



TENDER NO. TCML/MGD/WS/2019/25

**TENDER FOR THE PROPOSED PIPELINE
REHABILITATION PHASE 2 - 1ST AND 2ND LAKE
(CAUSEWAY REHABILITATION)**

AUGUST, 2019

CLIENT:

**TATA CHEMICALS MAGADI LIMITED
P.O. BOX 1-00205
MAGADI**

THE HEAD OF PROCUREMENT

**TATA CHEMICALS MAGADI LTD.
P.O. BOX 1-00205
NAIROBI**



About Tata Chemicals Magadi

Tata Chemicals Magadi Limited (TCML) occupies a significant place in the African economy. It is Africa's largest soda ash manufacturer and one of Kenya's leading exporters. Just as significant, the company is an important part of the socio-economic fabric of the Lake Magadi region in Kenya, where its soda ash facility is based.

Formerly known as Magadi Soda Company, TCML has been a part of Tata Chemicals since 2005. Tata Chemicals Limited (TCL), part of the global Tata group, is one of the world's leading chemical companies, with a widespread portfolio of household products, industrial chemicals and agricultural inputs. TCL's operations are located in the US, the UK, Kenya and India.

Established in 1911, Tata Chemicals Magadi Limited has been producing soda ash at Lake Magadi for over a hundred years. The site is situated 120kms south west of Nairobi. Here, the company recovers Trona (a naturally occurring mineral that contains sodium compounds) from one of the purest surface deposits in the base of the Rift Valley at Lake Magadi. TCML converts Trona into soda ash, which is transported by rail to the Port of Mombasa for onward shipping to the markets.

Soda ash is an essential constituent in the manufacture of glass and the production of detergents and industrial chemicals. Over 95 per cent of the company product is exported to its principal markets of South East Asia, Indian sub-continent, Africa and the Middle East through the Mombasa port.

Pipeline Rehabilitation Phase 2 - 1st and 2nd Lake (Causeway Rehabilitation).

Tata Chemicals Magadi obtains its water supply from Ngurumani Escarpment, 50 Km away from Magadi Township. At present, the causeway and the pipeline across 1st & 2nd lake sections are worn out after serving their design period, leading to poor pipeline accessibility and frequent pipe bursts.

The intentions of this tender is to rehabilitate the causeway by raising it by 0.7 m above the existing level. This will eliminate causeway and pipeline submergence.

SCOPE OF WORK

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

QUALIFICATION FOR TENDERING

1.1. Mandatory Requirements

The following must be submitted together with bid:

- i) A Copy of CR12
- ii) Copy of Registration certificate for National Construction Authority (NCA) in category **NCA 4 and above**
- iii) Copy of Valid Tax Compliance Certificate
- iv) A copy of **Current** Single business permit
- v) **WIBA** Compliant, and show proof.

NB: Failure to meet the MANDATORY requirements, the bid will be DISQUALIFIED and no further evaluation will be done.

1.2 Other Requirements

The Bidder shall submit information which will enable the technical team to evaluate their capability to undertake the works. For the purpose of these works, it is required that the firms should provide the following: -

- i) Similar previous experience
- ii) Equipment holding attach proof of ownership or lease agreements; any of the two.
- iii) Professional and technical staff (attach CV's, testimonials & Certificates.
- iv) Financial Status
- v) Completion period (attach detailed work Schedule)

All information in the attached forms should be provided in full and failure to do so will constitute grounds for disqualification.

