



**ROADS AND FLEET MANAGEMENT DEPARTMENT**

**TENDER NO. KWS/OT/DEV/66/2020-2021**

**REHABILITATION OF TOURISM CIRCUIT ROADS**

**IN**

**LAKE NAKURU NATIONAL PARK**

**June 2021**

**(Open to All)**

**HEAD, ROADS AND FLEET MANAGEMENT,  
KENYA WILDLIFE SERVICE,  
P.O.BOX 40241 – 00100 ,  
NAIROBI**

**DIRECTOR GENERAL,  
KENYA WILDLIFE SERVICE,  
P.O.BOX 40241 – 00100 ,  
NAIROBI**

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**SECTION I**  
**INVITATION TO TENDER**



Address: P.O.BOX 40241-00100  
Nairobi

## INVITATION FOR TENDER

Tender Reference No. KWS/OT/DEV/66/2020-2021

**Tender Name: Rehabilitation of Tourism Circuit Roads in Lake Nakuru National Park**

Kenya Wildlife Service now invites eligible contractors to bid for the Works. Eligible contractors are those registered as road works contractors by the National Construction Authority (NCA) **Category 5, 4, 3, 2 and 1 with current practising license** for the rehabilitation works of **Lanet Gate- Lion Hill Picnic Site – Nderit Junction Road (14.5km) and Naishi Junction-Makalia Falls-Sopa Junction Road (10.2km) in Lake Nakuru National Park.**

The works are to be funded through GoK-Development Vote.

### **SCOPE OF WORK**

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

### **QUALIFICATION FOR TENDERING- MANDATORY REQUIREMENTS**

Eligible bidders must also submit the following among other eligibility requirements listed in the instruction to bidders;

- i) Certified Copy of Certificate of Incorporation/Business Registration name under the Companies Act.
- ii) A certified current copy of Form CR12 for limited companies issued by the Registrar of Companies (not older than 12 months, as at the time of the tender closing / Opening), that indicates the ownership of the company.
- iii) Copy of a valid Tax Compliance Certificate from Kenya Revenue Authority (KRA) as at the time of tender opening/closing.
- iv) Valid current annual NCA practising licence for either category 5, 4, 3, 2 or 1.
- v) A declaration that the bidder will not engage in any corrupt or fraudulent practice.
- vi) A declaration that the bidder or her sub-contractor(s) are not debarred from participating in procurement proceedings by Public Procurement Regulatory Authority (PPRA).
- vii) Original Tender Security of **KES 1,000,000.00** (One Million Shillings). The tender security shall be issued in Kenya Shillings or a freely convertible currency and the form of a Bank Guarantee or an Insurance Guarantee from Insurance Companies approved by PPRA / deposit-taking Microfinance institutions, SACCO societies, Youth Enterprise Development Fund or Women Enterprise Development Fund.
- viii) The Tender Security shall be in the **standard format** provided in the tender document and valid for a period of 120 days from the date of tender opening.
- ix) In compliance with the Covid-19 measures and guidelines issued by the Ministry of Health, there shall be a **MANDATORY VIRTUAL PRE-BID CONFERENCE** on **Tuesday 6<sup>th</sup> July 2021 at 10:00 am** for the bidders to be able to understand the scope of works and instructions to bidders. All those who intend to participate in this tender **MUST** complete the Form of

Confirmation of Participation and understanding the scope of works as described in Schedule 3 of the Tender document.

- x) This form must be submitted through the procuring entity's email: [hps@kws.go.ke](mailto:hps@kws.go.ke) not later than **Wednesday 30<sup>th</sup> June 2021 for recording/registration and planning of the virtual pre-bid conference and opening of tenders in line with Covid-19 measures and guidelines.** Those registering for participation beyond 30<sup>th</sup> June 2021 **shall be disqualified.** The procuring entity **shall not** accept any **physical delivery** of Form of Confirmation of Participation and understanding the scope of work. Bidders who shall not comply with this requirement shall be disqualified.
- xi) The representative during the pre-bid conference should be of relevant Civil Engineering profession to understand the details during the pre-bid meeting and appreciate the scope of work and site conditions.
- xii) Bidders with ongoing works with KWS that have not been completed will not be eligible for bidding in these tenders and will be disqualified.
- xiii) The bidders shall comply with all the instructions of the tender and submit a complete set of tender documents as per the Instruction to bidders Clause 9.1 and ensure that all the forms required are properly filled for completeness.
- xiv) All the pages of the bid document **MUST** be sequentially serialized from the first to the last page. Bidders who fail to comply with this criterion will be disqualified.
- xv) The document **MUST** be book or tape bound.

Tender documents containing detailed specifications can be downloaded for free at our website; [www.kws.go.ke](http://www.kws.go.ke) or the Public Procurement Information Portal <https://www.tenders.go.ke>

Communication regarding the tender must be in writing through the email address: [hps@kws.go.ke](mailto:hps@kws.go.ke)

All clarifications and/or amendments will be published on the KWS website and tenderers are required to check for any addendums or amendments in the course of the bidding period prior to the closing date.

The complete tenders enclosed in sealed envelopes clearly marked with the appropriate **Tender Number and Road Name** shall be submitted to:

Director General,  
Kenya Wildlife Service,  
KWS, Headquarters, Langata Road,  
P. O. Box 40241-00100,  
**NAIROBI, KENYA**

Or by depositing them in the Tender Box on Ground Floor, Main Reception on or **before 10.00 am on Monday 12<sup>th</sup> July 2021.**

Opening of the Tenders will take place immediately thereafter in the KWS Conference Room in the presence of bidders' representatives who wish to attend. Opening of the Tenders will take place immediately thereafter in the KWS Conference Room in the presence of bidders representatives who wish to attend.

**DIRECTOR GENERAL**

**SECTION II**  
**INSTRUCTIONS TO TENDERERS**

## SECTION II - INSTRUCTION TO TENDERERS

Note: The tenderer must comply with the following conditions and instructions and failure to do so is liable to result in rejection of the tender.

### GENERAL

#### 1. Definitions

- (a) “Tenderer” means any persons, partnership firm or company submitting a sum or sums in the Bills of Quantities in accordance with the Instructions to Tenderers, Conditions of Contract Parts I and II, Specifications, Drawings and Bills of Quantities for the work contemplated, acting directly or through a legally appointed representative.
- (b) “Approved tenderer” means the tenderer who is approved by the Employer
- (c) Any noun or adjective derived from the word “tender” shall be read and construed to mean the corresponding form of the noun or adjective “bid”. Any conjugation of the verb “tender” shall be read and construed to mean the corresponding form of the verb “bid.”
- (d) “Employer” means the Director General – Kenya Wildlife Service.

#### 2. Eligibility and Qualification Requirements

##### 2.1 Eligibility requirements

This invitation to tender is open to all bidders who are qualified and meet eligibility requirements stated in the appendix to Instruction to Tenderers (ITT).

##### 2.2 Qualification Requirements

To be qualified for award of Contract, the tenderer shall provide evidence satisfactory to the Employer of their eligibility under Sub clause 2.1 above and of their capability and adequacy of resources to effectively carry out the subject Contract. To this end, the tenderer shall be required to update the following information already submitted during prequalification:-

- (a) Details of experience and past performance of the tenderer on the works of a similar nature and details of current work on hand and other contractual commitments.
- (b) The qualifications and experience of key personnel proposed for administration and execution of the contract, both on and off site.
- (c) Major items of construction plant and equipment proposed for use in carrying out the Contract. Only reliable plant in good working order and suitable for the work required of it shall be shown on this schedule. The tenderer will also indicate on this schedule when each item will be available on the Works. Included also should be a schedule of plant, equipment and material to be imported for the purpose of the Contract, giving details of make, type, origin and CIF value as appropriate.

- (d) Details of sub-contractors to whom it is proposed to sublet any portion of the Contract and for whom authority will be requested for such subletting in accordance with clause 4 of the Condition of Contract.
- (e) A draft Program of Works in the form of a bar chart and Schedule of Payment which shall form part of the Contract if the tender is accepted. Any change in the Program or Schedule shall be subjected to the approval of the Engineer.
- (f) Details of any current litigation or arbitration proceedings in which the tenderer is involved as one of the parties.

### 2.3 Joint Ventures

Tenders submitted by a joint venture of two or more firms as partners shall comply with the following requirements:-

- (a) The tender, and in case of a successful tender, the Form of Agreement, shall be signed so as to be legally binding on all partners
- (b) One of the partners shall be nominated as being in charge, and this authorization shall be evidenced by submitting a power of attorney signed by legally authorized signatories of all the partners
- (c) The partner in charge shall be authorized to incur liabilities and receive instructions for an on behalf of any and all partners of the joint venture and the entire execution of the Contract including payment shall be done exclusively with the partner in charge.
- (d) All partners of the joint venture shall be liable jointly and severally for the execution of the Contract in accordance with the Contract terms, and a relevant statement to this effect shall be included in the authorization mentioned under (b) above as well as in the Form of Tender and the Form of Agreement (in case of a successful tender)
- (e) A copy of the agreement entered into by the joint venture partners shall be submitted with the tender.

### 3. Cost of Tendering

- 3.1 The Tenderer shall bear all costs associated with the preparation and submission of his tender and the Employer will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the tendering process.
- 3.2 A complete set of tender documents may be obtained free of charge from Kenya Wildlife Website: [www.kws.go.ke](http://www.kws.go.ke) or through the link <http://www.kws.go.ke/info/tenders.html>.



**4. Site Visit**

- 4.1. The tenderer is advised to visit and examine the Site and its surroundings and obtain for himself on his own responsibility, all information that may be necessary for preparing the tender and entering into a contract. The costs of visiting the Site shall be the tenderer's own responsibility
- 4.2. The tenderer and any of his personnel or agents will be granted permission by the Employer to enter upon premises and lands for the purpose of such inspection, but only upon the express condition that the tenderer, his personnel or agents, will release and indemnify the Employer from and against all liability in respect of, and will be responsible for personal injury (whether fatal or otherwise), loss of or damage to property and any other loss, damage, costs and expenses however caused, which but for the exercise of such permission, would not have arisen.
- 4.3. The Employer shall organize a site visit at a date and venue to be notified. A representative of the Employer will be available to meet the intending tenderers at the Site. Tenderers must provide their own transport. The representative will not be available at any other time for site inspection visits.
- 4.4. Each tenderer shall sign the attendance register and certificate of Site visit at the time of the organized site visit.
- 4.5. Bidders who participated in the organized pretender site visit can revisit the site later at their own time and cost with prior arrangement with the park management.

## **TENDER DOCUMENTS**

### **5 Tender Documents**

5.1 The Tender documents comprise the documents listed here below and should be read together with any Addenda issued in accordance with Clause 7 of these instructions to tenderers.

- a. Form of Invitation for Tenders
- b. Instructions to Tenderers
- c. Form of Tender
- d. Appendix to Form of Tender
- e. Form of Tender Surety
- f. Statement of Foreign Currency Requirements
- g. Schedules of Supplementary Information
- h. Details of Sub contractors
- i. General Conditions of Contract – Part I
- j. Conditions of Particular Application – Part II
- k. Specifications
- l. Bills of Quantities
- m. Drawings
- n. Declaration Form

5.2 The tenderer is expected to examine carefully all instructions, conditions, forms, terms, specifications and drawings in the tender documents. Failure to comply with the requirements for tender submission will be at the tenderer's own risk. Pursuant to clause 22 of Instructions to Tenderers, tenders which are not substantially responsive to the requirements of the tender documents will be rejected.

5.3 All recipients of the documents for the proposed Contract for the purpose of submitting a tender (whether they submit a tender or not) shall treat the details of the documents as "private and confidential".

### **6 Inquiries by tenderers**

6.1 A tenderer making an inquiry relating to the tender document may notify the Employer in writing or by email at the Employer's mailing address indicated in the Invitation to Tender. The Employer will respond in writing to any request for clarification which he receives earlier than 7 days prior to the deadline for the submission of tenders. Written copies of the Employer's response (including the query but without identifying the source of the inquiry) will be sent to all prospective tenderers who have purchased the tender documents.

- 6.2 The procuring entity shall reply to any clarifications sought by the tenderer within 3 days of receiving the request to enable the tenderer to make timely submission of its tender.

**7 Amendment of Tender Documents**

- 7.1 At any time prior to the deadline for submission of tenders the Employer may, for any reason, whether at his own initiative or in response to a clarification requested by a prospective tenderer, modify the tender documents by issuing Addenda.
- 7.2 Any Addendum will be notified in writing or by e-mail or through the KWS website to all prospective tenderers and will be binding upon them.
- 7.3 In order to allow prospective tenderers reasonable time in which to take the Addendum into account in preparing their tenders, the Employer may, at his discretion, extend the deadline for the submission of tenders.

## **PREPARATION OF TENDERS**

### **8 Language of Tender**

- 8.1 The tender and all correspondence and documents relating to the tender exchanged between the tenderer and the Employer shall be written in the English language. Supporting documents and printed literature furnished by the tenderer with the tender may be in another language provided they are accompanied by an appropriate translation of pertinent passages in the above stated language. For the purpose of interpretation of the tender, the English language shall prevail.

### **9 Documents Comprising the Tender**

- 9.1 The tender to be prepared by the tenderer shall comprise:

- i) the Form of Tender and Appendix thereto,
- ii) a Tender Security
- iii) the Priced Bills of Quantities and Schedules
- iv) the information on eligibility and qualification
- v) Any other materials required to be completed and submitted in accordance with the Instructions to Tenderers.

The Forms, Bills of Quantities and Schedules provided in the tender documents shall be used without exception (subject to extensions of the schedules in the same format and to the provisions of clause 13.2 regarding the alternative forms of Tender Surety).

### **10 Tender Prices**

- 10.1 All the insertions made by the tenderer shall be made in INK and the tenderer shall clearly form the figures. The relevant space in the Form of Tender and Bills of Quantities shall be completed accordingly without interlineations or erasures except those necessary to correct errors made by the tenderer in which case the erasures and interlineations shall be initialled by the person or persons signing the tender.
- 10.2 A price or rate shall be inserted by the tenderer for every item in the Bills of Quantities whether the quantities are stated or not. Items against which no rate or price is entered by the tenderer will not be paid for by the Employer when executed and shall be deemed covered by the rates for other items and prices in the Bills of Quantities.

The prices and unit rates in the Bills of Quantities are to be the full [all-inclusive] value of the Work described under the items, including all costs and expenses which may be necessary and all general risks, liabilities and obligations set forth or implied in the documents on which the tender is based. All duties, taxes and other levies payable by the Contractor under the Contract, or for any other cause 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.

Each price or unit rate inserted in the Bills of Quantities should be a realistic estimate for completing the activity or activities described under that particular item and the tenderer is advised against inserting a price or rate against any item contrary to this instruction.

Every rate entered in the Bills of Quantities, whether or not such rate be associated with a quantity, shall form part of the Contract. The Employer shall have the right to call for any item of work contained in the Bills of Quantities, and such items of work to be paid for at the rate entered by the tenderer and it is the intention of the Employer to take full advantage of unbalanced low rates.

- 10.3 Unless otherwise specified the tenderer must enter the amounts representing 10% of the sub-total of the summary of the Bills of Quantities for Contingencies and Variation of Prices [V.O.P.] payments in the summary sheet and add them to the sub-total to arrive at the tender amount.
- 10.4 The tenderer shall furnish with his tender written confirmation from his suppliers or manufacturers of basic unit rates for the supply of items listed in the Conditions of Contract clause 70 where appropriate. The Employer may require the tenderer to justify such rates so obtained from the suppliers or manufacturers.
- 10.5 The rates and prices quoted by the tenderer are subject to adjustment during the performance of the Contract only in accordance with the Provisions of the Conditions of Contract. The tenderer shall complete the schedule of basic rates and shall submit with his tender such other supporting information as required under clause 70 of the Conditions of Contract Part II.
- 10.6 Contract price variations shall not be allowed within the first 12 months of the contract.
- 10.7 Where quantity contract variation is allowed, the variation shall not exceed 25% of the original contract quantity.
- 10.8 Price variation requests shall be processed by the procuring entity within 30 days of receiving the request.

## 11 Currencies of Tender and Payment

- 11.1 Tenders shall be priced in **Kenya Shillings** and the tender sum shall be in **Kenya Shillings**.
- 11.2 Tenderers are required to indicate in the Statement of Foreign Currency Requirements, which forms part of the tender, the foreign currency required by them. Such currency should generally be the currency of the country of the tenderer's main office. However, if a substantial portion of the tenderer's expenditure under the Contract is expected to be in countries other than his country of origin, then he may state a corresponding portion of the contract price in the currency of those other countries. However, the foreign currency element is to be limited to two (2) different currencies and a maximum of 30% (thirty percent) of the Contract Price.
- 11.3 The rate or the rates of exchange used for pricing the tender shall be the selling rate or rates of the Central Bank ruling on the date thirty (30) days before the final date for the submission of tenders.

- 11.4 Tenderers must enclose with their tenders, a brief justification of the foreign currency requirements stated in their tenders.

## **12 Tender Validity**

- 12.1 The tender shall remain valid and open for acceptance for a period of ninety (90) calendar days from the specified date of tender opening or from the extended date of tender opening (in accordance with clause 7.3 here above) whichever is the later.
- 12.2 In exceptional circumstances prior to expiry of the original tender validity period, the Employer may request the tenderer for a specified extension of the period of validity. The request and the responses there to shall be made in writing or by email or through the KWS website and advert through local daily newspapers. A tenderer may refuse the request without forfeiting his Tender Surety. A tenderer agreeing to the request will not be required nor permitted to modify his tender, but will be required to extend the validity of his Tender Surety correspondingly.

## **13 Tender Security**

- 13.1 The tenderer shall furnish as part of his tender, a Tender Security in the amount and form stated in the Appendix to Instructions to Tenderers.
- 13.2 The Tender Security shall be valid at least thirty (30) days beyond the tender validity period.
- 13.3 Any tender not accompanied by an acceptable Tender Surety will be rejected by the Employer as non-responsive.
- 13.4 The Tender Sureties of unsuccessful tenderers will be returned as promptly as possible as but not later than twenty eight (28) days after expiration of the tender validity period. The Tender Surety of the successful tenderer will be returned upon the tenderer executing the Contract and furnishing the required Performance Security.
- 13.5 The Tender Surety may be forfeited:
- a) If a tenderer withdraws his tender during the period of tender validity: or
  - b) in the case of a successful tenderer, if he fails, within the specified time limit
    - i. to sign the Agreement, or
    - ii. to furnish the necessary Performance Security
  - c) If a tenderer does not accept the correction of his tender price pursuant to clause 23.

## **14 No Alternative Offers**

- 14.1 The tenderer shall submit an offer which complies fully with the requirements of the tender documents unless otherwise provided for in the appendix.

Only one tender may be submitted by each tenderer either by himself or as partner in a joint venture. A tenderer who submits or participates in more than one tender will be disqualified.

- 14.2 The tenderer shall not attach any conditions of his own to his tender. The tender price must be based on the tender documents. The tenderer is not required to present alternative construction

options and he shall use without exception, the Bills of Quantities as provided, with the amendments as notified in tender notices, if any, for the calculation of his tender price. Any tenderer who fails to comply with this clause will be disqualified.

## **15 Pre-tender Meeting**

**15.1** If a pre-tender meeting is convened, the tenderer's designated representative is invited to attend at the venue and time in the Invitation to Tender. The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.

**15.2** The tenderer is requested as far as possible to submit any questions in writing or by email, to reach the Employer not later than seven (7) days before the meeting. It may not be practicable at the meeting to answer questions received late, but questions and responses will be transmitted in accordance with the following:

- (a) Minutes of the meeting, including the text of the questions raised and the responses given together with any responses prepared after the meeting, will be transmitted without delay to all purchasers of the tender documents. Any modification of the tender documents listed in – Clause 9 which may become necessary as a result of the pre-tender meeting shall be made by the Employer exclusively through the issue of a tender notice pursuant to Clause 7 and not through the minutes of the pre-tender meeting.
- (b) Non attendance at the pre-bid meeting will not be cause for disqualification of a bidder.

## **16 Format and Signing of Tenders**

**16.1** The tenderer shall prepare his tender as outlined in clause 9 above and mark appropriately one set "ORIGINAL" and the other "COPY".

**16.2** The copy of the tender and Bills of Quantities shall be typed or written in indelible ink and shall be signed by a person or persons duly authorized to sign on behalf of the tenderer. All pages of the tender where amendments have been made shall be initialled by the person or persons signing the tender.

**16.3** The complete tender shall be without alterations, interlineations or erasures, except as necessary to correct errors made by the tenderer, in which case such corrections shall be initialled by the person or persons signing the tender.

## **SUBMISSION OF TENDERS**

### **17 Tender format, Sealing and Marking of Tenders**

- 17.1 The tenderer shall seal the original and copy of the tender in separate envelopes, duly marking the envelopes as “ORIGINAL” and “COPY”. The envelopes shall then be sealed in an outer separate envelope. The **copy** shall be a replica of the **Original**.
- 17.2 The inner and outer envelopes shall be addressed to the Employer at the address stated in the Appendix to Instructions to Tenderers and bear the name and identification of the Contract stated in the said Appendix with a warning not to open before the date and time for opening of tenders stated in the said Appendix.
- 17.3 The inner envelopes shall each indicate the name and address of the tenderer to enable the tender to be returned unopened in case it is declared “late”, while the outer envelope shall bear no mark indicating the identity of the tenderer.
- 17.4 If the outer envelope is not sealed and marked as instructed above, the Employer will assume no responsibility for the misplacement or premature opening of the tender. A tender opened prematurely for this cause will be rejected by the Employer and returned to the tenderer.

### **18 Deadline for Submission of Tenders**

- 18.1 Tenders must be received by the Employer at the address specified in clause 17.2 and on the date and time specified in the Letter of Invitation, subject to the provisions of clause 7.3, 18.2 and 18.3.
- Tenders delivered by hand must be placed in the “tender box” provided in the office of the Employer. Proof of posting will not be accepted as proof of delivery and any tender delivered after the above stipulated time, from whatever cause arising will not be considered.
- 18.2 The Employer may, at his discretion, extend the deadline for the submission of tenders through the issue of an Addendum in accordance with clause 7, in which case all rights and obligations of the Employer and the tenderers previously subject to the original deadline shall thereafter be subject to the new deadline as extended.
- 18.3 Any tender received by the Employer after the prescribed deadline for submission of tender will be returned unopened to the tenderer.



**19 Modification and Withdrawal of Tenders**

- 19.1 The tenderer may modify or withdraw his tender after tender submission, provided that written notice of the modification or withdrawal is received by the Employer prior to the prescribed deadline for submission of tenders.
- 19.2 The tenderer's modification or withdrawal notice shall be prepared, sealed, marked and dispatched in accordance with the provisions for the submission of tenders, with the inner and outer envelopes additionally marked "MODIFICATION" or "WITHDRAWAL" as appropriate.
- 19.3 No tender may be modified subsequent to the deadline for submission of tenders.
- 19.4 No tender may be withdrawn in the interval between the deadline for submission of tenders and the period of tender validity specified on the tender form. Withdrawal of a tender during this interval will result in the forfeiture of the Tender Surety.
- 19.5 Subsequent to the expiration of the period of tender validity prescribed by the Employer, and the tenderer having not been notified by the Employer of the award of the Contract or the tenderer does not intend to conform with the request of the Employer to extend the period of tender validity, the tenderer may withdraw his tender without risk of forfeiture of the Tender Surety.

**TENDER OPENING AND EVALUATION****20 Tender Opening**

- 20.1 The Employer will open the tenders in the presence of the tenderers' representatives who choose to attend at the time and location indicated in the Letter of Invitation to Tender. The tenderers' representatives who are present shall sign a register evidencing their attendance.
- 20.2 Tenders for which an acceptable notice of withdrawal has been submitted, pursuant to clause 19, will not be opened. The Employer will examine the tenders to determine whether they are complete, whether the requisite Tender Sureties have been furnished, whether the documents have been properly signed and whether the tenders are generally in order.
- 20.3 At the tender opening, the Employer will announce the tenderer's names, total tender price, tender price modifications and tender withdrawals, if any, the presence of the requisite Tender Surety and such other details as the Employer, at his discretion, may consider appropriate. No tender shall be rejected at the tender opening except for late tenders.
- 20.4 The Employer shall prepare minutes of the tender opening including the information disclosed to those present.
- 20.5 Tenders not opened and read out at the tender opening shall not be considered further for evaluation, irrespective of the circumstances.

**21 Process to be Confidential**

- 21.1 After the public opening of tenders, information relating to the examination, clarification, evaluation and comparisons of tenders and recommendations concerning the award of Contract shall not be disclosed to tenderers or other persons not officially concerned with such process until the award of Contract is announced.
- 21.2 Any effort by a tenderer to influence the Employer in the process of examination, evaluation and comparison of tenders and decisions concerning award of Contract may result in the rejection of the tenderer's tender.

**22 Clarification of Tenders**

- 22.1 To assist in the examination, evaluation and comparison of tenders, the Employer may ask tenderers individually for clarification of their tenders, including breakdown of unit prices. The request for clarification and the response shall be in writing or by email, but no change in the price or substance of the tender shall be sought, offered or permitted except as required to confirm the correction of arithmetical errors discovered by the employer during the evaluation of the tenders in accordance with clause 24.
- 22.2 No tenderer shall contact the Employer on any matter relating to his tender from the time of the tender opening to the time the Contract is awarded. If the tenderer wishes to bring additional information to the notice of the Employer, he shall do so in writing.

**23 Determination of Responsiveness**

- 23.1 Prior to the detailed evaluation of tenders, the Employer will determine whether each tender is substantially responsive to the requirements of the tender documents. KWS's determination of a Tender's responsiveness is to be based on the contents of the Tender itself without recourse to extrinsic evidence.
- 23.2 For the purpose of this clause, a substantially responsive tender is one which conforms to all the terms, conditions and specifications of the tender documents without material deviation or reservation. A material deviation or reservation is one which affects in any substantial way the scope, quality, completion timing or administration of the Works to be undertaken by the tenderer under the Contract, or which limits in any substantial way, inconsistent with the tender documents, the Employer's rights or the tenderers obligations under the Contract and the rectification of which would affect unfairly the competitive position of other tenderers who have presented substantially responsive tenders.
- 23.3 Each price or unit rate inserted in the Bills of Quantities shall be a realistic estimate of the cost of completing the works described under the particular item including allowance for overheads, profits and the like. Should a tender be seriously unbalanced in relation to the Employer's estimate of the works to be performed under any item or groups of items, the tender shall be deemed not responsive.
- 23.4 A tender determined to be not substantially responsive will be rejected by the Employer and may not subsequently be made responsive by the tenderer by correction of the non-conforming deviation or reservation.
- 23.5 Post-qualification criteria are as provided in the Appendix to instruction to tenderers.

**24 Correction of Errors**

Tenders determined to be substantially responsive shall be checked by the Employer for any arithmetic errors in the computations and summations. Errors will be corrected by the Employer as follows:

- (a) Where there is a discrepancy between the amount in figures and the amount in words, the amount in words will govern.
- (b) Where there is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by the quantity, the unit rate as quoted will prevail, unless in the opinion of the Employer, there is an obvious typographical error, in which case adjustment will be made to the entry containing that error.
- (c) In the event of a discrepancy between the tender amount as stated in the Form of Tender and the corrected tender figure in the main summary of the Bills of Quantities, the amount as stated in the Form of Tender shall prevail.
- (d) The Error Correction Factor shall be computed by expressing the difference between the tender amount and the corrected tender sum as a percentage of the corrected builder's work (i.e. corrected tender sum less Prime Cost and Provisional Sums).

- (e) The Error Correction Factor shall be applied to all builder's work (as a rebate or addition as the case may be) for the purposes of valuations for Interim Certificates and valuations of variations.
- (f) The amount stated in the tender will be adjusted in accordance with the above procedure for the correction of errors and, with concurrence of the tenderer, shall be considered as binding upon the tenderer. If the tenderer does not accept the corrected amount, the tender may be rejected and the Tender Security may be forfeited in accordance with clause 13.

## **25 Conversion to Single Currency**

**25.1** For compensation of tenders, the tender price shall first be broken down into the respective amounts payable in various currencies by using the selling rate or rates of the Central Bank of Kenya ruling on the date twenty one (21) days before the final date for the submission of tenders.

**25.2** The Employer will convert the amounts in various currencies in which the tender is payable (excluding provisional sums but including Day works where priced competitively) to Kenya Shillings at the selling rates stated in clause 25.1.

## **26 Evaluation and Comparison of Tenders**

**26.1** The Employer will evaluate only tenders determined to be substantially responsive to the requirements of the tender documents in accordance with clause 23.

**26.2** In evaluating tenders, the Employer will determine for each tender the evaluated tender price by adjusting the tender price as follows:

- (a) Making any correction for errors pursuant to clause 24.
- (b) Excluding Provisional Sums and provision, if any, for Contingencies in the Bills of Quantities, but including Day works where priced competitively.

**26.3** The Employer reserves the right to accept any variation, deviation or alternative offer. Variations, deviations, alternative offers and other factors which are in excess of the requirements of the tender documents or otherwise result in the accrual of unsolicited benefits to the Employer, shall not be taken into account in tender evaluation.

**26.4** Price adjustment provisions in the Conditions of Contract applied over the period of execution of the Contract shall not be taken into account in tender evaluation.

**26.5** If the lowest evaluated tender is seriously unbalanced or front loaded in relation to the Employer's estimate of the items of work to be performed under the Contract, the Employer may require the tenderer to produce detailed price analyses for any or all items of the Bills of Quantities, to demonstrate the relationship between those prices, proposed construction methods and schedules. After evaluation of the price analyses, the Employer may require that the amount of the Performance Security set forth in clause 29 be increased at the expense of the successful tenderer to a level sufficient to protect the Employer against financial loss in the event of subsequent default of the successful tenderer under the Contract.

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- 26.6** Firms incorporated in Kenya where indigenous Kenyans own 51% or more of the share capital shall be allowed a 10% preferential bias provided that they do not sub-contract work valued at more than 50% of the Contract Price excluding provisional sums to a non-indigenous sub-contractor.
- 26.7** Preference where allowed in the evaluation of tenders shall not exceed 15%
- 26.8** The procuring entity may at any time terminate procurement proceedings before contract award and shall not be liable to any person for the termination.
- 26.9** The procuring entity shall give prompt notice of the termination to the tenderers and on request give its reasons for termination within 14 days of receiving the request from any tenderer.
- 26.10** A tenderer who gives false information in the tender document about its qualification or who refuses to enter into a contract after notification of contract award shall be considered for debarment from participating in future public procurement.
- 26.11** Poor past performance shall not be used as an evaluation criteria unless specifically provided for in the appendix.

## **AWARD OF CONTRACT**

### **27. Award Criteria**

- 27.1 Subject to Sub-clause 27.2, the Employer will award the Contract to the tenderer whose tender is determined to be substantially responsive to the tender documents and who has offered the lowest evaluated tender price subject to possessing the capability and resources to effectively carry out the Contract Works as required in Sub-clause 2.1 and 2.2 here above.
- 27.2 The Employer reserves the right to accept or reject any tender, and to annul the tendering process and reject all tenders, at any time prior to award of Contract, without thereby incurring any liability to the affected tenderers or any obligation to inform the affected tenderers of the grounds for the Employer's action.

### **28 Notification of Award**

- 28.1 Prior to the expiration of the period of tender validity prescribed by the Employer, the Employer will notify the successful tenderer by cable, telefax or telex and confirmed in writing by registered letter that his tender has been accepted. This letter (hereinafter and in all Contract documents called "Letter of Acceptance") shall name the sum (hereinafter and in all Contract documents called "the Contract Price") which the Employer will pay to the Contractor in consideration of the execution and completion of the Works as prescribed by the Contract.
- 28.2 At the same time that the Employer notifies the successful tenderer that his tender has been accepted, the Employer shall notify the other tenderers that the tenders have been unsuccessful.
- 28.3 Within fourteen [14] days of receipt of the Form of Contract Agreement from the Employer, the successful tenderer shall sign the form and return it to the Employer together with the required Performance Security.
- 28.4 The parties to the contract shall have it signed within 30 days from the date of notification of contract award unless there is an administrative review request.

### **29 Performance Guarantee**

- 29.1 Within twenty eight [28] days of receipt of the notification of award from the Employer, the successful tenderer shall furnish the Employer with a Performance Security in the amount stated in the Appendix to Instructions to Tenderers and in the format stipulated in the Conditions of Contract.
- 29.2 The Performance Security to be provided by the successful tenderer shall be an unconditional Bank Guarantee issued at the tenderer's option by a reputable Bank approved by the Employer and located in the Republic of Kenya and shall be divided into two elements namely, a performance security payable in foreign currencies (based upon the exchange rates determined in accordance with clause 60(5) of the Conditions of Contract) and a performance security payable in Kenya Shillings. The value of the two securities shall be in the same proportions of foreign and local currencies as requested in the form of foreign currency requirements.

- 29.3 Failure of the successful tenderer to lodge the required Performance Security shall constitute a breach of Contract and sufficient grounds for the annulment of the award and forfeiture of the Tender Security and any other remedy under the Contract. The Employer may award the Contract to the next ranked tenderer.

**30 Advance Payment**

An advance payment, if approved by the Employer, shall be made under the Contract, if requested by the Contractor, in accordance with clause 60(1) of the Conditions of Contract. The Advance Payment Guarantee shall be denominated in the proportion and currencies named in the form of foreign currency requirements. For each currency, a separate guarantee shall be issued. The guarantee shall be issued by a Bank located in the Republic of Kenya, or a foreign Bank through a correspondent Bank located in the Republic of Kenya, in either case subject to the approval of the Employer.

**31 Corrupt or fraudulent practices**

- 31.1 The procuring entity requires that tenderers observe the highest standard of ethics during the procurement process and execution of contracts. A tenderer shall sign a declaration that he has not and will not be involved in corrupt or fraudulent practices.

**SECTION III:**  
**APPENDIX TO INSTRUCTION TO BIDDERS**



### 3.1 Appendix to Instructions to Tenderers

The following appendix to instructions to tenderers shall complement or amend the provisions of the instructions to tenderers (Section II). Wherever there is a conflict between the provisions of the instructions to tenderers and the provisions of the appendix, the provisions of the appendix herein shall prevail over those of the instructions to tenderers.

**Table 3.1 Notes on the Appendix to Instructions to Tenderers**

Clause	Description
2.1	<p>Pursuant to clause 2.1 the following shall be mandatory.</p> <ul style="list-style-type: none"> <li>i) Properly filled, stamped and signed Form of Bid</li> <li>ii) Valid Bid Security and in the standard format provided in this tender document</li> <li>iii) Completed Confidential Business questionnaire</li> <li>iv) Copy of proof of citizenship of all the director(s) in the company who must be Kenyan Nationals..</li> <li>v) Certified Copy of current (within the last 12 months of tender opening) Form CR12. This will be verified with the Registrar of Companies.</li> <li>vi) Certified copies of Certificate of incorporation/registration of business name or partnership deed</li> <li>vii) Valid tax compliance certificate as at the time of tender opening/closing. This will be verified with Kenya Revenue Authority.</li> <li>viii) Copies of Current annual NCA practicing licence from National Construction Authority as a roads contractor for NCA Category <b>5, 4, 3, 2 and 1</b> valid as at the date of tender closing/Opening</li> <li>ix) Written power of attorney authorizing the signatory of the bid to commit the bidder.</li> <li>x) The bidder shall be required to submit dully filled, signed and stamped confirmation of participation and understanding the scope of works at least three (3) days before pre-bid conference to the procuring entity's email <a href="mailto:hps@kws.go.ke">hps@kws.go.ke</a> and also alongside his/her bid. In addition, the bidder shall attend the scheduled Mandatory Pre- Bid conference</li> <li>xi) Information on Litigation and performance history as per schedule 10</li> <li>xii) Completeness of the tender document (<b>All the required forms including the BOQs are properly filled as per clause 9.1 of ITT and in the format Described in this Appendix to Instructions to Tenderers Clause 17).</b></li> <li>xiii) All the pages of bid document to be serialized sequentially from cover page to the last page.</li> <li>xiv) The submitted document <b>MUST</b> be book or tape bound.</li> </ul>
2.2	<p><b>Qualification Requirements</b></p> <ul style="list-style-type: none"> <li>(a) Evidence of access to funds or financing agreement/lines of credit and availability of other financial resources. If a line of credit is provided the letter of line of credit must be current to the last <b>one (1)</b> month.</li> <li>(b) Financial predictions for the current year and the two subsequent years,</li> </ul>

Clause	Description
	<p>including the effect of known commitments,</p> <p>(c) Current financial soundness and bidder's long-term profitability, Cash flow or equivalent positive working capital</p> <p>(d) Current Work commitments</p> <p>(e) Availability of critical equipment Major items of construction plant and equipment proposed for use in carrying out the Contract.</p> <p>(f) The qualifications and experience of key personnel proposed for administration and execution of the contract, both on and off site.</p> <p>(g) Bidders shall also submit proposals of work execution programme in sufficient detail to demonstrate the adequacy of the bidders' proposals to meet the technical specifications and the completion time referred to in Schedule 11.</p> <p>(h) Details of experience and past performance of the tenderer on the works of a similar nature.</p> <p>(i) Details of Non-performance of contract and any current litigation or arbitration proceedings in which the tenderer is involved as one of the parties within the last Three (3) years prior to the dead line of the tender submission, based on all information on fully settled disputes or litigation.</p>
2.3	Joint Venture is not allowed
4.3	There will be a MANDATORY VIRTUAL PRE-BID CONFERENCE as indicated in the Invitation to Tender, to be able to understand the scope of works and instruction to bidders. Each tenderer must <b>dully complete, and submit the Form of Confirmation of Participation</b> through the procuring entity's email address issued in the Invitation to Tender not later than the date indicated.
12.1	Tender validity period is 90 days <b>from the specified date of tender opening</b> or from the extended date of tender opening in accordance with ITT clause 7.3
13.2	The tender security shall be <b>KES 1,000,000.00</b>
13.3	Tender Security shall remain valid for a least 30 days beyond tender validity
15 (b)	<b>The pre bid conference is Mandatory. Non-attendance at the pre-bid meeting shall be a cause for disqualification of a bidder</b>
23.3, 26.5 and 27	<p>The total budget for the rehabilitation works is KES 50,000,000.00.</p> <p>The procurement Entity shall award to the lowest evaluated tenderer, whose tender is substantially responsive to the tender document. Each price or unit rate inserted in the Bills of Quantities <b>shall be a realistic estimate of the cost</b> of completing the works described under the particular item including allowance for overheads, profits and the like.</p> <p>Should a tender be seriously unbalanced in relation to the Employer's estimate or current government cost estimation of such works, as per the Cost Estimation Manual, to be performed under any item or groups of items, the tender <b>shall be deemed not responsive</b>.</p>
24	There shall be no correction of errors.

Clause	Description
	Any errors in the submitted tender arising from a miscalculation of unit price, quantity, sub-total and total bid price shall be considered as a major deviation that affects the substance of the tender and shall lead to disqualification of tender as non-responsive.
28.3	Delete the entire paragraph and replace with, “Within fourteen [14] days of receipt of the notification of award from the Employer, the successful tenderer shall furnish the Employer with acceptance of notification of award and return it to the Employer together with the required Performance Security.”
29.1	Delete the entire paragraph and replace with, “Within fourteen [14] days of receipt of the notification of award from the Employer, the successful tenderer shall furnish the Employer with Performance Security in the amount stated in the Appendix to Instructions to Tenderers and in the format stipulated in the Conditions of Contract”
29.2	Delete the following statement. “...and shall be divided into two elements namely, a performance security payable in foreign currencies (based upon the exchange rates determined in accordance with clause 60(5) of the Conditions of Contract) and a performance security payable in Kenya Shillings. The value of the two securities shall be in the same proportions of foreign and local currencies as requested in the form of foreign currency requirements.”
30	There shall be no Advance Payment
31	The procuring entity shall conduct verification before award and any bidder found to have given <b>false information or forged documents</b> shall be <b>disqualified and recommended for debarment</b> .

