



COUNTY ASSEMBLY OF KILIFI

PROPOSED OFFICE BLOCK FOR THE COUNTY ASSEMBLY OF
KILIFI

TENDER NO. CAK/029/2018-2019

TENDER SPECIFICATIONS AND BILLS OF QUANTITIES

FOR

**SUPPLY, DELIVERY, INSTALLATION, TESTING AND COMMISSIONING
OF BOOSTER PUMPS INTALLATIONS AND GENERAL WATER
RETICULATION WORKS FOR THE KILIFI COUNTY ASSEMBLY OFFICE
BLOCK.**

(SUB-CONTRACT)

CLIENT

THE COUNTY ASSEMBLY OF KILIFI
P.O. BOX 332
MALINDI

MECHANICAL ENGINEER

SENIOR SUPERINTENDENT MMECHANICAL
DEPARTMENT OF PUBLIC WORKS
P.O. BOX 409
KILIFI

CONSULTANT ARCHITECT

CORBEL CONSULTANTS
P.O. BOX 87537
MOMBASA

CONSULTANT QUANTITY SURVEYOR

ADAMS CONSULTANTS.
P.O. BOX 84829
MOMBASA

CONSULTANT STRUCTURAL ENGINEER

ARMBICON TECHNICS
P.O. BOX 38729
MOMBASA

TO BE SUBMITTED BY 21ST DECEMBER, 2018

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DEFINITIONS

The following terms and expressions used in the contract document shall have the following meanings:

The Employer	County Assembly of Kilifi Represented by: The Clerk, County Assembly of Kilifi P.O. Box 332 <u>MALINDI</u>
Architect	Corbel Consultants P.O BOX 87537, <u>MOMBASA</u>
Engineer	Senior Superintendent Mechanical(B.S) Department of Public Works, P.O. Box 409, <u>KILIFI</u>
Quantity Surveyor	Adams Consultants Department of Public Works, P.O. Box 84829, <u>MOMBASA</u>
Structural Engineer	Harmbicon Technics P.O. Box 38729, <u>MOMBASA</u>
Employer's representative	This shall mean the Project Manager and shall be The Corbel Consultants P.O. Box 87537, <u>MOMBASA</u>
Main contractor	The firm appointed to carry out Builders and civil Works
Sub-Contractor	The firm appointed to carry out SUPPLY, DELIVERY, INSTALLATION, TESTING AND COMMISSIONING OF BOOSTER PUMPS INTALLATIONS AND GENERAL WATER RETICULATION WORKS FOR THE KILIFI COUNTY ASSEMBLY OFICE BLOCK.

FORM OF TENDER

To: The Clerk,
COUNTY ASSEMBLY OF KILIFI,
P.O. BOX 332,
MALINDI

Dear Sir,

SUPPLY, DELIVERY, INSTALLATION, TESTING AND COMMISSIONING OF BOOSTER PUMPS INTALLATIONS AND GENERAL WATER RETICULATION WORKS FOR THE KILIFI COUNTY ASSEMBLY OFICE BLOCK.

-

Kshs..... *[Amount in figures]*

Kenya Shillings.....
.....
..... *[Amount in words]*

1. We undertake, if our tender is accepted, to commence the Works as soon as is reasonably possible after the receipt of the Employer’s Representative’s notice to commence, and to complete the whole of the Works comprised in the Contract within the time stated in the Appendix to Conditions of Contract.
2. We agree to abide by this tender for a **period of 120 days from the date of tender opening** and shall remain binding upon us and may be accepted at any time before that date.
3. 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.
4. Understand that you are not bound to accept the lowest or any tender you may receive.

Dated this Day of20.....

Signaturein the capacity of

Duly authorized to sign tenders for and on behalf of:

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

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

PIN No.

VAT CERTIFICATE No.

Witness: Name
Address
Signature

FORM OF TENDER SECURITY

WHEREAS (Hereinafter called “the Tenderer”) has submitted his tender dated For **SUPPLY, DELIVERY, INSTALLATION, TESTING AND COMMISSIONING OF BOOSTER PUMPS INTALLATIONS AND GENERAL WATER RETICULATION WORKS FOR THE KILIFI COUNTY ASSEMBLY OFFICE BLOCK.**

Kshs..... [*Amount in figures*]

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 thisDay of20

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 his 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.

.....
(Date)

.....
(Signature of the Bank)

.....
(Witness)

.....
(Seal)

APPENDIX TO CONDITIONS OF CONTRACT

THE EMPLOYER IS

Name: **The County Assembly of Kilifi**
Represented By:
The Clerk, County Assembly of Kilifi

Address: **P.O. Box 332, MALINDI**

Name of Employer's Representative: **Corbel Consultant architects**
Address: **P.O. Box 87537, MOMBASA**

The name (and identification number) of the Contract is **SUPPLY, DELIVERY, INSTALLATION, TESTING AND COMMISSIONING OF BOOSTER PUMPS INTALLATIONS AND GENERAL WATER RETICULATION WORKS FOR THE KILIFI COUNTY ASSEMBLY OFICE BLOCK.**