There shall be a mandatory pre-tender site visit as specified in the table below:

Date	22 nd August 2019
Time	14.30 p.m
Venue	TATA CHEMICALS MAGADI OFFICES - LAKE MAGADI

No.	Description	Max. Point	Points Awarded
1	Mandatory Requirements		YES/NO
1.1	A copy of CR12		YES/NO
1.2	Copy of Registration certificate for National Construction Authority (NCA) in category NCA 4, and above		YES/NO
1.3	Copy of Valid Tax Compliance Certificate (To be checked online through KRA portal)		YES/NO
1.4	Financial Status; current Audited financials for the last 3 years		YES/NO
1.5	WIBA Compliant ; and show proof.		YES/NO
2	Key Staff Qualifications :20 Points		
2.1	Attach CV's and certificate of Key staff signed by the proposed staff to the job and endorsed by Key Management representative: Each staff carries 5mks a.) Project Manager - Degree in civil Eng. b.) Site Agent - Diploma in civil Eng. c.) Site Surveyor - Diploma in survey d.) Foreman - Certificate in civil Eng.	20	
3	Key Equipment : 30Marks		
3.1	Provide documented evidence of ownership or lease of the following key equipment. Each equipment set carries 6 mks a.) Excavator - 1 No. b.) Wheel loader - 1 No. c.) Grader - 1 No. d.) 7 tonnes Lorry - 3 No. e.) Flat Roller - 1 No.	30	
4	Experience of the Firm : 30 Points		
4.1	Attach proof/evidence i.e. LPO's, Completion letters of three (3) similar works undertaken of the same value for the last 3 years. Each work carries 10mks.	30	
5	Completion Period : 20 Points		
5.1	Completion Period. The contractor to come up with a detailed; a.) Work Schedule/Programme) - 5 marks and b.) Comprehensive Work Methodology - 10 marks	15	
6	Current audited financial statement for the last 3 years	5	
	GRAND TOTAL	100	
	Ratings		

Note;

1. All bidders must provide above information together with their bids.
2. A bidder must score a minimum of Seventy (80%) points at the Technical Stage to qualify for Financial Evaluation.
3. Bidders shall arrange for their own means of transport to and from Magadi town to their respective places. *N.B.*

The bidders must submit the Technical and The Financial proposals separately.

A. TECHNICAL PROPOSAL -

Two copies in sealed envelopes clearly marked “**TECHNICAL PROPOSAL FOR TENDER NO: TCML/MGD/WS/2019/25 - Tender for THE PROPOSED PIPELINE REHABILITATION PHASE 2 - 1ST AND 2ND LAKE (CAUSEWAY REHABILITATION)**” One copy marked as “**ORIGINAL**” and One other copy marked as “**COPY**”. All to be finally put in one sealed envelope. (The firms will ensure that there is no reference at all on their financial proposal within the technical proposal envelope).

B. FINANCIAL PROPOSAL -

Two copies in sealed envelopes clearly marked “**FINANCIAL PROPOSAL FOR TENDER NO: TCML/MGD/WS/2019/25 - Tender for THE PROPOSED PIPELINE REHABILITATION PHASE 2 - 1ST AND 2ND LAKE (CAUSEWAY REHABILITATION)**” One copy marked as “**ORIGINAL**” and One other copy marked as “**COPY**”. All to be finally put in one sealed envelope (The financial proposal shall include all taxes applicable).

Addressed to:

**The Head of Procurement,
TATA Chemicals Magadi Limited,
P.O. Box 1-00205,
MAGADI.**

The same will be deposited in the tender box situated in Administration Block, Magadi OR Collection Centre, at Enterprise Road - Avon house, Industrial area so as to reach him/her on or before **5.00 p.m. on 30th AUGUST, 2019.**

The Management reserves the right to accept or reject any bids and does not bind itself to any reasons for doing so.

CONTRACTOR CAPACITY

PLANT AND EQUIPMENT TO BE DEPLOYED TO THE WORKS

Item	Plant/Equipment	Registration No.	Ownership Status (tick)	
			Owned	Hired

TECHNICAL STAFF TO BE DEPLOYED TO THE WORKS

ITEM	NAME	ACADEMIC & TECHNICAL QUALIFICATIONS (Attach documents)

SPECIFICATIONS

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.

