

SECTION 1

PRELIMINARIES

SPECIAL NOTES

- 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, they must inform the Quantity Surveyors 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 they must inform the Quantity Surveyor 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** Any doubt or obscurity as to the meaning or intention of any part of the tender documents, or any question arising, shall be taken up in writing, before submission of the tender so that the same can be clarified.
- 4** The Contractor shall not alter or otherwise qualify the text of these Bills of Quantities. Any alteration or qualification made without authority will be ignored and the text of the Bills of Quantities as printed will be adhered to.
- 5** The Contractor shall be deemed to have made allowance in their prices generally to cover items of Preliminaries or additions to Prime Cost Sums or other items, if these have not been priced against the respective items.
- 6** All items of measured work shall be priced in detail and tenders containing lump sums to cover trades or groups of work must be broken down to show prices for each item before they will be accepted. Lump sums to cover items of Preliminaries shall likewise be broken down if so required.
- 7** In no case will any expenses incurred by Contractors in preparation of this Tender be reimbursed.
- 8** The copyright of these Bills of Quantities is vested in the Quantity Surveyors and no part thereof may be reproduced without their express permission given in writing.
- 9** The Contractor is solely responsible for the accurate ordering of materials in accordance with the Drawings and Architect's instructions and no claims for any loss or expense will be entertained for orders for materials based upon the Bills of Quantities.
- 10** The Bills of Quantities must be priced in US Dollar currency, i.e. US Dollars and Cents.
- 11** The tender documents must be priced in ink.

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A PROVISIONAL WORK

All "provisional" and other work liable to adjustment under this Contract shall be left uncovered for a reasonable time to allow all measurements needed for such adjustment to be taken by the Quantity Surveyor. Immediately the work is ready for measurement, the Contractor shall give notice to the Quantity Surveyor.

If the Contractor makes default in these respects he shall, if the Architect so directs, uncover the work at his own expense to enable the measurements to be taken.

B EXISTING SERVICES

Prior to commencement of any work the Contractor is to ascertain from the relevant Authorities the exact position, depth and level of all existing electric cables, water pipes or other services in the area and they shall make whatever provisions may be required by the Authorities concerned for the support and protection of such services. Any damage or disturbance caused to any services shall be reported immediately to the Architect and the relevant Authority and shall be made good to their satisfaction at the Contractor's expense.

C TRANSPORT TO AND FROM THE SITE

The Contractor shall include in their prices for the transport of materials, workmen, etc., to and from the Site of the proposed Works, at such hours and by such routes as are permitted by the Authorities.

D OVERTIME

The Contractor shall allow in their tender for any extra costs for overtime working they consider will be necessary in order to complete the works by the contract Date of Completion.

If during the course of the Contract overtime is worked for a specific purpose in accordance with a written instruction issued by the Architect, the Contractor will be reimbursed in respect of such overtime to the extent only of the additional net cost of unproductive time payable over and above the basic hourly rates as laid down by the Regulations of Wages and Conditions of Employment Act, Building and Construction Industry Wages council and excluding any bonuses, profits and overheads.

E PUBLIC AND PRIVATE ROADS, PAVEMENTS, ETC.

The Contractor will be required to make good, at their own expense, any damage they may cause to the present road surfaces and pavements within or beyond the boundary of the Site, during the period of the Works. In particular, all existing trees, shrubs, plants, etc., which may be destroyed or damaged during the progress of the Works are to be made good by the Contractor to the approval of the Architect.

F POLICE REGULATIONS

The Contractor is to allow for complying with all instructions and regulations of the Police Authorities.

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A CONTRACTORS' SUPERINTENDENCE

The Contractor shall constantly keep on the Works a literate English-speaking Agent or Representative, competent and experienced in the kind of work involved, who shall give his whole time to the superintendence of the Works. Such Agent or Representative shall receive on behalf of the Contractor, directions and instructions from the Architect and such directions and instructions shall be deemed given to the Contractor in accordance with the Conditions of Contract. The Agent shall not be replaced without the specific approval of the Architect.

It is to be a specific condition of this Contract that the successful Tenderer shall provide on site throughout the period from the completion of the substructure to the Date for Practical Completion a suitably qualified, experienced and competent person to ensure that the works are carried out to the standard required by the specification and detailed on the Drawings; and shall ensure that upon any termination of employment a suitable replacement is found.

Before the Tenderer's offer is accepted the Architect will personally interview the Contractor's proposed Representative. A curriculum vitae of past experience and qualifications must be provided for the Architect's scrutiny.

The Architect's decision will be final regarding the suitability of the proposed Representative.

B WATER

All water shall be fresh, clean and pure, free from earthy vegetable or organic matter, acid or alkaline substance in solution or suspension.

The Contractor shall provide at their own risk and cost all water for use in connection with the Works (including the work of Sub-Contractors). The Contractor shall provide at their own expense all temporary distribution pipes, storage tanks, meters, etc., and they shall clear away same upon completion of the Works.

C LIGHTING AND POWER

The Contractor shall provide at their own risk and cost all artificial lighting and power for use on the Works, including all Sub-Contractors' and Specialists' requirements and including all temporary connections, wiring, fittings, etc., and clearing away on completion. The Contractor shall pay all fees and obtain all permits in connection therewith.

D SAFETY

In particular there shall be proper provision of planked footways and guard-rails to scaffolding, etc.; protection against falling materials and tools and the Site shall be kept tidy and clear of dangerous rubbish.

The Architect shall be empowered to suspend work on the Site should he consider these conditions are not being observed, and no claim arising from such a suspension will be allowed.

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A PROTECTIVE CLOTHING

The Contractor shall provide all protective or any other special clothing or equipment for their employees that may be necessary.

These shall include, inter-alia, safety helmets, gloves, goggles, earmuffs, gumboots, steel toed boots, overalls, etc according to the type of work. The Contractor shall ensure that all safety and protective gear are worn by all staff on site at all times

MATERIALS AND WORKMANSHIP

B GENERALLY

All materials shall be new unless otherwise directed or permitted by the Architect and in all cases where the quality of goods or materials is not described or otherwise specified, is to be the best quality obtainable in the ordinary meaning of the word "best" and not merely a trade signification of that word.

All materials and workmanship shall, unless otherwise specified or described, conform to the appropriate Kenya Bureau of Standards or British Standards Institution Specification current at the date of tender.

The Contractor shall order all materials to be obtained from overseas immediately after the Contract is signed and shall also order materials to be obtained from local sources as early as necessary to ensure that such materials are on Site when required for use in the Works.

The Contractor shall be responsible for and shall replace or make good at their own expense any materials lost or damaged.

The Works throughout shall be executed by skilled workmen well versed in their respective trades.