The Works consist of **THE SUPPLY, DELIVERY, INSTALLATION, TESTING AND COMMISSIONING OF BOOSTER PUMPS INTALLATIONS AND GENERAL WATER RETICULATION WORKS FOR THE KILIFI COUNTY ASSEMBLY OFICE BLOCK.**

-

The Start Date shall be as in agreement with the main contractor

The Intended contract period for the whole of the Works shall be **as in agreement with the main contractor**

The following documents also form part of the Contract:

- a. **As listed in Clause 2**
- b. **The latest agreement and conditions of sub contract for building works by the Kenya Association of Building and Civil Engineering Contractors (KABCEC)**

The Site Possession Date shall be **as in agreement with the main contractor.**

The Site is **located within MALINDI TOWN**

The Defects Liability Period is **6 Months**

Amount of Tender Security is **Kshs.**

The name and Address of the Employer's representative for the purposes of submission of tenders

IsCorbel Consultant architects
Address: **P.O. Box 87537, MOMBASA**

1.05 Definition of Terms

Throughout these contract documents units of measurements, terms and expressions are abbreviated and wherever used hereinafter and in all other documents they shall be interpreted as follows:

- i) **Employer:** The term “**Employer**” shall mean **The County Assembly of Kilifi, P.O BOX 332, KILIFI**
- ii) **Architect:** The term “**Architect**” shall mean **Corbel Consultant Architects, P.O BOX 87537, MOMBASA**
- iii) **Quantity Surveyor:** The term “**Quantity Surveyor**” shall mean **Adams Consultant Quantity Surveyors, P.O BOX 84829, MOMBASA.**
- iv) **Civil/Structural Engineers:** The term “**Civil/Structural Engineers**” shall mean **ArmbiconTechnics, P.O BOX 38729, MOMBASA.**
- v) **Engineer:** The term “**Engineer**” shall mean **Senior Superintendent Mechanical (BS), Department of Public Works, P.O BOX 409, KILIFI.**
- vi) **Contractor:** The term “**Main Contractor**” shall mean the firm or company appointed to carry out the Works as specified in the Bills of Quantities and shall include his or their heir, executors, assigns, administrators, successors, and duly appointed representatives.
- vii) **Sub-contractor:** The term “**Sub-contractor**” shall mean the persons or person, firm or Company whose tender for this work has been accepted, and who has entered into a contract agreement with the Contractor for the execution of the Sub-contract Works, and shall include his or their heirs, executors, administrators, assigns, successors and duly appointed representatives.

viii) **Sub-contract Works:** The term “**Sub-contract Works**” shall mean all or any portion of the work, materials and articles, whether the same are being manufactured or prepared, which are to be used in the execution of this Sub-contract and whether the same may be on site or not.

Contract Drawings: The term “**Contract Drawings**” shall mean those drawings required or referred to herein and forming part of the Bills of Quantities.

Working Drawings: The term “**Working Drawings**” shall mean those drawings required to be prepared by the Sub-contractor as hereinafter described.

xi) **Record Drawings:** The term “**Record Drawings**” shall mean those drawings required to be prepared by the Sub-contractor showing “as installed” and other records for the Sub-contract Works.

xii) **Abbreviations:**

CM shall mean **Cubic Metre**

SM shall mean **Square Metre**

LM shall mean **Linear Metre**

LS shall mean **Lump Sum**

mm shall mean **Millimeters**

No. Shall mean **Number**

Kg. shall mean **Kilograms**

KEBS or **KS** shall mean **Kenya Bureau of Standards**

BS shall mean. **Current standard British Standard Specification published by the British Standard Institution, 2 Park Street, London W1, England**

“**Ditto**” shall mean the whole of the preceding description in which it occurs. Where it occurs in description of succeeding item it shall mean the same as in the first description of the series in which it occurs except as qualified in the description concerned. Where it occurs in brackets it shall mean the whole of the preceding description which is contained within the appropriate brackets.

1.06 **Site Location**

The site of the Contract Works is situated at **MALINDI TOWN**, The tenderer is recommended to visit the site and shall be deemed to have satisfied himself with regard to access, possible conditions, the risk of injury or damage to property on/or adjacent to the site, and the conditions under which the sub-contract Works shall have to be carried out and no claims for extras will be considered on account of lack of knowledge in this respect.

SECTION D

GENERAL MECHANICAL SPECIFICATIONS

SECTION D

GENERAL MECHANICAL SPECIFICATION

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SECTION D

GENERAL MECHANICAL SPECIFICATION

2.01 **General**

This section specifies the general requirement for plant, equipment and materials forming part of the Sub-contract Works and shall apply except where specifically stated elsewhere in the Specification or on the Contract Drawings.

2.02 **Quality of Materials**

All plant, equipment and materials supplied as part of the Sub-contract Works shall be new and of first class commercial quality, shall be free from defects and imperfections and where indicated shall be of grades and classifications designated herein.

All products or materials not manufactured by the Sub-contractor shall be products of reputable manufacturers and so far as the provisions of the Specification is concerned shall be as if they had been manufactured by the Sub-contractor.

Materials and apparatus required for the complete installation as called for by the Specification and Contract Drawings shall be supplied by the Sub-contractor unless mention is made otherwise.

Materials and apparatus supplied by others for installation and connection by the Sub-contractor shall be carefully examined on receipt. Should any defects be noted, the Sub-contractor shall immediately notify the Engineer.