These Specifications shall be read together with the “Special Specification from the Employer” appended hereafter.

Specifications contained in the Special Specification shall be deemed to prevail in the event of any contradiction with the general technical specifications.

SPECIAL SPECIFICATIONS

1) Location of Works and Access to Site

The works to be undertaken within this contract is located at Km 37 along Konza - Kajiado Railway Section and the rest of the culverts shall be shown during site visit.

2) Scope and nature of Works

As attached in the BoQ and Tender document

3) Work Procedure

- i. The Contractor should submit a detailed program of works to the Engineer before commencement of the works.
- ii. For any shift working the contractor must ensure there is adequate professional supervision that will guarantee quality workmanship and safety of personnel.

4) Price, Measurement

- i. The Contractor rates are assumed to cover all preliminaries anticipated in the works including provision for client's safety requirements, site offices, workmen accommodation & transport and insurance cover. In fixing his rates, the contractor may wish to take note of a 3% withholding tax chargeable on each invoice submitted.
- ii. The rates quoted by the contractor shall be deemed to cover all costs of works as specified and/or as shown on the drawings, including the cost of delivery to site or other agreed place(s) and making good the site after the works.
- iii. Prices shall include for erection, labour, scaffolding and other erection equipment/plant necessary and covering the cost of additional requirements to properly execute the works to the satisfaction of the client.

5) Assessment of Contractors Personnel

- i. The Engineer will require the Contractor to submit a list of professional and sub-professional personnel to be employed on the site, stating their qualifications and experience. The Contractor shall notify the Engineer at least 14 days in advance on any key personnel transfer or replacement. No transfer of staff shall be effected unless the Engineer grants permission in writing authorizing such transfers or replacement.
- ii. The Engineer reserves the right to determine suitability of persons employed by the Contractor and may request replacement at any time of any members of Contractor's team if in the opinion of the Engineer; the presence of such a person is detrimental to the execution of the Contract. The Engineer shall give written notice to

the Contractor stating his reasons substantiating the request for removal of such persons. The Engineer's decision shall be final and binding.

6) Plant and Equipment

If in the opinion of the Engineer the plant or equipment used by the Contractor for any specific item of work does not fulfill the requirements of the specification, in respect of workmanship, quality and safety of structures, such item of plant shall be replaced with the same or equivalent item to the satisfaction of the Engineer. No extra payment shall be made in respect of such replacement.

7) Notice of Operations

The Contractor shall from time to time supply to the Engineer in writing full information with respect to locations in which any material for the work is being prepared. Such general notices will enable arrangements for checking the works.

8) Working Hours

At the commencement of the Contract, the Contractor shall submit to the Engineer in writing the hours that shall be considered normal working hours. When approved, the working hours shall be maintained throughout the continuance of the Contract. Where the Contractor wishes to work outside these hours, he shall obtain written permission from the Engineer at least 24 hours in advance to enable the Engineer make a provision for proper inspection of the works.

9) Faulty Works

Any work that fails to comply with the specifications shall be rejected and the Contractor will at his expense make good any default as directed by and to the satisfaction of the Engineer.

10) Communication

- i. All instructions and communications relating to this contract shall flow from the Employer or a person to whom the Employer delegates the authority to issue such communication. Instruction given by the Employer shall be in writing, provided that if for any reason the Employer considers it necessary to give any such instruction orally, the Contractor shall comply with such instruction. Confirmation in writing of such oral instruction given by the Employer, whether before or after the carrying out of the instruction, shall be deemed to be an instruction within the meaning of this Sub-Clause. Provided further that if the Contractor, within 7 days, confirms in writing to the Employer any oral instruction of the Employer and such confirmation is not contradicted in writing within 7 days by the Employer, it shall be deemed to be an instruction of the Employer.
- ii. All communication to the Contractor will be directly to the Contractor or through a nominated contact person(s). The name(s) of the contact person(s) should be advised prior to awarding of the contract.
 - The Contractor's nominated person must be capable of communicating in both English and Kiswahili languages
 - There will be regular meetings between both parties to review the progress of the contract and address all issues outstanding. Each meeting must be properly documented in writing and circulated to both parties.
 - Inspection of the works/services being provided will be undertaken by the Employer in the presence of the Contractor at a time mutually agreed.

