

**COUNTY GOVERNMENT OF MERU**



**DEPARTMENT FOR TRANSPORT AND INFRASTRUCTURE**

**KANGETA MARKET CABRO PAVING COMPLETION**

TENDER NO:CGM/ONT/179/2016-2017

THE COUNTY SECRETARY  
MERU COUNTY GOVERNMENT  
P.O BOX 120-60200  
MERU

## 1 Table 1: Summary of Instructions to the Tenderers

Item #.	Mandatory qualification Requirements	
1	ELIGIBILITY - Copy of National ID or passport for all Directors	
2	BID SECURITY - Unconditional guarantee, in the format and conditions provided Must be valid for 150days`	
3	Attending pre-tender site visit for the works.	
4	Certified Copy of Certificates of Registration/Incorporation.	
5	Principal place of business (attach business permit or trading license)	
6	Certified Certificate of registration with National Construction Authority	
7	Certified Copy of Tax compliance certificate	
8	Properly and dully filled Form of Tender	
9	Properly and dully filled Tender Questionnaire	
10	Properly and dully filled Confidential Business Questionnaire	
	Technical Qualification Requirements	
11	Financial Capacity	
1	<b>Company turnover for the last two years</b>	
2	<b>Profitability of the company for the last two years</b>	
3	Past two years Audited Financial Reports of the tenderer	
4	Current one year Bank statement.	
12	Contractual misconducts and litigation - Legal Capacity/Litigation History (attach affidavit)	
13	Experience (5 YEARS AND ABOVE) Bidder to submit the following - Completion certificate, Taking Over Certificate or Substantial Completion Certificate of relevant work in the previous 5 years - Value of ongoing work must be < 50% of	
A	Specific Experience in Related Works - Attach certificate of completion	
14	Key personnel - Provide List of professional and technical staff and their resume - General Experience (CV), - Certified Qualification Certificate	
B	Site Agent - Degree (Civil Engineering)	
C	Foreman -Diploma(Civil Engineering)	
D	Fundis - Certificate(Civil Engineering)	
15	A Equipments Bidder to submit the following - Ownership list of required equipment and/or Authorization letter of hiring from M&T or reputable hiring company	
16	<b>Registration as a contractor with NCA</b>	

		<ol style="list-style-type: none"> <li>1. NCA 1 [building/roads]</li> <li>2. NCA 2 [building/roads]</li> <li>3. NCA 3 [building/roads]</li> <li>4. NCA 4 [building/roads]</li> <li>5. NCA 5 [building/roads]</li> <li>6. NCA 6 [building/roads]</li> <li>7. NCA 7 [building/roads]</li> </ol>	
17	a	<p>WorkingSchedule and Projected CashFlow.</p> <p>Bidder to submit the following Proposals</p> <ol style="list-style-type: none"> <li>1. Signed work program chart</li> <li>2. Signed Cash flow plan during the Contract period.</li> </ol>	
18		Certification as true the above information	
19		<p>The formula for determining financial score is GIVEN in the document as follows:</p> <p>The formulae for determining the Financial Score (Sf) shall: - <math>Sf = 100 \times \frac{F_M}{F}</math> where Sf is the financial score; Fm is the lowest priced financial proposal and F is the price of the proposal under consideration. Proposals will be ranked according to their combined technical (St) and financial (Sf) scores using the weights (T=the weight given to the Technical Proposal; P = the weight given to the Financial Proposal; <math>T + p = 1</math>) indicated in the Appendix. The combined technical and financial score, S, is calculated as follows: - <math>S = St \times T \% + Sf \times P \%</math>.</p> <p>Appendix to information to TENDERERS. Assigns weight of <b>0.8</b> to technical score and <b>0.2</b> to financial score.</p>	

## INVITATION FOR TENDERS

### KANGETA MARKET COMPLETION OF CABRO WORKS

- 1.1 The **County Government of Meru** invites sealed tenders for the upgrading of the above mentioned works.
- 1.2 Interested eligible candidates may obtain further information and inspect tender documents at **MERU COUNTY HEADQUARTERS , BOX 120 MERU** during normal working hours.
- 1.3 A complete set of tender documents may be obtained by interested candidates free of charge.
- 1.4 Tender surety security in the amount of 2% of the tendered sum is required as detailed in the instructions to bidders.
- 1.4 Prices quoted should be net inclusive of all taxes, must be in Kenya shillings and shall remain valid for 90 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 **MERU COUNTY HEADQUARTERS, GROUND FLOOR** or to be addressed to **MERU COUNTY GOVERNMENT, BOX 120 MERU** so as to be received on or before 12.00 hours on.....
- 1.6 Tenders will be opened immediately thereafter in the presence of the candidates or their representatives who choose to attend.

..... (Signed)

**2 FORM OF TENDER**

TO: CHIEF EXECUTIVE OFFICER, DEPARTMENT OF TRANSPORT AND  
INFRASTRUCTURE MERU COUNTY GOVERNMENT  
\_\_\_\_\_ [Date]

*Name of Contract:* **KANGETA MARKET COMPLETION OF CABRO WORKS**

Dear Sir,

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

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\_\_\_\_\_

AGREEMENT

BETWEEN

THE GOVERNMENT OF THE REPUBLIC OF KENYA

AND

-----

This Contract is made this.....day of.....20.....  
between THE GOVERNMENT OF KENYA, represented by the COUNTY  
GOVERNMENT OF MERU of P.O. Box 120 - 60200, MERU (Hereinafter called  
the Employer) acting through his representative CHIEF EXCECUTIVE  
OFFICER, DEPARTMENT OF TRANSPORT AND INFRASTRUCTURE , P.O. Box  
120 , MERU of the one part and also of.....  
(Hereinafter referred to as “the Contractor”) of the other part.