Defective equipment or that damaged in the course of installation or tests shall be replaced as required to the approval of the Engineer.

2.03 **Regulations and Standards**

The Sub-contract Works shall comply with the current editions of the following:

- a) The Kenya Government Regulations.
- b) The United Kingdom Institution of Electrical Engineers (IEE) Regulations for the Electrical Equipment of Buildings.
- a) The United Kingdom Chartered Institute of Building Services Engineers (CIBSE) Guides.

- d) British Standard and Codes of Practice as published by the British Standards Institution (BSI)
- e) The Local Council By-laws.
- f) The Electricity Supply Authority By-laws.
- g) Local Authority By-laws.
- h) The Kenya Building Code Regulations.
- i) The Kenya Bureau of Standards

2.04 **Electrical Requirements**

Plant and equipment supplied under this Sub-contract shall be complete with all necessary motor starters, control boards, and other control apparatus. Where control panels incorporating several starters are supplied they shall be complete with a main isolator.

The supply power up to and including local isolators shall be provided and installed by the Electrical Sub-contractor. All other wiring and connections to equipment shall form part of this Sub-contract and be the responsibility of the Sub-contractor.

The Sub-contractor shall supply three copies of all schematic, cabling and wiring diagrams for the Engineer's approval.

The starting current of all electric motors and equipment shall not exceed the maximum permissible starting currents described in the Kenya Power and Lighting Company (KPLC) By-laws.

All electrical plant and equipment supplied by the Sub-contractor shall be rated for the supply voltage and frequency obtained in Kenya, that is 415 Volts, 50Hz, 3-Phase or 240Volts, 50Hz, 1-phase.

Any equipment that is not rated for the above voltages and frequencies shall be rejected by the Engineer.

2.05 **Transport and Storage**

All plant and equipment shall, during transportation be suitably packed, crated and protected to minimise the possibility of damage and to prevent corrosion or other deterioration.

On arrival at site all plant and equipment shall be examined and any damage to parts and protective priming coats made good before storage or installation.

Adequate measures shall be taken by the Sub-contractor to ensure that plant and equipment do not suffer any deterioration during storage.

Prior to installation all piping and equipment shall be thoroughly cleaned.

If, in the opinion of the Engineer any equipment has deteriorated or been damaged to such an extent that it is not suitable for installation, the Sub-contractor shall replace this equipment at his own cost.

2.06 **Site Supervision**

The Sub-contractor shall ensure that there is an English-speaking supervisor on the site at all times during normal working hours.

2.07 **Installation**

Installation of all special plant and equipment shall be carried out by the Sub-contractor under adequate supervision from skilled staff provided by the plant and equipment manufacturer or his appointed agent in accordance with the best standards of modern practice and to the relevant regulations and standards described under Clause 2.03 of this Section.

2.08 **Testing**

2.08.1 **General**

The Sub-contractor's attention is drawn to Part 'C' Clause 1.38 of the "Preliminaries and General Conditions".

2.08.2 **Material Tests**

All material for plant and equipment to be installed under this Sub-contract shall be tested, unless otherwise directed, in accordance with the relevant B.S Specification concerned.

For materials where no B.S. Specification exists, tests are to be made in accordance with the best modern commercial methods to the approval of the Engineer, having regard to the particular type of the materials concerned.

The Sub-contractor shall prepare specimens and performance tests and analyses to demonstrate conformance of the various materials with the applicable standards.

If stock material, which has not been specially manufactured for the plant and equipment specified is used, then the Sub-contractor shall submit satisfactory evidence to the Engineer that such materials conform to the requirements stated herein in which case tests of material may be partially or completely waived.

Certified mill test reports of plates, piping and other materials shall be deemed acceptable.

2.08.3 Manufactured Plant and Equipment – Work Tests

The rights of the Engineer relating to the inspection, examination and testing of plant and equipment during manufacture shall be applicable to the Insurance Companies or Inspection Authorities so nominated by the Engineer.

The Sub-contractor shall give two week's notice to the Engineer of the manufacturer's intention to carry out such tests and inspections.

The Engineer or his representative shall be entitled to witness such tests and inspections. The cost of such tests and inspections shall be borne by the Sub-contractor.

Six copies of all test and inspection certificates and performance graphs shall be submitted to the Engineer for his approval as soon as possible after the completion of such tests and inspections.

Plant and equipment which is shipped before the relevant test certificate has been approved by the Engineer shall be shipped at the Sub-contractor's own risk and should the test and inspection certificates not be approved, new tests may be ordered by the Engineer at the Sub-contractor's expense.

2.08.4 Pressure Testing

All pipework installations shall be pressure tested in accordance with the requirements of the various sections of this Specification. The installations may be tested in sections to suit the progress of the works but all tests must be carried out before the work is buried or concealed behind building finishes. All tests must be witnessed by the Engineer or his representative and the Sub-contractor shall give 48 hours notice to the Engineer of his intention to carry out such tests.

Any pipework that is buried or concealed before witnessed pressure tests have been carried out shall be exposed at the expense of the Sub-contractor and the specified tests shall then be applied.

The Sub-contractor shall prepare test certificates for signature by the Engineer and shall keep a progressive and up-to-date record of the section of the work that has been tested.