11) Payment Terms

- i. The basis for actual payment of any item shall be measured quantity of work actually done multiplied with the rate for the said item. Any variation from the original quantity on which the quotation was made which results in either an increase or decrease in the measured quantity of work as completed shall cause appropriate additions or deductions to the quotation.
- ii. Any written instructions from the Engineer that may result in additional work over and above that for which the Contractor quoted will be considered as extras and shall be paid for on the basis of measured additional quantity based on the prevail contract rate.

- iii. The Contractor shall be paid the agreed sum for services rendered provided the services have been completed to the satisfaction of the Employer. No payment will be made if the work has not been completed to the agreed standards.
- iv. The Contractor must submit his/her invoice against which the Employer shall effect payment. Payment will be made within thirty (30) days from the date of the invoice.
- v. No advance payment will be made and payment will only against an invoice submitted by the contractor on the basis of an agreed and signed payment certificate for work satisfactorily completed.

SECTION 5 - EARTH

504 PREPARATION PRIOR TO FORMING EMBANKMENT

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

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

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

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

505 CONSTRUCTION OF EMBANKMENTS

Only material approved by the Engineer shall be used in embankments. Fill material shall comply with the following requirements:

- Organic matter less than 5% by weight
- Swell less than 3%
- Plasticity Index less than 50%

Subgrade is defined on the Drawings, and subgrade material shall comply with the requirements of Clause 505 except that the CBR shall have a value of not less than

10% measured after a four (4) days soak on a laboratory mix compacted to a dry density of 100% MDD (AASHTO T99).

Improved subgrade is defined on the Drawings or as shall be specified by the Engineer and shall comply requirements:

- CBR of not less than 14% measured after 4 days soak on a laboratory mix compacted to a dry density of 95% (AASHTO T99)
- Plasticity Index less than 30%
- Swell less than 1% on the laboratory mix sample.
- Placed in layers not exceeding 175mm thick.

The improved subgrade thickness shall be as follows:

- • Class S1 Native Subgrade (CBR 2-5%) : 325mm
- • Class S2 Native Subgrade (CBR 5-10%) : 200mm

Improved subgrade shall not be required where the average bearing strength of the in-situ soil exceeds 10%.

508 COMPACTION OF EARTHWORKS

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

At locations adjacent to structures, all fill above ground level up to the underside of the sub-grade shall be compacted to density of 105% MDD (AASHTO T.99). In case of fill around box culverts this should be carried out for the full width of the fill and for a length bounded by the vertical plane passing through the ends of the wing walls.

Notwithstanding the provision of clause 503 of the Standard Specification, compaction of sub-grade material (i.e. material immediately below formation) in cut areas shall not be carried out by the Contractor in areas where the formation is formed in hard material, unless specific instructions to the contrary are issued by the Engineer.

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

511 BORROW PITS

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

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

517 MEASUREMENT AND PAYMENT

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

SECTION 6 - QUARRIES, BORROW PITS, STOCKPILES AND SPOIL AREAS

601 GENERAL

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

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

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

602 THE MATERIALS REPORT

The information given on material is for general guidance to the bidders and the Contractor fully responsible for material sourcing and handling until final finish. Bidders are advised to conduct their own investigation as the information contained therein is neither guaranteed nor warranted.

SECTION 7 - EXCAVATION AND FILLING FOR STRUCTURES

703 EXCAVATION OF FOUNDATIONS FOR STRUCTURES

Before commencing excavation for the foundation of any structure, the Contractor shall open up one or more trial pits within the areas of the foundation as directed by the Engineer's representative before excavating for the foundation. Where a trial pit is excavated to a level below the founding level of the structure, it shall be backfilled to that level with approved material or concrete as directed by the Engineer's representative.

