KENYA RURAL ROADS AUTHORITY

KAKAMEGA REGION

ROUTINE MAINTENANCE & SPOT IMPROVEMENT WORKS IN LIKUYANI CONSTITUENCY

ROAD NAME: E9112 KIKUYANI – NASIANDA – SOYSAR(MBANACHO-SANGO) ROAD

TENDER NUMBER: KeRRA/011/39/KAK /GOK/ 2/55/ 2020/ 21-007

FUNDING: GOK/ F/Y 2020/2021

BID DOCUMENT FOR SPOT IMPROVEMENT

- **INVITATION FOR TENDERS**
- **INSTRUCTIONS TO BIDDERS**
- **QUALIFICATION CRITERIA**
- **CONDITIONS OF CONTRACT**
- **APPENDIX TO FORM OF AGREEMENT**
- **STANDARD FORMS**
- **SPECIFICATIONS, DRAWINGS AND BILLS OF QUANTITIES**

NOVEMBER, 2020

The Engineer	**The Employer**
DEPUTY DIRECTOR, **KENYA RURAL ROADS AUTHORITY,** **P.O. BOX 477-50100,** **KAKAMEGA.**	**DIRECTOR GENERAL,** **KENYA RURAL ROADS AUTHORITY, P.O. BOX 48151–00100,** **NAIROBI.**

TABLE OF CONTENTS

CONTENTS **PAGE No.**

SECTION I: INVITATION FOR TENDERS.....2

SECTION II: INSTRUCTIONS TO TENDERERS.....2

SECTION III: QUALIFICATION CRITERIA.....10

SECTION IV: CONDITIONS OF CONTRACT.....13

SECTION V: APPENDIX TO FORM OF AGREEMENT.....23

SECTION VI: STANDARD FORMS.....25

SECTION VII: CONTRACTOR'S EVALUATION CHECKLIST.....50

SECTION VIII: SPECIFICATIONS, DRAWINGS AND BILLS OF QUANTITIES.....50

SECTION I: INVITATION FOR TENDERS

Tender reference No. KeRRA/011/39/KAK/LIKUYANI/GOK/2-55/2020-2021-007

Tender Name: **Routine Maintenance** & Spot Improvement and Upgrading of: **E9112 Likuyani – Nasianda – Soysar(Mbanacho-Sango) Road**

The Kenya Rural Roads Authority invites sealed tenders for spot improvement and upgrading of **E9112 Likuyani – Nasianda – Soysar(Mbanacho-Sango) Road**

1.1 The works scope of works is as follows:

i. Preliminary and General Items
ii. Earthworks
iii. Culvert and drainage works,
iv. Grading and gravelling works
v. Dayworks

1.2 Interested eligible candidates may obtain further information and inspect tender documents at **Kenya Rural Roads Authority, P.O Box 477, KAKAMEGA** located at **Kakamega Town** during normal working hours **8.00 am** to **5.00 pm Monday** to **Friday**.

1.3 A complete set of tender documents may be obtained by interested candidates upon payment of a non-refundable fees of Kshs. 1,000 to be deposited to Account No. **1114343196, KCB Moi Avenue Branch payable to** Kenya Rural Roads Authority (Deposit slips should bear the Contract No, Company's name and constituency) or be downloaded free of charge from KeRRA website www.kerra.go.ke or Treasury Portal www.ifmis.go.ke

1.4 Prices quoted should be net inclusive of all taxes, must be in Kenya shillings and shall remain valid for **120** days from the closing date of tender.

1.5 Completed tender documents are to be enclosed in plain sealed envelopes marked with Tender name and reference number and deposited in the Tender Box at the **KeRRA Regional offices - Kakamega** or to be addressed to the **Deputy Director (RAM), Kenya Rural Roads Authority, P.O Box 477, Kakamega** so as to be received **on or before the date stated in the Tender notice**.

1.6 Tenders will be opened immediately thereafter in the presence of the Bidders or their representatives who choose to attend at Kenya Rural Roads Authority offices, **Kakamega** Region.

SECTION II: INSTRUCTIONS TO TENDERERS

TABLE OF CONTENTS

	CLAUSE	**PAGE**
1.	GENERAL	4
2.	TENDER DOCUMENTS	5
3.	PREPARATION OF TENDERS	5
4.	SUBMISSION OF TENDERS	6
5.	TENDER OPENING AND EVALUATION	7
6.	AWARD OF CONTRACT	8
7.	CORRUPT AND FRAUDULENT PRACTICES	9

INSTRUCTIONS TO TENDERERS.

1. General

1.1 The Employer as defined in the Appendix to Conditions of Contract invites tenders for Works Contract as described in the tender documents. The successful Tenderer will be expected to complete the Works by the Intended Completion Date specified in the said Appendix.

1.2 Tenderers shall include the following information and certified documents with their tenders, unless otherwise stated:

(a) Registration with National Construction Authority **(NCA) 6 and above** as a Road Works contractor valid at the date of tender of submission,
(b) Copy of Certificate of Incorporation certified by commissioner of oaths
(c) Copies of PIN and VAT Registration Certificate certified by commissioner of oaths
(d) Copy of Valid Current Tax compliance certificate
(e) Copy of Valid Contractors Annual Practicing License from National Construction Authority (NCA) as a Road Works contractor
(f) List of ongoing projects and their monetary value
(g) All tenderers MUST SERIALIZE all the pages of bid documents submitted.
(h) Letter of Authority to seek references from the Tenderer's bankers dated within tendering period
(i) Certified Business permit issued within the current financial year
(j) Total monetary value of construction work performed for each of the last three years;
(k) Experience of at least two contracts in works of similar nature and size completed for the last five years, and clients who may be contacted for further information on these contracts
(l) At least two (2) major items of construction equipment owned or leased;
(m) Audited accounts or financial statements for the last 3 years
(n) Current litigation information
(o) All the tenderers (open/reserved) to provide CR 12 issued within 12 months)
(p) For AGPO Tenders BIDDERS must provide a valid certificate of Registration from Treasury for the relevant special group and National ID(s) for the directors.
(q) A bidder may bid more than one tender in the region but shall only be considered for two contracts but in different constituencies within the Region.
(r) Bank Account or Statement in the name of the firm for the last Three months from the date of this tender.
(s) There shall be no group pre tender site visits. However, Bidders are advised to liase with the respective constituency Road officers in order to organise for personal arrangements to visit the roads and have certificate filled and signed.

1.3 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.

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

1.5 The procurement entity's employees, committee members, board members and their relative (spouse and children) are not eligible to participate in the tender.

1.6 The price to be charged for the tender document shall not exceed **Kshs.1,000/=** for those who may not have downloaded the document from KeRRA website.

1.7 The procuring entity shall allow the tenderer to review the tender document free of charge before purchase.

1.8 The estimate for this works is Kshs 9,915,568.83 (Nine Million Nine Hundred fifteen Thousand Five Hundred Sixty Eight Eighty Three Cents)

2. Tender Documents

2.1 The complete set of tender documents comprises the documents listed here below and any addenda issued in accordance with clause 2.4 here below:-

(a) These instructions to Tenderers
(b) Form of Tender
(c) Conditions of Contract and Appendix to Form of Agreement
(d) Specifications
(e) Drawings
(f) Bills of Quantities
(g) Other materials required to be filled and submitted in accordance with these Instructions and Conditions

2.2 The Tenderer shall examine all instructions, forms and specifications in the tender documents. Failure to furnish all information required by the tender documents may result in rejection of his tender.

2.3 Prospective Tenderer making inquiries of the tendering documents may notify the Employer in writing or by cable, telex or facsimile at the address indicated in the letter of invitation to tender. The Employer will respond to any request for clarification received earlier than seven will [7] days prior to the deadline for submission of tenders. Copies of the Employer's response will be forwarded to all persons issued with tendering documents, including a description of the inquiry, but without identifying its source.

2.4 Before the deadline for submission of tenders, the Employer may modify the tendering documents by issuing addenda. Any addendum thus issued shall be part of

the tendering documents and shall be communicated in writing or by cable, telex or facsimile to all Tenderers. Prospective Tenderers shall acknowledge receipt of each addendum in writing to the Employer.

2.5 To give prospective Tenderers reasonable time in which to consider an addendum in preparing their tenders, the Employer shall extend, as necessary, the deadline for submission of tenders in accordance with clause 4.2 here below.

3. Preparation of Tenders

3.1 All documents relating to the tender and any correspondence shall be in English Language.

3.2 The tender submitted by the Tenderer shall comprise the following: -
(a) The Tender;
(b) Tender Security;
(c) Priced Bill of Quantities for lump-sum Contracts
(d) Any other materials required to be completed and submitted by Tenderers.

3.3 The Tenderer shall fill in rates and prices for all items of the Works described in the Bill of Quantities. Items for which no rate or price is entered by the Tenderer will not be paid for when executed and shall be deemed covered by the other rates and prices in the Bill of Quantities. All duties, taxes and other levies payable by the Contractor under the Contract, as of 30 days prior to the deadline for submission of tenders, shall be included in the tender price submitted by the Tenderer.

3.4 The rates and prices quoted by the Tenderer shall not be subject to any adjustment during the performance of the Contract.

3.5 The unit rates and prices shall be in Kenya Shillings.

3.6 Tenders shall remain valid for a period of **One Hundred and Twenty (120**) days from the date of submission. However, in exceptional circumstances, the Employer may request that the Tenderers extend the period of validity for a specified additional period. The request and the Tenderers‟ responses shall be made in writing.

3.7 The Tenderer shall prepare one original of the documents comprising the tender documents as described in these Instructions to Tenderers.

3.8 The original 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 alterations or additions have been made shall be initialed by the person or persons signing the tender.

3.9 Clarification of tenders shall be requested by the tenderer to be received by the procuring entity not later than 7 days prior to the deadline for submission of tenders.

3.10 The procuring entity shall reply to any clarifications sought by the tenderer within **7 days** of receiving the request to enable the tenderer to make timely submission of its

tender.

4. Submission of Tenders

4.1 The tender duly filled and sealed in an envelope shall;-

a) be addressed to the Employer at the address provided in the invitation to tender;

b) bear the name and identification number of the Contract as defined in the invitation to tender; and

c) Provide a warning not to open before the specified time and date for tender opening.

4.2 Tenders shall be delivered to the Employer at the address specified above not later than the time and date specified in the invitation to tender.

4.3 The tenderer shall not submit any alternative offers unless they are specifically required in the tender documents.
Only one tender may be submitted by each tenderer. Any tenderer who fails to comply with this requirement will be disqualified.

4.4 Any tender received after the deadline for opening tenders will be returned to the tenderer un-opened.

4.5 The Employer may extend the deadline for submission of tenders by issuing an amendment in accordance with sub-clause 2.5 in which case all rights and obligations of the Employer and the Tenderers previously subject to the original deadline will then be subject to the new deadline.

5. Tender Opening and Evaluation

5.1 The tenders will be opened in the presence of the Tenderers‟ representatives who choose to attend at the time and in the place specified in the invitation to tender.

5.2 The Tenderers‟ names, the total amount of each tender and such other details as may be considered appropriate, will be announced at the opening by the Employer. Minutes of the tender opening, the Employer will also prepare including the information disclosed to those present.

5.3 Information relating to the examination, clarification, evaluation and comparison of tenders and recommendations for the award of the Contract shall not be disclosed to Tenderers or any other persons not officially concerned with such process until the award to the successful Tenderer has been announced. Any effort by a Tenderer to influence the Employer's officials, processing of tenders or award decisions may result in the rejection of his tender.

5.4 Tenders determined to be substantially responsive will be checked for any arithmetic errors. Errors will be corrected as follows:

(a) where there is a discrepancy between the amount in figures and the amount in words, the amount in words will prevail; and

(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's representative, there is an obvious typographical error, in which case the 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 Bill of Quantities/Quotation, 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 P.C. 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 valuation 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 forfeited.

(g) Any error correction as stated above SHALL NOT result in a variation of 15% of the original amount indicated either as the line item total or Bill Amount. Any discrepancy resulting in an error more than 15% shall lead to an automatic disqualification of the bid.

5.5 The tender evaluation committee shall evaluate the tender within 30 days of the validity period from the date of opening the tender.

5.6 Contract price variations shall not be allowed for contracts not exceeding one year (12 months).

5.7 Where contract price variation is allowed, the valuation shall not exceed 25% of the original contract price.

5.8 Price variation requests shall be processed by the procuring entity within 30 days of receiving the request.

5.9 To assist in the examination, evaluation, and comparison of tenders, the Employer at his discretion, may request [in writing] any Tenderer for clarification of the tender, including breakdowns of unit rates. The request for clarification and the response shall be in writing or by cable, telex or facsimile but no change in the tender price or substance of the tender shall be sought, offered or permitted.

5.10 The Tenderer shall not influence the Employer on any matter relating to his tender from the time of the tender opening to the time the Contract is awarded. Any effort by the Tenderer to influence the Employer or his employees in his decision on tender evaluation, tender comparison or Contract award may result in the rejection of the tender.

6. Award of Contract

6.1 The award of the Contract will be made to the Tenderer who has offered the lowest evaluated tender price.

6.2 Notwithstanding the provisions of clause 6.1 above, the Employer reserves the right to accept or reject any tender and to cancel the tendering process and reject all tenders at any time prior to the award of Contract without thereby incurring any liability to the affected Tenderer or Tenderers or any obligation to inform the affected Tenderer or Tenderers of the grounds for the action.

6.3 The Tenderer whose tender has been accepted will be notified of the award prior to expiration of the tender validity period in writing or by cable, telex or facsimile. This notification (hereinafter and in all Contract documents called the "Letter of

Acceptance") will state the sum [hereinafter and in all Contract documents called the "Contract Price" which the Employer will pay the Contractor in consideration of the execution, completion, and maintenance of the Works by the Contractor as prescribed by the Contract. The contract shall be formed on the parties signing the contract. At the same time the other tenderers shall be informed that their tenders have not been successful.

6.4 The Contract Agreement will incorporate all agreements between the Employer and the successful Tenderer. It will be signed by the Employer and sent to the successful Tenderer, within 30 days following the notification of award. Within 21 days of receipt, the successful Tenderer will sign the Agreement and return it to the Employer.

6.5 Within 21 days after receipt of the Letter of Acceptance, the successful Tenderer shall deliver to the Employer a Performance Security amount stipulated in the Appendix to Conditions of Contract.

6.6 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.

6.7 The procuring entity may at any time terminate procurement proceedings before contract award and shall not be liable to any person for the termination.

6.8 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.

7. Corrupt and fraudulent practices

7.1 The procuring entity requires that the tenderer observes the highest standard of ethics during the procurement process and execution of the contract. A tenderer shall sign a declaration that he has not and will not be involved in corrupt and fraudulent practices.

7.2 The procuring entity will reject a tender if it determines that the tenderer recommended for award has engaged in corrupt and fraudulent practices in competing for the contract in question.

7.3 Further a tenderer who is found to have indulged in corrupt and fraudulent practices risks being debarred from participating in public procurement in Kenya.

SECTION III: QUALIFICATION CRITERIA

No.	Qualification Criteria	Compliance Requirement	Single Entity	Submission Requirements
1.1	**Eligibility**	Nationality in accordance with confidential business Questionnaire in the standard forms	Must meet requirement	-Certified copies of Directors ID or Passports -A copy of valid AGPO certificate for respective special Category from National Treasury -Copies of certified CR12 Forms issued within the last 12 (Twelve) months from the date of tender submission.
1.2	**Incorporation & Registration**	Pursuant to sub clause 1.2 the following shall be provided; - Certified Copy of Certificate of incorporation to show that the applicant is a registered company and legally authorized to do business in Kenya Certified copy of certificate of registration **NCA 6 & above** with a valid National Construction Authority Category and a valid practicing License	Must meet requirement	-Certified copy of Certificate of Incorporation -Valid NCA 6& above (Roads Works) -Valid practicing license
1.3	**Bidding forms & other requirements**	completed Standards Forms provided in schedule (VI) including a fully filled Bills of Quantities	Must meet requirement	Fully signed and stamped standard forms
2.1	**History of Non-Performing Contracts**	Non-performance of a contract did not occur within the last three (3) years prior to the deadline for application submission based on all information on fully settled disputes or litigation. A fully settled dispute or litigation is one that has been resolved in	Must meet requirement by itself or as party to past	Completeness and signing of the form on non-completed works

		accordance with the Dispute Resolution Mechanism under the respective contract, and where all appeal instances available to the applicant have been exhausted.		
2.2	**Pending Litigation**	All pending litigation shall in total not represent more than fifty per cent (50%)] of the Applicant's net worth and shall be treated as resolved against the Applicant.	Must meet requirement by itself or as party to past	Sworn affidavit
3.1	**Financial Performance**	(a) Submission of audited accounts/ balance sheets for the last three [3] years to demonstrate capacity to have a cash flow amount minimum of **Ksh 2 Million** equivalent working capital for works between **6-10 Million** (b) Submission of audited accounts/balance sheets for the last three [3] years to demonstrate capacity to have a cash flow amount of minimum **KShs 500,000** (**0.5 Million**) for equivalent working capital for works between 3-6 Million. (Not applicable for works below Kshs. **3 (Three Million).**	Must meet requirement	-Audited Financial statements -CERTIFIED Bank statements for the last three months for works below 3 Million
3.2	**Average Annual Construction Turnover**	a) Minimum average annual construction turnover of **KShs. 6 Million [Six Million]**, calculated as total certified payments received for contracts in progress or completed, within the last Three (3) years for works **6-10 Million** b) Minimum average annual construction turnover of **Ksh 1 Million (One Million)** calculated as cerified payments received for contracts in progress or completed within the last Three (3) years c) Letter from Bank for proof of having a Bank account for works below Kshs. **3 (Three Million).**	Must meet requirement	-Audited Financial statements for the last 3 years -Provide certified Bank statements for the last 3 months for works below 3 Million

4.1	**General Construction Experience**	Experience under construction contracts in the role of contractor, subcontractor, or management contractor for at least the last Five years for works above Kshs. **3 (Three Million)** prior to the submission dateline.	Must meet requirement	Submit a Proof of having undertaken any civil works
4.2	**Specific Construction Experience**	Participation as contractor, management contractor or subcontractor, in at least **Two (2)** No. contracts within the last Five (5) years, each with a value of at least **KShs. 3 Million**, for works between **6-10 Million**, **1Million** (One Million), for works above Kshs. 3-6 million & **0.5 Million** (Five Hundred Thousand) for works within 1-3 **Million** that have been successfully and substantially completed and that are similar to the proposed works. The similarity shall be based on the physical size, complexity, methods/technology or other characteristics as described in the scope of works.	Must meet requirement	Attach award letters /LPO and their respective completion certificates within the last Five (5) years
		b) For the above or other contracts executed during the period stipulated in 4.2(a) above, a minimum construction experience of: - Spot improvement/Routine Maintenance Works.	Must meet requirement	
5. Equipment Holding				
	Minimum number of Equipment	The bidder must indicate the minimum core plant and equipment considered by the company necessary for undertaking the project together with proof of ownership or valid lease agreement.	Must meet requirement	-Attach certified logbooks for (owned equipment) or valid lease agreement(s) dated within tendering period supported with valid log books of the Lesee. -provide certified letter of agreement to hire from MTF or others within the tendering period.
6. Current Commitment				
	On-going contracts	The total value of current works on the on-going contracts must not exceed Kshs. Three (3) Million for works between 1-3M and Ten (10) M for	Must meet requirement	Complete the form on ongoing contracts / works

		works between 3-6 M.		
7.0 Site Staff				
	Site Agent	The site staff shall possess minimum levels set below; Qualification = Diploma In Civil Engineering General Experience = 3 Years Specific Experience = 1 - 2 Years	-	Current resume, certified certificates
	Dep. Site Agent/ Site Engineer	Qualification = Diploma In Civil Engineering General Experience = 3 Years Specific Experience = 1 - 2 Years	-	Current resume, certified certificates

SECTION IV: CONDITIONS OF CONTRACT

Table of Clauses **Page**

1. DEFINITIONS…… 14
2. CONTRACT DOCUMENTS…… 15
3. EMPLOYER‟S REPRESENTATIVE‟S DECISIONS…… 15
4. WORKS, LANGUAGE AND LAW OF CONTRACT…… 16
5. SAFETY, TEMPORARY WORKS AND DISCOVERIES…… 16
6. WORK PROGRAM AND SUB-CONTRACTING…… 16
7. THE SITE…… 16
8. INSTRUCTIONS…… 16
9. EXTENSION OF COMPLETION DATE…… 16
10. MANAGEMENT MEETINGS…… 17
11. DEFECTS…… 18
12. BILLS OF QUANTITIES…… 18
13. VARIATIONS…… 18
14. PAYMENT CERTIFICATES AND FINAL ACCOUNT …… 19
15. INSURANCES …… 20
16. LIQUIDATED DAMAGES…… 20
17. COMPLETION AND TAKING OVER…… 20
18. TERMINATION…… 20
19. PAYMENT UPON TERMINATION…..21
20. CORRUPT GIFTS AND PAYMENTS OF COMMISSION…… 21
21. SETTLEMENT OF DISPUTES…… 21

CONDITIONS OF CONTRACT

1. Definitions

1.1 In this Contract, except where context otherwise requires, the following terms shall be interpreted as indicated;

"Bills of Quantities" means the priced and completed Bill of Quantities forming part of the tender[where applicable].