2.09 Colour Coding

Unless stated otherwise in the Particular Specification all pipe work shall be colour coded in accordance with the latest edition of B.S 1710 and to the approval of the Engineer or Architect.

2.10 **Welding**

2.10.1 **Preparation**

Joints to be made by welding shall be accurately cut to size with edges sheared, flame cut or machined to suit the required type of joint. The prepared surface shall be free from all visible defects such as lamination, surface imperfection due to shearing or flame cutting operation, etc., and shall be free from rust scale, grease and other foreign matter.

2.10.2 **Method**

All welding shall be carried out by the electric arc processing using covered electrodes in accordance with B.S. 639.

Gas welding may be employed in certain circumstances provided that prior approval is obtained from the Engineer.

2.10.3 **Welding Code and Construction**

All welded joints shall be carried out in accordance with the following Specifications:

a) **Pipe Welding**

All pipe welds shall be carried out in accordance with the requirements of B.S.806.

b) **General Welding**

All welding of mild steel components other than pipework shall comply with the general requirements of B.S. 1856.

2.10.4 **Welders Qualifications**

Any welder employed on this Sub-contractor shall have passed the trade tests as laid down by the Government of Kenya.

The Engineer may require to see the appropriate certificate obtained by any welder and should it be proved that the welder does not have the necessary qualifications the Engineer may instruct the Sub- contractor to replace him by a qualified welder.

SECTION E

PARTICULAR SPECIFICATIONS

FOR

HIGH AND LOW LEVEL

WATER TANKS AND BOOSTER PUMPS

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PARTICULAR SPECIFICATIONS FOR THE DESIGN, SUPPLY AND ERECTION OF WATER STORAGE TANKS AND BOOSTER PUMPS

1 DESCRIPTION OF SITE

The contractor is deemed to have visited the site and if unable to locate it or its details apply to the Permanent Secretary, Ministry of Public Works, Ngong Road, Nairobi.

No claims will be allowed for the travelling or other expenses, which may be incurred by the sub-contractor's works. However, the sub-contractor may allow that he may have to, during contract time, do part of the works and therefore three visits may be catered for.

2 SCOPE OF CONTRACT

The work to be carried out under, this sub-contract comprises the designs, manufacture, supply, delivery, erection, together with testing and commissioning of Water tanks as here-in specified and shown on the contract drawings.

All work shall be performed in a straightforward manner by competent workmen under skilled supervision to the entire satisfaction of the project manager.

3 COMPLIANCE WITH REGULATIONS

The sub-contractor shall comply in all respects to the provisions and regulations of the By-laws of the Local Authority, Kenya Building Code, as 449 Part BS 4211, CP2 chapters V part 1 and 2 MOPW Structural steel specification (1973) code of practice for design and construction of buildings and structures in Relation to Earthquake (1972) wherever applicable to the contract works.

The Ministry of Public Works are responsible for the design of the foundation subject to giving approval of the sub-contractor's design of the tower and due allowance should be given for this work to be carried out in sub-contractor programme of works. The main contractor is responsible for the construction of the foundation in accordance to approved designs.

4 STRUCTURAL DRAWINGS AND CALCULATIONS

2No copies of general arrangement and fabrication drawings properly dimensioned and detailed showing the whole tower and its accessories together with 2No copies of the structural calculations complying with all the relevant BS and CP are to be submitted for approval prior to the commencement of the work.

The calculation is to indicate the maximum downward and upward loads on the foundations for the Ministry of Public Works Structural Department to design the foundation.

5 STEEL WATER TANKS

a)The tanks shall be pressed steel sectional tanks complying in all aspects to BS 1564 Types 1 or 2.The jointing materials shall be non-toxic and non-insulable to water and the tank cover shall be joined throughout the tank top ensuring that the joint is both water proof and dust proof.

b)Cover framing and members shall be designed to withstand supper imposed loading complying with the requirements of CP2 Chapter V part 1 and BS 149 Part 2

c)All internal stays are to be provided as required by the tank manufacture and the Sub-contractor shall be responsible for ensuring the stays are adequate in number and position and properly tightened.These are to be manufactured from steel to BS 4360,Grade 43A.

d)All bolts,nuts and washers used in the construction should comply with BS 4190.The contractor to allow in his pricing,for a complete set of spanners,spare bolts and Washers for maintenance purposes.

e)Access manhole with hinged cover together with a filtered vent outlet shall be installed.

f)The Sub-contractor is to notify the project Manager of the type of panel he is proposing to use and the manufacturer who is to be approved.

g)The inflow and outflow connection shall be as shown on the drawing.

h)The outflow supply pipe shall be at least 50mm above the tank bottom while the inflow pipe shall be 200mm below the tank rim.The overflow pipe shall be about 1000mm long away from the tank.The drain pipe shall be at the lowest part of the tank.

5.1 LOW LEVEL WATER TANK

Tank capacity- to be specified

Preferred Dimensions;

- Length(mm)
- Width(mm)
- Height(mm)
- Plate thickness: 6mm

Tank to be supplied with:

- a)mm diameter inflow connection
- b).....mm diameter outflow connection
- c).....mm diameter washout pipe
- d).....mm diameter overflow pipe
- e)Electrode pair full wired
- f)1No. Level regulator
- g)2No. Water level indicator
- h)1No. Steel cover and manhole
- i)1No. Internal ladder
- j)External ladder to the ground level with cage

The structural department will give details of foundations and RC wall for the low level tank. The base is to be cast by the main contractor unless otherwise instructed by the project manager.