Whereas the Employer is desirous of improving and maintaining the roads as  
described below,

Name of the project: **KANGETA MARKET COMPLETION OF CABRO WORKS**

County : Meru.  
Sub - County: Igembe Central  
Ward : Kangeta

and has accepted the Offer of the Contractor to execute improvement and  
maintenance works as defined hereinafter, AND Whereas the Contractor  
represented to the Employer that he has the required capacity and  
ability, and has agreed to execute the Works on the Terms and  
Conditions set forth in this Contract, for the Tender Sum of Kshs  
.....(words)  
.....(figures)

**NOW THEREFORE** the Parties hereto agree as follows:

**Article 1: GENERAL PROVISIONS**

1.1. The documents forming the Contract are to be taken as mutually  
explanatory. If ambiguity or discrepancy is found in the documents the  
Employer shall issue necessary instructions to the Contractor.

The language of the Contract shall be English. The law of the Contract is the  
Republic of Kenya.

**Article 2: OBLIGATIONS OF THE EMPLOYER**

The Employer shall provide the Site and right of access thereto at the date of Commencement.

The Employer shall ensure that the Contractor's claims for payment are settled timeously.

The Employer shall inspect the Contractor's work regularly.

No approval or consent or absence of comment by the Employer shall affect the Contractor's obligations.

**Article 3: EMPLOYER'S REPRESENTATIVE**

The County Government of Meru will have overall responsibility for the Contract, and will be represented by the Department of transport and Infrastructure for the day-to-day management of the Contract.

The Chief Executive Officer shall appoint and provide a Road Supervisor by the name of..... who shall from time to time assign work to the Contractor. The Engineer shall notify the Contractor in writing of any change in the Road Supervisor.

3.3. The Chief Executive Officer shall provide the Contractor with an initial Work plan against which the Contractor shall carry out the Works. The Chief Executive Officer shall be entitled to vary the Work plan according to circumstances and to issue instructions to the Contractor accordingly.

**Article 4: CONTRACTOR'S OBLIGATIONS**

The Contractor shall carry out the Works described in Annex 1 and the Work Plan Annex 3 properly and in accordance with the Contract. The Contractor shall provide all supervision, labour and tools which may be required.

The Contractor shall submit to the Employer for consent the name and particulars of the person authorized to receive instructions on behalf of the Contractor.

The Contractor shall comply with all instructions given by the Employer in respect of the Works.

The Contractor shall not subcontract any part of the Works without the consent of the Employer.

The Contractor shall, in the implementation of this contract, use labour based methods whenever possible.

The Contractor shall recruit labour for the Works from the local communities and shall take particular note of the Government policy on the recruitment of women and youth. The target for each group shall be 30% of the labour force, which the Contractor shall take all possible measures to attain.

The Contractor shall comply with the Kenya Labour Laws in respect of the rights working conditions and wages for the labour force. The task rates set for labour shall be approved by the Engineer.

In the event of the failure of the Contractor to pay the labour the Employer shall be entitled to pay directly and to deduct the appropriate amount, plus a 10% administrative charge, from any monies due to the Contractor under the Contract.

The Contractor shall maintain records of time worked and remuneration paid to his/her employees and shall avail these records to the Employer for inspection when so requested.

The Contractor shall set fair and manageable task rates to each labourer, in consultations with the Employer.

#### **Article 5: DESIGN BY CONTRACTOR**

The Contractor shall not be responsible for any Works design.

#### **Article 6: EMPLOYER'S RISKS**

6.1 Any failure by the Employer and any delay or disruption caused by any Variation are the relevant Employer's Risks.

#### **Article 7: TIME FOR COMPLETION**

The Contractor shall commence the Works on the Commencement Date..... and shall proceed expeditiously and without delay and shall complete the Works within the Time for Completion, given as Four (4) months.



7.2 The Contractor shall be entitled to an extension of the Time for Completion where delay is caused by an action, or failure of action of the Employer and/or any other unforeseen circumstance. All such extension of time must be requested by the contractor timeously and approved by the Employer

#### **Article 8: TAKING OVER**

8.1. The Contractor may notify the Employer when the Works are considered to be complete.

The Employer shall notify the Contractor when he considers that the Contractor has completed the Works and stating the date accordingly. Alternatively the Employer may notify the Contractor that the Works, although not fully complete, are ready for taking over, stating the date accordingly. The Contractor shall promptly complete any outstanding work.

#### **Article 9: REMEDYING DEFECTS**

9.1. The Employer may, within one month after the Completion date in 8.2, notify the Contractor of any defects. The Contractor shall remedy at no cost to the Employer any defects due to the Contractor's workmanship not being in accordance with the Contract.

#### **Article 10 VARIATIONS AND CLAIMS**

The Employer may instruct Variations

The Employer shall value the Variations using appropriate rates within the Contract or by a lump sum price agreed between the Parties, or by new rates which the Engineer considers appropriate.

#### **Article 11: CONTRACT PRICE AND PAYMENT**

At not less than monthly intervals, the Contractor shall measure the Works in accordance with the Bill of Quantities and shall submit a statement to the Road Supervisor. No Payment shall be made for Mobilisation and Establishment of the Site. The Road Supervisor shall certify on the statement to the Engineer that the Works have been completed satisfactorily.

The Employer shall pay the Contractor, upon the Engineer's approval of the Contractor's statement, within 30 days of the date of the certification of the statement. If the Employer disagrees with any part of the Contractor's statement, he shall specify his reasons for disagreement when making payment. The Employer shall not be bound by any sum previously considered by him to be due to the Contractor.

**Article 12: DEFAULT**

The Employer shall give notice to the Contractor where he considers the Contractor to be in default of the Contract. If the Contractor fails to remedy the default within a stated period the Employer may give notice of the termination of the Contract.

After termination the Contractor shall be entitled to payment of any unpaid balance of the value of the Works executed.

**Article 13: RISK AND RESPONSIBILITY**

The Contractor shall take responsibility for the care of the Works from the Commencement Date to the date of Take Over.

**Article 14: INSURANCES**

The Contractor, prior to commencing the Works, shall effect Third Party and Workers Compensation Insurances and provide evidence to the Employer that the required policies are in force.

**Article 15: RESOLUTION OF DISPUTES**

The Parties shall use their best efforts to settle amicably all disputes arising out of or in connection with the Contract.

Any dispute not resolved under 15.1 shall be referred to a single Arbitrator nominated by ..... in whose Area the Contract is located in accordance with, and subject to the provision of the Arbitration Act of Kenya or any Statutory Modification thereof.

