schedule at the time of the acceptance of the Tender shall be recruited by the Contractor from the Labour Exchange or Exchange or Exchanges nearest to the site or sites of the work.

SUB-CLAUSE 6.5: WORKING HOURS

Add at the end of Sub-Clause 6.5 the following:

If the Contractor requests permission to work by night as well as by day, then if the Engineer shall grant such permission the Contractor shall not be entitled to any additional payments for so doing. All such work at night shall be carried out without unreasonable noise or other disturbance and the Contractor shall indemnify the Employer from and against any liability for damages on account of noise or other disturbance created while or in carrying out night work and from and against all claims, demands, proceedings, costs, charges and expenses whatsoever in regard or in relation to such liability.

In addition, the Contractor will be required to provide, for any work carried out at night or recognized days of rest, adequate lighting and other facilities so that the work is carried out safely and properly.

In the event of the Engineer granting permission to the Contractor to work double or rotary shifts or on Sundays, the Contractor shall be required to meet any additional costs to the Employer in the administration and supervision of the Contract arising from the granting of this permission.”

SUB-CLAUSE 6.7: HEALTH AND SAFETY

Add under the first paragraph:

The Contractor shall compensate for loss of damage suffered in consequence of any accident or injury or disease resulting from his work to any workman or other person in the employment of the Contractor or any Subcontractor is in accordance with the Workmen’s Compensation Act of the Laws of Kenya

The Contractor shall ensure adequate safety program with respect to all work under the contract is complied with, whether performed by the Contractor or subcontractor is formulated and enforced. additionally, all records of health, safety and welfare shall be maintained as the Engineer may from time to time prescribe. Reports of accidents shall be submitted to the Engineer.

Add after the last paragraph:

In addition, the Contractor shall notify the Engineer and any relevant Authority the occurrence of these accidents

SUB-CLAUSE 7.4 TESTING

Add at the end of Sub-Clause 7.4 the following:

The Contractor shall submit to the Engineer, Project Specific Quality Management Plan for approval 14 days after issuance of order to commence. The Plan shall include but not limited to:

1. Key staff that will be involved in the project and their role in quality management
2. Resources (Human and machinery) and Resource allocation in quality management
3. Processes and procedures to be followed in quality management
4. Controls to be put in place to ensure that the quality management plan is adhered to.
5. Reporting methodology on quality Management
6. Methodology on inspection, testing, monitoring and measuring to ensure conformity to quality requirement in accordance with the contract.
7. Description on correction action to be undertaken on non-conforming outputs and corrective action to avoid recurrence.

SUBCLAUSE 8.3: PROGRAMME

Add after first paragraph:

The program shall be in the form of a Critical Path Method Network (CPM Network) showing the order of procedure and a description of the construction methods and arrangements by which the Contractor proposes to carry out the works. It should also be supplemented by a time –bar chart of the same program. The program shall be coordinated with climatic, groundwater and other conditions to provide for completion of the works in the order and by the time specified.

The Contractor shall submit to the Engineer not later than the day or date mentioned in the Appendix to the Form of Bid, a general description of his proposed arrangements and methods for the execution of the Works, including temporary offices, buildings, access roads, construction plant and its intended production output, working shift arrangements, labour strength, skilled and unskilled, supervision arrangements, power supply arrangements, supply of materials including a materials utilization program, stone crushing, aggregate production and storage, cement handling, concrete mixing and handling, methods of excavation, dealing with water, testing methods and facilities.

During the execution of the works, the Contractor shall submit to the Engineer full and detailed particulars of any proposed amendments to the arrangements and methods submitted in accordance with the foregoing.

If details of the Contractors proposals for Temporary Works are required by the Engineer for his own information the Contractor shall submit such details within fourteen days of being requested to do so.

The Resident Engineer may at his discretion provide to the Contractor a Format of submitting the Program of Works to comply with the Cash flow projections and budgets assigned to the project

The various operations pertaining to the works shall be carried out in such a progressive sequence as will achieve a continuous and consecutive output of fully completed roadworks inclusive of all bridge works and culverts within the time limits specified in the Contract. Generally, the Contractor shall start at one end of the road and progress continuously towards the other without leaving any isolated section or sections of

uncompleted road provided always that the site of the works has been acquired in its entirety and the encumbrances and services thereon removed.