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

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

707 BACK-FILLING FOR STRUCTURES

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

709 EXCAVATIONS FOR RIVER TRAINING AND NEW WATER COURSES

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

710 STONE PITCHING

Stone pitching will be undertaken as a soil conservation measure, with soil erosion minimised by ensuring that proper protection works are carried out along the drains using stone pitching. Most of the sections shall be stone pitched especially areas where we have steep slopes to minimise undermining of the road by rain water or as may be instructed by the Engineer.

Stone pitching to drains, inlets and outlets of culverts to embankments and around structures shall consist of sound unweathered rock, which when soaked will withstand a crushing stress of 20N/mm², and approved by the Engineer.

The stone as dressed shall be roughly cubical in shape with minimum dimensions of 150 x 150mm for normal thickness of stone pitching. Grouting will be done for all stone pitching areas and the top line of the stone pitching should be grouted/sealed with concrete class 15/20.

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

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

711 GABIONS

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

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

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

712 RIP-RAP PROTECTION WORK

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

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

714 BACKFILL BELOW STRUCTURES

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

SECTION 8 - CULVERTS AND DRAINAGE WORKS

801 SCOPE OF SECTION

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

In addition, this Section covers: -

- Installation of 600mm, 900mm and 1200mm diameter pipe culverts
- Construction of associated inlet and outlet structures to specifications and/or instructions

804 EXCAVATION FOR CULVERTS AND DRAINAGE WORKS

In the Standard Specifications, make the following amendments: -

- (a) In paragraph 6, line 3, and in paragraph 7, line 5 and in paragraph 11, line 6, delete "95%" and insert "100%".

- (b) Removal of Existing Pipe Culverts

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

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

The payment of this work shall be per linear metre of pipes removed. The void left by removal of these pipes shall be carefully preserved in order to accommodate replacement 600mm or 900mm diameter pipe culverts as shall be directed by the Engineer.

- (c) Removal of Other Existing Drainage Structures

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

- (d) Excavation for Culverts and Drainage Works

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

805 EXCAVATION IN HARD MATERIAL

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

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

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

Hard material is material that can be excavated only after blasting with explosives or barring and wedging or the use of a mechanical breaker fitted with a rock point in good condition and operated correctly. Boulders of more than 0.2m³ occurring in soft material shall be classified as hard material.

809 BEDDING AND LAYING OF PIPE CULVERTS

Concrete pipes shall be laid on a 150mm thick concrete bed of class 15/20 and the pipes shall be bedded on 1:3 cement: sand mortar at least 50mm thick, 150mm wide and extending the full length of the barrel.

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

810 JOINTING CONCRETE PIPES

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

812 BACKFILLING OVER PIPE CULVERTS

In the Standard Specifications, clause 812

- 1). Delete paragraph 6 "for pipe culvertsdepth of 150mm", entirely.
- 2). Wherever the expression "dry density of 95% MDD (AASHTO T. 99)" occurs delete and replace with "dry density of 100% MDD (AASHTO T.99)".