**Article 16 CONDITIONS OF CONTRACT**

It is understood that these Conditions of Contract follow the FIDIC Short Form of Contract which shall be referred to for any necessary clarification

It is hereby understood that the Annexes to the Contract shall be read together with the Contract and shall form an integral part of it.

In witness whereof of the duly authorised representatives of the Parties hereto have signed this Contract the day and the year first written at .....Kenya.

-----  
-----  
For and on behalf of the  
Government of Kenya  
County government of Meru  
Department of roads and Infrastructure

Contractor

.....  
Witness

.....  
Witness

**2.1.1 EXTENT OF WORKS**

The works to be executed under this Contract comprise the following:-

- Site clearance
- Earthworks
- Drainage works
- Road furniture
- Natural material base

**SPECIFICATIONS**

**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

#### **01-60-003 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

**01-60-004 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

**01-60-005 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: N

**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.

**01-60-004 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 contractor when instructed shall carry out tests at approved material testing laboratories.

**Measurement and Payment**

It is deemed that the contractor shall include all costs for material testing in his rates and therefore no separate payments shall be made.

Work Method: NA

## 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

### 04-50-003 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.

#### **04-50-004 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.

#### **04-50-006 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.

04-50-007 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.

### **3 BILL 05: EARTHWORKS**

This bill covers the excavation of soil and the placing, watering and compaction of hard and soft material to form the road formation.

- 3.1 05-50-006 Fill in soft material and compact.
- 3.2 05-50-007 Fill in hard material and compact.
- 3.3 05-50-008 Cut to spoil in soft material.
- 3.4 05-50-009 Cut to spoil in hard material.
- 3.5 05-50-010 Cut to fill in soft material.
- 3.6 05-50-011 Cut to fill in hard material.
- 3.7 05-50-012 Rock to fill to swamp
- 3.8 05-50-013 Filter to swamp under, over and around rock fill

These activities should be done in accordance with Bill 5, sub clauses 5.01 to 5.17 in the Standard Specifications for Roads and Bridges 1986.

## **BILL 07: EXCAVATION AND FILLING FOR STRUCTURES**

This bill covers all Works in connection with the excavation for concrete pipe culverts; inlet and outlet structures; drifts and drainage protection Works;

### **07-50-001 Excavation for Drainage Structures - Soft Material**

The Contractor shall excavate trenches for culverts; foundations for head walls, wing walls; inlet and outlet aprons and other drainage structures to the dimensions and levels shown on the Drawings or as directed by the Engineer. The excavations shall be kept free of water and shall be compacted with hand rammers of not less than 5kg.

The Engineer shall approve all excavations before the Contractor shall be permitted to proceed with the construction.

The Contractor shall take all necessary precautions to safeguard the stability and safety of the excavations.

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

Work Method            **LB**

Quality Control

- The dimensions of the excavations shall have a tolerance of  $\pm 50$ mm
- The invert levels shall have a tolerance of  $\pm 50$ mm
- The trench bottom gradients shall have a tolerance of  $\pm 20$ mm over the length of the trench

Measurement Unit             $m^3$

The measurement shall be volume of material excavated measured net according to the Drawings.

Payment

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

## **07-50-002 Excavation for Drainage Structures - Hard Material**

Where, in the opinion of the Engineer, the material to be excavated to form the side drains and other drainage structures may be classified as hard (not rock) the Contractor shall carry out the excavation in accordance with 07-50-001 and shall be compensated under this item.

Hard material in this case is defined as hard gravel, dry black cotton soil, soil with high percentage of stones or other material in which the output is less than 1.5 m<sup>3</sup> per PD.

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 measure the volume of the excavation classified as hard material  
Measurement Unit: m<sup>3</sup>

The measurement shall be the volume of material excavated and deposited.

Payment:

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

- 07-50-003 River training in soft material**
- 07-50-004 River diversion**
- 07-50-005 Porous filter material**
- 07-50-006 Selected granular fill material**
- 07-50-007 Cut to fill in soft material**

These activities should be done in accordance with Bill 7, sub clauses 7.01 to 7.13 in the Standard Specifications for Roads and Bridges 1986.

#### 4 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

##### 4.1 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.

4.1.1.1.1.1.1 Work Method: LB, MB, LB-MB

4.1.1.1.1.1.1.2 Quality Control

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

4.1.1.1.1.1.1.3 Measurement Unit: m<sup>3</sup>

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.

##### 4.2 08-60-006/7/8/9/10: Culvert Cleaning (Fully blocked):

4.2.1

4.2.2 08 - 60 - 006 300mm dia;

4.2.3 08 - 60 - 007 450mm dia;

4.2.4 08 - 60 - 008 600mm dia;

4.2.5 08 - 60 - 009 900mm dia;

4.2.6 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.

4.2.6.1.1.1

Work Method: **LB**

4.2.6.1.1.1.1.1 Quality Control

4.2.6.1.1.2

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

4.2.6.1.1.3 Measurement Unit: m

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

4.2.6.1.1.4 Payment

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

08-60-016

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

08-60-025 600 mm surrounds

08-60-027 900 mm surrounds

08-60-029 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 overflow 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**

4.2.6.1.1.5

4.2.6.1.1.6 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.

08-60-030	Excavate in soft material for culverts
08-60-031	Excavate in hard, material for culverts
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
08-60-036	Provide, compact class 20/25 concrete
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.

4.2.6.1.1.6.1.1 Work Method: **LM-MB**

4.2.6.1.2 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.

4.2.6.1.3 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.

#### 4.3 08-70-001: Stone Pitching

The Contractor shall lay stone pitching at locations shown on the Drawings or as directed by the Engineer, which shall include levelling the area to be covered with stone pitching, collecting stones, laying stones, applying mortar to the joints and constructing weep holes, if required.

The area to be covered with stone pitching shall be trimmed to the level and slope shown on the Drawings or as directed by the Engineer. The prepared surface shall be firm and well compacted, with hand rammers.