"Schedule of Rates" means the priced Schedule of Rates forming part of the tender [where applicable].

"The Completion Date" means the date of completion of the Works as certified by the Employer's Representative.

"The Contract" means the agreement entered into by the Employer and the Contractor as recorded in the Agreement Form and signed by the parties.

"The Contractor" refers to the person or corporate body whose tender to carry out the Works has been accepted by the Employer.

"The Contractor's Tender" is the completed tendering document submitted by the Contractor to the Employer.

"The Contract Price" is the price stated in the Letter of Acceptance.

"Days" are calendar days; "Months" are calendar months.

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

"The Defects Liability Certificate" is the certificate issued by Employer's Representative upon correction of defects by the Contractor.

"The Defects Liability Period" is the period named in the Appendix to Conditions of Contract and calculated from the Completion Date.

"Drawings" include calculations and other information provided or approved by the Employer's Representative for the execution of the Contract.

"Employer" Includes Central or Local Government administration, Universities, Public Institutions and Corporations and is the party who employs the Contractor to carry out the Works.

"Equipment" is the Contractor's machinery and vehicles brought temporarily to the Site for the execution of the Works.

"Site" means the place or places where the permanent Works are to be carried out including workshops where the same is being prepared.

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

"Employer's Representative" is the person appointed by the Employer and notified to the Contractor for the purpose of supervision of the Works.

"Specification" means the Specification of the Works included in the Contract.

"Start Date" is the date when the Contractor shall commence execution of the Works.

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

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

"A Variation" is an instruction given by the Employer's Representative, which varies the Works.

"The Works" are what the Contract requires the Contractor to construct, install, and turnover to the Employer.

2. Contract Documents

2.1 The following documents shall constitute the Contract documents and shall be interpreted in the following order of priority;

(1) Agreement,
(2) Letter of Acceptance,
(3) Contractor's Tender,
(4) Conditions of Contract,
(5) Specifications,
(6) Drawings,
(7) Bills of Quantities

3. Employer's Representative's Decisions

3.1 Except where otherwise specifically stated, the Employer's Representative will decide contractual matters between the Employer and the Contractor in the role representing the Employer.

4. Works, Language and Law of Contract

4.1 The Contractor shall construct and install the Works in accordance with the Contract

documents. The Works may commence on the Start Date and shall be carried out in accordance with the Program submitted by the Contractor, as updated with the approval of the Employer's Representative, and complete them by the Intended Completion Date.

4.2 The ruling language of the Contract shall be English language and the law governing the Contract shall be the law of the Republic of Kenya.

5. Safety, Temporary works and Discoveries

5.1 The Contractor shall be responsible for design of temporary works and shall obtain approval of third parties to the design of the temporary works where required.

5.2 The Contractor shall be responsible for the safety of all activities on the Site.

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

6. Work Program and Sub-contracting

6.1 Within seven days after Site possession date, the Contractor shall submit to the Employer's Representative for approval a program showing the general methods, arrangements, order and timing for all the activities in the Works.

6.2 The Contractor may sub-contract the Works (but only to a maximum of 25 percent of the Contract Price) with the approval of the Employer's Representative. However, he shall not assign the Contract without the approval of the Employer in writing. Sub-contracting shall not alter the Contractor's obligations.

7. The site

6.3 The Employer shall give possession of all parts of the Site to the Contractor.

6.4 The Contractor shall allow the Employer's Representative and any other person authorised by the Employer's Representative ,access to the Site and to any place where work in connection with the Contract is being carried out or is intended to be carried out.

8. Instructions

6.5 The Contractor shall carry out all instructions of the Employer's Representative which are in accordance with the Contract.

7 Extension of Completion Date

7.1 The Employer's Representative shall extend the Completion Date if an occurrence arises which makes it impossible for completion to be achieved by the Intended Completion Date. The Employer's Representative shall decide whether and by how much to extend

the Completion Date.

7.2 For the purposes of this clause, the following occurrences shall be valid for consideration; Delay by:-

a) force majeure, or

b) reason of any exceptionally adverse weather conditions, or

c) reason of civil commotion, strike or lockout affecting any of the trades employed upon the Works or any of the trades engaged in the preparation, manufacture or transportation of any of the goods or materials required for the Works, or

d) reason of the Employer's Representative's instructions issued under these Conditions, or

e) reason of the contractor not having received in due time necessary instructions, drawings, details or levels from the Employer's Representative for which he specifically applied in writing on a date which having regard to the date for Completion stated in the appendix to these Conditions or to any extension of time then fixed under this clause was neither unreasonably distant from nor unreasonably close to the date on which it was necessary for him to receive the same, or

f) delay on the part of artists, tradesmen or others engaged by the Employer in executing work not forming part of this Contract, or

g) reason of delay by statutory or other services providers or similar bodies engaged directly by the Employer, or

h) **reason of opening up for inspection of any Work covered up or of the testing or** any of the Work, materials or goods in accordance with these conditions unless the inspection or test showed that the Work, materials or goods were not in accordance with this Contract, or

i) reason of delay in appointing a replacement Employer's Representative, or

j) reason of delay caused by the late supply of goods or materials or in executing Work for which the Employer or his agents are contractually obliged to supply or to execute as the case may be, or

k) delay in receiving possession of or access to the Site.

8 Management Meetings

8.1 A Contract management meeting shall be held regularly and attended by the Employer's Representative and the Contractor. Its business shall be to review the plans for the

remaining Work. The Employer's Representative shall record the business of management meetings and provide copies of the record to those attending the meeting and the Employer. The responsibility of the parties for actions to be taken shall be decided by the Employer's Representative either at the management meeting or after the management meeting and stated in writing to all who attend the meeting.

8.2 Communication between parties shall be effective only when in writing.

9 Defects

9.1 The Employer's Representative shall inspect the Contractor's work and notify the Contractor of any defects that are found. Such inspection shall not affect the Contractor's responsibilities. The Employer's Representative may instruct the Contractor to search for a defect and to uncover and test any Work that the Employer's Representative considers may have a defect. Should the defect be found, the cost of uncovering and making good shall be borne by the Contractor. However if there is no defect found, the cost of uncovering and making good shall be treated as a variation and added to the Contract Price.

9.2 The Employer's Representative shall give notice to the Contractor of any defects before the end of the Defects Liability Period, which begins at Completion, and is defined in the Appendix to Form of Agreement.

9.3 Every time notice of a defect is given, the Contractor shall correct the notified defect within the length of time specified by the Employer's Representative's notice. If the Contractor has not corrected a defect within the time specified in the Employer's Representative's notice, the Employer's Representative will assess the cost of having the defect corrected by other parties and such cost shall be treated as a variation and be deducted from the Contract Price.

10 Bills of Quantities

10.1 The Bills of Quantities shall contain items for the construction, installation, testing and commissioning of the Work to be done by the Contractor. The Contractor will be paid for the quantity of the Work done at the rates in the Bills of Quantities for each item. Items against which no rate is entered by the Tenderer will not be paid for when executed and shall be deemed covered by the rates for other items in the Bills of Quantities.

10.2 Where Bills of Quantities do not form part of the Contract, the Contract Price shall be a lump sum (which shall be deemed to have been based on the rates in the Schedule of Rates forming part of the tender) and shall be subject to re-measurement after each stage.

11 Variations

11.1 The Contractor shall provide the Employer's Representative with a quotation for carrying out the variations when requested to do so. The Employer's Representative shall assess

the quotation and shall obtain the necessary authority from the Employer before the variation is ordered.

11.2 If the Work in the variation corresponds with an item description in the Bill of Quantities, the rate in the Bill of Quantities shall be used to calculate the value of the variation. If the nature of the Work in the variation does not correspond with items in the Bill of Quantities, the quotation by the Contractor shall be in the form of new rates for the relevant items of Work.

11.3 If the Contractor's quotation is unreasonable, the Employer's Representative may order the variation and make a change to the Contract Price, which shall be based on the Employer's Representatives own forecast of the effects of the variation on the Contractor's costs.

12 Payment Certificates and Final Account

12.1 The Contractor shall be paid after each of the following stages of Work listed here below (subject to re-measurement by the Employer's Representative of the Work done in each stage before payment is made). In case of lump-sum Contracts, the valuation for each stage shall be based on the quantities so obtained in the re-measurement and the rates in the Bill of Quantities.

(i) Minimum Amount of Interim Certificate is **40% of the value of works,**
(ii) After defects liability period.

12.2 Upon deciding that Works included in a particular stage are complete, the Contractor shall submit to the Employer's Representative his application for payment. The Employer's Representative shall check, adjust if necessary and certify the amount to be paid to the Contractor within 21 days of receipt of the Contractor's application .The Employer shall pay the Contractor the amounts so certified within 30 days of the date of issue of each Interim Certificate.

12.3 The Contractor shall supply the Employer's Representative with a detailed final account of the total amount that the Contractor considers payable under the Contract before the end of the Defects Liability Period. The Employer's Representative shall issue a Defect Liability Certificate and certify any final payment that is due to the Contractor within 30 days of receiving the Contractor's account if it is correct and complete. If it is not, the Employer's Representative shall issue within 21 days a schedule that states the scope of the corrections or additions that are necessary. If the final account is still unsatisfactory after it has been resubmitted, the Employer's Representative shall decide on the amount payable to the Contractor and issue a Final Payment Certificate. The Employer shall pay the Contractor the amount so certified within 60 days of the issue of the Final Payment Certificate.

12.4 If the period laid down for payment to the Contractor upon each of the Employer's Representative's Certificate by the Employer has been exceeded, the Contractor shall be entitled to claim simple interest calculated pro-rata on the basis of the number of days delayed at the Central Bank of Kenya's average base lending rate prevailing on the first day the payment becomes overdue. The Contractor will be required to notify the Employer within 15 days of receipt of delayed payments of his intentions to claim

interest.

15. Insurance

15.1 The Contractor shall be responsible for and shall take out appropriate cover against, among other risks, personal injury; loss of or damage to the Works, materials and plant; and loss of or damage to property.

16. Liquidated Damages

16.1 The Contractor shall pay liquidated damages to the Employer at the rate 0.001 per cent of the Contract price per day for each day that the actual Completion Date is later than the Intended Completion Date except in the case of any of the occurrences listed under clause 9.2. The Employer may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor's liabilities.

17. Completion and Taking Over

17.1 Upon deciding that the Work is complete the Contractor shall request the Employer's Representative to issue a Certificate of Completion of the Works, upon deciding that the Work is completed.

The Employer shall take over the Site and the Works within seven days of the Employer's Representative issuing a Certificate of Completion.

18. Termination

18.1 The Employer or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract. These fundamental breaches of Contract shall include, but shall not be limited to, the following;

(a) the Contractor stops Work for 30 days continuously without reasonable cause or authority from the Employer's Representative;

(b) the Contractor is declared bankrupt or goes into liquidation other than for a reconstruction or amalgamation;

(c) a payment certified by the Employer's Representative is not paid by the Employer to the Contractor within 30 days after the expiry of the payment periods stated in sub clauses 14.2 and 14.3 hereinabove.

(d) the Employer's Representative gives notice that failure to correct a particular defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time.

18.2 If the Contract is terminated, the Contractor shall stop Work immediately, and leave the Site as soon as reasonably possible. The Employer's Representative shall immediately thereafter arrange for a meeting for the purpose of taking record of the Works executed

and materials, goods, equipment and temporary buildings on Site.

19. Payment upon Termination

19.1 The Employer may employ and pay other persons to carry out and complete the Works and to rectify any defects and may enter upon the Works and use all materials on Site, plant, equipment and temporary works.

19.2 The Contractor shall, during the execution or after the completion of the Works under this clause, remove from the Site as and when required within such reasonable time as the Employer's Representative may in writing specify, any temporary buildings, plant, machinery, appliances, goods or materials belonging to him, and in default thereof , the Employer may (without being responsible for any loss or damage) remove and sell any such property of the Contractor, holding the proceeds less all costs incurred to the credit of the Contractor.

19.3 Until after completion of the Works under this clause, the Employer shall not be bound by any other provision of this Contract to make any payment to the Contractor, but upon such completion as aforesaid and the verification within a reasonable time of the accounts therefor the Employer"s Representative shall certify the amount of expenses properly incurred by the Employer and, if such amount added to the money paid to the Contractor before such determination exceeds the total amount which would have been payable on due completion in accordance with this Contract, the difference shall be a debt payable to the Employer by the Contractor; and if the said amount added to the said money be less than the said total amount, the difference shall be a debt payable by the Employer to the Contractor.

20. Corrupt Gifts and Payments of Commission

20.1 The Contractor shall not;

(a) Offer or give or agree to give to any person in the service of the Employer any gifts or consideration of any kind as an inducement or reward for doing or forbearing to do or for having done or forborne to do any act in relation to the obtaining or execution of this or any other contract with the Employer or for showing or forbearing to show favour or disfavour to any person in relation to this or any other contract with the Employer.

(b) Any breach of this Condition by the Contractor or by anyone employed by him or acting on his behalf (whether with or without the knowledge of the Contractor) shall be an offence under the Laws of Kenya.

21. Settlement of Disputes

21.1 Any dispute arising out of the Contract which cannot be amicably settled between the parties shall be referred by either party to the arbitration and final decision of a person to be agreed between the parties. Failing agreement to concur in the appointment of an Arbitrator, the Arbitrator shall be appointed

by the chairman of the Chartered Institute of Arbitrators, Kenya branch, on the request of the applying party.

SECTION V: APPENDIX TO FORM OF AGREEMENT

This Appendix to Form of Agreement forms part of the Agreement.

Item	**Data**
Time for Completion	3 Months,
Bid Security	N/A
Priority of Documents	The documents forming the Contract shall be interpreted in the following order of priority: • the Contract Agreement and Appendix to form of agreement • the Letter of Acceptance • the Form of Tender • the Conditions of Contract, Part II - Conditions of Particular Application • the Conditions of Contract, Part I - General Conditions of Contract • the Specifications • the Drawings, • the Priced Bill of Quantities
Law of Contract	Laws of the Republic of Kenya
Language	English
Provision of Site	On Commencement Date
Name and Address of Employer	Director General Kenya Rural Roads Authority P.O. Box 48151-00100 **Nairobi**
Name and Address of the Engineer	Director (RAM), Kenya Rural Roads Authority P.O. Box 48151-00100 **Nairobi**
Name and Address of Engineer's Representative	Deputy Director (RAM), Kenya Rural Roads Authority P. O. Box 477 **KAKAMEGA**
Penalty to the Contractor for Employer paying workers on his behalf	10% of the amount paid to the workers.
Performance Security Amount Form	(Refer to guideline Notes) N/A

Item	Data
Requirements of Contractors Design	Not applicable
Programme ⇨ Time of Submission	 Within 14 days of Commencement Date
⇨ Form of Programme ⇨ Interval Updates	Bar Chart As requested by the Deputy Director
Liquidated Damages Amount payable due to failure to complete	0.01% of Contract Price per Day to a limit of 1% of Contract Price.
Defects Liability	Refer to guideline Notes
Period of notifying defects	90 days calculated from the date stated in the notice under sub clause 11.2
Percentage of Retention	Refer to guideline Notes
Budgeted Estimate	
Maximum Amount of Advance Payment	10% of the contract sum
Form of Guarantee for Advance Payment	Bank Guarantee
Valuation of Works	Re-measurements with Bills of Quantities
Repayment Schedule for Advance Payment	33 % instalments from 1st three certificates.
Minimum Amount of Interim Payment	40% of the contracts sum for excluding contingencies.
Currency of Payment	Kenya Shilling
Rate of Interest	Simple Interest at a rate of 2% above mean Base Lending Rate as issued by the Central Bank of Kenya.
Insurance	Required
Insurance ⇨ The Works, materials plants & fees- Contractor‟s All risks ⇨ Third party injury to persons and damage to property ⇨ Workers compensation (WIBA- workers injury benefits policy)	Amount of Cover The Contract Price stated in the Agreement +15% + replacement cost of equipment on site. As per work injury benefits act 2007 laws of Kenya
Arbitration ⇨ Rules ⇨ Appointing Authority ⇨ Place of Arbitration	CAP 49 of the Laws of Kenya Chairman Chartered Institute of Arbitrators, Kenya Branch. Kenya Rural Roads Authority, Headquarters

SECTION VI: STANDARD FORMS

Table of Contents

CONTENTS: **PAGE**

SECTION VI: STANDARD FORMS.....25
FORM OF INVITATION FOR TENDERS.....26
FORM OF TENDER.....27
LETTER OF AWARD.....29
FORM OF TENDER SECURITY.....30
QUALIFICATION INFORMATION.....33
CONFIDENTIAL BUSINESS QUESTIONNAIRE.....34
SCHEDULE OF LABOUR: - BASIC RATES.....36
CERTIFICATE OF TENDERER'S VISIT TO SITE.....37
FORM OF WRITTEN POWER-OF-ATTORNEY.....38
KEY PERSONNEL (AS PER QUALIFICATION CRITERIA).....39
SCHEDULE OF THE PROPOSED APPROPRIATE EQUIPMENT.....40
SCHEDULE OF COMPLETED CIVIL WORKS CARRIED OUT IN THE PREVIOUS YEARS.....41
SCHEDULE OF ONGOING PROJECTS.....42
OTHER SUPPLEMENTARY INFORMATION.....43
ADJUDICATOR'S AGREEMENT.....44
FRAUD & CORRUPTION.....46
ENVIRONMENTAL AND SOCIAL COMMITMENT.....47
PUBLIC PROCUREMENT ADMINISTRATIVE REVIEW BOARD.....48
DECLARATION FORM.....49
FORM OF TENDER SECURING DECLARATION 50

FORM OF INVITATION FOR TENDERS

_____[Date]

To: _____[Name of Contractor]
_____[Address]
_____
_____

Dear Sirs:

Reference:_____[Contract Name]

You are qualified to tender for the above Contract.

We hereby invite you and other qualified Tenderers to submit a Tender for the execution and completion of the Works.

A complete set of Tender documents may be purchased from _____
_____
[Mailing address, cable/ telex/ facsimile numbers].

Upon payment of a non-refundable fee of Kshs_____

All Tenders shall be accompanied by.....number of copies of the same and a Tender Security in the form and amount of Kshs…….....and shall be delivered to:

_____
[Address and location]

at or before_____(time and date). Tenders will be opened immediately thereafter, in the presence of those Tenderers‟ representatives who choose to attend.

Please confirm receipt of this letter and your intention to Tender in writing.

Yours faithfully,

_____Authorised Signature

_____Name and Title

FORM OF TENDER

TO: _____[Name of Employer)

_____[Date]

_____[Name of Contract]

Dear Sir,

1. In accordance with the Conditions of Contract, Specifications, Drawings and Bills of Quantities for the execution of the above 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_____

LETTER OF AWARD

[Letterhead paper of the Employer]

_____[Date]

To:_____
[Name of the Contractor]

_____
[Address of the Contractor]

Dear Sir,

This is to notify you that your Tender dated _____
for the execution of _____
[name of the Contract and identification number,as given in the Tender documents] for the Contract Price of Kshs._____[amount in figures][Kenya Shillings_____(amount in words)] in accordance with the Instructions to Tenderers is hereby accepted.

You are hereby instructed to proceed with the execution of the said Works in accordance with the Contract documents.