17.1	<p><b><u>Tender Format, No of sets, Sealing and Marking of Tenders</u></b></p> <p>The Tender shall be bound and divided clearly in descending order as listed below</p> <ol style="list-style-type: none"> <li>1. Letter of Invitation to Tender</li> <li>2. Instruction to Tenders</li> <li>3. Appendix to Instruction to bidders</li> <li>4. Form of Bid</li> <li>5. Appendix to Form of Bid</li> <li>6. Bid Security</li> <li>7. Schedule of Supplementary Information for Eligibility</li> <li>8-A1 Confidential Business Questionnaire</li> <li>8-A2 Copy of Certificate of Incorporation/Registration</li> <li>8-A3 Copy of Form CR12</li> <li>8-A4 Copy of Valid Tax Compliance Certificate</li> <li>8-A5 Copy of Current annual NCA practicing licence for NCA Category 5 and above</li> <li>8-B Form of Power of Attorney</li> <li>8-C Form of Confirmation of Participation.</li> <li>8-D Schedule of Major Items of Plant</li> <li>8-E Schedule of Key Personnel and Signed CV</li> <li>8-F Schedule of Road Works Completed Satisfactorily and Certified together with completion certificates or their proof of execution</li> <li>8-G Schedule of ongoing Works</li> <li>8-H A declaration that the bidder will not engage in any corrupt or fraudulent practice and</li> <li>8-I A declaration that the person or his or her sub-contractors are not debarred from participating in procurement proceeding</li> <li>9 Schedule of Supplementary Information on Financial standings</li> <li>9-A Audited Financial Accounts.</li> <li>9-B Construction Turnover.</li> <li>9-C History of Non-Performance and Ligation History</li> <li>10 Work Execution Programme.</li> <li>11 Priced Bill of Quantities</li> <li>12 Drawings</li> <li>13 Specifications</li> <li>14 Conditions of Contract.</li> </ol>
17.2	The format indicated above <b>Shall</b> be used for submission of this tender.
17.3	<b>Original and one copy</b> to be submitted, Sealing and Marking of tenders will be as per clause 17 of ITT <u>Copy must be replica of the original</u>
23.5	<p><b><u>Examination of and Determination of Responsiveness</u></b></p> <p>Determination of a Tender's responsiveness will be based on the contents of the Tender itself without recourse to extrinsic evidence</p>

	<p>(a) <b>Details of experience and past performance of the tenderer</b> The contractor must have:</p> <ul style="list-style-type: none"> <li>i. Successfully completed, as a prime contractor or management contractor, in the execution of at least <b>two (2) contracts</b> of a similar nature and comparable in complexity methods/technology or other characteristics to the proposed contract within <b>the last Five (5) Years, each with a minimum value at least Kshs 25 Million (Kenya Shillings Twenty Five Million Only-successfully and substantially completed</b></li> <li>ii. Average annual Construction Turnover of <b>KShs. 75 Million</b>, calculated as total certified payments received for contracts in progress or completed, within the last Three [3] years in the role of contractor, subcontractor, or management contractor prior to the applications submission deadline.</li> </ul>
	<p>The minimum qualification of key personnel are as listed:</p> <ul style="list-style-type: none"> <li>(i) <b>Ordinary Diploma</b> in Civil Engineering with minimum Seven (7) years' experience in road works for <b>Site Agent</b>.</li> <li>(ii) <b>Ordinary Diploma Engineering Survey</b> or Equivalent with minimum three (3) years' experience in road works for the <b>surveyor</b> and</li> <li>(iii) <b>Ordinary Diploma Civil Engineering</b> with minimum five (5) years' experience in road works for <b>Foreman</b>.</li> </ul>
	<p>(b) <b>Equipment Capabilities:</b> The bidder should list down, the major plants and equipment's as per schedule 4 of schedule of supplementary information. – Bidder must attach evidence of ownership, Lease agreement or any hiring arrangements. Bidders with proof of ownership of own equipment's will be awarded full marks, Leasing agreement will be awarded 75 % of full marks whereas proof of hiring will be awarded 50% of the full marks</p>
	<p>(c) <b>Financial Soundness;</b></p> <ul style="list-style-type: none"> <li>i) The bidder should demonstrate that <b>the firm has access to or has available, liquid assets, unencumbered real assets, lines of credit, and other financial means sufficient to meet the construction cash flow for a period of 2 months, estimated at 20% of the estimated tender sum.</b></li> <li>ii) <b>Signed and stamped Audited accounts</b>, balance sheets and computed working capital for the last three (3) years should be submitted and must demonstrate the soundness of the Applicant's financial position. The practicing Auditors Registration number <b>must</b> be indicated.</li> <li>iii) The bidder's financial information will be assessed in terms <b>Liquidity Ratios, current ratio and the point scale criteria</b> on their financial position given on this basis The bidder is therefore required to submit this.</li> </ul>
	<p>(d) Bidders shall also submit <b>proposals of work execution programmed in sufficient detail to demonstrate the adequacy of the bidders' proposals to meet the technical specifications and the completion time</b></p>
	<p>(e) The bidder must provide most current history of litigation and non-performance.</p>
	<p>(f) The pass mark for Technical Evaluation shall be <b>75%</b>.</p>

### 3.2. SECTION III (B): TECHNICAL EVALUATION CRITERIA

This Section shall apply to tenderers whose bids have been determined to be responsive and have met all the Mandatory requirements based on the qualification Criteria as per the instruction to bidders. The information to be provided in relation to each factor and the definitions of the corresponding terms are included in the respective supplementary information Forms (Schedules). Table 3.2 summarises the post qualification score.

The Technical Evaluation Committee shall examine tender documents and score them based on their validity, accuracy and quality. Table 3-3 on the other hand illustrates how the marks will be tallied for each bidder based on their responsiveness to ITT. Where the bidder fails to meet the requirement, the bidder shall be disqualified.

**Table 3.2: Post Qualification Score.**

The information to be provided in relation to each factor in table 3.2 below and the definitions of the corresponding terms are included in the respective supplementary information Forms (Schedules).

Table 3.2 Contractors Capability To Supervise and Perform the Works					
Qualification Criteria			Submission Requirement	Compliance and Documentation	Score
Item	No	Subject			
Contractors Capability to supervise and perform the work	1	Equipment holding	<ul style="list-style-type: none"> <li>- Proof of ownership of the required equipment. Attach <b>certified</b> copies of logbooks together with <b>copy of TIMS</b> account print out from NTSA Portal confirming ownership of the Equipment.</li> <li>- Authorization letter of hiring from the Ministry of Transport &amp; Infrastructure Housing and Urban Development &amp; Public Works, Mechanical &amp; Transport Services Department. The authorization letter should be current within the last six months of this tender invitation date.</li> <li>- Or lease agreement from reputable hiring company(s) whose equipment details must be accompanied by <b>certified</b> copies of logbooks and <b>copies of TIMS</b> account print out from NTSA Portal confirming ownership of the Equipment.</li> </ul> <p><b><i>Bidders with proof of ownership of own equipment's will be awarded full marks, Leasing agreement will be awarded 50% of full marks whereas proof of hiring will be awarded 25% of the full marks</i></b></p>	Clause 27.6 of ITT Section V, Schedule 4	20
	2	Key Personnel	Provide List of Key Site technical staff, their certified Qualification Certificates and resume. <ul style="list-style-type: none"> <li>- General Experience ( CV)</li> <li>- Certified copy of Qualification Certificate,</li> </ul>	Clause 27.5 of ITT Section V, Schedule 5	15

Table 3.2 Contractors Capability To Supervise and Perform the Works					
Qualification Criteria			Submission Requirement	Compliance and Documentation	Score
Item	No	Subject			
	3	Past relevant work Experience	<ul style="list-style-type: none"> <li>- Completion certificate, Taking over Certificate or Substantial Completion Certificate of at least <b>two (2) contracts</b> of a similar nature and comparable in complexity, methods/technology and or other characteristics to the proposed contract in the last 5 years. <b>Each of the two jobs above should be of minimum value of at least KES 25 Million.</b></li> <li>- Average annual Construction Turnover of KES.75 Million, calculated as total certified payments received for contracts in progress or completed, within the last Three [3] years in the role of contractor</li> <li>- Value of ongoing work must be &lt; 50% of Working Capital</li> </ul>	Clause 27.4 of ITT Section VII, Schedule 7 and 8	16
	4	Litigation history	<ul style="list-style-type: none"> <li>- Record of litigation and non-performance in the previous last 3 years.</li> </ul>	Clause 26.11, of ITT Section V, Schedule 10 (4)	1
	5	Financial Capability	<p>The following information will be assessed from the documents provided by the bidders :</p> <p><b>i. Current financial soundness:</b>  <i>Submission of audited balance sheets or other financial statements for the last Three [3] years certified by practicing Auditor whose practicing number should be indicated.</i></p> <ul style="list-style-type: none"> <li>- Liquidity Ratios, Current Ratio and Return on Capital and Equity Ratio( ROCE)</li> </ul> <p><b>ii. Financial Proposal</b></p> <ul style="list-style-type: none"> <li>- Evidence of access to financial resources to meet the qualification requirements equivalent to 20% of the tender sum:</li> <li>- <i>Authenticated bank statement from the issuing bank for the last 6 months with authority for verification from the bank providing the statements</i></li> <li>- <i>Line of Credit or current bank balance in the last one month of tendering equivalent to 20% of the tender sum e.t.c</i></li> </ul>	Clause 23.5 of ITT Section V, Schedule 10 (1 to 3)	18
Sub Total Score					70

Table 3.2 contractors capability to Supervise and Perform the Works Cont'					
Qualification Criteria			Submission Requirement	Compliance Requirement	Score
Item	No.	Subject			
Technical Proposal and comments	6	Mobilization Management plan	Bidder to submit the following Proposals in accordance with Clause 27.10 of ITT section VII i) Site lay plan out and Site Organization Chart ii) Mobilization and management plan for ✓ material ✓ Equipment ✓ Personnel	Section V, Schedule 11	6
	7	Quality and Quantity Management	Bidder to submit the following Proposals in accordance with Clause 26.1 of ITT section VII - Methodology work execution - Proposals on material testing - Proposal on measurements - Photograph plan	Section VII, Schedule 11	10
	8	Working Schedule and Projected Cash flow.	Bidder to submit the following Proposals in accordance with Clause 26.1 of ITT section VII 1. Signed work programme chart 2. Signed Cash flow plan during the contract period.	Section VII, Schedule 11	4
	9	Work safety management	Bidder to submit the following Proposals in accordance with Clause 26.1 of ITT section VII the following shall be provided; - Proposals on traffic control - workers safety & - accident prevention	Section VII, Schedule 11	5
	10	Environmental and social management	Bidder to submit the following Proposals in accordance with Clause 26.1 of ITT section VII - Proposal on environmental impact and social mitigation measures	Section VII, Schedule 11	5
Sub Total Score					30
GRANT TOTAL TECHNICAL SCORE					100

Bidders whose shall **score 75%** and above shall proceed to financial evaluation stage.



Table 3.3: Technical Score Sheet

Technical Evaluation of Tender No. ....in ..... National Park.									
Required References to be submitted in Tendering Forms from Tender for evaluation as indicated in section III (A)						Evaluated score for Each Bidder			
Item	Sub-Items		No. Required	Distribute d Score	Max. Score	X	Y	Z	
Contractor's Capability to Execute Works	Equipment holding	Concrete Mixers and Vibrator	1	1	20				
		6 X 4 tippers payload 16 – 20 tones	4	4					
		Water tankers (18,000 – 20,000lts. capacity)	1	2					
		Wheeled loaders (2m3)	1	2					
		Motor graders (93 - 205kW)	2	5					
		Crawler Dozer (D6 and above ) or Excavator	1	4					
		Self-propelled single drum vibrating (10 tons)	1	2					
	Key staff	Site Agent	Minimum Qualification Dip in Civil Eng.	1	15				
			Exp. 7Yrs and above	5					
			Signed CV	1					
		Forman	Minimum Dip in Civil Eng.	1					
			Exp.5Yrs and above	3					
			Signed CV	1					
		Surveyor	Minimum Dip. Cert in Survey and above	1					
	Exp.3Yrs and above		1						
	Signed CV		1						
	Past relevant work	Completion Certificate for at least two similar Works @ Kshs 25 Million	> 2 no. Projects	10	16				
		Average annual Construction Turnover of KShs. 75 Million.	Over last 3 years	6					
	History of litigation and non-performance.				1	1			
	Financial capability	Certified audited accounts for the last <b>Three (3) years</b>	2017-2020 FY (3 Years)	5	18				
2018-2020 FY (2 Years)			2						
2019-2020 FY (1Year)			1						
Current Financial Soundness ratios,		Financial ratios	5						
		Proof of bidders access to financial resources e.g. <b>Authenticated Bank Statement</b> current within the last 6 months or <b>current Line of credit</b> within the last one month-(20% of tender sum)	8						
Mobilization management plan	Site lay plan out and material mobilization		1	6					
	Site Organization Chart		1						
	Equipment management plan		2						
	Personnel mobilization		2						
	Quality and quantity management	Methodology statement		5	10				
		Proposals on material testing		2					
		Proposals on measurements		2					
		Photographic Plan		1					
	Work scheduling	Work Programme charts		2	4				
		Cash flow plan		2					
Work safety management	Traffic control, and accident prevention		2	5					
	Workers safety		3						
Environmental and social management				5	5				
Total Score					100				

### 3.4 Prequalification Checklist for Completeness and responsiveness

The bidder is provided with the following checklist to confirm if the bidders is complete and responsive.

**Table 3.4:** Prequalification Checklist for Completeness and responsiveness

S/No.	Completeness and responsiveness criteria	References	Required
1	Form of Bid	Section IV	Amount must be indicated, properly filled, Stamped and signed. The tender sum should be valid for a period of ninety (90) calendar days from the specified date of tender opening
2	Bid Security	Section IV, ITT clause 12.	Unconditional guarantee, in the standard format provided in the tender document Must be valid for 120 days
3	Eligibility	ITT clause 2.1	Provide all information requested,
4	Confidential Business Questionnaire	Section V, Schedule 1	Properly fill stamp and sign. and Provide all information requested., Conflict of Interest explicitly Stated Copy of National IDs or passports for all the directors and certified copy of Form CR12 (Current within the last 12 months of tender opening/Closing)
5	Tax Compliance Certificate	ITT clause 2.1	Copy provided must be valid as at the date of Tender opening/closing
6	NCA practicing licence	ITT clause 2.1	Current annual NCA practicing licence for NCA Category 5, 4, 3, 2 and 1. valid as at the date of Tender opening
7	Certificate of Incorporation	ITT clause 2.1	Certified Copy of Incorporation certificate valid as at the date of Tender opening/Closing
8	Form of Power of Attorney	Section V, Schedule 2	Properly fill sign and Stamp
9	Schedule of confirmation of participation and understanding the scope of works.	Section V, Schedule 3	Confirmation of participation and understanding the scope of works. Must be stamped and signed by the bidder's representative and be submitted to procuring entity's email <a href="mailto:hps@kws.go.ke">hps@kws.go.ke</a> <b>three (3) days prior</b> to the date of scheduled pre bid conference. Bidders must also attach this form together with an email print out showing proof of submission to the above email in his bid. This form should also contain clearly printed email which will be used in sending credentials for the pre bid meeting.
10	Schedule of Major Items of Plant	Section V, Schedule 4	Fill properly in the format given stamp and sign. In addition, attach proof of ownership in form of <b>certified clear copy</b> of Log book together with a <b>certified copy of TIMS</b> account print out from NTSA Portal

S/No.	Completeness and responsiveness criteria	References	Required
			confirming ownership of the Equipment or any lease or hire agreement where applicable.
11	Schedule of Key Personnel	Section V, Schedule 5	Properly fill and sign in the format given. Also attach signed CV and <b>Certified copies of qualification Certificates</b> as required
12	Declaration Form For Non – Corrupt Practices	Section V, Schedule 6	Fill properly in the format given stamp and sign
13	Declaration Form For Non – Debarment by PPRA	Section V, Schedule 12	Fill properly in the format given stamp and sign
14	Schedule of ongoing Works	Section V, Schedule 7	Fill properly in the format given and sign
15	Road Works Completed Satisfactorily	Section V, Schedule 8	Fill properly in the format given and sign and attach certified copies of completion certificates.
16	Basic Labour rates	Section V, Schedule 9	Fill properly in the format given and sign
17	Schedule of other supplementary, information /Financial standings	Section V, Schedule 10	Fill properly in the format given and sign
18	Litigation History	ITT clause 23.5	Fill properly in the format given and sign
19	History of Non-performance	ITT clause 27.12	Fill properly in the format given and sign
20	Work Execution Programme	Section V, Schedule 11 & Table 3.2, clause 23.5	Must be provided in the format given, brief and to the point
21	Priced Bill of Quantities	Section II, clause 11	Fill all rates, prices and amounts
22	Preparation and submission of the Tenders	Clause 9.1 of the ITT	Submit a complete set of tender documents as per the instruction to bidders Clause 9.1 and also ensure that all the forms BOQ and Schedules provided in the tender documents are properly filled for completeness
23	Copy of Bid Document	Section II, clause 10 17.3	An Original and a copy (a replica of the Original)
24	Submission of Tender Document	Appendix to ITT clause 2.1	The submitted tender document must be book or tape bound

**Note:** Where certification is a requirement, the bidder shall submit an original certified document by the Commissioner of Oaths who shall append his signature, stamp, and date.

**SECTION IV:**  
**FORM OF TENDER AND TENDER SECURITY**

**FORM OF TENDER**

{Name of  
Contract.....}::

The Director General,  
Kenya Wildlife Service,  
P.O Box 40241,  
Nairobi

Dear Sir,

1. In accordance with the Conditions of Contract, Specifications, Drawings and Bills of Quantities/Schedule of Rates for the execution of the above named Works, we, the undersigned offer to construct, install and complete such Works and remedy any defects therein for the sum of Kshs.....*[Amount in figures]*  
Kenya  
Shillings .....*[Amount in words]*
2. We undertake, if our tender is accepted, to commence the Works on the commencement date and to complete the whole of the Works comprised in the Contract within the time stated in the Appendix.
3. We agree to abide by this tender until .....*[Insert date]*, and it shall remain binding upon us and may be accepted at any time before that date.
4. Unless and until a formal Agreement is prepared and executed this tender together with your written acceptance thereof, shall constitute a binding Contract between us.
5. We understand that you are not bound to accept the lowest or any tender you may receive.

Dated this .....day of .....20.....

Signature .....in the capacity of.....

Duly authorized to sign tenders for and on behalf of

.....*[Name of Tenderer]* of

.....*[Address of Tenderer]*

*Witness:*

Name.....

Address.....

Signature.....

Date.....

**APPENDIX TO FORM OF TENDER**

This Appendix to Form of Tender forms part of the Agreement. (Note: with the exception of the items for which the Employer's requirements have been inserted, the Contractor shall complete the following information before submitting his offer.)

CONDITIONS OF CONTRACT	CLAUSE	AMOUNT
Bid Security	13.2	KES 1,000,000.00
Amount of Performance Security (Unconditional Bank Guarantee)	4.4	10% per cent of Contract Price in the form of Unconditional Bank Guarantee
Submission of Performance Security		Submitted by the 14 <sup>th</sup> day from the date of award letter
Programme to be submitted	7.2	Not later than 14 (fourteen) days after issuance of Order to Commence
Cash flow estimate to be submitted	7.2	Not later than 14 (fourteen) days after issuance of Order to Commence
Minimum amount of Contractors All Risk Insurance Cover	14.1	0.3% of the Contract Price
persons and damage to property Workers compensation		Contractor to indemnify employer against claims by those in employment of the contractor
Submission of Contractors All Risk Insurance Cover		Submitted by the 14th day from the date of award letter
Currency of Payment	11.7	Kenya Shilling
Period for commencement, from Engineer's order to commence	7.1	14 days
Time for Completion	7.1	Four (4) calendar months
Amount of liquidated damages	7.4	0.05 % of the contract price per day to a limit of 10% of contract sum.
Limit of liquidated damages	7.4	10% of contract sum.
Defects Liability period	9.1 and 11.5	One (1) calendar month calculated from the date stated in the notice under sub clause 8.2
Period of Contract Validity	14.1	From contract award up to the date of settlement of the agreed final statement issued pursuant to clause 60.6 rendering the contractor's clause 60.7 discharge to the employer effective.
Percentage of Retention	11.4 and 11.5	5% of Interim Payment Certificate
Limit of Retention Money	11.4	5% of Contract Price
Minimum amount of interim certificates	11.2	10% of contract price
Time within which payment to be made after Interim Payment Certificate signed by Engineer	11.3	28 (Twenty eight) days
Appointer of Arbitrator	15.3	The Chartered Institute of Arbitrators - Kenya.
Notice to Employer and Engineer		<div> The Employer's address is:  <b>The Director General,  Kenya Wildlife Service,  P.O. Box 40241 - 00100  NAIROBI</b> </div> <div> The Engineer's address is:  <b>Head of Roads &amp; Fleet  Management,  Kenya Wildlife Service,  P.O. Box 40241 - 00100  NAIROBI</b> </div>

## FORM OF TENDER SECURITY

(Note: The tenderer shall complete only this form of bank guarantee. No other Form of Tender Bond or any other forms of security will be accepted. Tenderers who fail to comply with this requirement will be disqualified).

WHEREAS [Name of tenderer].

.....  
 .....

(Hereinafter called “the Tenderer”) has submitted his tender dated .....

For the

.....  
 .....

hereinafter called “the Bid”

KNOW ALL MEN by these presents that we [Name of Bank]

.....  
 .....

of (Name of Country) having our registered offices at

.....  
 .....

(Hereinafter called the Bank) are bound unto **Kenya Wildlife Services**, (hereinafter called “the Procurement Entity”) in the sum of (in words) Kenya Shillings

.....  
 (In figures) Kshs).....

for which payment will be well and truly made to the said Procurement Entity the Bank binds itself, its successors and assigns by these presents.

Signed for the said Bank this ..... day of ..... , 20.....

THE CONDITIONS of this obligation are:

- a) If the tenderer withdraws his Tender during the period of tender validity specified by the bidder on the Tender Form; or
- b) If the Tenderer refuses to accept the correction of errors in his bid; or
- c) If the Tenderer having been notified of the acceptance of his tender by the Procurement Entity during the period of Tender Validity
  - (i) Fails or refuses to execute the Form of Agreement in accordance with the Instructions to bidder when required or
  - (ii) Fails or refuses to furnish the Performance Security, in accordance with the Instructions to bidder.

We undertake to pay to the Procurement Entity up to the above amount upon receipt of his first written demand, without the Procurement Entity having to substantiate his demand, provided that in his demand the Procurement Entity will note that the amount claimed by him is due to him owing to the occurrence of any of the above conditions, specifying the occurred condition or conditions.

This guarantee will remain in force up to and including thirty (30) days after the date of expiration of the tender validity, as stated in the Instructions to bidders.

At the request of the Procurement Entity the Tender validity period may be extended by mutual agreement between the Procurement Entity and the bidder and we undertake to extend the validity of this surety accordingly without you having to inform us of such an extension of the Tender validity period if within this period the bidder has been notified of the acceptance of his Bid. This Surety shall remain valid up to the time the Contract Agreement has been executed.

SIGNATURE AND SEAL OF THE BANK

.....

NAME OF THE SIGNATORY:

.....DATE..... , .....

TITLE OF THE SIGNATORY

.....

NAME OF THE WITNESS:

.....

SIGNATURE OF WITNESS

.....DATE..... , .....

ADDRESS OF THE WITNESS :



**SECTION V:**  
**SCHEDULES OF SUPPLEMENTARY INFORMATION**

**SCHEDULE 1: CONFIDENTIAL BUSINESS QUESTIONNAIRE****REPUBLIC OF KENYA****CONFIDENTIAL BUSINESS QUESTIONNAIRE**

This Confidential Business Questionnaire of the Government of Kenya shall be completed by the Bidder or by each member of a Joint venture if the Bidder is a Joint-venture.

You are requested to give the particulars indicated in Part 1 and either Part 2 (a), 2(b) or 2(c) whichever applies to your type of business. You are also advised that it is a serious offence to give false information on this Form.

**Part 1 - General:**

*Business Name:* .....  
.....

*Location of Business Premises* .....

*Plot No.* ..... *Street/Road* .....

*Postal* ..... *Address*..... *Tel* ..... *No.* .....  
.....

*Email address(Please print clearly)* .....

*Nature* ..... *of* ..... *Business*.....  
.....

*Current Trade License No.* ..... *Expiring Date* .....

*Maximum value of Business which you can handle at any one time:*

*Kshs.* .....  
.....

*Name of your Bankers*.....

*Branch*.....

**Part 2(a) - Sole Proprietor:**

*Your Name in full*.....  
.....

*Age:* .....  
.....

*Nationality \** ..... *Country of Origin*.....

***\*Attach Copy of Citizenship (Compulsory).***



**Part 2(b) - Partnership:**

Give details of partners as follows:

Name	Nationality	Citizenship Details*	Shares
1.....	1.....	1.....	1.....
...	...	...	...
2.....	2.....	2.....	2.....
...	...	...	...
3.....	3.....	3.....	3.....
...	...	...	...

**Note: Attach proof of citizenship of all partners (Compulsory) and Certified Copy of Form CR12 (Compulsory)****Part 2(c) – Registered Company**

Give details of partners as follows:

Private or Public.....

State the Nominal and Issued Capital of the Company

Nominal Shares (Kshs)

Issued Shares (Kshs)

.....

.....

Give details of all directors as follows:

Name	Nationality	Citizenship Details*	Shares
1.....	.....	.....	.....
2.....	.....	.....	.....
3.....	.....	.....	.....
4.....	.....	.....	.....
5.....	.....	.....	.....

**Note: Attach proof of citizenship of all directors (Compulsory) and Certified Copy of Form C12 (Compulsory).**

Part 2 (d) Interest in the Firm:

Are there any person / persons in Kenya Wildlife Service who has interest in this firm? Mark in the box alongside as necessary.

Yes	No

If yes (specify)

.....

.....

.....

.....

*Date:..... Signature of Tenderer:.....*

**SCHEDULE 2: FORM OF WRITTEN POWER OF ATTORNEY**

The Bidder shall state here below the name(s) and address of his representative(s) who is/are authorized to receive on his behalf correspondence in connection with the Tender.

.....  
(Name of Bidder's Representative in block letters)

.....  
(Address of Bidder's Representative)

.....  
(Signature of Bidder's Representative)

**Alternate:**

.....  
(Name of Bidder's Representative in block letters)

.....  
(Address of Bidder's Representative)

.....  
(Signature of Bidder's Representative)

\*To be filled by all Bidders.

Both representative and alternate must attach copy of National Identification card or Passport

### SCHEDULE 3: FORM OF CONFIRMATION OF PARTICIPATION AND UNDERSTANDING OF THE SCOPE OF WORKS

1. This is to certify that

[Name/s].....

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

.....

.....

Wish to participate in the pre bid conference scheduled for the purposes of familiarizing myself on the tender document and site conditions in accordance with the instruction to Bidders, for purposes of bidding for the following Tender(s).

.....

.....

.....

.....

.....

[name and location of the project]

2. The official email address for use during the **MANDATORY VIRTUAL PRE-BID CONFERENCE** will be

(Please print clearly) .....

**Signed and Stamped**.....

(Bidder's Representative)

#### NOTE:

- This form must be submitted **three (3) days** before the PRE BID CONFERENCE through the procuring entity's email **[hps@kws.go.ke](mailto:hps@kws.go.ke)** for the purposes of recording/registration and planning of pre-bid conference and opening of tenders in line with Covid-19 measures and guidelines.
- Bidders must also attach the form together with an email print out showing proof of submission to the above email in his bid. This form should also contain clearly printed email which will be used in sending credentials for the pre bid meeting.

**SCHEDULE 4: MAJOR ITEMS OF CONSTRUCTION PLANT AND EQUIPMENT**

Item No.	Equipment Details	Minimum Number Required for the Contract Execution	No. of equipment to be made available for the Contract by the Bidder	Registration No. and Details of Vehicle/Equipment	Date of Arrival on Project (Days after commencement. )
(i)	Mobile Concrete Mixers and Vibrator	1			
(ii)	6 X 4 tippers payload 16 – 20 tones	4			
(iii)	Water tankers (18,000 – 20,000lts. capacity)	1			
(iv)	Wheeled loaders (2m3)	1			
(v)	Motor graders (93 - 205kW)	2			
(vi)	Crawler Dozer (D6 and above ) or Excavator	1			
(ix)	Self-propelled single Flat drum vibrating (10 tons)	2			

The bidder shall enter in this schedule all major items of plant and equipment which he proposes to bring to site. **Only reliable plant in good working order, and suitable for the work, shall be shown on this Schedule.**

The bidder must attach proof of ownership or authorized letter of hire from reputable agencies. Refer to Table 3.2 for Submission requirements and Table 3.3 for award of scores on equipment holding.

I certify that the above information is correct.

Signature of Tenderer: ..... Date: .....

Name of Signatory: .....



**SCHEDULE 5: KEY PERSONNEL****i) Key Personnel proposed by Tenderer**

The Bidder shall list in this schedule the key professional and technical personnel he will employ, providing Proof of qualifications, experience, position held and nationality.

Name of Key Staff	Designation	Required (attach certified copies of qualification certificates)	
		Qualification	General Experience
	Site Agent	Qualification	Ordinary Dip in Civil Engineering/Equivalent
		General Experience	At least 7 years
	Foreman	Qualification	Ordinary Dip in Civil Engineering/Equivalent
		Minimum Specific Experience to these Proposed works	At least 5 years
	Surveyor	Qualification	Ordinary Dip in Engineering Survey/Equivalent
		General Experience	At least 3 years

I certify that the above information is correct.

Signature of Tenderer: ..... Date:.....

**Note**

The CV's for each of the proposed key should be ***presented in the format*** indicated in the next page. ***Certified copies of the academic qualifications for each key staff must be attached.***

a) **Format of Resume of Proposed Personnel** (use the same format for all other required staff)

<b>Proposed Position</b>				
<b>Personnel information</b>		<b>Name of Personnel</b>		<b>Date of birth</b>
		<b>Professional qualifications</b>		
		<b>Years of Experience</b>	<b>Years with present employer</b>	
<b>Present employment</b>		<b>Present Employer's Name:</b>		
		<b>Job Title</b>		
		<b>Name of Contact person (Supervisor)</b>		<b>Telephone No</b> <b>E-mail</b>
<b>From</b>	<b>To</b>	<i>(Summarize professional experience, in reverse chronological order. Indicate particular technical and managerial experience relevant to the project)</i>		
		<b>Company / Project / Position / Role in project</b>		

Signature of Proposed Staff.....Date:.....

**Note:** Please attach **Certified Copies of Qualification Certificates**

**SCHEDULE 6: DECLARATION FORM FOR NON – CORRUPT PRACTICES**

I/We ..... of Post Office Box

..... declare that

I/ We recognize that Public Procurement is based on a free, fair and competitive tendering process which should not be open to abuse.

I/We .....

Declare that I/We will not offer or facilitate, directly or indirectly, any inducement or reward to any public officer, their relations or business associates, in connection with tender No.

..... for or in the subsequent performance of the contract if I/We am/are successful.

Signed by:

Director or Authorized Representative. Name

Designation.....

Signature.....

Date.....

**SCHEDULE 7: SCHEDULE OF ONGOING PROJECTS**

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

Name of Contract	Procurement Entity's contact address/fax	Value of Works (Kshs)	Date of commencement (M/YR)	Date of completion (M/YR)	Physically completed up to date %

**NOTE:** Provide the requested information as per the table above. Information presented in other format will be accepted (you may use an extra page of this format)

I certify that the above works are being carried out by me and that the above information is correct.

Signature of bidder: ..... Date: .....

**SCHEDULE 8: SCHEDULE OF ROADWORKS CARRIED OUT BY THE TENDERER IN THE LAST FIVE YEARS**

S/No.	DESCRIPTION OF WORKS	CLIENT'S NAME	VALUE OF WORKS (Kshs)	YEAR COMPLETED

I certify that the above works were successfully carried out (**Bidders must attach completion certificates/ Substantial completion certificates**)

Signature and stamp of the tenderer.....

Date.....

**SCHEDULE 9: SCHEDULE OF LOCAL LABOUR BASIC RATES**

The rates inserted in this schedule will be those used in determining changes in cost of local labour market.

LABOUR CATEGORY	MONTH/SHIFT/HOUR	UNIT	RATE (KShs)
Skilled Labour			
Semi-Skilled Labour			

NOTE: Categories to be generally in accordance with those used by the Kenya Building Construction Engineering and Allied Trade Workers Union and Ministry of labour

I certify that the above information is correct.

Signature of bidder: ..... Date:.....

**SCHEDULE 10: FINANCIAL CAPACITY/CURRENT COMMITMENTS**

1. Financial reports for the last three (3) years, balance sheets, profit and loss statements, auditors' reports for the last three calendar years with certified English translation where appropriate. List them below and attach copies.

.....  
 .....  
 .....

2. Evidence of access to financial resources to meet the qualification requirements. Cash in hand, lines of credit etc. List below and attach copies of supporting documents (bank to fill attached form).

.....  
 .....  
 .....

- (a) Name/Address of Commercial Bank providing credit line

.....  
 .....

Total amount of credit line Kshs. ....

**(Attach a valid and current copy of the current Letter of Line of credit from the Bank.)**

- (b) Attach certified copies of financial bank statements of the last six months.

3. Name, address, telephone, email address of the Tenders' Bankers who may provide reference if contacted by the Contracting Authority.

.....  
 .....

4. Information on History of Non performing contract and current Litigation in which the Tenderer is involved.

- a) Provide Information on History of Non performing contract

OTHER PARTY (IES)	DETAILS OF NON PERFORMANCE	AMOUNT INVOLVED (KShs)

- b) Provide Information on current Litigation involved.

OTHER PARTY (IES)	CAUSE OF DISPUTE	AMOUNT INVOLVED (KShs)

***All the requested information in spaces provided in the schedule 1-12 must be duly filled by the bidder.***

I certify that the above information is correct

Signature of bidder:..... Date:.....

## **SCHEDULE 11: WORK EXECUTION PROGRAMME**

Give a brief description of how you plan to carry out the works within the contract period. The Works execution programme should include all relevant information to the project. The information given should be clear, not flawed description and compliance to standard and special specification.

**Note:** Works Execution programme is different from form “programme of works referred in FIDIC and Standard Specification for Roads and Bridge Construction. The said “programme of works” is but part of Works Execution Programme (WEP).

The WEP will be used hand in hand with Supervision Check-list Manual indicated in Section –IX and the Supervision Check-list sheet in Appendix II below of the Tender Document for evaluation of the contractors’ performance and scoring during works execution. .

The Content s of Works Execution Programme shall include:

### **ii. General information**

#### **a) Project data**

- Project name,
- employer,
- implementing agency
- contract period,
- date of completion,
- defects liability period,
- date of submission of works execution programme,

#### **b) Scopes of works**

A brief description of the project which includes major work items

### **iii. Mobilization Management Plan**

- Site office Plan and site organization chart,
- Material mobilization plan
- Personnel management plan
- Equipment management plan

### **iv. Work execution schedule**

- a) Signed Programme of works
- b) Signed cash flow plan during the contract period

It is desirable that work execution schedule includes time frame of each activity such as in bar chart format.

### **v. Quality and Quantity Management**

- Method statement  
This includes Work procedures, order and methods for execution.
- Proposal on material testing.
- Proposal on measurements
- Photograph plan

The bidder shall provide a photograph plan to record the progress and proof of quality control, measurement and any event that may arise

### **vi. Safety management plan**



This includes but not limited compliance with safety rules and regulation, traffic control and detour plans, emergency contact list

**vii. Environmental and social management plan**

When the negative impacts on third parties during the execution are predicted, the management and mitigation plans should be included in WEP.

**Note:**

Works Execution Programme to be submitted by the bidder shall not be less 3 pages and not more than five (5) pages covering all the above stated items.

## **SCHEDULE 12: SELF DECLARATION THAT THE PERSON/TENDERER IS NOT DEBARRED IN THE MATTER OF THE PUBLIC PROCUREMENT AND ASSET DISPOSAL ACT 2015.**

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

1. THAT I am the Company Secretary/ Chief Executive/Managing Director/Principal Officer/Director of ..... (insert name of the Company) who is a Bidder in respect of **Tender No.** ..... for ..... (insert tender title/description) for ..... (insert name of the Procuring entity) and duly authorized and competent to make this statement.

2. THAT the aforesaid Bidder, its Directors and subcontractors have not been debarred from participating in procurement proceeding under Part IV of the Act.

3. THAT what is deponed to herein above is true to the best of my knowledge, information and belief.

.....  
.....  
.....

(Title)

(Signature)

(Date)

**Bidder Official Stamp**

**SECTION IV:**  
**CONDITIONS OF CONTRACT**

---

## **PART I: GENERAL CONDITIONS OF CONTRACT**

The General Conditions of Contract of this contract are the FIDIC Short Form of Contract, First Edition, 1987, published by the International Federation of Consulting Engineers (FIDIC).

### **Notes**

- i. The General Conditions of Contract must be retained intact to facilitate its reading and interpretation by tenderers is linked with the Conditions of Particular Application, referred to as Part II, by the consecutive numbering of the Clauses. Part I and II together comprise the conditions governing the rights and obligations of the parties.
- ii. In case of any inconsistency between the conditions contained in Part I and those in Part II, the conditions contained in Part II shall prevail over those of Part I.
- iii. The Tenderer is deemed to have read and fully complied with the General Conditions of Contract. A copy of General Conditions of Contract is available at the offices of the Employer's Representative for perusal.
- iv. Copies of the FIDIC Conditions of Contract can be obtained from:  
FIDIC Secretariat  
P.O. Box 86  
1000 Lausanne 12

**PART II: CONDITIONS OF PARTICULAR APPLICATION**

The following Conditions of Particular Application 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 Conditions to which it relates.

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## CONDITIONS OF CONTRACT PART II (CONDITIONS OF PARTICULAR APPLICATION)

### NOTES:

The Conditions of Particular Application (Conditions of Contract, Part II) modify and compliment like-numbered clauses in the General Conditions of Contract (Conditions of Contract, Part I). Both parts shall be read together, with the Conditions of Particular Application prevailing in case of conflict or discrepancy. Clauses of the General Conditions of Contract not specifically modified and supplemented shall remain in effect.

## DEFINITIONS AND INTERPRETATION

### 1.1 Definitions

- (a) (i) The “Employer” shall be The DIRECTOR GENERAL, KENYA WILDLIFE SERVICE.
- (a) (ii) The “Engineer” shall be The HEAD ROADS AND FLEET MANAGEMENT or any other competent person appointed by the Employer, and notified to the Contractor, to act in replacement of the Engineer.
- (b) (i) Insert in line 2 after “the Bill of Quantities”, the following, “the rates entered by the Contractor (whether or not such rate be employed in computation of the Contract Price)”.
- (b) (ii) The word “Tender” and its derivatives are synonymous with the word ‘Bid,’ and its derivatives, and the words ‘Tender Documents’ with ‘Bidding Documents’. The words “Appendix to Tender” and the words “Appendix to Bid” shall have the same meaning as the words ‘Appendix to the Form of Bid’.”

Add the following paragraph at the end of Subclause 1.1 (f) (vii):

The aforesaid includes lands waters, river beds and other places on, under, in through which the Works are to be carried out including all offices, workshops or places where materials are to be stored or used for the purposes of the Contract. It also includes quarries; borrow pits, stock pile areas and spoil areas”

Add Subclause 1.1 (g) (v):

Dates shall be construed in accordance with the Gregorian Calendar.

Add the following Subclause 1.6:

### 1.6 Gender Specific Words

Wherever in the Contract Documents the word ‘man’ or ‘men’ is used directly or as a suffix it means ‘woman’ or ‘women’ also. The Word ‘he’ includes ‘she’ also.

## ENGINEER AND ENGINEER’S REPRESENTATIVE

### 2.1 Engineer’s Duties and Authority

With reference to Sub-Clause 2.1(b): Add the following

The Engineer shall obtain specific approval of the Employer before taking any of the following actions specified in the General Conditions of Contract:

- (a) Consenting to the sub-letting of any part of the Works under Clause 4.
- (b) Certifying additional cost determined under Clause 12
- (c) Determining an extension of time under Clause 44

- (d) Issuing a variation under Clause 51 except:
  - (i) In an emergency situation as reasonably determined by the Engineer, or
  - (ii) if such variation would increase the Contract Price by less than the amount stated in the Appendix to Bid.
- (e) Certifying payment if the Contract Price will be exceeded
- (f) Authorising the use of provisional sums in excess of the monetary limit for variations
- (g) Issuing any Taking-over Certificate
- (h) Certifying additional payment/costs under Clause 65;
- (i) Issuing a Defects Liability Certificate under Clause 62
- (j) Fixing rates or prices under Clause 52.

Notwithstanding the provisions set out above, to obtain approval of the employer, if in the opinion of the Engineer, an emergency occurs affecting the safety of life or of the Works or of adjoining property, he may, without relieving the Contractor of any of his duties and responsibilities under the Contract, instruct the Contractor to execute all such work or to do all such things as may, in the opinion of the Engineer, be necessary to abate or reduce the risk. The Contractor shall forthwith comply, despite the absence of approval of the Employer, with any such instruction of the Engineer. The Engineer shall determine an addition to the Contract Price, in respect of such instruction, in accordance with Clause 52 and shall notify the Contractor accordingly, with a copy to the Employer.”

## ASSIGNMENT AND SUBCONTRACTING

### 4.1 Subcontracting

Delete the second and third sentence and substitute:

All Solar Street lighting Works shall be executed by a Nominated Subcontractor to be appointed by the Client.

In addition no single subcontract may be for more than 10 percent of the Contract Price nor shall the sum of all subcontracts exceed 25 percent of the Contract price. No one subcontractor may be awarded subcontracts to a total value greater than 10 percent of the Contract Price. All subcontracts greater than 2 percent of the Contract Price are to have the prior consent of the Engineer. The Contractor shall however, not require such consent for purchases of materials or to place contracts for minor details or for any part of the Works of which the manufacturer or supplier is named in the Contract. Any such consent shall not relieve the Contractor from any liability or obligation under the Contract and he shall be responsible for the acts, defaults and neglects of any subcontractor, his agents, servants or workmen as fully as if they were the acts, defaults or neglects of the Contractor, his agents, servants or workmen.

Add the following:

The Engineer should satisfy whether:

- (a) The circumstances brought out warrant such subcontracting; and
- (b) The subcontractors so proposed for the Work possess the necessary experience, qualifications and equipment for the job proposed to be entrusted to them in proportion to the quantum of work to be subcontracted.

If the contractor proposes payments to be made directly to that subcontractor, this should be subject to specific authorization by the Contractor so that such consent does not relieve him from any liability or obligations under the contract.

## CONTRACT DOCUMENTS

### 5.1 Language and Law

- (a) The language governing this Contract shall be English.