The stones shall have minimum dimensions of 150mm and maximum 300mm and shall be set on the flat side and securely bedded, with the largest dimensions at right angles to the flow of water, in an interlocking pattern so as to leave only a minimum of voids between the stones which shall be filled with suitably shaped and tightly wedged spalls. The top of the pitching shall be finished flush with the adjacent material.

The stones shall be placed in full contact with the surface and bedded into cement mortar 1:4 with a minimum thickness of 100 mm. The mortar shall be worked into the pitching so that the voids between the stones are filled to the full depth of the pitching. The mortar shall be finished flush with the surface of the stones.

Weep holes shall be provided to stone pitching on slopes as directed by the Engineer.

The surface of the stone pitching shall be protected from direct sunshine and kept moist for 2 days.

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

4.3.1.1.1 Work Method: **LB**

#### 4.3.1.1.2 Quality Control

The quality of pitching shall be checked for gaps and voids.

The dimensions of the area of stone pitching shall have a tolerance of  $\pm 100$ mm

4.3.1.1.2.1 Measurement Unit:  $m^2$

The measurement shall be the total area of pitching calculated as the net area, measured on the slope.

#### 4.3.1.1.2.2 Payment

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

#### 4.4

#### 4.5 08-70-004: Gabion Installation

4.5.1.1.1 The Contractor shall provide and install Gabions as retaining walls and anti-erosion structures at locations shown on the Drawings or as directed by the Engineer.

Gabions shall include mattresses and boxes and for purposes of construction, measurement and payment, no distinction shall be made between them.

Gabions shall be 'Maccaferri' boxes or 'Reno' mattresses or equivalent approved by the Engineer.

The surfaces on which the Gabions are to be laid prior to being filled with rock shall be levelled to the depths and dimensions shown on the Drawings or as directed by the Engineer.

Gabion boxes shall be tied together with 3 mm galvanised binding wire securing all edges at 150mm intervals.

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

#### 4.5.1.1.2

4.5.1.1.3 Work Method: **LB**

#### 4.5.1.1.4 Quality Control

The placing and tying of the Gabions shall be approved by the Engineer before filling commences.

4.5.1.1.4.1 Measurement Unit: **No**

The measurement shall be the number of Gabion boxes installed.

#### Payment

The unit rate shall be the full compensation for labour, materials, and any incidental item costs necessary to carry out the work.

#### 4.6 08-70-005: Rock fill to Gabions

4.6.1.1.1.1 The Contractor shall provide selected rock, crushed if necessary, and carry out the packing and compacting of the rock inside the Gabion boxes.

The boxes shall be filled in layers from the sides towards the middle in an interlocking stone matrix to prevent deformation and bulging. The interior and top layers of the boxes shall be hand packed with smaller stone to form a tightly compact structure and rammed in place. Care shall be taken to ensure that each layer of boxes is filled evenly and to a level surface before the next course of boxes is placed.



The Contractor shall use a combination of **Labour** and transport **Equipment** to carry out this activity.

4.6.1.1.1.2 Work method: **LB-MB**

4.6.1.1.2 Quality Control

The filling and compaction of the stones in the Gabion boxes shall be approved by the Engineer.

4.6.1.1.2.1 Measurement Unit  $m^3$

Rock fill to Gabions shall be the volume of Gabions filled.

Payment

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

**4.7 08-70-007: Construction of Scour Checks (Masonry)**

**4.8**

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.

**4.8.1.1.1.1.1** Work method: **LB**

#### 4.8.1.1.2 Quality Control

The spacing of the scour checks shall have a tolerance of  $\pm 0.5\text{m}$

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.

4.8.1.1.2.1 Measurement Unit: No.

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

#### Payment

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

### **BILL 9: PASSAGE OF TRAFFIC**

**09-50-001 Construct and maintain 3m wide deviation**

**09-50-002 Maintain existing public road**

**09-50-003 Construct and maintain 3 m wide temporary vehicle bridge**

These activities should be done in accordance with Bill 9, sub clauses 9.01 to 9.12 in the Standard Specifications for Roads and Bridges 1986.

#### **09-50- 004 Traffic Control**

The Contractor shall provide warning signs, fences, barriers, which shall be properly positioned in advance of the Works to ensure that passage of traffic is well and safely accommodated for the duration of the Works.

Traffic signs and other traffic control facilities shall be kept in good condition and located in positions where they are visible to road users.

#### Quality Control

The Engineer shall check regularly that traffic control measures are satisfactory.

#### Measurement and Payment

A Lump Sum shall be paid on a Monthly basis upon the approval of the Engineer that satisfactory control measures are in place.

Work Method: NA

**BILL 12: NATURAL MATERIAL BASES**

**12-50-001 Hand Packed Stone**

The Contractor shall construct the hand packed stone base on the shaped and compacted road formation which has been approved by the Engineer.

Pegs shall be placed at 5 metre centres at the edge of the carriageway with the tops of the pegs at the desired finished road level.

A kerb of larger stones (30-40 cms) shall be placed in an edge trench so that the tops of the stones correspond to the finished road surface level. The trench shall be backfilled and compacted to secure the kerb stones in place. Stones 15-20 cms maximum dimension shall be placed tightly together on the road formation between the kerbs with the greater dimension vertical, and the tops approximately at the finished surface level.

The gaps between the base stones shall then be filled with smaller stones and hammered into place. Angular chippings from the breaking of larger stones, and other smaller stones shall be wedged into the gaps to form a close matrix.

The surface shall then be blinded to finished road profile level with gravel, fine stones, sand or clay sand mix, and compacted until no movement is observed.

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

Work Method            **LB - MB**

Quality Control

The passage of the compaction equipment shall show no movement within the paving.  
The finished surface shall be dense and firm.

Measurement Unit: m<sup>3</sup>

The measurement shall be the volume of paving in place measured net according to the Drawings.

Payment

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

**12-50-002: Provide, place, spread and compact natural gravel**

**12-60-002: Base Repair - Hand packed Stone**

**12-60-002: Base Repair - Stabilised Gravel**

These activities should be done in accordance with Bill 12 in the Standard Specifications for Roads and Bridges 1986.