C REJECTED WORKMANSHIP OR MATERIALS

Any workmanship or materials not complying with the specific requirements or approved samples or which have been damaged, contaminated or have deteriorated, must immediately be removed from the Site and replaced at the Contractor's expense, as required.

D PROPRIETARY MATERIALS

Where proprietary materials are specified herein-after the Contractor may propose the use of materials of other manufacture but equal quality for approval by the Architect.

All materials and goods, where specified to be obtained from a particular manufacturer or supplier are to be used or fixed strictly in accordance with their instructions.

E SAMPLES

The Contractor shall furnish at the earliest possible opportunity before work commences and at his own cost, any samples of materials or workman-ship that may be called for by the Architect for his approval or rejection, and any further samples in the case of rejection until such samples are approved by the Architect and such samples, when approved, shall be the minimum standard for the work to which they apply.

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A CONCRETE TESTS

Concrete test cubes I.e. per set of three as later described, including testing fees, labour and materials, making moulds, transport and handling etc.. and ensuing copies of tests are promptly dispatched to the Architect's and Quantity Surveyor's offices.
Successful tests only (Provisional)

TEMPORARY WORKS

B SPACE AND SERVICES FOR THE ARCHITECT

The Contractor shall provide where directed within the site, site offices and clean toilet facilities for the sole use of the Architect and their representatives to the satisfaction of the Local Authorities. The offices shall be provided with adequate furniture and the contractor shall provide the services of a sweeper, pay all charges and keep the facilities in a clean and sanitary condition during the whole period of the Works. In particular, the Contractor is to note that the station will continue with operations during the period of the works and a separate office and store shall be provided for full time use by the station dealer. Equally, separate sanitary amenities shall be provided for the station staff to the satisfaction of the Architect and local authorities.

C TELEPHONE

The Contractor shall provide a telephone connection to the town exchange for the period of the Works, and shall pay all fees and rental for the same. The telephone connection shall remain on site until completion of the works.

D SANITATION

The Contractor shall make arrangements for the necessary toilet facilities for their staff and workmen to the requirements and satisfaction of the Health authorities and maintain the same in a thoroughly clean and sanitary condition and pay all conservancy fees during the period of the Works and remove when no longer required.

E PLANT, TOOLS AND SCAFFOLDING

The Contractor shall provide all necessary hoists, tackle, plant, vehicles, tools and appliances of on every description for the due and satisfactory completion of the Works and shall remove same completion.

The Contractor shall provide, erect and maintain all temporary scaffolding, sufficiently strong and efficient for the due performance of the Works, including Sub-contract Works, provide special scaffolding as and when required during the Works and remove on completion and make good.

Such scaffolding shall be constructed of tubular steel or timber of sufficient scantlings and be provided with planked footways and guard-rails to approval.

All such plant, tools and scaffolding shall comply with all regulations whether general or local, in force throughout the period of the Contract and shall be altered or adapted during the Contract as may be necessary to comply with any amendments in or additions to such regulations.

Scaffolding is not measured hereinafter, and the Contractor must allow here or in his rates for the above.

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EXISTING AND ADJACENT PROPERTY

The Contractor must take all steps necessary to safeguard existing and adjacent property, make good at their own expense any damage to persons or property caused thereon, and hold the Employer indemnified against any such claim arising.

The Contractor will be held fully responsible for the safety of the existing and adjacent buildings and for any damage caused in consequence of these Works. They must reinstate all damages at his own expense and indemnify the Employer against any loss.

The Contractor must take such steps and exercise such care and diligence as to minimize nuisance from dust, noise or any other cause to the occupiers of the existing and adjacent property.

B

HOARDING

The Contractor shall enclose the site areas under which work is carried out, with 1.80 meter high barbed wire fence comprising treated blue gum poles at centres not exceeding 3.0meters and 6No barbed wire strands at equal spacing

The contractors attention is drawn to the fact that some areas of the site are already built up and shall be in use during the currency of this project. As such the contractor must allow for keeping his/her employees from interfering with such other users and preventing and minimizing any nuisance arising from dust, noise or by way of trespass.

Allow for Provisional length of 100 meters @ _____ (tenderer to insert rate and extend)

B

WATCHING AND LIGHTING

The Contractor shall provide at their risk and cost all watching and lighting as necessary to safeguard the Works, plant and materials against damage and theft.

C

SIGNBOARD

The Signboard and lettering on same for the display of the General and Sub-Contractors' names shall be of an approved size with the Employer's name painted thereon. The Architect's Quantity Surveyor's and other Consultants' names shall be printed in 50 mm letters all to the Architect's approved design. No other signboard or advertising will be permitted without prior permission from the Architect.

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PRIME COST RATES

Where description of items include a P.C. rate per unit this rate is to cover the net supply cost of the unit only. The Contractor's price must include for the cost of the unit at the rate stated, plus waste, taking delivery, storage, fixing in position, profit and overheads.

The actual net cost per unit will be adjusted within the Final Account against the P.C. rate stated.

PROTECTION AND CLEANING

B

PROTECTION

The Contractor shall cover up and protect from damage, including damage from inclement weather, all finished work and unfixed materials, including that of Sub-Contractors, etc., to the satisfaction of the Architect until the completion of the Contract.

C

CLEANING

The Contractor shall, upon completion of the Works, at their own expense, remove and clear away all surplus excavated materials, plant, rubbish and unused materials and shall leave the whole of the Site and Works in a clean and tidy state to the satisfaction of the Architect, including clearing away and making good all traces of temporary access roads, offices, sheds, camps, etc. Particular care shall be taken to leave clean all floors and windows and to remove all paint and cement stains. They shall also, at the discretion of the Architect, remove all rubbish and dirt as it accumulates. The Contractor is to find their own dump and shall pay all charges in connection therewith.