The “Ruling Language” which shall be used to interpret this Contract shall be English. Communication between the Contractor and Engineer or Engineer’s representative shall be in English.

- (b) The laws applicable to this Contract shall be the laws of the Republic of Kenya. Except to the extent otherwise provided by the Contract, the Kenyan courts shall have exclusive jurisdiction to hear and to determine all actions and proceedings in connection with and arising out of the Contract and the Contractor shall submit to the jurisdiction of Kenyan courts for the purpose of any such actions and proceedings.

### 5.2 Priority of Contract Documents

Delete the documents listed as (1) to (6) and substitute with the following:

- (1) The Contract Agreement (if completed)
- (2) The Letter of Acceptance
- (3) Minutes of Pre-Contract Award Discussion
- (1) Bid and Appendix to Form of Bid
- (2) The Conditions of Contract, Part II; Conditions of Particular Application
- (3) The Conditions of Contract, Part I; General Conditions of Contract
- (4) The Special Specifications
- (5) The Standard Specifications for Road and Bridge construction , Ministry of Transport and Communications, 1986
- (6) Clarifications and Rectifications accepted by the Employer
- (7) The Drawings
- (8) The Priced Bill of Quantities
- (9) Schedules and other documents forming part of the Contract.

Add to Clause 6 the following Subclauses 6.6 to 6.10:

### 6.6 Metric Units

All units used in the Contract shall be metric and for measurement of angles the 360 degrees circles systems shall be used

### 6.7 Intent of Drawings and Specifications

The intent of Drawings and Specifications is to describe the details for the complete construction and maintenance of the Works which the Contractor undertakes to perform in accordance with the terms of the Contract.

Where the Drawings or Specifications describe portions of the Works in general terms, but not in complete detail, it is understood that only materials and workmanship of the first quality are to be used. First quality refers to the quality as approved by the Engineer.

Unless otherwise specified, the Contractor shall furnish all labour, material, tools, equipment and incidentals, and do all the work involved in executing the Contract in a satisfactory and workman-like manner.

### 6.8 Design, Drawings and Specifications Prepared by the Contractor

No payment will be made to the Contractor for undertaking any kind of design work, preparation of drawings and specification, other than that specifically required by the terms of the Contract. Payment for design work, preparation

of drawings and specifications, specifically required by the terms of the Contract shall be deemed to be included in the Rates and Lump Sums entered in the Bill of Quantities.

## **6.9 Submissions of Designs and Drawings**

All detailed working drawings/shop drawings, design calculations and fabrication drawings for Temporary Works (such as formwork, staging, centring, scaffolding, specialized constructional, handling and launching equipment and the like) as well as bar bending and cutting schedules for reinforcement, material lists for structural fabrication including detailed drawings for templates, end anchorage and temporary support details for pre-stressing cables shall be prepared by the Contractor at his own cost and forwarded in triplicate to the Engineer at least six weeks in advance of actual constructional requirements. The Engineer will check and return one copy of the same for the Contractor's use with amendments, if any, noted in red ink. Such approval shall not relieve the Contractor of any of his responsibilities in connection with temporary works.

The Contractor will supply four copies of the approved drawings for the Engineer's use. The cost of preparing all such items of work shall be deemed to have been included in the respective rates/prices quoted by the Contractor in the Bill of Quantities.

## **6.10 As-Built Drawings**

On completion of the Works, the Contractor shall arrange to furnish to the Employer two (2) bound sets of all "As Built" drawings for every component of the Works at his own cost, all such copies being on Polyester film of quality to be approved by the Engineer or his Representative and digitized copy (2 No.) in a Compact Discs (CDs) of quality approved by the Engineer or his Representative. The Taking-over Certificate of the Works, as per the provisions of Clause 48.1 herein, shall not be issued by the Engineer in the event of the Contractor's failure to furnish the aforesaid "As Built" drawings for the entire works."

Add to Clause 7 the following Subclauses 7.4 to 7.6:

## **7.4 Drawings for Temporary Works**

Drawings for Temporary works to be carried out by the Contractor shall be submitted to the Engineer for approval.

Working drawings of concrete structures consisting of such details as may be reasonably required for the successful execution of the work and which are not included in the plans furnished by the Employer, shall be prepared by the Contractor. Three sets of working drawings shall be submitted to the Engineer for approval.

## **7.5 Size of Drawings**

All drawings submitted by the Contractor shall for convenience in filing be as far as possible of a uniform size, and not more than 1010 mm x 680 mm. The drawings shall be numbered and dated, and shall include the title of the Contract at the bottom of the drawing followed by the title of the drawing. All drawings shall have the appropriate scales drawn on them and notes shall be in English. All amendments to such drawings shall be noted and dated on the drawing.

## **7.6 Submission to the Engineer**

Whenever the Contractor is required to submit to the Engineer proposals, details, drawings, calculations information, literature, materials, test report and certificates, the Engineer will consider each submission and, if appropriate, will reply to the Contractor in accordance with the relevant provision of the Conditions of Contract. Unless a defined period of time is stated in the contract, each submission shall be made by dates to be agreed with the Engineer having regard to the approved programme and the need to give the Engineer adequate time to consider each submission.

The approval of the Engineer of any submission shall not relieve the Contractor of his responsibilities under the Contract.

## GENERAL OBLIGATIONS

Add to Subclause 8.1 the following:

### 8.1 Contractors General Responsibilities

- (a) Within 28 days after receipt of the Engineer's Order to Commence the Works, the Contractor shall establish an office at the Site duly equipped for the Contractor's representative and his superintending personnel.

The Contractor shall maintain this office throughout the Contract period. The said office shall be the legal domicile of the Contractor, and all correspondence sent to this office shall be deemed to have been sent to the Contractor's head office.

- (b) A foreign Contractor or a Kenya-foreign joint venture, if not registered in Kenya under the applicable laws of Kenya, shall undertake registration upon receipt of the Letter of Acceptance and prior to signing of the Contract.

Add to Clause 8 the following Subclause 8.3:

### 8.3 General Requirements

- (a) Materials delivered to the site by Contractor or materials made available or supplied by the Employer shall be used solely for the execution of the Works.
- (b) The Contractor shall minimise the pollution of and disturbance of lands, roads and other places on and around the Site. No trees or other vegetation shall be removed except to the extent necessary for the works.
- (c) The Contractor shall comply with the current Government regulations with regard to the transport, storage and use of explosives and radio-active materials and use of radio communication equipment.
- (d) The Contractor shall take all reasonable precautions:
  - (i) In connection with any rivers, streams, waterways, drains, water courses, lakes and the like to prevent as a consequence of the works, silting, erosion of beds and banks and pollution of the water that may adversely affect the quality or appearance thereof or cause injury or death to human, animal or plant life.
  - (ii) In connection with underground water resources, including percolating water, to prevent any interference as a consequence of the work with the supply to or abstraction from such sources and to prevent pollution of water that may adversely affect the quality thereof.
- (e) The Contractor shall provide, maintain and remove on completion of the Works, settling lagoons and other facilities to minimise pollution due to the Contractor's operations including but not limited to quarrying, aggregate washing, concrete mixing and grouting.
- (f) The Contractor shall provide, maintain and remove on completion of the Works, fencing around the site installations including housing, camps, offices and laboratories, providing free access to the Employer, the engineer, other Contractors and any other persons entitled to such access and provide appropriate security measures on such access roads.
- (g) All buildings erected by the Contractor upon the site and camp sites, and the layout of the buildings and the sites, shall comply with the Laws of the country and all local By-laws in so far as they are applicable.

- (h) The Contractor shall be absolutely and solely responsible for the safety and security of Temporary Works or other works and for the Plant and Contractor's Equipment in connection therewith which may be erected or provided for the execution of the Contract Works.

This provision shall be applicable to all temporary Works, Plant and Contractor's Equipment whenever provided and erected by the Contractor or his Subcontractor(s) for the purpose of or in connection with the Contract Works.

- (i) The contractor shall keep in close contact with the police, Labour officers and all other officials as appropriate regarding their requirements for the control of workmen, restricted area permits or other matters and shall provide all assistance and facilities which may be required by such officials in the execution of their duties.

### **10.1 Performance Security**

Replace the text of Subclause 10.1 with the following:

The Contractor shall provide security for his proper performance of the Contract to the Employer within 28 days after the receipt of the Letter of Acceptance. The Performance Security shall be as stipulated in the Appendix to the Form of Bid. The Performance Security shall normally be in the currency or currencies requested for payment by the Contractor and in the same proportions as those requested for payment in the Contract. The Contractor shall notify the Engineer when providing the Performance Security to the Employer.

The Performance Security shall be a bank guarantee which shall be issued either:

- (a) By a bank located in Kenya or a foreign bank through a correspondent established and reputable bank located in Kenya or;

Without limitation to the provisions of the preceding paragraph, whenever the Engineer determines an addition to the Contract Price as a result of a change in cost and/or legislation or as a result of a variation amounting to more than 25 percent of the portion of the Contract Price payable in a specific currency, the Contractor, at the Engineer's written request, shall promptly increase the value of the Performance Security in that currency by an equal percentage.

The performance security of a joint venture shall be in the name of the joint venture.

### **10.2 Period of Validity of Performance Security**

The performance security shall be valid until a date 28 days from the date of issue of the Taking-Over Certificate for the last section in case of partial handover. The security shall be returned to the Contractor within 28 days of expiration.

### **10.3 Claims under Performance Security**

Delete sub-clause 10.3

Add the following Subclause 10.4:

### **10.4 Cost of Performance Security**

The cost of complying with the requirements of this clause shall be borne by the Contractor.

### **11.1 Inspection of Site**

Add the words "and the Contractor shall be deemed to have based his tender on all the aforementioned" after the words "affect his tender".

Delete the last paragraph completely and replace with the following:

The Employer in no way guarantees completeness nor accuracy of the soil, materials, subsurface and hydrological information made available to the Contractor at the time of bidding or at any other time during the period of the Contract, and the Contractor shall be responsible for ascertaining for himself all information as aforesaid for the execution of Works and his bid shall be deemed to have been priced accordingly.

Add a new Subclause 11.2:

## **11.2 Access to Data**

Data made available by the Employer in accordance with Subclause 11.1 shall be deemed to include data listed elsewhere in the Contract as open for inspection at the address stipulated in Appendix to the Form of Bid.

## **14.1 Programme to be submitted**

Delete Subclause 14.1 and replace with the following:

The time within which the Programme shall be submitted shall be twenty eight (28) days. This detailed Programme shall be based upon the programme submitted by the Contractor as part of his bid and shall, in no material manner, deviate from the said programme.

The Contractor shall allow in his Programme for the following 11 public holidays per calendar year in Kenya upon which the Contractor shall not be permitted to work:

- New Year's Day (1st January)
- Good Friday
- Easter Monday
- Labour Day (1st May)
- Madaraka Day (1st June)
- Idd-ul-Fitr
- Mashujaa Day (20th October)
- Jamhuri Day (12th December)
- Christmas Day (25th December)
- Boxing Day (26th December)

The Contractor should also allow per calendar year for a further two (2) unspecified public holidays which may be announced by the Government of Kenya with no prior notification, and upon which he shall not be permitted to work.

The Programme shall be submitted in two copies in the form of a Critical Path Method Network (CPM Network) showing the order of procedure and description of the construction methods and arrangements by which he proposes to carry out the Works. In addition, the aforesaid critical path programme should be supplemented by:

- (i) A Gantt/time-bar chart detailing each construction activity, showing for each construction activity; the periods of construction activity planned; the percentage completion anticipated per month; the total estimated quantity of work; the average monthly production planned, and
- (ii) A detailed work method statement in respect of each construction activity. It should also be supplemented by a time-bar chart of the same programme. The programme shall be coordinated with climatic, groundwater and other conditions to provide for the completion of the works in the order and by the time specified. The Programme shall be revised at quarterly intervals and should include a chart of the principal quantities of the forecast for execution monthly.

The detailed work method statement of each particular construction activity shall list by category/type and quantity the labour, skilled labour, supervisors, plant, equipment and materials to be employed on the particular construction activity; together with: the estimated average daily production anticipated, the estimated equipment availability and

utilisation factor anticipated and a detailed step description of the way in which resources are to be utilised to achieve the required rate of construction/production.

The Contractor's attention is particularly drawn to the need to familiarise himself with customs procedures in connection with importation and to allow sufficient time in its programme for these to be completed.

During the execution of Works, the Contractor shall submit to the Engineer detailed particulars of any proposed amendments to the arrangements and methods submitted in accordance to the foregoing.

If details of the Contractor's proposals for Temporary Works are required by the Engineer for his own information the Contractor shall submit such detail within fourteen days of being requested to do so.

The various operations pertaining to the Works shall be carried out in such a progressive sequence so as to achieve a continuous and consecutive output of fully completed road works inclusive of bridge works and culverts within the time limits specified in the Contract.

The Contractor shall, wherever required by the Engineer, also provided in writing for information a detailed description of the arrangements and methods which the Contractor proposes to adopt for the execution of any particular part of the Works as directed by the Engineer.

Progress reporting by the Contractor should be supported on a monthly basis with an up-to-date analysis of the progress including a statement on items which are or are about to become critical to the Progress of Works, along with proposals on how the Contractor intends to address the situation.

The consent by the Engineer on any programme shall have no contractual significance other than that the Engineer would be satisfied if the work is carried out according to such programme, and that the Contractor undertakes to carryout the work in accordance with the programme, nor shall it limit the right of the Engineer to instruct the Contractor to vary the programme should circumstances make this necessary. The above shall not be taken to limit the right of the Contractor to claim for damage or extension of time to which he may be fairly entitled to in terms of the General Conditions of the Contract for delay or disruption of his activities.

Notwithstanding the General Conditions of Contract Clause 14.1, the programme to be submitted for the execution of the Works shall, in addition to the programme of pure construction activities, include an alleviation programme for Site staff and labour in respect of Sexually Transmitted Disease (STD) including HIV/AIDS. The STD and HIV/AIDS alleviation programme shall indicate when, how and what cost the Contractor plans to satisfy the requirements of Subclause 19.1 herein and the related Technical Specifications. For each component, the programme shall detail the resources to be provided or utilized and any related sub-contracting proposed. The programme shall also include provision of a detailed cost estimate with supporting documentation.

## **14.2 Revised Programme**

Add the following at the end of this subclause:

The Contractor shall, when instructed by the Engineer, amend, correct or modify the Programme of the Works so as to take into account any delays and/or advances and modifications designs or for other reasons considered necessary by the Engineer.

If, during the progress of the work, the quantities of work performed per month fall below those shown in the Programme, or if the sequence of operations is altered, or if the Programme is deviated from in any other way, the Contractor shall, within two weeks after being notified by the Engineer, submit a revised Programme necessary to ensure completion of the Works or any part thereof within the Time for Completion, or any extended time granted pursuant to Clause 43 and Clause 44 of the General Conditions of Contract or so as to take into account any delays or advances or for other reasons considered necessary by the Engineer without prejudice to the Employer's right under Clause 63 of the General Conditions of Contract.



Any proposal to increase the tempo of work must be accompanied by positive steps to increase production by providing more labour and plant on Site, or by using the available labour and plant in a more efficient manner.

Should the Employer request and the Contractor undertake to finish the whole or part of the Works ahead of the time originally required by the Contract, payment for accelerating the work shall only be made if agreed to beforehand in writing and according to the terms of such agreement.

If the Programme is to be revised by reason of the Contractor falling behind his Programme, he shall produce a revised Programme showing the modifications to the original Programme to complete the Works within the time as defined in Clause 43 of the General Conditions of Contract.

The Employer shall have the right to withhold payment at any time if the Contractor fails to submit the contractual construction programmes in accordance with Subclause 14.1 above or revise construction programmes due to his negligence, failure or omission.

### **14.3 Cash Flow Estimate to be Submitted**

The time limit within which a detailed cash flow estimate is to be submitted shall be twenty eight (28) days.

In preparing the estimates, the Contractor shall make provision for Advance payment, repayment of advance, retention, payment for services provided by the Employer and timing implications of Clause 60 Certificates and Payments.

A schedule of Payments for both local and foreign currency expected to be made to the Contractor by the Employer, shall be provided.

The cash flow estimate submitted with the bid shall be revised each time the construction Programme is submitted, and revised, under Subclauses 14.1 and 14.2 above.

### **15.1 Contractor's Superintendence**

Add the following at the end of the first paragraph of Subclause 15.1:

The Contractor shall, within seven (7) days of receipt of the Engineer's Order to Commence the Works, inform the Engineer in writing, the name of the Contractor's representative and the anticipated date of his arrival on Site.

Add the following Subclause 15.2:

### **15.2 Contractor's Agent or Representative**

The Contractor's agent or representative on the Site shall be an Engineer registered by the Engineer's Registration Board of Kenya in accordance with the Laws of Kenya cap. 530 or have equivalent status approved by the Engineer and shall be able to read, write and speak English fluently.

### **16.2 Engineer at Liberty to Object**

At the end of this clause add "by a competent substitute approved by the Engineer at the Contractor's own expense".

Add the following Subclauses 16.3 and 16.4:

### **16.3 Language Ability of Superintending Staff**

A reasonable proportion of the Contractor's superintending staff shall have a working knowledge of the language specified in the Appendix to Form of Bid pursuant to Subclause 5.1(a), or the Contractor shall have available on site at all times a number of competent interpreters, as required by the Engineer, to ensure proper transmission of instructions and information.

## 16.4 Employment of Local Personnel

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

## 17.1 Setting Out

The following additional paragraph shall apply to the provisions of the Subclause 17.1:

- (d) The checking of all the setting-out of the proposed works relative to existing ground features, to be undertaken prior to the commencement of fabrication of structural steelworks for superstructures. This preparation is to include providing the facility for the Engineer to undertake a timely check on this setting-out and alerting the Engineer to any likely problems foreseen.

The contractor shall give to the Engineer not less than 48 hours of notice of his intention to set out or give layout for any part of the works so that timely assignment can be made for checking the same.

Add the following new Subclause 17.2:

## 17.2 Notice to Engineer

The Contractor shall give to the Engineer not less than 48 (Forty eight) hours notice of his intention to set out or give levels for any part of the works so that timely arrangement may be made for checking or issuing instructions. He shall indicate therein by which date the information, if any, is required by him.”

## 19.1 Safety, Security and Protection of the Environment

Add Subclauses 19.1 (d), (e), (f), (g), (h), (i), (j), (k), (l) and (m) and the subsequent text as follows:

- (d) Notwithstanding the Contractor’s obligation under Subclauses 19.1 (a), (b) and (c) of the Conditions of Contract, the Contractor shall carry out, without limitation, the following measures with a view to reducing or eliminating adverse environmental effects by the site Works:
  - (i) All quarries, borrow pits, diversions and detours shall be filled and landscaped, as far as practical, to their original condition after extraction of construction material.
  - (ii) Soil erosion and sedimentation due to the surface runoff or water from culverts or other drainage structures should be avoided by putting in place proper erosion control measures.
  - (iii) Long traffic diversion roads shall be avoided so as to minimise the effect of dust on the surrounding environment. In any case, all diversions shall be kept damp to reduce dust.
  - (iv) Haulage routes shall be kept as short as possible and watered as necessary.
  - (v) Spillage of oil, fuel, and lubricants shall be avoided. If spilt, they shall be collected and disposed of in such a way that they do not adversely affect the natural environment.
  - (vi) Rock blasting near settlement areas shall be properly coordinated with the relevant officers of the Kenya government in an attempt to minimise levels of noise pollution and community interference.
- (e) The formulation and enforcement of an adequate safety programme shall be the obligation of the Contractor with respect to all the works under this Contract, regardless of whether performed by the Contractor or his Subcontractors. The Contractor shall, within 14 days after commencement of the Works, meet the Engineer to present and discuss his plan for the establishment of such safety measures as may be necessary to provide against accidents, unsafe acts, and so forth.

Within 28 days after commencement of the Works, the Contractor shall submit a written safety, security and environmental protection programme to the Engineer covering the overall works and

based on the laws and regulations of Kenya. In addition, he shall prepare special safety programmes for blasting and handling of explosives as may be stipulated in the Specifications.

- (f) The Contractor shall take all due precautions to avoid soil and water contamination by spillage of oil, grease, fuel and paint in the equipment yard, workshop or the site of works. Lubricants should be recycled.
- (g) The Contractor shall install pollution control device in his asphalt plant.
- (h) The Contractor shall implement re-plantation and grading of steep slopes in quarries and borrow pits to prevent disfiguration of landscape.
- (i) The Contractor shall implement compensatory afforestation plan to counteract destruction of vegetation when required to do so by the Engineer. The Contractor shall pay proper attention to the aspect of borrow pit drainage to prevent formation of stagnant pools of water and incidence of mosquito vectors. All borrow pits will be provided with efficient drains which shall be connected to the natural outfalls.
- (j) Notwithstanding implementation of any other provision contained in the Conditions of Contract, the failure on the part of the Contractor or his staff in the cases listed bellow will be considered default on the part of the Contractor and will attract the terms of Subclause 63.1 for remedies.
  - Poor sanitation and solid waste in the workers camp
  - Possible transmission of communicable diseases, including HIV/AIDS, between local people and the Contractor's workers
  - Poaching by the Contractor's workers

I. Illegal invasion of indigenous people by the Contractor's labour.

- (k) All lights provided by the Contractor shall be screened so as not to interfere with any signal light on the railways or with any traffic or signal lights of any local or other authority.
- (l) The Contractor shall be deemed to be in possession of, and ensure that the Contractor's personnel are fully aware of, relevant safety regulations.
- (m) The Contractor shall ensure that all equipment, tools and other items used in accomplishing the Works, whether purchased, rented or otherwise provided by the Contractor are in safe, sound and good condition for performing the intended function.

Notwithstanding the terms of Clause 19.1 of the General Conditions of Contract, the Contractor shall throughout the contract (including the Defects Liability Period):

- (i) Conduct Information, Education and Consultation (IEC) campaign, at least every other month, addressed to all the Site staff and labour (including all Contractor's Employees, all Subcontractors and Consultant's employees, and all truck drivers and crew marketing deliveries to Site) and to the immediate local communities, concerning the dangers and impact of Sexually Transmitted Diseases (STD) in general and HIV/AIDS in particular;
- (ii) Provide male or female condoms for all Site staff and labour as appropriate; and
- (iii) Provide for STD and HIV/AIDS professional screening, diagnosis, counselling and full treatment (except that in the case of HIV/AIDS cases treatment shall be limited to referral to a dedicated national or regional HIV/AIDS programme) of all Site staff and labour.

Amend Subclause 20.4 to read as follows:

## **20.4 Employer's Risks**

The Employer's risks are:

- (a) Insofar as they directly affect the execution of the Works in Kenya where the Permanent Works are to be executed:
  - (i) War and hostilities (whether war be declared or not), invasion, act of foreign enemies
  - (ii) Rebellion, revolution, insurrection, or military or usurped power, or civil war
  - (iii) Ionising radiations, or contamination by radioactivity from any nuclear fuel, or from any nuclear waste from the combustion of nuclear fuel, radioactive toxic explosive or other hazardous properties of any explosive nuclear assembly or nuclear component thereof;
  - (iv) Pressure waves caused by aircraft or other aerial devices travelling at sonic or supersonic speeds
  - (v) Riot, commotion or disorder, unless solely restricted to the employees of the Contractor or of his Subcontractors and arising from the conduct of the Works.
- (b) Loss or damage due to the use or occupation by the Employer of any section or part of the Permanent Works, except as may be provided for in the Contract
- (c) Loss or damage to the extent that it is due to the design of the Works, other than any part of the design provided by the Contractor or for which the Contractor is responsible, and
- (d) Any operation of the forces of nature (insofar as it occurs on the Site) which an experienced contractor:
  - (i) Could not have reasonably foreseen, or
  - (ii) Could reasonably have foreseen, but against which he could not reasonably have taken at least one of the following measures:
    - i. Prevent loss or damage to physical property from occurring by taking appropriate measures, or
    - ii. Insure against such loss or damage."

## **21.1 Insurance of Works and Contractor's Equipment**

Delete the first sentence of this clause and replace with the following:

"Prior to commencement of the Works the Contractor shall, without limiting his or the Employer's obligations and responsibilities under Clause 20, insure to the satisfaction of the Employer."

Add the following words at the end of subparagraph (a) and immediately before the last word of subparagraph (b):

"it being understood the insurance shall provide for compensation to be payable in the types and proportions of the currencies required to rectify the loss or damage incurred."

In Subclause 21.1(b), delete the words "or as may be specified in Part II of these Conditions".

## **21.2 Scope of Cover**

- (a) Delete the words “from the start of Work at the Site” and substitute with the words “from the first working day after the commencement date”

Add the following Subclause 21.2 (c):

- (c) It shall be the responsibility of the Contractor to notify the insurance company of any change in the nature and extent of the Works and to ensure the adequacy of the insurance coverage at all times during the period of the Contract.

Amend Subclause 21.4 to read as follows:

## **21.4 Exclusions**

There shall be no obligation for the insurances in Subclause 21.1 to include loss or damage caused by the risks listed under Subclause 20.4 subparagraphs (a) (i) to (v) above.

Add the following Subclause 21.5:

## **21.5 Insurance of Goods**

The Contractor shall insure or cause to be insured all imported goods financed out of the proceeds of the Contract against marine and other hazards incidental to the acquisition, transportation and delivery thereof to the place of use or installation and where appropriate against all usual risks pertaining to the construction of the Works.

## **23.1 Third Party Insurance (Including Employer's Property)**

Add the following at the beginning of this Subclause:

**Prior to commencement of the Works ...**

## **23.2 Minimum Amount of Insurance**

Add the following at the end of this subclause:

... with no limits to the number of occurrences

## **25.1 Evidence of Terms of Insurance**

Insert the words “as soon as practicable after the respective insurances have been taken out but in any case” before the words “prior to the start of Work at the Site”

Add the following Subclauses 25.5 to 25.8:

## **25.5 Source of Insurance**

The Contractor shall be entitled to place all insurance relating to the Contract (including, but not limited to, the insurance referred to in Clauses 21, 23, and 24) with insurers from Kenya which has been determined to be acceptable to the Employer.

## **25.6 Insurance Notices**

Each policy of insurance effected by the Contractor for the purpose 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 more than thirty (30) days after the giving of such notice.

## **25.7 Insurance in Kenya**

The risks against which the Contractor is obliged to insure under the Contract shall be insured through established and reputable companies approved by the Employer and located in Kenya and any cover against risks which the Contractor may enjoy shall be insured in Kenya by an approved Kenyan Insurance Company in respect of the Contractor's obligations under the Contract.

## **25.8 Notification to Insurers**

It shall be the responsibility of the Contractor to notify the insurers under any of the insurances referred or event which by the terms of such insurances are required to be so notified and the Contractor shall indemnify and keep indemnified the Employer against all losses, claims, demands, proceedings, costs, charges and expenses whatsoever arising out of or in consequence of any default by the Contractor in complying with the requirements of this subclause whether as a result of avoidance of such insurance or otherwise.

Add the following Subclauses 26.2 and 26.3

## **26.2 Compliance with Statutes, Regulations**

The Employer will repay or allow to the Contractor all such sums as the Engineer shall certify to have been properly payable and paid by the Contractor in respect of such fees, provided always that, without prejudice to Subclause 26.1, nothing contained in this sub clause shall be deemed to render the Employer liable to all claims which may be considered to fall within the provisions of Subclause 22.1.

## **26.3 Inspection and Audit by the Funding Agency**

The Contractor shall permit the funding agency to inspect the Contractor's accounts and records relating to the performance of the Contract and to have them audited by auditors appointed by the agency, if so required by the agency.

## **28.2 Royalties**

Add the following at the end of Subclause 28.2:

The Contractor shall also be liable for all payments or compensation, if any, that are levied in connection with the dumping of part or all of any such material."

Add the following Subclauses 29.2 to 29.5:

## **29.2 Passage and Control of Traffic**

The Contractor's attention is drawn to Specifications covering the Passage and Control of Traffic and in particular to the requirement for the submission of a detailed Programme for Passage of Traffic as required following the award of the Contract.

In case any operation connected with traffic which necessitates diversion, obstruction or closure of any road, railway or any other right of way, the approval of the Engineer or the Engineer's Representative and the concerned authorities shall be obtained well in advance by the Contractor.

## **29.3 Reinstatement and Compensation for Damage to Persons or Property**

The Contractor shall reinstate all properties whether public or private which are damaged in consequence of the construction and maintenance of the Works to a condition at least equal to that prevailing before his first entry on them.

If in the opinion of the Engineer the Contractor shall have failed to take reasonable and prompt action to discharge his obligations in the matter of reinstatement, the Engineer will inform the Contractor in writing of his opinion, in which circumstances, the Employer reserves the right to employ others to do the necessary work of reinstatement and to deduct the cost thereof from any money due or to become due to the Contractor.

The Contractor shall promptly refer to the Employer all claims, which may be considered to fall within the provisions of Clause 22.1.

#### **29.4 Protection of Existing Works and Services**

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

The Contractor will be held liable for all damage to roads, irrigation ditches, mains pipes, electric cables, lines or services of any kind caused by him or his subcontractors in the execution of the Works. The Contractor must make good any damage without delay and, if necessary, carry out any further work ordered by the Engineer or Engineer's Representative, all at the Contractor's cost. Where work is to be carried out in the vicinity of overhead power lines, the Contractor shall ensure that all persons working in such areas are aware of the relatively large distance that high voltage electricity can "short" to earth when crane, or other large masses of steel, are in the vicinity of power lines. The Contractor's attention is drawn to appropriate standards which gives safe clearances for the various voltages.

The Contractor shall be held responsible for damage to existing works or services, and shall indemnify the Employer against any claims in this respect (including consequential damages). The Contractor shall be responsible for the reinstatement of the services, so affected, to the satisfaction of the Engineer.

In all cases where such works or services are exposed, they shall be properly shored, hung up or otherwise protected. Special care must be exercised in filling and compaction of the grounds under mains and cable. The exposed water meters, stopcock boxes and similar items shall be left uncovered.

As soon as any such existing works or services or structures are encountered on, over, under, in or through the Site during the performance of the Contract, the Contractor shall make a record of the location and description of such service or structure and shall send the same forthwith to the Engineer.

Installations adjacent to the Works shall be kept securely in place until the work is completed and shall then be made as safe and permanent as before.

Notwithstanding the foregoing requirements, and without reducing the Contractor's responsibility, the Contractor shall inform the Engineer immediately if any existing works or services are located, exposed or damaged.

#### **29.5 Protection of Survey Beacons**

The Contractor shall not remove, damage, alter or destroy in any way plot beacons. Should the Contractor consider that any beacons will be interfered with by the Work he shall notify the Engineer who, if he considers it necessary, will make arrangements for the removal and replacement of the beacons.

#### **30.2 Transport of Contractor's Equipment or Temporary Works**

Add the following at the end of this subclause.

If it is found necessary for the Contractor to move one or more loads of heavy constructional plant and equipment, materials or pre-constructed units of work over roads, highways, bridges on which such oversized and overweight items are not normally allowed to be moved, the Contractor shall obtain prior permission from the concerned authorities. Payments for complying with the requirements, if any, for protection of or strengthening of the roads, highways or bridges shall be made by the Contractor and such expenses shall be deemed to be included in his Contract Price.

Add the following Subclauses 30.5 and 30.6.

### **30.5 Complying with State Laws and Regulations**

Nothing contained above shall excuse the Contractor or any of his Subcontractor(s) from complying with state laws regulating traffic on highways and bridges.

### **30.6 Effects of other Concurrent construction Projects**

The Contractor shall be deemed to have fully familiarised himself with planned construction operations or any other concurrent construction projects in Kenya which may have any material effect on the Contractor's own operations. In particular, the Contractor shall be deemed to have allowed for the effects of other concurrent construction contract(s) on any necessary transportation operations in connection with the Contract(s).

## **LABOUR**

Add the following Subclauses 34.2 to 34.23

### **34.2 Labour Regulations**

The Contractor and his Subcontractors shall, at all times, during the Contract period abide fully by the governing local laws and regulations.

The Contractor shall be responsible for making all arrangements for and shall bear all costs relating to recruitment, obtaining of all necessary visas, permits or other official permission for movements of staff and labour.

### **34.3 Engagement of Local Labour**

The Contractor is encouraged to the extent practicable and reasonable to employ staff and labour with the required qualifications and experience from sources within Kenya, particularly in the vicinity of the Site.

### **34.4 Rates of Wages and Conditions of Labour**

The Contractor shall pay rates of wages and observe conditions of labour not less favourable than those established for the trade or industry where the work is carried out. In the absence of any rates of wages or conditions of labour so established, the Contractor shall pay rates of wages and observe conditions of labour which are not less favourable than the general level of wages and conditions observed by other employers whose general circumstances in the trade or industry in which the Contractor is engaged are similar.

### **34.5 Repatriation of Labour**

The Contractor shall be responsible for the return to the place where they were recruited or to their domicile of all such persons as he recruited and employed for the purposes of or in connection with the Contract, and shall maintain such persons as are to be so returned in a suitable manner until they shall have left the site or, in the case of persons who are not nationals of and have been recruited outside the Republic of Kenya shall have left Kenya or the site, as appropriate.

### **34.6 Housing for Labour**

Save insofar as the Contract otherwise provides, the Contractor shall provide and maintain such accommodation and amenities as he may consider necessary for all his staff and labour, employed for the purposes of or in connection with the Contract, including all fencing, water supply (both for drinking and other purposes), electricity supply, sanitation, cookhouses, fire prevention and fire-fighting equipment, cookers, refrigerators, furniture, and other requirements in connection with such accommodation or amenities. On completion of the Contract, unless otherwise agreed with the Employer, the temporary camps or housing provided by the Contractor shall be removed and the site reinstated to its original condition, all to the approval of the Engineer.



### **34.7 Accident Prevention Officer**

The Contractor shall have on his staff on Site an officer dealing only with questions regarding the safety and protection against accidents of all staff and labour. This officer shall be qualified for this work and shall have the authority to issue instructions and shall take protective measures to prevent accidents.

### **34.8 Health and Safety**

Due precautions shall be taken by the Contractor, and at his own cost, to ensure the safety of his staff and labour and, in collaboration with and to the requirements of the local health authorities, to ensure that medical staff, first aid equipment and stores, sick bay and suitable ambulance services are available at the camps, housing, and on the Site at all times throughout the period of the Contract and that suitable arrangements are made for the prevention of epidemics and for all necessary welfare and hygiene requirements. Workers shall always be transported using vehicles that meet the current transport regulations.

### **34.9 Life Saving Appliances and First Aid Equipment**

The Contractor shall provide and maintain upon the Works sufficient, proper and efficient life-saving appliances and first-aid equipment to the approval of the Engineer. The appliances and equipment shall be available for use at all times.

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

The Contractor shall at all times take the necessary precautions to protect all staff and labour employed on the Site from insect nuisance, rats, and other pests and reduce the dangers to health and the general nuisance caused by the same. The Contractor shall provide his staff and labour with suitable prophylactics for the prevention of malaria, and shall take steps to prevent the formation of stagnant pools of water. He shall comply with all the regulations of the local health authorities in these respects and shall in particular arrange to spray thoroughly with approved insecticide all buildings erected on the Site. Such treatment shall be carried out at least once a year or as instructed by the Engineer. The Contractor shall warn his staff and labour of the dangers of bilharzias and wild animals.

### **34.11 Epidemics**

In the event of any outbreak of illness of an epidemic nature, the Contractor shall comply with and carry out such regulations, orders, and requirements as may be made by the Government or the local medical or sanitary authorities for the purpose of dealing with and overcoming the same.

### **34.12 Burial of the Dead**

The Contractor shall make any necessary arrangements for the transport, to any place as required for burial, of any of his expatriate employees or members of their families who may die in Kenya. The Contractor shall also be responsible, to the extent required by the local regulations, for making any arrangements with regard to burial of any of his local employees who may die while engaged upon the Works.

### **34.13 Supply of Foodstuffs**

The Contractor shall arrange for the provision of a sufficient supply of suitable food at reasonable prices for all his staff, labour, and subcontractors for the purposes of or in connection with the Contract.

### **34.14 Supply of Water**

The Contractor shall, so far as is reasonably practicable, having regard to local conditions, provide on the Site an adequate supply of drinking and other water for the use of the Engineer and his staff, the Contractor's staff and labour.

**34.15 Alcoholic Liquor or Drugs**

The Contractor shall not, otherwise than in accordance with the Statutes, Ordinances, and Government Regulations or Orders for the time being in force, import, sell, give, barter, or otherwise dispose of any alcoholic liquor or drugs, or permit or suffer any such importation, sale, gift, barter, or disposal by his subcontractors, agents, staff, or labour.

**34.16 Arms and Ammunition**

The Contractor shall not give, barter, or otherwise dispose of, to any person or persons, any arms or ammunition of any kind or permit or suffer the same as aforesaid.

**34.17 Festivals and Religious Customs**

The Contractor shall, in all dealings with his staff and labour, have due regard to all recognised festivals, days of rest, and religious and other customs.

**34.18 Disorderly Conduct**

The Contractor shall at all times take all reasonable precautions to prevent any unlawful, riotous, or disorderly conduct by or among his staff and labour and take all reasonable precautions for the preservation of peace and protection of persons and property in the neighbourhood of the Works against the same.

**34.19 Records of Labour**

The Contractor shall keep proper wages books, in the language stipulated in the Appendix to the Form Bid, pursuant to Sub-Clause 5.1 (a) showing the time worked and wages paid to all employees in and about the execution of the Works, together with such other records as are required by any Statute, Ordinance, Law, Regulation or Bye-Law in force in Kenya governing the employment of labour. He shall be bound, whenever required, to produce such wages books and other records for the inspection of any persons authorized by the Engineer.

**34.20 Trade Unions**

The Contractor shall recognize the freedom of his employees to be members of trade unions.

**34.21 Default in payment of Wages**

In the event of default in payment of wages of any workmen employed on the Contract, and if a claim thereafter is filed in the office of the Engineer and satisfactory proof thereof is furnished, the Employer shall be notified forthwith and may, failing payment of such claim by the Contractor, arrange the payment out of monies at any time payable under the Contract and the amount so paid shall be deemed payment to the Contractor under the Contract.

**34.22 Breach and Removal from List**

Should the Contractor or any subcontractor be found to be in breach of any of the provisions of Clause 34, the Employer may recommend to the Government for his removal from the list of approved Contractors.

**34.23 Observance by Subcontractors**

The Contractor shall be responsible for the observance by his subcontractor of the foregoing provisions.

Add the following Subclauses 35.2 and 35.3:

**35.2 Maintenance of Records**

The Contractor shall maintain such records and make such reports concerning safety, health and welfare of persons and damage to property as the Engineer may prescribe from time to time.

### **35.3 Reporting of Accidents**

The Contractor shall report to the Engineer details of any accident as soon as possible after its occurrence. In the case of any fatality or serious accident, the Contractor shall, in addition, notify the Engineer immediately by the quickest available means. The Contractor shall also notify the relevant authority (ies) whenever such report is required by the law of Kenya.

## **MATERIALS, PLANT AND WORKMANSHIP**

Rename Subclause 36.1 as below.

### **36.1 Quality of Materials, Equipment, Supplies, Plant, and Workmanship**

Add the following paragraph at the end of this subclause.

The Contractor is encouraged, to the extent practicable and reasonable, to use materials, Contractor's Equipment, Plant, and supplies from sources within Kenya.

## **COMMENCEMENT AND DELAYS**

### **41.1 Commencement of Works**

Replace the words "as soon as reasonably possible" with the words "on Site within 28 days".

Add the following subclause:

### **41.2 Definition of Commencement**

For the purposes of this subclause, the Works shall be deemed to have commenced when all of the following conditions are satisfied:

- (a) The approved competent and authorized agent or representative of the Contractor is resident in the project area and is giving his whole time to the superintendence of the Works.
- (b) The provision by the Contractor of evidence that all insurances required by the Contract are in force.
- (c) The Contractor has established an office in the project area with postal address for receipt of correspondence.
- (d) The principal items of constructional plant have been brought to Site and put to work in the execution of the permanent Works.

### **42.1 Possession of Site and Access Thereto**

At the end of Subclause 42.1, add the following:

The Contractor shall bear all costs and charges for such lands as the Contractor may reasonably require for camps, offices, workshops, diversion roads, borrow pits, and quarries and any additional facilities outside the site required by him for the purpose of works.

Add the following subclause:

### **42.4 Possession of Site and Access thereto**

The Contractor shall not enter any part of the Site until he has requested and received permission to do so from the Employer or the Engineer.

The Contractor shall not use any portion of the Site for any purpose not connected with the Works.

#### **45.1 Restriction on Working Hours**

Delete Subclause 45.1 and substitute with the following:

If the Contractor requests for permission to work by day and night and if the Engineer shall grant such permission, the Contractor shall not be entitled to any additional payment 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 carrying out night work and from against all claims, demands, proceeding, costs, charges and expenses whatsoever in regard or in relation to such liability. In addition, the Contractor shall be required to provide, for any work carried out by night or recognised days of rest, adequate lighting and other facilities, so that the work is carried out safely and properly.

#### **45.2 Overtime Hours**

Working hours shall be observed by the Contractor as stipulated in the Labour Laws of Kenya. However when deemed necessary to expedite the Works, overtime, night time or holiday working may be allowed by the Engineer in accordance with the provisions of Subclause 46.1. The Contractor, in these cases, shall pay all costs of the Engineer and his staff for such overtime, night time or holiday working at site as stipulated under Subclause 46.1 of the General Conditions of Contract.

#### **47.2 Reduction of Liquidated Damages**

The following supplements this subclause.

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.

No bonus for early completion of the Works shall be paid to the Contractor by the Employer.

