

BILL OF QUANTITIES FOR THE PROPOSED DISTRIBUTION OF YANDIA WATER PROJECT IN EMALI/ MULALA WARD

Preamble: The rates entered shall include, third party fees, levies, input costs, labour and contractor's overheads and profits.

Item	Item Description	Unit	Quantity	Unit Rate	Amount
BILL 1:	PRELIMINARY & GENERAL ITEMS				
1.1	Publicity Sign Board				
1.1	Fabricate erect and maintain public sign post, well supported to detail as provided in the drawing and as instructed by the project manager.	No	1		
1.2	Mobilization and Demobilization				
1.21	Mobilize to site and demobilize. Provide equipment including but fusion, personal protective equipment, materials and personnel necessary for the due and satisfactory completion of the works, provision of security and shall remove same on completion	Item	1		
1.3	Setting Out				
1.31	Allow a provisional sum of Kshs. 40,000.00 for setting out of the pipeline and water points in presence of clients Supervising Engineer	L/Sum	1	40,000.00	40,000.00
1.32	E.o bill 1.31 for profits and overheads	%	15		-
	<i>Total carried from Bill 1 to Main summary</i>				
BILL 2	RISING MAIN PIPELINE				
	<u>CLASS D: DEMOLITION AND SITE CLEARANCE</u>				
	<i>The rate quoted is for site clearance and demolition along construction wayleave. Rate shall be deemed to include removal of the material, natural and artificial articles, objects and obstructions which are above the original surface and carting away to tips, identified by the contractor in liaison with the Local Authority</i>				
	<u>General clearance</u>				
2.01	Site clear and excavate to pipe invert level 600 mm n.e 1m below existing ground level and backfill/ reinstate to original ground level after testing pipeline, all to the approval of the engineer	m	2000		
	<u>CLASS E: PIPEWORK - PIPES</u>				
	<i>The rate quoted is for supply and transport to site storage, transport from site storage, excavate, lay and joint pipes complete with all jointing materials and but fusing. The rate is deemed to include excavation, bed lining, installation and backfilling of the pipe trenches. keep trenches and their excavations free of water.</i>				
2.02	PN20 DN90mm HDPE PE100 ISO4427	m	400		
2.03	PN16 DN90mm HDPE PE100 ISO4428	m	600		
2.04	PN12.5 DN90mm HDPE PE100 ISO4427	m	950		
2.05	Class B GI pipes DN 75mm with sockets	m	6		
2.06	Allow for electrofusion/ butfusion of the pipes and fittings. Connectors and adaptors NOT PERMITTED in the rising main pipeline	Joints	38		
	<u>CLASS J: PIPEWORK - FITTINGS AND VALVES</u>				
	<i>The rate quoted is for provision and fixing</i>				
	Bends				

GOVERNMENT OF MAKUENI COUNTY

29 AUG 2024

Chief officer:
Environment & Climate Change

Item	Item Description	Unit	Quantity	Unit Rate	Amount
2.06	OD 90mm plain ended, 22.50° and 90°	nr	4		
	Junctions and branches				
2.07	OD 90x63mm plain ended tee to be fused, with flanged branch and valves and all the necessary accessories for airvalves and washouts	nr	6		
	Airvalves				
2.08	Supply and install DN50mm anti-shock/ anti-surge double-orifice Air Valves as per the attached technical specifications with flanged base	nr	4		
	All Flanged Sluice Valves				
2.09	Supply and install DN50 PN16 flanged Sluice valves for line valves and Washo Outs	nr	2		
2.1	DN80mm Flanged Bulk Water Meter, Wesan or equivalent approved	nr	1		
	CLASS K: PIPEWORK - MANHOLES AND PIPEWORK ANCILLARIES				
	<i>The rate quoted is for chambers, culverts, crossings and reinstatements and other ancilleries as specified.</i>				
	Air Valve/Washout/Sluice Valve Chambers				
2.1	Construct 1000mm by 1000mm masonry valve chamber. Depth not exceeding 2m, all in accordance with details shown on drawings. Include for provision and fixing of cast iron step irons and heavy duty rectangular mild steel frame as per details on drawing	nr	7		
	Marker Posts				
	<i>Construct concrete marker posts and install along the water supply pipeline, all in accordance with details shown on drawings. (Reinforced concrete 1:2:4(class 20/20, bars D12), as per details on drawing</i>				
2.11	Pipeline marker post inscribed WL	nr	7		
2.12	Air valve marker post Inscribed AV	nr	4		
2.13	Washout marker post inscribed WO	nr	2		
2.14	Sluice Valve marker post inscribed SV	nr	1		
	CLASS L: PIPEWORK - ANCILLARIES TO LAYING AND EXCAVATION				
	<i>Extras to excavation and backfilling in pipe trenches</i>				
2.15	Excavation in rock Class A	m ³	3		
2.16	-Ditto- but rock Class B	m ³	3		
2.17	-Ditto- but rock Class C	m ³	3		
	Note:- Blasting is NOT permitted				
	Class L; PIPEWORK - SUPPORTS AND PROTECTION, ANCILLIARIES TO LAYING AND EXCAVATION				
2.18	Construct concrete stools for fitting and thrust blocks and anchor blocks to all bends along the water supply pipeline, all in accordance with details shown on drawings Thrust blocks - RC, Volume 0.2 - 0.5m ³	nr	10		
2.19	Concrete surround to pipe at directed sections	m	50		
	Amount for Rising Main Pipeline Carried to Summary				