Add at the end of 8.3;

The Contractor shall allow in his programme all published Kenya public holidays including but not limited to the following per calendar year during which the Contractor shall not be permitted to work.

- New Year's Day (1st January)
- Good Friday
- Easter Monday
- Idd ul fitr
- Labour Day (1st May)
- Madaraka Day (1st June)
- Mazingira Day (10th October)
- Mashujaa Day (20th October)
- Jamhuri day (12th December)
- Christmas Day (25th December)
- Boxing Day (26th December)

The Contractor shall also allow per calendar year for a further 3 unspecified public holidays which may be announced by the Government of Kenya with no prior notification upon which he shall not be permitted to work.

SUBCLAUSE 8.7: DELAY DAMAGES

Add the following paragraphs at the end of this Sub-Clause:

“There shall be no reduction in the amount of liquidated damages in the event that a part or a section of the Works within the Contract is certified as completed before the whole of the Works comprising that Contract.

The Employer shall **NOT** pay any bonus for early completion of the Works to the Contractor.

SUBCLAUSE 11.1: COMPLETION OF OUTSTANDING WORK AND REMEDYING DEFECTS

Add:

At the expiry of the Defects Notification Period, no defect arising from the permanent works existing shall be acceptable for taking over. The Employer shall verify and satisfy themselves that all the outstanding works and defects arising out of the works have been attended to sufficiently. Works shall also be inspected at the End of Defects Notification Period.

SUBCLAUSE 13.1: RIGHT TO VARY

Add the following paragraph at the end of subclause 13.1:

No such variations in any way shall contravene the requirements of Public Procurement and Disposal Act of 2015 and the amendments thereof.

SUB-CLAUSE 14.8: DELAYED PAYMENT

Replace the second paragraph with:

In the event of the failure of the Employer to make payment within the times stated, the Employer shall make payment to the Contractor of simple interest at a rate equal to two percentage points above the mean Base Lending Rate obtained from the Central Bank of Kenya. The provisions of this subclause are without prejudice to the Contractor's entitlements under subclause 16.2 or otherwise.

SUB-CLAUSE 14.15: CURRENCIES OF PAYMENT

The paragraphs are substituted with;

The Contract Price shall be designated in the Kenyan Shillings.

All work performed by the Contractor under the Contract shall be valued in Kenya Shillings using the rates and prices entered in the Bills of Quantities together with such other increases to the Contract Price including variation of price payments in accordance with Clause 13.

SUB-CLAUSE 18.1 GENERAL REQUIREMENTS FOR INSURANCES

Add the following at the end of the second paragraph:

Insurances shall not contain exclusion clauses which limit cover for activities necessary for the execution of the Contract.

All insurances shall cover the entire contract period and an additional three (3) months.

Each policy of insurance effected by the Contractor for purposes of the Contract shall include a provision to the effect that the Insurer shall have a duty to give notice in writing to the Contractor and Employer of the date when a premium becomes payable not be more than thirty (30) days before that date, and the policy shall remain in force until thirty (30) days after the giving of such notice.

SECTION XI - STANDARD CONTRACT FORMS

TABLE OF FORMS

FORM No. 1 - NOTIFICATION OF INTENTION TO AWARD

FORM No. 2 - NOTIFICATION OF AWARD - LETTER OF ACCEPTANCE

FORM No. 3 – FORM OF AGREEMENT

FORM No. 4 - PERFORMANCE SECURITY [Option 1 - Unconditional Demand Bank Guarantee]

FORM No. 5 - PERFORMANCE SECURITY [Option 2 - Performance Bond]

FORM No. 6 - ADVANCE PAYMENT SECURITY

FORM No. 7 - FORM RB 1 APPLICATION FOR PUBLIC PROCUREMENT ADMINISTRATIVE REVIEW BOARD

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]

FORMAT

For the attention of Tenderer's Authorized Representative

Name: *[insert Authorized Representative's name]* Address: *[insert Authorized Representative's Address]* Telephones: *[insert Authorized Representative's telephone/fax numbers]*
Email Address: *[insert Authorized Representative's email address]*

[IMPORTANT: insert the date that this Notification is transmitted to Tenderers. The Notification must be sent to all Tenderers simultaneously. This means on the same date and as close to the same time as possible.]