The sum stated in the Appendix to Form of Bid as liquidated damages shall be increased by a sum equivalent to any amount payable by the Employer to the Contractor under clause 70.1 in respect of an increase in costs in such period that would not have been incurred by the Contractor if the Works had been completed by the due date for completion prescribed by Clause 43.

Add the following Subclause 47.3:

#### **47.3 Currency of Liquidated Damages**

Liquidated damages shall be paid by the Contractor to the Employer in the types and proportions of currencies as shall be payable to the Contractor under the Contract.

### **DEFECTS LIABILITY**

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

Add at the end of this subclause the following sentence:

Any work ordered to be executed under this subclause shall be carried out at a time and in a manner as directed by the Engineer so as to interfere as little as possible with the operations of the Employer or of other contractors and no extension(s) of the defects liability period will be allowed for the execution of this work.

Add Subclause 49.5 as follows:

## **49.5 Defects Liability Period Replacements**

The provisions of this clause shall apply to all replacements or renewals of Plant and equipment to be provided with respect to the utilities under the Contract, carried out by the Contractor to remedy defects and damages as if the replacements and renewals had been taken over on the date they were completed. The Defects Liability Period for the Works shall be extended by a period equal to the period during which the Works cannot be used by reason of the defect or damage. If only part of the Works is affected the Defects Liability Period shall be extended only for that part.

## **ALTERATIONS, ADDITIONS AND OMISSIONS**

### **52.1 Valuation of Variation**

Add the following final sentences to this subclause:

The agreement, fixing or determination of any rates or prices as aforesaid shall include any foreign currency and the proportion thereof.

Where the Contract provides for the payment of the Contract Price in more than one currency, and varied work is valued at, or on the basis of, the rates and prices set out in the Contract, payment for such varied work shall be made in the proportions of various currencies specified in the Appendix to Form of Bid for payment of the Contract Price. Where the Contract provides for payment of the Contract Price in more than one currency, and new rates or prices are agreed, fixed, or determined as stated above, the amount or proportion payable in each of the applicable currencies shall be specified when the rates or prices are agreed, fixed, or determined, it being understood that in specifying these amounts or proportions the Contractor and the Engineer (or, failing agreement, the Engineer) shall take into account the actual or expected currencies of cost (and the proportions thereof) of the inputs of the varied work without regard to the proportions of various currencies specified in the Appendix to Form of Bid for payment of the Contract Price.

### **52.2 Power of Engineer to Fix rates**

Add a final sentence to the first paragraph as follows:

Where the Contract provides for the payment of the Contract Price in more than one currency, the amount or proportion payable in each of the applicable currencies shall be specified when the rates or prices are agreed, fixed, or determined as stated above, it being understood that in specifying these amounts or proportions the Contractor and the Engineer (or, failing agreement, the Engineer) shall take into account the actual or expected currencies of cost (and the proportions thereof) of the inputs of the varied work without regard to the proportions of various currencies specified in the Appendix to Form of Bid for payment of the Contract Price.

### **52.3 Daywork**

Add the following at the end of this subclause:

The Work so ordered shall immediately become part of the Works under the Contract. The Contractor shall, as soon as practicable after receiving the Daywork Order from the Engineer undertake the necessary steps for due execution of such Work. Prior to commencement of any work to be done on a Daywork basis, the Contractor shall give a notice to the Engineer stating the exact time of such commencement.

## **PROCEDURE FOR CLAIMS**

### **53.1 Notice of Claims**

Add the following at the end of this subclause:

The Contractor shall also state the references of the Contract Clauses and Subclauses on which he has based his claims.

## **CONTRACTOR'S EQUIPMENT, TEMPORARY WORKS AND MATERIALS**

For the purpose of these subclauses, the term "Equipment" shall be read as "Contractor's Equipment" where the context so requires.

### **54.1 Contractor's Equipment, Temporary Works and Materials**

Amend Subclause 54.1 as follows:

Line 5; add "written" between "the" and "consent".

Add a final sentence to this subclause as follows:

The Contractor shall every month give to the Engineer a statement showing the amount of plant and Contractor's equipment, which has been brought to the Site.

### **54.2 Employer not Liable for Damage**

Delete this subclause entirely.

### **54.5 Conditions of Hire of Contractor's Equipment**

Delete this subclause entirely.

Add Subclauses 54.9 and 54.10 as follows:

### **54.9 Contractor's Responsibilities for Licenses**

The Contractor shall obtain his own information with regard to the granting of import and export licenses for materials, equipment and plant. The Contractor shall bear all expenses for Plant, Materials, Equipment and Maintenance required for the completion and maintenance of the works and shall be deemed to have satisfied himself with regard to all his liabilities under the laws and regulations governing the granting of these licenses. The Contractor shall ensure that requests for import and export licenses are submitted in sufficient time to clear all formalities before the said licenses are required.

### **54.10 Equipment and Plant**

The Contractor shall identify each piece of his equipment, other than hand tools, by means of an identification number plainly stencilled or stamped on the equipment at a conspicuous location, and shall furnish to the Engineer a list giving the description of each piece of equipment and its identification number. In addition, the make, model number and empty gross weight of each unit of compaction equipment shall be plainly stamped or stencilled in a conspicuous place on the unit. The gross weight shall be either the manufacturer's rated weight or the scale weight. The make, model, serial number and manufacturer's rated capacity of each scale shall be clearly stamped on the load-receiving element and its indicator or indicators. All meters shall be similarly identified, rated and marked.

## **MEASUREMENT**

### **55.1 Quantities**

Add the following to this subclause:

The quality and quantity of the Work included in the Contract Price shall be deemed to be that which is set out in the Contract Bill of Quantities. The Bill of Quantities, unless otherwise expressly stated therein, shall be deemed to have been prepared in accordance with the principles of the latest edition of the Civil Engineering Standard Method of Measurement.

Any error in description or in quantity or any omission of items from the Contract Bill of Quantities or Specifications shall not vitiate this Contract but shall be corrected and deemed to be a variation required by the Engineer. Subject to

the foregoing, any error whether arithmetical or not in the computation of the Contract Price shall be deemed to have been accepted by the parties hereto.

The Contract Price shall not be adjusted or altered in any way whatsoever otherwise than in accordance with the express provisions of these conditions.

Add the following new sub clause:

## **55.2 Bill of Quantities with no Rates**

Any item of Work described in the Bill of Quantities for which no rate or price has been entered in the Contract shall be considered as included in other rates and prices in the Contract and will not be paid for separately by the Employer.

## **56.1 Works to be measured**

Delete Subclause 56.1 and replace with the following:

The Contractor shall prepare and submit to the Engineer all necessary field notes and other records taken and computations made for the purpose of quantity measurements, of which the forms shall be approved by the Engineer, for the monthly progress payment under Clause 60. The measurement of work quantities made by the Contractor shall be verified and certified by the Engineer based on the above mentioned documents.

The Contractor shall furnish all personnel, equipment and materials to make such surveys and computations as necessary to determine the quantities of work performed. Unless otherwise prescribed in the specifications or the drawings, all measurements for payment shall be made by the dimensions, lines and grades as shown on the drawings or by direct survey of which the methods shall be approved by the Engineer.

The documents submitted for measurement and payment shall become the property of the Employer and shall be used to the extent necessary to determine the monthly progress payment to be made to the Contractor under the Contract. Direct survey, if conducted, shall be subject to checking and verification by the Engineer and all errors in the said survey work and related computations as found during such checking shall be immediately corrected by the Contractor.

In case of any disagreement on an item of measurement, the Engineer's opinion will prevail during the assessment of the statement for monthly interim payments. Should the Contractor consider himself entitled to any form of claim with respect to the disagreement in measurement, the procedure for such is detailed under Clause 53 of the Conditions of Contract.

## **57.1 Method of Measurement**

Delete this subclause and substitute with the following:

The Works shall be measured net with deductions made in accordance with the principles of the latest edition of the Civil Engineering Standard Method of Measurement. All measurements shall be given in metric (SI) units.

## **PROVISIONAL SUMS**

Add the following Subclause 58.4:

## **58.4 Prime Cost Sum**

Wherever an item in the Bill of Quantities has been referred to as a "P.C. Sum" (Prime Cost Sum), that item shall be construed as a Provisional sum and the provisions of Subclauses 58.1 to 58.3 will apply.

## NOMINATED SUBCONTRACTORS

### 59.5 Certification of Payment to Nominated Subcontractors

Add the following paragraph at the end of Subclause 59.5:

If the Engineer desires to secure final payment to any nominated subcontractor before final payment is due to the Contractor and if such subcontractor has satisfactorily indemnified the Contractor against any latent defects, the Engineer may, in an interim certificate, include an amount to cover the said final payment, and thereupon the Contractor shall pay to such nominated subcontractor the amount so certified. Upon such final payment, the amount named in the Appendix to Form of Bid as Limit of Retention Money shall be reduced by the sum which bears the same ratio to the amount as does the subcontract and subcontractor shall be discharged from all liability for the Work, materials or goods executed or supplied by such subcontractor under the Contract to which the payment relates.

## CERTIFICATES AND PAYMENTS

Delete Subclauses 60.1 to 60.10 entirely and substitute with the following:

### 60.1 Advance Payment

In the event that an Advance Payment is granted, the following shall apply:

- (a) On signature of the Contract, the Contractor shall at his request, and without furnishing proof of expenditure, be entitled to an advance of up to maximum of 10% (ten percent) of the original amount of the Contract Sum. The advance shall not be subject to retention money.
- (b) No advance payment may be made before the Contractor has submitted proof of the establishment of deposit or of a directly liable guarantee satisfactory to the Employer in the amount of the advance payment. The guarantee shall be in the same currency as the advance.
- (c) Amortization of the advance shall be effected by deductions from monthly interim payments.
- (d) Amortization of the lump sum advance shall be made by deductions from the Interim payments and where applicable from the balance owing to the Contractor.

The amortization shall begin when the amount of the sums due under the Contract reaches 20% of the original amount of the Contract. It shall have been completed by the time 80% of this amount is reached.

The amount to be amortized by way of successive deductions shall be calculated by means of the formula:

$$R = \frac{A (X1 - X11)}{80 - 20}$$

Where:

- R = Amount to be amortized
- A = Amount of the advance which has been granted
- X1 = Amount of proposed cumulative payments as a percentage of the original amount of the Contract. This figure will exceed 20% but not exceed 80%.
- X11 = Amount of the previous cumulative payments as a percentage of the original amount of the Contract. This figure will be below 80% but not less than 20%.

With each amortization, the counterpart of the directly liable guarantee may be reduced accordingly.



## 60.2 Interim Payment Certificate

The Contractor shall submit to the Engineer, in the manner required by the Engineer after the end of each month a statement showing the estimated total value of permanent Work properly executed and materials or goods for permanent works brought to Site up to the end of the previous month (if the value shall justify the issue of an interim certificate) together with any adjustments under Clause 70 and any outstanding claims and sums the Contractor considers may be due to him. The Contractor shall amend or correct his estimate as directed by the Engineer and the latter shall not accept it until he is satisfied that it is fair and reasonable. With respect to the said materials and goods, no payment for them shall be made unless:

- (i) The materials are in accordance with the specifications for the Works.
- (i) The materials have been delivered to Site and are properly stored and protected against loss, damage or deterioration.
- (ii) The Contractor's record of the requirements, orders, receipts and use of materials are kept in a form approved by the Engineer, and such records are available for inspection by the Engineer.
- (iii) The Contractor has submitted a statement of his cost of acquiring and delivering the materials and goods to the Site, together with such documents as may be required for the purpose of evidencing such cost.
- (ii) The materials are to be used within a reasonable time.

The Contractor will be paid on the certificate of the Engineer the amount due to him on account of the estimated total value of the permanent Work executed up to the end of the previous month together with such amount (not exceeding 75% of the value) as the Engineer may consider proper on account of materials and goods for permanent Work delivered by the Contractor on Site and in addition, such amount as the Engineer may consider fair and reasonable for any Temporary Works for which separate amounts are provided in the Bill of Quantities, all of which shall be subject to a retention of the percentage named in the Appendix to Form of Bid until the amount retained (hereinafter and in all Contract documents called the "Retention Money") shall reach the "Limit of Retention Money" named in the said Appendix to the Form of Bid. Provided always that no interim certificate shall be issued for a sum [such sum always being the net amount thereof after all deductions for retention etc) less than that named in the Appendix to Form of Bid as "Minimum Amount of Interim Certificate" at one time.

Within 14 days after receiving a statement from the Contractor as aforesaid, and subject to the Contractor having made such further amendments and corrections as the Engineer may require, the Engineer shall issue a Certificate of Payment to the Employer showing the amount due, with a copy to the Contractor.

The Engineer shall not unreasonably withhold certifying an Interim Payment Certificate and where there is a dispute regarding an item for payment, the Engineer may delete this disputed item from the Interim Payment Certificate and certify the remainder for payment provided the said payment is in accordance with the preceding paragraph. In cases of difference in opinion as to the value of any item, the Engineer's view shall prevail.

## 60.3 Final Account and Final Payment Certificate

As soon as possible after the issue of Taking - Over Certificate or the termination of the Contract and not later than the time of issue of Defects Liability Certificate, the Contractor shall prepare and submit to the Engineer (with a copy to the Employer), a Statement of Final Account showing in detail the total value of work done in accordance with the Contract together with all sums paid in previous payments. Within thirty (30) days after receipt of such further information as may be reasonably required from the Contractor for its verification, the Engineer shall check the said statement, prepare and submit a Final Payment Certificate to the Employer (with a copy to the Contractor).

The Final Payment Certificate shall state:

- (a) The (final) total value of all Work executed in accordance with the Contract

- (b) After giving credit to the Employer for all amounts previously paid to the Contractor, the balance, if any, due from the Employer to the Contractor or the Contractor to the Employer, as the case may be.

Unless the Contractor notifies the Engineer of his objection to the Final Payment Certificate within twenty eight [28] days of delivery thereof, he shall be deemed to have agreed that he accepts the total Contract Price as set out in the Final Payment Certificate as full settlement for all work executed under the Contract including any claims, variations and omissions thereof.

However, a Final Certificate of Payment shall not be conclusive:

- (i) To the extent that fraud or dishonesty relates to or affects any matter dealt with in the Certificate, or
- (ii) If any arbitration or court proceedings under the Contract have been commenced by either party before the expiry of 90 days after the issue of the Final Certificate of Payment.

#### **60.4 Payment of Certificates**

Payment upon each of the Engineer's Certificates for Interim Payments shall be made by the Employer within the time stated in the Appendix to Form of Bid from the date of the Engineer's signature and issue of each Certificate of Payment to the Employer.

Payment upon the Engineer's Final Payment Certificate shall be made by the Employer within the time stated in the Appendix to Form of Bid from the date of issue of the Final Certificate of Payment signed by the Engineer and countersigned by the Contractor or his authorised agent or representative.

Payments to the Contractor by the Employer shall be made in the currencies in which the Contract Price is payable into a bank account or accounts nominated by the Contractor.

Making of a payment by the Employer shall be considered to have been duly executed on the day that the Employer has issued a cheque.

#### **60.5 Retention Money**

One half of the retention money shall become due upon the issue of a Taking – Over Certificate and shall be paid to the Contractor when the Engineer shall certify in writing that the last section of the whole of the Works has been substantially completed and the other half shall be paid to the Contractor after the expiration of the Defects Liability Period and the issue of a Certificate under Clause 62. Provided always that if such time there shall remain to be executed by the Contractor any Works ordered during such period pursuant to Clauses 49 and 50 thereof, the Employer shall be entitled to withhold payment [until the completion of such Works] of so much of the second half of the Retention Money as shall in the opinion of the Engineer represent the Costs of the Works so remaining to be executed. Provided further that in the event of different Defects Liability Periods having become applicable to different parts of the Works pursuant to clause 48 hereof the expression “expiration of the Defect Liability Period” shall for the purpose of this subclause be deemed to mean the expiration of the latest of such periods.

#### **60.6 Currency of Payment**

The Contract price shall be stated in Kenya Shillings. All payments to the Contractor shall be made in Kenya shillings.

#### **60.7 Overdue Payments**

Unless otherwise stated in the Appendix to the Form of Bid interest shall be paid on the overdue amounts and the interest to be paid shall be based on the rates of the Central Bank of Kenya 28 days prior to the opening of the bids.

## **60.8 Correcting and Withholding**

The Engineer may by any interim certificate or through the final account make any correction or modification to any previous certified sum and shall have authority, if any work or part thereof is not being carried out to his satisfaction, to omit or reduce the value of such work in any Interim Payment Certificate.

## **60.9 Completion by Sections**

If a Taking-Over Certificate shall be issued for any section or part of the Works separately, the payments herein provided for on or after issue of such a Certificate shall be made in respect of such section or part and references to the Contract Price shall mean such part of the Contract Price as shall in the absence of agreement be apportioned thereto by the Engineer.

## **60.10 Statement at Completion**

Not later than 14 days after the issue of the Taking-Over Certificate in respect of the whole of the works, the Contractor shall submit to the Engineer a statement at completion showing in detail and in a form approved by the Engineer:

- (a) The final value of all work executed in accordance with the Contract up to the date stated in such Taking-Over Certificate.
- (b) Any further sums which the Contractor considers to be due; and
- (c) An estimate of amounts, which the Contractor considers, will become due to him under the Contract.

Estimated amounts at Completion shall be shown separately in the Statement. The Contractor shall amend and correct the Statement as directed by the Engineer who shall issue a Certificate at Completion to be processed in accordance with Subclause 60.4.

## **60.11 Final Statement**

Not later than 56 days after the issue of the Defects Liability Certificate, the Contractor shall submit to the Engineer for consideration a draft final statement with supporting documents showing in detail and in the form approved by the Engineer:

- (a) The final value of all work executed in accordance with the Contract, and
- (b) Any further sums which the Contractor considers to be due to him.

If the Engineer disagrees with or cannot verify any part of the draft final statement, the Contractor shall submit such further information as the Engineer may reasonably require and shall make such changes in the draft as may be required.

## **60.12 Discharge**

Upon submission of the Final Statement, the Contractor shall give to the Employer, with a copy to the Engineer, a written discharge confirming that the total of the Final Statement represents full and final settlement of all monies due to the Contractor arising out of or in respect of the Contract. Provided that such discharge shall become effective only after payment under the Final Payment Certificate issued pursuant to Subclause 60.14 has been made and the Performance Security referred to in Subclause 10.1 has been returned to the Contractor.

## **60.13 Final Payment Certificate**

Upon acceptance of the Final Statement as given in Subclause 60.12, the Engineer shall prepare a Final Payment Certificate which shall be delivered to the Contractor's authorized agent or representative for his signature. The Final Payment Certificate shall state:

- (a) The final value of all work executed in accordance with the Contract

- (b) After giving credit to the Employer for all amounts previously paid by the Employer, the balance, if any, due from the Employer to the Contractor or the Contractor to the Employer as the case may be

Final Certificate shall be issued for any sum due to the Contractor even if such is less than the sum named in the Appendix to the Form of Bid.

## **60.14 Cessation of Employer's Liability**

Unless the Contractor notifies the Engineer of his objection to the Final Certificate within 14 (fourteen) days of delivery thereof he shall be deemed to have agreed that he accepts the total Contract Price as set out in the Final Certificate as full settlement for all work executed under the Contract including any variations and omissions thereof.

### **62.1 Defects Liability Certificate**

Delete the last sentence of this subclause beginning "Provided that the issue.....in Sub-Clause 60.3".

## **REMEDIES**

### **63.1 Default of Contractor**

Delete the last paragraph of this subclause and substitute with the following:

then the Employer may, after giving 14 days' notice to the Contractor, enter upon the Site and expel the Contractor therefrom without thereby avoiding the Contract, or releasing the Contractor from any of his obligations or liabilities under the Contract, or affecting the rights and powers conferred on the Employer or the Engineer by the Contract, and may himself complete the Works or may employ any other contractor to complete the Works. The Employer or such other contractor may use for such completion so much of the Contractor's Equipment, Plant, Temporary Works and materials, which have been deemed to be reserved exclusively for the execution of the Works, under the provisions of the Contract, as he or they may think proper, and the Employer may, at any time, sell any of the said Contractor's Equipment, Temporary Works and unused Plant and materials and apply the proceeds of sale in or towards the satisfaction of any sums due or that may become due to him from the Contractor under the Contract."

### **63.2 Valuation of Date of Expulsion**

Modify the heading of Subclause 63.2 by substituting "Valuation at Date of Termination" for "Valuation at Date of Expulsion." In Subclause 63.2, delete the word "termination" on the second and fifth lines and substitute "expulsion".

### **63. Valuation of Date of Expulsion**

Modify the heading of Subclause 63.3 by substituting "Payment after Expulsion" for "Payment after Termination." In Subclause 63.3, delete the words "terminates the Contractor's employment" on the first line and substitute "shall enter and expel the Contractor".

### **63.4 Assignment of Benefit of Agreement**

In Subclause 63.4, delete the word "termination" on the second line, and substitute "expulsion".

Add the following at the end of this subclause:

But on the terms that a supplier or subcontractor shall be entitled to make any reasonable objection to any further assignment thereof by the Employer and the Employer may pay the supplier or subcontractor for any such materials supplied or Works executed under such agreement, whether the same be assigned as aforesaid or not, before or after the said determination, the amount due by such arrangement in so far as it has not already been paid by the Contractor.

Add the following subclause 63.5:

### **63.5 Corrupt or Fraudulent Practices**

If in the judgment of the Employer the Contractor has engaged in corrupt or fraudulent practices, in competing for or in executing the Contract, then the Employer may, after having given 14 days notice to the Contractor, terminate the Contractor's employment under the Contract and expel him from the Site, and the provisions of Clause 63 shall apply as if such expulsion had been made under Subclause 63.1.

For the purpose of this Subclause:

“corrupt practice” means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution.

“fraudulent practice” means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Borrower, and includes collusive practice among bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Employer of the benefits of free and open competition.

### **SPECIAL RISKS**

Subclause 65.2 is amended to read as follows:

#### **65.2 Special Risks**

The Special Risks are the risks defined under paragraph (a), subparagraphs. (i) to (v) of Subclause 20.4 of the Conditions of Contract”.

#### **65.4 Projectile, Missile**

Delete “whenever and wherever occurring” under line 2 and add “on or near the site” after “explosive of war” under line 3.

Add Subclause 65.9 as follows:

#### **65.9 Special Risks**

- (a) In the event of the Employer unilaterally ordering the final cessation of performance of the Contract for reasons not specified elsewhere in the Conditions of Contract the Contractor shall be considered to be frustrated and the Contractor shall be indemnified as provided for under Clause 65.1.
- (b) In the event of the Employer ordering the adjournment of the Contract before or after commencement of the Works for reasons not specified elsewhere in the Conditions of Contract, the Contractor shall be entitled to indemnity for any injury which he may have suffered as a consequence of such adjournment.

The Engineer shall award the Contractor payment of such sum as in his opinion shall be reasonable giving regard to all material and relevant factors including the Contractor's on costs and overheads, and the nature of the instruction to adjourn the Contract.

### **SETTLEMENT OF DISPUTES**

#### **67.1 Dispute Review Expert**

If any dispute arises between the Employer and the contractor in connection with, or arising out of, the Contract or the execution of the Works, whether during the execution of the works or after their completion and whether before or after the repudiation or other termination of the Contract, including any disagreement by either party with any action, inaction, opinion, instruction, determination, certificate, or valuation of the Engineer, the matter in dispute shall, in the first place, be referred to the Disputes Review Expert (‘DRE’). including any disagreement by either party with any action, inaction, opinion, instruction, determination, certificate, or valuation of the Engineer, the matter in dispute shall, in the first place, be referred to the Disputes Review Board (‘the Board’).

The DRE shall take up his functions after having signed a DRE's Declaration of Acceptance as required by the DRE's Rules and Procedures (which along with the Declaration of Acceptance, are attached to these Conditions of Particular application as Annex A).

The DRE shall be a person experienced with the type of construction involved in the works and with the interpretation of contractual documents and shall be selected by agreement between the Employer and the Contractor. If the DRE is not selected within 28 days of the date of the Letter of Acceptance, then upon the request of either or both parties the DRE shall be selected as soon as practicable by the Appointing Authority specified in the Appendix to Form of Bid.

In the event of death, disability, or resignation of the DRE, the latter shall be replaced by agreement between the Employer and the Contractor. Any replacement made by the parties shall be completed within 28 days after the event giving rise to the need for a replacement, failing which the replacement shall be made by the same international appointing authority as above.

Either the Employer or the Contractor may refer a dispute to the DRE in accordance with the provisions of the DRE's Rules and Procedures, attached to these Conditions of Particular Application.

The Recommendation of the DRE shall be binding on both parties, who shall promptly give effect to it unless and until the same shall be revised, as hereinafter provided, in an arbitral award. Unless the Contract has already been repudiated or terminated, the Contractor shall continue to proceed with the Works in accordance with the Contract.

If either the Employer or the Contractor is dissatisfied with any Recommendation of the DRE, or if the DRE fails to issue his Recommendation within 56 days after he has received the written Request for Recommendation, then either the Employer or the Contractor may, within 14 days after his receipt of the Request of Recommendation, or within 14 days after the expiry of the said 56-days period, as the case may be, give notice to the other party, with a copy for information to the Engineer, of his intention to commence arbitration, as hereinafter provided, as to the matter in dispute. Such notice shall establish the entitlement of the party giving the same to commence arbitration, as hereinafter provided, as to such dispute and, subject to Subclause 67.4, no arbitration in respect thereof may be commenced unless such notice is given.

If the DRE has issued a Recommendation to the Employer and the Contractor within the said 56 days and no notice of intention to commence arbitration as to such dispute has been given by either the Employer or the Contractor within 14 days after the parties received such Recommendation from the DRE, the Recommendation shall become final and binding upon the Employer and the Contractor.

Whether or not it has become final and binding upon the Employer and the Contractor, a Recommendation shall be admissible as evidence in any subsequent dispute resolution procedure, including any arbitration or litigation having any relation to the dispute to which the Recommendation relates.

All Recommendations that have become final and binding shall be implemented by the parties forthwith. Such implementation shall include any relevant action of the Engineer.

## **67.2 Amicable Settlement**

Subclause 67.2 is deleted without a change in the numbering of the other subclauses of Clause 67.

Subclause 67.3 is deleted and substituted with the following subclause:

## **67.3 Arbitration**

Any dispute, in respect of which the recommendation, if any, of the DRE has not become final and binding, shall be finally settled by arbitration under the UNCITRAL Arbitration Rules. For the purposes of this subclause, the

Arbitrator shall be a person to be agreed between the parties or failing agreement, the Arbitrator shall be appointed by the appointing Authority designated in the Appendix to the Form of Bid.

Arbitration shall take place in NAIROBI, Kenya. The language of all arbitration proceedings shall be in English. The cost of arbitration shall be apportioned by the Arbitrator according to his findings.

“The Arbitrator shall be appointed by the Chairman, Chartered Institute of Arbitrators (Kenya Chapter) unless the appointment is agreed by the parties within 7 (seven) days of the notice to adjudication.

Neither party shall be limited in the proceedings before such tribunal to the evidence nor did arguments put before the DRE for the purpose of obtaining his recommendation pursuant to subclause 67.1. No Recommendation shall disqualify the DRE from being called as a witness and giving evidence before the arbitrator(s) on any matter whatsoever relevant to the dispute.

Arbitration may be commenced prior to or after completion of the Works, provided that the obligations of the Employer, the Engineer, the Contractor, and the DRE shall not be altered by reason of the arbitration being conducted during the progress of the Works.

Delete Subclause 67.4 and substitute with the following:

#### **67.4 Failure to Comply with Recommendations**

Where neither the Employer nor the Contractor has given notice of intention to commence arbitration of a dispute within the period stated under Subclause 67.1 and the related Recommendation has become final and binding, either party may, if the other party fails to comply with such Recommendation and without prejudice to any other right it may have, refer the failure to arbitration in accordance with Subclause 67.3.

### **NOTICES**

#### **68.1 Notices to Contractor**

Add the following at the end of this subclause:

Notwithstanding the foregoing, the Contractor shall either maintain an address close to the Works or appoint an agent residing close to the Works for the purpose of receiving notices to be given to the Contractor under the terms of the Contract. This obligation shall be terminated upon the issue of the Certificate of Completion.

#### **68.2 Notices to Employer and Engineer**

Delete the words “nominated for that purpose in Part II of these Conditions” in this subclause and substitute with “given in the Appendix to Form of Bid”.

### **DEFAULT OF EMPLOYER**

Under Subclause 69.1, 69.4 and 69.5, substitute “Subclause 60.4 for “Subclause 60.10”.

#### **69.1 Default of Employer**

In Subclause 69.1 (a), delete the words “28 days” in the second sentence and substitute with the words “60 days”.

Delete Subclause 69.1 (d).

#### **69.3 Payment on Termination**

Delete from “, but in addition to the payments specified...” to the end of the Subclause.

#### **69.4 Contractor’s Entitlement to Suspend Work**

Delete the words ‘28 days’ and substitute with ‘60 days’.

Delete sub-clause 69.4 (b) and substitute with the following:

the amount of such cost, which shall be added to the Contract Price. However, the costs due to idle time for plant, equipment and labour shall not be included in the said costs and shall be borne by the Contractor.

Add to Subclause 69.4 as follows:

Without prejudice to the Contractor's entitlement to interest under Subclause 60.7 (of these Conditions of Particular application) and to terminate under Subclause 69.1, the Contractor may suspend work or reduce the rate of work within 56 days after notification by the Foreign Funding Agency to the Kenya Government that the Financier has suspended disbursements from its loan, which finances in whole or in part the execution of the Works.

Add Subclause 69.6 as follows:

## **69.6 Suspension of Funding Agency Loan**

In the event that the Foreign Funding Agency suspends the loan or credit to the Employer from which part of the payments to the Contractor are being made:

- (a) The Employer shall notify the Contractor, with a copy to the Engineer, of such suspension within 7 days of having received the suspension notice from the Funding Agency, provided that:
  - (i) The Employer shall state in such notification whether sufficient funds in the appropriate currencies are expected to be available to the Employer to continue making payments to the Contractor beyond a date 60 days after the date of the Funding Agency's notification of the suspension, and
  - (ii) If such funds are not expected to be available, the Employer shall immediately inform the Engineer to instruct the Contractor to suspend progress of the Works pursuant to Subclause 40.1 of the General Conditions of Contract.
- (b) If the Contractor has not received sums due to him upon the expiration of the 14 days from the time when the Foreign Funding Agency's loan or credit, from which part of the payments to the contractor is being made under Interim Certificates, is suspended, the Contractor may, without prejudice to the Contractor's entitlement to interest under Subclause 60.7, immediately take one or both of the following actions:
  - (i) Suspend work or reduce the rate of work, and/or
  - (ii) Terminate his employment under the Contract by giving notice to the Engineer. Such termination shall take effect 14 days after giving of the notice.

## **70 CHANGES IN COST AND LEGISLATION**

Delete Clause 70 in its entirety, and substitute by 70.1 – 70.8 (inclusive):

- |                                   |   |
|-----------------------------------|---|
| <b>70.1 Price Adjustment</b>      | “The amounts payable to the Contractor, in various currencies pursuant to Sub-Clause 60.1, shall be adjusted in respect of the rise or fall in the cost of labour, Contractor's Equipment, Plant, materials, and other inputs to the Works, by comparing the Basic Rates at tendering stage and the current prevailing market prices. |
| <b>70.2 Other Changes in Cost</b> | To the extent that full compensation for any rise or fall in costs to the Contractor is not covered by the provisions of this or other Clauses in the Contract, the unit rates and prices included in the Contract shall be deemed to include amounts to cover the contingency of   |



such other rise or fall of costs.

#### **70.8 Subsequent Legislation**

If, after the date 28 days prior to the latest date for submission of bids for the Contract, there occur in the country in which the Works are being or are to be executed changes to any National or State Statute, Ordinance, Decree, or other Law or any regulation or by-law of any local or other duly constituted authority, or the introduction of any such State Statute, Ordinance, Decree, Law, regulation or by-law which causes additional or reduced cost to the Contractor, other than under the preceding sub-clauses of this clause, in the execution of the Contract, such additional or reduced cost shall, after due consultation with the Employer and the Contractor, be determined by the Engineer and shall be added to or deducted from the Contract Price and the Engineer shall notify the Contractor accordingly, with a copy to the Employer. Notwithstanding the foregoing, such additional or reduced cost shall not be separately paid or credited if the same shall already have been taken into account in any inputs to the Price Adjustment in accordance with the provisions of Sub-Clauses 70.1.

### **CURRENCY AND RATES OF EXCHANGE**

#### **72.2 Currency Proportions**

Delete the words from “prevailing, as determined by the Central Bank...” to the end of the subclause and substitute with “stated by the Contractor in the standard forms, included with his Original Bid.”

Add Subclause 72.4 as follows:

### **ADDITIONAL CLAUSES**

#### **73.1 Foreign Taxation**

The prices bid by the Contractor shall include all taxes, duties, and other charges imposed outside Kenya on the production, manufacture, sale, and transport of the Contractor’s Equipment, Plant, materials, and supplies to be used on or furnished under the Contract, and on the services performed under the Contract.

#### **73.2 Local Taxation**

The prices bid by the Contractor shall include all customs duties, import duties, business taxes, and income and other taxes that may be levied in accordance with the laws and regulations, being on the date 28 days prior to the latest date for submission of bids, in Kenya, on the Contractor’s Equipment, Plant, materials, and supplies (permanent, temporary and consumables) acquired for the purpose of the Contract and on the services performed under the Contract. Nothing in the Contract shall relieve the Contractor from his responsibility to pay any tax that may be levied in Kenya on profits made by him in respect of the Contract.

#### **73.3 Income Tax on Staff**

The Contractor’s staff and labour will be liable to pay personal income taxes in Kenya in respect of such of their salaries and wages as are chargeable under the laws and regulations for the time being in force, and the Contractor shall perform such duties in regard to such deductions thereof as may be imposed on him by such laws and regulations.

#### **73.4 Duties on Contractor’s Equipment**

Notwithstanding the provisions of Subclause 73.2, the Contractor’s Equipment, including essential spare parts therefore, imported by the Contractor for the sole purpose of executing the Contract shall be temporarily exempt from

the payment of import duties and taxes upon initial importation, provided the Contractor shall post with the customs authorities at the port of entry and approved export bond or bank guarantee, valid until the time of completion of the Contract plus six months, in an amount equal to the full import duties and taxes which would be payable on the assessed imported value of such Contractor's Equipment and spare parts, and callable in the event that the Contractor's Equipment is not exported from Kenya on completion of the Contract plus six months.

A copy of the bond or bank guarantee endorsed by the customs authorities shall be provided by the Contractor to the Employer upon the importation of individual items of Contractor's Equipment and spare parts. Upon export of individual items of Contractor's Equipment or spare parts, or upon completion of the Contract, the Contractor shall prepare, for approval by the customs authorities, an assessment of the residual value of the Contractor's equipment and spare parts to be exported, based on the depreciation scale(s) and other criteria used by the customs authorities for such purposes under the provisions of the applicable law. Import duties and taxes shall be due and payable to the customs authorities by the Contractor on:

- (a) The difference between the initial imported value and the residual value of the Contractor's Equipment and spare parts to be exported; and
- (b) The initial imported value of that Contractor's Equipment and spare parts remaining in Kenya after completion of the Contract.

Upon payment of such dues within 28 days of being invoiced, the bond or bank guarantee shall be reduced or released accordingly; otherwise the security shall be called in the full amount remaining.

For equipment imported by the Contractor for the sole use of the Engineer and which will revert to the ownership of the Employer, import duties and taxes shall be paid upon initial importation.

### **73.5 Declaration against Waiver**

The condoning by the Employer of any breach or breaches by the Contractor or any authorized subcontractor of any of the stipulations and Conditions contained in the Contract shall in no way prejudice or affect or be construed as a waiver of the Employer's rights, powers and remedies under the Contract in respect of any breach or breaches as aforesaid.

### **73.6 Employer's Officials**

No official of the Employer or the Engineer or the Engineer's Representative or anyone of their respective staffs or their employees shall be in any way personally bound or liable for the acts or obligations of the Employer under the Contract or answerable for default or omission in the observance or performance of any of the acts, matters or things which are herein contained.

### **74.1 Illegal Payments**

If the Contractor, or any of his Sub-Contractors, agents or servants gives or offers to give to any person any payment, gift, gratuity or commission as an inducement or reward for doing or forbearing to do any action in relation to the Contract or any other contract with the Employer, or for showing or forbearing to show favour or disfavour to any person in relation to the Contract or to any other contract with the Employer, then the Employer may enter upon the Site and the Works and expel the Contractor and the provisions of Clause 63 hereof shall apply as if such entry and expulsion had been made pursuant to that Clause.

### **75.1 Termination of Contract for Employer's Convenience**

The Employer shall be entitled to terminate this Contract at any time for the Employer's convenience after giving 56 days prior notice to the Contractor, with a copy to the Engineer. In the event of such termination, the Contractor:

- (a) Shall proceed as provided in Subclause 65.7, and
- (b) Shall be paid by the Employer as provided in Subclause 65.8.

## **76.1 Restriction on Eligibility**

- (a) Any Plant, materials, or services which will be incorporated in or required for the Works, as well as the Contractor's Equipment and other supplies, shall have their origin in any of the countries and territories eligible under the Foreign Financier's Rules for Procurement.
- (b) For the purposes of this clause, 'origin' means the place where the materials and equipment were mined, grown, produced, or manufactured or from which the services are provided.
- (c) The origin of goods and services is distinct from the nationality of the supplier.

## **77.1 Joint and Several Liability**

If the Contractor is a joint venture of two or more persons, all such persons shall be joint and severally bound to the Employer for the fulfilment of the terms of the Contract and shall designate one of such persons to act as a leader with authority to bind the joint venture. The composition or the constitution of the joint venture shall not be altered without the prior consent of the Employer.

## **78.1 Details to be Confidential**

The Contractor shall treat the details of the Contract as private and confidential, save insofar as may be necessary for the purposes thereof, and shall not publish or disclose the same or any particulars thereof in any trade or technical paper or elsewhere without the previous consent in writing of the Employer or the Engineer. If any dispute arises as to the necessity of any publication or disclosure for the purpose of the Contract the same shall be referred to the Employer whose determination shall be final.

## **78.2 Drawings and Photographs of the Works**

The Contractor shall not disclose details of drawings furnished to him and works on which he is engaged without the prior approval of the Engineer in writing. No photograph of the work or any part thereof or equipment employed thereon shall be taken or permitted by the Contractor to be taken by any of his employees or any employees of his Subcontractors without the prior approval of the Engineer in writing and no such photographs shall be published or otherwise circulated without the approval of the Engineer in writing.

## **79.1 Official Visitors**

The Contractor shall at all times when authorized by the Engineer give free and undisputed access of all facilities to any authorized employee of the Kenya Government or other authorized person wishing to view or inspect any part of the Site or Works or the materials therein.

## **80.1 Substantial Completion of the Works**

The Contractor shall note that the Engineer reserves the right to certify the Works to be "substantially completed" in accordance with the provisions of Clause 48 of the General Conditions of Contract, unless the following portions of the Works are completed according to the Specifications:

- (a) Works up to and including the bituminous wearing courses,
- (b) All drains and drainage structures including bridges,
- (c) Construction of the shoulders,
- (d) Finishing of medians and slopes of cuts and fills and
- (e) Reinstatement and environmental treatment of quarries and borrow pits.

## **81.1 Monthly Site Meetings**

The Contractor or his authorised representative shall attend monthly meetings on the site with representatives of the Employer and the Engineer at dates and times to be determined by the Engineer. Such meetings will be held for evaluating the progress of the Contract and for discussion of matters pertaining to the Contract which any of the parties represented may wish to raise. Such meetings are not intended for discussing matters concerning the normal day-to-day running of the Contract.

The Contractor shall prepare and submit to the Resident Engineer one week before the meeting a monthly report in the format approved by the Engineer giving all the information and details regarding its accomplishment against the prevailing approved programme.

### **81.2 Minutes of Site Meetings**

Agreements recorded in the Minutes of the Site Meetings are binding to all parties, if objections to the minutes have not been given in due time.

The Minutes of the Site Meetings shall be issued within 7 days and shall be numbered consecutively. Minutes shall be deemed to have been received by the Contractor unless the Contractor gives notice at the following meeting that the Minutes were not received.

Any objections to the Minutes of the Site Meetings shall at the latest be raised at the succeeding Site Meeting or presented to the Engineer in writing not later than 2 weeks after the meeting. If the Contractor at this time has not received the Minutes of the Site Meeting, the objection must be given in writing to the Engineer not later than 2 working days after the subsequent receipt of the said Minutes.

### **82.1 Legal Provisions**

The Contractor shall keep himself fully conversant with the latest enactment's, provisions and regulations of all legislative and statutory bodies, and, in all respects and at all times, shall comply with such enactment's, provisions and regulations in regard to executing the Contract.

### **83.1 Noise and Disturbance**

All works shall be carried out without unreasonable noise and disturbance. The Contractor shall indemnify and keep indemnified the Employer from and against any liability for damages on account of noise or other disturbances created while or in carrying out the work and from and against all claims, demands, proceedings, damages, costs, charges and expenses whatsoever in regard to or in relation to such liability.