GOVERNMENT OF WAKUENI COUNTY

29 AUG 2023

Chief officer:
Environment & Climate Change

Item	Item Description	Unit	Quantity	Unit Rate	Amount
BILL 3	WATER POINTS				
	2M x 2M STD Ministry Water Kiosk				
3.1	SUB - STRUCTURE				
3.101	Excavate to remove veg. Soil average 200mm thick	m ²	21		
3.102	Excavate foundation trenches n.e 1.5M deep	m ³	7.5		
3.103	Return fill in and ram	m ³	2		
3.104	Load and cart away surplus excavated material	m ³	2		
3.105	50mm thick 1:3:6 mix foundation blinding	m ²	5.5		
3.106	1:2:4 mix reinforced concrete in strip foundations, columns	m ³	2		
3.107	300mm thick hardcore filling	m ³	1.5		
3.108	50mm thick murrum blinding	m ²	12		
3.109	Anti-termite treatment	m ²	12		
3.110	50mm thick 1:3:6 concrete blinding	m ²	5.5		
3.111	1:2:4 reinforced concrete floor slab 100mm thk	m ³	1		
3.112	Weld mesh no. A145	m ²	5.5		
3.113	D12 reinforcement to foundation base and column starters	kg	70		
3.114	D8 reinforcement to foundation strip	kg	30		
3.115	200mm x 25mm softwood sawn formwork to side of slab	m	10		
3.116	150mm thick quarry stone foundation walling laid in cement/ sand mortar 1:3	m ²	8		
3.200	WALLING				
3.201	1:2:4 mix reinforced ring beam 150mm Thk	Item	L/Sum		
3.202	150mm thick compressed stabilized interlocking machine cut stone walling	m ²	20		
3.203	200 x 25mm soft wood sawn timber formwork to sides of lintol	m	8		
3.204	D12mm diameter RC bars to column bases/footing and columns	kg	90		
3.205	D8mm diameter RC bars to column rings	kg	10		
3.206	1:2:4 mix RC to 4No. 225mm x 225mm column and footings	m ³	1		
3.300	ROOFING				
3.301	200 x 25mm soft wood sawn timber formwork for roof slab.	m ²	7		
3.303	100 x 25mm soft wood sawn timber formwork to sides of roof slab	m	10		
3.304	1:2:4 mix reinforced concrete to roof slab - 125mm T.H.L	m ³	1		
3.305	D8 RC bars @150mm c/c to 125mm thick roof slab	kg	27		
3.400	DOORS				
3.401	Fix standard steel purpose made door size 900 x 2000mm	nr	1		
3.500	WINDOWS & VENTILATION				
3.501	Fix standard steel casement purpose made window size 950 x 1000mm	nr	1		
3.502	50mm thick precast concrete window sill all sides 1000 x 300mm throated/weartherd on the outside	Item	1		
3.503	Supply 150mm concrete louvre blocks and place in 1:3 cement/sand for 600mm x 300mm vent in wall as shall be directed.	Item	1		