Authorized Signature ……

Name and Title of Signatory ……

Attachment:

FORM OF TENDER SECURITY

WHEREAS.....(hereinafter called "the Tenderer") has submitted a Tender dated.....for the Rehabilitation/Spot Improvement of ……
…… (Name of Contract)

KNOW ALL PEOPLE by these presents that WE.....having our registered office at.....(hereinafter called "the Bank"), are bound unto ……(hereinafter called "the Employer") in the sum of Kshs.....for which payment well and truly to be made to the said Employer, the Bank binds itself, its successors and assigns by these presents sealed with the Common Seal of the said Bank this ……. Day of …20……

THE CONDITIONS of this obligation are:

1. If after Tender opening the Tenderer withdraws his Tender during the period of Tender validity specified in the Instructions to Tenderers
   Or

2. If the Tenderer, having been notified of the acceptance of his Tender by the Employer during the Period of Tender validity:

   (a) fails or refuses to execute the Form of Agreement in accordance with the Instructions to Tenderers, if required; or

   (b) fails or refuses to furnish the Performance Security, in accordance with the Instructions to Tenderers;

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

   This guarantee will remain in force up to and including forty five (45) days after the Period of Tender validity, and any demand in respect thereof should reach the Bank not later than the said date.

[Date	[Signature of the Bank]
[Witness]	[Seal]

FORM OF AGREEMENT

THIS AGREEMENT is made on the ……day of ……. …20…..between the **Kenya Rural Roads Authority, of P.O. BOX 48151 - 00100, Nairobi, Kenya** hereinafter called the "**Employer** "of the one part and
----
----------hereinafter called the "**Contractor**" of the other part.

WHEREAS the Employer is desirous that certain works should be executed, viz: ----------
----
and has accepted a Bid by the Contractor to execute, complete and maintain such works
NOW THIS AGREEMENT WITNESSETH 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 said BID dated ----------

- Conditions of Contract; Parts I and II
- The Standard and Special Specifications;
- Priced Bill of Quantities;
- Letter of Acceptance;
- Form of Tender
- Drawings;
- Appendix to the Form of Agreement
- Schedule Of Supplementary Information
- Other Documents/Materials/Conditions agreed and documented.

All aforesaid documents are hereinafter referred to as "**The Contract**".

In consideration of the payment to be made by the **Employer** to the **Contractor**, the Contractor covenants with the Employer to execute and complete the Works in conformity with the provisions of the Contract.

The Employer hereby covenants to pay the Contractor in consideration of the execution, completion and maintenance of the Works at the Contract Price or such other sum as may become payable under the Contract at the times and in the manner prescribed by the Contract.
IN WITNESS WHEREOF the parties hereto have caused their respective common seals to be hereto affixed (or have hereunto set their respective hands and seals) on the day and year first above written.

SIGNED AND DELIVERED

By the said Employer*:*……..……..

Signature: ……..

Region…….

(deputy director(RAM), Kenya Rural Roads Authority) (For and on behalf of the said Employer.)

In the presence of….....

Signature……

By the said Contractor: ……..……..

Signature……
Designation…….
(For and on behalf of the said Contractor)

In the presence of : .....

Signature……

Address…….

QUALIFICATION INFORMATION

TENDER QUESTIONNAIRE

Please fill in block letters.

1. Full name of Tenderer;

   ……

2. Full address of Tenderer to which Tender correspondence is to be sent (unless an agent has been appointed below);

   ……

3. Telephone number (s) of Tenderer;

   ……

4. Email address of Tenderer;
   ……

5. Name of Tenderer‟s representative to be contacted on matters of the Tender during the Tender period;
   ……

6. Details of Tenderer‟s nominated agent (if any) to receive Tender notices (name, address, telephone, telefax);

   ……

   ……

_____
Signature of Tenderer

Make copy and deliver to:_____(Name of Employer) (The Tenderer shall leave one copy at the time of purchase of the Tender documents)

CONFIDENTIAL BUSINESS QUESTIONNAIRE

You are requested to give the particulars indicated in Part 1 and either Part 2 (a) or 2 (b) whichever applies to your type of business.

You are advised that it is a serious offence to give false information on this Form.

Part 1 – General

Business Name ……

Location of business premises; Country/Town…….….

Plot No…… Street/Road ……

Postal Address…… Tel No……..

Nature of Business……..…..

Current Trade Licensee No…… Expiring date…….……

Maximum value of business which you can handle at any time: Kshs ……

Name of your Bankers……..…

Branch…….…

Part 2 (b) – Partnership

Give details of partners as follows:

Name in full	Nationality	Citizenship Details	Shares
1……			
2……			
3……			

Part 2(c) – Registered Company:

Private or public…….....…

State the nominal and issued capital of the Company-

Nominal Kshs…….....……

Issued Kshs…….....…

Give details of all directors as follows:

Name in full .	Nationality.	Citizenship Details*.	Shares.
1…….….....			
2…….….....			
3…….....			
4…….....			

Part 2(d) – Interest in the Firm:

Is there any person / persons in Kenya Rural Roads Authority who

has interest in this firm? Yes/No….....(Delete as necessary)

I certify that the information given above is correct.

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

* Attach proof of citizenship

SCHEDULE OF LABOUR: - BASIC RATES

(Reference: Clause 4 of Conditions of Particular Application)

LABOUR CATEGORY	UNIT (MONTH/SHIFT/HOUR)	RATES

Categories to be generally in accordance with those used by the Kenya Building Construction and Engineering and Allied Trades Workers' Union.

I certify that the above information is correct.

…… …… ……

(Title) *(Signature)* *(Date)*

CERTIFICATE OF TENDERER'S VISIT TO SITE

This is to certify that

[Name/s]……

……

Being the authorized representative/Agent of [Name of Tenderer]
……

……

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

……

held on …… day of……20……

Signed……
(Employer's Representative)

……
NOTE: This form is to be completed when the site visit is made. Letter authorization from Director required for representative (s).

FORM OF WRITTEN POWER-OF-ATTORNEY

The Tenderer consisting of a joint venture shall state here below the name and address of his representative who is authorised to receive on his behalf correspondence in connection with the Tender.

……
(Name of Tenderer's Representative in block letters)

……
(Address of Tenderer's Representative)

……
(Signature of Tenderer's Representative)

KEY PERSONNEL (as per qualification criteria)

DESIGNATION	NAME	NATIONALITY	SUMMARY OF QUALIFICATIONS AND EXPERIENCE
Headquarters: 1. Managing Director 2. 3. etc.			
Site Office: 1. Site Agent/ Supervisor 2. Foreman 3. Site Surveyor 4. 5.			

I certify that the above information is correct.

…… …… ……..

(Title) (Signature) (Date)

SCHEDULE OF THE PROPOSED APPROPRIATE EQUIPMENT.

Mandatory minimum number of equipment required by the Employer for the execution of the project that the bidder must make available for the Contract

Item No.	Equipment Details	Minimum Number Required	No of Equipment Owned by the Bidder	No. of equipment to be hired
1	Pedestrian Roller – Man walk behind	0		
2	Double drum vibrating pedestrian roller(3Tons)	0		
3	Self-propelled single drum vibrating (10Tons)	1		
4	Mobile concrete mixers	1		
5	Excavator/loader	1		
6	Concrete vibrators	1		
7	Tippers payload 7 – 10 tonnes	2		
8	Flat bed lorries	1		
9	Water tankers (10,000 litres capacity)	1		
10	Motor Grader	1		
11	Crawler Tractor	0		

The Bidder must attach certified copies of log books in Bidders name or lease agreement.

I certify that the above information is correct.

…… …… ……..

(Title) (Signature) (Date)

SCHEDULE OF COMPLETED CIVIL WORKS CARRIED OUT IN THE PREVIOUS YEARS

DESCRIPTION OF WORKS AND CLIENT	TOTAL VALUE OF WORKS (KSHS)	CONTRACT PERIOD (YEARS)	YEAR COMPLETED

I certify that the above Civil Works were successfully carried out and completed by ourselves.

…… …… ……

(Title) (Signature) (Date)

SCHEDULE OF ONGOING PROJECTS

DESCRIPTION OF WORK AND CLIENT	CONTRACT PERIOD	DATE OF COMMEN-CEMENT	DATE OF COMPLETIO N	TOTAL VALUE OF WORKS (KSHS.)	% COMPLET ED TODATE

I certify that the above Civil Works are being carried out by ourselves and that the above information is correct.

…… …… ……
(Title) (Signature) (Date)

OTHER SUPPLEMENTARY INFORMATION

1. Financial reports for the last three years, balance sheets, profit and loss statements, auditors‟ reports etc. 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
   ……
   ……
   ……

3. Name, address, telephone, telex, fax numbers of the Tenderer's Bankers who may provide reference if contacted by the Employer.
   ……
   ……
   ……

4. Information on current litigation in which the Tenderer is involved.

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

I certify that the above information is correct.

…… …… ……
Title Signature Date

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 laws 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 ……...

FRAUD & CORRUPTION

1 If the Employer determines that the Contractor has engaged in corrupt, fraudulent, collusive, coercive or obstructive practices, in competing for or in executing the Contract, then the Employer may, after giving 14 days notice to the Contractor, terminate the Contractor's employment under the Contract and expel him from the Site.

2 Should any employee of the Contractor be determined to have engaged in corrupt, fraudulent, collusive, coercive, or obstructive practice during the execution of the Works, then that employee shall be removed.

3 For the purposes of this Sub-Clause:

(i) "corrupt practice" is the offering, giving, receiving or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;
(ii) "fraudulent practice" is any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;
(iii) "collusive practice" is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;
(iv) "Coercive practice" is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party.

4 The Contractor declares that:

a) They did not engage in any action to influence the Project implementation process to the detriment of the Employer, in particular no collusive practice took place nor will take place, and

The bidding proceedings, contract award, and execution have not and will not be subject to any corrupt practice as defined in the United Nations Convention to combat corruption dated 31 October 2003.

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]

_____[Seal or Stamp of Tenderer]

ENVIRONMENTAL AND SOCIAL COMMITMENT

I have taken due note of the importance to comply with environmental and social standards and regulations.

I, the undersigned, [.....] acting as the duly authorized representative of […….],

With respect to the submission of a bid for [.....] in accordance with the invitation to tender No [.....], I undertake to comply, and ensure that our subcontractors, if any, comply with international environmental and labour standards consistent with applicable law and regulations in the country of implementation of the Project, including the fundamental conventions of the International Labour Organisation (ILO) and international environmental treaties

In addition, I also undertake to adopt any environmental and social risk mitigation measures as defined in the environmental and social management plan or the notice of environmental and social impact issued by the Employer.

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]

_____[Seal or Stamp of Tenderer]

FORM RB 1

REPUBLIC OF KENYA
PUBLIC PROCUREMENT ADMINISTRATIVE REVIEW BOARD

APPLICATION NO…….OF……..….20……...

BETWEEN

…….APPLICANT

AND

……RESPONDENT (Procuring Entity)

Request for review of the decision of the…… (Name of the Procuring Entity) of ……dated the…day of ……..20….in the matter of Tender No.....of ……..20…

REQUEST FOR REVIEW

I/We……,the above named Applicant(s), of address: Physical address…….Fax No……Tel. No……..Email ……, hereby request the Public Procurement Administrative Review Board to review the whole/part of the above mentioned decision on the following grounds , namely:-

1.
2.
etc.

By this memorandum, the Applicant requests the Board for an order/orders that: -

1.
2.
etc

SIGNED.....(Applicant)

Dated on…….day of ……/…20…

FOR OFFICIAL USE ONLY

Lodged with the Secretary Public Procurement Administrative Review Board on …… day of ……....20…..……

SIGNED
Board Secretary

DECLARATION FORM

Date _____

To _____
_____
_____

The tenderer i.e. (Name and address)_____
_____declare the following:

a) Has not been debarred from participating in public procurement.

b) Has not been involved in and will not be involved in corrupt and fraudulent practices regarding public procurement.

_____	_____	_____
Title	Signature	Date

(To be signed by authorized representative and officially stamped)

FORM OF TENDER SECURING DECLARATION

(To be filled only by Disadvantaged Groups)

(The Bidder shall complete this Form in accordance with the instructions indicated)

Date of Bid Submission…….

Tender No…….

To: …….
……..(Employer)

We, the undersigned, declare that:

1. We understand that, according to your conditions, Tenders must be supported by a Tender-Securing Declaration.
2. We accept that we will automatically be suspended from being eligible for tendering in any contract with the Procuring Entity for the period of time of……starting on……, as determined by the Authority if we are in breach of our obligation(s) under the tender conditions, because we:
   (a) have withdrawn our Tender during the period of Tender validity specified in the Form of Tender;
   (b)do not accept the Procuring Entity's corrections of arithmetic errors in accordance with the Instructions to Tenderers; or
   (c) having been notified of the acceptance of our bid by the Procuring Entity during the period of bid validity;
      (i) fail or refuse to sign Contract Agreement, if required, or
      (ii) fail or refuse to furnish the Performance Security, in accordance with the ITT.
3. We understand this Bid Securing Declaration shall expire if we are not the successful Tenderer, upon the earlier of
      (i) our receipt of your notification to us of the name of the successful Tenderer; or
      (ii) twenty-eight (28) days after the expiration of our bid validity period.
4. We understand that if we are a joint venture, the Tender Securing Declaration must be in the name of the Joint venture that submits the bid and if the Joint Venture has not been legally constituted at the time of bidding, the Tender Securing Declaration shall be in the names of all future partners as named in the letter of intent.

Signed:…….in the capacity

Of…….

Name: …….(complete name of person signing this form)

Duly authorized to sign the Tender for and on behalf of:

……..(complete name of Tenderer)

Dated on _____ day of _____, _____

SECTION VII: CONTRACTOR'S EVALUATION CHECKLIST

Supervision Check List (1/2)

Project Title:	
Contractor:	

	Date	Name	Signature
The Engineer's Representative (Project Engineer)			
Resident Engineer			

1. This check list is for Resident Engineer to check contractor's work execution process.
2. Fill in date of checking as (day/month), mark as indicated in Filling Example, and state remarks.
3. Put this check list in the Monthly Progress Report.

Item		Check Point		before	During execution									after	Remarks
				Date /	Date /	Date /	Date /	Date /	Date /	Date /	Date /	Date /	Date /	Date /	Reason for unsatisfactory performance (Site diary No.) Corrective order by authority (Date) Excellent point to be specified
1	Execution system in general	1-1	Works Execution Programme (including its revised version if any) is submitted before the date specified in contract document	☐	☐	☐	☐	☐	☐	☐	☐	☐			
		1-2	Works Execution Programme properly reflects the given specifications and site conditions	☐	☐	☐	☐	☐	☐	☐	☐	☐			
		1-3	Execution procedures are in accordance with Works Execution Programme		☐	☐	☐	☐	☐	☐	☐	☐			
2	Equipment holding	2-1	All equipment used are properly mobilized in accordance with Works Execution Programme		☐	☐	☐	☐	☐	☐	☐	☐			
		2-2	All equipment used is well maintained during the execution of works		☐	☐	☐	☐	☐	☐	☐	☐			
3	Contractor's in-house staff	3-1	Qualified technical staff of contractor are properly assigned as specified in Works Execution Programme		☐	☐	☐	☐	☐	☐	☐	☐			
		3-2	Contractor's in-house key staff understand work process and schedule properly		☐	☐	☐	☐	☐	☐	☐	☐			
		3-3	Contractor's in-house staff give technical guidance and direction to workers and operators properly and timely		☐	☐	☐	☐	☐	☐	☐	☐			
		3-4	Communications with authority in writing is properly and timely		☐	☐	☐	☐	☐	☐	☐	☐			
4	Personnel employment	4-1	Workers and operators are deployed in accordance with Works Execution Programme		☐	☐	☐	☐	☐	☐	☐	☐			
		4-2	Wage payment is properly made on time		☐	☐	☐	☐	☐	☐	☐	☐			
5	Site base facilities	5-1	Office and stockyard are prepared in accordance with Works Execution Programme		☐	☐	☐	☐	☐	☐	☐	☐			
		5-2	Site is well maintained during the work execution and cleared on completion		☐	☐	☐	☐	☐	☐	☐	☐	☐		
		5-3	Material stored on site is properly managed during the work execution		☐	☐	☐	☐	☐	☐	☐	☐			
6	Quality and quantity management	6-1	Material testing, structural examination, and measurements are properly and routinely conducted based on specifications and Works Execution Programme		☐	☐	☐	☐	☐	☐	☐	☐			

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

Supervision Check List (2/2)

Project Title:	
Contractor:	

	Signature
The Engineer's Representative (Project Engineer)	
Resident Engineer	

1. This check list is for Resident Engineer to check contractor's work execution process.
2. Fill in date of checking as (day/month), mark as indicated in Filling Example, and state remarks.
3. Put this check list in the Monthly Progress Report.

Item		Check Point		before	During execution								after	Remarks
				Date /	Date /	Date /	Date /	Date /	Date /	Date /	Date /	Date /	Date /	Reason for unsatisfactory performance (Site diary No.) Corrective order by authority (Date) Excellent point to be specified
6	Quality and quantity management	6-2	Results of material testing, structural examination and measurements are within the specifications.		☐	☐	☐	☐	☐	☐	☐	☐		
		6-3	Results of material testing, structural examination, and measurements are properly compiled as reports for confirmation		☐	☐	☐	☐	☐	☐	☐	☐		
7	Work scheduling	7-1	Understanding of critical path and its reflection on scheduling are proper		☐	☐	☐	☐	☐	☐	☐	☐		
		7-2	Actual proceedings are periodically compared to the planned schedule described in Works Execution Programme		☐	☐	☐	☐	☐	☐	☐	☐		
		7-3	Changes caused by site conditions are properly handled to keep Works on schedule		☐	☐	☐	☐	☐	☐	☐	☐		
		7-4	All works are completed within the contract term or within the extended term as allowed										☐	
8	Work safety management	8-1	No accident occurs to workers, operators, or third-parties.		☐	☐	☐	☐	☐	☐	☐	☐		
		8-2	Safety of workers and operators is considered		☐	☐	☐	☐	☐	☐	☐	☐		
		8-3	Accident prevention efforts for third-parties are proper		☐	☐	☐	☐	☐	☐	☐	☐		
		8-4	Traffic and site safety devices are properly installed and managed		☐	☐	☐	☐	☐	☐	☐	☐		
		8-5	Temporary facilities (e.g. scaffolding) are constantly checked		☐	☐	☐	☐	☐	☐	☐	☐		
9	Environmental and social management	9-1	Environmental and social mitigation efforts (e.g. against noise, vibration, emission, and dust) are conducted		☐	☐	☐	☐	☐	☐	☐	☐		
		9-2	Waste material from site is properly disposed		☐	☐	☐	☐	☐	☐	☐	☐		
		9-3	Damage to existing roads, works and services is avoided or are repaired when it occurs		☐	☐	☐	☐	☐	☐	☐	☐		
		9-4	Transportation by vehicles is properly done with no overloading, and neither material falling, leakage, nor spillage.		☐	☐	☐	☐	☐	☐	☐	☐		

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

SECTION VIII: SPECIFICATIONS, DRAWINGS AND BILLS OF QUANTITIES

STANDARD SPECIFICATIONS

The Standard Specifications referred to in this document is the *Standard Specifications for Road and Bridge Construction, 1986 Edition* published by the Ministry of Transport and Communications. This document shall form part of the Contract.

Work shall be carried out in accordance with the Standard Specification except as supplemented or revised in the Special Specification.