5.2 HIGH LEVEL WATER TANK

Tank Capacity- to be specified

Preferred dimensions;

- Length(mm)
- Width(mm)
- Height(mm)
- Plate thickness: 6mm

Tank to be supplied with:

- k)...mm diameter inflow connection
- l)...mm diameter outflow connection
- m)...mm diameter washout pipe
- n)...mm diameter outflow pipe
- o)Electrode pair full wired
- p)1No. level regulator
- q)2No. Water level indicator
- r)1No. Steel cover and manhole
- s)1No. Internal ladder
- t)1No. External ladder to ground level with cage

6 ASSOCIATED WORKS AND FITTINGS

6.1 PIPEWORK

The sub-contractor shall apply and fix all pipe work and fitting upto ground level as detailed on the drawing or in this specification. All pipework shall be adequately supported and secured to the tank structure. The washout pipe will have a bend leading to a reasonable place where the drainage will not interfere with the structure.

The following pipe work shall be used depending on the condition:-

- a)Medium Grade Galvanized steel and must conform with BS 1987 1967 class 'B'
- b)PP-R pipe work to be manufactured in accordance with the current European standards i.e. DIN 8077 and DIN 8078 for PN 20 tubing,with metallic joints to DIN 8076,joints and fittings for tubing to DIN 16962.

The sub-contractor shall provide a high pressure ball valve capable of coping with the maximum area's local water supply pressure.

6.2 ACCESS LADDER

Internal ladder shall be supplied for the tank and shall be fixed adjacent at the manhole but easily removable for cleaning the inside of the tank(i.e. hooked connection)

The tanks shall be provided with an external ladder leading to the manhole and complying with BS 4211. The stringers shall be parallel, minimum with 15 inches apart and a flat bar of minimum dimensions 1 and half inches by 2/8 inches. The rags shall be of round bars not less than $\frac{3}{4}$ inches diameter and the distance between centers shall be 9-10 inches. The external ladder shall be fitted with safety hoofs made to conform with BS 4211

6.3 PLATFORM

The tower is to have a periphery walk away at tank level having minimum width of 600mm between the edge of the tank and the inside of the protective safety handrail. The platform is to be provided with a steel chequered plate floor or similar and approved to be completely sealed so as not to allow anybody or items such as bolts and spanners to fall on persons on the ground.

All loading for the design of such platform are to be provided in the structural calculations.

6.4 PAINTING

The inside of the tank shall be painted with one coat of bituminous non-toxic paint (or any other equivalent and approved) and on the outside with coat of primer before erection. After erection, the inside of the tank shall be painted with two coats of aluminium paint. The other structures shall be cleaned and painted one coat lead oxide or red lead before erection and two coats of aluminium paints after erection.

All the painting shall be approved by the Engineer.

6.5 ERECTION

The sub-contractor shall erect the tank on foundation prepared and designed by others with all necessary pipes, ladders, tower, etc. as listed herein and shown on the drawing.

The main contractor shall prepare the foundation to the sub-contractor's and MOPW Structural Department details.

7 POLYETHYLENE WATER SHORTAGE TANKS

a) The tanks are made of graded polyethylene that has been effectively stabilized against the harmful effects of sunlight. This being achieved by incorporating more than 2% carbon black into the melt.

b) The tank to be manufactured as per the relevant Kenyan Standard.

8 BOOSTER PUMPS

A set of 2 No. electrically operated pumps capable of pumping.....Litres per second (-gallons per minute) of water against meters static head shall be installed. The pumps to be as -(specify preferred model) or equal and approved.

Each pump shall be directly driven by a three phase motor, the pump motor being mounted on a common base.

E-5

Pump casing shall be manufactured from good quality cast iron and impellers, shafts and other materials in case of contact with water shall be of corrosion resistant metal. The pumps shall be suitable for pumping filtered water treated for human consumption.

The motor shall be completely protected against possible damage due to entry of dust, water, etc. They shall be fitted with glands for entry of PVC armoured cables with overall PVC sheath. The completed cable connection to the motor terminal box shall be proofed against ingress of water or dust.

The pump shall be mounted on concrete plinth which shall be constructed by the main contractor in accordance with specifications from the sub-contractor.

Holes for holding down bolts shall be left in concrete and after the concrete has cured the pumps shall be placed in position and bolts grounded into position. A grout shall be floated under pump motor base to ensure an even surface for the pump to rest upon.

9 ELECTRICAL WORKS

It shall be the responsibility of the sub-contractor to provide all electrical wiring between all items of his sub-contract works to ensure the correct functioning of the equipment. The sub-contractor's electric works shall start from nearest electrical isolator.

10 CONTROL PANEL

The sub-contractor shall provide an electric control panel and shall be responsible for its fixing and satisfactory operation. The panel shall be fabricated from minimum thickness 1.2 mm steel sheet and finished grey stoved enamel. The panel shall be wall mounted with a removable hinged front access panel. Motor control switch gear shall be of approved type. The panel shall have an integral isolator.