GOVERNMENT OF MAKUENI COUNTY

29 AUG 2024

Chief Officer

Environment and Natural Resources

Item	Item Description	Unit	Quantity	Unit Rate	Amount
3.600	FINISHES				
3.601	12mm thick internal plaster	m ²	19		
3.602	12mm thick external plaster	m ²	22		
3.603	25mm thick cement/ sand screed	m ²	12		
3.700	PAINTING				
3.701	Prepare and apply 3 coats gloss oil paint to wall surfaces externally	m ²	22		
3.702	Ditto but to walls internally	m ²	19		
3.703	Ditto but to wood surfaces	m ²	4		
3.800	PLUMBING				
3.801	20mm dia GI pipe M.G.	Pcs	2		
3.802	13mm dia GI pipe M.G.	Pcs	2		
3.803	20mm dia Bend	nr	4		
3.804	20mm dia Nipples	nr	4		
3.805	20mm dia Union	nr	4		
3.806	20mm dia Socket	nr	3		
3.807	20 x 13mm dia reducing tee	nr	2		
3.808	20mm dia water meter	nr	1		
3.809	20mm diameter Gate Valve (Peglar)	nr	1		
3.810	13mm dia Bend	nr	8		
3.811	13mm dia stop cock	nr	4		
3.900	WATER TANK				
3.901	Supply and installation of a 5m ³ plastic tank on roof of water kiosk. Cost include installation of float valve, and 40mm PPR/GI outlet plumbing works	sum	1		
	Amount for 1 No. Water Kiosk and Tank				
	Amount for 3 No. Water Kiosks and Tanks (Sub Total 3.1)				
	Rehabilitation of the Existing Kwa Mulandi Water Point				
	Allow for preparation and civil work repairs including making good	L/ Sum	1		
3.700	PAINTING				
3.701	Prepare and apply 3 coats gloss oil paint to wall surfaces externally	m ²	22		
3.702	Ditto but to walls internally	m ²	19		
3.703	Ditto but to wood surfaces	m ²	4		
3.800	PLUMBING				
3.801	20mm dia GI pipe M.G.	Pcs	2		
3.802	13mm dia GI pipe M.G.	Pcs	2		
3.803	20mm dia Bend	nr	4		
3.804	20mm dia Nipples	nr	4		
3.805	20mm dia Union	nr	4		
3.806	20mm dia Socket	nr	3		
3.807	20 x 13mm dia reducing tee	nr	2		
3.808	20mm dia water meter	nr	1		
3.809	20mm diameter Gate Valve (Peglar)	nr	1		
3.810	13mm dia Bend	nr	8		
3.811	13mm dia stop cock	nr	4		
	Amount for rehabilitation of Water Kiosk (Sub Total 3.2)				

GOVERNMENT OF KILIMANJARO COUNTY

29 AUG 2023

Chief officer:
Environment & Climate Change

Item	Item Description	Unit	Quantity	Unit Rate	Amount
	ANIMAL TROUGH				
	Provide materials to construct 5mx1mx0.35m animal trough as per the provided drawing	L/ Sum	1		
	Amount For Animal Trough (Sub Total 3)				
	Amount for Water Points carried To Summary (Sub Totals 1+2+3)				
BILL 4	100M³ STD MASONRY TANK				
Item	Description	Unit	Qty	Rate (Ksh)	Amount (Kshs)
4	GENERAL:				
	Allow for setting out and testing of the tank in presence of client representative	No	1		
	EXCAVATIONS				
4.01	Strip top soil 200mm from g.l. over area of tank and remove all vegetable soil to temporary spoil heap.	m ³	60		
4.02	Excavate from stripped level over the tank site to depth n.e. 1.5m deep and dispose soil as directed	m ³	90		
4.03	Excavate pit commencing 1.50m from stripped level but not exceeding 3.0m deep and dispose as directed soil as directed	m ³	90		
4.04	Extra over items 3 for excavating in rock Rate to include making good)	m ³	4		
4.05	Allow for backfilling to approve levels after Completion of the works.	m ³	60		
4.06	Allow for keeping all excavation free from general waters	item	1		
4.07	Allow for planking and strutting of the pit	item	1		
4.08	Provide, place and compact hardcore of approved quality 300 mm thick to make up levels.	m ³	15		
4.09	Provide blinding conc class 15 in 50mm thickness to surface of hardcore.	m ²	50		
	CONCRETE WORK				
	Provide place, handle, mix and vibrate as directed by the Engineer				
4.10	Vibrated reinforced concrete mix 1:2:4 in 125mm thick for slab	m ³	8		
4.11	Vibrated reinforced concrete mix 1:2:4 mix in 100mm thick at edges rising to 125mm thick at edges rising to 125mm thick at the centre roof slab	m ³	7.5		
4.12	Ditto in lintel	m ³	0.1		
4.13	Ditto in ring beam	m ³	0.1		
4.14	Ditto centre Column	m ³	0.24		
4.15	Vibrated mass concrete 250mm thick surrounded to off take and scour pipes	m ³	0.3		
	REINFORCEMENT BARS				
	Provided handle, cut, bend and fix the following reinforcement bars as stated in the bending schedule or as directed by the Engineer				
4.16	6mm round mild steel stirrup	Kg	20		
4.17	8 twisted mild steel stirrup	Kg	350		
4.18	10mm twisted mild steel bars	Kg	1000		
4.19	12mm twisted mild steel bars	Kg	500		

