

PROJECT – KESUM-KAPCHEBIT COMMUNITY SUPPLY WATER PROJECT. FY 17-18

Kesum-Kapchebit community water project is located in Kapchebit area in Cherangany Chebororwo Ward of Marakwet West Sub County. The proposed point of delivery can be accessed through Kapsowar-Cheptongei-Chebilbai-Kokwongoi Road at Kokwongoi Centre and Kapchebit Pri.School.

The Contractor is advised to visit the site and familiarize himself with site conditions prior to bidding.

CHERANGANY CHEBOROWA WARD

BILL OF QUANTITIES

Item No.	Item Description	Unit	Qty	Rate	Amount
1.00	Re-routing of pipeline from Intake as directed by the Engineer.				
1.01	Excavate and remove pipes on the trench and place them carefully as directed by the Engineer,	m	300		
1.02	Excavate and backfill 750mm depth x 300mm width trench in soft ground	m	300		
1.03	Lay, joint and test 4" Ø UPVC class D pipes removed from the trench above.	m	200		
1.04	Procure, lay, joint and test 4" Ø UPVC class D pipes	m	100		
	Sub Total				
2.00	Procure and fix the following fittings as directed by the Engineer for 2no Air valves				
2.01	1" air valves	No	2		
2.02	1" Pegler UK Gate valves	No	2		
2.03	1" GI nipples	No	4		
2.03	4" x 1" GI Red bush	No	2		
2.04	4" GI Tee equal	No	1		
2.05	4" GI pipes class B 1m-long threaded on both sides	No	2		
2.06	4" GI plain sockets	No	2		
2.07	3" x 1" GI Red bush	No	2		
2.08	3" GI Tee equal	No	2		
2.09	3" GI pipes class B 1m-long threaded on both sides	No	4		
2.10	3" GI plain sockets	No	4		
2.11	Provide materials and construct valve chambers	No	2		

	1000mm x 1000mm x1000mm with lockable cover,				
	Sub Total				
3.00	From Forest to tank				
3.01	Procure and deliver, lay joint and test 2"Φ GI pipes class B	m	72		
3.02	Procure and deliver, lay joint and test 2"Φ Upvc pipes class D.	no	330		
3.03	Excavate and backfill 750mm depth x 300mm width trench in soft ground	m	400		
4.00	From Tank to Pri School				
4.01	Procure and deliver, lay joint and test 2"Φ Upvc pipes class D.	m	650		
4.02	Procure and deliver, lay joint and test 2"Φ GI pipes class B	m	100		
5.00	From Pri School to Central				
5.01	Procure and deliver, lay joint and test 1"Φ Upvc pipes class D.	m	1070		
5.02	Procure and deliver, lay joint and test 1"Φ GI pipes class B	m	30		
5.03	Excavate and backfill 750mm depth x 300mm width trench in soft ground	m	1100		
5.04	Provide materials and construct valve chambers 1000mm x 1000mm x1000mm with lockable cover,	No	1		
6.00	From Pri School to Rorok				
6.01	Procure and deliver, lay joint and test 1"Φ Upvc pipes class D.	m	1470		
6.02	Procure and deliver, lay joint and test 1"Φ GI pipes class B	m	30		
6.03	Excavate and backfill 750mm depth x 300mm width trench in soft ground	m	1500		
6.04	Allow for testing and operationalizing the whole length of pipeline from the intake to the tank.			L/Sum	
	Sub Total				
7.00	Fencing of the intake works.				
7.01	Supply all materials and erect 2400mm cedar posts at 2m centers in 600mm deep holes anchored with 1:3:6 concrete mix with 10 No. cedar posts for supports at collected points.	No	100		

7.02	Supply and install Galvanized 16 Gauge chain link 2.0M height	Pcs	8		
7.03	Gloss paint to gate	Ltrs	4		
7.04	Supply and fix 6 strands of barbed wire gauge 16 at 300mm centers	Roll	2		
7.05	Double leave steel gate comprising of 100mm dia.GI end posts 2.5M long. Gate dimensions to be 1.0m x 2.0m high with 0.80M wide pedestal gate. The gate to be of 50 x 25mm R.H.S. framing with 50mm x 25mm R.H.S grilles spaced at 200mm centers welded to frame couled with high quality padlock	No	1		
	Sub total for Fencing.				

**PROJECT: - PROPOSED 100M³ GROUND MASONRY TANK FOR KESSUM
KAPCHEBIT WATER PROJECT.**

BILL No 1. PRELIMINARY ITEMS.

Item	Item Description	Qty	Unit	Rate	Amount
A1	PROVISION OF WATER FOR CONSTRUCTION WORKS. The contractor shall allow for the provision of water for the general construction works including temporary holding structures.	Ls	Item	100,000	100,000.00
Total Bill No1. carried to summary					

**PROJECT: - PROPOSED 100M³ CAPACITY GROUND MASONRY TANK FOR
KESSUM KAPCHEBIT WATER PROJECT.**

BILL No 2. EXCAVATION AND EARTH WORKS.