**12-60-003: Base repair - Neat Gravel**

This activity involves the repair of localised failures of the pavement layers, including the removal of the deformed areas and reconstructing the pavement and surfacing layers including treatment of the bottom of the excavation prior to backfilling.

The areas to be repaired shall be marked and cut out into rectangular shapes. All failed area shall be cut back to sound road material. The sides shall be dressed so that they are at 60° to the horizontal, and the bottom of the hole shall be compacted to a density of 93 % AASHTO T180. All unsuitable material shall be removed and deposited away from the road as directed by the Engineer.

For a bituminous base a prime coat of 60% cationic spray grade emulsion shall be applied to all vertical surfaces and on the bottom of the prepared hole.

The material for the base repair shall be graded neat gravel, according to the original base material, and shall be compacted in layers as directed by the Engineer.

“Gravel “ includes lateritic gravel, quartzitic gravel, calcareous gravel, soft stone, coral rag, clayey sands, decomposed rock, crushed rock or a combination of any of these materials.

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

Work method            **LB - MB**

Quality Control

- The repair shall be carried out to the approval of the Engineer.
- The repair shall be checked with a straight edge and shall be flush with other parts of the carriageway laterally and longitudinally.
- Compaction of the patch shall be checked such that no imprint of the compaction equipment shall be visible.

Measurement Unit:            m<sup>3</sup>

The measurement shall be the volume of gravel compacted on the road measured in-situ.

Payment

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

## **BILL 20: ROAD FURNITURE**

Scope:

This bill comprises those items of Road Furniture to be erected and maintained as aids to road safety, including traffic signs and guardrails.

- 20-50-001: Road reserve boundary posts**
- 20-50-002: Installation of fencing and gates**
- 20-50-003: Repair/replace fence**

These activities should be done in accordance with Bill 20 sub section 20.01 to 20.11 of the Standard Specifications for Roads and Bridges 1986.

**20-50-004: Edge Marker Posts Replacement**

This activity involves the replacement of edge marker posts.

The Engineer shall determine the location of the marker posts. They shall be set in a simple excavation and backfilled with soil. The depth of the excavation shall be determined on the site, depending on the size and shape of the marker stone or post.

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

Work Method            **LB**

Quality Control

- The posts shall be vertical and firmly bedded to the approval of the Engineer

Measurement Unit:            No

The measurement shall be in number of marker posts.

Payment

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

**20-50-005: Permanent Road Signs**

The Contractor shall erect road / traffic signs of the type and at locations as directed by the Engineer. The signs materials and quality are shown on the Drawings. The signs shall be bedded in concrete Class 15/20 and shall be supported vertically until the concrete is set.

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

Work Method.            **LB**

Quality Control

The Engineer shall check the sign position before concrete is backfilled.

Measurement Unit:            No

The measurement shall be the number of signs erected.

Payment

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

**20-50-006: Road markings - white paint**

**20-50-007: Road markings - yellow paint**

These activities should be done in accordance with Bill 20 sub section 20.01 to 20.11 of the Standard Specifications for Roads and Bridges 1986.

**20-50- 008: Guardrail Repair**

*This activity involves the repair of Guardrails (including rails, posts and fixings) to a properly aligned, vertical and secure condition. The repair shall include securing any loose posts by re-compaction or removal of any unsuitable material surrounding the post, importing and compaction of suitable materials to render the posts secure, and the re-fixing of the rails.*

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

Work Method            **LB**

Quality Control

- The guardrails shall be checked as being properly aligned secure and in a vertical position
- The fixings shall be hand checked to be firmly fixed

Measurement Unit:            m

The measurement shall be the length of Guardrail repaired

Payment

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

**20-50-009: Guard Rail Replacement**

**20-50-010: Guard Rail Installation**

The Contractor shall erect guardrails at locations shown on the Drawings or as directed by the Engineer. The guardrails shall comply with the requirements of the Road Authority and shall be erected on hard wood or treated timber posts of top diameter not less than 150mm.

Posts shall be drilled and shaped as shown on the Drawings and provided with the necessary bolts, nuts, washers and spacer blocks.

Holes excavated for the timber posts shall be spaced to suit the standard length of guardrail supplied, and shall be of sufficient size to permit the proper setting of the posts and to allow room for backfilling and compacting. At least 1 metre of a post shall be embedded in the ground. The backfilling shall be with 12:1

soil cement mixture, or as otherwise directed by the Engineer, after the erected rails have been approved by the Engineer.

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

Work Method            **LB**

Quality Control

The Engineer shall check the post and rail erection before final backfilling.

Measurement Unit:    **m**

The measurement shall be the length of Guardrail erected.

Payment

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

**20-50-011: Handrail repair/installation**

**20-50-012: Kerbs**

**20-50-013: Kilometre marker posts**

**20-50-014: Rumble strips**

These activities should be done in accordance with Bill 20 sub section 20.01 to 20.11 of the Standard Specifications for Roads and Bridges 1986.

**20-50-015: Speed Bump Construction with Asphalt Concrete**

**20-50-016: Speed Bump Construction with Concrete**

These activities shall be done in accordance with guidelines given and approved by the Chief Engineer Roads. The Engineer shall determine the location of the speed bumps. The bumps shall be constructed by use of templates to ensure that the final riding surface has a uniform circular shape. The carriageway surface shall be thorough cleaned to remove dust and all loose materials before constructing the speed bumps.

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

Work Method            **LB**

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

Quality Control

The dimensions of the speed bump shall be subject to the approval of the Engineer before its construction. The concrete used shall have a nominal strength of 20/20 and shall with the requirements of the Clause 17 sub clauses 1701 to 1741 of the Standard Specifications for Road and Bridge Construction. A slump test shall be used to determine the workability of the concrete.

The asphalt concrete shall meet the requirements of Clause 16 Part B of the Standard Specifications for Road and Bridge Construction

Measurement Unit: No

The measurement shall be in number of speed bumps constructed.

Payment

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

#### **20-50-017: Concrete Bollards**

This activity involves the erection or construction of concrete bollards and shall be carried out in accordance with the drawings or as directed by the Engineer. They shall be erected using class 15/20 concrete filled in steel casing of diameter instructed by the Engineer at the outer edge of the shoulders at specified intervals and at the same height above the carriageway. The contractor shall excavate in any material to a depth of at least 1/3 of the overall height of the bollard or as directed by the Engineer to get to the foundation of the bollard, backfill and compact and remove any surplus material to spoil.