GOVERNMENT WAKUENI COUNTY

29 AUG 2024

Chief officer:


Item	Item Description	Unit	Quantity	Unit Rate	Amount
	FORMWORK				
	Sawn timber formwork as per engineer's Specification. Include propping strutting and striking off to:				
4.20	Edges of 125mm ring	m	37		
4.21	Edges of 100mm roof slab	m	19		
4.22	Sofift of 100mm roof slab	m ²	34		
4.23	Edge of the manhole opening	m	16		
4.24	Sofift of roof slab on the external side	m ²	13		
	WALLING				
4.25	300mm thick dressed quarry stone walling curved on plan radius 8500mm	m ²	28		
4.26	225 thick dressed quarry stone walling curved on plan radius 8500mm	m ²	50		
4.27	Provide, handle and fix bondex as per drawing	Kg	17		
	BITUMEN PAINT				
4.28	Floor slab 300mm wide long circumference with mean radius of 8500mm in three coats	m	18		
4.29	Top of 300mm thick wall along circumference with mean radius of 8500mm in three coats	m	18		
	<u>Provide all materials and apply finishes as decribed below</u>				
4.30	25 mm thick water proof screed 1:2 cement/sand ratio	m ²	40		
4.31	10 mm thick plaster using 1:2 cement sand ratio to inside roof slab	m ²	40		
4.32	Two layers of 10 mm thk water proof plaster 1:2 cement sand ratio to inside walls.	m ²	56		
4.33	20 mm thick 1:2 cement sand plaster to exterior face of tank wall.	m ²	59		
4.34	Prepare and apply 3 coats gloss oil paint to wall surfaces externally as shall be directed	m ²	78		
4.35	Ditto but to metal surfaces	m ²	6		
4.36	Branding the tank as shall be directed	L/ Sum	1		
	Miscellaneous Works				
4.37	Vertical ladder of average length of 5 m using GI pipes 40 mm and 25 mm	nr	2		
4.38	600x600 mm lockable CI manhole cover and frame	nr	1		
4.39	100 mm dia GI elbows to air vents as pe drawings.	nr	4		
4.4	100 mm dia. GI pipes 400 mm long threaded at one end	nr	2		
4.41	100 mm GI nipples	nr	2		
4.42	Mosquito gauze over vent of an approved quality complete with mild steel security strip to vent air.	nr	2		
4.43	32 mm GWL short length GI pipe cast in-situ for GWL indicator.	m	0.8		
4.44	75 x 75 x 4mm angle line level indicator.	m	5		
4.45	Provide all materials and construct valve chambers average size 1.25 mx 1.25 m x 1.2 m deep of blockwork with lockable manhole cover. Rate to include for excavation and provision of locks and keys	nr	3		
4.46					
4.47	75 mm dia. flanged GI inflow pipe	m	6		
4.48	75 mm dia. Flanged GI scour pipe	m	6		
4.49	100 mm GI overflow pipe	m	6		