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TOTAL FOR SECTION 1: PRELIMINARIES AND GENERAL DESCRIPTIONS CARRIED TO GRAND SUMMARY

US\$

| ITEM | DESCRIPTION | UNIT | QNTY | RATE US\$ | AMT US\$ |
|--|--|----------------|-------|-----------|----------|
| <p><u>PROPOSED SHALLOW WELLS REHABILITATION</u> <u>BULLA GADUUD DISTRICT</u></p> <p><u>SECTION 2: ELEVATED WATER TANK</u></p> <p><u>ELEMENT NO. 1 : SITE PREPARATION</u></p> | | | | | |
| A | Clear site of all bushes and debris. Grab up roots and burn the arisings | m ² | 30.00 | | |
| B | Load, wheel and cart deposit and spread surplus excavated material where directed on site at a distance not exceeding 100 meters | Item | 1.00 | | |
| | Total carried to summary | \$ | | | |
| <p><u>PROPOSED SHALLOW WELLS REHABILITATION</u> <u>BULLA GADUUD DISTRICT</u></p> <p><u>SECTION 2: ELEVATED WATER TANK</u></p> <p><u>ELEMENT NO. 2 : SUBSTRUCTURES (PROVISIONAL)</u></p> <p><u>Excavations including maintaining and supporting sides and keeping free from water, mud and fallen material</u></p> | | | | | |
| A | Top soil excavation average 200mm deep | m ³ | 6.00 | | |
| B | Excavate for foundation not exceeding 0.3 meters deep, starting from stripped levels | m ³ | 0.60 | | |
| | Extra over for excavation in rock | m ³ | 3.00 | | |
| | <u>Ditto</u> Column bases | m ³ | 30.00 | | |
| | <u>Planking and strutting</u> | | | | |
| C | Allow for keeping foundations free from water, mud, fallen materials, etc. | LS | 1.00 | | |
| | <u>Disposal</u> | | | | |
| D | Return, fill and ram selected excavated material around foundations | m ³ | 9.00 | | |
| E | Load, wheel and cart deposit and spread surplus excavated material where directed on site at a distance not exceeding 100 meters | m ³ | 21.00 | | |
| | <u>Hardcore or other approved filling, as described</u> | | | | |
| F | 300mm thick well compacted hardcore filling blinded with 25mm thick quarry dust layer to receive surface bed | m ² | 1.80 | | |

| | | | | | |
|--|--|----------------|--------|--|--|
| G | 50mm thick Quarry dust blinding to surfaces of hardcore :rolled smooth to receive polythene sheeting (m.s) <u>Anti-termite treatment</u> | m ² | 20.00 | | |
| H | Gladiator or equal and approved chemical anti-termite treatment, executed complete by an approved specialist under a ten-year guarantee, to surfaces of blinding <u>Damp-proof membrane</u> | m ² | 20.00 | | |
| I | 1000 gauge polythene or other equal and approved damp-proof membrane, laid over blinded hardcore (m.s) with 300mm side and end laps (measured nett-allow for laps) | m ² | 20.00 | | |
| | Total carried to summary | \$ | | | |
| <u>PROPOSED SHALLOW WELLS REHABILITATION</u> | | | | | |
| <u>BULLA GADUUD DISTRICT</u> | | | | | |
| <u>SECTION 2: ELEVATED WATER TANK</u> | | | | | |
| <u>ELEMENT NO. 3 : CONCRETE WORKS</u> | | | | | |
| <u>Plain concrete class 15 in:</u> | | | | | |
| A | 100mm blinding | m ³ | 2.00 | | |
| | Ditto for column bases | m ³ | 0.60 | | |
| <u>In situ concrete class 25/20 , vibrated and reinforced with 60mm thick maximum aggregate size in as described, in:-</u> | | | | | |
| <u>BEAMS</u> | | | | | |
| A | Ground beam | m ³ | 5.67 | | |
| B | Ring beam 1 | m ³ | 5.67 | | |
| C | Ring beam 2 | m ³ | 5.67 | | |
| <u>COLUMNS</u> | | | | | |
| A | Columns bases | m ³ | 3.60 | | |
| B | Starter columns | m ³ | 2.16 | | |
| C | Columns (Height 6m) | m ³ | 12.96 | | |
| <u>SLABS</u> | | | | | |
| A | 200mm thick surface bed laid in bays including all necessary formwork | m ³ | 4.00 | | |
| <u>Ditto:</u> | | | | | |
| B | Suspended slab | m ³ | 4.00 | | |
| C | Roof slab | m ³ | 4.00 | | |
| <u>Reinforcement, as described:-[PROVISIONAL]</u> | | | | | |
| <u>High yield square twisted reinforcement bars to B.S 4461 including cutting bending and tying</u> | | | | | |
| <u>BEAMS</u> | | | | | |
| <u>GROUND BEAM</u> | | | | | |
| A | Y12 (Nominal Diameter 12mm) bars as main bars, Cross-Sectional Area (113mm ²), Mass per unit length (0.888kg/m) | Kg | 124.68 | | |
| B | R8 (Nominal Diameter 8mm) bars as rings, Cross-Sectional Area (50.3mm ²), Mass per unit length (0.395kg/m) | Kg | 40.67 | | |

| | | | | |
|---|--|----------------|--------|--|
| | RING BEAM 1 | | | |
| C | Ditto for Y12 as main bars | Kg | 124.68 | |
| D | Ditto for R8 as rings | Kg | 40.67 | |
| | RING BEAM 2 | | | |
| C | Ditto for Y12 as main bars | Kg | 124.68 | |
| D | Ditto for R8 as rings | Kg | 40.67 | |
| | <u>COLUMNS</u> | | | |
| | COLUMN BASES | | | |
| E | Y16 (Nominal Diameter 16mm) bars as main bars, Cross-Sectional Area (201mm ²), Mass per unit length (1.579kg/m) | Kg | 64.42 | |
| | STARTER COLUMNS | | | |
| F | Y16 (Nominal Diameter 16mm) bars as main bars, Cross-Sectional Area (201mm ²), Mass per unit length (1.579kg/m) | Kg | 56.84 | |
| G | R8 (Nominal Diameter 8mm) bars as rings, Cross-Sectional Area (50.3mm ²), Mass per unit length (0.395kg/m) | Kg | 25.17 | |
| | COLUMNS | | | |
| | 6m HIGH COLUMNS | | | |
| H | Y16 (Nominal Diameter 16mm) bars as main bars, Cross-Sectional Area (201mm ²), Mass per unit length (1.579kg/m) | Kg | 170.53 | |
| I | R8 (Nominal Diameter 8mm) bars as rings, Cross-Sectional Area (50.3mm ²), Mass per unit length (0.395kg/m) | Kg | 151.04 | |
| | SLABS | | | |
| | ROOF SLAB | | | |
| | Y12 (Nominal Diameter 12mm) bars as main bars tops 1 Cross-Sectional Area (113mm ²), Mass per unit length (0.888kg/m) | Kg | 71.04 | |
| | Y12 (Nominal Diameter 12mm) bars as main bars tops 2 Cross-Sectional Area (113mm ²), Mass per unit length (0.888kg/m) | Kg | 71.04 | |
| | Y12 (Nominal Diameter 12mm) bars as main bars bottom 1 Cross-Sectional Area (113mm ²), Mass per unit length (0.888kg/m) | Kg | 71.04 | |
| | Y12 (Nominal Diameter 12mm) bars as main bars bottom 2 Cross-Sectional Area (113mm ²), Mass per unit length (0.888kg/m) | Kg | 71.04 | |
| | BASE SLAB | | | |
| | Y12 (Nominal Diameter 12mm) bars as main bars tops 1 Cross-Sectional Area (113mm ²), Mass per unit length (0.888kg/m) | Kg | 71.04 | |
| | Y12 (Nominal Diameter 12mm) bars as main bars tops 2 Cross-Sectional Area (113mm ²), Mass per unit length (0.888kg/m) | Kg | 71.04 | |
| | Y12 (Nominal Diameter 12mm) bars as main bars bottom 1 Cross-Sectional Area (113mm ²), Mass per unit length (0.888kg/m) | Kg | 71.04 | |
| | Y12 (Nominal Diameter 12mm) bars as main bars bottom 2 Cross-Sectional Area (113mm ²), Mass per unit length (0.888kg/m) | Kg | 71.04 | |
| | WALLS | | | |
| | Y12 (Nominal Diameter 12mm) bars as main bars tops 1 Cross-Sectional Area (113mm ²), Mass per unit length (0.888kg/m) | Kg | 153.45 | |
| | Y12 (Nominal Diameter 12mm) bars as main bars tops 2 Cross-Sectional Area (113mm ²), Mass per unit length (0.888kg/m) | Kg | 153.45 | |
| | <u>Reference A142 mesh 200 x 200 mm , weight 2.22 kgs per square meter (measured net - no allowance made for laps (including bends, tying wire and distance blocks)</u> | | | |
| J | Fabric ref. A142 weighing 2.22kg/ sq.metre, in surface bed | m ² | 20.00 | |
| | <u>Sawn formwork as described to:-</u> | | | |
| K | To edge of floor slab | m ² | 3.60 | |