The Engineer shall determine the location of the marker stones and posts. They shall be set in a simple excavation and backfilled with soil. The depth of the excavation shall be determined on the site, depending on the size and shape of the marker stone or post.

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

Work Method **LB**

Quality Control

The concrete bollards shall be vertical and firmly bedded to the approval of the Engineer.

Measurement Unit: No

The measurement shall be in number of concrete bollards erected.

Payment

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

#### **20-50-019: Reflective Stud Installation**

This activity involves the installation of reflective road studs on bituminous surfacing as shown in the drawing or as directed by the Engineer. The reflective road studs shall comply with the requirements of the Manual for Traffic Signs in



Kenya, Part II of The Road Design Manual or type approved by the Ministry of Roads. Where the contractor proposes to use alternative materials they should be accompanied by the manufacturer's certificate or certification from a competent testing laboratory confirming the product an equivalent level of durability, suitability and safety.

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

Work Method            **LB**

Quality Control

The Engineer shall determine and approve the location of installing the reflective road studs and that they are firmly bedded into surface of the road.

Measurement Unit:            No

The measurement shall be in number of studs installed.

Payment

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

#### **20-50-018    Trees**

This activity should be done in accordance with Bill 20 sub section 20.10 to 20.11 of the Standard Specifications for Roads and Bridges 1986.

#### **20-60-001:    Traffic Sign Maintenance**

This activity involves all the tasks required to ensure that the road signs and signposts are in a clean, properly aligned, vertical and secure condition; the replacement of missing or broken bolts, nuts or other fixings and the tightening of the same. The maintenance shall also extend to securing any loose posts by the re-compacting or removal of any unsuitable material surrounding the posts, importing and compacting of suitable material to render the post secure. Painting of the Traffic signs if required is also included in this item.

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

Work Method            **LB**

Quality Control

- The signs shall be clean and in vertical position
- The fixings shall be hand checked to be tight

Measurement Unit:    No.

The measurement shall be number of signs maintained.

## Payment

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

### **ITEMS 20-60-010 to ITEM 20-60-082**

These activities should be done in accordance with the Draft Urban Roads Design Manual

#### **BILL 25: HIV/AIDS AWARENESS AND PREVENTION CAMPAIGN**

This BILL sets out the Contractor's obligations with regard to on-site HIV / AIDS awareness campaign and preventive measures that are to be instituted.

##### 25-50-001 HIV / AIDS Awareness and Prevention Campaign

The Contractor shall institute an HIV / AIDS awareness and prevention campaign amongst his workers for the duration of the Contract. The awareness campaigns shall be carried out in consultation and guidance of Ministry of Public Health or Local service providers approved by the Ministry of Public Health.

The Contractor shall display AIDS awareness posters in all buildings frequented by workers employed on the Contract, where such buildings fall under the control of the Contractor.

In addition at least two of the Contractors vehicles regularly used on site shall display HIV / AIDS awareness posters. The posters shall be printed on gloss paper and shall be at least A1 size on buildings and A3 size or other approved size on vehicles.

Aids awareness shall also be included in the orientation process of all workers employed on the Contract.

As part of the campaign the Contractor will be required to make condoms available to his workers.

#### Payment:

The contractor shall include costs for carrying out AIDS awareness and prevention campaign in his rates.

##### 25-50-003 Baraza's for Cross-cutting Issues

The Contractor shall arrange and conduct meetings and/or training sessions for workers and staff on cross-cutting issues, including Community Participation, Environmental Mitigation, Gender Rights, HIV/AIDS, Workers Rights at times and locations directed by the Engineer.

## **PREAMBLE TO BILLS OF QUANTITIES**

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.

The prices and rates to be inserted in the Bill 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.

Each item in the B/Q contains only a brief description of the proposed work. Fuller details and directions 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.

The Quantities set forth in the Bill of Quantities are estimated and representing substantially the work to be carried out. There is no guarantee to the Contractor that he will be required to carry out all the quantities of work indicated under any one particular item or group of items in the Bills of Quantities. The basis of payment shall be the Contractor's rates and the quantities of work actually done in fulfilment of his obligation under the Contract.

COMPLETION OF KANGETA MARKET CABRO.

<b>Bill of Quantities</b>						Page: 1
Bill No.1	Activity Group:- General: Office administration and overheads/Preliminaries					Project:
Item No.	Description	Unit	Quantity	Unit Bid Rate(Ksh)	Amount KSh	Technology
01-50-003	Supervision Allowance	PC SUM	0.86	575,581	495,000	
	<b>Total Carried Forward to Summary:</b>				<b>495,000</b>	

COMPLETION OF KANGETA MARKET CABRO.

<b>Bill of Quantities</b>						Page: 2
<b>Bill No.8</b>	<b>CULVERT AND DRAINAGE WORKS</b>					<b>Project:</b>
<b>Item No.</b>	<b>Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Bid Rate(Ksh)</b>	<b>Amount KSh</b>	<b>Technology</b>
08-50-005	Ditch/Mitre drain /catch water and culvert trench excavation in any material.	M <sup>3</sup>	200			LB/MB
08-60-025	Provide, place and install 600mm diameter culvert including headwalls, aprons, wingwalls and surround.	M <sup>3</sup>	12			LB/MB
08-60-036	Provide, place and compact class 20/25 concrete.	M <sup>3</sup>	30			LB/MB
08-60-037	Provide and place a142 fabric mesh reinforcement.	M <sup>2</sup>	120			LB
08-60-039	Provide, lay and join in cement sand mortar (1:4) machine cut masonry wall of size 450 x 200 x 150.	M <sup>2</sup>	200			LB
08-60-040	Provide, lay and join precast concrete shallow drain 300 x 600 mm, including 100mm thick class 15/20 concrete bed in cement, sand mortar(1:4) machine cut masonry wall of size 450x200x150.	M	600			LB
08-60-041	Provide, lay and join precast concrete shallow drain 600 x 900 mm, including 100mm thick class 15/20 concrete bed.	M	200			LB
	<b>Total Carried Forward to Summary:</b>					

COMPLETION OF KANGETA MARKET CABRO.