GOVERNMENT OF MAKUENI COUNTY

29 AUG 2024

Chief officer:
Environment, Climate Change

Item	Item Description	Unit	Quantity	Unit Rate	Amount
4.5	75mm flanged GI offtake pipe, 2 sets	m	6		
4.51					
4.52	Pipe Fittings				
4.53	Provide, handle and fix the following pipe fittings as per				
4.54	specifications:				
4.55	Fabricated flanged Bellmouth 150 x 100 mm x 400mm long	nr	2		
4.56	75 mm dia 90 deg flanged GI Bend	nr	2		
4.57	75 mm dia sluice valve	nr	2		
4.58	75 mm dia 90 deg flanged GI bend	nr	4		
4.59					
4.6	Overflow Fittings				
4.61	75 mm GI socket	nr	2		
4.62	75 mm GI 90 deg bend	nr	2		
4.63					
4.64	Scour Fittings				
4.65	75 dia flange	nr	1		
4.66	75 dia 90 deg bend	nr	1		
4.67	75 dia GI nipple	nr	1		
4.68	75 dia Sluice valve	nr	1		
	Amount for STD Masonry Carried for Collection				
BILL 5	RETURN LINE				
Item	Description	Unit	Qty	Rate	Amount
	CLASS D: DEMOLITION AND SITE CLEARANCE				
	<i>The rate quoted is for site clearance and demolition along construction wayleave. Rate shall be deemed to include removal of the material, natural and artificial articles, objects and obstructions which are above the original surface and carting away to tips, identified by the contractor in liaison with the Local Authority</i>				
	<u>General clearance</u>				
5.01	Site clear and excavate to pipe invert level 600 mm n.e 1m below existing ground level and backfill/ reinstate to original ground level after testing pipeline, all to the approval of the engineer	m	3200		
	CLASS E: PIPEWORK - PIPES				
	<i>The rate quoted is for supply and transport to site storage, transport from site storage, excavate, lay and joint pipes complete with all jointing materials and but fusing. The rate is deemed to include excavation, bed lining, installation and backfilling of the pipe trenches. Keep trenches and their excavations free of water.</i>				
5.02	PN10 DN63 mm HDPE PE100 ISO4427	m	3200		
5.03	Class B GI pipes DN50 mm with sockets	m	42		
5.04	Allow for connectors and GI adaptors	Joints	54		
	CLASS J: PIPEWORK - FITTINGS AND VALVES				
	<i>The rate quoted is for provision and fixing</i>				
	Bends				
5.05	OD 63mm plain ended, 22.50° and 90°	nr	4		
	Junctions and branches				

GOVERNMENT OF NIAKUENI COUNTY

29 AUG 2014

Chief officer:
Environment & Climate Change

Item	Item Description	Unit	Quantity	Unit Rate	Amount
5.06	OD 63x63x25mm female tee for complete with all the necessary accessories for airvalves and washouts	nr	6		
	Airvalves				
5.07	Supply and install DN25mm anti-shock/ anti-surge Air Valves as per the attached technical specifications with flanged base	nr	4		
	All Flanged Sluice Valves				
5.08	Supply and install DN25 gate valves for Washo Outs	nr	2		
	Supply and install DN40 gate valves for Line Valves	nr	2		
	CLASS K: PIPEWORK - MANHOLES AND PIPEWORK ANCILLARIES				
	<i>The rate quoted is for chambers, culverts, crossings and reinstatements and other ancillaries as specified.</i>				
	Air Valve/Washout/Sluice Valve Chambers				
5.09	Construct 750mm by 750mm masonry valve chamber. Depth not exceeding 2m, all in accordance with details shown on drawings. Include for provision and fixing of cast iron step irons and heavy duty rectangular mild steel frame as per details on drawing	nr	6		
	Marker Posts				
	<i>Construct concrete marker posts and install along the water supply pipeline, all in accordance with details shown on drawings. (Reinforced concrete 1:2:4(class 20/20, bars D12), as per details on drawing</i>				
5.10	Pipeline marker post inscribed WL	nr	15		
5.11	Air valve marker post Inscribed AV	nr	4		
5.12	Washout marker post inscribed WO	nr	2		
5.13	Sluice Valve marker post inscribed SV	nr	1		
	CLASS L: PIPEWORK - ANCILLARIES TO LAYING AND EXCAVATION				
	<i>Extras to excavation and backfilling in pipe trenches</i>				
5.14	Excavation in rock Class A	m ³	3		
5.15	-Ditto- but rock Class B	m ³	3		
5.16	-Ditto- but rock Class C	m ³	3		
	Note:- Blasting is NOT permitted				
	Class L; PIPEWORK - SUPPORTS AND PROTECTIO N, ANCILLIARIES TO LAYING AND EXCAVATION				
5.17	Construct concrete stools for fitting and thrust blocks and anchor blocks to all bends along the water supply pipeline, all in accordance with details shown on drawings Thrust blocks - RC, Volume 0.2 - 0.5m ³	nr	10		
5.18	Concrete surround to pipe at directed sections	m	50		
5.19	Provide Materials to construct STD One cubic meter Break Pressure Tank c/w plumbing works as per the provided drawing	nr	1		
	Amount for Bill 3 carried to Summary				
BILL 6	MUSELELE LINE				
Item	Description	Unit	Qty	Rate	Amount