| | | | | | |
|---|---|----------------|-------|--|--|
| L | Ditto to sides and soffits of roof slab | m ² | 8.00 | | |
| M | Ditto to sides and soffits of base slab | m ² | 8.00 | | |
| N | Ditto to walls | m ² | 43.20 | | |
| | Total carried to summary | \$ | | | |
| <u>PROPOSED SHALLOW WELLS REHABILITATION</u> | | | | | |
| <u>BULLA GADUUD DISTRICT</u> | | | | | |
| <u>SECTION 2: ELEVATED WATER TANK</u> | | | | | |
| <u>ELEMENT NO. 4 : WALLING</u> | | | | | |
| <u>SUPER-STRUCTURE WALLING</u> | | | | | |
| <u>Insitu concrete class 25/20 , vibrated and reinforced with 60mm thick maximum aggregate size in as described, in:-</u> | | | | | |
| A | 200 mm thick reinforced wall | m ³ | 8.64 | | |
| | Total carried to summary | \$ | | | |
| <u>PROPOSED SHALLOW WELLS REHABILITATION</u> | | | | | |
| <u>BULLA GADUUD DISTRICT</u> | | | | | |
| <u>SECTION 2: ELEVATED WATER TANK</u> | | | | | |
| <u>ELEMENT NO. 6 : FINISHES</u> | | | | | |
| <u>Cement and sand (1:3) screeds, backings, beds etc</u> | | | | | |
| A | 25mm Thick cement/sand (1:4) screed finish | | | | |
| | Floor slab | m ² | 20.00 | | |
| B | <u>15 mm cement and sand (1:3) render, finished with wood float to:-</u> | | | | |
| | Concrete or masonry surfaces externally | | | | |
| | Outside roof slab | m ² | 20.00 | | |
| | Ditto outside base slab | m ² | 20.00 | | |
| | Ditto Outside walls | m ² | 54.00 | | |
| | Ditto for columns | m ² | 86.40 | | |
| C | <u>Lightweight water proofed screeds and plaster</u> | | | | |
| | <u>15 mm cement and sand (1:3) render, finished with steel float to:-</u> | | | | |
| | Concrete or masonry surfaces internally | | | | |
| | Inside roof top slab | m ² | 20.00 | | |
| | Ditto inside base slab | m ² | 20.00 | | |
| | Ditto inside walls | m ² | 54.00 | | |

PROPOSED SHALLOW WELLS REHABILITATION
BULLA GADUUD DISTRICT

SECTION 2: ELEVATED WATER TANK

ELEMENT NO. 9 : OPENINGS

DOOR

Purpose-made steel casement door made of 15mm thick cast iron welded to the frame, 38x38x3mm thick steel angles for window main frame, 20x20x1.5mm RHS welded to steel plate by 200mm long fillet welds at 200mm, hedges and 8mm diameter steel bars embedded in the wall with mortar and welded onto the window frame for anchoring the window complete with all the necessary ironmongery.

A

Overall size 800 x 800mm high

No. 1.00

Total carried to summary

\$

PROPOSED SHALLOW WELLS REHABILITATION
BULLA GADUUD DISTRICT

SECTION 2: ELEVATED WATER TANK

ELEMENT NO. 10 : WATER KIOSK AND TROUGH

Allow lumpsum for construction of a water kiosk and water trough as per design and specifications

LS 1.00

Total carried to summary

\$

PROPOSED SHALLOW WELLS REHABILITATION
BULLA GADUUD DISTRICT

SECTION 2: ELEVATED WATER TANK

MAIN SUMMARY

| <u>No.</u> | <u>ELEMENT</u> | <u>PAGE</u> | <u>AMOUNT</u> |
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| 3 | ELEMENT NO. 3 : CONCRETE WORKS | 5/3 | |
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| 6 | ELEMENT NO. 6 : FINISHES | 5/6 | |
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| 9 | ELEMENT NO. 9 : OPENINGS | 5/9 | |
| 10 | ELEMENT NO. 10 : WATER KIOSK AND TROUGH | 5/10 | |