Pump changeover shall be automatic alternating after each duty cycle. A green 'running' red 'trip' lamp shall be provided for each pump. The control system (float switches etc) shall be energized when a pump is started.

The motor system shall be wired so that they operate only automatically as called for by the switches except that starter push button shall be connected so as to enable the pumps to be started and run and cease to run when the push button is allowed to its normal position.

An emergency stop button shall be located adjacent to each pump.

The level regulator shall be wired and set in such a manner that the duty pumps shall be called to start when the high level tank is full.

E-6

The electrode in the low level tank shall override instructions from high level regulator and stop when the water is approximately 600mm high or as asset.

Where a three-phase motor is used, a single phasing protector shall be provided if the motor does not have one.

A phase failure relay shall be installed in 3 phase-operated pumps.

11 TESTING

Testing shall be done by filling the tank with water after erection. The water will be from the local supply and the main contractor shall apply from the authority for connection.

In cases where water is already on site and being used by the client, the contractor will make necessary arrangements and reimburse the client an amount equivalent to volume of water used for testing.

Testing shall be witnessed by the Project Manager or his representative.

12 GUARANTEE

The sub-contractor shall guarantee the tanks and the tower against rusting or structural failure for a period of (12) months from the testing date. Any damage incurred due to bad workmanship shall be made by the contractor.

All prices shall be in Kenya shillings and shall be inclusive of all taxes and duties current at the time of tendering.

SECTION F:

BILLS OF QUANTITIES

AND

SCHEDULE OF UNIT RATES

BILLS OF QUANTITIES AND SCHEDULE OF UNIT RATES

CONTENTS

<u>CLAUSE No.</u>	<u>PAGE</u>
1. GENERAL NOTES TO TENDERERS.....	F-1
2. STATEMENT OF COMPLIANCE.....	F-2
3. BILLS OF QUANTITIES	F-3 to PG(6)
4. SUMMARY PAGE.....	PG(7)

SPECIAL NOTES

1. The Bills of Quantities form part of the contract documents and are to be read in conjunction with the contract drawings and general specifications of materials and works.
2. The prices quoted shall be deemed to include for all obligations under the sub-contract including but not limited to supply of materials, labour, delivery to site, storage on site, installation, testing, commissioning and all taxes (**including 16% VAT**).

In accordance with Government policy, the 16% VAT and 3% Withholding Tax **shall be deducted** from all payments made to the Tenderer, and the same shall be forwarded to the **Kenya Revenue Authority (KRA)**.

3. All prices omitted from any item, section or part of the Bills of Quantities shall be deemed to have been included to another item, section or part thereof.
4. The brief description of the items given in the Bills of Quantities are for the purpose of establishing a standard to which the sub-contractor shall adhere. Otherwise alternative brands of **equal** and **approved** quality will be accepted.

Should the sub-contractor install any material not specified here in before receiving **written** approval from the Project Manager, the sub-contractor shall remove the material in question and, **at his own cost**, install the proper material.

5. The grand total of prices in the price summary page must be carried forward to the **Form of Tender for the tender to be deemed valid**.
6. Tenderers must enclose, together with their submitted tenders, detailed manufacturer's Brochures detailing Technical Literature and specifications on the equipment they intend to offer (As indicated in the Technical schedule).

1. **Statement of Compliance**

- a) I confirm compliance of all clauses of the General Conditions, General Specifications and Particular Specifications in this tender.
- b) I confirm I have not made and will not make any payment to any person, which can be perceived as an inducement to win this tender.

Signed:*for and on behalf of the Tenderer*

Date:

Official Rubber Stamp:

BILLS No. 1

A) PRICING OF PRELIMINARIES ITEMS.

Prices will be inserted against item of preliminaries in the sub-contractor's Bills of Quantities and specification. These Bills are designated as Bill 1 in this Section. Where the sub-contractor fails to insert his price in any item he shall be deemed to have made adequate provision for this on various items in the Bills of Quantities. The preliminaries form part of this contract and together with other Bills of Quantities covers for the costs involved in complying with all the requirements for the proper execution of the whole of the works in the contract.

The Bills of Quantities are divided generally into three sections:-

Preliminaries – Bill 1

Sub-contractors preliminaries are as per those described in section C – sub-contractor preliminaries and conditions of contractor. The sub-contractor shall study the conditions and make provision to cover their cost in this Bill. The numbers of preliminary items to be priced by the Tenderer have been limited to tangible items such as site office, temporary works and others. However the Tenderer is free to include and price any other items he deems necessary taking into consideration conditions he is likely to encounter on site.

Installation Items – Other Bills

The brief description of the items in these Bills of Quantities should in no way modify or supersede the detailed descriptions in the contract Drawings, conditions of contract and specifications.

The unit of measurements and observations are as per those described in clause 3.05 of the section C.

(c) Summary

The summary contains tabulation of the separate parts of the Bills of Quantities carried forward with provisional sum, contingencies and any prime cost sums included. The sub-contract shall insert his totals and enter his grand total tender sum in the space provided below the summary.