Date of Transmission:

This Notification is sent by: *[email]* on *[date]* (local time)

Procuring Entity: *[insert the name of the Procuring entity]*

Contract title: *[insert the name of the contract]*

Country: Kenya, County _____ *(if the Procuring Entity is from a County)*

This Notification of Intention to Award (Notification) notifies you of our decision to award the above contract. The transmission of this Notification begins the Standstill Period. During the Standstill Period, you may:

- a) Request a debriefing in relation the evaluation of your Tender, and/or
- b) Submit a Procurement-related Complaint in relation to the decision to award the contract.

1. The successful Tenderer

Name: *[insert name of successful Tenderer]* Address: *[insert address of the successful Tenderer]* Contract price: *[insert contract price of the successful Tender]*

2 Other Tenderers: *insert names of all Tenderers that submitted a Tender. If the Tender's price was evaluated include the evaluated price as well as the Tender price as read out.]*

	Name of Tenderer	Tender price	Evaluated Tender price	Comments (if any)
1				
2				
3				
4				
5				
6				
7				
Etc.				

1. How to request a debriefing

DEADLINE: The deadline to request a debriefing expires at midnight on *[insert date]* (local time).

You may request a debriefing in relation to the results of the evaluation of your Tender. If you decide to request a debriefing your written request must be made within three (3) Business Days of receipt of this Notification of Intention to Award. Provide the contract name, reference number, name of the Tenderer, contact details; and address the request for debriefing as follows:

Attention: *[insert full name of person, if applicable]* **Title/position:** *[insert title/position]* **Procuring Entity:** *[insert name of Procuring Entity]* **Email address:** *[insert email address]*

If your request for a debriefing is received within the 3 Business Days deadline, we will provide the debriefing within five (5) Business Days of receipt of your request. If we are unable to provide the debriefing within this period, the Standstill Period shall be extended by five (5) Business Days after the date that the debriefing is provided. If this happens, we will notify you and confirm the date that the extended Standstill Period will end. The debriefing may be in writing, by phone, video conference call or in person. We shall promptly advise you in writing how the debriefing will take place and confirm the date and time.

If the deadline to request a debriefing has expired, you may still request a debriefing. In this case, we will provide the debriefing as soon as practicable, and normally no later than fifteen (15) Business Days from the date of publication of the Contract Award Notice.

2. How to make a complaint

Period: Procurement-related Complaint challenging the decision to award shall be submitted by midnight, *[insert date]* (local time).

Provide the contract name, reference number, name of the Tenderer, contact details; and address the Procurement-related Complaint as follows:

Attention: *[insert full name of person, if applicable]*

Title/position: *[insert title/position]*

Procuring Entity: *[insert name of Procuring Entity]*

Email address: *[insert email address]*

At this point in the procurement process, you may submit a Procurement-related Complaint challenging the decision to award the contract. You do not need to have requested, or received, a debriefing before making this complaint. Your complaint must be submitted within the Standstill Period and received by us before the Standstill Period ends.

In summary, there are four essential requirements:

- a) You must be an 'interested party'. In this case, that means a Tenderer who submitted a Tender in this tendering process, and is the recipient of a Notification of Intention to Award.
- b) The complaint can only challenge the decision to award the contract.
- c) You must submit the complaint within the period stated above.
- d) You must include, in your complaint, all of the information necessary to support your case.
- e) The application must be accompanied by the fees set out in the Procurement Regulations, which shall not be refundable (information available from the Public Procurement Authority at

www.ppoa.go.ke.

3. Standstill Period

- a) **DEADLINE:** The Standstill Period is due to end at midnight on [*insert date*] (local time).
- i) The Standstill Period lasts fourteen (14) Days after the date of transmission of this Notification of Intention to Award.
 - ii) The Standstill Period may be extended as stated in Section 4 above.