Grand Total

TOTAL FOR SECTION 5: CARRIED TO GRAND SUMMARY

| ITEM NO. | DESCRIPTION | UNIT | QUANTITY | RATE (US\$) | AMOUNT (US\$) |
|----------|---|------|----------|-------------|---------------|
| | <p><u>PROPOSED SHALLOW WELLS REHABILITATION</u> <u>BULLA GADUUD DISTRICT</u></p> <p><u>Diameter 1.5m, depth 12m</u></p> <p><u>SECTION 3: WELL REHABILITATION (2 No.)</u></p> <p><u>The vendor is reminded to include cost of procurement, transportation, storage and labour in their quotes</u></p> <p><u>ELEMENT NO. 1: SITE PREPARATION</u></p> <p>MOBILIZATION</p> <p>Allow for the cost of transporting all equipment, and personnel to site and demobilization at completion of contract</p> <p>DEMOLITION WORKS</p> <p>Demolish all existing delapidated structures. Cart away and deposit as directed</p> <p>DEWATERING</p> <p>Allow for pumping out of existing contaminated water in the borehole using dewatering pump / lifting equipment. Cart away and deposit as directed</p> <p>Total carried to summary</p> <p><u>ELEMENT NO. 2: EXCAVATION WORKS</u></p> <p><u>Excavation including maintaining and supporting sides and keeping free from water, mud and fallen materials by bailing, pumping or otherwise</u></p> <p>Excavate for foundation strip commencing at formation level 9m deep but not exceeding 12m deep</p> <p>Extra-over for excavation in soft rock</p> <p>Cart away and deposit surplus material as directed</p> <p>FILLING</p> <p>400mm thick approved natural ground material, Well compacted approved selected material</p> <p>Rubble stone embedded in sand cement mortar (1:4)</p> <p>Allow for 400 x 200mm stone steps built into wall</p> <p>Total carried to summary</p> | | | | |
| | | LS | 1.00 | | |
| | | LS | 1.00 | | |
| | | LS | 1.00 | | |
| | | \$ | | | |
| | | CM | 16.00 | | |
| | | CM | 3.00 | | |
| | | CM | 13.00 | | |
| | | CM | 25.00 | | |
| | | CM | 5.00 | | |
| | | No. | 6.00 | | |
| | | \$ | | | |

ELEMENT NO. 3: CONCRETE WORKS

WELL LINING

Vibrated Reinforced Concrete class 30(1:1:2) with 20mm thick maximum aggregate size in

Cover slab

CM 0.47

Reinforced perforated concrete casing 1200mm diameter x 100mm wall thickness x 1000mm high up to 10m depth

No. 10.00

FORMWORK

Formwork to sides and soffits of beam,sides and soffits of pad,soffits of cover slab,sides of wall,Formwork to edges of base slab over 150mm girth but not exceeding 225mm,base slab over 75mm girth but not exceeding 150mm,cover slab over 75mm girth but not exceeding 150mm,

SM 120.00

PLATFORM

Construction of an apron, a drain and a soak-away pit as detailed on drawings

Item 1.00

Total carried to summary

\$

ELEMENT NO. 4: WALLING

MASONRY WALLING

200mm Thick masonry walling in cement and sand mortar (1:3), 20 mm Thick plaster mixed with Sika or equivalent water proofing admixture,15mm thick rendering

SM 120.00

Total carried to summary

\$

ELEMENT NO. 5: TESTING AND TREATMENT

Water recharge testing(testing of the well using electrical submersible pump, the contractor to provide necessary power, etc and proper record every one hour interval at least 36 continuous hours)

Item 1.00

Borehole Disinfection as detail in Specification

Item 1.00

Analysis of Water, using field test kits;2 water sample for each of the tests including Chemical, bacterial and Turbidity tests

Item 1.00

Total carried to summary

\$

PROPOSED SHALLOW WELLS REHABILITATION
BULLA GADUUD DISTRICT

SECTION 3: WELL REHABILITATION (2 No.)

MAIN SUMMARY

| <u>ELEMENT NO</u> | <u>TITLE</u> | <u>PAGE</u> | <u>AMOUNT</u> |
|--------------------------|--------------------------------------|--------------------|----------------------|
| 1 | ELEMENT NO. 1: SITE PREPARATION | 2/1 | |
| 2 | ELEMENT NO. 2: EXCAVATION WORKS | 2/2 | |
| 3 | ELEMENT NO. 3: CONCRETE WORKS | 2/3 | |
| 4 | ELEMENT NO. 4: WALLING | 2/4 | |
| 5 | ELEMENT NO. 5: TESTING AND TREATMENT | 2/5 | |

Grand Total

TOTAL CARRIED TO GRAND SUMMARY

US\$

| ITEM NO. | DESCRIPTION | UNIT | QUANTITY | RATE (US\$) | AMOUNT (US\$) |
|----------|--|------|----------|-------------|---------------|
| | <p><u>PROPOSED SHALLOW WELLS REHABILITATION</u> <u>BULLA GADUUD DISTRICT</u></p> <p><u>Diameter 1.5m, depth 12m</u></p> <p><u>SECTION 4: WELL RECONSTRUCTION (1 No.)</u></p> <p><u>The vendor is reminded to include cost of procurement, transportation, storage and labour in their quotes</u></p> <p><u>ELEMENT NO. 1: SITE PREPARATION</u></p> <p>MOBILIZATION</p> <p>Allow for the cost of transporting all equipment, and personnel to site and demobilization at completion of contract</p> <p>DEMOLITION WORKS</p> <p>Demolish all existing delapidated structures. Cart away and deposit as directed</p> <p>DEWATERING</p> <p>Allow for pumping out of existing contaminated water in the borehole using dewatering pump / lifting equipment. Cart away and deposit as directed</p> <p>Total carried to summary</p> <p><u>ELEMENT NO. 2: EXCAVATION WORKS</u></p> <p><u>Excavation including maintaining and supporting sides and keeping free from water, mud and fallen materials by bailing, pumping or otherwise</u></p> <p>Excavate for foundation strip commencing at formation level 9m deep but not exceeding 12m deep</p> <p>Extra-over for excavation in soft rock</p> <p>Cart away and deposit surplus material as directed</p> <p>FILLING</p> <p>400mm thick approved natural ground material, Well compacted approved selected material</p> <p>Rubble stone embedded in sand cement mortar (1:4)</p> <p>Allow for 400 x 200mm stone steps built into wall</p> | | | | |
| | | LS | 1.00 | | |
| | | LS | 1.00 | | |
| | | LS | 1.00 | | |
| | | \$ | | | |
| | | CM | 28.26 | | |
| | | CM | 3.00 | | |
| | | CM | 13.00 | | |
| | | CM | 25.00 | | |
| | | CM | 5.00 | | |
| | | No. | 6.00 | | |

Total carried to summary

\$

ELEMENT NO. 3: CONCRETE WORKS

WELL LINING

Vibrated Reinforced Concrete class 30(1:1:2) with 20mm thick maximum aggregate size in

Cover slab

CM 0.47

Reinforced perforated concrete casing 1200mm diameter x 100mm wall thickness x 1000mm high up to 10m depth

No. 10.00

FORMWORK

Formwork to sides and soffits of beam,sides and soffits of pad,soffits of cover slab,sides of wall,Formwork to edges of base slab over 150mm girth but not exceeding 225mm,base slab over 75mm girth but not exceeding 150mm,cover slab over 75mm girth but not exceeding 150mm,

SM 120.00

PLATFORM

Construction of an apron, a drain and a soak-away pit as detailed on drawings

Item 1.00

Total carried to summary

\$

ELEMENT NO. 4: WALLING

MASONRY WALLING

200mm Thick masonry walling in cement and sand mortar (1:3), 20 mm Thick plaster mixed with Sika or equivalent water proofing admixture,15mm thick rendering

SM 120.00

Total carried to summary

\$

ELEMENT NO. 5: TESTING AND TREATMENT

Water recharge testing(testing of the well using electrical submersible pump, the contractor to provide necessary power, etc and proper record every one hour interval at least 36 continuous hours)

Item 1.00

Borehole Disinfection as detail in Specification

Item 1.00

Analysis of Water, using field test kits;2 water sample for each of the tests including Chemical, bacterial and Turbidity tests

Item 1.00

Total carried to summary

\$

PROPOSED SHALLOW WELLS REHABILITATION
BULLA GADUUD DISTRICT

SECTION 4: WELL RECONSTRUCTION (1 No.)