Item	Item Description	Qty	Unit	Rate	Amount
2.1	Clear site of bushes, shrubs, grub the roots and dispose of 50m away.	60	M ²		
2.2	Excavate oversite to reduce levels not exceeding 1.5m deep starting from the existing ground level and remove to temporary spoil heap.	80	M ³		
2.3	Extra over excavation for excavating in rock (provision).	5	M ³		
2.4	Allow for keeping all the excavations free from foreign materials and general waters.	Ls	Item		
2.5	Provide and apply anti-termite solution preferably Gladiator or any other approved anti-termite solution to the general surfaces of excavations.	Ls	Item		
2.6	Provide , place and compact hardcore of approved quality 300mm thick to make up levels	25	M ³		
2.7	Provide and compact 50mm thick selected murrum blinding to the surfaces of hardcore.	10	M ³		
2.8	Provide and place 1000gauge polythene sheet to the surfaces of blinded hardcore.	60	M ²		
	Sub-Total Bill No 2. carried to summary				

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BILL No 3 CONCRETE WORKS AND REINFORCEMENT.

Item	Item Description	Qty	Unit	Rate	Amount
	Reinforced concrete grade 20/20 (1:2:4) as described to the following				
3.1	150mmthick floor slab mixed with 1kg water proof/50kg bag of ordinary Portland cement.	12	M ³		
3.2	Ditto to 250x250mm square columns	1	M ³		
3.3	Ditto to 250x250mm cross beams to the roof slab.	1.5	M ³		
3.4	Ditto to 100mm thick roof slab	10	M ³		
3.5	Mass concrete (1:2:4) to off take, intake and overflow pipes. Provide, handle, cut to size and fix the following reinforcement bars as stated in the bending schedule.	1	M ³		
3.6	12mm diameter twisted bars to beams	100	M		
3.7	Ditto to columns	80	M		
3.8	Ditto to roof slab 10mm	960	M		
3.9	Ditto to floor slab 10mm	650	M		
3.10	6mm diameter bars to beams & columns	120	M		
3.11	8mm diameter bars circumferential bars to the walls.	1050	M		
3.12	Allow for binding wires for tying the reinforcements.	50	Kg		

	Sub- total Bill No 3 carried to summary				

BILL No 4 WALLING, SHUTTERING & FORMWORK.

Item	Item Description	Qty	Unit	Rate	Amount
	Provide, handle materials, mix mortar as per specification and construct				
4.1	200mm thick block reinforced concrete block wall in 1:1:3 cement: water proof cement: sand mortar.	74	M ²		
4.2	Sawn timber formwork to the sides of foundation slab	25	M		
4.3	Sawn timber form work to edges of the roof slab	100	M		
4.4	Sawn formwork to the soffit of the 100mm thick roof slab.	60	M ²		
4.5	Sawn timber 3"x2" to the soffit of roof slab	100	M		
4.6	Props/timber supports of approved size and quality average height 3.0m.	100	No		
4.7	Provide and fix 1000 gauge polythene sheeting to top of timber formwork to the roof slab.	60	M ²		
4.8	Provide, handle and fix bondex between the tank wall and the floor slab as per the drawing.	20	Kg		
	FINISHES				
4.9	25mm thick cement: sand(1:3)mixed with water proof cement to the inside walls	62	M ²		

4.10	Ditto the floor slab	64	M ²		
4.11	Ditto to the external walls	74	M ²		
4.12	Ditto to exterior surface of roof slab	62	M ²		
4.13	Ditto to the interior surface of roof	64	M ²		
	PAINTING				
4.14	Apply undercoat to external walling	74	M ²		
4.15	Ditto cream paint	74	M ²		
4.16	Ditto Bermuda blue paint 600mm from bottom of tank and 600mm from top of tank	60	M ²		
Sub-total Bill No 4 carried to summary					

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BILL No 5 ANCILLIARY AND PIPEWORK

Item	Item Description	Qty	Unit	Rate	Amount
5.1	Fabricate and fix a vertical ladder comprising 25mm mild steel tubing average height 3.0m	2	No		
5.2	Fabricate and fix, 600mmx600mm x3mm thick plate , man hole covers complete with lockable device and high quality padlock	3	No		
5.3	Construct and complete in concrete block walling man hole chambers measuring 1.5mx1.5mx 1.2m high.	2	No		
5.4	Provide and install air vents to the roof slab of the tank comprising 100mm diameter G.I piece, nipple and 2No G.I elbows.	3	No		
	Provide ,handle ,lay and fix the following				

	pipes and fittings as described to:				
	Inlet let pipe				
5.5	50mmΦ G.I pipe				
5.6	50mmΦ G.I bend	1	No		
5.7	50mmΦ G.I Socket	3	No		
5.8	50mmΦ G.I nipple	1	No		
5.9	50mmΦ G.I elbow	1	No		
	Scour, Outlet and over flow pipes				
	80mm diameter G.I pipe				
5.10	80mm 90° G.I bend	15	M		
5.11	80mm diameter sluice valve	2	No		
5.12	80mm diameter G.I elbow	2	No		
5.13	80mm diameter G.I Union	1	No		
5.14	80mm GI Tee equal	1	No		
5.15	80mm x 50mm Red bush	1	No		
5.16	80mm x 25mm Red bush	1	No		
5.17		1	No		
		1	No		
	Sub-Total Bill No 5 carried to summary				
	Total for tank				
	Total				
	Add Engineers Supervision				150,000
	Grand Total to be carried to Form of Tender				