### **83.2 Pollution**

Subject, and without prejudice, to any other provision of the Contract and the law of the land and its obligations as applicable, the Contractor shall take all reasonable precautions in connection with:

- (a) The rivers, streams, waterways, drains, water-course, lakes, reservoirs and the like to prevent:
  - (i) Silting
  - (ii) Erosion of their beds and banks, and
  - (iii) Pollution of the water so as to affect adversely the quality or appearance thereof or cause injury or death to animal and plant life.
- (b) The underground water resources including percolating water to prevent:
  - (i) Any interference with the supply to or obstruction from such sources, and
  - (ii) Pollution of the water which may adversely affect the quality thereof.

The Contractor shall further comply with any and all laws, rules and regulations of governmental agencies having jurisdiction which now exist or which may be promulgated during the course of the works contracted for herein, relating to the control, regulation and prevention of pollution. Not by way of limitation of the foregoing, but in furthermore thereof, the Contractor shall use the highest prevailing and approved standards of care and diligence to prevent and to take care of all waste, oil, water and other waste materials that may accumulate and be caused by the Contractor's operations and performance of this Contract so as to prevent pollution of any nature or kind resulting from the Works performed under this Contract.

## **ANNEX A**

### **DISPUTE REVIEW REGULATIONS AND PROCEDURES**

## **ANNEX A: - DISPUTE REVIEW REGULATIONS AND PROCEDURES**

### **Disputes Settlement Procedures**

(See Clause 67 of the Conditions of Particular Application)

1. Except for providing the services required hereunder, the DRE shall not give any advice to either party or to the Engineer concerning conduct of the Works. The DRE shall:
  - (a) Have no financial interest in any party to the Contract, or the Engineer, or a financial interest in the Contract, except for payment for his services.
  - (b) Have had no previous employment by, or financial ties to, any party to the Contract, or the Engineer, except for fee-based consulting services on other projects, all of which must be disclosed in writing to both parties prior to selection for the position of DRE.
  - (c) Have disclosed in writing to both parties prior to selection as DRE any and all recent or close professional or personal relationships with any director, officer, or employee of any party to the Contract, or the Engineer, and any and all prior involvement in the project to which the Contract relates.
  - (d) Not, while serving as DRE, be employed whether as a consultant or otherwise by either party to the Contract, or the Engineer, except as a DRE, without the prior consent of the parties.
  - (e) Not, while serving as DRE, engage in discussion or make any agreement with any party to the Contract, or with the Engineer, regarding employment whether as a consultant or otherwise either after the Contract is completed or after service as DRE is completed.
  - (f) Be and remain impartial and independent of the parties and shall disclose in writing to the Employer, the Contractor, and the Engineer, any fact or circumstance that might be such as to cause either the Employer or the Contractor to question the continued existence of the impartiality and independence required of a DRE; and
  - (g) Be fluent in the language of the Contract; English
2. Except for his participation in DRE's activities as provided in the Contract and in this Agreement, none of the Employer, the Contractor, or the Engineer shall solicit advice or consultation from the DRE on matters dealing with the conduct of the Works.
3. The Contractor shall:
  - (a) Furnish to the DRE a copy of all documents that the latter may request. These shall include Contract documents, progress reports, variation orders, and other documents pertinent to the performance of the Contract.
  - (b) In cooperation with the Employer, coordinate the Site visits of the DRE, including conference facilities, and secretarial and copying services.

4. The DRE shall begin his activities following the signing of a DRE's Declaration of Acceptance, and he shall terminate these activities as set forth below:
  - (a) The DRE shall terminate his regular activities when either:
    - (i) The Defects Liability Period referred to in Subclause 49.1 (or, if there are more than one, the Defects Liability Period expiring last) has expired, or
    - (ii) The Employer has expelled the Contractor from the Site pursuant to Subclause 63.1, and when, in either case, the DRE has communicated to the parties and the Engineer his Recommendations on all disputes previously referred to him.
  - (b) Once the DRE has terminated his regular activities as provided by the previous paragraph, the DRE shall remain available to process any dispute referred to him by either party. In case of such a referral, the DRE shall receive payments as provided in Paragraphs 7 (a) (ii), (iii) and (iv) below.
5. The DRE shall not assign or subcontract any of his work under these Rules and Procedures. However, the DRE may in his/her discretion decide to seek independent expert advice on a particular specialized issue to assist in reaching a Recommendation, and the cost of obtaining any such expert opinion(s) shall be shared equally by the Employer and the Contractor in accordance with the procedure specified in paragraph 7 (d) below.
6. The DRE is an independent contractor and not an employee or agent of either the Employer or the Contractor.
7. Payments to the DRE for his services shall be governed by the following provisions:
  - (a) The DRE will receive payments as follows:
    - (i) A retainer fee per calendar month equivalent to three times the daily fee established from time to time for arbitrators under the Administrative and Financial Regulations of the International Centre for Settlement of Investment Disputes (the ICSID Arbitrator's Daily Fee), or such other retainer as the Employer and Contractor may agree in writing. This retainer shall be considered as payment in full for:
      - (i.1) Being available, on seven days' notice, for Site visits requested by either party.
      - (i.2) Being conversant with all project developments and maintaining relevant files.
      - (i.3) All office and overhead expenses such as secretarial services, photocopying, and office supplies (but not including telephone calls, faxes, and telexes) incurred in connection with the duties as a DRE.
      - (i.4) All services performed hereunder except those performed during the days referred to in paragraph (ii) below.
    - (ii) A daily fee equivalent to the ICSID Arbitrator's Daily Fee or such other daily fee as the Employer and Contractor may agree in writing. This daily fee shall only be payable in respect of the following days and shall be considered as payment in full for:
      - (ii.1) Each day up to a maximum of two days of travel time in each direction for the journey between the DRE's home and the Site.
      - (ii.2) Each day on Site.
    - (iii) Expenses in addition to the above shall be all reasonable and necessary travel expenses (including less than first-class air fare, subsistence, and other direct travel expenses) as well as the cost of telephone calls, faxes, and telexes incurred in connection with the duties as

DRE shall be reimbursed against invoices. Receipts for all expenses in excess of US\$ 25.00 (U.S. Dollars Twenty Five) shall be provided.

- (iv) Reimbursement of any taxes that may be levied in Kenya on payments made to the DRE (other than a national or permanent resident of Kenya) pursuant to Paragraph 8.
- (b) Escalation. The retainer and fees shall remain fixed for the period of the DRE's term.
- (c) Phasing out of monthly retainer fee. Beginning with the next month after the Taking-Over Certificate referred to in Clause 48 (or, if there are more than one, the one issued last) has been issued, the DRE shall receive only one-third of the monthly retainer fee. Beginning with the next month after the Board has terminated its regular activities pursuant to paragraph 4 (a) above, the DRE shall no longer receive any monthly retainer fee.
- (d) Payments to the DRE shall be shared equally by the Employer and the Contractor. The Contractor shall pay the DRE's invoices within 30 calendar days after receipt of such invoices and shall invoice the Employer (through the monthly statements to be submitted in accordance with Subclause 60.2 of the Conditions of Contract) for one-half of the amounts of such invoices. The Employer shall pay such Contractor's invoices within the time period specified in the construction Contract for other payments to the Contractor by the Employer.
- (e) Failure of either the Employer or the Contractor to make payment in accordance with this Agreement shall constitute an event of default under the Contract, entitling the non-defaulting party to take the measures set forth, respectively, under Clause 63 or Clause 69.
- (f) Notwithstanding such event of default, and without waiver of rights therefrom, in the event that either the Employer or the Contractor fails to make payment in accordance with these Rules and Procedures, the other party may pay whatever amount may be required to finance the activities of the DRE. The party making such payments, in addition to all other rights arising from such default, shall be entitled to reimbursement of all sums paid in excess of one-half of the amount required to finance the activities of the DRE plus all costs of obtaining such sums.

**8. DRE Site Visits:**

- (a) The DRE shall visit the Site and meet with representatives of the Employer and the Contractor and the Engineer at regular intervals, at times of critical construction events, at the written request of either party, and in any case not less than three times in any period of 12 months. The timing of Site visits shall be as agreed among the Employer, the Contractor, and the DRE, but failing agreement shall be fixed by the DRE.
- (b) Site visits shall include an informal discussion of the status of the construction of the Works, an inspection of the Works, and the review of any Requests for Recommendation made in accordance with Paragraph 10 below. Site visits shall be attended by personnel from the Employer, the Contractor, and the Engineer.
- (c) At the conclusion of each Site visit, the DRE shall prepare a report covering his activities during the visit and shall send copies to the parties and to the Engineer.

**9. Procedure for Dispute Referral to the DRE:**

- (a) If either party objects to any action or inaction of the other party or the Engineer, the objecting party may file a written Notice of Dispute to the other party with a copy to the Engineer stating that it is given pursuant to Clause 67 and stating clearly and in detail the basis of the dispute.
- (b) The party receiving the Notice of Dispute will consider it and respond in writing within 14 days after receipt.



- (c) This response shall be final and conclusive on the subject, unless a written appeal to the response is filed with the responding party within seven days after receiving the response. Both parties are encouraged to pursue the matter further to attempt to amicably settle the dispute.
- (d) When it appears that the dispute cannot be resolved without the assistance of the DRE, or if the party receiving the Notice of Dispute fails to provide a written response within 14 days after receipt of such Notice, either party may refer the dispute to the DRE by written Request for Recommendation to the DRE. The Request shall be addressed to the DRE, with copies to the other party and the Engineer, and it shall state that it is made pursuant to Clause 67.
- (e) The Request for Recommendation shall state clearly and in full detail the specific issues of the dispute to be considered by the DRE.
- (f) When a dispute is referred to the DRE, and the DRE is satisfied that the dispute requires his assistance, the DRE shall decide when to conduct a hearing on the dispute. The DRE may request that written documentation and arguments from both parties be submitted to him before the hearing begins. The parties shall submit insofar as possible agreed statements of the relevant facts.
- (g) During the hearing, the Contractor, the Employer and the Engineer shall each have ample opportunity to be heard and to offer evidence. The DRE's Recommendations for resolution of the dispute will be given in writing to the Employer, the Contractor, and the Engineer as soon as possible and in any event not less than 56 days after receipt by the DRE of the written Request for Recommendation.

#### **10. Conduct of Hearings:**

- (a) Normally hearings will be conducted at the Site, but any location that would be more convenient and still provide all required facilities and access to necessary documentation may be utilized by the DRE.
  - (b) The Employer, the Engineer, and the Contractor shall be given the opportunity to have representatives at all hearings.
  - (c) During the hearings, the DRE shall not express any opinion concerning the merit of the respective arguments of the parties.
  - (d) After the hearings are concluded, the DRE shall formulate his Recommendations and shall submit them in writing, together with an explanation of his reasoning, to both parties and to the Engineer. The Recommendations shall be based on the pertinent Contract provisions, applicable laws and regulations, and the facts and circumstances involved in the dispute.
11. In all procedural matters, including the furnishing of written documents and arguments relating to disputes, Site visits and conduct of hearings, the DRE shall have full and final
12. After having been selected, the DRE shall sign two copies of the following declaration and make one copy available each to the Employer and to the Contractor:

## **SECTION VII:**

### **MINISTRY OF ROADS SUPERVISION CHECKLIST**

The manual refers to Supervision Check List for road maintenance and evaluation of contractor's performance, 2011 November.

**SECTION VIII:**

**MINISTRY OF ROAD MAINTENANCE MANNUAL, 2010**

**SECTION IX:**

**SPECIFICATIONS FOR ROUTINE MAINTENANCE REHABILITATION AND SPOT  
IMPROVEMENT WORKS**

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**Standard Specification**

Where required, material to be incorporated in the works shall comply with the relevant section of the Standard Specification for Roads and Bridge Construction, 1986 Edition published by the Ministry of Transport and Communication.

Whenever reference is made to “The Engineer” in the specification, it shall be construed to be synonymous with the term “Employer” or “Employer’s duly authorised Representative” respectively as referred to in the Conditions of Contract.

## **SPECIAL SPECIFICATIONS**

### **SECTION 1: GENERAL**

#### **101 LOCATION AND EXTENT OF SITE**

The Project is located in Lake Nakuru National Park . The total road length is 24.7km which is Earth/Gravel divided into two sections as follows:

- i) Lanet – Lion Hill – Nderit Road - 14.5Km- Earth/Gravel road status
- ii) Makalia Falls Circuit Road – 10.2Km –Earth/Gravel status road.

#### **102 EXTENT OF SCOPE OF WORKS.**

The extent of works under this particular contract entails:-

- General: Office administration and overheads/Preliminaries
- Site Clearance
- Earthworks
- Culverts and drainage works
- Passage of traffic
- Light and Heavy grading
- Embankment and riverbed protection works
- 5.0m by 2.5m Box culvert construction
- Gravelling
- Any other works that may be instructed by the Engineer

#### **104 PROGRAMME OF EXECUTION OF THE WORKS**

The contractor shall provide the works programme, required under clause 14 of the Conditions of Contract, within 14 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 fulfill 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. The Resident Engineer shall be required to check the contractor's work execution progress guided by the Supervision Checklist provided as **Appendix II** to these Special Specifications.

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**107      TAKING OVER CERTIFICATE**

The minimum length of road for which a taking over or completion certificate will be issued shall be the whole road when completed.

**109 NOTICE OF OPERATIONS**

**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.*

*Explosives and Blasting*

- (a) The requirements of the Laws of Kenya governing explosives and other requirements and regulations of Government of Kenya and other authorities shall be complied with.
- (b) No explosives of any kind shall be used without prior written consent of the Engineer.
- (c) The Contractor shall be solely responsible for the provision, handling, storage and transporting of all explosive ancillary materials and all other items of related kind whatsoever required for blasting.

**117 HEALTH, SAFETY AND ACCIDENTS**

Add to Sub-Clause 19.1 the following:

*In addition to providing, equipping and maintaining adequate first aid stations with minimum of the following items:-Non Stick wound dressing, election of plaster/band aids, Crepe bandages,Gauze and cotton wool, Antiseptic solution (washing wounds), Oral re-hydration sachets,*

*Antiseptic cream – Betadine, Burnol, Pain killers Panadol, Disprin, Anti diarrhoea – Immodium, Diadis, Charcoal, Anti histamine – Piriton, Triludan, Anti nausea – Stemetil, Antibiotic – Amoxil, Septrin, Surgical gloves Eye ointment throughout the works in accordance with the Laws of Kenya, the contractor shall provide and should provide contact and written MOU with local dispensary or medical clinic during the duration of the Contract.*

*Such dispensary shall be with a qualified Clinical Officer / Nurse who shall offer the necessary medical advice on HIV and related diseases to the Engineer's and Contractor's Site staff.*

*The Contractor shall allow for this in the rates and be responsible for all site welfare arrangements at his own cost.*

**121 DIVERSION OF SERVICES**

- (a) The Contractor shall acquaint himself with the location of all existing services such as telephone lines, electricity cables, water pipes, sewers etc., before execution of any works that may affect the services. The cost of determining the location of the existing services together with making good or repairing of any damage caused all to the satisfaction of the Engineer shall be included in the Bid rates.
- (b) Subject to the agreement with the Engineer, the Contractor shall be responsible for removal of alteration and relocation of existing services.
- (c) The Contractor shall indemnify the Employer against claims originating from damage to existing services or works.



**123 LIAISON WITH GOVERNMENT AND POLICE OFFICIALS**

The Contractor shall keep in close touch with the Police and the other Government officials of the area regarding their requirements in the control of traffic or other matters, and shall provide all assistance or facilities, which may be required by such officials in the execution of their duties.

**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 there from. 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 a competent surveyor 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.

**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.

**139 PRIME COST SUMS**

The Contractor will be paid on a prime cost basis plus a percentage for overheads and profits under relevant items of the Bills of Quantities.

**143 ENVIRONMENTAL PROTECTION**

*The Contractor shall ensure so far as is reasonably practicable and to the satisfaction of the Engineer; that the impact of the construction on the environment shall be kept to a minimum and that appropriate measures are taken to mitigate any adverse effects during the construction.*

- (a) 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.
- (b) Spilling of bitumen fuels Oils and other pollutants shall be cleared up.

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**SECTION 3: SETTING OUT & TOLERANCES****301 SETTING OUT**

- a) In addition to the provisions of clause 3.01(a) if the traverse points to be used for the setting out are close to the existing carriageway and interfere with construction works then the Contractor will have to relocate them to a location where they will not be disturbed. The co-ordinates and heights of all traverse points so located shall be listed and provided to the Engineer for checking and/or approval. Contractor shall also monument the new centreline every 200m along straight and all salient points along curves by a pin in the concrete beacon before commencement of any works.

The road reserve boundary posts shall have 12mm diameter steel pins embedded in concrete, 200mm long with 25mm exposed to the air, sticking out from its top surface. This pin shall be co-ordinated and heighten and result of the same shall be provided to the Engineer for approval. Cost of these works shall be included in the rates as no separate item has been provided.

Commencement of the works shall not be permitted until this basic survey data has been provided and approved by the Engineer for at least 5 Kms of the road

b) **Detailed Setting Out**

The reference peg shall be 50mm by 50mm in section, 600mm long and driven 400mm firmly into the ground and painted white above the ground. The offset from the centre line shall be indicated by small nail 20mm to 25mm long with its head flush with the top of the peg.

Chainages, offset and reference elevation shall be clearly indicated to the sides of the peg to the satisfaction of the Engineer.

After cutting of benches and prior to commencement of earthworks or subgrade works, Contractor shall take cross-sections again and submit the copy of the same to Engineer for agreement. These cross-sections shall then be used as basis of measurement for all subsequent layers, unless otherwise stated.

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**SECTION 4: SITE CLEARANCE AND TOP SOIL STRIPPING****401 SITE CLEARANCE**

Site Clearance shall be carried out as directed by the Engineer.

**04 – 50 – 002: Grass Cutting (Manual)**

Grass shall be defined as any form of plant growth including small shrubs having a girth of not more than 100mm measured at height of 150mm above ground level.

The grass shall be cut to height of not more than 50 mm above the ground. The width limits shall be as instructed by the Engineer. All cut grass shall be removed from the carriageway, side drains, mitre drains and inlets and outlet drains of structures/culverts and deposited in approved spoil dumps

Burning of the grass shall not be allowed and care shall be taken not to damage roadside fixtures such as signs and marker posts.

This activity shall be carried out twice, each time before the rainy season or as shall be instructed by the Engineer.

**Work Method**

The Contractor shall use labour to carry out this item of work.

**Quality Control**

The road width for grass cutting shall be measured using tape measure at 50-m intervals and shall be visually checked to be free of grass after the operation.

**Measurement:** m<sup>2</sup>

The unit of measurement shall be square metres of grass cut.

**Payment**

The unit rate shall be full compensation, for labour, materials, tools, equipment and any incidental costs required to carry out the prescribed works.

**04 – 50 – 003: Bush Clearing**

This activity involves removal of small trees, shrubs and bushes all including their root system so as to prevent re-growth. In addition, the Engineer may order the trimming of branches of large trees so as to improve visibility. The width limits shall be as instructed by the Engineer.

The cut down material shall be collected into heaps away from the side drains and where it shall not block or interfere with visibility problems.

Burning of cut bush and removed trees or branches shall not be allowed.

**Work Method**

The contractor shall use **Labour** to carry out this item work

**Quality Control**

The width for bush clearing shall be measured using a tape at 50-m intervals and shall be visually confirmed to be free of trees or bushes.

**Measurement** : \_\_\_\_\_ m<sup>2</sup>

The unit of measurement shall be the area in square metres.

**Payment**

The unit rate shall be the full compensation, for labour, materials, tools, and any incidental costs required to carry out the prescribed works.

**402 REMOVAL OF TOPSOIL**

Topsoil shall include removal of up to 200mm depth of any unsuitable material as directed by the Engineer.

**403 REMOVAL OF STRUCTURES, FENCES AND OBSTRUCTIONS**

When instructed by the Engineer, the Contractor shall demolish or remove structure and payment for this shall be made on day works basis.

**04 – 50 – 008: Clearing of Obstructions**

This activity shall involve to the following tasks:-

- Inspection of the road section(s) included in the contract daily.
- Removal of all obstruction such as fallen trees/ branches, rock fall, landslides, broken signs, etc. away from the roadway road side drains, mitre drains and other drains, inlets and outlets of drifts, culverts and other structures and the safe disposal thereof outside the road formation width.
- Removal of dead animals' carcasses away from the carriageway and disposing them as directed by the Engineer. Liaison with the Police may be necessary.

**Work Method**

The contractor shall use **labour** to carry out this item of work

**Quality Control**

The road section shall be visually checked for any obstruction.

**Measurement**

The unit of measurement for this item shall be **lump sum per Km** for the contract period.

**Payment**

The unit rate shall be the full compensation for the provision of labour, and tools necessary to carry out the tasks listed above.

## SECTION 5: EARTHWORKS

### 504 PREPARATION PRIOR TO FORMING EMBANKMENT

Where benching is required for existing pavement to accommodate earthworks subgrade or subbase for widening the road, the rate for compaction of existing ground shall be deemed to cover this activity.

Excavation in the pavement of the existing road shall be kept dry. In the event of water penetrating the underlying layer, construction of the subsequent layers shall be postponed until the underlying layers are dry enough to accommodate the construction plant without deforming or otherwise showing distress.

Step construction shall be carried out per layer at the joint where excavating both vertically and perpendicular to the direction of the travel. The step shall be 500mm perpendicular to the direction of the travel and 150mm vertical unless otherwise instructed by the Engineer.

Special care shall be taken when compacting the new material at the joint ensuring that specified density is achieved.

### 505 CONSTRUCTION OF EMBANKMENTS

*Only material approved by the Engineer shall be used for fill in embankments. Material with high swelling characteristics or high organic matter content and any other undesirable material shall not be used, unless specifically directed by the Engineer. Unsuitable material shall include:*

- (i) All material containing more than 5% by weight or organic matter (such as topsoil, material from swamps, mud, logs, stumps and other perishable material)
- (ii) All material with a swell of more than 3% (such as black cotton soil)
- (iii) All clay of plasticity index exceeding 50.
- (iv) All material having moisture content greater than 105% of optimum moisture content (Standard Compaction)

**Subgrade:** Shall mean upper 300mm of earthworks either insitu or in fill and subgrade shall be provided for as part of earthworks operation and payment shall be made as “fill”. The material for subgrade shall have a CBR of not less than 8% measured after a 4-day soak in a laboratory mix compacted to a dry density of 100% MDD (AASHTO T99) and a swell of less than 1%.

**Subgrade repair:** Where directed by the Engineer, any localized failure in the subgrade shall be repaired by filling in selected soft, hard or natural of minimum CBR 30% and compacted in accordance with clauses in the specifications applying to normal subgrade.

**Embankment repair:** Where directed by the Engineer, any localized filling in soft, hard or natural; selected material requirements shall be executed with Clause 505.

### 508 COMPACTION OF EARTHWORKS

At pipe culverts, all fill above ground level around the culverts shall be compacted to density of 100% MDD (AASHTO T.99) up to the level of the top of the pipes or top of the surround(s), if any and for a width equal to the internal diameter of the pipe on either side of the pipe(s) or surround(s) as applicable.

At locations adjacent to structures, all fill above ground level up to the underside of the subgrade shall be compacted to density of 105% MDD (AASHTO T.99). In case of fill around box culverts this should be

carried out for the full width of the fill and for a length bounded by the vertical plane passing through the ends of the wingwalls.

Notwithstanding the provision of clause 503 of the standard Specification, Compaction of subgrade material (i.e. material immediately below formation) in cut areas shall not be carried out by the contractor in areas where the formation is formed in hard material, unless the Engineer issues specific instructions to the contrary are issued.

Where improved sub-grade material shall be required, this shall be compacted and finished to the same standards and tolerances as those required for normal subgrade and clauses in the specifications applying to normal subgrade shall also apply.

## 511 BORROW PITS

*The first part of the Standard Specification is amended as follows: -*

Fill material which is required in addition to that provided by excavation shall be obtained from borrow pits to be located and provided by the Contractor but to the approval of the Engineer contrary to what has been stated.

## 05 – 70 - 001: Grassing (Repair of erosion on shoulders / planting of grass)

This activity shall involve protection / repair of erosion on embankment slopes, cut faces, shoulders, side slopes by filling with suitable soils and compacting using appropriate tamping tools as instructed by the Engineer.

Contractor shall plant turf of approved indigenous 'runner' type grass. The Contractor shall care for and water the grass until it is firmly established.

### Work Method

The contractor shall use **Labour or equipment** carry out this item work.

### Quality Control

- The width of the slope shall be measured at 50m intervals and shall have maximum tolerances of + / - 100mm.
- The quality of grass and spacing of the sprigs shall be visually checked

Measurement:                      m<sup>2</sup>

The unit of measurement shall be total area in square metre calculated as the net area, measured on the slope.

### Payment

The unit rate shall be full compensation, for labour, materials, tools, and any incidental costs required to carry out the prescribed works

## 517 MEASUREMENT AND PAYMENT

Notwithstanding the provisions of clause 517 of the standard specifications, the rate for compaction of fill in soft material shall allow for the requirements of clause 508 of the special specification and no extra payment shall be made for compaction around pipe culverts (100% MDD AASHTO T.99).

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**SECTION 6: QUARRIES, BORROW PITS, STOCKPILES AND SPOIL AREAS****601 GENERAL**

Notwithstanding any indications to the contrary in the Standard specification the Engineer will not make available to the Contractor any land for quarries, borrow pits, stockpiles and spoil areas, except for those areas in road reserves specifically approved by him.

The contractor will be entirely responsible for locating suitable sources of materials complying with the Standard and Special Specifications, and for the procurement, Wining, haulage to site of these materials and all costs involved therein. Similarly the contractor will be responsible for the provision and costs involved in providing suitable areas for stockpiling materials and spoil dumps. Should there be suitable sites for spoil dumps or stockpiles within the road reserve forming the site of the works the Contractor may utilise these subject to the approval of the Engineer.

*No additional payment will be made to the Contractor to cover costs arising from the requirements for this Clause and the Contractor must include these costs in the rates inserted into the Bills of Quantities.*

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**SECTION 7: EXCAVATION AND FILLING FOR STRUCTURES****703 EXCAVATION OF FOUNDATIONS FOR STRUCTURES**

Unless otherwise instructed by the Engineer, all excavated surfaces in material other than hard material, on which foundations for structures shall be placed, shall be compacted to 100% MDD (AASHTO T.99) immediately before structures are constructed.

*Paragraph 4, last line: - Replace "95%" with "100%".*

**707 BACKFILLING FOR STRUCTURES**

Unless otherwise instructed by the Engineer, all backfilling material shall be compacted to a minimum of 100% MDD (AASHTO T.99).

**709 EXCAVATION FOR RIVER TRAINING AND NEW WATER COURSES**

Payments for river training and establishment of new watercourses shall only be made where such work constitute permanent works. Works done for road deviation or other temporary works shall not qualify for payment.

**710 STONE PITCHING**

Stone pitching to drains, inlets and outlets of culverts to embankments and around structure shall consist of sound unweathered rock approved by the Engineer.

The stone as dressed shall be roughly cubical in shape with minimum dimensions of 150 x 150mm for normal thickness of stone pitching.

The surface to receive the pitching shall be compacted and trimmed to slope and the stone laid, interlocked and rammed into the material to give an even finished surface.

In areas where stone pitching has been damaged, the Contractor shall identify such areas and notify the Engineer for his agreement of the extent of the Works required and his approval and instructions to proceed with the Works. Stone Pitching Repair and Reconstruction shall be carried out in accordance with Clause 710 of the Standard Specifications.

The Works shall involve, removal of the damaged stone pitching and reconstruction of the said areas in accordance with Clause 710 of the Standard Specifications by use of the sound salvaged material together with any necessary additional material where all such materials shall comply with Section 7 of the Standard Specifications.

Contrary to Clause 713 of the standard specifications, the rates inserted for stone pitching shall allow for grouting.

**711 GABIONS**

Where instructed by the Engineer the Contractor shall install gabions as protection works to washout areas or bridge Piers and or Abutments. Gabions shall be constructed in accordance with Clause 711 of the Standard Specification.



In cases where existing gabions have been damaged, the Contractor shall identify them and notify the Engineer for his agreement of the extent of the Work required and his approval and instructions to proceed with the Works.

The Works shall involve removal of the damaged gabions / rocks, excavation to the correct levels and grades as directed by the Engineer, and in accordance with Clause 711 of the Standard Specifications and reconstruction with new gabions and other necessary materials as necessary. The damaged gabions shall be recovered and transported to the nearest D.W.O's Yard or M.O. R.& P. depot.

#### **712 RIP-RAP PROTECTION WORK**

Quarry waste or similar approved material shall be used to backfill scoured and eroded side, outfall and cut-off drain. The material shall be compacted to form a flat or curved surface preparatory to stone [pitching of drainage channels, existing and new scour checks as directed by the Engineer.

The surface to receive the pitching shall be compacted and trimmed to slope and the stone hand laid, interlocked and rammed into the material to give an even finished surface. The interstices of the Pitching shall be rammed with insitu material. The insitu material immediately behind the pitching shall be compacted to minimum density of 100% MDD compaction (AASHTO T.99).

#### **714 BACKFILL BELOW STRUCTURES**

Where instructed this shall be carried out in compliance with the requirements of Clause 507 and 804 of the Standard Specification.

## SECTION 8 - CULVERTS AND DRAINAGE WORKS

### 801 SCOPE OF SECTION

The operations specified in this section apply to the installation of drainage works and reinstatement and improvement of the same.

In addition, this Section covers: -

- Installation of 450 mm, 600 mm, 900mm or 1200mm diameter pipe culverts
- Desilting and cleaning of existing pipes and outfall drains to make them free flowing.

This activity consists of supplying the concrete pipe rings, laying and joining the rings, excavating and backfilling the trench and constructing a ramp over the culvert.

### 804 EXCAVATION FOR CULVERTS AND DRAINAGE WORKS

This Item consists of excavating trenches for culverts, foundations for head and wing walls and the construction of pipe culverts. The dimension of excavation shall be specified in the Drawings or shall be as directed by the Engineer. The Engineer shall approve all excavation work before the contractor is allowed to proceed with other works.

*In the Standard Specifications, make the following amendments: -*

*In paragraph 6, line 3, and in paragraph 7, line 5 and in paragraph 11, line 6, delete "95%" and insert "100%".*

#### Removal of Existing Pipe Culverts

Where instructed by the Engineer, the Contractor shall excavate and remove all existing blocked or collapsed culvert pipes of 450 mm, 600 mm and 900mm diameter including concrete surround, bedding, inlet and outlet structure and cut to spoil.

The void left after removal of culvert pipes shall be widened as necessary to accommodate new concrete bedding, pipe and hunching.

The payment of this work shall be per linear metre of pipes removed, and the volume in m3 of inlet/outlet structure removed. The void left by removal of these pipes shall be carefully preserved in order to accommodate replacement with 450 mm, 600 mm or 900 mm diameter pipe culverts as shall be directed by the Engineer.

#### Removal of Other Existing Drainage Structures

When instructed by the Engineer, the Contractor shall demolish or remove any other structure and payment shall be made on day work basis.

#### Excavation for Culverts and Drainage Works

The Contractor shall carry out all excavations for new culverts and drainage works to the lines, levels, inclinations, and dimensions shown on the drawings or as instructed by the Engineer.

### 805 EXCAVATION IN HARD MATERIAL

*In the Standard Specifications, Sub-clauses 805(a) and 805 (b) delete "95%" and insert "100%".*

*In sub-clause 809(a), paragraph 1, line 1, substitute "95%" with "100%".*

*In sub-clause 809(c), paragraph 2, line 4, between the words "compacted" and "and shaped" insert the words "to 100% MDD (AASHTO T.99)".*

Hard material is material which can be excavated only after blasting with explosives or barring and wedging or the use of a mechanical breaker fitted with a rock point in good condition and operated correctly. Boulders of more than 0.2m<sup>3</sup> occurring in soft material shall be classified as hard material.

#### **809 BEDDING AND LAYING OF PIPE CULVERTS**

Concrete pipes shall be laid on a 150mm thick concrete bed of class 15/40 and the pipes shall be bedded on a 1:3 cement-sand mortar at least 50mm thick, 150mm wide and extending the full length of the barrel.

Pipe culverts shall be haunched using 150mm concrete Class 15/20 surround as per profile IV as indicated in the drawings. Headwalls/Wing walls, toe walls and aprons shall be constructed with class 20/20 concrete.

Backfilling shall be done with approved material and compacted layers not exceeding 150 mm loose. Ramps shall be shaped to achieve a minimum overfill of 3/4 of the pipe diameter.

*The rates inserted shall allow for compaction of the bottom of excavation to 100% MDD (AASHTO T.99).*

#### **810 JOINTING CONCRETE PIPES**

The pipe rings shall be of Class 20 concrete, at least 28 days cured and, manufactured on site or procured from a supplier approved by the Engineer.

The concrete pipes for the culverts shall have ogee joints and will be jointed by 1:2 cement: sand mortar and provided with fillets on the outside as described in clause 810 of the Standard Specification. The culvert gradient including the outlet shall be minimum 2%.

#### **812 BACKFILLING OVER PIPE CULVERTS**

In the Standard Specifications, clause 812

- a) *Delete paragraph 6 " for pipe culverts .....depth of 150mm", entirely.*
- b) *Wherever the expression "dry density of 95% MDD (AASHTO T. 99)" appears delete and replace with "dry density of 100% MDD (AASHTO T.99)".*

*The rates entered for laying of pipe culverts shall allow for backfilling to pipe culverts and compacting to 100% MDD (AASHTO T.99) and these works shall be deemed included in the contractors rate and shall **not** be measured and paid for separately.*

##### Quality Control

- The dimensions of the trench shall be checked using tape measure and shall have a tolerance of + / - 50mm
- The invert level shall be checked using line and level and shall have a tolerance of + / - 50mm
- The trench bottom shall be checked using straight edge, spirit level and shall have a tolerance of + / - 10mm
- Culvert quality shall be checked visually for cracks, honey combing etc
- The length of each pipe shall be checked using tape measure and shall have a tolerance of + / - 10mm.
- Before the pipes are laid, the gradient of the culvert trench shall be checked using boning rods and line levels and shall have a tolerance of + / - 1%
- The joint shall be visually checked to have been properly made properly made

##### Measurement: m

The unit of measurement shall be in linear metres of installed size of culvert specified

**814 SUBSOIL DRAINS**

In the event of excavation for repairs exposing local see page, springs or unacceptably high water table, the Engineer may instruct the provision of counter fort or French drains.

These drains shall consist of a trench excavated to the alignment, width, depth and gradient instructed by the Engineer, and backfilled with approved compacted clean hard crushed rock material as specified in clause 815 of the standard specification. Where these drains lie within the carriageway the carriageway shall be reinstated with compacted graded crushed stone or stabilised gravel and surfaced with hot asphalt or a surface dressing as instructed by the Engineer.

Payment will be paid in accordance with Clause 814 of the Standard Specification.

**817 REPAIRS TO DRAINS**

**08 – 70 – 001/2: Provide material to reconstruct or repair headwall, and wing wall**

i). Stones,            ii) Concrete blocks

This activity shall include provision of all materials required and to carry out repairs to damaged head walls and wing walls as shown in the drawings and as instructed by the Engineer.

Work Method

The contractor shall use **Labour** to carry out this item of work

Quality Control

- The dimension of the headwalls shall be checked with tape measure and shall have maximum tolerances of + / - 50mm
- The levels shall be checked with line levels, straight edge and spirit levels and shall have maximum tolerance of + / - 20mm

Measurement m<sup>2</sup>

The unit of measurement shall be square metres for masonry paid for on the basis of area of wall completed while the concrete works shall be cubic meters paid for on the basis of volume of concrete poured in the wall.

Payment

The unit rate shall be full compensation for labour, materials equipment, tools, material haulage and unloading as required to carry out the prescribed works

**08 – 70.003: Provide material to reconstruct headwall, wing wall**

i) Stones,            ii). Concrete blocks

This item consists of provision of material and construction of masonry walls as detailed in the drawings..

Work Method

The contractor shall use both **labour** and equipment to carry out this item work

Quality Control

- The dimensions of the structure shall be checked using tape measure and shall have a tolerance of + / - 10mm
- The levels shall be checked using line and level, straight edge and spirit level and shall have a tolerance of + / - 10mm
- The quality of the mortar joints shall be checked visually

Measurement \_\_\_\_\_ m<sup>2</sup>

The unit of measurement shall be the total area in square metres of wall constructed.

Payment

The unit rate shall be the full compensation for labour, material, equipment and any other incidentals that may be required in carrying out the work as prescribed.

#### **08 – 70.004 : Provide material and construct headwall, wing wall and apron – Concrete**

This work consists of provision of all materials, and construction of the structures as detailed in the drawings. Aprons shall be constructed using concrete. Concrete shall be class 20/20 unless otherwise specified.

Work Method

The contractor shall use both **labour** and equipment to carry out this item work

Quality Control

- The dimensions of the structure shall be checked using tape measure and shall have a maximum tolerance of + 20mm / - 10mm
- The workability and mix of concrete shall be checked using the slump test and shall have a maximum tolerance of + / - 25mm of slump. The frequency of testing shall be determined by the Engineer
- The concrete shall be visually checked for any cracks or honey combing

Measurement \_\_\_\_\_ m<sup>3</sup>

The unit of measurement shall be the total volume in cubic metres of concrete.

Payment

The unit rate shall be the full compensation for labour, material, equipment and any other incidentals that may be required in carrying out the work as prescribed.

#### **08 – 70.005-010: Provide and install or repair scour checks**

i) –Stone;      ii). - Wooden stakes;      iii) - Concrete

Scour checks shall be constructed or repaired using either stones or sticks, as instructed by the Engineer.

Construction of concrete scour checks shall be in class 20/20 concrete unless otherwise specified and as per the details shown in the drawings.

Spacing for scour checks depends on the gradient of the drain as given in the guidelines shown in Table 8.1

Table 8.1 :      Scour checks spacing

Gradient of Drain	Scour Check Spacing	Gradient of Drain	Scour Check Spacing
4% or less	not required	8%	7.5m
5%	20m	9%	6m
6%	15m	10%	5m
7%	10m	>10%	4m

Work method

The contractor shall use **labour** to carry out this item work.

Quality Control

The spacing of the scour checks shall be checked using tape measure and shall have a tolerance of + / - 0.5m  
The sizes of the stakes and stones used shall be visually checked.

The shape of the scour check shall be checked using the scour check template.

Measurement: No.

The unit rate of measurement shall be the **number** of scour checks constructed.

#### Payment

The unit rate shall be full compensation, for labour, materials, equipment, haulage and any incidental costs required for carrying out the prescribed works.

### **817.1 Cleaning Existing Drains**

In areas of existing side drains, mitre or outfall drains where such are blocked, the Engineer shall instruct the Contractor to clean and clear the drains to free flowing condition. The work shall consist of:

- (a) Stripping and removal of any extraneous material to spoil including vegetation and roots in the drains to the satisfaction of the engineer.
- (b) Spreading of any spoil to the satisfaction of the Engineer.
- (c) Shaping the drains to free flowing condition.
- (d) Removing any obstruction materials in the drains.

Cleaning any closed structures including cross culverts of any size to free flowing conditions.

*Measurement and Payment for cleaning drains shall be by cubic metre of drain cleaned measured as the product of plan area and vertical depth of extraneous material instructed to be removed. No extra payment will be made for removal of vegetation and roots.*

### **08 – 50 – 002: Cleaning of the Side Drains / Catch water drains**

#### **Partially silted**

Partially silted drain shall be that drain that is less than half silted and requires only cleaning.

All deposited material, debris, and vegetation shall be removed and the drain shaped to the original cross-sectional standard and shall be in a free-draining condition. All debris and other unsuitable material removed from the side drains shall be disposed well clear of the drainage system in approved spoil dumps where it cannot cause any obstruction or be washed back.

The side drains shall be cleaned before the onset of the rains. The Engineer may instruct the contractor to clean the side drains immediately after heavy downpours.

#### Work Method

The contractor shall use **labour and or equipment** to carry out this item work

#### Quality Control

- Appropriate drain templates shall be used to check and control the dimension of the drains.
- The longitudinal profile of the drains shall be checked using boning rods, string and line-level.

#### Payment

The unit rate shall be full compensation, for labour, tools, and any incidental costs required to carry out the prescribed works

### **08 – 50 – 002: Desisting / Reshaping of the Side Drains / Catch water Drains**

#### **Fully silted**

Fully silted Catch water or side drain shall be that drain that is greater than half-silted and requires re excavation or reshaping

All deposited material, debris, and vegetation shall be removed and the drain shaped to the original cross-sectional standard and shall be in a free-draining condition. All debris and other unsuitable material removed from the side drains shall be disposed well clear of the drainage system in approved spoil dumps where it cannot cause any obstruction or be washed back.

The side drains shall be desilted or re-excavated before the onset of the rains and during grading

#### Work Method

The contractor shall use **Equipment and or Labour** as directed to carry out this item work. Reshaping of the side drain shall be done together with the carriage way.

#### Quality Control

- Appropriate drain templates shall be used to check and control the dimension of the drains.
- The longitudinal profile of the drains shall be checked using boning rods, string and line-level.

#### Measurement for works on catch water drain: m<sup>3</sup>

Under this item the unit of measurement shall be the total volume in cubic metres of excavated material, excavated in its original position.

#### Measurement for works on side drain:

Under this item measurement shall be considered in the grading works except when the work is order by the Engineer where no grading or gravelling is required on the pavement. In such case the unit of measurement shall be the total volume in cubic metres (m<sup>3</sup>) of excavated material, excavated in its original position.