MAIN SUMMARY

| <u>ELEMENT NO</u> | <u>TITLE</u> | <u>PAGE</u> | <u>AMOUNT</u> |
|--------------------------|--------------------------------------|--------------------|----------------------|
| 1 | ELEMENT NO. 1: SITE PREPARATION | 2/1 | |
| 2 | ELEMENT NO. 2: EXCAVATION WORKS | 2/2 | |
| 3 | ELEMENT NO. 3: CONCRETE WORKS | 2/3 | |
| 4 | ELEMENT NO. 4: WALLING | 2/4 | |
| 5 | ELEMENT NO. 5: TESTING AND TREATMENT | 2/5 | |

Grand Total

Grand total for 2 No. wells

TOTAL CARRIED TO GRAND SUMMARY

US\$

| ITEM | DESCRIPTION | UNIT | QNTY | RATE US\$ | AMT US\$ |
|------|---|----------------|-------|-----------|----------|
| | PROPOSED SHALLOW WELLS REHABILITATION BULLA GADUUD DISTRICT | | | | |
| | SECTION 5: SOLAR INSTALLATION (3 Sets) | | | | |
| | MOUNTING STRUCTURE | | | | |
| | ELEMENT NO. 1 : SITE PREPARATION | | | | |
| A | Clear site of all bushes and debris. Grab up roots and burn the arisinqs | m ² | 18.00 | | |
| B | Load, wheel and cart deposit and spread surplus excavated material where directed on site at a distance not exceeding 100 meters | Item | 1.00 | | |
| | Total carried to summary | US\$ | | | |
| | PROPOSED SHALLOW WELLS REHABILITATION BULLA GADUUD DISTRICT | | | | |
| | SECTION 5: SOLAR INSTALLATION (3 Sets) | | | | |
| | ELEMENT NO. 2 : SUBSTRUCTURES (PROVISIONAL) | | | | |
| | <u>Excavations including maintaining and supporting sides and keeping free from water, mud and fallen material</u> | | | | |
| A | Top soil excavation average 200mm deep | m ³ | 3.60 | | |
| B | Excavate for foundation not exceeding 0.3 meters deep, starting from stripped levels | m ³ | 0.36 | | |
| | Extra over for excavation in rock | m ³ | 5.40 | | |
| C | <u>Ditto</u> Column bases | m ³ | 1.62 | | |
| | <u>Planking and strutting</u> | | | | |
| D | Allow for keeping foundations free from water, mud, fallen materials, etc. | LS | 1.00 | | |
| | <u>Disposal</u> | | | | |
| E | Return, fill and ram selected excavated material around foundations | m ³ | 0.49 | | |
| F | Load, wheel and cart deposit and spread surplus excavated material where directed on site at a distance not exceeding 100 meters | m ³ | 1.13 | | |
| | <u>Hardcore or other approved filling, as described</u> | | | | |
| G | 300mm thick well compacted hardcore filling blinded with 25mm thick quarry dust layer to receive surface bed | m ² | 1.08 | | |
| H | 50mm thick Quarry dust blinding to surfaces of hardcore :rolled smooth to receive polythen sheeting (m.s) | m ² | 15.00 | | |
| | <u>Anti-termite treatment</u> | | | | |
| I | Gladiator or equal and approved chemical anti-termite treatment, executed complete by an approved specialist under a ten-year quarantine, to surfaces of blinding | m ² | 15.00 | | |
| | <u>Damp-proof membrane</u> | | | | |

| | | | | | |
|---|---|----------------|-------|--|--|
| I | <p>1000 gauge polythene or other equal and approved damp-proof membrane, laid over blinded hardcore (m.s) with 300mm side and end laps (measured nett-allow for laps)</p> | m ² | 15.00 | | |
| Total carried to summary | | US\$ | | | |
| <p><u>PROPOSED SHALLOW WELLS REHABILITATION</u> <u>BULLA GADUUD DISTRICT</u></p> | | | | | |
| <p><u>SECTION 5: SOLAR INSTALLATION (3 Sets)</u></p> | | | | | |
| <p><u>ELEMENT NO. 3 : STEEL FRAME</u></p> | | | | | |
| <p><u>Assemble all materials and construct a steel frame to support solar panels. The contractor is reminded to cost all materials labour: cutting, hoisting, placing welding, bolting priming with red oxide, painting and fixing of panels on the structure</u></p> | | | | | |
| A | <p>50mm dia. GI pipes forming framework as described</p> | | | | |
| | <p><u>Columns</u> 1500mm height</p> | No. | 22.50 | | |
| | <p><u>Beams</u> 4700mm length</p> | No. | 28.20 | | |
| | <p>2500mm length</p> | No. | 25.00 | | |
| B | <p>50mm x 3mm thick steel angle bars</p> | | | | |
| | <p><u>Supports</u> 2.5m length</p> | No. | 30.00 | | |
| | <p>800mm bracings</p> | No. | 16.00 | | |
| Total carried to summary | | US\$ | | | |

| | | | | | |
|--|---|--|--|--|--|
| | <p>PROPOSED SHALLOW WELLS REHABILITATION BULLA GADUUD DISTRICT</p> <p>SECTION 5: SOLAR INSTALLATION (3 Sets)</p> <p>ELEMENT NO. 4 : CONCRETE WORKS</p> <p><u>Plain concrete class 15 in:</u></p> <p>A 100mm blinding m³ 1.50</p> <p>B Ditto for column bases m³ 0.14</p> <p><u>In situ concrete class 25/20 , vibrated and reinforced with 60mm thick maximum aggregate size in as described, in:-</u></p> <p>SLABS</p> <p>C 200mm thick surface bed laid in bays including all necessary formwork m³ 3.60</p> <p><u>Ditto:</u></p> <p>D Suspended slab m³ 3.60</p> <p>E Roof slab m³ 3.60</p> <p>Total carried to summary US\$</p> | | | | |
| | <p>PROPOSED SHALLOW WELLS REHABILITATION BULLA GADUUD DISTRICT</p> <p>SECTION 5: SOLAR INSTALLATION (3 Sets)</p> <p>ELEMENT NO. 5 : FINISHES</p> <p>A <u>Cement and sand (1:3) screeds, backings, beds etc</u> 25mm Thick cement/sand (1:4) screed finish Floor slab m² 18.00</p> <p><u>Painting</u></p> <p>B <u>Prepare surfaces and apply three coats gloss oil paint as 'Crown' or equal and approved manufacturer(s) on concrete and masonry surfaces: measured overall on both sides</u> Plastered surfaces internally and externally LS 1.00</p> <p>Total carried to summary US\$</p> | | | | |