<b>Bill of Quantities</b>					Page:3	
<b>Bill No.20</b>	<b>ROAD FURNITURE, REPAIR AND MAINTENANCE</b>				<b>Project:</b>	
<b>Item No.</b>	<b>Description</b>	<b>Units</b>	<b>Quantity</b>	<b>Unit Bid Rate(Ks)</b>	<b>Amount KSh</b>	<b>Technology</b>
20-50-017	Concrete Bollards	No.	10			MB
	<b>Total Carried Forward to Summary:</b>					

<b>Bill of Quantities</b>						Page:4
Bill No.23	CONCRETE PAVING BLOCK					Project:
Item No.	Description	Units	Quantity	Unit Bid Rate (Ksh)	Amount KSh	Technology
23-02-001	Supply, lay and compact 60mm thick precast concrete paving block with with 49N/MM <sup>2</sup> cube crushing strength Conforming to BS 6717 PART 1 of 1986 or Kenya Bureau of Standards equivalent including 30mm thick sand/quarry dust.	M <sup>2</sup>	4100			LB/MB
	<b>Total Carried Forward to Summary:</b>					

Completion of Kangeta Cabro.

<b>Bill of Quantities</b>		Page: 5
	<b>Summary</b>	<b>Project:</b>
<b>Item No.</b>	<b>Description</b>	<b>Amount (KShs)</b>
1	ACTIVITY GROUP:- GENERAL: OFFICE ADMINISTRATION AND OVERHEADS/PRELIMINARIES	<b>495,000</b>
8	CULVERT AND DRAINAGE WORKS	
20	ROADS FURNITURES	
23	CONCRETE PAVING BLOCK	
	<b><i>Sub Total</i></b>	
	<b>Total Carried to page on the form of Tender</b>	



## **STANDARD FORMS**

- (i) Form of Invitation for Tenders**
- (ii) Letter of Acceptance**
- (iii) Form of Tender Security**
- (iv) Performance Bank Guarantee**
- (v) Bank Guarantee for Advance Payment**
- (vi) Tender Questionnaire**
- (vii) Confidential Business Questionnaire**
- (viii) Adjudicator's Agreement**

**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*

LETTER OF ACCEPTANCE  
[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 thirty (30) days after the Period of Tender validity, and any demand in respect thereof should reach the Bank not later than the said date.

_____	_____
<i>[date]</i>	<i>[signature of the Bank]</i>
_____	_____
<i>[witness]</i>	<i>[seal]</i>

**PERFORMANCE BANK GUARANTEE**

To: \_\_\_\_\_ (Name of Employer) \_\_\_\_\_ (Date)  
\_\_\_\_\_ (Address of Employer)

Dear Sir,

WHEREAS \_\_\_\_\_ (hereinafter called “the Contractor”) has undertaken, in pursuance of Contract No. \_\_\_\_\_ dated \_\_\_\_\_ to execute \_\_\_\_\_ (hereinafter called “the Works”);

AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee by a recognised bank for the sum specified therein as security for compliance with his obligations in accordance with the Contract;

AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee:

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Contractor, up to a total of Kshs. \_\_\_\_\_ (amount of Guarantee in figures) Kenya Shillings \_\_\_\_\_ (amount of Guarantee in words), and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of Kenya Shillings \_\_\_\_\_ (amount of Guarantee in words) as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the Contractor before presenting us with the demand.

We further agree that no change, addition or other modification of the terms of the Contract or of the Works to be performed thereunder or of any of the Contract documents which may be made between you and the Contractor shall in any way release us from any liability under this Guarantee, and we hereby waive notice of any change, addition, or modification.

This Guarantee shall be valid until the date of issue of the Employer’s notice under Sub-Clause 8.2 (Taking-Over Notice), of the Conditions of Contract.

SIGNATURE AND SEAL OF THE GUARANTOR \_\_\_\_\_

Name of Bank \_\_\_\_\_

Address \_\_\_\_\_

Date \_\_\_\_\_

**BANK GUARANTEE FOR ADVANCE PAYMENT**

To: \_\_\_\_\_ [name of Employer] \_\_\_\_\_(Date)  
\_\_\_\_\_ [address of Employer]

Gentlemen,

Ref: \_\_\_\_\_ [name of Contract]

In accordance with the provisions of the Conditions of Contract of the above-mentioned \_\_\_\_\_ Contract, We, \_\_\_\_\_ [name and Address of Contractor] (hereinafter called "the Contractor") shall furnish you with a Bank guarantee by a recognised Bank for the sum specified therein as a security for compliance with his obligations in accordance with the Contract in an amount of Kshs. \_\_\_\_\_ [amount of Guarantee in figures] Kenya Shillings \_\_\_\_\_ [amount of Guarantee in words].

We, the \_\_\_\_\_ [bank or financial institution], as instructed by the Contractor, agree unconditionally and irrevocably to guarantee as primary obligator and not as Surety merely, the payment to \_\_\_\_\_ [name of Employer] on his first demand without whatsoever right of objection on our part and without his first claim to the Contractor, in the amount not exceeding Kshs \_\_\_\_\_ [amount of Guarantee in figures] Kenya Shillings \_\_\_\_\_ [amount of Guarantee in words].

We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed thereunder or of any of the Contract documents which may be made between \_\_\_\_\_ [name of Employer] and the Contractor, shall in any way release us from any liability under this Guarantee, and we hereby waive notice of any such change, addition or modification.

This Guarantee shall remain valid and in full effect from the date of the Advance Payment under the Contract until \_\_\_\_\_ (name of Employer) receives full payment of the same amount from the Contract.

Yours faithfully,  
Signature and Seal \_\_\_\_\_

Name of the Bank or financial institution \_\_\_\_\_

Address  
\_\_\_\_\_

Date  
\_\_\_\_\_  
\_\_\_\_\_

Witness:      Name:  
\_\_\_\_\_

Address:  
\_\_\_\_\_

Signature:  
\_\_\_\_\_

Date:  
\_\_\_\_\_

**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 .....

## 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. Facsimile 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 an original and one copy 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 (a) - Sole Proprietor*

Your name in full..... Age.....