This grand total tender sum shall be entered in the Form of Tender provided elsewhere in this document

SCHEDULE 1;

Bills No. 1-PRELIMINARIES

ITEM	DESCRIPTION	QTY	UNIT	RATE	KSHS	CTS
1	Discrepancies clause 1.02					
2	Conditions of sub-contract Agreement clause 1.03					
3	Payments clause 1.04					
4	Site location clause 1.06					
5	Scope of Contract Works clause 1.08					
6	Extent of the Contractor's Duties clause 1.09					
7	Firm price contract clause 1.12					
8	Variation clause 1.13					
9	Prime cost and provisional sum clause 1.14 (insert profit and attendance which is a percentage of expended PC or provisional sum.)					
10	Bond clause 1.15					
11	Government Legislation and Regulations clause 1.16					
12	Import Duty and Value Added Tax clause 1.17 (Note this clause applies for materials supplied only. VAT will also be paid by the sub-contractor as allowed in the summary page)					
13	Insurance company Fees clause 1.18					
14	Provision of services by the Main contractor clause 1.19					
15	Samples and Materials Generally clause 1.21					
	SUB-TOTAL CARRIED TO PAGE F -6					

ITEM	DESCRIPTION	QTY	UNIT	RATE	KSHS	CTS
16	Supplies clause 1.20					
17	Bills of Quantities clause 1.23					
18	Contractor's Office in Kenya clause 1.24					
19	Builder's Work clause 1.25					
20	Setting to work and Regulating system clause 1.29					
21	Identification of plant components clause 1.30					
22	Working Drawings clause 1.32					
23	Record Drawings (As Installed) and Instructions clause 1.33					
24	Maintenance Manual clause 1.34					
25	Hand over clause 1.35					
26	Painting clause 1.36					
27	Testing and Inspection – manufactured plant clause 1.38					
28	Testing and Inspection – Installation clause 1.39					
29	Storage of Materials clause 1.41					
30	Initial Maintenance clause 1.42					
	SUB-TOTAL CARRIED TO PAGE F -6					

ITEM	DESCRIPTION	QTY	UNIT	RATE	KSHS	CTS
31	Attendance Upon Tradesmen, etc. (Insert percentage only) clause 1.58					
32	Local and other Authorities notices and fees clause 1.60					
33	Temporary Works clause 1.63					
34	Patent Rights clause 1.64					
35	Mobilization and Demobilization Clause 1.65					
36	Extended Preliminaries Clause 1.66(see appendix on page C- 24)					
37	Supervision by Engineer and Site Meetings Clause 1.67					
38	Allow for profit and Attendance for the above					
39	Amendment to Scope of Sub-contract Works Clause 1.68					
40	Contractor Obligation and Employers Obligation clause 1.69(see appendix page C- 24)					
41	Any other preliminaries;					
	Subtotal above					
	Subtotal brought forward from page F-4					
	Subtotal brought forward from page F-5					
	TOTAL FOR BILL NO. 1- PRELIMINARIES CARRIED FORWARD TO PRICE MAIN SUMMARY PAGE/7					

SECTION G:

TECHNICAL SCHEDULE OF ITEMS TO BE SUPPLIED

CONTENTS

<u>CLAUSE No.</u>	<u>PAGE</u>
1. GENERAL NOTES TO THE TENDERER.....	G-1

(i)

TECHNICAL SCHEDULE

1. **General Notes to the Tenderer**

- 1.1 The tenderer shall submit technical schedules for all materials and equipment upon which he has based his tender sum.
- 1.2 The tenderer shall also submit separate comprehensive descriptive and performance details for all plant apparatus and fittings described in the technical schedules. Manufacturer's literature shall be accepted. Failure to comply with this may have his tender disqualified.
- 1.3 Completion of the technical schedule shall not relieve the Contractor from complying with the requirements of the specifications except as may be approved by the Engineer.

d) TECHNICAL SCHEDULE (MUST BE COMPLETED IN FULL)

ITEM No.	Description	Manufacturer	Country Of origin	Particulars
1	Electric Booster Pump			
2	Pressure Vessel			
3	Diesel Booster Pump			
4	Gate valves			
5	Control Panel			
6	Fire Hydrant			

G-1

SECTION H

SCHEDULE OF CONTRACT DRAWINGS

As will be issued by the Engineer during project implementation.

H-1

SECTION I:

STANDARD FORMS

NOTE:

ALL FORMS IN THIS SECTION MUST BE FILLED AS THEY SHALL BE PART OF THE EVALUATION CRITERIA

STANDARD FORMS

CONTENTS

<u>FORM</u>	<u>PAGE</u>
1. PERFORMANCE BANK GUARANTEE.....	I-1
2. TENDER QUESTIONNAIRE.....	I-2
3. CONFIDENTIAL BUSINESS QUESTIONNAIRE.....	I-3 to I-4

4.	KEY PERSONNEL.....	I-5
5.	CONTRACTS COMPLETED IN THE LAST FIVE (5) YEARS...	I-6
6	SCHEDULE OF ON-GOING PROJECTS.....	I-7
7	FINANCIAL REPORTS FOR THE LAST THREE YEARS	I-8
8	EVIDENCE OF FINANCIAL RESOURCES.....	I-9
9	NAME OF THE BANKERS.....	I-10
10	DETAILS OF LITIGATIONS OR ARBITRATION PROCEEDINGS	I-11
11	ANTI-CORRUPTION DECLARATION COMMITTEE.....	I-12

PERFORMANCE BANK GUARANTEE

To: The Clerk,
County Assembly of Kilifi,
P.O. Box 332,
MALINDI

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 recognized 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 there under or of any of the Contract documents which may be made between you and the Contractor shall in any way release us from any liability under this Guarantee, and we hereby waive notice of any change, addition, or modification.