I. SPECIFICATIONS

BILL 01: PRELIMINARY AND GENERAL ITEMS....56

01-50- 001 MOBILIZATION AND ESTABLISHMENT OF THE SITE....56
01-60- 001 CONTRACT SUPERVISION....56
01-60- 002 CLEARANCE ON COMPLETION....56
1.60.3 INSURANCE....57
1.60.4 QUALITY CONTROL TESTS....57
1.60.5 PUBLICITY SIGN BOARDS....57
01-60- 006 DRINKING WATER....58
01-60-007 PROVISION OF SITE SANITATION FACILITIES....58

BILL 04: SITE CLEARANCE....59

4.50.2 GRASS CUTTING....59
4.50.3 BUSH CLEARING (HEAVY)....60
4.50.4 BUSH CLEARING (LIGHT)....60
4.50.5 PRUNING TREE BRANCHES....61
4.50.6 TREES AND STUMPS REMOVAL (200-450MM GIRTH)....61
4.50.7 TREES AND STUMP REMOVAL (>450MM GIRTH)....62
4.50.8 CLEARING OBSTRUCTIONS – BOULDERS AND DEBRIS REMOVAL....62
4.50.9 STRIPPING AND GRUBBING....63
4.50.10 EXCAVATE, REMOVE AND DISPOSAL OF CONCRETE STRUCTURES....64

BILL 08: CULVERT AND DRAINAGE WORKS....66

08-50-002: DITCH CLEANING....66
08-50-005: DITCH/MITRE DRAINS/CATCH WATER DRAINS....67
08-60-001/005: CULVERT CLEANING (PARTIALLY BLOCKED)....68
08-60-001 300MM DIA....68
08-60-002 450MM DIA....68
08-60-003 600MM DIA....68
08-60-004 900MM DIA....68
08-60-005 1200 MM DIA....68
08-60-006/7/8/9/10: CULVERT CLEANING (FULLY BLOCKED):....68
08 - 60 - 006 300MM DIA;....68
08 - 60 - 007 450MM DIA;....68
08 - 60 - 008 600MM DIA;....68
08 - 60 - 009 900MM DIA;....68
08 - 60 - 010 1200MM DIA....68
08-60-021/029 SUPPLY AND INSTALLATION OF CONCRETE PIPE CULVERTS....69
08-60-016 300 MM UNHAUNCHED....69
08-60-021 300 MM SURROUNDS....69
08-60-022 450 MM UNHAUNCHED....69
08-60-023 450 MM SURROUNDS....69
08-60-024 600 MM UNHAUNCHED....69
08-60-025 600 MM SURROUNDS....69
08-60-026 900 MM UNHAUNCHED....69
08-60-027 900 MM SURROUNDS....69
08-60-028 1200 MM UNHAUNCHED....69
08-60-029 1200 MM SURROUNDS....69
08- 60-017 HEAD WALL REPAIR - MASONRY....ERROR! BOOKMARK NOT DEFINED.
8.60.18 HEADWALL REPAIR - CONCRETE....ERROR! BOOKMARK NOT DEFINED.
8.60.19 HEADWALL CONSTRUCTION - MASONRY....70
8.60.20 HEADWALL CONSTRUCTION – CONCRETE....71
8.60.30 EXCAVATE IN SOFT MATERIAL FOR CULVERTS....72

8.60.31 EXCAVATE IN HARD, MATERIAL FOR CULVERTS....72
8.60.32 PROVIDE, LAY AND JOIN 450MM INNER DIA. CONCRETE PIPES....72
8.60.33 PROVIDE, LAY AND JOIN 600MM INNER DIA. CONCRETE PIPES....72
8.60.34 PROVIDE, LAY AND JOIN 900MM INNER DIA. CONCRETE PIPES....72
8.60.35 PROVIDE, COMPACT CLASS 15/20 CONCRETE....72
8.60.36 PROVIDE, COMPACT CLASS 20/25 CONCRETE....72
8.60.37 PROVIDE AND PLACE A142 FABRIC MESH REINFORCEMENT....72
8.60.38 SELECTED BACKFILL MATERIALS....72
8.70.6 : CONSTRUCTION OF SCOUR CHECKS (CONCRETE)....72
8.70.7 : CONSTRUCTION OF SCOUR CHECKS (MASONRY)....72
8.70.8 : CONSTRUCTION OF SCOUR CHECKS (WOODEN STAKES)....72

BILL 10: GRADING AND GRAVELLING....74

10-50- 004: CARRIAGEWAY GRADING - LIGHT GRADING....75
10-50-004: LIGHT MANUAL RESHAPING (GRUB EDGE, FILL GULLIES AND RESHAPE CARRIAGEWAY)....75
10-60-001: PROVIDE GRAVEL WEARING COURSE (EXCAVATION, FREE HAUL, SPREADING AND COMPACTION OF GRAVEL)....76
10–60- 002: HAULAGE (OVERHAUL BEYOND 1.5KM)....78
10-60-004 GRAVEL PATCHING (EXCAVATION, FREE HAUL, SPREADING AND COMPACTION OF GRAVEL) 78
10.70.1 : SITE CLEARANCE OF BORROW AREA....ERROR! BOOKMARK NOT DEFINED.
10.70.2 : REMOVAL OF OVERBURDEN....ERROR! BOOKMARK NOT DEFINED.
10.70.3 : RESTORATION OF QUARRIES AND BORROW PITS....ERROR! BOOKMARK NOT DEFINED.

BILL 25: HIV/AIDS AWARENESS AND PREVENTION CAMPAIGN....82

25.50.1 HIV / AIDS AWARENESS AND PREVENTION CAMPAIGN....ERROR! BOOKMARK NOT DEFINED.
25.50.2 SOIL EROSION MITIGATION MEASURES....82
25.50.3 BARAZA'S FOR CROSS-CUTTING ISSUES....ERROR! BOOKMARK NOT DEFINED.

PREAMBLE TO BILLS OF QUANTITIES....106

BILL 01: PRELIMINARY AND GENERAL ITEMS

Scope:

This bill comprises those items that are required at the Commencement and Completion of the Works or that are Provisional Items applicable for the duration of the Works.

01-50- 001 Mobilization and Establishment of the Site

The Contractor shall provide all equipment, tools, materials, temporary offices, stores and housing required to carry out the Works.

The Contractor shall ensure that all possible means of protection are given to the labour force at all times. Such protection shall include provision of high visibility clothing or vests, goggles and masks for workers in potentially dangerous locations or dealing with potentially harmful materials. The Contractor shall also maintain first aid kits with a minimum of the following items:-

- Non Stick wound dressing
- Selection of plaster/band aids
- Crepe bandages
- Gauze and cotton wool
- Antiseptic solution (washing wounds)
- Antiseptic cream – Betadine, Burnol
- Pain killers Panadol, Disprin
- Anti diarrhoea – Immodium, Diadis, Charcoal
- Anti histamine – Piriton, Triludan
- Anti nausea – Stemetil
- Eye ointment
- Oral re-hydration sachets
- Surgical gloves

Measurement and Payment: NA

01-60- 001 Contract Supervision

Provisional sum available for the Engineer for expenses incurred for supervising the contract such as allowances, casual wages and transportation within the project area.

Measurement and Payment:

Provisional Sum: Payable by the Contractor to the Engineer through certification as directed by the Engineer. No mark up is included in this item.

Work Method: NA

01-60- 002 Clearance on Completion

On Completion of the Works, all temporary housing, equipment, signs and tools shall be removed from the site, and the site left in good order to the satisfaction of the Engineer.

Measurement and Payment

The Lump Sum payment will be made upon approval by the Engineer that the Clearance has been satisfactorily carried out.

Work Method: NA

1.60.3 Insurance

The Contractor shall provide Insurance in accordance with the Conditions of Contract as indicated in the Appendix to form of tender for Rehabilitation and Improvement Contracts and Clause 14.1 for small works conditions of contract.

Measurement and Payment

Lump Sum payment for this item will be made upon the production of satisfactory evidence by the Contractor that Insurances have been affected.

Work Method: NA

1.60.4 Quality Control Tests

The Engineer may instruct the Contractor during the progress of the Works to carry out quality control tests to check materials and standards of workmanship, against the Specifications.

Where such tests indicate defective standards the Engineer shall instruct the Contractor to rectify the defects to the Engineer‟s satisfaction and at the Contractor‟s expense.

The Engineer shall include a Provisional Sum for this item to be expended only as and when the Contractor is instructed to carry out tests at approved material testing laboratories.

Measurement and Payment

Reimbursable item based on actual costs incurred by the contractor including sampling, transportation and testing.

Work Method: NA

1.60.5 Publicity Sign Boards

The Contractor shall provide Sign Boards as specified on the Drawings or as directed by the Engineer. The Sign Boards shall be placed at the beginning and end of the road or road bill covered by this Contract.

Sign Boards shall be maintained for the duration of the Works, and removed on completion.

Quality Control

The Engineer shall check that Sign Boards have been erected in accordance with Drawings and Specifications.

Measurement: Number

The unit of measurement shall be number of Sign Boards erected

Payment

The unit rate shall be the full compensation for labour, tools, materials and incidental costs required for carrying out the work.

Work Method: NA

01-60- 006 Drinking Water

The Contractor shall provide safe drinking water on site for workers at a reasonable distance from all work locations, for the duration of the Works.

Quality Control

The Engineer shall check regularly that adequate supplies of water are available throughout the Site.

Measurement and Payment

A Lump Sum shall be paid on a Monthly basis upon the approval of the Engineer that adequate supplies have been provided.

Work Method: **LB**

01-60-007 Provision of site sanitation facilities

The Contractor shall provide sanitation facilities on site for workers at a reasonable distance from all work locations, for the duration of the Works. This can be in the form of shallow pit latrines that are appropriately covered. All shallow pit latrines shall be filled in after the end of use.

Quality Control

The Engineer shall check regularly that adequate sanitation facilities are available throughout the Site.

Measurement and Payment

A Lump Sum shall be paid on a Monthly basis upon the approval of the Engineer that adequate sanitation facilities have been provided.

Work Method: **LB**

BILL 04: SITE CLEARANCE

Scope

This bill covers the clearance of bushes, shrubs, grasses, trees, stumps, boulders, stripping and grubbing of the topsoil, removal of anthills and other unsuitable materials for the specified widths of the road, quarry and borrow areas. The distinction between light and heavy bush shall be decided by the Engineer.

The minimum site clearing widths for each of the activities shall be as shown in Table 4.1

Table 4.1: Site Clearing Widths

Road Category	*Running Surface*	*Stripping and Grubbing*	*Trees, Stumps, Boulders*	*Bush Clearing*
A/B/C + Secondary Roads	6.0 m	10.6 m	10.6 m	14.0 m
D/E + Minor Roads	5.4 m	10.0 m	10.0 m	13.0 m
RAR Roads	4.5 m	7.9 m	8.0 m	11.0 m
Minor / RAR roads with insufficient widths or Temporary sections	3.5 m	6.9 m	7.0 m	9.0 m

4.50.2 Grass Cutting

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 200mm 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 as either Machine Based (Mechanical Mowing) or as Labour Based as defined in the Bills of Quantity or as instructed by the Engineer.

Grass cutting shall be done off-carriageway and shall not include areas designated for grubbing.

Work Method: **LB or MB**

Quality Control

The road width for grass cutting shall be measured at 50-m intervals and shall be free of grass after the operation.

Measurement: m^2

The measurement shall be area of grass cut, based on the standard width and measured length of clearing.

Payment

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

4.50.3 Bush Clearing (Heavy)

Where the Engineer designates an area as Heavy Bush (based on the undergrowth density) the Contractor shall clear all vegetation including small trees, shrubs and undergrowth, **and their root systems**, and shall salvage any re-useable timber or other material by cutting into logs and stacking. Other cleared material shall be collected and disposed of off-site as directed by the Engineer.

This activity shall be carried out as either Machine Based or as Labour Based as defined in the Bills of Quantity or as instructed by the Engineer.

Work Method: **LB or MB**

Quality Control

The Engineer shall check the cleared widths at 50 metre intervals

Measurement Unit: m^2

The measurement shall be the area cleared to the specified width over the length as instructed by the Engineer.

Payment:

The unit rate shall be the full compensation for all labour, tools, equipment and incidental costs required to complete the work.

4.50.4 Bush Clearing (Light)

The Contractor shall clear all vegetation including small trees, and shrubs with **their root systems**. Grasses and any undergrowth shall be cut to a height of not more than 100mm. The cleared material

shall be collected and disposed of away from the side drains and in a manner that causes no visibility obstruction to traffic.

This activity shall be carried out as either Machine Based or as Labour Based as defined in the Bills of Quantity or as instructed by the Engineer.

Work Method: **LB or MB**

Quality Control

The Engineer shall check the cleared widths at 50 metre intervals.

Measurement Unit: m^2

The measurement shall be the area cleared to the specified width over the length as instructed by the Engineer.

Payment:

The unit rate shall be the full compensation for all labour, tools and incidental costs required to complete the work.

4.50.5 Pruning Tree Branches

Where instructed by the Engineer, the Contractor shall trim tree branches to improve visibility. Cut material shall be collected and disposed of as directed by the Engineer and burning of waste material shall not be permitted.

Work Method: **LB**

Quality Control

The Engineer shall check for visibility improvement.

Measurement and Payment

A Provisional Sum shall be allowed for this item, which shall be paid under Day works.

4.50.6 Trees and Stumps Removal (200-450mm girth)

Trees and Stumps outside the construction width but within the road reserve having a trunk girth of between 200-450mm at a point 600mm above the ground shall only be removed on the instruction of the Engineer.

The Contractor shall excavate around any trees to be removed to a depth not less than 0.5 m before cutting the roots. Existing stumps shall be uprooted in the same manner. All holes left by the removal of trees and stumps shall be back-filled with approved material and compacted to existing ground level. Cut material and stumps shall be collected and disposed of as directed by the Engineer. Burning of waste material shall not be permitted.

Work Method: **LB**

Quality Control

The Engineer shall approve the removal, backfilling and satisfactory disposal of all waste material.

Measurement Unit: No

The measurement shall be the number of trees and stumps removed.

Payment

The unit rate shall be the full compensation for all labour, tools and incidental costs required to complete this item.

4.50.7 Trees and Stump Removal (>450mm girth)

All the requirements of item 04-50-003 shall apply for trees and stumps greater than 450mm girth. In addition any re-useable timber from trees removed shall be cut into logs not more than 1.5 metres long and stacked as directed by the Engineer.

Work Method: **LB**

Quality Control

The Engineer shall approve the removal, backfilling and satisfactory disposal of all waste material.

Measurement Unit: No

Measurement shall be the number of trees and stumps removed

Payment:

The unit rate shall be the full compensation for all labour, tools, equipment and incidental costs required to complete this item.

4.50.8 Clearing Obstructions – Boulders and debris removal

The Contractor shall remove in a manner agreed by the Engineer, rocks and boulders greater than 1.5 m girth using labour, appropriate equipment and blasting as necessary. Boulders shall be disposed off outside the road area.

Blasting should only be done on instruction by the Engineer and only carried out by licensed individuals/firms.

Debris removal shall include:

- Inspection of the road section(s) regularly

- Removal of all obstructions such as fallen trees/ branches, rock fall, landslides and broken signs away from the 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 for the carriageway and disposing of them as directed by the Engineer. Liaison with the Police may be necessary.

This activity shall be carried out as Machine Based, Labour Based or a mixture of the two as defined in the Bills of Quantity or as instructed by the Engineer.

Work Method: **LB, MB, LB-MB**

Quality Control

The Engineer shall approve the removal and satisfactory disposal of the boulders / debris.
The road section shall be free of any obstruction.

Measurement Unit: Provisional Sum

A Provisional Sum shall be included for this item

Payment:

Payment shall be made on a Day works basis.

4.50.9 Stripping and Grubbing

The Contractor shall remove, over the widths shown in Table 4.1, topsoil including grass, anthills, loose boulders up to 1.5m girth and other unsuitable material and deposit the debris outside the cleared area as directed by the Engineer.

Work Method: **LB**

Quality Control

The Engineer shall approve the stripped and grubbed area and the satisfactory disposal of waste material.

Measurement Unit m^2

The measurement shall be the area grubbed as directed by the Engineer

Payment

The unit rate shall be the full compensation for all labour, tools and incidental expenses required to complete this item.

4.50.10 Excavate, remove and disposal of concrete structures

The Contractor shall excavate, remove and dispose of concrete structures as directed by the Engineer.

This activity shall be carried out either as Machine Based, Labour Based or a mixture of the two as defined in the Bills of Quantity or as instructed by the Engineer.

Work Method: LB, MB, LB-MB

Quality Control

The Engineer shall approve the area where the structure was removed from and the satisfactory disposal of the concrete structures.

A Provisional Sum shall be included for this item

Payment: Provisional Sum

Payment shall be made on a Day works basis.

Measurement Unit: Provisional Sum

BILL 08: CULVERT AND DRAINAGE WORKS

This bill covers all Works in connection with the installation of concrete pipe culverts; inlet and outlet structures; drifts and drainage protection Works; and the construction of Scour Checks

08-50-002: Ditch Cleaning

i Partially silted

Partially silted drains are those that are less than half silted and require only cleaning.

All deposited material, debris, and vegetation shall be removed and the drain shaped to the original cross section and left in a free-draining condition. Suitable material may be used to fill depressions and potholes on the carriageway. All debris and other unsuitable material removed from the side drains shall be disposed of well clear of the drainage system in approved spoil dumps where it will not cause any obstruction or be washed back.

The side drains, mitre drains and catch water drains shall be cleaned before the onset of the rains or as directed by the Engineer.

This activity shall be carried out either as Machine Based, Labour Based or a mixture of the two as defined in the Bills of Quantity or as instructed by the Engineer.

Work Method: **LB, MB, LB-MB**

Quality Control

- Appropriate drain templates shall be used to check and control the dimensions of the drains.
- The longitudinal profile of the drains shall be checked using boning rods, to ensure free flow.

Measurement Unit: m

The measurement shall be the length of drain desilted or cleaned to the specified cross section.

Payment

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

ii Fully silted

Fully silted drains shall be those that are greater than half-silted and require re-excavation or reshaping.

All deposited material, debris, and vegetation shall be removed and the drain shaped to the original cross section and left in a free-draining condition. Suitable material may be used to fill depressions and potholes on the carriageway. All debris and other unsuitable material removed from the side drains shall be disposed of well clear of the drainage system in approved spoil dumps where it will not cause any obstruction or be washed back.

The side drains shall be desilted or re-excavated before the onset of the rains, or as directed by the Engineer.

This activity shall be carried out either as Machine Based, Labour Based or a mixture of the two as defined in the Bills of Quantity or as instructed by the Engineer.

Work Method: **LB, MB, LB-MB**

Quality Control

- Appropriate drain templates shall be used to check and control the dimensions of the drains.
- The longitudinal profile of the drains shall be checked using boning rods, to ensure free flow.

Measurement Unit: m

The measurement shall be the length of drain re-excavated or re-shaped to the specified cross-section.

Payment

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

08-50-005: Ditch/Mitre Drains/Catch water Drains

The Contractor shall excavate side drains, mitre drains and catch water drains to the dimensions shown on the Drawings and at locations as directed by the Engineer. They shall be excavated in a manner to minimise erosion at the discharge point. The material excavated from the drains shall be used to form the side drain bund directing water to the mitre-drain, and a bund on the lower side of the cut-off drain, or used for forming camber or disposed of as directed by the Engineer.

This activity shall be carried out either as Machine Based, Labour Based or a mixture of the two as defined in the Bills of Quantity or as instructed by the Engineer.

Work Method: **LB, MB, LB-MB**

Quality Control

- The longitudinal profile shall have a gradient of maximum 4%.
- The dimensions of the drains shall have maximum tolerances of $\pm$20mm
- The location of the drains shall be approved by the Engineer.

Measurement Unit: m^3

The measurement shall be the volume of material excavated as measured on site in approved drains.

Payment

The unit rate shall be full compensation for labour, tools, equipment and incidental costs required for carrying out the work.

08-60-001/005: Culvert Cleaning (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 1200 mm dia

This activity involves the cleaning of culverts of specified sizes including pipe barrels, 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 as directed by the Engineer

Partially blocked culverts shall be those with less 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 not less than 2 %.

All broken culvert barrels discovered in the course carrying out this activity shall be reported to the Engineer.

This activity shall be carried out before the rains, or as directed by the Engineer.

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

Work Method: **LB**

Quality Control

The culverts shall be checked as free of debris to the satisfaction of the Engineer.

Measurement Unit: **m**

The measurement shall be the length of culvert, including the outlet drain, cleaned

Payment

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

08-60-006/7/8/9/10: Culvert Cleaning (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 sizes including pipe barrels, 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 as directed by the Engineer

Fully blocked culvert shall be those 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 not less than 2 %.

All broken culvert barrels discovered in the course of carrying out this activity shall be reported to the Engineer.

This activity should be carried out before the onset of the rains, or as directed by the Engineer.

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

Work Method: **LB**

Quality Control

The culverts shall be checked as free from debris, to the satisfaction of the Engineer.

Measurement Unit: m

The measurement shall be the length of culvert, including the outlet drain cleaned.

Payment

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

08-60-021/029 Supply and Installation of Concrete Pipe Culverts

08-60-016	**300**	**mm**	**unhaunched**
08-60-021	**300**	**mm**	**surrounds**
08-60-022	**450**	**mm**	**unhaunched**
08-60-023	**450**	**mm**	**surrounds**
08-60-024	**600**	**mm**	**unhaunched**
08-60-025	**600**	**mm**	**surrounds**
08-60-026	**900**	**mm**	**unhaunched**
08-60-027	**900**	**mm**	**surrounds**
8.60.28	**1200**	**mm**	**unhaunched**
8.60.29	**1200**	**mm**	**surrounds**

The Contractor shall supply, lay and join concrete pipes to form culverts, including the concrete bedding; haunching or surrounds; and backfilling, in accordance with the Drawings for the Type and diameter specified in the Contract or directed by the Engineer.