Nationality..... Country of Origin.....

Citizenship details .....

*Part 2 (b) - Partnership*

*Give details of partners as follows:*

	<i>Name in full</i>	<i>Nationality</i>	<i>Citizenship Details</i>	<i>Shares</i>
1	.....	.....	.....	
2	.....	.....	.....	
3	.....	.....	.....	

*Part 2 (c) - Limited Company Give details of directors as follows:*

	<i>Name in full</i>	<i>Nationality</i>	<i>Citizenship Details</i>	<i>Shares</i>
1	.....	.....	.....	
2	.....	.....	.....	
3	.....	.....	.....	

**1.1 KEY PERSONNEL**

	<b>DESIGNATION</b>	<b>NAME</b>	<b>NATIONALITY</b>	<b>SUMMARY OF QUALIFICATIONS AND EXPERIENCE</b>
<b>1</b>				
<b>2</b>				
<b>3</b>				
<b>4</b>				
<b>5</b>				
<b>6</b>				

I certify that the above information is correct.

.....  
(Title)

.....  
(Signature)

.....  
(Date)

**1.1.2 SCHEDULE OF COMPLETED WORKS CARRIED OUT BY THE TENDERER**

	DESCRIPTION OF WORKS	NAME OF CLIENT	TOTAL VALUE OF WORKS (KSHS)	CONTRACT PERIOD (YEAR)	YEAR COMPLETED
1					
2					
3					
4					
5					
6					
7					

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

.....  
(Title)

.....  
(Signature)

.....  
(Date)

\*Value in Kshs using Central Bank of Kenya mean exchange rate at a reference date 30 days before date of tender opening

**1.1.3 SCHEDULE OF ONGOING PROJECTS**

	DESCRIPTION OF WORK	NAME OF CLIENT	CONTRACT PERIOD	DATE OF COMMENCEMENT	DATE OF COMPLETION	TOTAL VALUE OF WORKS (KSHS.)	PERCENTAGE COMPLETED TO DATE
1							
2							
3							
4							
5							

6							

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

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

**SCHEDULE OF EQUIPMENTS**

Major items of Contractor's Equipment proposed for carrying out the Works.  
 List all information requested below.

	Item of Equipment	Description, Make and age (years)	Condition (new, good, poor) and number available	Owned, leased (from whom?), or to be purchased (from whom?)
1				
2				
3				
4				

5				
---	--	--	--	--

I certify that the above information is correct.

.....

.....

.....  
(Title)

(Signature)

(Date)

### Instructions to the Tenderers

Table 1: Mandatory requirements

Item NO	Mandatory qualification Requirements	
1	ELIGIBILITY - Copy of National ID or passport for all Directors	mandatory
2	BID SECURITY - Unconditional guarantee, in the format and conditions provided -  Must be valid for 150days	mandatory
3	Attending pre-tender site visit for the works.	mandatory
4	Certified Copy of Certificates of Registration/Incorporation.	mandatory
5	Principal place of business (attach business permit or trading license)	mandatory
6	Certified Certificate of registration with National Construction Authority	mandatory
7	Certified Copy of Tax compliance certificate	mandatory
8	Properly and dully filled Form of Tender	mandatory
9	Properly and dully filled Tender Questionnaire	mandatory
10	Properly and dully filled Confidential Business Questionnaire	mandatory



## SECTION V-(B): TECHNICAL EVALUATION CRITERIA

This Section shall apply to tenderer whose bids have been determined to be responsive and have met all the Qualification Criteria as per the instruction to bidders.

It contains all the factors, methods and criteria that the Procurement Entity shall use for the technical evaluation. The information to be provided in relation to each factor and the definitions of the corresponding terms are included in the respective supplementary information Forms (Schedules).

The Technical Evaluation Committee shall examine tender documents and score them based on their validity, accuracy and quality and score them as per Table below. Where the bidder fails to meet the requirement, the bidder shall be disqualified.

Bidders whose shall **score70%** and above shall proceed to financial evaluation stage

### Table 2: Technical Qualification Requirements

11	<b>Financial Capacity</b>		20
	1	<b>Company turnover for the last two years</b>	5
	2	<b>Profitability of the company for the last two years</b>	5
	3	Past two years Audited Financial Reports of the tenderer	5
	4	Current one year Bank statement.	5
12	Contractual misconducts and litigation - Legal Capacity/Litigation History (attach affidavit)		5
13	Experience (5 YEARS AND ABOVE)		25
	Bidder to submit the following - Completion certificate, Taking Over Certificate or Substantial Completion Certificate of relevant work in the previous 5 years - Value of ongoing work must be < 50% of		20
	A	Specific Experience in Related Works - Attach certificate of completion	5
14	Key personnel - Provide List of professional and technical staff and their resume - General Experience (CV), - Certified Qualification Certificate		15
	b	Site Agent DEGREE	15
	C	Surveyor -DIPLOMA	10
	c	Foreman - CERTIFICATE	5
15	A	Equipments	20
	Bidder to submit the following - Ownership list of required equipment and/or Authorization letter of hiring from M&T or reputable hiring company		
16	<b>Registration as a contractor with NCA</b>		8
		1) NCA 1 [building/roads]	8
		2) NCA 2 [building/roads]	7
		3) NCA 3 [building/roads]	6
		4) NCA 4 [building/roads]	5
		5) NCA 5 [building/roads]	4
			3
			2
			1

		6) NCA 6 [building/roads] 7) NCA 7 [building/roads] 8) NCA 8 [building/roads]	
17	a	Working Schedule and Projected Cash Flow.	4
		Bidder to submit the following Proposals 1. Signed work program chart 2. Signed Cash flow plan during the Contract period.	2
			2
18		<u><b>Certification</b></u> I/we certify that the information provided herein is correct and legally binding. Name.....  Signature.....  Date.....  Official stamp.....	3
		<b>TOTAL</b>	100 %