#### Payment

The unit rate shall be full compensation, for labour, tools, and any incidental costs required to carry out the prescribed works

### **08 – 50 – 005: Cleaning of Mitre drains**

#### **Partially silted**

Partially silted drain shall be that drain that is less than half silted and requires only cleaning

All silt, debris, and vegetation shall be removed and the drain shaped to the instructed cross-section and be in a free-draining condition. All debris and other material removed from the mitre drains shall be disposed away and clear of the drainage system in approved spoil dumps to prevent debris from being washed back.

The mitre drains shall be cleaned before the onset of the rains.

#### Work Method

The contractor shall use **Equipment and or Labour** as directed to carry out this item work.

#### Quality Control

- Appropriate drain templates shall be used to check and control the dimension of the drains.
- The longitudinal profile of the drains shall be checked using boning rods, string and line-level.

#### Measurement: m

Under this item the unit of measurement shall be the total length in linear metres of the drain cleaned

#### Payment

The unit rate shall be full compensation, for labour, tools, and any incidental costs required to carry out the prescribed works.

#### **Fully silted**

Fully silted drain shall be that drain that is greater than half-silted and requires re excavation or reshaping.

All silt, debris, and vegetation shall be removed and the drain shaped to the instructed cross-section and be in a free-draining condition. All debris and other material removed from the mitre drains shall be disposed away and clear of the drainage system to prevent debris from being washed back.

The mitre drains shall be cleaned before the onset of the rains.

#### Work Method

The contractor shall use **Equipment and or Labour** as directed to carry out this item work

#### Quality Control

- Appropriate drain templates shall be used to check and control the dimension of the drains.
- The longitudinal profile of the drains shall be checked using boning rods, string and line-level.
- Siltation/Obstructions must be less than 50mm in depth
- The longitudinal profiles mitre drains shall be checked using boning rods and shall have tolerances of +/- 25mm;
- The dimensions of the mitre drains shall be checked using template and tape measure and shall have tolerances of +20mm or -10mm;

The location of the mitre drains shall be checked visually

Measurement: \_\_\_\_\_ m<sup>3</sup>

Under this item the unit of measurement shall be the total volume in cubic metres of excavated material, excavated in its original position.

#### Payment

The unit rate shall be full compensation, for labour, tools, and any incidental costs required to carry out the prescribed works.

### **817.2 Channels**

### **817.3 RUBBLE FILLS FOR PROTECTION WORK**

Quarry waste or similar approved material shall be used to back fill scoured and eroded side, outfall and cu-off drains. The material shall be compacted to form a flat or curved surface preparatory to stone pitching of drainage channels, existing and new scour checks as directed by the Engineer.

### **817.4 Stone Pitching**

Stone pitching shall be constructed in accordance with clause 710 of the standard Specification.

#### **Gabions**

Gabions shall be constructed in accordance with clause 711 of the standard Specification.

#### **Spoil Material**

The Contractor shall be responsible for removal from site of all materials excavated in the course of undertaking works in this section of the specifications, unless suitable for re-use, and deposit of the material in a spoil dump to be approved by the Engineer.



## SCOUR CHECKS

Scour checks are to be constructed in mass concrete in accordance with clause 818 of the standard specifications and the drawings as shall be provided.

### 05 – 007: Catch water drains

The cross section details shall be provided in the drawings or shall be as directed by the Engineer. In steep gradient scour checks may be installed in the catch water drains and grass cover shall be encouraged to grow in the drain. The excavated material shall be deposited at the lower (valley) side of the drain.

The location of the drains shall be checked and approved by the Engineer before construction;

The cross section dimensions shall be checked using tape measure at 25 m intervals and tolerances shall be +/- 25mm

#### Work Method

The contractor shall use **Labour or Equipment** to carry out this item work.

Measurement: \_\_\_\_\_ m<sup>3</sup>

The unit of measurement shall be cubic metres of materials excavated.

#### Payment

The unit rate shall be full compensation for labour and any incidental costs required for carrying out the prescribed works

## 819 CLEANING AND MAINTENANCE

### 819.1 De-silting of Pipe Culverts

Where Contractor instructed shall desilt the existing pipe culverts by removing all the material from the pipe to make them clean and free flowing.

Measurement and payment shall be by the linear metres of pipes de-silted, regardless of diameter size.

### 08 – 60 - 001/2/3/4/5: Cleaning Culverts / Structures, inlet/outlets (Partially blocked)

08 - 60 - 001	300mm dia;
08 - 60 - 002	450mm dia;
08 - 60 - 003	600mm dia;
08 - 60 - 004	900mm dia;
08 - 60 - 005	1200mm dia

This activity shall involve the cleaning of culverts of specified size including pipe barrels and the outlet/inlet structures, and the outlet drains, keeping them free of all debris, weed, silt and any obstruction to ensure free passage of water at all times. The debris shall be deposited in approved spoil dumps directed by the Engineer. ***Partially blocked culverts shall be considered as pipe culverts with less than half the barrel-blocked.***

Correct widths and slopes of the outlet drains shall be maintained. The gradient of the outlet drain shall be checked to ensure it is greater than 2 % using boning rods, line and level.

All broken culvert barrels discovered in the course carrying out this activity shall be reported to the Engineer. This activity should be carried out before the rains.

#### **Work Method**

The contractor shall use **labour** to carry out this item of work

Quality Control

The workmanship shall be visually checked and shall be clean and free of obstacles

Measurement: **m**

The unit of measurement shall be linear metre of culvert line including outlet drain cleaned

Payment

The unit rate shall be full compensation for labour, tools, as required to carry out the prescribed works.

**08 – 60 - 006/7/8/9/10 : Desilting Culverts / Structures inlet/outlets (Fully blocked):**

08 - 60 - 006 300mm dia;

08 - 60 - 007 450mm dia;

08 - 60 - 008 600mm dia;

08 - 60 - 009 900mm dia;

08 - 60 - 010 1200mm dia

This activity involves the cleaning of culverts of specified size including pipe barrels and the outlet/inlet structures, and the outlet drains, keeping them free of all debris, weed, silt and any obstruction to ensure free passage of water at all times. The debris shall be deposited in approved spoil dumps directed by the Engineer. ***Fully blocked culvert shall be considered as pipe culvert with greater than half-of the barrel blocked.***

Correct widths and slopes of the outlet drains shall be maintained. The gradient of the outlet drain shall be checked to ensure it is greater than 2 % using boning rods, line and level

All broken culvert barrels discovered in the course of carrying out this activity shall be reported to the Engineer.

Work Method

This activity should be carried out before the onset of the rains.

Quality Control

The workmanship shall be visually checked

Measurement **m<sup>3</sup>**

Under this item the unit of measurement shall be cubic metres of material, excavated. The workmanship shall be visually checked and shall be clean and free of obstacles

Payment

The unit rate shall be full compensation for labour, and tools required to carry out the prescribed works

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**SECTION 9 - PASSAGE OF TRAFFIC****901 SCOPE OF THE SECTION**

The Contractor shall so arrange his work to ensure the safe passage of the Traffic at all times and if necessary construct and maintain an adequate diversion for traffic complete with all the necessary road traffic signs.

The contractor shall provide to the satisfaction of the Engineer adequate warning signs, temporary restriction signs, advance warning signs, barriers, temporary bumps and any other device and personnel shall be properly positioned well in before work is allowed to start. Signs and traffic control shall be kept in good condition and be clear to all road users to ensure the safe passage of traffic through the works.

When carrying out the Works the Contractor shall have full regard for the safety of all road users.

The Contractor shall also provide sign posts and maintain to the satisfaction of the Engineer all deviations necessary to complete the works. The contractor should allow for the costs of complying with the requirements of this clause in his rates.

Warning signs, fences, barriers, detours, etc. shall be properly positioned well in advance so that all traffic has been well and safely accommodated before work is allowed to start. Payment shall be per unit km rate through the works.

## SECTION 10 – GRAVEL WEARING COURSE

### GENERAL

#### 1001

The road carriageway shall be constructed in accordance with the provisions of Section 10 of the Standard Specifications. Borrow pits and spoil areas shall comply with all the requirements of Section 6 of this specification in respect of borrow pits and spoil areas.

#### 1002 CLASSIFICATION OF MATERIAL

Gravel wearing course material shall be material which can be extracted from a borrow area or a road cutting by ripping to a depth of 300mm with a single tine hydraulic ripper acceptable to the Engineer. The material shall have a minimum CBR of 20 at 95% MDD (AASHTO T180) and four days soak

Where directed by the Engineer new gravel will be added to the existing gravel to have the required thickness of wearing course. The existing gravel wearing course shall be cut by ripping top of the roadway to a depth of 150mm with a single tine hydraulic ripper acceptable to the Engineer.

The scarification, watering, mixing, shaping and compaction of the top 150mm of roadway materials to 95% MDD (AASHTO T99) if watering and compaction is specified. In this case the Engineer should direct the contractor to mix in any additional material. Both new and existing gravel will be mixed and bladed back over the roadway, and recompacted in accordance to the requirements given in Clause 1003 of the MOPWH Standard Specification. And such gravel shall be paid for separately under the relevant pay item allowed in the Bill of Quantities

However, where there is existing gravel wearing course, the Engineer may instruct that the Contractor blade aside and stockpile the wearing course material before commencing any of the works under this item. The contractor shall take such care as to ensure that the stockpiled gravel is not contaminated with sub grade materials, topsoil or organic material.

After carrying out the work defined in part **10.-.50.004** (a) to (d) above, the contractor shall compact the formation to 95% MDD (AASHTO T99). If necessary to achieve the desired compaction, the Contractor shall scarify the formation level to a depth of 150mm, water to obtain the required moisture content, reshape and finally re-compact the material.

The gravel-wearing course shall then be bladed back over the formation to a constant thickness and re-compacted in accordance with the requirements given in Clause 1003 of the MOPWH Standard Specification.

Wherever the existing roadway width is less than specified in the document the contractor shall, if instructed by the Engineer, widen the roadway to obtain this minimum width, and excavate ditches to the template shown in the Drawings or as directed by the Engineer. Any widening works shall be paid for separately and in addition to the payment for Light Reshaping, under the appropriate earthwork item.

#### Quality Control

The material may be obtained from borrow pits or excavation in cuttings. The plasticity requirements and the class of material shall be as specified in Table 10.1 and the Special specification.

Table 10.1: Requirement for Gravel Wearing Course

GRADING REQUIREMENTS AFTER COMPACTION		
Sieve (mm)	% by Weight Passing	
40	100	
28	95 - 100	
20	85 - 100	
14	65 - 100	
10	55 - 100	

PLASTICITY INDEX REQUIREMENTS PI		
Zone	Min	Max
WET	5	20
DRY	10	30

5	35 - 92
2	23 - 77
1	18 - 62
0.425	14 - 50
0.075	10 - 40

BEARING STRENGTH REQUIREMENTS		
Traffic Commercial VPD	CBR	DCP Equivalent mm/Blow
> 15	20	11
< 15	15	14
CBR at 95 % at MDD, Modified AASHTO and 4 days soak		
Lower quality material (CBR 15) may be accepted if no better material can be found		

NB: Wet Zone - mean annual rainfall greater than 500 mm.

Dry zone - mean annual rainfall less than 500 mm.

The Contractor shall be responsible for the acquisition of the quarry rights and shall therefore conduct respective negotiations with landowners and affected communities. The Engineer shall approve quarries and their extent of exploitation.

Alternative sources of gravel material whose quality can be shown to be in compliance with the specification requirements may be used, with the proviso that the Employer is not to incur additional expenses in connection with its winning and haulage. Contractor is deemed to have included in his rates for the provision of the gravel material to have included the cost of complying with the testing requirements.

#### **10.-.50.004 Light Grading**

Grading covers the works involved in the reinstatement of the road carriageway to the camber by removing the high points and filling up gullies corrugations and wheel ruts to restore smooth running surface.

Light grading shall only be undertaken where ordered by the Engineer.

Light grading is the restoration of the road profile and existing side drainage/mitre drains including the shaping of the formation, recompaction and, if applicable, the reshaping and recompaction of the gravel wearing course.

These operations shall be carried out using the following plant:

- a motor grader of at least 120 HP( for light grading alone)
- a roller, sufficient to achieve the required compaction(if compaction required it shall be included in the BOQ's)
- a water tanker to obtain the required moisture content for compaction. if watering required it shall be included in the BOQ's)

The works to be carried out under this item are as follows.

- (a) Removal of vegetation, topsoil and landslips form with the limits of the roadway and side drains, whatsoever the width.
- (b) The reshaping of the longitudinal profile of the roadway, including the removal of ruts, humps and windrow, and the filling of potholes.
- (c) The reshaping of the roadway and ditches to the specified cross-section template, as directed by the engineer, including the reinstatement of existing side ditches and mitre drains.
- (d) The clearing of all loose material from side slopes to fills and cuts.

#### **10.-.50.002 Heavy grading**

Heavy Grading shall only be undertaken when directed by the Engineer.

Heavy Grading is the restoration of the road profile, template and side ditches and involves operations similar to what is required for Light Grading. Heavy grading demands the following works in addition to the works specified above Light grading:

- (a) Correction of undulations, deep rutting, and gullies whatever their depth;
- (b) The drainage of quagmires; the removal and disposal of water logged material;
- (c) The clearance of landslips from the roadway and ditches;
- (d) Where directed by the Engineer, the widening of the roadway by either cutting or filling, or both.
- (e) The improvement of the longitudinal profile of the road by the excavation of humps and the filling of holes and depressions.

The following equipment shall be used in this works:

- a motor grader of a at least 120 HP
- a bulldozer of at least 150 HP
- a water tanker
- a self-propelled roller of at least 10 tonnes dead weight, or a vibrating roller of at least 3 tonnes dead weight.

Any fill required for the reshaping of the road profile, the elimination of ruts, gullies and holes and the replacement of waterlogged material shall be obtained from either within the road prism or from cut slopes and adjacent to the road, provided that the material conforms to the requirements of this Specification and meets with the approval of the Engineer.

Any excavation in hard material will be deemed to be in addition to the work requirements for Heavy Reshaping and will be paid for separately under the appropriate earthworks item.

Table 10.2: Overall widths ditch to ditch (Guidelines)

<i>Road Category</i>	<i>Carriageway width</i>	<i>Overall width to front of Ditches</i>
A/B/C + Secondary Roads	6.0 m	8.4
D/E + Minor Roads	5.4 m	7.8 m
RAR Roads	4.5 m	6.5 m
Minor / RAR roads with insufficient widths or Temporary Sections	3.5 m	5.5 m

#### Work Method

The contractor shall use **equipment** to carry out this item work.

#### Quality Control

##### Grading

- Gradient of the ditch shall be checked at 20m interval using boning rods and shall drain to the natural drainage channels or mitre drains placed at regular intervals.
- The width of the carriageway (see table 10.2) shall be checked using tape measure at every 50m with tolerance of +50mm or -20mm
- The camber shall be checked using camber board at every 50m with and shall have a tolerance of +/- 1%

## Compaction

Compaction of the reshaped or reformed road shall be by not less than 8 passes as and directed by the Engineer depending on the compaction equipment used. Unless otherwise instructed, the moisture content at the time of compaction shall be within the range of +/- 2% of the optimum moisture content.

Where water needs to be added, it shall be applied in an even manner and the rate of application shall be such that no traverse or longitudinal flow occurs. The Contractor is required to provide all water for compaction and shall include this in his or her rates.

- Unsuitable material should not be used;
- Compaction shall be carried out using either dead weight or pedestrian rollers of approved weight and dimensions.
- The minimum passes of compaction to applied shall be that which no more roller imprint on the surface can be seen and to a minimum dry density as given in table 5.0 below;
- The camber shall be checked at 100m intervals using camber board and a line level and shall not be less than 5 % with a tolerances of +/- 1%
- Material for compaction shall be placed in layers of 200mm loose depth unless otherwise directed. The layers shall be parallel to the top of the subgrade level.

Table 10.3 : Minimum dry density

Layer location.	Minimum compaction
Excavation to level platform	95% MDD (AASHTO T99)
Road formation and fill material	100% MDD (AASHTO T99)
Gravel wearing course	95% MDD (AASHTO T180)

Measurement:                      m<sup>2</sup>

The unit of measurement for mitre drains and compaction shall not be paid for separately and shall be deemed to be covered in his rates for grading

## Payment

The unit rate compaction shall be the full compensation for labour, equipment and any incidental costs required for carrying out the works to the required specifications.

## SECTION 12 - NATURAL MATERIAL SUB-BASE AND BASE

### 1201 GENERAL

#### (a) Definitions

The term “natural material” includes lateritic gravel, quartzitic gravel, calcareous gravel, soft stone, coral rag, conglomerate, sand or clayey sand, a combination of any of these materials or a mixture of natural gravel and upto 30% of stone (crushed or not). A natural material is also referred to as “gravel”.

#### (b) Sources of materials

Natural material for subbase and base may be obtained from any of the following sources: -

- (i) Borrow pits
- (ii) Spoil areas
- (iii) Excavation in cuttings, widened if necessary.

In all cases the Engineer will instruct the Contractor as to the source of material to be used and the location in which it is to be placed.

#### (c) Inspection of site

Where a source of material is available for inspection during the Tender Period the Contractor shall satisfy himself as to the nature and amount of work involved particularly in respect of the volume of overburden, the quality and hardness of material, the degree of selection necessary, the method of extraction, and access to the source.

#### (d) Borrow pits

The Contractor shall comply with all the requirements of Section 6 of this Specification in respect of borrow pits.

### 1202 CLASSIFICATION OF MATERIAL

Natural material shall be material which can be extracted from a borrow area or a road cutting by ripping to a depth of 300 mm with a single tine hydraulic ripper acceptable to the Engineer drawn by a track type crawler tractor in good order complete with all equipment and accessories as supplied and rated at 300 BHP flywheel power and over with an operating weight of not less than 37.2 tonne and being operated in accordance with the manufacturer’s recommendations.

The material may require the use of either a grid or sheep foot roller with more than 8000 kg mass per metre width of roll to break it down and/or screening to achieve the specified grading.

### 1203 MATERIAL REQUIREMENTS

#### (a) Gravel with Minimum Soaked CBR Value of 25% (G25)

Material for G25 subbase shall include natural gravel or a mixture of natural gravel and up to 30% of sand or crushed stone aggregates and shall conform to the following requirements:

- Maximum size : 63mm



- Passing 0.075mm sieve : Maximum 35%
- Plasticity Index : Maximum 15%
- CBR (4 days soak) : Minimum 25%

**(b) Gravel with Minimum Soaked CBR Value of 30% (G30)**

Material for G30 subbase shall include natural gravel or a mixture of natural gravel and up to 30 percent of sand or crushed stone aggregates and shall conform to the specifications given in Section 1203(a) of the Standard Specifications for Road and Bridge Construction but with maximum PI of 12%.

The material shall comply to the following grading envelope after compaction:

BS Sieve size (mm)	Percentage by weight passing
63	100
37.5	80-100
20	60-100
5	30-100
1.18	17-75
0.3	9-50
0.075	5-25

**(c) Gravel with Minimum Soaked CBR Value of 50% (G50)**

Material for G50 base shall include natural gravel or a mixture of natural gravel and up to 30% of sand or crushed stone aggregates and shall conform to the following requirements:

- Maximum size : 50mm
- Passing 0.075mm sieve : 4 - 20%
- Plasticity Index : Maximum 12%
- Plasticity Modulus : Maximum 250
- LAA : Maximum 70%
- CBR (4 days soak) : Minimum 50%

The material shall conform to the following grading envelope after compaction:

BS Sieve size (mm)	Percentage by weight passing
50	100
37.5	95 - 100
28	80-100
20	60 - 100
10	35-90
5	20-75

2	12-50
1	10-40
0.425	7-33
0.075	4-20

**(d) Gravel with Minimum Soaked CBR Value of 60% (G60)**

Material for G80 base shall include natural gravel or a mixture of natural gravel and up to 80% of sand or crushed stone aggregates and shall conform to the following requirements:

- Maximum size : 50mm
- Passing 0.075mm sieve : 4 - 20%
- Plasticity Index : Maximum 10%
- Plasticity Modulus : Maximum 250
- LAA : Maximum 70%
- CBR (4 days soak) : Minimum 60%

The material shall conform to the following grading envelope after compaction:

BS Sieve size (mm)	Percentage by weight passing
50	100
37.5	95 - 100
28	80-100
20	60 - 100
10	35-90
5	20-75
2	12-50
1	10-40
0.425	7-33
0.075	4-20

**(e) Gravel with Minimum Soaked CBR Value of 80% (G80)**

Material for G80 base shall include natural gravel or a mixture of natural gravel and up to 80% of sand or crushed stone aggregates and shall conform to the following requirements:

- Maximum size : 50mm
- Passing 0.075mm sieve : 4 - 20%
- Plasticity Index : Maximum 10%
- Plasticity Modulus : Maximum 250
- LAA : Maximum 50%
- CBR (4 days soak) : Minimum 80%

The material shall conform to the following grading envelope after compaction:

BS Sieve size (mm)	Percentage by weight passing
50	100
37.5	95 - 100
28	80-100
20	60 - 100
10	35-90
5	20-75
2	12-50
1	10-40
0.425	7-33
0.075	4-20

**(f) Material for Cement/Lime Improved Gravel of CBR 60% (CIG 60)**

Material for CIG 60 base shall include natural gravel or a mixture of natural gravel and up to 30 percent of sand or crushed stone aggregates and shall conform to the following requirements:

- Maximum size : 50mm
- Passing 0.075mm sieve : 5-35%
- Plasticity Index : Maximum 20%
- CBR (4 days soak) : Minimum 25%

After treatment the material shall have a CBR of at least 60% measured after 7 day cure and 7 day soak on the site mix compacted to at least 95% MDD AASHTO T180 and the treated material shall have a plasticity index less than 8% and a plasticity modulus less than 250.

**(g) Material for Cement/Lime Improved Gravel of CBR 100% (CIG 100)**

Material for CIG 100 base shall include natural gravel or a mixture of natural gravel and up to 30 percent of sand or crushed stone aggregates and shall conform to the following requirements:

- Maximum size : 50mm
- Passing 0.075mm sieve : 5-35%
- Plasticity Index : Maximum 20%
- CBR (4 days soak) : Minimum 25%

After treatment the material shall have a CBR of at least 100% measured after 7 day cure and 7 day soak on the site mix compacted to at least 95% MDD AASHTO T180 and the treated material shall have a plasticity index less than 6% and a plasticity modulus less than 250.

**(h) Material for Cement/Lime Improved Gravel of CBR 160% (CIG 160)**

Material for CIG 160 base shall include natural gravel or a mixture of natural gravel and up to 30 percent of sand or crushed stone aggregates and shall conform to the requirements given in Section 1203(d) of the Standard Specifications for Road and Bridge Construction but shall have Plasticity Index not exceeding 20% and 4 day soak CBR of at least 25%.

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## SECTION 14: CEMENT AND LIME TREATED MATERIALS

### 1401. Cement Treatment

Cement for stabilisation will be **Ordinary Portland Cement** to KS EAS 18-1 and KS EAS 18-2 CEM 1 and clause 207 of the Standard Specifications. The cement content of the treated material shall be as indicated by the Engineer and will normally be about 4%. The Engineer shall exercise his discretion to any variation in the rate of application of the cement, which he may see fit, to order from time to time.

#### Moisture Content

The moisture content of the stabilized material shall be as directed by the Engineer but nevertheless within the range of 85% to 100% of the optimum Moisture Content (AASHTO T.180)

#### Mixing and Placing

The material to be stabilized and the cement shall be mixed by an approved mixing plant, which will either be a mix-in-place pulvi-mixer or a stationary mixing plant for material to be used for pavement reconstruction, widening and shoulders.

### 1403. Lime Improvement

Lime improvement shall be carried out in accordance with Section 14 of the Standard Specification. The lime content of the stabilized material shall be as indicated by the Engineer.

### 1409. Protection & Curing

Protection and curing shall be carried out in accordance with the provisions of Clause 1409(i) of the Standard Specification but provision shall be made to wet the surface from time to time as directed by the Engineer.

### 1410. Traffic

The requirements of clause 1410 of the Standard Specification will not apply to improved natural material utilized for patching and repair works but will apply in case reprocessing of reconstruction and widening of the existing base and shoulders.

## 1412 MEASUREMENT AND PAYMENT

#### Stabilizer

The provision of the stabilizer shall be measured by the tonne calculated as the specific weight of stabilizer added to the material.

#### Mix-in stabilizer

Mixing stabilizer into the material shall be measured by the cubic metre of treated material calculated as the product of the compacted sectional area treated and the length.

## SECTION 15 - BITUMINOUS SURFACE TREATMENTS

### PART A - GENERAL

#### 1501A GENERAL

Details of the spray rates for bitumen and the spread rates for chippings will be directed by the Engineer but the under listed is anticipated and can be used for guidance purpose i.e.

**a. Chippings**

- 14/20mm size pre-coated chippings at a spread rate of 75-90 square meters per cubic meter as first seal.
- 10/14mm size pre-coated chippings at a spread rate of 80-100 square meters per cubic meter as single seal.
- 6/10mm size pre-coated chippings at spread rate of 100-130 square meters per cubic meter as second seal.

**b. Bitumen Spray Rates**

- 1.1 – 1.3 l/m<sup>2</sup> for the first seal
- 0.9 - 1.1 l/m<sup>2</sup> for the second seal

The Average Least Dimension (ALD) shall be determined in the field after crushing the rock for chippings and then determine the actual spray rates and chipping spread rates

#### 1501B PREPARATION OF SURFACE

In addition to requirements of Clause 1503B of the Standard Specifications, the contractor shall prepare and Repair Cracks, Edges, Potholes and Other Failures as follows: -

**a) Cracks 3.0mm or less in width**

The entire crack area shall be cleaned by brushing with a wire brush and then blowing with a compressed air jet and the crack sealed with 80/100 cutback bitumen using a pouring pot or pressure lance and hand squeegee. The surface shall then be dusted with sand or crushed dust.

**b) Cracks greater than 3.0mm in width**

Before these cracks are filled a steel wire brush or router shall be used to clean them and then a compressed air jet shall be used to clean and remove any foreign or loose material in the crack until the entire crack area is clean.

When the crack and surrounding area have been thoroughly cleaned, dry sand shall be forced into the crack until it is sealed in the manner specified for cracks less than 3.0mm width.

**c) Potholes, edges and other repair areas**

Where instructed, the Contractor shall prepare areas for the repair of potholes, road edges and other repair areas by excavating off unsuitable or failed material and debris, trimming off excavated edges, cleaning and compacting the resulting surfaces and applying MC 30 or MC 70 cut-back bitumen prime coat at a rate of 0.8-1.2 litres/m<sup>2</sup>, all as directed by the Engineer. Measurement and payment shall be made under the relevant item of Bill No 15. Where the surface repair on potholes and edges are to be carried out, Asphalt Concrete Type I (0/14 gradation) shall be used. Bituminous material for repair of failures and other repair areas shall be paid for under the relevant item of Bill No 16

## **PART B - PRIME COAT**

### **1502B MATERIALS FOR PRIME COAT AND TACK COAT.**

For prime coat, the binder shall be a medium-curing cutback MC 30 unless otherwise directed by the Engineer.

The rate of spray of bituminous prime coat refers to the gross volume of the cutback bitumen, that is to say the volume of the bitumen plus dilutants.

Prime coat shall be applied to all gravel areas that are to receive bituminous mixes as directed by the Engineer.

The tack coat shall consist of bitumen emulsion KI-60 unless otherwise directed by the Engineer.

The rates of spray of the binder shall be as instructed by the Engineer and shall generally be within the range 0.8-1.2 litres/square metre.

The rates of spray of the tack coat shall be as instructed by the Engineer and shall generally be within the range 0.5-0.8 litres/square metre.

## **PART C – SURFACE DRESSING**

### **1502C MATERIALS FOR SURFACE DRESSING**

#### **Binder**

The bituminous binder shall be 80/100 penetration grade bitumen cut-back with kerosene fuel in accordance with prevailing road temperatures, and conforming to Clause 211 of the Standard Specification.

#### **Chippings**

Chippings shall be of class 2 material and shall comply in all respects with Clause 1502C of the Standard Specification. The contractor's attention is drawn to the requirements of Clause 1502C and 1504C of the Standard Specification with regard to cleanliness and dust content of chippings for surface dressing. Should it prove necessary in the Engineer's opinion to wash chippings, no extra payment will be made to the contractor for this operation.

### **1503C SPRAY AND SPREAD RATES OF BITUMEN AND CHIPPINGS.**

Spray and Spread Rates for bitumen and chippings cannot be calculated until samples of the chippings to be used are available for test.

After submission of samples and completion of laboratory tests on chippings and binder, the contractor shall in the presence of the Engineer and the Chief Materials Engineer or representatives, lay trial sections of seal at various rates of spray and spread as directed by the Engineer and in accordance with clause 1503C of the Standard Specification.

Should any change occur in nature of source of chippings or bitumen, the contractor shall advise the Engineer accordingly who will then decide if any revisions are required to the spray and spread rates.

If any changes are required, the Contractor shall carry out further trials as instructed by the Engineer.

Payment for binder and chippings will be based on the instructed spray and spread rates used which may not necessarily be those specified. The Engineer will specify the spray rates of bitumen as residual bitumen per square meter. Actual spray rates used by the Contractor must be adjusted to compensate for any cutter added.

**1505C PRE-COATED CHIPPINGS**

Chippings utilized for surface dressing works under this contract shall be pre-coated in accordance with clause 1505C of the Standard Specification. The binder used for pre-coating chippings shall be MC 30 cut-back bitumen.

The amount of bituminous binder used to pre-coat chippings will be as instructed by the Engineer and will normally be between 0.4% and 1.0% residual bitumen as percentage of the total dry weight.

Prior to laying any pre-coated chippings the Contractor shall prepare trial mixes of bitumen and chippings in the presence of the Engineer. After completion of trial mixes the Engineer shall issue written instructions to the Contractor indicating the amount of binder to be added in pre-coated chippings. The Contractor shall maintain this proportion unless the surface or nature of the chippings changes when the Contractor shall repeat the trials and the Engineer will issue revised instruction.

No separate payments shall be made for the pre-coating exercise. The contractor shall have included in his rates the cost of complying with this clause.

**1511C MEASUREMENT AND PAYMENT****a) Seal coat**

Seal coats shall be measured by the litre, for each type of bituminous binder for each seal coat, calculated as the product of the area in square metres sprayed and the rate of application in litres/square metres, corrected to 15.6°C

**b) (b) Pre-coated Chippings**

Chippings shall be measured by the cubic metre of each nominal size for each class calculated as the product of the area in square metres covered and the reciprocal of the instructed rate of application in square metres/cubic metre or the actual rate of application in square metres/cubic metre whichever calculation gives the lower volume.



**SECTION 17 - CONCRETE WORKS (MAJOR)****1703 MATERIALS FOR CONCRETE**

All materials shall comply with the requirements of section 1703 of the standard specifications.

Cement for all concrete works shall be Ordinary Portland Cement complying with KS1725: 2001 CEM 1 42.5N

This work shall consist of placing selected approved rock fill material of 250mm minimum diameter on the foundation put after excavation to receive levelling concrete in accordance with these specifications and in conformity with the lines, grades and cross sections shown on the Drawings as directed by the Engineer.

**a) Materials**

Selected rock: The selected rock builders to be placed for this work shall be hard, sound, durable quarry stones as approved by the Engineer. Samples of the stone to be used shall be submitted to and approved by the Engineer before any stone is placed.

The maximum size of the stone boulders shall be 300mm.

**b) Construction Method**

After completion of the structural excavation the surface of the loose soil shall be levelled and compacted. Then the stone of the above sizes shall be placed in one layer of 250mm over the compacted bed where the bottom slab will rest. Coarse sand shall be spread to fill up the voids in the stone boulders, and compaction with vibratory compactors should be performed to make this layer dense whereon a concrete of levelling course shall be placed.

**c) Measurement and payment**

Measurement for the bedding materials shall be made in cubic metres for the completed and accepted work, measured from the dimension shown on the Drawings, unless otherwise directed by the Engineer.

Payment for the bedding Materials for Levelling Concrete Works shall be full compensation for furnishing and placing all materials, all labour equipment, tools and all other items necessary for proper completion of the work in accordance with the Drawings and specifications and as directed by the Engineer.

**1703(A) LEVELLING CONCRETE (CLASS 15/20) FOR BOTTOM SLAB INCLUSIVE OF COST OF FORM WORKS**

This work shall consist of placing and levelling lean concrete class 15/20 over the prepared bed of stone boulders in the foundation for bottom slab and wingwalls in accordance with these specifications and which conformity with the lines, grades, thickness and typical cross-sections shown on the drawings unless otherwise directed by the Engineer.

**a) Materials for Levelling Concrete**

Requirement for the concrete class 15/20 is specified as follows:-

Design compressive strength (28) days	15N/mm <sup>2</sup>
Maximum size of coarse aggregate	20mm

---

Maximum cement content 300kg/m<sup>3</sup>  
Maximum water/cement ration of 50% with slump of 80mm.

**b) Construction Method**

The bed of stone boulders upon which the levelling concrete will be placed shall be smooth, compacted and true to the grades and cross-section shall be set to the required lines and grades.

**c) Measurement and Payment**

Measurement for levelling concrete (class 15/20) shall be made in cubic metres completed and accepted levelling concrete work measured in place which is done in accordance with the Drawings and the Specifications.

Payment for this work shall be the full compensation for furnishing and placing all materials, labour, equipment and tools, and other incidentals to Specifications and as directed by the Engineer.

**1703 (C) FORMWORK FOR CULVERT WALLS**

This work shall consist of all temporary moulds for forming the concrete for culvert walls and slabs together with all temporary construction required for their support. Unless otherwise directed by the Engineer all formworks shall be removed on completion of the walls and slabs.

**a) Materials**

Forms shall be made of wood or metal and shall conform to the shape, lines and dimensions shown on the Drawings.

All timber shall be free from holes, loose material, knots, cracks, splits and warps or other defects affecting the strength or appearance of the finished structure.

Release Agents – Release agents shall be either neat oils containing a surface activating agent, cream emulsions, or chemical agents to be approved by the Engineer.

**b) Construction Method**

**I. Formworks**

Formworks shall be designed to carry the maximum loads that may be imposed, and so be rigidly constructed as to prevent deformation due to load, drying and wetting, vibration and other causes. After forms have been set in correct location, they shall be inspected and approved by the Engineer before the concrete is placed.

If requested, the contractor shall submit to the Engineer working drawings of the forms and also, if requested, calculations to certify the rigidity of the forms.

**1703(D) CONCRETE WORKS (CLASS 20/20) OF CULVERT WALLS AND SLABS**

This work shall consist of furnishing, mixing, delivering and placing of the concrete for the construction of culvert walls and slabs, in accordance with these Specifications and in conformity with the requirements shown on the Drawings.

Concrete class 20/20 shall be used for Culvert walls and slabs.

**a) Concrete Materials**

**I. Cement:**

Cement shall be of Portland type and shall conform to the requirements of BS 12 or equivalent.

The contractor shall select only one type or brand of cement or others. Changing of type or brand of cement will not be permitted without a new mix design approved by the Engineer. All cement is subject to the

Engineer's approval, however, approval of cement by the Engineer shall not relieve the Contractor of the responsibility to furnish concrete of the specified compressive strength.

Conveyance of cement by jute bags shall not be permitted. Storage in the Contractor's silo or storehouse shall not exceed more than two (2) months, and age of cement after manufacture at mill shall not exceed more than four months. The Contractor shall submit to the Engineer for his approval the result of quality certificate prepared by the manufacturer.

Whenever it is found out that cement have been stored too long, moist, or caked, the cement shall be rejected and removed from the project.

## II. Aggregates

Fine and coarse aggregates must be clean, hard, strong and durable, and free from absorbed chemicals, clay coating, or materials in amounts that could affect hydration, bonding, strength and durability of concrete.

Grading of aggregates shall conform to the following requirements:

### (i) Grading of Fine Aggregates

Sieve Size	Percentage by Weight Passing
10 mm	100
5 mm	89-100
2.5 mm	60-100
1.2 mm	30-100
0.6 mm	15- 54
0.3 mm	5- 40
0.15 mm	0-15

### (ii) Grading of Coarse Aggregates

Size of Coarse Aggregate	Amounts finer than each standard sieve percentage by weight						
	40	30	25	20	15	10	5
2.5							
	100	-	-	90-100	-	30-69	0-10

Other requirements for aggregates are as follows:

### (iii) Fine Aggregates

Fitness Modulus, AASHTO M-6	: 2.3 – 3.1
Sodium Sulphate Soundness, AASHTO T104 loss	: Max 10%
Content of Friable Particles AASHTO 112	: Max 1% by weight
Sand Equivalent, AASHTO T176	: Min 75

**(iv) Coarse Aggregate**

Abrasion, AASGTO T96	: Max 405 loss
Soft Fragment and shale, AASHTO M80	: Max 5% by weight
Thin and elongated Pieces, AASHTO M80	: Max 15%

**(v) Water**

All sources of water to be used with cement shall be approved by the Engineer. Water shall be free from injurious quantities of oil, alkali, vegetable matter and salt as determined by the Engineer.

**(i) Admixture**

Only admixture, which have been tested and approved in the site laboratory through trial mixing for design proportion shall be used.

Before selection of admixture, the Contractor shall submit to the Engineer the specific information or guarantees prepared by the admixture supplier.

The contractor shall not exclude the admixture from concrete proportions.

**b) Concrete class 20/20**

Concrete class 20/20 shall be used for culvert walls and slabs. The requirements of Concrete class 20/20 are provided as follows unless otherwise the Engineer will designate any alteration.

Design compressive strength (28 days)	: 20N/mm <sup>2</sup>
Maximum size of coarse aggregates	: 20mm
Maximum water/cement ratio of 45% with slump of 80mm	

**c) Proportioning Concrete**

The Contractor shall consult with the Engineer as to mix proportions at least thirty (30) days prior to beginning the concrete work. The actual mix proportions of cement, aggregates, water and admixture shall be determined by the Contractor under supervision of the Engineer in the site laboratory.

The Contractor shall prepare the design proportions which has 120% of the strength requirement specified for the designated class of concrete.

No class of concrete shall be prepared or placed until its job-mix proportions have been approved by the Engineer

#### **d) Concrete Work**

##### **I. Batching**

Batching shall be done by weight with accuracy of:

Cement : ½ percent

Aggregate : ½ percent

Water and Admixture : 1 percent.

##### **II. Equipment should be capable of measuring quantities within these tolerances for the smartest batch regularly used, as well as for larger batches.**

The accuracy of batching equipment should be checked every month in the presence of the Engineer and adjusted when necessary.

##### **III. Mixing and Delivery**

Slump of mixed concrete shall be checked and approved at an accuracy of +25mm against designated slump in these specifications.

##### **IV. Concrete in hot weather**

No concrete shall be placed when the ambient air temperature is expected to exceed thirty three degrees Celsius (33°C) during placement operations.

##### **V. Concreting at night**

No concrete shall be mixed, placed or finished when natural light is insufficient, unless an adequate approved artificial lighting system is operated, such night work is subject to approval by the engineer.

##### **VI. Placing**

In preparation of the placing of concrete, the interior space of forms shall be cleaned and approved by the engineer prior to placing concrete. All temporary members except tie bars to support forms shall be removed entirely from the forms and not buried in the concrete. The use of open and vertical chute shall not be permitted unless otherwise directed by the engineer.

The Contractor shall provide a sufficient number of vibrators to properly compact each batch immediately after it is placed in the forms.

#### **Measurement and Payment**

Measurements for the Concrete Works Class 20/20 of culvert walls and slabs shall be made in cubic metres for the walls and slabs actually constructed, measured from their dimensions shown on the Drawings. Payment for the Concrete Works (Class 20/20) of culvert walls and slabs shall be the full compensation for furnishing all materials of the concrete mixing, delivering, placing and curing the concrete, equipment and tools, labour and other incidental necessary for the completion of the work in accordance with the Drawings and these Specifications and as directed by the Engineer.

#### **1704 DESIGN OF CONCRETE MIXES**

The following classes of concrete shall be designed and mix proportions approved for use as follows:

- Class 15/20 for all blinding to structures and precast pipe culvert beds and surrounds
- Class 25/20 for all culvert headwalls, wing-walls, aprons, toe-walls, and bridge members; abutments, piers and deck
- Class 30/20 for bridge superstructure beams

Specifications for construction materials and quality control shall be in accordance with the standard specifications.

### **1713 FINISHES ON UNFORMED SURFACES**

All unformed surfaces shall be finished to class UF 3 Finish in accordance with the standard specifications

### **1725 SURFACE FINISHES**

All surfaces shall be finished to class F3 finish in accordance with the standard specifications.

### **1728 REINFORCEMENT FOR CONCRETE**

All reinforcement to concrete shall be hot rolled high yield deformed bars complying with BS 4449 and steel mesh fabric to BS 4483.

### **1741 MEASUREMENT AND PAYMENT**

#### **a) Item: Concrete**

Amend clause 1741 (a) (iv) of standard specifications to read “class UF 3 finish”

#### **b) Item: formwork for formed surface finishes**

Amend the following to Clause 1741 (e) of the Standard Specification:

Unit m<sup>2</sup> of formwork shall cover inclined formwork of all slopes and angles.

## **SECTION 20 - ROAD FURNITURE**

### **2001 ROAD RESERVE BOUNDARY POSTS**

Road reserve boundary posts shall be provided as directed by the Engineer and in compliance with Standard Specification clause 2001.

### **2003 EDGE MARKER POSTS**

Edge marker posts shall be provided as directed by the Engineer and in compliance with standard Specification Clause 2003.