The pipes shall be of Class 20/20 concrete, at least 28 days cured, and manufactured on site or procured from a supplier approved by the Engineer and preferably ogee jointed. The pipes shall be laid on a bedding of Class 15/20 concrete of dimensions as shown on the Drawings and jointed with cement mortar 1:4.

The culvert gradient including the outlet shall be a minimum 2%.

The pipes shall be surrounded with Class 15/20 concrete to the dimensions shown on the Drawings or as directed by the Engineer.

Backfilling shall be carried with approved material and compacted in layers not exceeding 150 mm loose depth and placed evenly on each side of the pipe. Ramps shall be shaped to achieve a minimum overfill of 75% of the pipe diameter, and shall be tapered back on the carriageway to provide a gradual approach, as directed by the Engineer.

If the Contractor wishes to construct culverts on site, using inflatable or collapsible forms the Engineer‟s approval shall first be sought for the proposed working method.

On completion the inside of the culvert shall be smooth, without displaced joints or other obstructions and true to line and level.

The Contractor shall use **Labour** and appropriate compaction **Equipment** to carry out this item work

Work Method: **LM-MB**

Quality Control

- Concrete quality shall be checked for cracks, honey combing, and other defects.
- Before the pipes are laid, the gradient of the concrete bedding shall be checked and shall not be less than 2%
- The joints shall be checked to see that they have been properly made.

Measurement Unit: m

The measurement shall be in linear metres of the installed Type and size of culvert specified, measured net according to the Drawings.

Payment

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

8.60.19 Headwall Construction - Masonry

The Contractor shall construct inlet and outlet structures for culverts including headwalls, wingwalls in stone masonry or concrete block, and aprons in concrete to the dimensions and levels shown on the Drawings (Types 1 to 4) as directed by the Engineer. The walls shall be built on foundations of class 15/20 concrete and jointed with cement mortar 1:4. The aprons shall be in Class 20/20 concrete and after laying the surface shall be kept moist for 3 days.

The Contractor shall use **Labour** to carry out this item.

Work Method: **LB-MB**

Quality Control

- The dimensions of the structures shall have a tolerance of ±10mm
- The levels shall have a tolerance of ±10mm
- The mortar joints shall be finished flush with the face of the walls.

Measurement Unit: m^3

The measurement shall be the volume of the structures constructed, in whichever material, measured net according to the Drawings.

Payment

The unit rate shall be the full compensation for labour, tools, materials and any other incidentals that may be required in carrying out the work.

8.60.20 Headwall Construction – Concrete

The Contractor shall construct inlet and outlet structures for culverts in concrete to the dimensions and levels shown on the Drawings (Type 1 to 4) as directed by the Engineer.

Concrete shall be Class 20/20 unless otherwise specified. The formwork for the walls shall be erected on the concrete foundations, to the correct dimensions, and shall be approved by the Engineer before concrete is poured. Concrete shall be poured in a single lift and the top surface shall be kept moist for 3 days. Formwork may be struck after 2 days or as directed by the Engineer.

The Contractor shall use a concrete vibrator or other means approved by the Engineer to ensure full compaction of the concrete.

The Contractor shall use both **Labour** and appropriate **Equipment** to carry out this item.

Work Method: **LM-MB**

Quality Control

- The dimensions of the structures 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 slump limit as directed by the Engineer. The frequency of testing shall be determined by the Engineer
- The concrete shall be checked for cracks, honey combing and other defects at the time of striking the formwork.

Measurement Unit: m^3

The measurement shall be the volume of concrete in the completed structure, measured net in accordance with the Drawings.

Payment

The unit rate shall be the full compensation for labour, tools, materials, formwork, equipment and other incidentals that may be required in carrying out the work.

08-60-030 Excavate in soft material for culverts 08-
60-031 Excavate in hard, material for culverts
08-60-032 Provide, lay and join 450mm inner dia. Concrete pipes 08-
60-033 Provide, lay and join 600mm inner dia. Concrete pipes 08-60-
034 Provide, lay and join 900mm inner dia. Concrete pipes 08-60-
035 Provide, compact class 15/20 concrete
8.60.36 Provide, compact class 20/25 concrete
8.60.37 Provide and place A142 fabric mesh reinforcement
08-60-038 Selected backfill materials

These activities should be done in accordance with Bill 8, sub clauses 8.01 to 8.20 in the Standard Specifications for Roads and Bridges 1986.

The Contractor shall use both **Labour** and appropriate **Equipment** to carry out this item.

Work Method: **LM-MB**

Quality Control

- The workability and mix of concrete for the classes 15/20 and 20/25 shall be checked using the slump test and shall have a slump limit as directed by the Engineer.
- The laying and joining of the culverts shall be subject to the approval of the engineer.

Measurement Unit: m

The measurement shall be the length of culvert laid.

Payment

The unit rate shall be the full compensation for labour, tools, materials, formwork, equipment and other incidentals that may be required in carrying out the work.

08-70-006: Construction of Scour Checks (Concrete)
08-70-007: Construction of Scour Checks (Masonry)
08-70-008: Construction of Scour Checks (Wooden Stakes)

The Contractor shall construct scour checks using either stones, wooden stakes, or concrete as instructed by the Engineer.

Construction of concrete scour checks shall be in class 20/20 concrete, unless otherwise specified, and to the details shown in the Drawings.

Spacing for scour checks shall be as shown in Table 8.1, or as directed by the Engineer.

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

The Contractor shall use **Labour** to carry out this item.

Work method: **LB**

Quality Control

The spacing of the scour checks shall have a tolerance of ± 0.5m
The sizes of the wooden stakes and stones used shall be in accordance with the Drawings
The shape of the scour check shall be checked using the scour check template.

Measurement Unit: No.

The measurement shall be the **number** of scour checks constructed.

Payment

The unit rate shall be full compensation, for labour, tools, materials and incidental costs required for carrying out the work.

BILL 10: GRADING AND GRAVELLING

Scope:

Grading covers the work of reinstating the road carriageway to the correct camber by removing the high points and filling gullies, corrugations, and wheel ruts to restore a smooth running surface.

Grading can either be done by labour (Manual Reshaping) or by Machine (Motorized grading or towed grading).

Manual reshaping is preferable where there is sufficient labour. For existing roads with side drains light manual reshaping should be used as defined in 10-50-004. Heavy manual reshaping should be used for roads that have deteriorated to such an extent that the drains and carriageway need to be re-instated. Heavy Manual Reshaping is defined under Bill 5 – Earth Works.

Light grading is carried out on good and fair roads as a maintenance activity while heavy grading is for re-establishing a road in poor or very poor condition.

Gravelling consists of the excavation; loading, hauling, dumping, spreading and compacting using approved equipment of gravel wearing course material on the formation of the road carriageway. Gravel shall include lateritic gravel, quartzitic gravel, calcareous gravel, decomposed rock, soft stone coral rag, clayey sand and crushed rock.

The material may be obtained from quarries, borrow pits or excavation in cuttings as directed by the Engineer. Gravel material shall conform to the requirement given in

Table 10.1: Requirement for Gravel Wearing Course

GRADING REQUIREMENTS	
Sieve (mm)	% by Weight Passing
40	100
28	95 – 100
20	85 – 100
14	65 – 100
10	55 – 100
5	35 – 92
2	23 – 77
1	18 – 62
0.425	14 – 50
0.075	10 – 40

PLASTICITY INDEX REQUIREMENTS PI		
Zone	Min	Max
WET: Mean annual rainfall > 500mm	5	20
DRY: Mean annual Rainfall < 500mm	10	30

BEARING STRENGTH REQUIREMENTS		
Traffic VPD	CBR	DCP Equivalent mm/Blow
>15	20	11
<15	15	14
CBR at 95 % MDD, Modified AASHTO and 4 days soaking		
Lower quality material (CBR 15) may be accepted if no better material can be found		

For “Quarry Waste” gravel stones of maximum dimension 80mm may be permitted

The Engineer shall approve quarries and the extent of their exploitation. The possible quarries shall be shown to the Contractor prior to commencement of the Works. The Contractor shall be responsible for the acquisition of the quarry rights and shall conduct respective negotiations with landowners and affected communities.

Alternative sources of gravel material whose quality can be shown to be in compliance with the specification requirements may be used, with the approval of the Engineer. The Contractor is deemed to have included in his rates for the provision of the gravel material.

10-50- 004: Carriageway Grading - Light Grading

Light grading shall only be done when there is sufficient moisture in the material. The Contractor shall grade the carriageway to control roughness and corrugations using either a Towed or a Motor grader. The width of the carriageway shall be as specified for the Road Class.

Pegs 200 to 300mm long shall be placed at 20 m intervals to mark edge of the carriageway

The material shall be bladed toward the centre of the road, starting from both edges, to the specified camber. Where instructed by the Engineer, suitable materials from the side drains may be used to fill potholes and gullies in the carriageway. Any further material needed to re-form the camber shall be from an approved source. Compaction shall be achieved using the wheels of the equipment, tracked evenly over the full surface, or by other approved means.

No grading shall be carried out in dry conditions.

The Contractor shall use **Equipment** to carry out this item.

Work Method: **MB**

Quality Control

- The width of the carriageway shall be checked at every 50m intervals and have a tolerance of +50mm or -20mm

- The camber shall be checked with a camber board at 25m intervals and shall have a tolerance of $\pm$ 1%
- Longitudinal levels shall be checked with a straight edge of minimum 2.7 m length. Maximum tolerance of $\pm$10 mm.

Measurement Unit: m^2

The measurement shall be the area of carriageway graded, measured net according to the specified width and measured length graded.

Payment

The unit rate shall be the full compensation for labour, tools, equipment and incidental costs required for carrying out the work.

10-50-004: Light Manual Reshaping (Grub edge, fill gullies and Reshape carriageway)

This activity involves trimming the edge of the carriageway, grubbing grass from the carriageway filling gullies and ruts on the carriageway and reshaping of the camber of the road to the original

standard and shape. No grass shall be grubbed from the shoulders, but it shall be cut to a maximum height of 50mm.

For earth roads materials from the side drains may be used to reshape the carriageway and fill gullies. Where additional suitable material is required to reinstate the camber to the required shape, this material shall be obtained from approved sources nearest to the final deposition area.

For gravel roads the gravel shall be obtained from the stacks placed at intervals along the road for this purpose if applicable.

The fill material shall be watered, mixed and compacted using suitable tampers to a finished level 25mm above the surrounding road surface.

This activity shall be carried out before and after the rains, or as directed by the Engineer.

The Contractor shall apply **Labour** methods to carry out this item.

Work Method: **LB**

Quality Control

- The width of the carriageway including the shoulders shall be checked at 100m intervals with tolerance of +50mm or -20mm
- The camber shall be checked using camber board at 50m intervals and shall have a tolerance of ± 1%
- The quality of fill material shall be approved by the Engineer
- The minimum compaction to be applied to fill areas shall be such that no rammer imprint on the surface shall be seen.

Measurement Unit: m^2

The measurement shall be the area of carriageway shaped.

Payment

The unit rate shall be the full compensation for labour, tools and incidental costs required for carrying out the work.

10-60-001: Provide Gravel Wearing Course (Excavation, Free haul, spreading and Compaction of Gravel)

Excavation of Gravel

Gravel shall be excavated from quarries approved by the Engineer, and the Contractor shall inform the Engineer if the quality/availability of the gravel changes during the course of excavation.

Stones and boulders with one dimension greater than 80mm shall be removed from the excavated gravel and deposited outside the quarry at locations approved by the Engineer. Such stones and boulders may be reused in other parts of Works with the approval of the Engineer.

Excavation and loading shall normally be by labour unless, at the request of the Contractor, the Engineer allows the use of equipment.

The Contractor shall use **Labour** and/or **Equipment** to carry out this work, as directed by the Engineer.

Work Method: LB or MB

Quality Control:

- Oversize stones and boulders shall not be loaded for haulage to the road.
- Areas containing deleterious material shall not be excavated.

Free haul, spreading and Compaction of Gravel

Free haul involves the transportation of gravel material for the first 1.5 km from the quarry. The Contractor shall spread and compact gravel material, in a manner to ensure a uniform thickness of the layer across the full width of the carriageway and shaped to the specified camber. Spreading also includes the removal of any oversized stones or boulders, which cannot be broken down to the required size, to spoil dumps. Gravel shall be spread within 24 hours of off-loading.

Compaction of the gravel material shall be carried out from the carriageway edges to the centerline by overlapping passes of the compaction equipment. The number of passes shall be as directed by the Engineer dependent upon the equipment used and the material being compacted. Unless otherwise instructed the moisture content of the material shall be within $\pm$ 2% of optimum

Where additional moisture is required water shall be applied in an even manner and the rate of application shall be such that no transverse or longitudinal flows occur.

The Engineer may instruct the Contractor to carry out density tests on the compacted material to ensure that an acceptable standard has been achieved.

The Contractor shall use Equipment for haulage and **Labour** for spreading unless the Engineer instructs otherwise.

Work Method: **LB-MB**

Quality Control:

- The gravel surface width shall be checked at 100m intervals and shall have a tolerance of $\pm$50mm
- Trial holes shall be dug as directed by the Engineer to check the gravel thickness and shall have a tolerance of + 5mm / - 0mm
- The camber shall be checked at 50m intervals and the maximum tolerance shall be $\pm$1 %
- The longitudinal profile shall be checked after the compaction of each load to ensure a smooth surface with no corrugations or depressions, tolerance of $\pm$ 10mm.
- Compaction shall show no movement of material under the roller, minimum of 6 passes.
- Compaction test standard shall be 95% MDD (AASHTO T180)

Measurement Unit: m^3

The measurement shall be the volume of compacted gravel surfacing measured net according to the Drawings and shall include the excavation and the 1.5km „free" haul distance

Payment

The unit rate shall be the full compensation for labour, tools, equipment and incidental costs required for carrying out the work.

10–60- 002: Haulage (Overhaul beyond 1.5km)

The Contractor shall haul by appropriate equipment and off-load on the road as directed by the Engineer. Where the quantity delivered in any load falls short of the equipment capacity, off-loading shall only be permitted after the agreed spacing is adjusted accordingly.

No vehicle with a capacity of greater than 10 tonnes shall be permitted to off-load gravel directly on the prepared formation unless approved by the Engineer. Any greater loads shall be dumped in stockpiles off-road and transported to the formation areas by appropriate means.

Where loads supplied are found to contain material other than from the approved quarry and are of unacceptable quality, the Contractor shall remove them from site at the Contractor's expense.

The Contractor shall use **Equipment** to carry out this Item.

Work Method: **MB**

Quality Control:

- No haulage equipment shall be used until its capacity has been ascertained by the Engineer
- The quality of gravel dumped on the road shall be according to the Specifications
- The quantity of material delivered in each load shall be checked before dumping is allowed
- The distance between the stacks shall be checked to ensure the required compacted thickness will be achieved.

Measurement Unit: m^3km (Overhaul)

The Contractor shall allow in the rates for item 10-60-001 for a „free" haul distance of 1.5km. The „overhaul" shall be the distance, greater than 1.5km, to the centre point of the section where the gravel is being dumped and processed, measured along the shortest route as determined by the Engineer.

The measurement of overhaul shall be the product of the volume of the gravel hauled and the distance to the centre point as indicated above.

Payment

The unit rate shall include full compensation for labour, tools, equipment, and incidental costs necessary to carry out the work.

10-60-004 Gravel Patching (Excavation, Free haul, Spreading and Compaction of Gravel)

Excavation of Gravel

Gravel shall be excavated from quarries approved by the Engineer, and the Contractor shall inform the Engineer if the quality/availability of the gravel changes during the course of excavation.

Stones and boulders with one dimension greater than 80mm shall be removed from the excavated gravel and deposited outside the quarry at locations approved by the Engineer. Such stones and boulders may be reused in other parts of Works with the approval of the Engineer.

Excavation and loading shall normally be by labour unless, at the request of the Contractor, the Engineer allows the use of equipment.

The Contractor shall use **Labour** and/or **Equipment** to carry out this work, as directed by the Engineer.

Work Method: LB or MB

Quality Control:

- Oversize stones and boulders shall not be loaded for haulage to the road.
- Areas containing deleterious material shall not be excavated.

Free haul, preparation, spreading and Compaction of Gravel

Free haul involves the transportation of gravel material for the first 1.5 km from the quarry. The Contractor shall prepare the area to be patched by removing excessive water and loose material. The contractor shall then dump, spread and compact gravel material, in a manner to ensure a uniform thickness of the layer across the full width of the carriageway and shaped to the specified camber. Spreading also includes the removal of any oversized stones or boulders, which cannot be broken down to the required size, to spoil dumps. Gravel shall be spread within 24 hours of off-loading.

Compaction of the gravel material shall be carried by overlapping passes of the compaction equipment. The number of passes shall be as directed by the Engineer dependent upon the equipment used and the material being compacted. Unless otherwise instructed the moisture content of the material shall be within $\pm$ 2% of optimum

Where additional moisture is required water shall be applied in an even manner and the rate of application shall be such that no transverse or longitudinal flows occur.

The Engineer may instruct the Contractor to carry out density tests on the compacted material to ensure that an acceptable standard has been achieved.

The Contractor shall use Equipment for haulage and **Labour** for spreading unless the Engineer instructs otherwise.

Work Method: **LB-MB**

Quality Control:

- The gravel surface width shall be checked at 100m intervals and shall have a tolerance of

± 50mm

- Trial holes shall be dug as directed by the Engineer to check the gravel thickness and shall have a tolerance of + 5mm / - 20mm
- The camber shall be checked at 50m intervals and the maximum tolerance shall be ± 1 %
- The longitudinal profile shall be checked after the compaction of each load to ensure a smooth surface with no corrugations or depressions, tolerance of ± 10mm.
- Compaction shall show no movement of material under the roller, minimum of 6 passes.
- Compaction test standard shall be 95% MDD (AASHTO T180)

Measurement Unit: m^3

The measurement shall be the volume of compacted gravel surfacing measured net according to the Drawings and shall include the excavation and the 1.5km „free" haul distance

Payment

The unit rate shall be the full compensation for labour, tools, equipment and incidental costs required for carrying out the work.

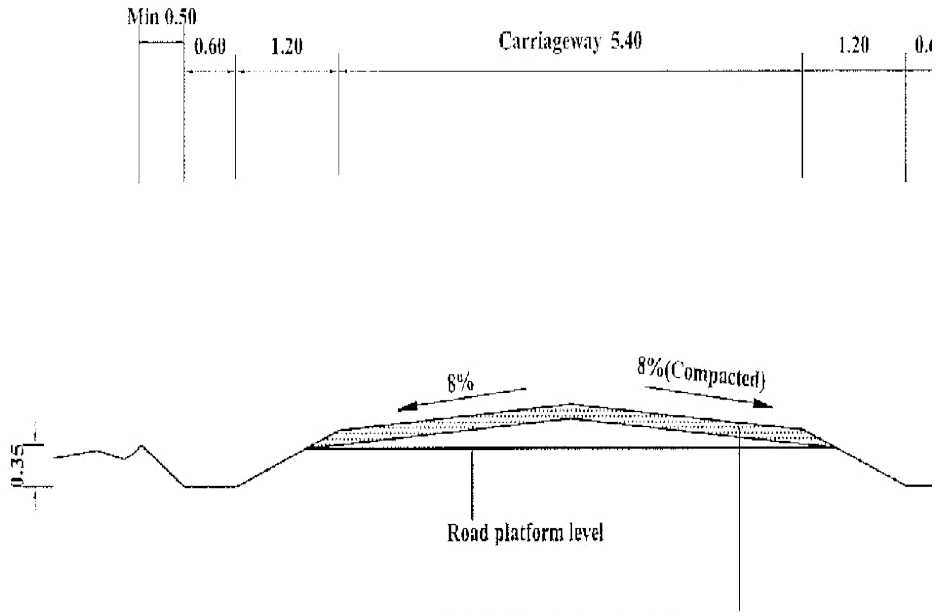
25-50-002 Soil Erosion Mitigation Measures

Soil Erosion problems must be identified and appropriate mitigation measures included during the preparation of the contract document. However the Engineer shall provide a Provisional Sum for Soil Erosion Mitigation Measures that were foreseen during the preparation of the document.