GOVERNMENT OF MAKUENI COUNTY

29 AUG 2024

Chief officer:
Environment & Districts Planning

Item	Item Description	Unit	Quantity	Unit Rate	Amount
	CLASS D: DEMOLITION AND SITE CLEARANCE				
	<i>The rate quoted is for site clearance and demolition along construction wayleave. Rate shall be deemed to include removal of the material, natural and artificial articles, objects and obstructions which are above the original surface and carting away to tips, identified by the contractor in liaison with the Local Authority</i>				
	<u>General clearance</u>				
6.01	Site clear and excavate to pipe invert level 600 mm n.e 1m below existing ground level and backfill/ reinstate to original ground level after testing pipeline, all to the approval of the engineer	m	1600		
	CLASS I: PIPEWORK - PIPES				
	<i>The rate quoted is for supply and transport to site storage, transport from site storage, excavate, lay and joint pipes complete with all jointing materials and but fusing. The rate is deemed to include excavation, bed lining, installation and backfilling of the pipe trenches. keep trenches and their excavations free of water.</i>				
6.02	PN10 DN50 mm HDPE PE100 ISO4427	m	1600		
6.03	Class B GI pipes DN40 mm with sockets	m	42		
6.04	Allow for connectors and GI adaptors	Joints	36		
	CLASS J: PIPEWORK - FITTINGS AND VALVES				
	<u>The rate quoted is for provision and fixing</u>				
	<u>Bends</u>				
6.05	OD 63mm plain ended, 22.50° and 90°	nr	2		
	<u>Junctions and branches</u>				
6.06	OD 50x50x25mm female tee for complete with all the necessary accessories for airvalves and washouts	nr	4		
	<u>Airvalves</u>				
6.07	Supply and install DN25mm anti-shock/ anti-surge Air Valves as per the attached technical specifications with flanged base	nr	3		
	<u>Gate/ Sluice Valves</u>				
6.08	Supply and install DN25 gate valves for Washo Outs	nr	2		
	Supply and install DN40 gate valves for Line Valves	nr	2		
	CLASS K: PIPEWORK - MANHOLES AND PIPEWORK ANCILLARIES				
	<u>The rate quoted is for chambers, culverts, crossings and reinstatements and other ancilleries as specified.</u>				
	<u>Air Valve/Washout/Sluice Valve Chambers</u>				
6.09	Construct 750mm by 750mm masonry valve chamber. Depth not exceeding 2m, all in accordance with details shown on drawings. Include for provision and fixing of cast iron step irons and heavy duty rectangular mild steel frame as per details on drawing	nr	6		
	<u>Marker Posts</u>				

GOVERNMENT OF MAKUENI COUNTY

29 AUG 2024

Chief officer:
Enviro Climate Change

(Signature)