If you have any questions regarding this Notification please do not hesitate to contact us. On behalf of the

Procuring Entity: _____

Name _____

Title and Position _____

Signature _____

Date _____

FORM NO. 2: LETTER OF NOTIFICATION OF AWARD

Letter of Acceptance

[letter head paper of the Procuring Entity]

[date]

FORMAT

To: *[name and address of the Contractor]*

This is to notify you that your Tender dated *[date]* for execution of the *[name of the Contract and identification number, as given in the SCC]* for the Accepted Contract Amount *[amount in numbers and words] [name of currency]*, as corrected and modified in accordance with the Instructions to Tenderers, is hereby accepted by our Agency.

You are requested to furnish the Performance Security within 30 days in accordance with the Conditions of Contract, using, for that purpose, one of the Performance Security Forms included in Section X, Contract Forms, of the tender document.

We attach a copy of the Contract for your

Authorized Signature:

Name and Title of

Signatory: Name of

Agency:

Attachment: Contract Agreement

FORM NO. 3: FORM OF AGREEMENT

FORM OF AGREEMENT

THIS AGREEMENT made the _____ day of _____, _____, between _____ of _____ (hereinafter “the Procuring Entity”), of the one part, and _____ of _____ (herein after “the Contractor”), of the other part:

WHEREAS the Procuring Entity desires that the Works known as _____ should be executed by the Contractor, and has accepted a Tender by the Contractor for the execution and completion of these Works and the remedying of any defects therein, The Procuring Entity and the Contractor agree as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Contract documents referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement. This Agreement shall prevail over all other Contract documents.
 - a) The Letter of Acceptance
 - b) The Letter of Tender
 - c) The addenda Nos _____ (if any)
 - d) The Particular Conditions
 - e) The General Conditions;
 - f) The Specification
 - g) The Drawings; and
 - h) The completed Schedules and any other documents forming part of the contract.
3. In consideration of the payments to be made by the Procuring Entity to the Contractor as specified in this Agreement, the Contractor hereby covenants with the Procuring Entity to execute the Works and to remedy defects therein in conformity in all respects with the provisions of the Contract.
4. The Procuring Entity hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of Kenya on the day, month and year specified above.

Signed by _____

(for the Procuring Entity)

Signed by _____

(for the Contractor)

FORM NO. 4 - PERFORMANCE SECURITY
– (Unconditional Demand Bank Guarantee)

[Guarantor letterhead or SWIFT identifier code]

Beneficiary: _____ *[insert name and Address of Procuring*

Entity] **Date:** _____ *[Insert date of issue]*

PERFORMANCE GUARANTEE No.: _____

Guarantor: *[Insert name and address of place of issue, unless indicated in the letterhead]*

1. We have been informed that _____ (herein after called "the Applicant") has entered into Contract No. _____ dated _____ with the Beneficiary, for the execution of _____ (herein after called "the Contract").
2. Furthermore, we understand that, according to the conditions of the Contract, a performance guarantee is required.
3. At the request of the Applicant, we as Guarantor, here by irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of _____ (),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 this office indicated above on or before that date.
5. The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed *[six months]* *[one year]*, in response to the Beneficiary's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee."

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

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

¹The Guarantor shall insert an amount representing the percentage of the Accepted Contract Amount specified in the Letter of Acceptance, less provisional sums, if any, and denominated either in the currency(cies) of the Contract or a freely convertible currency acceptable to the Beneficiary.

²Insert the date twenty-eight days after the expected completion date as described in GC Clause 11.9. The Procuring Entity should note that in the event of an extension of this date for completion of the Contract, the Procuring Entity would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee. In preparing this guarantee, the Procuring Entity might consider adding the following text to the form, at the end of the pen ultimate paragraph: "The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed *[six months]* *[one year]*, in response to the Beneficiary's written request for such extension, such

request to be presented to the Guarantor before the expiry of the guarantee.”