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

PREAMBLE TO BILLS OF QUANTITIES

1. The Contractor is required to check the numbers of the pages and should any be found to be missing or in duplicate or the figures or writing indistinct he must inform the Engineer at once and have the same rectified. Should the Contractor be in doubt about the precise meaning of any item, word or figure, for any reason whatsoever, or observe any apparent omission of words or figures, he must inform the Engineer in order that the correct meaning may be decided upon before the date for the submission of the Tender.
2. No liability whatever will be admitted nor claim allowed in respect of errors in the Contractor's Tender due to mistakes in the Bills of Quantities which should have been rectified in the manner described above.
3. These Bills are to be read and priced in conjunction with the Conditions of Contract, the Specification, the Drawings and Schedules.
4. The quantities set forth in the Bills of Quantities are believed to be approximately correct, and to represent substantially the work to be carried out, and are given for the purpose of enabling the Employer to compare Tenders on an equal basis.
5. The prices and rates inserted in the Bills of Quantities will be used for valuing the work executed, and the Engineer will re-measure the whole of the works executed in accordance with this contract.
6. The prices and rates inserted in the Bills of Quantities are to be the full inclusive values of the work described under the items, including all costs and expenses which may be required in and for the construction of the work described, together with any temporary works and installations which may be necessary, and all general risks, liabilities and obligations set forth or implied in the documents on which the tender is based.
7. The brief description of the items given in the Bills of Quantities is purely for the purpose of identification, and in no way modifies or supersedes the details descriptions given in the Conditions of Contract and Specification. When pricing items, reference is to be made to the Conditions of Contract, and Specifications for the full directions and description of work and materials.
8. A price or rate is to be inserted, in ink, against each item in the Bills of Quantities and Schedule of materials, whether quantities are stated or not, and if the Tender includes the cost of a particular item elsewhere in his rates or prices, he shall insert the word "Nil" against both the rate and extensions of that particular item. Should the Tenderer omit to price an item, then it will be assumed that he has included the cost of the item elsewhere in his rates or prices.
9. No alteration shall be made to the Bills of Quantities or Schedule of materials and no extra item shall be inserted. The Tenderer shall satisfy himself that the Tender sum arrived at by pricing and quantities and items given is sufficient compensation for constructing and maintaining the whole of the works in accordance with these contract documents.
10. The Bills of Quantities have been prepared generally in accordance with the Standard Method and Measurement - Institution of Civil Engineers (U.K) Variations have been made in some cases to suit local practice.
11. All quantities are measured net (unless otherwise stated) in accordance with the Drawings and no allowance has been made for cutting or waste. The Tenderer must allow in his rates accordingly.

12. Where other Contractors engaged by the employer are working in the same area, the Contractor shall give way and clearance as required and shall programme his work to give a minimum of interference to other contractors. Under these conditions the Contractor must ensure that such back-filling and surplus soil as he is responsible for are kept rigidly separate from that of other Contractors also employed. The prices and rates given must include for compliance with this requirement.
13. The Contractor must note that materials should be ordered for the Contract from the working Drawings, checked where necessary from Site measurements. They may not be ordered from either the Bills of Quantities or the Tender Drawings. The contractor is solely responsible for accurate ordering of materials in accordance with the Drawings and no claim for any loss or expense will be entertained for orders for materials based upon the Bills of Quantities.
14. Metrication - All quantities are given in Metric Dimensions. However, where the changeover of production sizes has not yet taken place the Contractor may use equivalent goods manufactured to Imperial Dimensions at no extra cost to the Employer.
15. The Bills of quantities must be priced in Kenya currency, i.e. Shillings and Cents. All items in the Bills of Quantities MUST be priced and entered in "INK" against each item of work given. The word "NIL" is to be entered if no rate is required. Items not priced will be deemed to be included in other rates.
16. Definition of Abbreviation

Abbreviations used in the Bills of Quantities shall be interpreted as follows :-

"BS"	shall mean	the current British Standard Specification published by the British Standards Institution
"No."	shall mean	number
"Ditto"	shall mean	the whole of the preceding description except as qualified in the section in which it occurs. Where it occurs in brackets it shall mean the whole of the preceding description which is contained within the appropriate brackets
"mm"	shall mean	millimeter
"LM."	shall mean	linear metre
"SM"	shall mean	square metre
"CM"	shall mean	cubic metre
"n.l.t"	shall mean	not less than
"n.e."	shall mean	not exceeding
"Kg"	shall mean	kilogramme
"ha"	shall mean	hectare
"EO"	shall mean	extra over