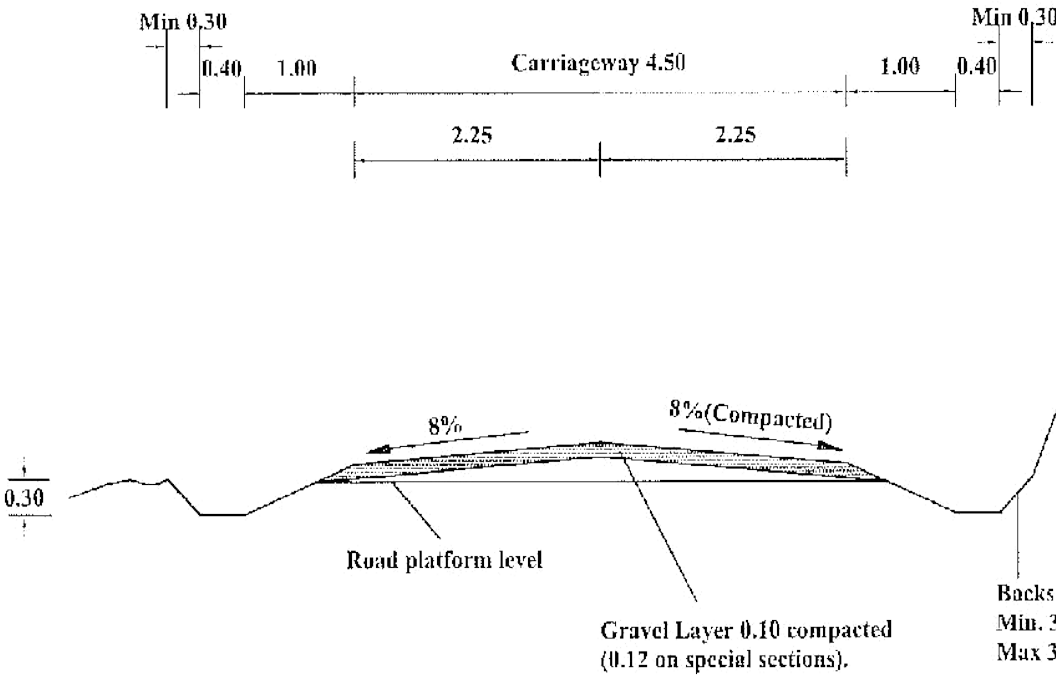
Measurement

A Provisional Sum shall be included in the Bill of Quantities for this item.

DRAWINGS

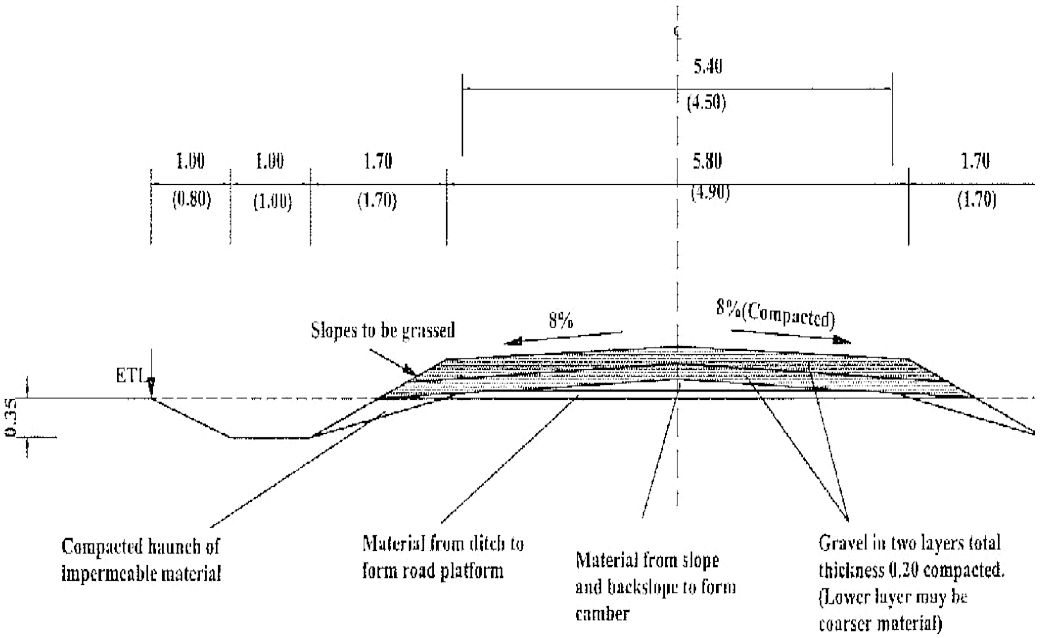


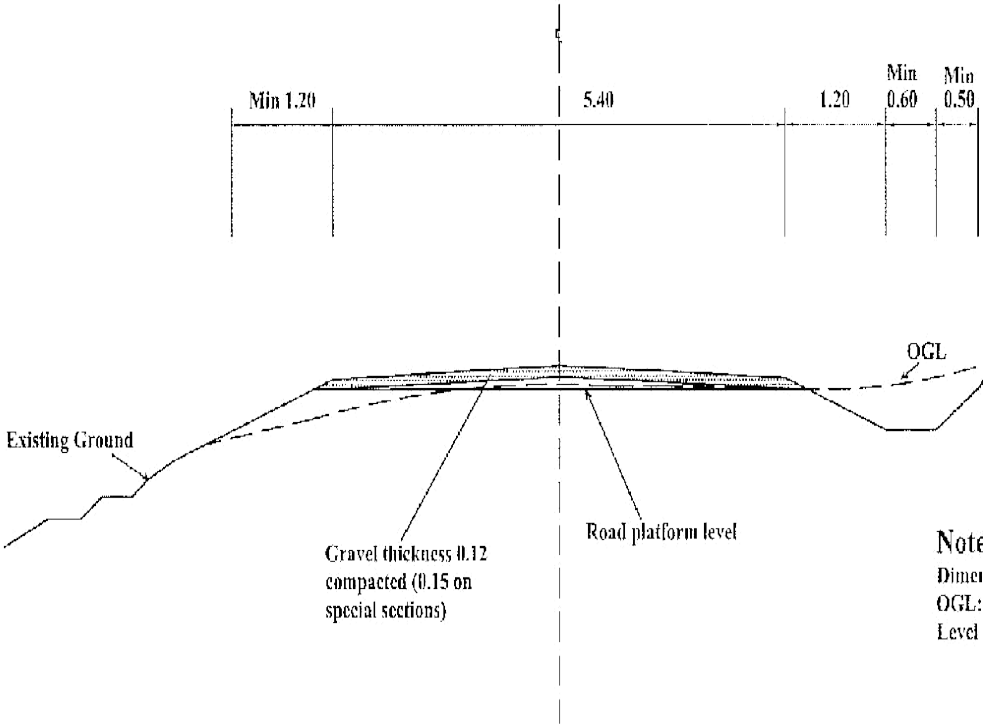
Notes:
1.All dimensions in metres
2.Traffic levels of > 200vpd may justify a carriageway width of 6.0m
3.Gravel thickness may be increased as directed by the Engineer

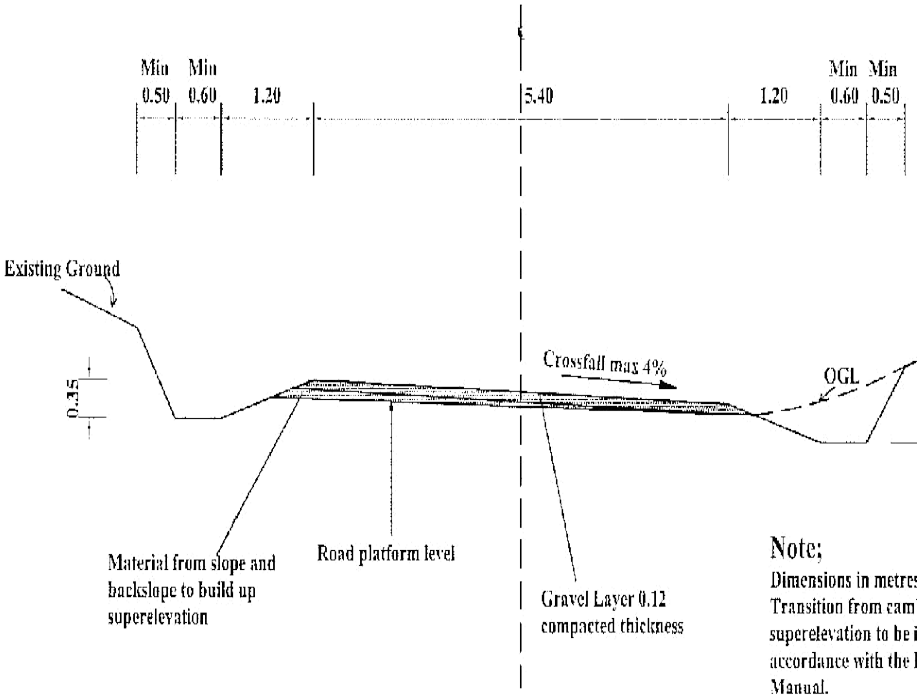


Notes:
1.All dimensions in metres
2.Gravel thickness may be increased as directed by the Engineer

C3


5.40
(4.50)
1.00
(0.80)
1.00
(1.00)
1.70
(1.70)
5.80
(4.90)
1.70
(1.70)
Slopes to be grassed
8%
8%(Compacted)
ETL
0.35
Compacted haunch of impermeable material
Material from ditch to form road platform
Material from slope and backslope to form camber
Gravel in two layers total thickness 0.20 compacted. (Lower layer may be coarser material)

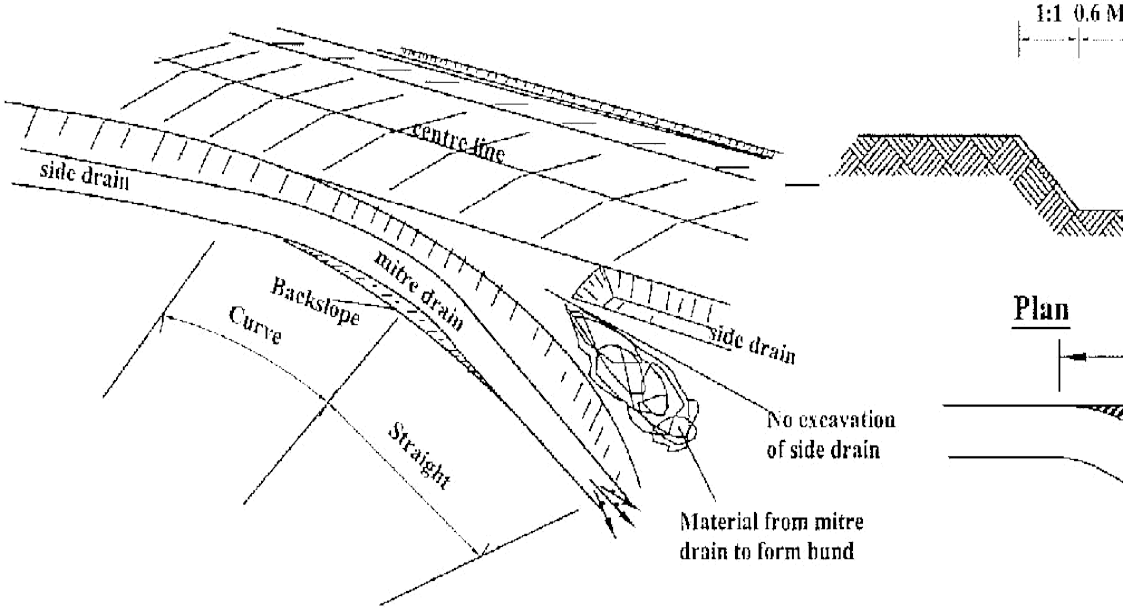

Min 1.20
5.40
1.20
Min 0.60
Min 0.50
OGL
Existing Ground
Gravel thickness 0.12 compacted (0.15 on special sections)
Road platform level
Note
Dime
OGL:
Level



Note;
Dimensions in metre
Transition from cam
superelevation to be i
accordance with the l
Manual.
OGL Original Groun

Mitre dr
Cross Se

1:1 0.6 M



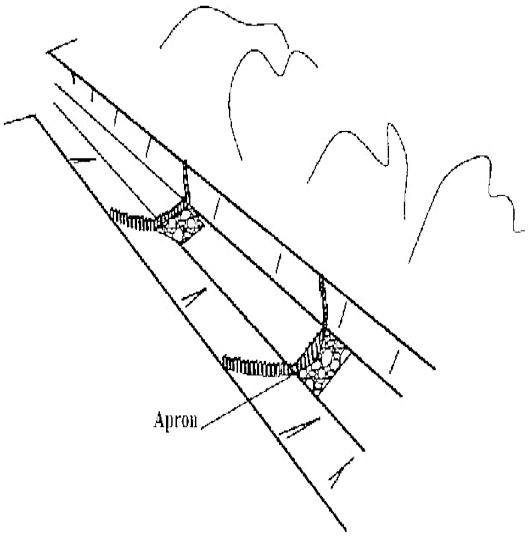
Plan

Notes

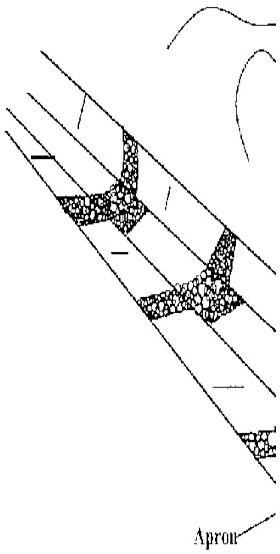
Location,direction and length of th
by the Engineer

C-6

Scour checks made of wooden stakes

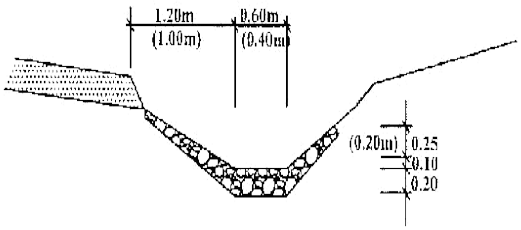


Scour checks made of stones

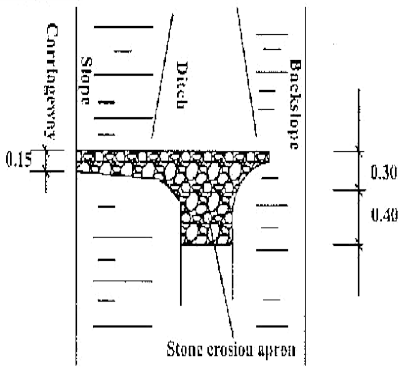


Scour checks made of stones

Cross section



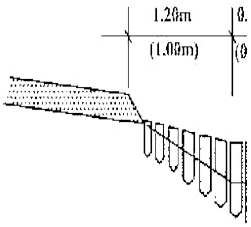
Ground plan



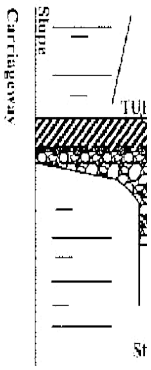
NOTE
1.Dimensions in metres

Scour checks mac

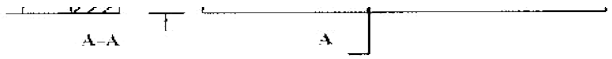
Cross section



Ground plan

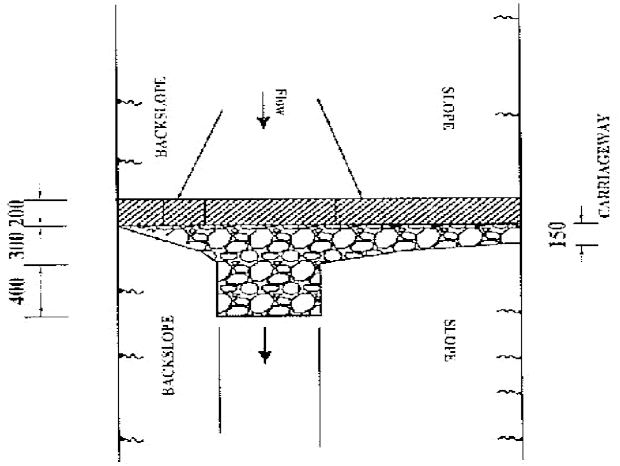


STONE WEIGHT:MIN 10KG
STAKE DIAMETER: MIN. 0.1(



Note
1.Dimensions in mm

SECTION OF MASONRY SCOUR CHECK

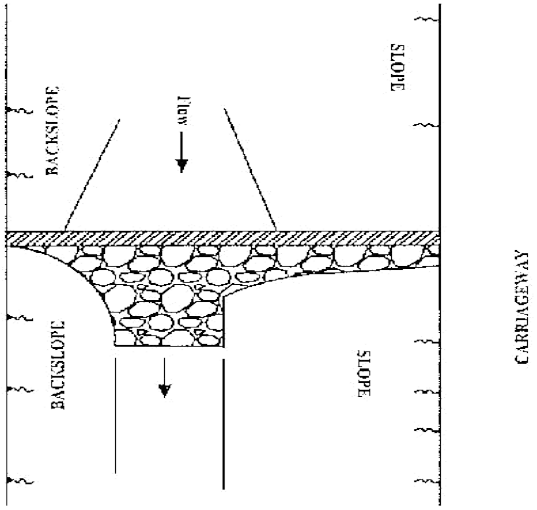


PLAN OF DRAIN WITH SCOUR CHECK

Cross-Section	Sizes in mm			Excav (m3)	Concrete (m3)	Apron stone pitching (m3)
	Length	Width	Depth			
A	2400	200	550	0.22	0.25	0.18
B	2000	200	500	0.18	0.2	0.14

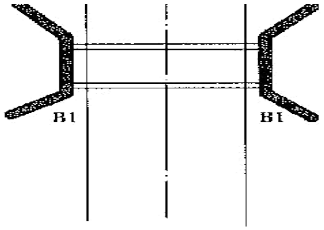
SECTION OF CONCRETE SCOUR CHECK

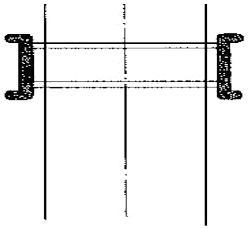
NOTE
1.Dimensions in mm



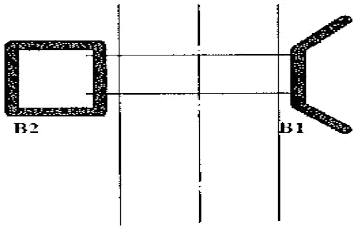
PLAN OF DRAIN WITH SCOUR CHECK

Cross-Section	Sizes in mm			Excav (m3)	Concrete (m3)	Apron stone pitching (m3)
	Length	Width	Depth			
A	2400	100	550	0.13	0.15	0.18
B	2000	100	500	0.10	0.09	0.14

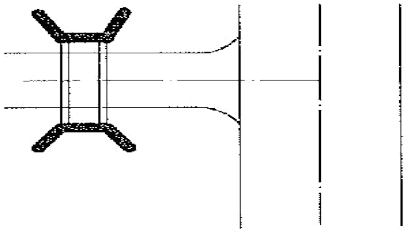




TYPE 2(ENTRY ONLY)



TYPE 4(ENTRY AND EXIT ON ACCESS)

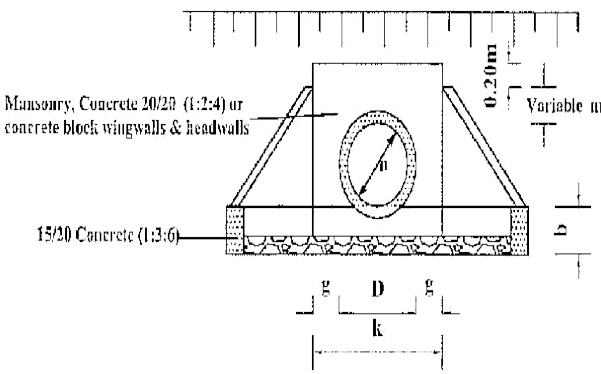


NOTE

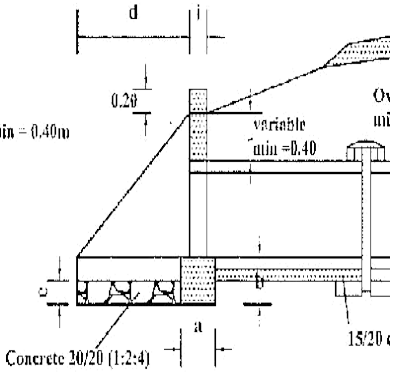
1. The code numbers specify the shape and function and the code letter denotes the material:

A =Concrete block
B =Stone masonry
C =Concrete

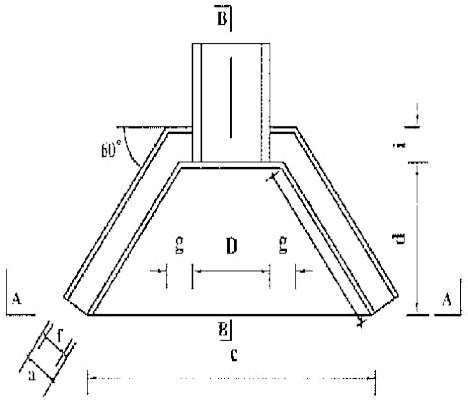
SECTION A-A



SECTION B-B



PLAN

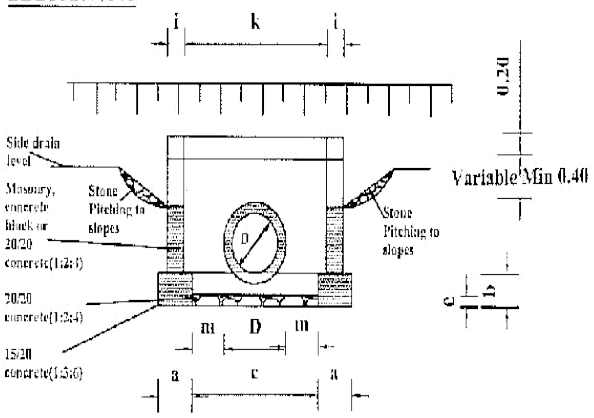


CULVERT TYPES	
X-SECTION WIDTH m	No. of pipes
4.50	6
5.50	7
6.50	8

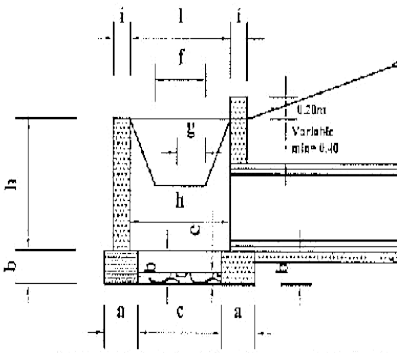
PIPE DIAMETER IN M		TYPE A and C CONCRETE BL	
		450	600
DIMENSION	UNIT		
a FOUNDATION	m	0.30	0.30
b FOUNDATION	m	0.30	0.30
c FOUNDATION	m	2.20	2.35
d APRON	m	1.00	1.00
e APRON	m	0.20	0.20
f WALL	m	0.20	0.20
g WALL	m	0.30	0.30
h WALL	m	1.15	1.15
j WALL	m	0.20	0.20
k APRON	m	1.05	1.20
MATERIAL REQUIREMENT			
FOUNDATION (concrete)	m3	0.30	0.32
HEAD/WINGWALLS (Conrete/Masonry)	m3	0.42	0.49
APRON (concrete)	m3	0.33	0.36

C-12

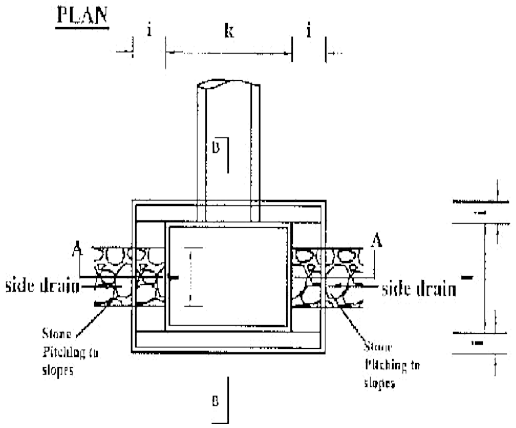
SECTION A-A



SECTION B-B



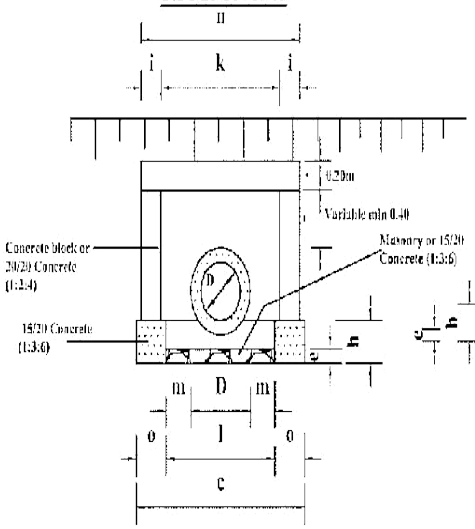
PLAN



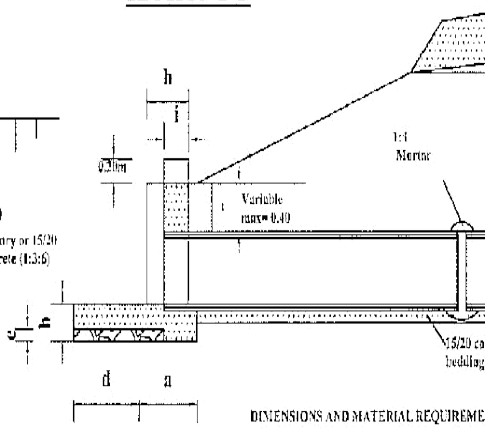
DIMENSIONS AND MATERIAL REQUIREMENTS

PIPE DIAMETER IN (M)		TYPE A CONCRETE BLOCKS			TY M.
		450	600	900	45
DIMENSION	UNIT				
a FOUNDATION	m	0.30	0.30	0.30	0.4
b FOUNDATION	m	0.30	0.30	0.30	0.3
c FOUNDATION	m	1.10	1.10	1.40	1.2
d APRON	m	0.90	0.90	0.90	1.0
e APRON	m	0.20	0.20	0.20	0.2
f DROP INLET	m	0.60	0.60	0.60	0.6
g DROP INLET	m	0.30	0.40	0.60	0.3
h DROP INLET	m	0.60	0.80	1.20	0.6
i DROP INLET	m	0.20	0.20	0.20	0.4
k DROP INLET	m	1.20	1.20	1.50	1.2
l DROP INLET	m	1.00	1.00	1.00	1.0
m DROP INLET	m	0.38	0.30	0.30	0.3
MATERIAL REQUIREMENT					
FOUNDATION (concrete)	m3	0.47	0.47	0.52	0.7
HEAD/WINGWALLS (Concrete/Masonry)	m3	0.56	0.72	1.15	1.2
APRON (coerete)	m3	0.24	0.24	0.30	0.2

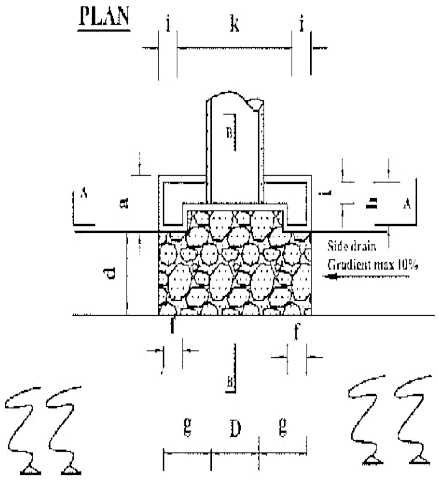
SECTION A-A



SECTION B-B

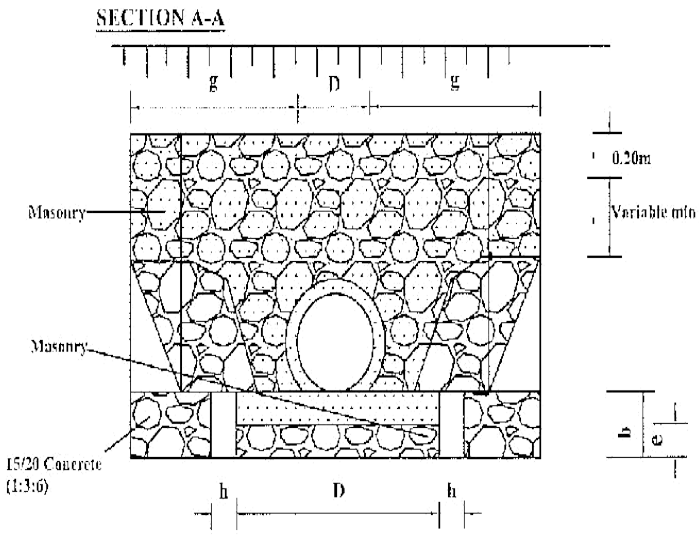


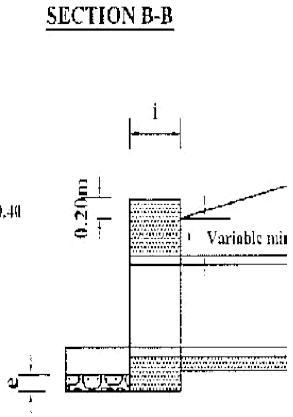
PLAN

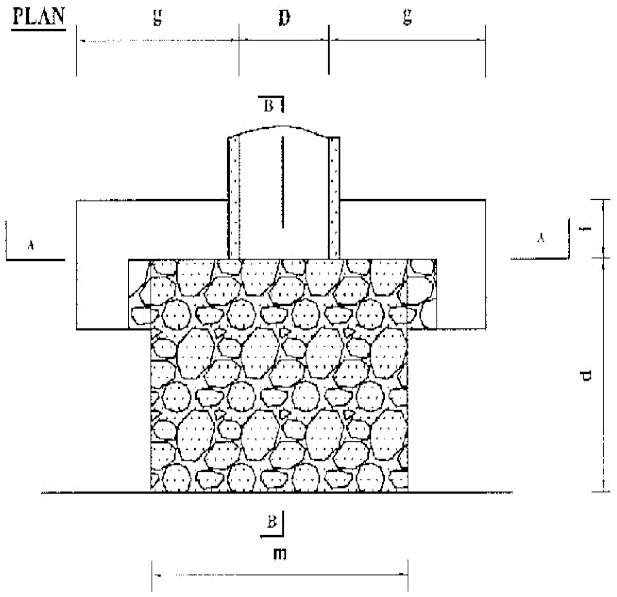


DIMENSIONS AND MATERIAL REQUIREME

PIPE DIAMETER IN (M)			TYPE A and C CC BLOCKS	
			450	600
	DIMENSION	UNIT		
a	FOUNDATION	m	0.50	0.50
b	FOUNDATION	m	0.30	0.30
c	FOUNDATION	m	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	0.50	0.50
i	HEADWALL	m	0.50	0.50
k	HEADWALL	m	0.50	0.50
l	FOUNDATION	m	0.50	0.50
m	FOUNDATION	m	0.50	0.50
n	HEADWALL	m	0.50	0.50
o	FOUNDATION	m	0.50	0.50
MATERIAL REQUIREMENT				
	FOUNDATION (concrete)		0.23	0.19
	HEADWINGWALLS (Concrete/Masonry)		0.34	0.37
	APRON (concrete)		0.05	0.09



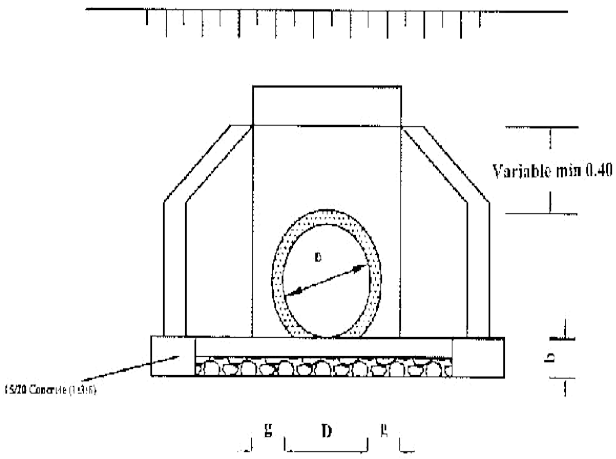




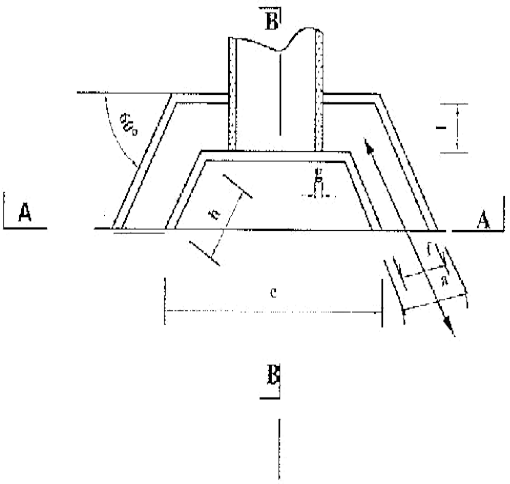
DIMENSIONS AND

PIPE DIAMETER (M)	
DIMENSION	
a	FOUNDATIOI
b	FOUNDATIOI
c	FOUNDATIOI
d	APRON
e	APRON
f	HEADWALL
g	HEADWALL
h	HEADWALL
i	HEADWALL
m	FOUNDATIOI
MATERIAL REQ	
	FOUNDATIOI (concrete)
	HEADWING (Concrete/Maso
	APRON (concrete)

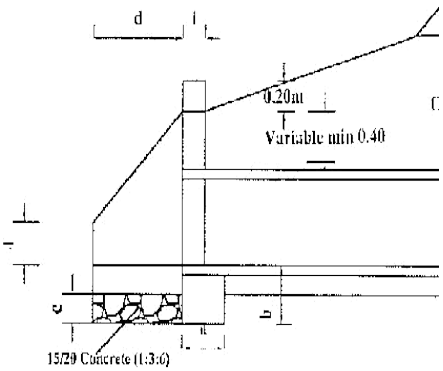
SECTION A-A



PLAN

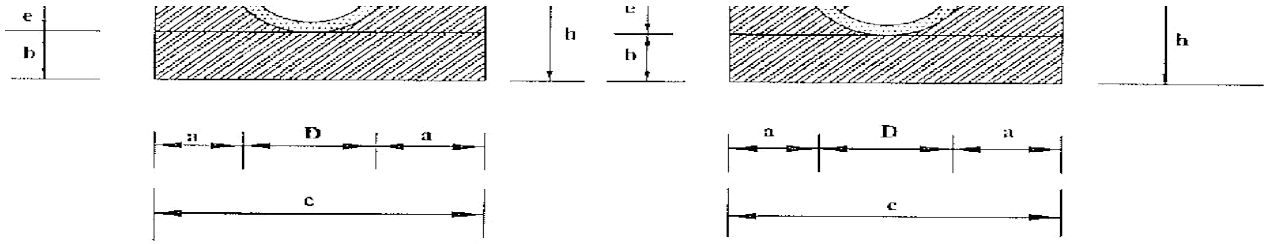


SECTION B-B



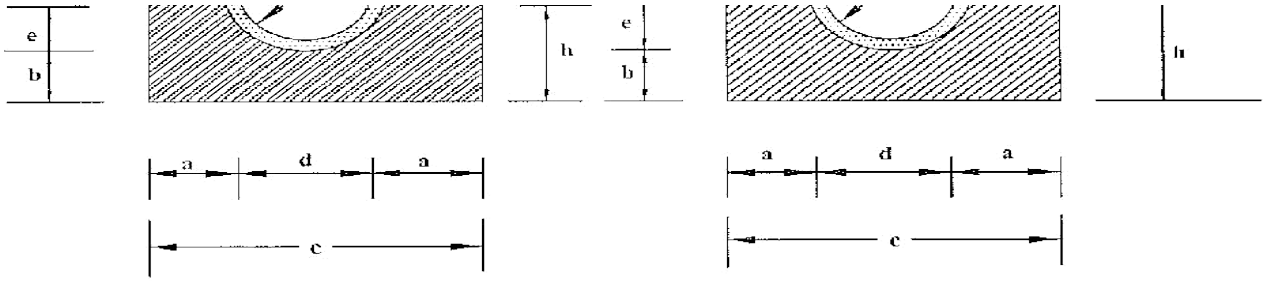
DIMENSIONS AND MATERIAL REQUIREMENTS

	PIPE DIAMETER IN (M)		TYPE A (CONCRETE BLOCKS)		
			450	600	900
	DIMENSION	UNIT			
a	FOUNDATION	m	0.20	0.20	
b	FOUNDATION	m	0.30	0.30	
c	APRON	m	1.34	1.49	
d	APRON	m	0.60	0.60	
e	APRON	m	0.20	0.20	
f	WINGWALLS	m	0.20	0.20	
g	WINGWALLS	m	0.10	0.10	
h	HEADWALLS	m	0.69	0.69	
i	HEADWALLS	m	0.20	0.20	
k	HEADWALLS	m	0.65	0.80	
l	HEADWALLS	m	0.40	0.40	
MATERIAL REQUIREMENT					
	FOUNDATION (concrete 1:3:6)		0.18	0.20	
	HEAD/WINGWALLS (Concrete/Masonry)		0.28	0.32	
	APRON (concrete)		0.12	0.14	



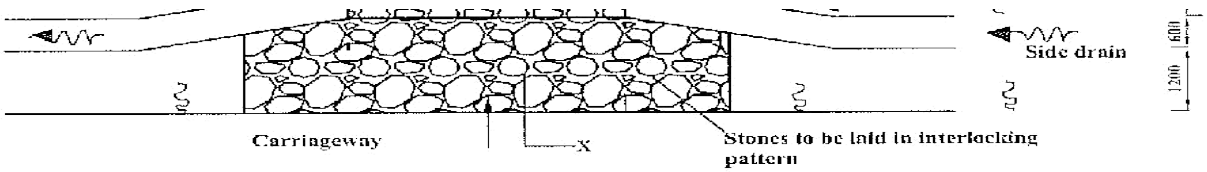
Diameter (D)	450 (mm)	600 (mm)	900 (mm)
a	0.15	0.20	0.20
b	0.10	0.15	0.15
c	0.86	1.12	1.48
d	0.56	0.72	1.08
e	0.14	0.18	0.27
f(min)	0.34	0.45	0.68
g	-	-	-
h	0.24	0.33	0.42
i	-	-	-
Concrete	Volume in (m3/m)		
Class 15/20	0.24	0.24	0.24
Application	-Fair subgrade condition -Overfill > 75% of the pipe diameter -Seasonal water flow only		
Remarks	Material for back/overfill shall be approved by the Engineer		

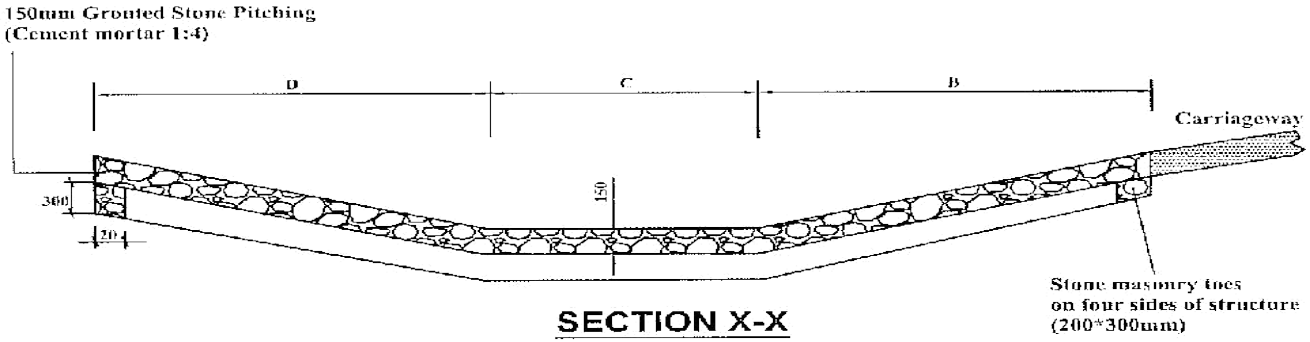
450 (mm)	600 (mm)	900 (mm)
0.15	0.20	0.20
0.10	0.15	0.15
0.86	1.12	1.48
0.56	0.72	1.08
0.28	0.36	0.54
0.34	0.45	0.68
-	-	-
0.38	0.51	0.69
-	-	-
Volume in (m3/m)		
0.20	0.37	0.56
-Fair to poor subgrade condition -Overfill > 75% of the pipe diameter -Seasonal water flow only		
Material for back/overfill shall be approved by the Engineer		



Diameter (D)	450 (mm)	600 (mm)	900 (mm)
a	0.15	0.20	0.20
b	0.10	0.15	0.15
c	0.86	1.12	1.48
d	0.56	0.72	1.08
e	0.42	0.54	0.81
f(min)	0.23	0.3	0.45
g	-	-	-
h	0.52	0.69	0.96
i	-	-	-
Concrete	Volume in (m3/m)		
Class 15/20	0.26	0.47	0.71
Application	-Fair subgrade condition -Overfill > 75% of the pipe diameter -Seasonal water flow only		
Remarks	Material for back/overfill shall be approved by the Engineer		