This guarantee shall be valid until the date of issue of the Certificate of Completion.

SIGNATURE AND SEAL OF THE GUARANTOR

Name of Bank

Address.....Date.....

TENDER QUESTIONNAIRE

Please fill in block letters.

1. Full names 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. Telex/Fax Address of Tenderer:

.....
...

5. Name of Tenderer's representative to be contacted on matters of the tender during the tender period:

.....
...

6. Details of Tenderer's nominated agent (if any) to receive tender notices. This is essential if the Tenderer does not have his registered address in Kenya (name, address, telephone, telex):

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

Signature of Tenderer

CONFIDENTIAL BUSINESS QUESTIONNAIRE

You are requested to give the particulars indicated in Part 1 and either Part 2 (a), 2 (b) or 2(c) and (2d) 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 Licence No..... Expiring date.....

Maximum value of business which you can handle at any time:
Kenya Shillings.....

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.
4.

Part 2(c) – Registered Company

Private or Public

.....

State the nominal and issued capita of the company:

Nominal Kshs.

Issued Kshs.

Give details of all directors as follows:

	<i>Name in full</i>	<i>Nationality</i>	<i>Citizenship Details*</i>	<i>Shares</i>
1.	
2.	
3.	
4.	

Part 2(d) Interest in the Firm:

Is there any person/persons in the employment of the Government of Kenya WHO has interest in this firm? Yes/No (Delete as necessary)

I certify that the above information is correct.

.....
.....

Title
Date

.....
.....

Signature

* *Attach proof of citizenship*

KEY PERSONNEL

Qualifications and experience of key personnel proposed for administration and execution of the Contract.

POSITION	NAME	YEARS OF EXPERIENCE (GENERAL)	YEARS OF EXPERIENCE IN PROPOSED POSITION
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

I certify that the above information is correct.

.....

.....

.....

Title

Signature

Date

**CONTRACTS COMPLETED IN THE LAST THREE (3)
YEARS**

Work performed on works of a similar nature and volume over the last five years.

<u>PROJECT NAME</u>	<u>NAME OF CLIENT</u>	<u>TYPE OF WORK AND YEAR OF COMPLETION</u>	<u>VALUE OF CONTRACT (Kshs.)</u>

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

.....

.....

.....
Title

Signature

Date

SCHEDULE OF ON-GOING PROJECTS

Details of on-going or committed projects, including expected completion date.

<u>PROJECT NAME</u>	<u>NAME OF CLIENT</u>	<u>CONTRACT SUM</u>	<u>% COMPLETE</u>	<u>COMPLETION DATE</u>

I certify that the above works are currently being carried out by us.

.....

.....

.....
Title
Date

Signature

**FINANCIAL REPORTS FOR THE LAST THREE YEARS
(Balance sheets, Profits and Loss Statements, Auditor's
reports, etc. List below and attach copies)**

1. . _____
_____.

2. . _____
_____.

3. . _____
_____.

4. . _____
_____.

5. . _____
_____.

6. . _____
_____.

7. . _____
_____.

8. . _____
_____.

9. . _____
_____.

10 . _____
_____.

**EVIDENCE OF FINANCIAL RESOURCES TO MEET
QUALIFICATION REQUIREMENTS**

**(Bank statements, Lines of credit, e.t.c. List below and
attach copies of supportive documents.)**

1. . _____ .
2. . _____ .
3. . _____ .
4. . _____ .
5. . _____ .
6. . _____ .
7. . _____ .
8. . _____ .
9. . _____ .
- 10 . _____ .

NAME, ADDRESS AND TELEPHONE, TELEX AND FACSIMILE
OF BANKS

**(This should be for banks that may provide reference if
contacted by the employer)**

NAME	ADDRESS	TELEPHONE	TELEX	FACSIMILE

**DETAILS OF LITIGATIONS OR ARBITRATION
PROCEEDINGS IN WHICH THE TENDERER IS INVOLVED
AS ONE OF THE PARTIES**

1. . _____
_____.

2. . _____
_____.

3. . _____
_____.

4. . _____
_____.

5. . _____
_____.

6. . _____
_____.

7. . _____
_____.

8. . _____
_____.

9. . _____
_____.

10 . _____
_____.

ANTI-CORRUPTION DECLARATION COMMITMENT/ PLEDGE

I/We/Messrs.....

.

of Street, Building, P O
Box.....

.....

Contact/Phone/E
mail.....

Declare that Public Procurement is based on a free and fair
competitive Tendering process which should

not be open to abuse.

I/We

declare that I/We will not offer or facilitate, directly or indirectly, any
inducement or reward to any public

officer, their relations or business associates, in

connection with Tender

name.....

.....

Tender No

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

Authorized
Signature.....

Name and Title of
Signatory.....