MAIN SUMMARY

| <u>No.</u> | <u>ELEMENT</u> | <u>PAGE</u> |
|------------|---|-------------|
| 1 | ELEMENT NO. 1 : SITE PREPARATION | 5/1 |
| 2 | ELEMENT NO. 2 : SUBSTRUCTURES (PROVISIONAL) | 5/2 |
| 6 | ELEMENT NO. 3 : STEEL FRAME | 5/6 |
| 8 | ELEMENT NO. 4 : CONCRETE WORKS | 5/8 |
| 9 | ELEMENT NO. 5 : FINISHES | 5/9 |

Grand Total For Mounting Structure carried to grand summary**US\$****PROPOSED SHALLOW WELLS REHABILITATION**
BULLA GADUUD DISTRICT**SECTION 3: SOLAR INSTALLATION****SOLAR PANEL AND PUMP****ELEMENT 1: SOLAR PANELS AND PUMP**

| | | | |
|----|---|-------|----|
| 1 | Submersible pump, Grundfos, SP8A - 18, with matching cut-off electrodes, drop cables control panel, all accessories included (Stand by Pump) | No. | 1 |
| 2 | SOLAR PANELS 195W 36.4Vmax | No. | 2 |
| 3 | 8mm ² submersible pump 3-phase motor cable | Meter | 12 |
| 4 | Well Probe Cable | Meter | 10 |
| 5 | Well Probe sensor | No. | 1 |
| 6 | PV Disconnect 1000-40-5 | No. | 1 |
| 7 | Surge Protector | No. | 1 |
| 8 | PV Protect 1000-125 | No. | 2 |
| 9 | PV Combiner 1000-125-4 | No. | 2 |
| 10 | Smart Start Automatic Remote Diesel Switching Device | No. | 2 |
| 11 | Smart PSUK2 Power Supply Unit, 400VAC, 3-phase, 40kVA, DC Out 850VDC | No. | 1 |
| 13 | GI Pipes | No. | 4 |
| 14 | Accessories | Lot | 1 |
| 15 | Installation, Testing and Commissioning | Lot | 1 |

Total carried to summary**US\$****MAIN SUMMARY**

| <u>No.</u> | <u>ELEMENT</u> | <u>PAGE</u> |
|------------|----------------------------------|-------------|
| 1 | ELEMENT 1: SOLAR PANELS AND PUMP | 5/1 |

Grand Total For Solar panels and pumps carried to grand summary**US\$**

PROPOSED SHALLOW WELLS REHABILITATION
BULLA GADUUD DISTRICT

SECTION 5: SOLAR INSTALLATION (3 Sets)

GRAND SUMMARY

| <u>No.</u> | <u>ELEMENT</u> | <u>PAGE</u> | <u>AMOUNT</u> |
|---|-----------------------|--------------------|----------------------|
| 1 | MOUNTING STRUCTURE | | |
| 2 | SOLAR PANEL AND PUMP | | |
| Grand Total For Solar panels, pump and mounting structure carried to grand summary | | US\$ | |
| <u>Total for 3 No. Sets of solar panels, pumps and mounting structures</u> | | US\$ | |
| <u>TOTAL FOR SECTION 5: CARRIED TO GRAND SUMMARY</u> | | US\$ | |

| ITEM | DESCRIPTION | UNIT | QUANTITY | RATE (USD) | AMOUNT (USD) |
|------|--|----------------|----------|------------|--------------|
| | <p><u>PROPOSED SHALLOW WELLS REHABILITATION</u> <u>BULLA GADUUD DISTRICT</u></p> <p><u>SECTION 6 : PIPELINE AND FENCE</u></p> <p><u>PIPELINE</u></p> <p><u>ELEMENT NO. 1: EXCAVATION</u></p> <p><i>Excavation including maintaining and supporting sides and keeping free from water, mud and fallen materials by bailing, pumping or otherwise</i></p> | | | | |
| A | Prepare site by stripping top 200 mm of soil to remove all debris including sand (if any) from site and carting away spoil | m ² | 27.0 | | |
| B | Excavate for foundation strip commencing at stripped levels depth not exceeding 1.50m deep | m ³ | 21.6 | | |
| D | Remove surplus excavated material from site | m ³ | 6.5 | | |
| | CARRIED TO COLLECTION AT END OF ELEMENT 1 | | | | |
| | <p><u>PROPOSED SHALLOW WELLS REHABILITATION</u> <u>BULLA GADUUD DISTRICT</u></p> <p><u>SECTION 6 : PIPELINE AND FENCE</u></p> <p><u>ELEMENT NO. 2: PIPELINE</u></p> | | | | |
| A | Supply and install high pressure UPVC pipe 3" diameter x 6m length, the price includes all type of bends, elbows, tees, and laying metallic plastic tracer tape ... etc, to connect all as noted above, described in the Specifications and as shown on the detailed drawings and as directed by the Engineer. | No. | 9.0 | | |
| B | Supply and install all required fittings (Tees, elbows, Flanges, reducers/extruders, couplings, spigots, required steel pipes, gaskets, SS bolts, ... etc, to connect the proposed UPVC pipe according to Detail. The price should exclude the gate valve and its connection fittings (to be in a separate item). | LS | 1.0 | | |
| C | Allow for 3" brass gate valves | No. | 6.0 | | |
| | CARRIED TO COLLECTION AT END OF ELEMENT 1 | | | | |
| | <p><u>PROPOSED SHALLOW WELLS REHABILITATION</u> <u>BULLA GADUUD DISTRICT</u></p> <p><u>SECTION 6 : PIPELINE AND FENCE</u></p> <p><u>ELEMENT NO. 3: BACKFILLING</u></p> | | | | |

| | | | |
|---|---|----------------|------|
| E | Backfill around foundations with selected approved filling material | m ³ | 15.1 |
|---|---|----------------|------|

CARRIED TO COLLECTION AT END OF ELEMENT 1

MAIN SUMMARY

| <u>No.</u> | <u>ELEMENT</u> | <u>TITLE</u> | <u>PAGE</u> |
|------------|----------------|--------------|-------------|
| 1 | ELEMENT NO. 1: | EXCAVATION | |
| 2 | ELEMENT NO. 2: | PIPELINE | |
| 3 | ELEMENT NO. 3: | BACKFILLING | |