### **2004 PERMANENT ROAD SIGNS**

Permanent Road Signs shall be provided as directed by the Engineer and in compliance with the requirements of the "Manual for Traffic Signs in Kenya" Part II and standard Specification clause 2004.

### **2004B EXISTING ROAD SIGNS**

Where directed by the Engineer, the Contractor shall take down road signs including all posts, nuts, bolts and fittings, and remove and dispose of the concrete foundation and backfill the post holes. The signs shall be stored at the Contractor's store and they shall become the property of the Employer who shall remove them prior to the expiry of the maintenance period.

Measurement and payment for taking down road signs shall be made by the number of signs of any type and size taken down, cleaned and stored as directed.

Where a salvaged existing sign complies with the requirements of new road signs, the Engineer may instruct the Contractor to remove the sign for safe storage, and re-erect it.

Measurement and payment shall be made by the number of road signs re-erected as directed and the rate shall include for excavation, concrete foundations and backfilling around posts and removal of surplus material to spoil.

### **2005 ROAD MARKING**

Paint for road marking shall be internally reflectorized hot applied thermoplastic material in accordance with Clause 218 d(ii) of the Standard Specification.

The rates inserted in the Bills of Quantities for road marking shall include for prior application of approved tack coat.

### **2006 GUARDRAILS**

Contrary to the Standard Specification, guardrail posts shall be concrete 200 mm diameter set vertically at least 1.2m into the shoulder as directed by the Engineer. Spacer blocks shall also be made of concrete.

Beams for guardrails shall be "Armco Flex beam" or similar obtained from a manufacturer approved by the Engineer.

### **2007 KERBS**

#### **a) Vertical Joints**

Vertical joints between adjacent Kerbs shall not be greater than 5 mm in width and shall be filled with a mortar consisting of 1:3 cement: sand by volume.

#### **b) Transition between flush and raised kerbs**



The transition between flush and raised kerbs (e.g at bus bays) shall be termed as ramped kerbs. The transition between flush and raised kerbs shall occur within a length of 2.0 m.

#### **2008 KILOMETRE MARKER POSTS**

Kilometre marker posts shall be provided as directed by the Engineer and in compliance with Standard Specification clause 2008.

#### **2009 RUMBLE STRIPS**

Where directed by the Engineer, the Contractor shall provide, place, trim, shape and compact to line and level asphaltic concrete rumble strips on the finished shoulders. This shall be done to the satisfaction of the Engineer

#### **2010 BOLLARDS**

Where directed by the Engineer, the Contractor shall provide, and install class 20/20 200mm diameter reinforced concrete Bollards concreted 300mm into the ground.

## **SECTION 22: DAYWORKS**

This section covers provisional items included in the Bills of Quantities to cover the payment of equipment, labour and materials for work instructed by the Engineer on a daywork basis.

### **22- 001 : Dayworks**

#### **Measurement and Payment**

##### **1 Equipment:**

Payment for equipment shall only be made for the time each item of equipment is actually working. Idle time due to breakdown or incompleteness of the equipment shall not be paid for. The rate of equipment shall include for the cost of the following:-

- i) Transport of the equipment to the site
- ii) Operators , drivers and assistants including their overtime
- iii) Maintenance, spare parts and all costs of repairs
- iv) Depreciation insurance, overheads and profits.

##### **2 Labour**

Payment shall only be made for the time each of worker labour is actually working on the daywork instructed by the Engineer. The rate for labour shall include the cost of the following:-

- i) All salaries allowances and other payments required by the worker
- ii) Provision of small tools used on Daywoks such as picks, shovels, pangas, jembes hammers chisels and all other tools used by tradesmen.
- iii) Insurance, overheads and profit.

##### **3 Materials**

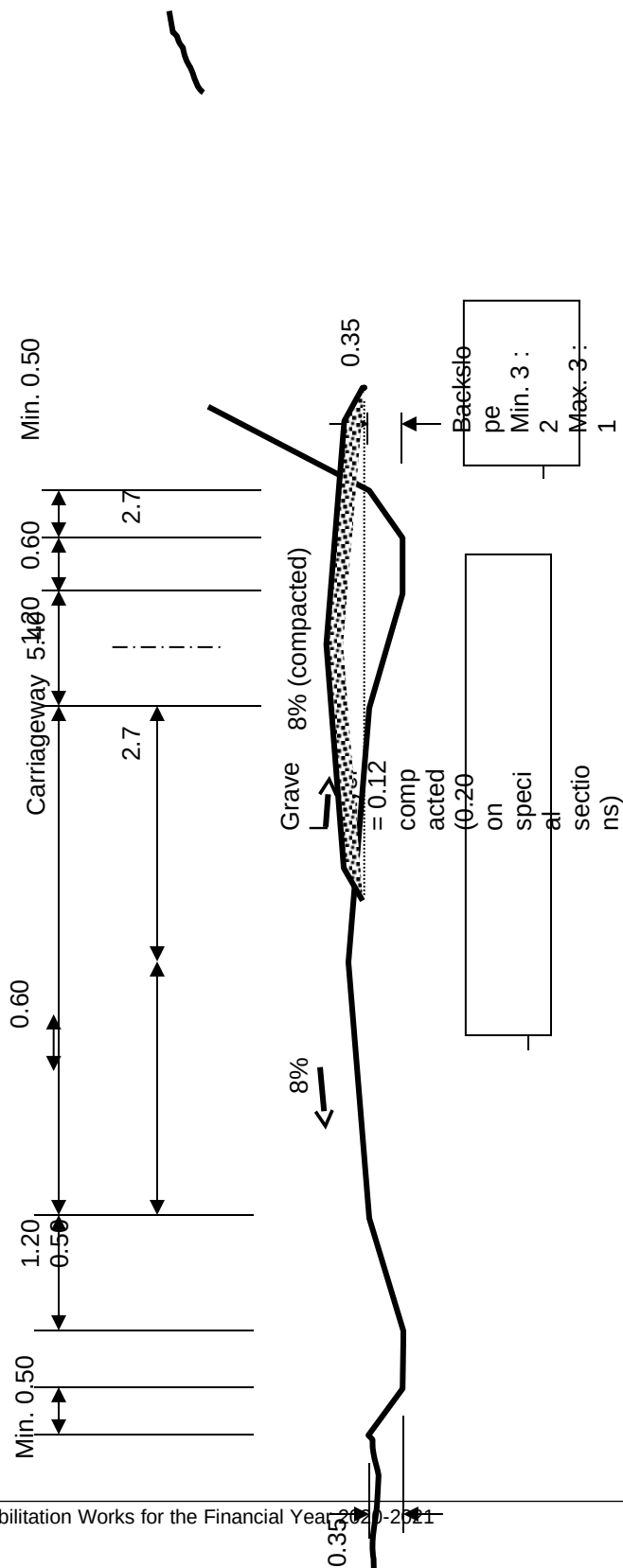
Payment shall only be made for materials instructed by the Engineer for use in dayworks. The rate for materials shall include for the cost of provision of the material, transport to site and storage handling overheads and profits.

##### **4 Use of Dayworks**

The use of Dayworks shall be only sanctioned by the Authorized Person for extra and substituted works and at the rates approved by the Ministry of Roads for the current period.

**SECTION VX:**  
**CONTRACT DRAWINGS**

FIGURE C.1 - CROSS SECTION A (MINOR STANDARD CROSS SECTION)



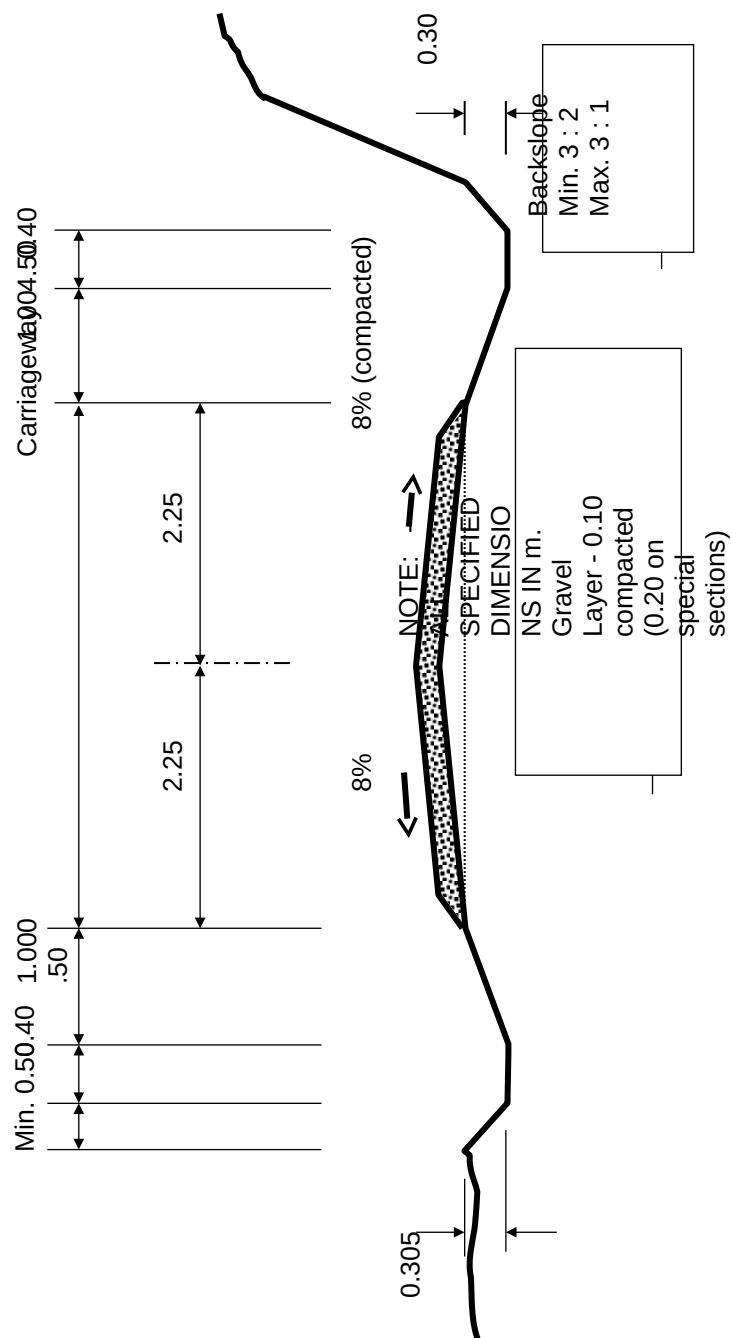
**FIGURE C.2 - CROSS SECTION B (REDUCED CROSS-SECTION)**

FIGURE C.3 - MITRE DRAINS

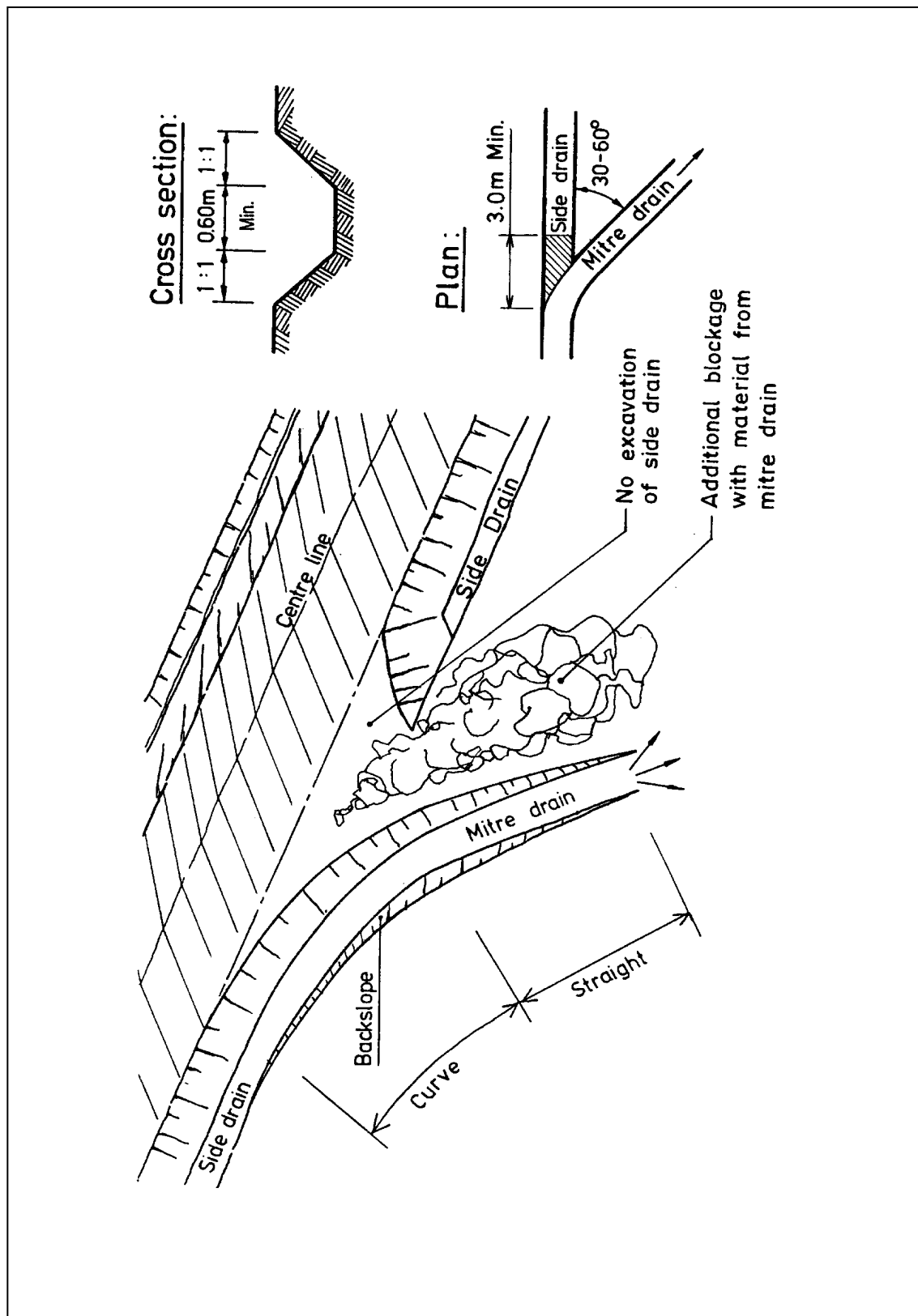


FIGURE C.4 - SCOUR CHECKS

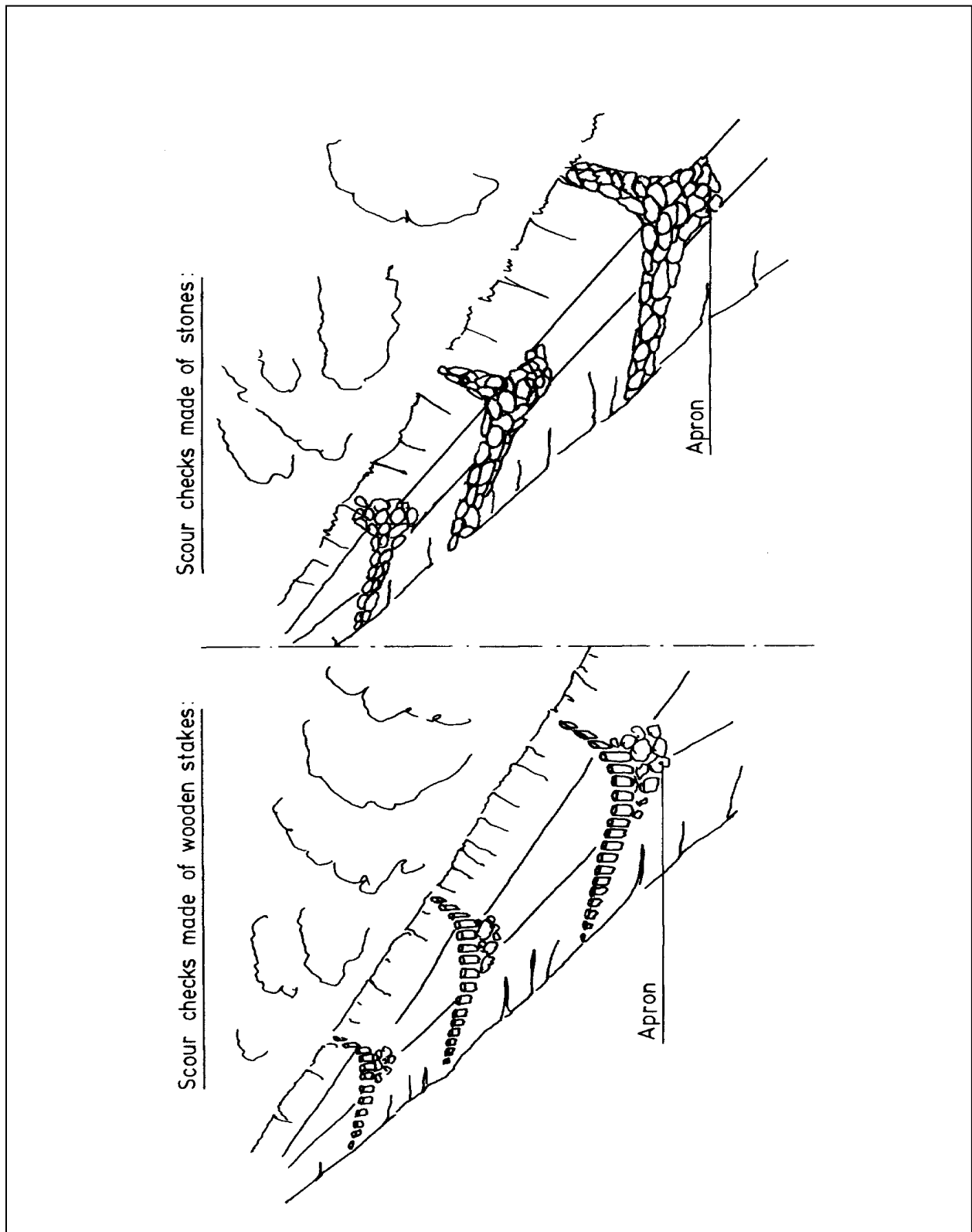
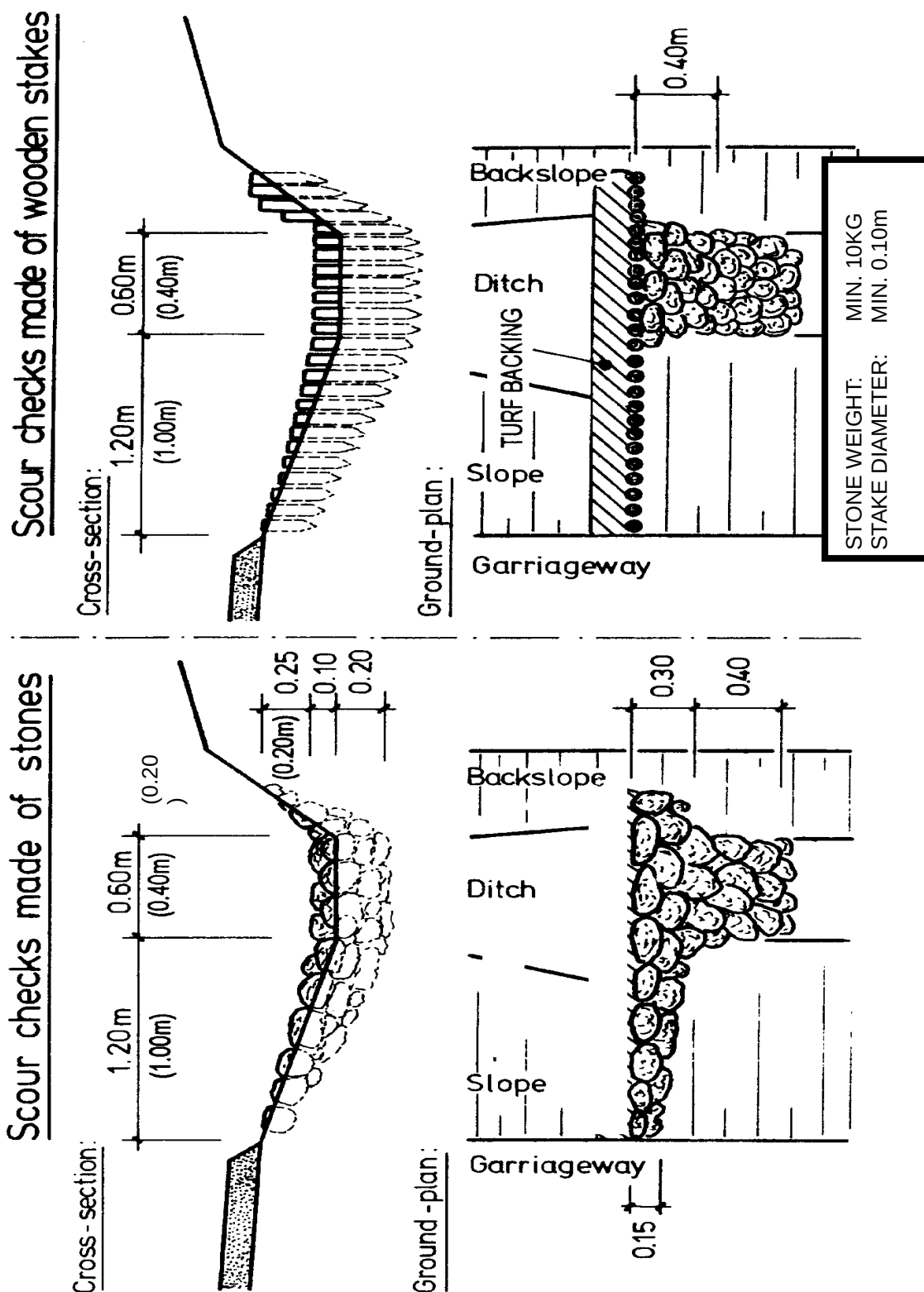
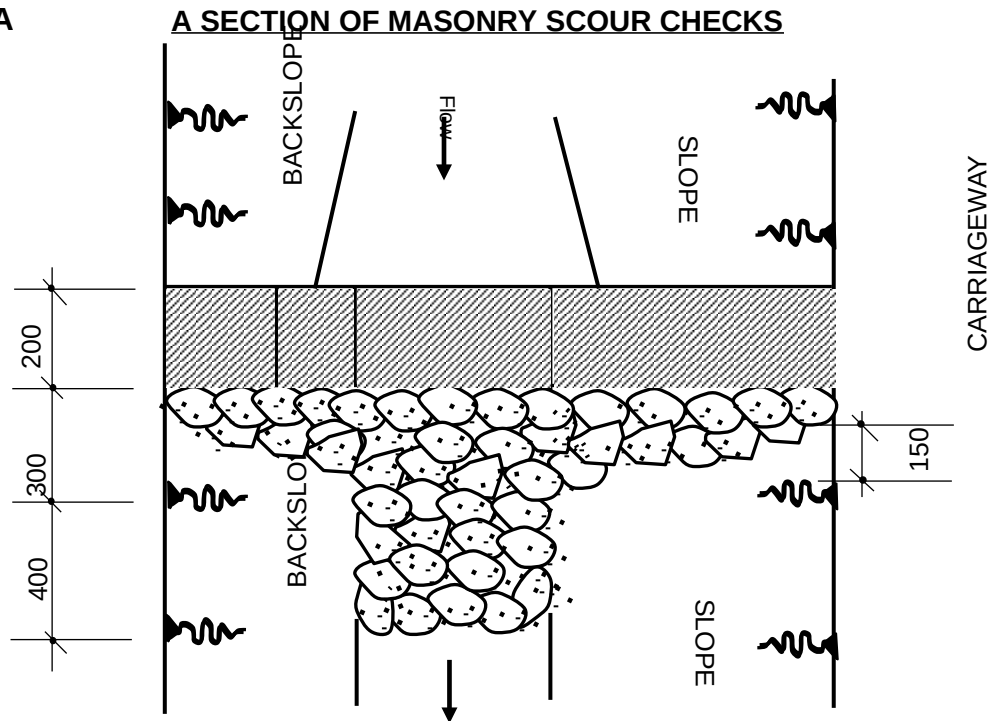
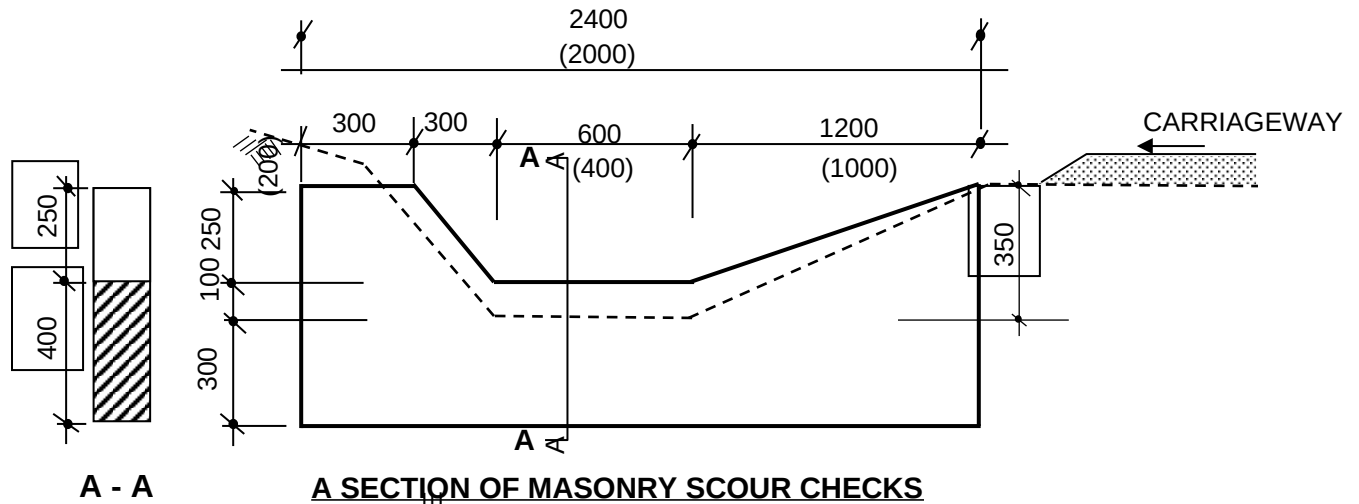


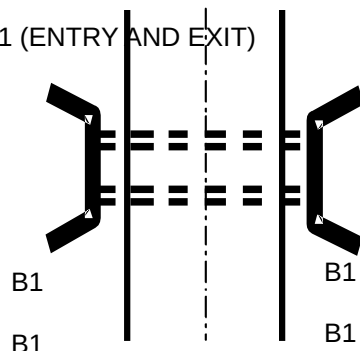
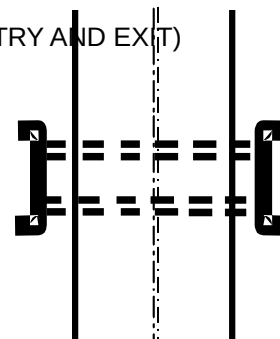
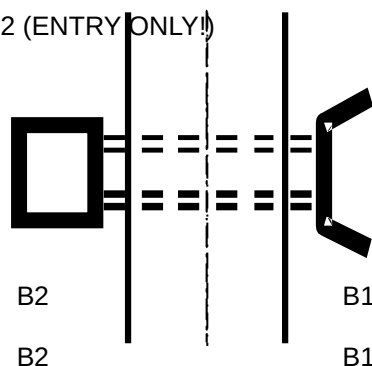
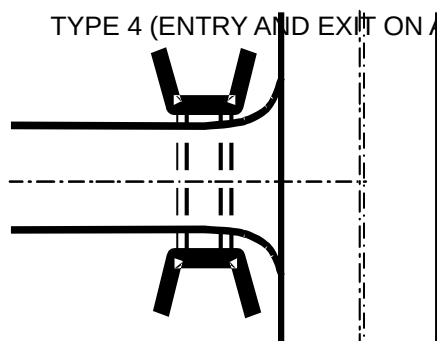
FIGURE C.5 - DIMENSIONS OF SCOUR CHECKS FOR STANDARD DRAIN





**FIGURE C.6 - MASONRY SCOUR CHECKS****PLAN OF DRAIN WITH EROSION CHECKS****QUANTITIES TABLE**

Cross-Section	Sizes in mm			Excav. (m <sup>3</sup> )	Stone masonry (m <sup>3</sup> )	Apron stone pitching (m <sup>3</sup> )
	Length	Width	Depth			
A	2400	200	550	0.22	0.25	0.18
B	2000	200	500	0.18	0.2	0.14

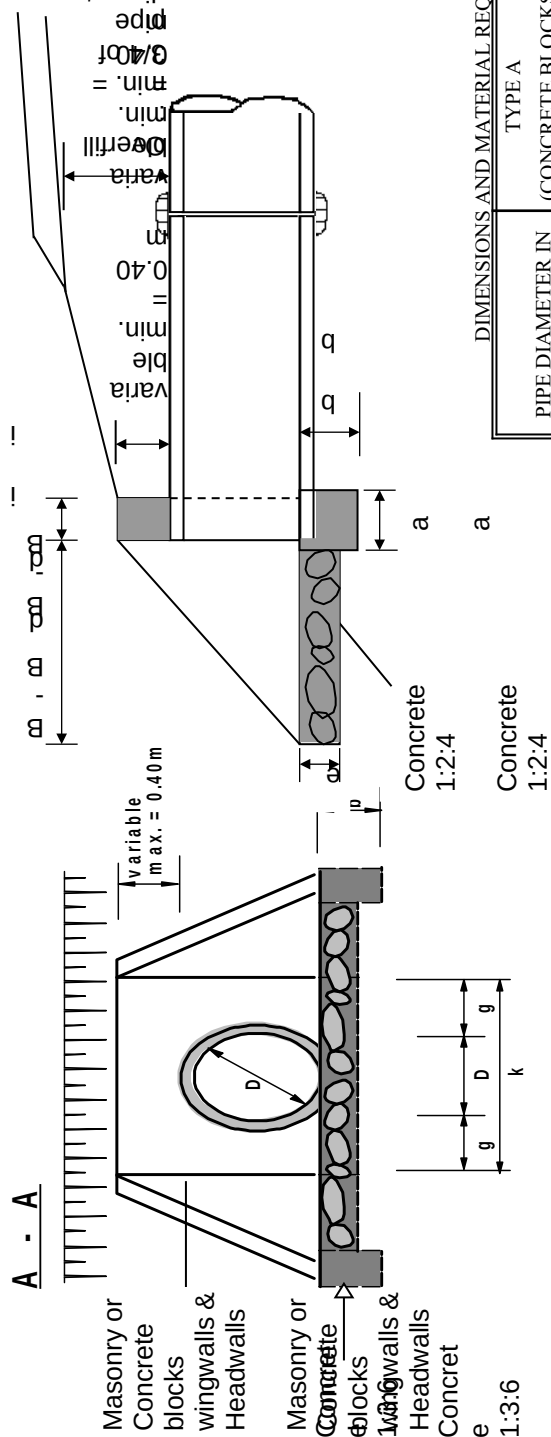
**FIGURE C.7 - CULVERT ENTRY / EXIT STRUCTURE TYPES****TYPE 1 (ENTRY AND EXIT)****TYPE 1 (ENTRY AND EXIT)****TYPE 3 (ENTRY AND EXIT)****TYPE 3 (ENTRY AND EXIT)****TYPE 2 (ENTRY ONLY!)****TYPE 2 (ENTRY ONLY!)****TYPE 4 (ENTRY AND EXIT ON ACCESS)****TYPE 4 (ENTRY AND EXIT ON ACCESS)****NOTE:**

Coding system has been used in describing the standardised designs of the various culvert entry and exit structures. The code names consist of a number to specify shape and function as elaborated in above while the used construction materials are identified through an alphabetic symbol as follows:

- A** = Concrete block
- B** = Stone masonry
- C** = Dressed stones

An example code of “B2” would therefore stand for a drop inlet type structure to be built in stone masonry.

**FIGURE C.8 -  
HEADWALL TYPE 1  
(HEAD AND  
WINGWALLS)**



DIMENSIONS AND MATERIAL REQUIREMENTS									
PIPE DIAMETER IN mm	DIMENSION	UNIT	TYPE A (CONCRETE BLOCKS)			TYPE B (STONE MASONRY)			
			450	600	900	450	600	900	
a	FOUNDATION	m	0.30	0.30	0.30	0.40	0.40	0.60	
b	FOUNDATION	m	0.30	0.30	0.40	0.30	0.30	0.40	
c	FOUNDATION		2.20	2.35	2.89	2.20	2.35	2.89	
d	APRON	m	1.00	1.00	1.20	1.00	1.00	1.20	
e	APRON	m	0.20	0.20	0.20	0.20	0.20	0.20	
f	WALL	m	0.20	0.20	0.20	0.40	0.40	0.40	
g	WALL	m	0.30	0.30	0.30	0.30	0.30	0.30	
h	WALL	m	1.15	1.15	1.39	1.15	1.15	1.39	
I	WALL	m	0.20	0.20	0.20	0.40	0.40	0.40	
k	APRON	m	1.05	1.20	1.50	1.05	1.20	1.50	
MATERIAL REQUIREMENT									
FOUNDATION (Concrete)			m <sup>3</sup>	0.3	0.32	0.51	0.4	0.42	1.03
HEAD/ WINGWALL (Concrete/Masonry)			m <sup>3</sup>	0.4	0.47	0.67	0.8	0.93	1.35
APRON (Concrete)			m <sup>3</sup>	0.33	0.36	0.53	0.33	0.36	0.53

CULVERT PIPES	
X-SECTION WIDTH	No. of Pipes
4.50	6.00
5.50	7.00
6.50	8.00

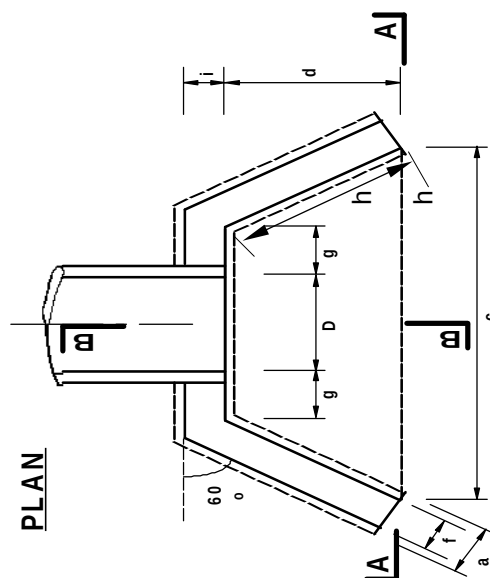
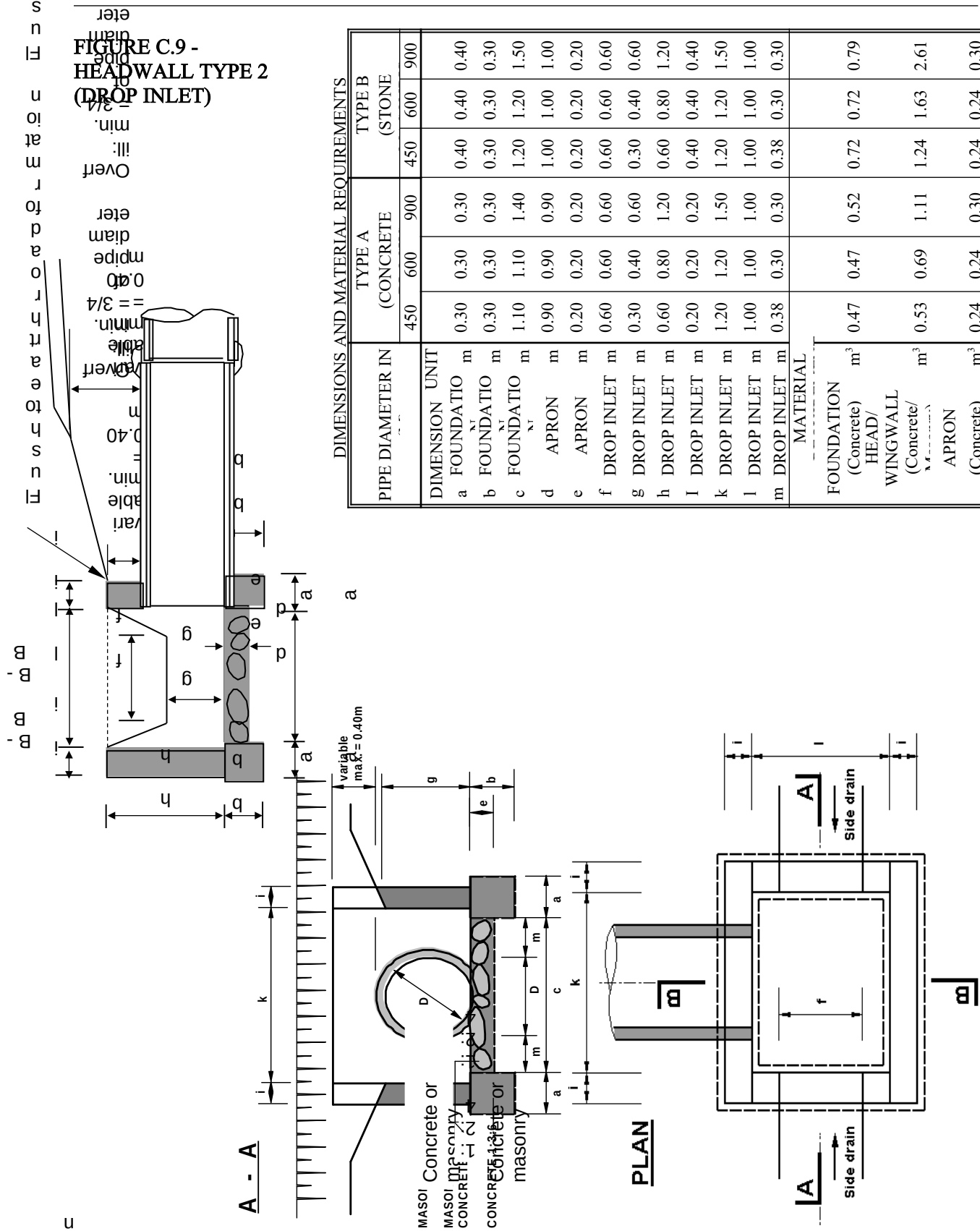


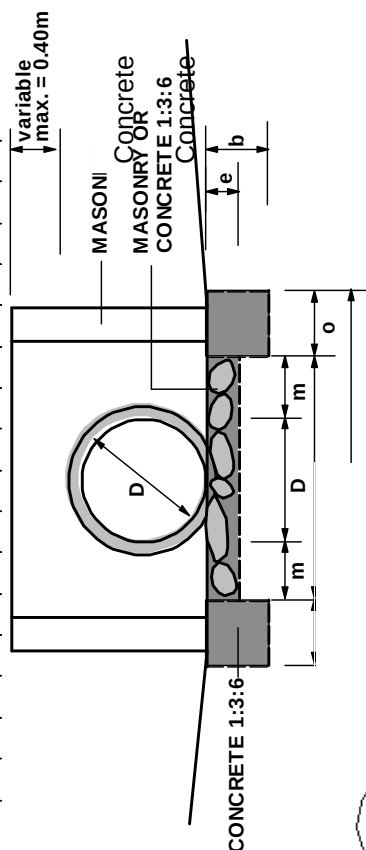
FIGURE C.9 -  
HEADWALL TYPE 2  
(DROP INLET)





## HEAD WALLS

DIMENSIONS AND MATERIAL			TYPE A (CONCRETE)	
PIPE DIAMETER IN			450	600
DIMENSION	UNIT			
a	FOUNDATIO	m	0.50	0.50
b	FOUNDATIO	m	0.30	0.30
c	FOUNDATIO		1.55	1.70
d	APRON	m	0.60	0.60
e	APRON	m	0.20	0.20
f	HEADWALL	m	0.20	0.20
g	HEADWALL	m	0.50	0.50
h	HEADWALL	m	0.40	0.40
i	HEADWALL	m	0.20	0.20
k	HEADWALL	m	1.05	1.20
l	FOUNDATIO	m	0.95	1.10
m	FOUNDATIO	m	0.25	0.25
n	HEADWALL	m	1.45	1.60
o	FOUNDATIO	m	0.30	0.30
MATERIAL				
FOUNDATIONAL MATERIAL				
(Concrete) HEAD/	m <sup>3</sup>		0.23	0.19
(Concrete)/ Masonry	m <sup>3</sup>		0.31	0.34
APRON				
(Concrete)	m <sup>3</sup>		0.95	0.99