FORM No. 5 - PERFORMANCE SECURITY OPTION 2– (Performance Bond)

[Note: Procuring Entities are advised to use Performance Security–Unconditional Demand Bank Guarantee instead of Performance Bond due to difficulties involved in calling Bond holder to action]

[Guarantor letterhead or SWIFT identifier code]

Beneficiary: _____ *[insert name and Address of Procuring Entity]*

Date: _____ *[Insert date of issue]*

PERFORMANCE BOND No.: _____

Guarantor: *[Insert name and address of place of issue, unless indicated in the letter head]*

- 1 By this Bond _____ as Principal (hereinafter called “the Contractor”) and _____] as Surety (hereinafter called “the Surety”), are held and firmly bound unto _____] as Obligee (hereinafter called “the Procuring Entity”) in the amount of _____ for the payment of which sum well and truly to be made in the types and proportions of currencies in which the Contract Price is payable, the Contractor and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.
- 2 WHEREAS the Contractor has entered into a written Agreement with the Procuring Entity dated the day of, 20__, for _____ in accordance with the documents, plans, specifications, and amendments thereto, which to the extent here in provided for, are by reference made part hereof and are herein after referred to as the Contract.
- 3 NOW, THEREFORE, the Condition of this Obligation is such that, if the Contractor shall promptly and faithfully perform the said Contract (including any amendments thereto), then this obligation shall be null and void; otherwise, it shall remain in full force and effect. Whenever the Contractor shall be, and declared by the Procuring Entity to be, in default under the Contract, the Procuring Entity having performed the Procuring Entity's obligations there under, the Surety may promptly remedy the default, or shall promptly:
 - 1) Complete the Contract in accordance with its terms and conditions; or
 - 2) Obtain a tender or tenders from qualified tenderers for submission to the Procuring Entity for completing the Contract in accordance with its terms and conditions, and upon determination by the Procuring Entity and the Surety of the lowest responsive Tenderers, arrange for a Contract between such Tenderer, and Procuring Entity and make available as work progresses (even though there should be a default or a succession of defaults under the Contract or Contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the Balance of the Contract Price; but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof. The term “Balance of the Contract Price,” as used in this paragraph, shall mean the total amount payable by Procuring Entity to Contractor under the Contract, less the amount properly paid by Procuring Entity to Contractor; or
 - 3) Pay the Procuring Entity the amount required by Procuring Entity to complete the Contract in accordance with its terms and conditions upto a total not exceeding the amount of this Bond.
- 4 The Surety shall not be liable for a greater sum than the specified penalty of this Bond.
- 5 Any suit under this Bond must be instituted before the expiration of one year from the date of the issuing of the Taking-Over Certificate. No right of action shall accrue on this Bond to or for the use of any person or corporation other than the Procuring Entity named here in or the heirs, executors,

PERFORMANCE BASED CONTRACT FOR THE MAINTENANCE OF ROAD OF NGONG ROAD INTERCHANGE – GITARU (A8S) ROAD

administrators, successors, and assigns of the Procuring Entity.

- 6 In testimony whereof, the Contractor has here unto set his hand and affixed his seal, and the Surety has caused these presents to be sealed with his corporate seal duly attested by the signature of his legal representative, this day _____ of ____20____.

SIGNED ON _____ on behalf of _____

By _____ in the capacity of _____

In the presence of _____

SIGNED ON _____ on behalf of _____

By _____ in the capacity of _____

In the presence of _____

FORM NO. 6 - ADVANCE PAYMENT SECURITY (Not Applicable)

[Demand Bank Guarantee] *[Guarantor letterhead or SWIFT identifier*

code] *[Guarantor letterhead or SWIFT identifier code]*

Beneficiary: _____ *[Insert name and Address of Procuring Entity]* **Date:** _____ *[Insert date of issue]*

ADVANCE PAYMENT GUARANTEE No.: _____ *[Insert guarantee reference number]*

Guarantor: *[Insert name and address of place of issue, unless indicated in the letterhead]*