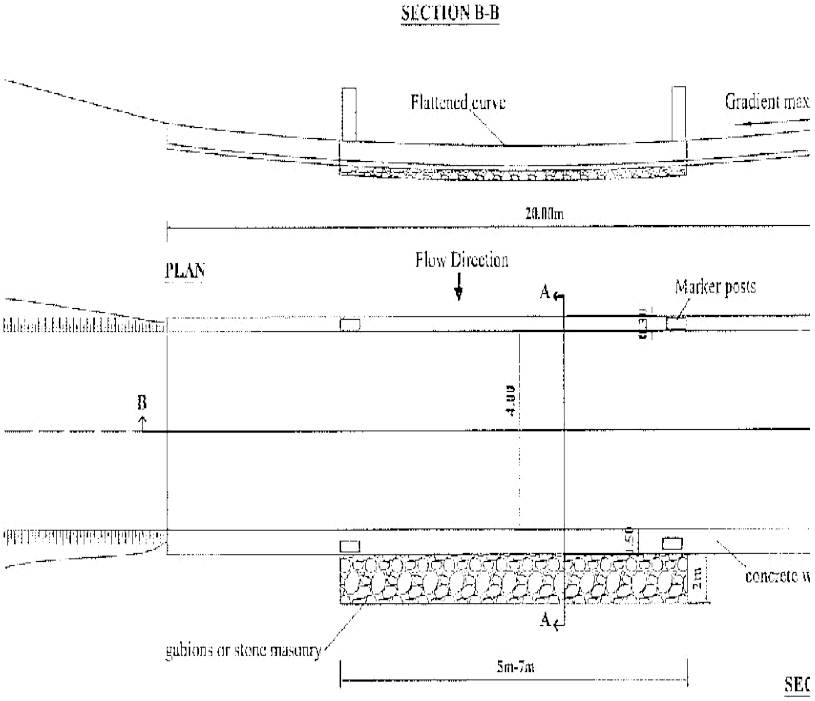
450 (mm)	600 (mm)	900 (mm)
0.15	0.20	0.20
0.10	0.15	0.15
0.86	1.12	1.48
0.56	0.72	1.08
0.46	0.52	0.78
0.15	0.15	0.15
0.15	0.15	0.15
0.81	1.02	1.38
0.28	0.35	0.45
Volume in (m3/m)		
0.37	0.61	0.92
-Fair to poor subgrade condition -Overfill > 75% of the pipe diameter -Seasonal water flow only		
Material for back/overfill shall be approved by the Engineer		





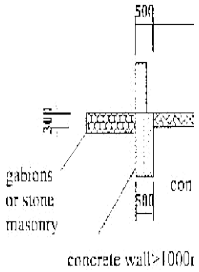
SECTION X-X

QUANTITIES TABLE								
Cross section	DIMENSONS					Excavation(m3)	Stone masonry (m3)	150mm Grouted stone pitching(m3)
	A	B	C	D	E			
A	4000	1800	600	1800	4200	7.5	1.30	21.75
	6000	1800	600	1800	4200	10.00	1.60	30.15
B	4000	1400	400	1800	3600	7.00	1.20	18.30
	6000	1400	400	1800	3600	9.00	1.50	25.50

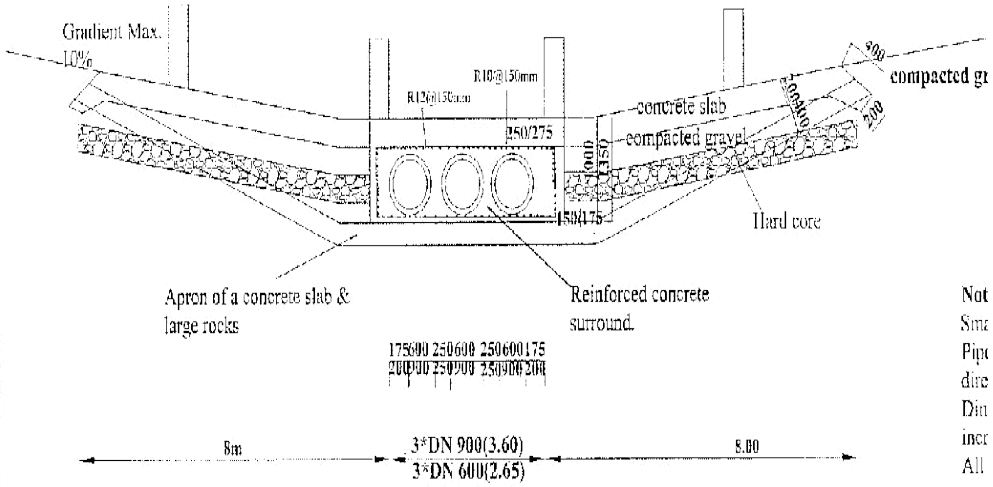


Material : All concrete Class 20/20 (1:2:4)

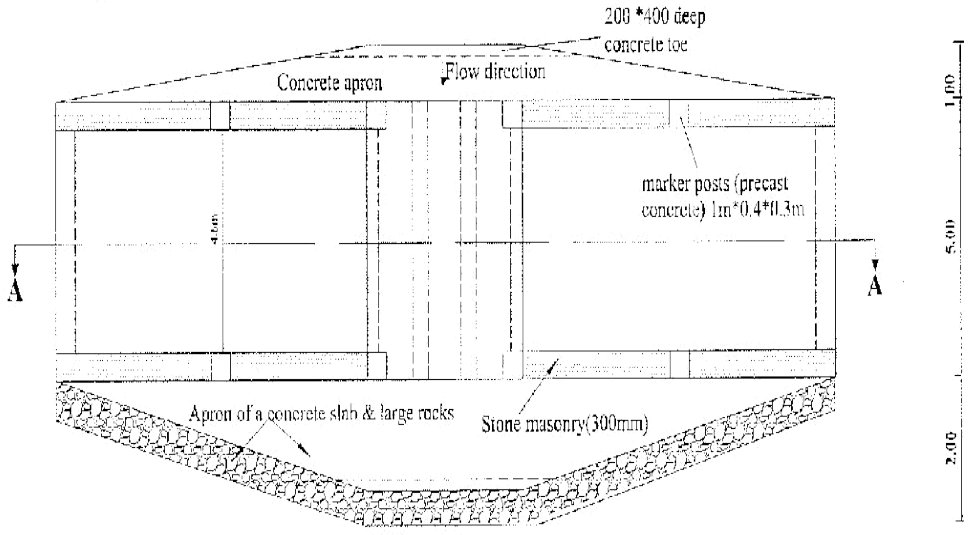
1 Concrete wall : 10m³
2 Concrete slab: 24m³ or stone masonry
3 Concrete toe : 8m³ or stone masonry
4 Gabions / mattress rock fill: 4.3m³ or stone masonry
5 Gabions /mattress: 36m²
6 Marker posts - precast concrete: 4 no.
7 Excavation (slab + toes + gabions) 54.2m³



SECTION A-A

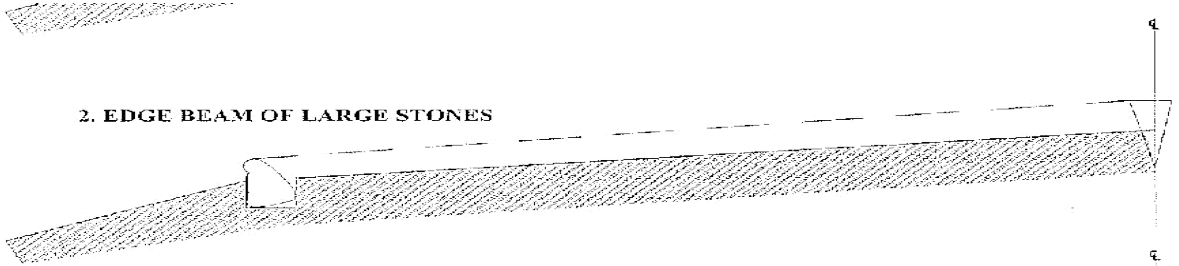


PLAN

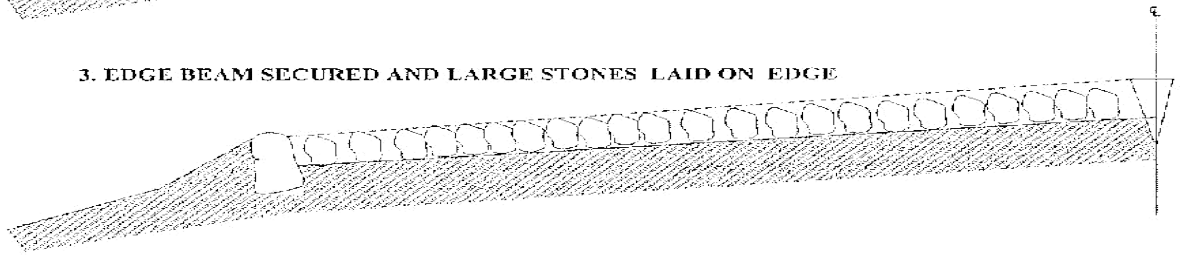


C-20

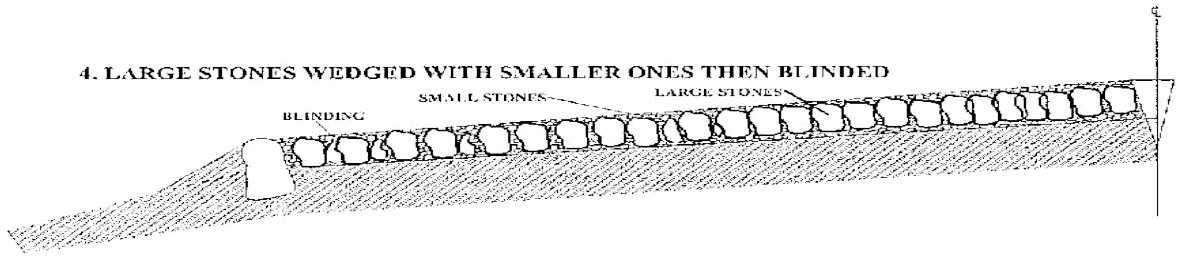
2. EDGE BEAM OF LARGE STONES

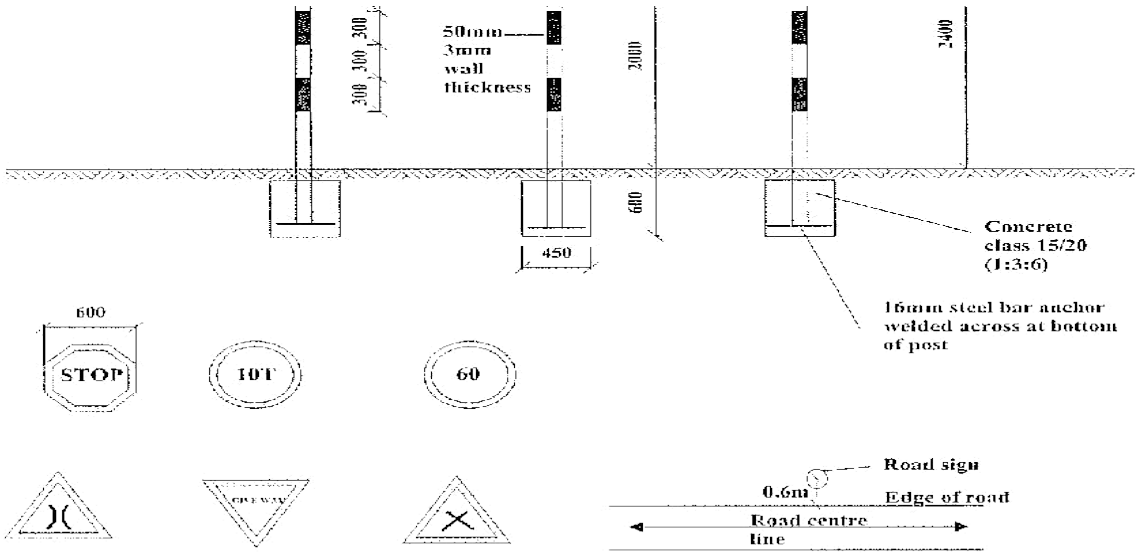


3. EDGE BEAM SECURED AND LARGE STONES LAID ON EDGE

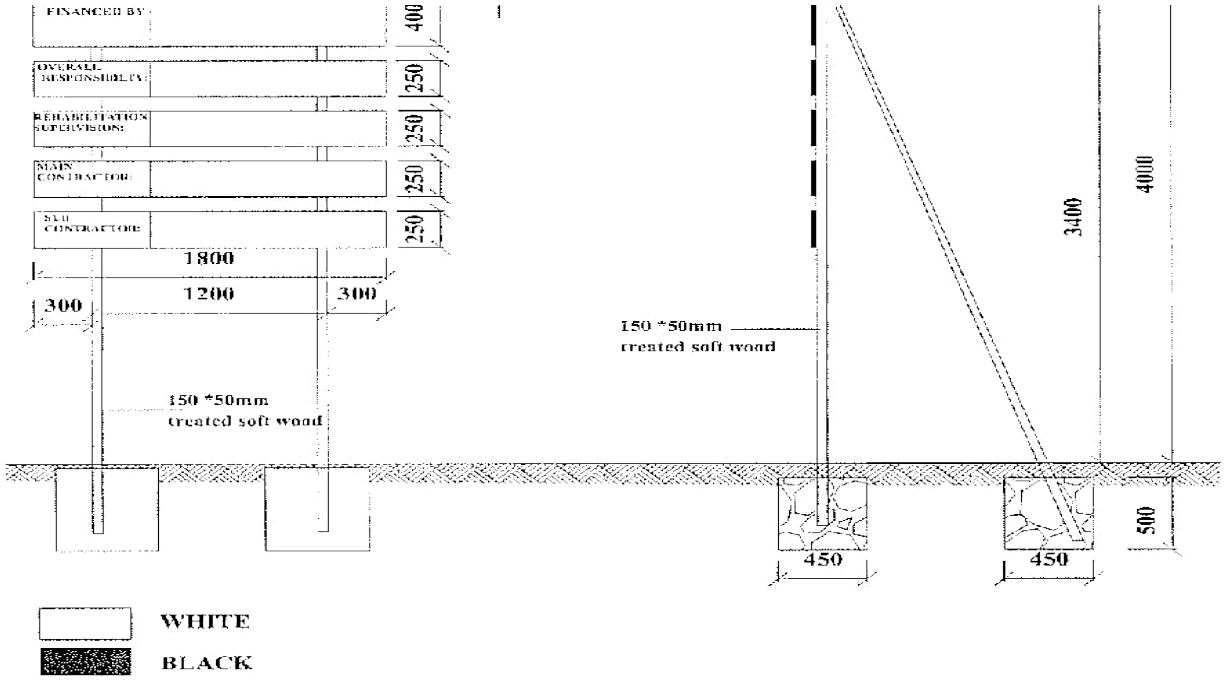


4. LARGE STONES WEDGED WITH SMALLER ONES THEN BLINDED





1. The type of sign required and their location shall be as shown on the Road Plan or as directed by the Engineer.
2.Sign plate to be 2mm thick mild steel plate
3.Sign post to be 50mm fixing clamps/brackets.
4.Sign plate to be fixed to steel tube by $ Nos M10 bolts and 50mm 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 a priming and two finish coats of approved paints. Paints used shall have a hard, durable and glossy finish.



NOTES

1. The wording of the project sign board and the location to be as directed by the Engineer.
2. Materials to be used for fabrication of signboard shall be pressure impregnated treated softwood timber
3. Wording board posts to be attached to the posts with galvanised nails
4. Project board posts and struts to be embedded in concrete class 20/20(1:2:4)

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 Instructions to Tenderers and these Documents.

2. The prices and rates to be inserted in the Bills of Quantities are to be the full, inclusive value of the work described under the several items including all costs and expenses which may be required in and for the execution of the work described and for the Contractor's overheads and profits. The rates shall be VAT exclusive but include all other taxes, levies and fees applicable. The rates shall be based on the Works being carried out in accordance with the R2000 Strategy of using optimum labour resources.

3. Each item in the Bills of Quantities contains only a brief description of the required work. Fuller details and descriptions of the work to be done, the materials to be used, the standards of workmanship, methods of measurement and payment are to be found in the various sections of the Specifications and on the Drawings.

4. The Quantities set out in the Bills of Quantities are estimated and represent substantially the work to be carried out. There is no guarantee that the Contractor will be required to carry out all the quantity of work indicated under any one particular item or group of items in the Bills of Quantities. The basis of payment shall be the Contractor's rates and the quantities of measured work done in fulfilment of the obligations under the Contract.

5. Work shall be carried out under Dayworks items only at the direction, and with the approval, of the Engineer. The Contractor shall enter rates in the Dayworks Schedule of Rates, which shall reflect the realistic costs, including overheads and profit, of each item. If, in the opinion of the Engineer, a rate is unreasonably high or low, the Contractor may be required to amend the rate to the satisfaction of the Engineer.

BILLS OF QUANTITIES

(AS GENERATED FROM RMS)

RoadCode E9112
Structure:

Section Name
Likuyani - Nasianda-Soysar(Mbanacho-Sango)

Package: KERRA/011/39/KAK/LIKUYANI/GOK/2-55-20|21-007
Contractor **0**

Bill of Quantities

Page: 1

Summary **Project:**

Item No.	Description	Amount (KShs)
1	General: Office administration and overheads/Preliminaries	-
5	EARTHWORKS	-
8	CULVERT AND DRAINAGE WORKS	-
10	GRADING AND GRAVELLING WORKS	-
22	DAYWORKS	-
	Sub Total	**-**
	ADD VAT @ 14 %	**-**
	Total	**-**
	Carried to page on the form of Tender	**-**

NB: ALL RATES SHOULD BE VAT EXCLUSIVE

Code
Package: KERRA/011/39/KAK/LIKUYANI/GOK/2-55-20|21-007
Contractor 0

Bill of Quantities

Page: 1

Bill No.1	**General: Office administration and overheads/Preliminaries**				**Project:**
Item No.	**Description**	**Units**	**Quantity**	**Unit Bid Rate(Ksh)**	**Amount KSh**
01-50-026	Miscellaneous And other Charges	KS	100000		-
01-60-004	Quality Control Tests	KS	1		-
01-60-005	Publicity Sign Boards	KS	2		-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
	Total Carried Forward to Summary:				-

Road
Code E9112 Section Name
Package: KERRA/011/39/KAK/LIKUYANI/GOK/2-55-20|21-007

Contractor 0

Bill of Quantities

Page: 2

Bill No.5	EARTHWORKS				Project:
Item No.	**Description**	**Units**	**Quantity**	**Unit Bid Rate(Ksh)**	**Amount KSh**
05-50-012	Rock fill to swamp	M³	150		-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
	Total Carried Forward to Summary:				-

Road Code E9112 Section Name

Package: KERRA/011/39/KAK/LIKUYANI/GOK/2-55-20|21-007

Contractor 0

Bill of Quantities

Page: 3

Bill No.8	CULVERT AND DRAINAGE WORKS				Project:
Item No.	**Description**	**Units**	**Quantity**	**Unit Bid Rate(Ksh)**	**Amount KSh**
08-50-005	Ditch/Mitre drain /catch water drain excavation	M³	100		-
08-60-008	Culvert Cleaning- Fully Blocked - 600mm	MT	90		-
08-60-025	Culvert Installation 600 mm with surround	METERS	42		-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
	Total Carried Forward to Summary:				-

Road Code E9112 Section Name

Package: KERRA/011/39/KAK/LIKUYANI/GOK/2-55-20|21-007

Contractor 0

Bill of Quantities

Page: 4

Bill No.10	GRADING AND GRAVELLING WORKS				Project:
Item No.	**Description**	**Units**	**Quantity**	**Unit Bid Rate(Ksh)**	**Amount KSh**
10-50-001	Heavy grading without watering or compaction instructed by the Engineer	M²	80000		-
10-60-001	Provide gravel wearing course-excavation,free haul, spread, water and compact gravel to specifications	M³	3320		-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
	Total Carried Forward to Summary:				-

Road Code E9112 Section Name

Package: KERRA/011/39/KAK/LIKUYANI/GOK/2-55-20|21-007

Contractor 0

Bill of Quantities					Page: 5
Bill No.22	**DAYWORKS**				**Project:**
Item No.	**Description**	**Units**	**Quantity**	**Unit Bid Rate(Ksh)**	**Amount KSh**
22-64-001	Excavator : 140 HP	EH	24		-
22-64-005	Single drum steel Vibrator roller: 9-10T, 130 HP	EH	40		-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
	Total Carried Forward to Summary:				-