## PLAN

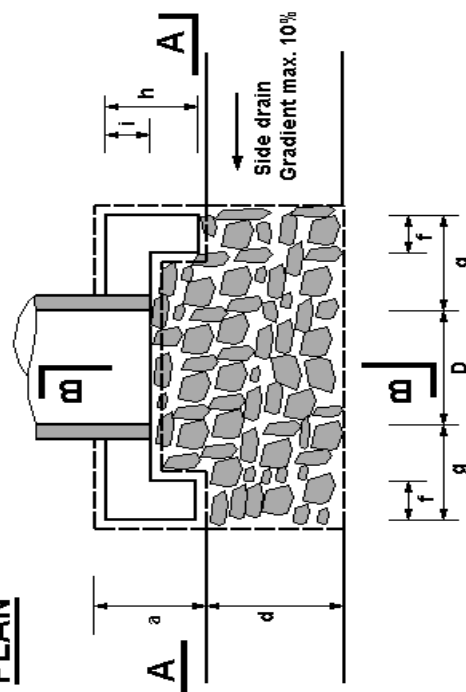
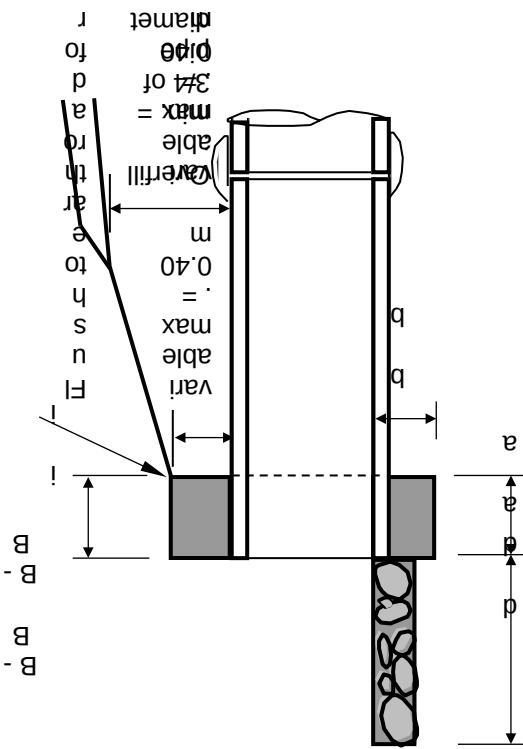
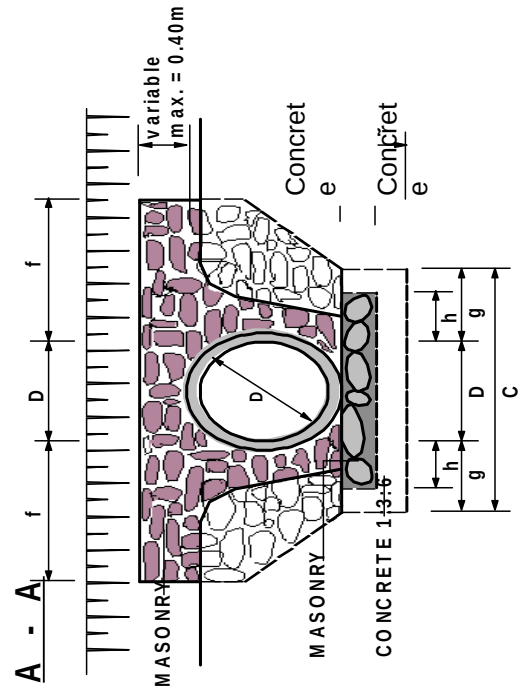


FIGURE C.11 - HEADWALL TYPE 3B (STONE MASONRY HEADWALLS)



PIPE DIAMETER IN	TYPE B (CONC.)	
	450	600
DIMENSION	UNIT	
a	FOUNDATION m	0.40 0.40
b	FOUNDATION m	0.30 0.30
c	FOUNDATION m	1.55 1.70
d	APRON m	0.90 0.90
e	APRON m	0.20 0.20
f	HEADWALL m	0.75 0.75
g	HEADWALL m	0.50 0.50
h	HEADWALL m	0.30 0.30
I	HEADWALL m	0.40 0.40
m	FOUNDATION m	1.05 1.20
MATERIAL REQUIREMENT		
FOUNDATION		
(Concrete 1:3:6)	m <sup>3</sup>	0.19 0.2
HEAD/		
WINGWALLS		
(Concrete/	m <sup>3</sup>	0.62 0.69
Masonry)		
APRON		
(Concrete 1:2:4)	m <sup>3</sup>	0.19 0.22



PLAN

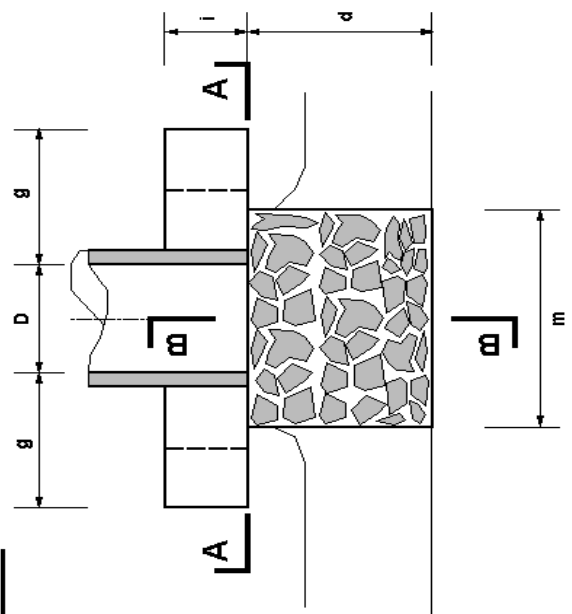
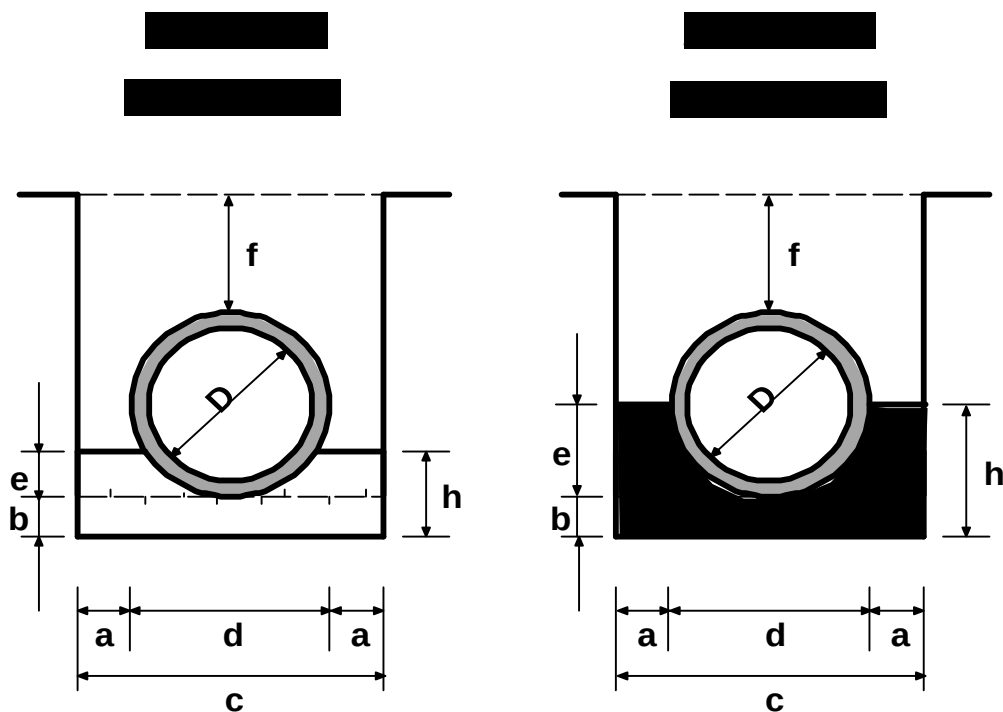
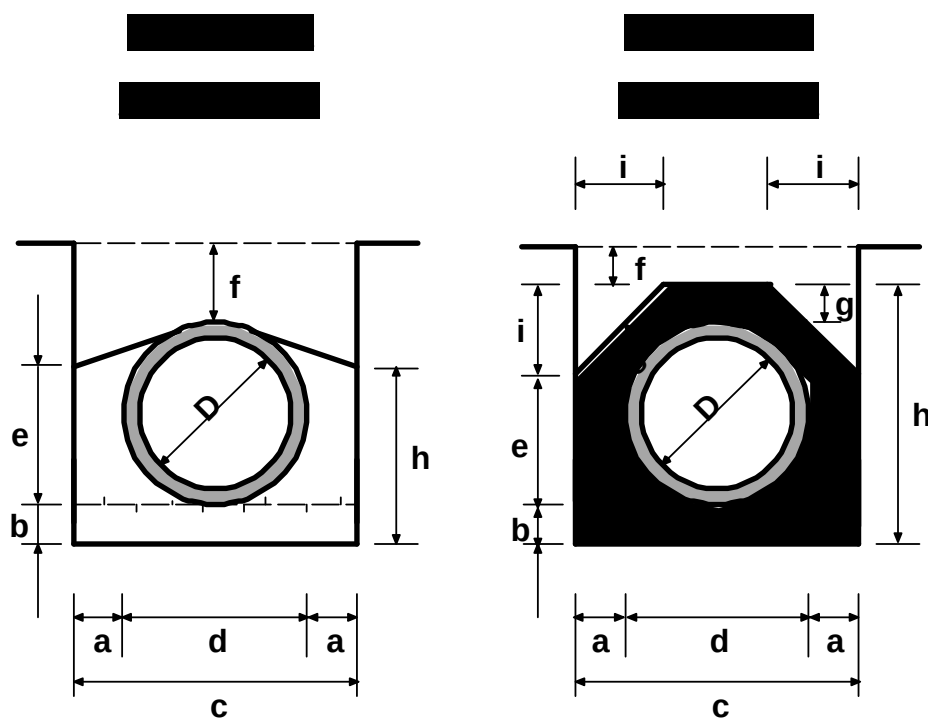


FIGURE C.13- BEDDING AND HAUNCH PROFILES TYPES I &amp; II



450 (mm)	600 (mm)	900 (mm)
Dimensions in (m)		
0.15	0.2	0.2
0.1	0.15	0.15
0.86	1.12	1.48
0.56	0.72	1.08
0.28	0.36	0.54
0.34	0.45	0.68
-	-	-
0.38	0.51	0.69
-	-	-
Volume in (m <sup>3</sup> /m)		
0.2	0.37	0.56
- Fair to poor subgrade Condition; - Overfill > ¾ Diameter; - Seasonal waterflow only. - Use gravel material for back/ overfill.		

FIGURE C.14 - BEDDING AND HAUNCH PROFILES TYPES III &amp; IV



450 (mm)	600 (mm)	900 (mm)
Dimensions in (m)		
0.15	0.2	0.2
0.1	0.15	0.15
0.86	1.12	1.48
0.56	0.72	1.08
0.46	0.52	0.78
0.15	0.15	0.15
0.15	0.15	0.15
0.81	1.02	1.38
0.28	0.35	0.45
Volume in (m <sup>3</sup> /m)		
0.37	0.61	0.92
- Fair to poor subgrade Condition; - Overfill > ¾ Diameter; - Seasonal waterflow only. - Use gravel material for back/ overfill.		



FIGURE C.15 ACCESS DRIFT

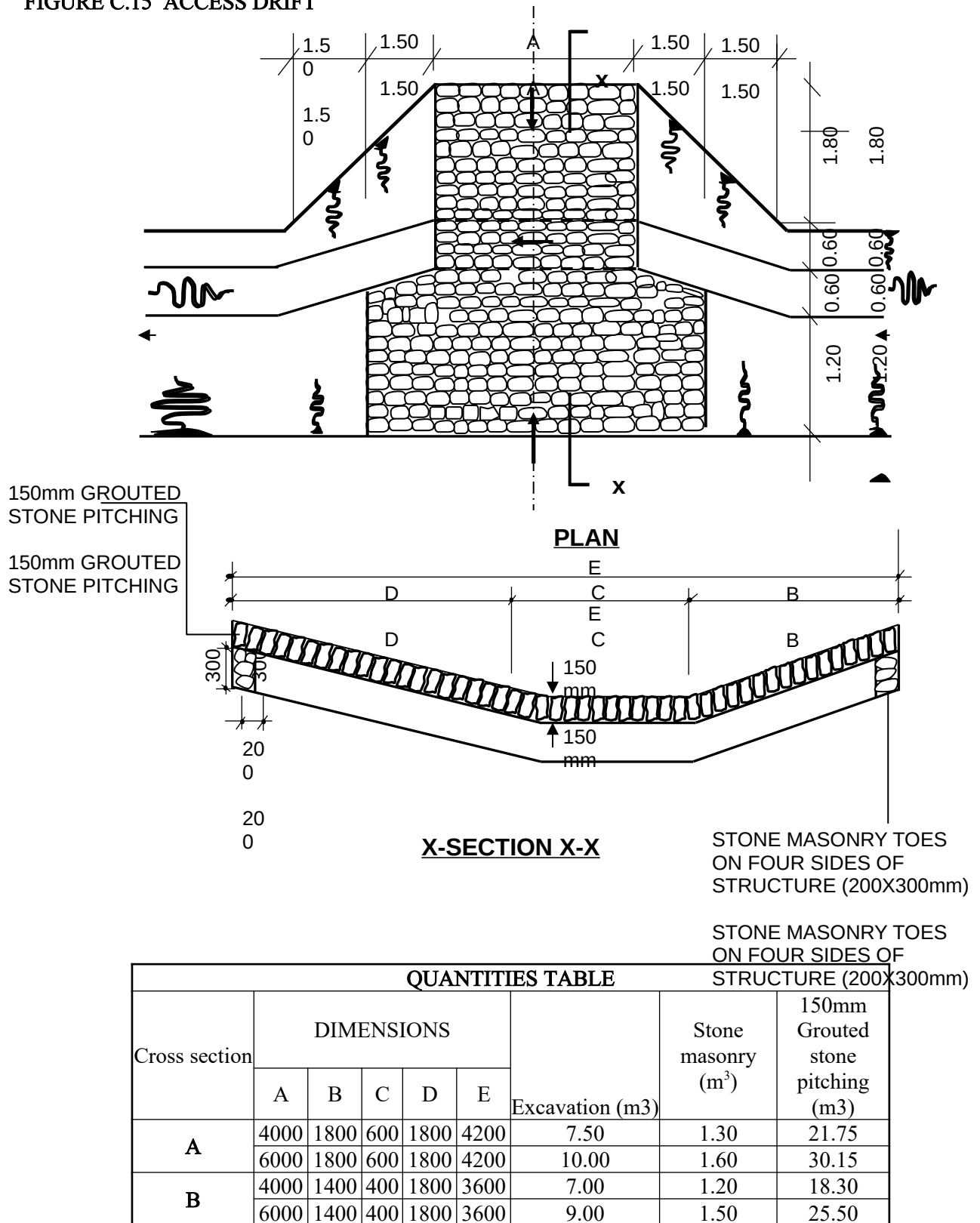
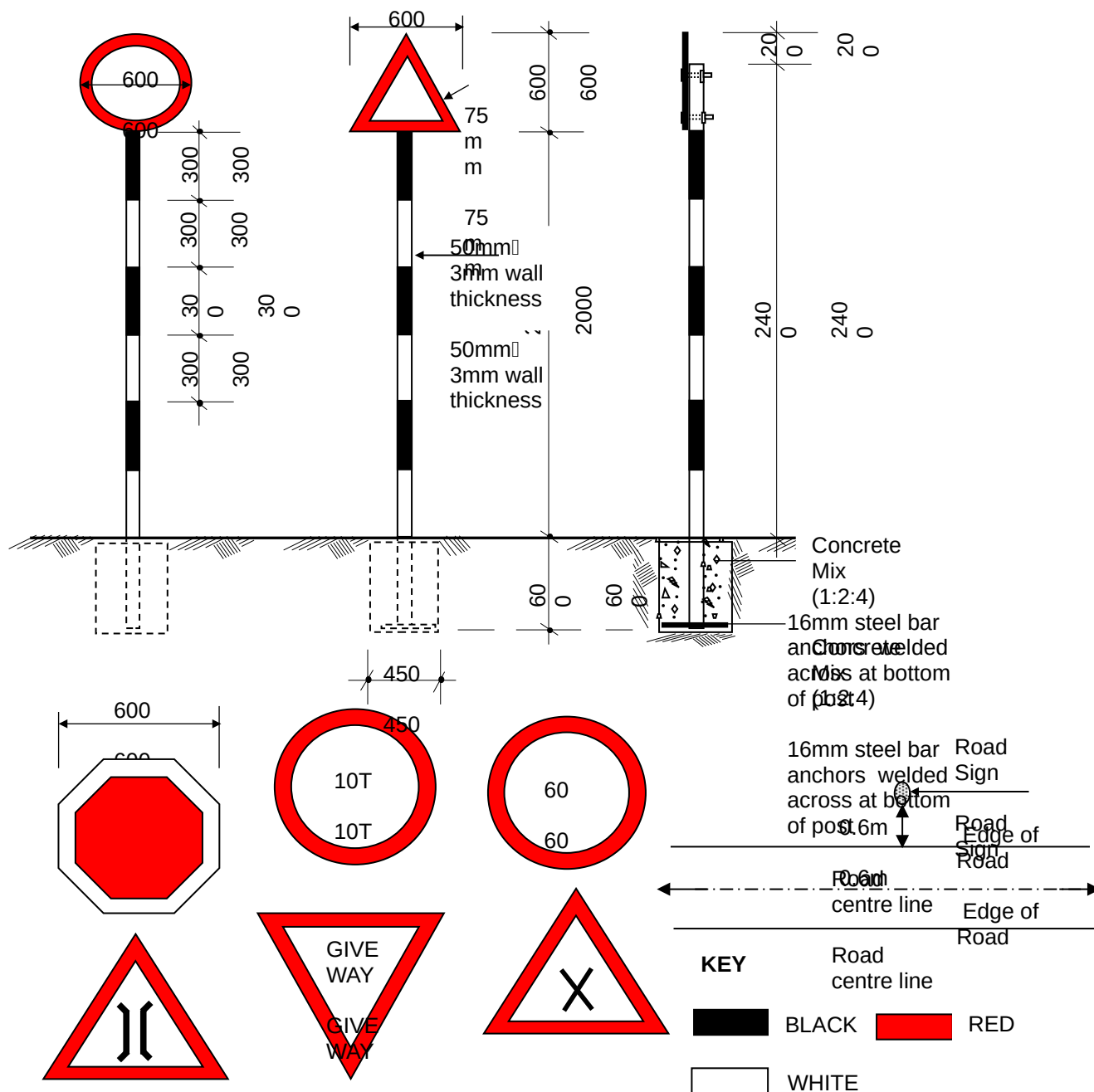
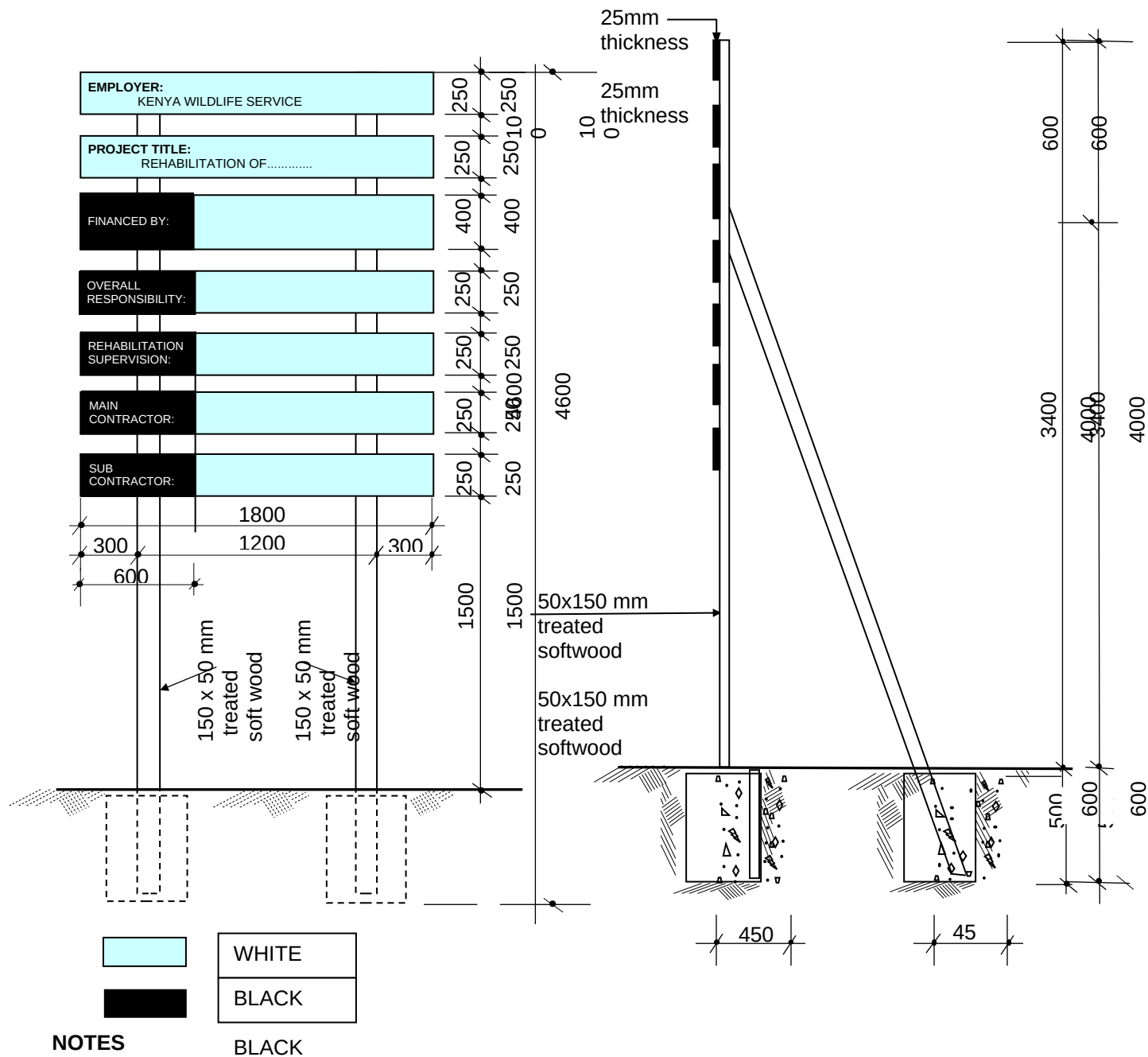


FIGURE C.16 - TRAFFIC SIGNS



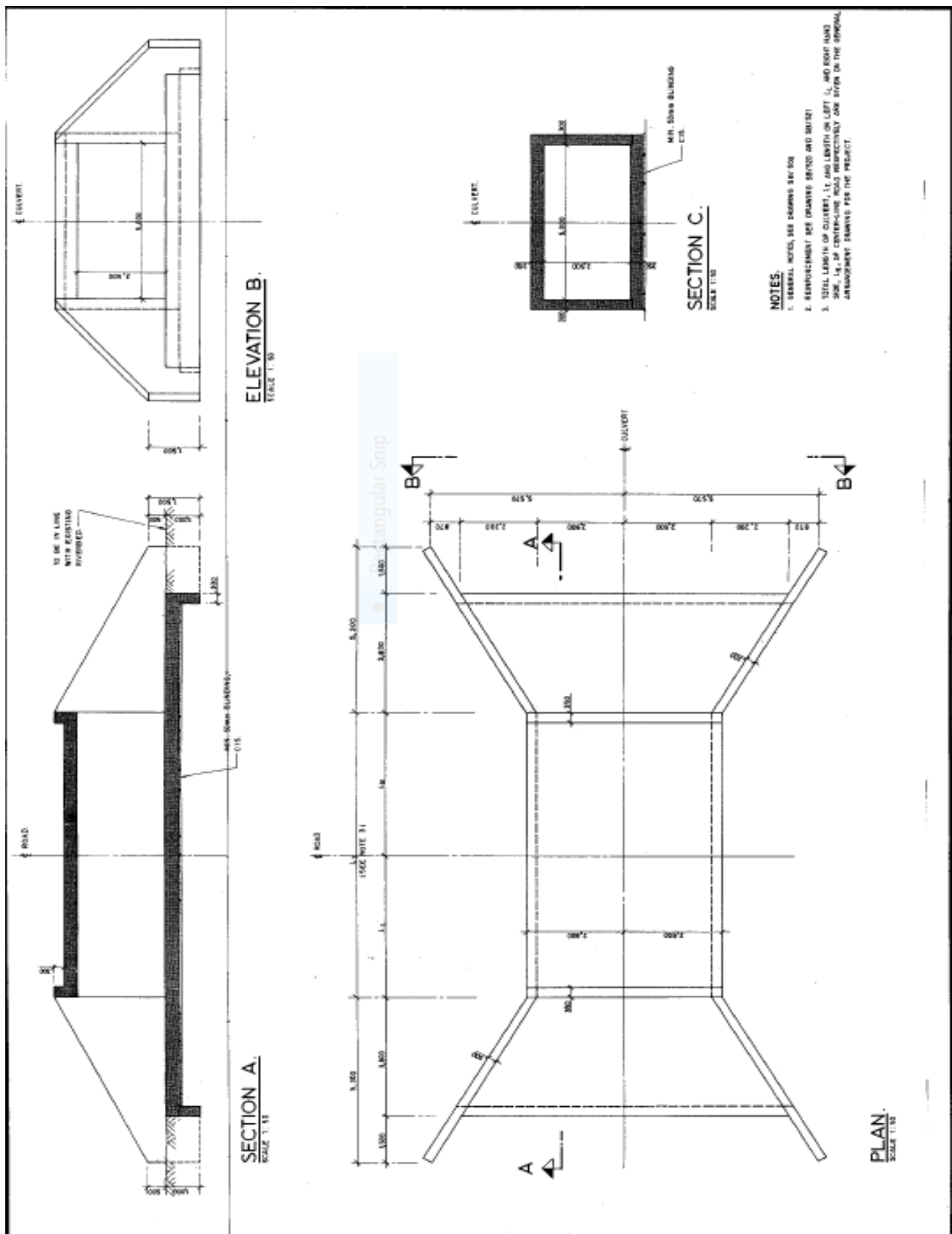
1. The type of sign required and their location shall be as shown on the improvement plan and as directed by the Engineer
2. Sign plate to be 2 mm thick mild steel plate
3. Sign post to be 50 mm internal diameter steel pipe with wall thickness of 3 mm.
4. Sign plate to fixed to steel tube by 4 Nos M10 bolts and 2 Nos 50 mm f fixing clamps/brackets.
5. Sign paints shall be reflective.
6. The sign plate and post shall be treated by applying two coats of lead red oxide paint before applying priming and two finish coats of approved paints . Paints used shall have a hard, durable and glossy finish.

**FIGURE C.17 - PUBLICITY SIGNBOARD****NOTES**

BLACK

1. The wording of the project signboard and the location to be installed to be as directed by the Engineer
2. Materials to be used for fabrication of signboard shall be pressure impregnated treated softwood timber sizes as indicated in the drawing
3. Wording boards to be nailed to the posts using nails.
4. Project board posts and struts to be embedded in concrete ratio 1:2:4

FIGURE C.18 - BOX CULVERT



## **SECTION XI**

### **BILLS OF QUANTITIES**

(These are attached separately)

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### **PREAMBLE TO BILLS OF QUANTITIES**

1. The Bills of Quantities form part of the Contract Documents and are to be read in conjunction with the Conditions of Contract, Specifications and the Drawings.
2. The rates and prices inserted in the Bills of Quantities are to be the full inclusive costs of the works, described under the items, complete in place and in accordance with the specifications, including costs, expenses and profits which may be required in and for the construction of the works described, together with any temporary works and installations which may be necessary and all general risks, liabilities and obligations set forth or implied in the documents on which the contract
3. The quantities set forth in the Bills of Quantities are believed to represent the works to be carried out. There is no guarantee to the Contractor that he will be required to carry out the quantities of work indicated under any one particular item or groups of items in the Bills of Quantities. The basis of payment shall be the contractor's rates and the quantities of work actually done in fulfilment of his obligation under the contract.
4. The brief descriptions of items given in the Bills of Quantities are purely for the purpose of identification and in no way modify or supersede the detailed descriptions given in the Conditions of Contract, Standard or Special Specifications.
5. A price or rate shall be entered in ink against every item in the Bill of Quantities with the exception of items, which already have provisional sums, affixed thereto. The Tenderers are reminded that no "nil" or "included" rates or "lump-sum" discounts will be accepted. The rates for various items should include discounts if any. Tenderers who fail to comply will be disqualified.
6. Please note that all prices quoted should be inclusive of all Government taxes, duties and VAT.

TENDER NO KWS/OT/DEV/66/2020-2021					
REHABILITATION OF VARIOUS ROADS IN LAKE NAKURU PARK					
BILL No. 1:	GENERAL: OFFICE ADMINISTRATION AND OVERHEADS/PRELIMINARIES				
Item	Description of Work Item	Unit	Quantity	Rate	Amount (Kshs)
01-60-005	Publicity Sign Boards	No.	3.00		
01-61-002	Provide a serviceable levelling machine and 2 no. levelling staff.	Months	4.00		
01-80-010	Allow a prime cost of sum of Ksh. 300,000 for material testing as directed by the Engineer	PC SUM	1.00	300,000.00	300,000.00
01-80-011	Extra over item 01-80-010 for contractors overheads and profits	%	300,000.00		
01-80-017	Provide, fuel and maintain with driver, a serviceable 4WD, double cabin pick up vehicles of diesel engine capacity 2,500 - 2700 cc for exclusive use by the Engineer inclusive of the first 4,000km per vehicle month in accordance with special specifications	Veh Month	4.00		
01-80-026	Allow a prime cost sum of Ksh. 300,000 for the RE's miscellaneous account	PC SUM	1.00	300,000.00	300,000.00
01-80-027	Extra over 01-80-026 for profits and overheads	%	300,000.00		
01-80-028	Allow a prime cost sum of Ksh. 500,000 for off road Environmental Mitigation	PC SUM	1.00	500,000.00	500,000.00
01-80-030	Allow a prime cost for attendance to the RE's supervisory staff including overtime	PC SUM	1.00	420,000.00	420,000.00
01-80-031	Extra over 01-80-030 for profits and overheads	%	420,000.00		
01-80-034	Allow a prime cost sum of Ksh. 100,000 for HIV/AIDS awareness on site	PC SUM	1.00	100,000.00	100,000.00
01-80-035	Include percentage of PC sum in item 01-80-034 for contractors overhead and profit	%	100,000.00		
	<b>Total Carried Forward to Summary Page</b>				

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<b>TENDER NO KWS/OT/DEV/66/2020-2021</b>
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**TENDER NO KWS/OT/DEV/66/2020-2021**

TENDER NO KWS/OT/DEV/66/2020-2021

**TENDER NO KWS/OT/DEV/66/2020-2021**

REHABILITATION OF VARIOUS ROADS IN LAKE NAKURU PARK I) LANET- LIONHILL-NDERIT					
BILL No. 10:	GRADING AND GRAVELLING WORKS				
Item	Description of Work Item	Unit	Quantity	Rate	Amount (Kshs)
10-50-002	Heavy grading with watering and compaction instructed by the Engineer	M <sup>2</sup>	37,000.00		
10-50-003	Light Grade existing carriageway surface to camber, including slopes and ditches water and compact in accordance to the specification	M <sup>2</sup>	50,000.00		
10-60-001	Provide gravel wearing course - excavation, free haul, spread and compact	M <sup>3</sup>	9,000.00		
	Total Carried Forward to 1) Lanet-Lionhill-Nderit Summary Page				

TENDER NO KWS/OT/DEV/66/2020-2021

TENDER NO KWS/OT/DEV/66/2020-2021	
REHABILITATION OF VARIOUS ROADS IN LAKE NAKURU PARK II) MAKALIA FALLS CIRCUIT	

TENDER NO KWS/OT/DEV/66/2020-2021						
REHABILITATION OF VARIOUS ROADS IN LAKE NAKURU PARK II) MAKALIA FALLS CIRCUIT						
BILL No. 7:	EXCAVATION AND FILLING FOR STRUCTURES					
Item	Description of Work Item	Unit	Quantity	Rate	Amount (Kshs)	

TENDER NO KWS/OT/DEV/66/2020-2021					
REHABILITATION OF VARIOUS ROADS IN LAKE NAKURU PARK II) MAKALIA FALLS CIRCUIT					
BILL No. 8:	CULVERT AND DRAINAGE WORKS				
Item	Description of Work Item	Unit	Quantity	Rate	Amount (Kshs)



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TENDER NO KWS/OT/DEV/66/2020-2021						
REHABILITATION OF VARIOUS ROADS IN LAKE NAKURU PARK II) MAKALIA FALLS CIRCUIT						
BILL No. 17:	CONCRETE WORKS – ( Box Culvert construction 5m x 2.5m- 7m Long)					
Item	Description of Work Item	Unit	Quantity	Rate	Amount (Kshs)	

17-60-001	Provide, place, vibrate and compact class 15/20 concrete blinding to structures	M <sup>3</sup>	3.60		
17-80-002	Provide, place, vibrate and compact class 25/20 concrete for foundations, abutments and wingwalls at structures.	M <sup>3</sup>	80		
	<b><u>Reinforcements: Provide, cut, bend and fix into position High Yield steel reinforcement bars to BS 4461 as shown in the drawings or as instructed by the Engineer</u></b>				
17-80-004	Provide, cut, bend and fix into position steel reinforcement of diameter equal to or less than 16mm diameter	TON	6.90		
17-80-005	Provide, cut, bend and fix into position steel reinforcement of diameter greater than 16mm diameter	TON	4.10		
17-60-003	Formwork Class F2 Finish	M <sup>2</sup>	250.00		
17-70-003	Allow for River training as directed on site	LS	1.00	300,000.00	300,000.00
	<b>Total Carried Forward to 2) Makalia Falls Circuit Summary Page</b>				

TENDER NO KWS/OT/DEV/66/2020-2021					
REHABILITATION OF VARIOUS ROADS IN LAKE NAKURU PARK II) MAKALIA FALLS CIRCUIT					
<b>BILL No. 20:</b>	<b>ROAD FURNITURE REPAIR AND MAINTENANCE</b>				
Item	Description of Work Item	Unit	Quantity	Rate	Amount (Kshs)
20-50-005	Provide and Install Permanent road signs	No.	2.00		

[illegible]

TENDER NO KWS/OT/DEV/66/2020-2021					
REHABILITATION OF VARIOUS ROADS IN LAKE NAKURU PARK II) MAKALIA FALLS CIRCUIT					
BILL No. 21:		MISCELLANEOUS BRIDGE/DRIFT WORKS			
Item	Description of Work Item	Unit	Quantity	Rate	Amount (Kshs)
21-60-008	Provide and Install Weep holes (75 - 100mm diameter)	No.	40.00		

TENDER NO KWS/OT/DEV/66/2020-2021		
REHABILITATION OF VARIOUS ROADS IN LAKE NAKURU PARK I) LANET- LIONHILL-NDERIT		
	Summary for 1) Lanet - LionHill - Nderit Road	
Bill No.	Description	Amount (Kshs)
4	SITE CLEARANCE	
5	EARTHWORKS	

[illegible]

TENDER NO KWS/OT/DEV/66/2020-2021		
REHABILITATION OF VARIOUS ROADS IN LAKE NAKURU PARK II) MAKALIA FALLS CIRCUIT		
	Summary for 2) Makalia Falls Circuit	
Bill No.	Description	Amount (Kshs)
4	SITE CLEARANCE	
5	EARTHWORKS	
7	EXCAVATION AND FILLING FOR STRUCTURES	

[illegible]

TENDER NO KWS/OT/DEV/66/2020-2021		
REHABILITATION OF VARIOUS ROADS IN LAKE NAKURU PARK		
	Summary Page	
Item	Description	Amount (Kshs)
1	GENERAL: OFFICE ADMINISTRATION AND OVERHEADS/PRELIMINARIES	
2	I) LANET- LIONHILL- NDERIT	
3	II) MAKALIA FALLS CIRCUIT	

A	SUB-TOTAL (1, 2 & 3)	
B	ADD 10% CONTINGENCIES	
C	SUB-TOTAL (A + B)	
D	ADD 16% VAT	
	Total Carried Forward to Form of Tender	



**SECTION VII:**

**SECTION VIII – STANDARD FORMS**

## 1. FORM OF AGREEMENT

THIS AGREEMENT is made on the.....day of .....between the **Kenya Wildlife Service** of P. O. Box 40241-00100, Nairobi, Kenya hereinafter called "the Procurement Entity" of the one part And

.....of.....  
 .....  
 hereinafter called "the Contractor" of the other part.

WHEREAS the Employer is desirous that certain works should be executed, viz **Routine Maintenance works in section of Road**.....in

.....National Park.  
 to.....

and has accepted a BID by the Contractor for the execution completion and maintenance of such works on the road sections as defined hereafter.

### NOW THIS AGREEMENT WITNESSETHES as follows:

In this agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.

The following documents shall be deemed to form and be read and construed as part of this Agreement, viz.:

- ❖ The Contract Agreement;
- ❖ The Letter of award by the Procurement Entity
- ❖ The Letter of Acceptance by the Contractor;
- ❖ The Form of Contract and Appendix to the Form of Contract;
- ❖ The Conditions of Contract Part I;
- ❖ The Conditions of Contract Part II;
- ❖ The Standard Specification for Road and Bridge Construction, 1986;
- ❖ The Special Specifications;
- ❖ The Drawings;
- ❖ The priced Bill of quantities;
- ❖ Conditions to the Contract and instructions to the Contractor;

All aforesaid documents are hereinafter referred to as "The Contract".

In consideration of the payment to be made by the Procurement Entity to the Contractor, the Contractor hereby covenants with the Procurement Entity to execute, complete and maintain the works in conformity in all respects with the provisions of the Contract.

The Procurement Entity hereby covenants to pay the Contractor in consideration of the execution, completion and maintenance of the works for the Contract Price at the times and in the manner prescribed by the Contract.

IN WITNESS HEREOF the parties that have caused this Agreement to be executed this .....day of .....

*SEALED with the Common Seal of **Kenya Wildlife Services (KWS)**.*

By the said Employer: .....  
(Director, Kenya Wildlife Service)  
For and on behalf of the said Employer

In the presence of: .....  
(Name and Designation of Witness)  
.....  
(Signature of Witness)  
.....  
(Address of witness)

SEALED with the Common Seal of .....  
.....  
(**Insert the Name of Tender**)

By the said Contractor: .....  
(Managing Director)

In the presence of: .....  
(Name and Designation of Witness)  
.....  
(Signature of Witness)  
.....  
(Address of witness)

## Adjudicator's Agreement

Identification of Project:

.....  
(the "Project")

Name and address of the Employer:

.....  
(the "Employer")

Name and address of the Contractor:

.....  
(the "Contractor")

Name and address of the Adjudicator:

.....  
(the "Adjudicator")

**Whereas** the Employer and the Contractor have entered into a contract ("the Contract") for the execution of the Project and wish to appoint the Adjudicator to act as adjudicator in accordance with the Rules for Adjudication ["the Rules"].

**The Employer, Contractor and Adjudicator agree as follows:**

1. The Rules and dispute provisions of the Contract shall form part of this Agreement.
2. The Adjudicator shall be paid:

A retainer fee of .....per calendar month  
(where applicable)

A daily fee of .....

Expenses (including the cost of telephone calls, courier charges, faxes and telexes incurred in connection with his duties; all reasonable and necessary travel expenses, hotel accommodation and subsistence and other direct travel expenses).  
Receipts will be required for all expenses.

3. The Adjudicator agrees to act as adjudicator in accordance with the Rules and has disclosed to the Parties any previous or existing relationship with the Parties or others concerned with the Project.
4. This Agreement shall be governed by the law of .....
5. The Language of this Agreement shall be .....

SIGNED BY .....

For and on behalf of the Employer in the presence of

Witness .....  
Name .....  
Address .....  
Date .....

SIGNED BY .....

For and on behalf of the Contractor in the presence of

Witness .....  
Name .....  
Address .....  
Date .....

SIGNED BY .....

For and on behalf of the Adjudicator in the presence of

Witness .....  
Name .....  
Address .....  
Date .....

## 2. FORM OF PERFORMANCE BANK GUARANTEE (UNCONDITIONAL)

To:

**Kenya Wildlife Service (KWS)**

P. O. Box 40241-00100,

Nairobi,

Kenya

1. WHEREAS .....  
(hereinafter called the Contractor) has undertaken in pursuance of contract No. RD: .....  
.....dated.....to execute the  
.....(hereinafter called the “Contract”)
- 2 AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee by a recognized bank for the sum specified in the Appendix to Form of Tender as security for compliance with his obligations in accordance with the Contract;
3. AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee;
1. NOW THEREFORE we (name of  
Bank) .....  
.....  
(hereinafter called “the Bank”) hereby affirm that we are the Guarantor and responsible to you on behalf of the Contractor up to a total of Kshs.....  
Amount in words.....and  
we undertake to pay to you, upon your first written demand and without cavil or argument, any sum or sums within and up to the limits as aforesaid without your needing to prove or show grounds or reasons for the sum specified therein.

We hereby waive the necessity of you demanding the said debt from the Contractor before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed there under or of any of the Contract Documents which may be made between you and the Contractor shall in any way release us from any liability under this Guarantee and we hereby waive notice of any such change, addition or modification

This Guarantee shall be valid until 28 days after issuing of the Defects Liability Certificate.

AUTHORISED SIGNATORY FOR THE BANK.....

Name of bank.....

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Address.....

Date .....

**LETTER OF CREDIT**

To

**The Director General,  
Kenya Wildlife Service,  
P.O. Box 40241 - 00100  
NAIROBI**

**RE: LINE OF CREDIT FOR (CONTRACT DETAILS)**

Reference is made to inquiry from our Customer ..... of P.O. Box ..... in regard to line of Credit for financing above tender. We wish to state as following.

1. M/S .....(name of tender) has satisfactorily conducted an account dominated in Kenya Shillings with us for a period of more than one year.
2. Currently the above named Customer enjoys
  - a) A Bank Over draft facility of Kshs .....
  - b) A bank loan of Kshs .....
3. As per the prudential norms for Financing which MUST be fulfilled by our customer, we are in a position to provide a line of credit to M/s ..... (tenderer name) for Kshs .....

This information is given in strict confidence, and without any guarantee or liability on the part of the bank or any of its officers.

Yours Faithfully

Bank Authorised Signatory