1. We have been informed that _____ (herein after called “the Applicant”) has entered into Contract No. _____ dated _____ with the Beneficiary, for the execution of _____ (herein after called " the Contract").
2. Furthermore, we understand that, according to the conditions of the Contract, an advance payment in the sum _____ () is to be made against an advance payment guarantee.
3. At the request of the Applicant, we as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of _____ ()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 Applicant on its account number _____ at _____
5. The maximum amount of this guarantee shall be progressively reduced by the amount of the advance payment repaid by the Applicant as specified in copies of interim statements or payment certificates which shall be presented to us. This guarantee shall expire, at the latest, upon our receipt of a copy of the interim payment certificate indicating that ninety (90) percent of the Accepted Contract Amount, less provisional sums, has been certified for payment, or on the _____ day of _____, 20____² whichever is earlier. Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.
6. The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed *[six months]* *[one year]*, in response to the Beneficiary's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee.

[Name of Authorized Official, signature(s) and seals/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(ies) of the advance payment as specified in the Contract, or in a freely convertible currency acceptable to the Procuring Entity.*

² *Insert the expected expiration date of the Time for Completion. The Procuring Entity should note that in the event of an extension of the time for completion of the Contract, the Procuring Entity would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee. In preparing this guarantee, the Procuring Entity might consider adding the following text to the form, at the end of the penultimate paragraph: “The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed [six months] [one year], in response to the Beneficiary's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee.”*

FORM NO. 7: FORM RB 1 APPLICATION FOR PUBLIC PROCUREMENT ADMINISTRATIVE REVIEW BOARD

FOURTEENTH SCHEDULE (r.203(1))

FORM FOR REVIEW PUBLIC PROCUREMENT ADMINISTRATIVE REVIEW BOARD

APPLICATION NO..... OF.....20.....

BETWEEN

..... **APPLICANT (Review Board)**

AND

.....**RESPONDENT (Procuring Entity)**

Request for review of the decision of the..... (Name of the Procuring Entity ofdated the...day of20.....in the matter of Tender No.....of20.... for(Tender description). REQUEST FOR REVIEW I/We....., the above-named Applicant(s), of address: Physical address..... P. O. Box No..... Tel. No..... Email, hereby request the Public Procurement Administrative Review Board to review the whole/part of the above-mentioned decision on the following grounds, namely: 1. 2. By this memorandum, the Applicant requests the Board for an order/orders that: 1. 2. SIGNED (Applicant) Dated on..... day of/...20.....

OFFICIAL USE ONLY

FOR

Lodged with the Secretary Public Procurement Administrative Review Board on.....day of 20.....

SIGNED

Board Secretary

FORM NO. 8 BENEFICIAL OWNERSHIP DISCLOSURE FORM

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. 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 Tenderer by meeting one or more of the following conditions:

- *Directly or indirectly holding 25% or more of the shares.*
- *Directly or indirectly holding 25% or more of the voting rights.*
- *Directly or indirectly having the right to appoint a majority of the board of directors or equivalent governing body of the Tenderer.*

Tender Reference No.: _____ [insert identification

no] Name of the Assignment: _____ [insert name of the assignment]

to: _____ [insert complete name of Procuring Entity]

In response to 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

Identity of Beneficial Owner	Directly or indirectly holding 25% or more of the shares (Yes / No)	Directly or indirectly holding 25 % or more of the Voting Rights (Yes / No)	Directly or indirectly having the right to appoint a majority of the board of the directors or an equivalent governing body of the Tenderer (Yes / No)
<i>[include full name (last, middle, first), nationality, country of residence]</i>			

OR

- ii) *We declare that there is no Beneficial Owner meeting one or more of the following conditions: directly or indirectly holding 25% or more of the shares. Directly or indirectly holding 25% or more of the voting rights. Directly or indirectly having the right to appoint a majority of the board of directors or equivalent governing body of the Tenderer.*

OR

We declare that we are unable to identify any Beneficial Owner meeting one or more of the following conditions. [If this option is selected, the Tenderer shall provide explanation on why it is unable to identify any Beneficial Owner]

Directly or indirectly holding 25% or more of the shares. Directly or indirectly holding 25% or more of the voting rights.

Directly or indirectly having the right to appoint a majority of the board of directors or equivalent governing body of the Tenderer]”

*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]*

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]