Grand Total For pipeline carried to grand summary

**PROPOSED SHALLOW WELLS REHABILITATION
BULLA GADUUD DISTRICT**

SECTION 6 : PIPELINE AND FENCE

FENCE AND GATE

ELEMENT No. 1: GATE

The contractor will provide all material and construct a steel gate measuring approximately 4500x2100m. Given the location and site conditions, the contractor is advised to make a physical assesment of the site before tendering.

| | | | |
|---|--|----|------|
| A | Excavate for column pads, depth not exceeding 1m and of 0.5 x 0.5 mm width commencing at the original ground level, and cart away to spoil as directed | CM | 0.50 |
|---|--|----|------|

Reinforced Concrete using 3/4 + 1/2" mix machine crushed Ballast in:

| | | | |
|---|---|-----|-------|
| A | Vibrated reinforced concrete (class 25) column base, 350mm deep | CM | 0.05 |
| B | Assorted high tensile twisted steel reinforcement bars to B.S 4446. | KG | 20.00 |
| C | Sawn formwork to vertical sides of the columns | SM | 10.00 |
| D | G.I CHS Columns | No. | 2.00 |

GATE

| | | | |
|---|--|----|------|
| H | Supply and fix single leaf steel gate size 1500 x 2100mm high CHS poles and heavy duty wire mesh fixed onto the concrete columns using heavy duty steel pin hinges; with all fastening accessories including all cutting welding, grinding and priming with one coat of grey oxide before fixing. The gate should also have peep holes of not more than 25mm dia with a slidding door. It should also have 2 locking mechanisms, top and bottom. | NO | 1.00 |
|---|--|----|------|

Sub-Total for main and pestrrian gate

**PROPOSED SHALLOW WELLS REHABILITATION
BULLA GADUUD DISTRICT**

SECTION 6 : PIPELINE AND FENCE

ELEMENT No. 2 : FENCE

The contractor is reminded to include in his pricing, the cost of supply, cutting, waste and erection and all other necessary fittings including welding lugs or fishtailing onto the 50x50x6mm angle bars. Angle bars and the necessary fixing and anchorage to be treated as described in the specifications.

Fence construction should be according to BS 1722-Part 10

| | | | |
|---|--|------|--------|
| A | Clear the perimeter of the fencing area of all bushes scrubs and obstructions | SM | 24.00 |
| B | Excavate 300x300x500 deep holes to receive mass concrete (1:3:6) bases as shown in the drawings. | CM | 0.60 |
| C | Supply 50x5mm CHS welded posts with ends closed as shown in the drawings, bottom end fixed with 100x100mmx3mm plate and bedded in mass concrete. The post to be 2100mm high from ground level to the top. Allow for drilling 7No holes as shown. | NO | 13.33 |
| D | Extra Over 50x5mm posts for bracing on either side every fourth intermediate post and all corner posts. | NO | 3.33 |
| Mass Concrete Mix 1:3:6/20mm using 3/4 Local Ballast in: | | | |
| E | Supply all materials and cast 0.3m diameter x 0.6m depth mass concrete class Q (1:3:6) to concrete the 50mm dia. CHS poles while ensuring they remain plumb 600mm deep below the ground level and 2500mm (2.5m) above ground level. | CM | 0.60 |
| F | Supply and weld a 12mm high tensile steel rod along the bases of the posts for anchoring the chainlink to the ground along the whole length of the fence. Allow for excavating 200mm deep along the fence to fix the rod. | LM | 40.00 |
| G | Allow for curing of all concrete works | Item | 1.00 |
| H | Supply and fix 3No strands of 12G barbed wire bound onto either sides of the Y post using 3mm galvanised wire as shown in the drawings. | LM | 240.00 |
| I | Ditto for posts | LM | 280.00 |
| J | Supply and and fix 2500mm high HEAVY GUAGE chainlink to posts using 3mm galvanised wire. Allow for securing the chainlink to a 12mm reinforcement bar welded at the base between the posts. | LM | 40.00 |
| K | Supply and fix razer wire secured on the chainlink, barbed wire and Y posts by binding wire and rolled approximately 600mm dia. | LM | 40.00 |
| L | Prepare and apply one under coat of epoxy based primer and two finishing epoxy based paints to metal surfaces n.e 250mm in alternate bands of 300mm | No. | 16.67 |

Total carried to summary

ELEMENT NO. 3 : MAIN SUMMARY

| ELEMENT No. | TITLE | PAGE |
|--------------------|-----------------------|-------------|
| 1 | ELEMENT No. 1: GATE | 1/2 |
| 2 | ELEMENT No. 2 : FENCE | 2/2 |

Total For fence carried to grand summary

PROPOSED SHALLOW WELLS REHABILITATION
BULLA GADUUD DISTRICT

SECTION 6 : PIPELINE AND FENCE

GRAND SUMMARY

| <u>No.</u> | <u>ELEMENT</u> | <u>PAGE</u> | <u>AMOUNT</u> |
|---|-----------------------|--------------------|----------------------|
| 1 | PIPELINE | | |
| 2 | FENCE AND GATE | | |
| Grand Total For pipeline and fence | | US\$ | |
| <u>Total piping for of solar panels, pumps and mounting structures</u> | | US\$ | |
| <u>TOTAL FOR SECTION 5: CARRIED TO GRAND SUMMARY</u> | | US\$ | |

| ITEM NO. | DESCRIPTION | PAGE | AMOUNT (US\$) |
|----------|--|--------------------|---------------|
| | <p><u>PROPOSED SHALLOW WELLS REHABILITATION</u> <u>BULLA GADUUD DISTRICT</u></p> <p><u>GRAND SUMMARY</u></p> <p>1 SECTION 1: PRELIMINARIES AND GENERAL DESCRIPTIONS</p> <p>2 SECTION 2: ELEVATED WATER TANK</p> <p>3 SECTION 3: WELL REHABILITATION (2 No.)</p> <p>4 SECTION 4: WELL RECONSTRUCTION (1 No,)</p> <p>5 SECTION 5: SOLAR INSTALLATION (3 Sets)</p> <p>6 SECTION 6 : PIPELINE AND FENCE</p> <p>TOTAL AMOUNT CARRIED TO FORM OF TENDER</p> | | |
| | <p>SIGNED:</p> <p>(CONTRACTOR)</p> <p>Address:</p> <p>Tel No:</p> <p>Date:</p> <p>SIGNED:</p> <p>(EMPLOYER)</p> <p>Address:</p> <p>Tel No:</p> <p>Date:</p> | <p>US\$</p> | |