Item	Item Description	Unit	Quantity	Unit Rate	Amount
	<i>Construct concrete marker posts and install along the water supply pipeline, all in accordance with details shown on drawings. (Reinforced concrete 1:2:4(class 20/20, bars D12), as per details on drawing</i>				
6.10	Pipeline marker post inscribed WL	nr	5		
6.11	Air valve marker post Inscribed AV	nr	3		
6.12	Washout marker post inscribed WO	nr	2		
6.13	Sluice Valve marker post inscribed SV	nr	2		
	CLASS L: PIPEWORK - ANCILLARIES TO LAYING AND EXCAVATION				
	<i>Extras to excavation and backfilling in pipe trenches</i>				
6.14	Excavation in rock Class A	m ³	2		
6.15	-Ditto- but rock Class B	m ³	2		
6.17	-Ditto- but rock Class C	m ³	2		
	Note:- Blasting is NOT permitted				
	Class L: PIPEWORK - SUPPORTS AND PROTECTION, ANCILLARIES TO LAYING AND EXCAVATION				
6.18	Construct concrete stools for fitting and thrust blocks and anchor blocks to all bends along the water supply pipeline, all in accordance with details shown on drawings Thrust blocks - RC, Volume 0.2 - 0.5m ³	nr	5		
6.19	Concrete surround to pipe at directed sections	m	50		
	Amount for Bill 6 carried to Summary				
BILL 7	KWA SOO GRAVITY LINE				
Item	Description	Unit	Qty	Rate	Amount
	CLASS D: DEMOLITION AND SITE CLEARANCE				
	<i>The rate quoted is for site clearance and demolition along construction wayleave. Rate shall be deemed to include removal of the material, natural and artificial articles, objects and obstructions which are above the original surface and carting away to tips, identified by the contractor in liaison with the Local Authority</i>				
	<u>General clearance</u>				
7.01	Site clear and excavate to pipe invert level 600 mm n.e 1m below existing ground level and backfill/ reinstate to original ground level after testing pipeline, all to the approval of the engineer	m	500		
	CLASS E: PIPEWORK - PIPES				
	<i>The rate quoted is for supply and transport to site storage, transport from site storage, excavate, lay and joint pipes complete with all jointing materials and but fusing. The rate is deemed to include excavation, bed lining, installation and backfilling of the pipe trenches. keep trenches and their excavations free of water.</i>				
7.02	PN10 DN40 mm HDPE PE100 ISO4427	m	1600		
7.03	Class B GI pipes DN32 mm with sockets	m	12		
7.04	Allow for connectors and GI adaptors	Joints	28		
	CLASS J: PIPEWORK - FITTINGS AND VALVES				

GOVERNMENT OF MAKUENI COUNTY
 29 AUG 2024
 Chief officer:
 Environment & Forests
[Signature]

Item	Item Description	Unit	Quantity	Unit Rate	Amount
	<i>The rate quoted is for provision and fixing</i>				
	Bends				
7.05	OD 63mm plain ended, 22.50° and 90°	nr	2		
	Junctions and branches				
7.06	OD 50x50x25mm female tee for complete with all the necessary accessories for airvalves and washouts	nr	2		
	Airvalves				
7.07	Supply and install DN25mm anti-shock/ anti-surge Air Valves as per the attached technical specifications with flanged base	nr	1		
	Gate/ Sluice Valves				
7.08	Supply and install DN25 gate valves for Washo Outs	nr	1		
	Supply and install DN40 gate valves for Line Valves	nr	1		
	CLASS K: PIPEWORK - MANHOLES AND PIPEWORK ANCILLARIES				
	<i>The rate quoted is for chambers, culverts, crossings and reinstatements and other ancillaries as specified.</i>				
	Air Valve/Washout/Sluice Valve Chambers				
7.09	Construct 500mm by 500mm masonry valve chamber. Depth not exceeding 2m, all in accordance with details shown on drawings. Include for provision and fixing of cast iron step irons and heavy duty rectangular mild steel frame as per details on drawing	nr	3		
	Marker Posts				
	<i>Construct concrete marker posts and install along the water supply pipeline, all in accordance with details shown on drawings. (Reinforced concrete 1:2:4(class 20/20, bars D12), as per details on drawing</i>				
7.10	Pipeline marker post inscribed WL	nr	3		
7.11	Air valve marker post Inscribed AV	nr	1		
7.12	Washout marker post inscribed WO	nr	1		
7.13	Sluice Valve marker post inscribed SV	nr	1		
	CLASS L: PIPEWORK - ANCILLARIES TO LAYING AND EXCAVATION				
	<i>Extras to excavation and backfilling in pipe trenches</i>				
7.14	Excavation in rock Class A	m ³	1		
7.15	-Ditto- but rock Class B	m ³	1		
7.16	-Ditto- but rock Class C	m ³	1		
	Note:- Blasting is NOT permitted				
	Class L; PIPEWORK - SUPPORTS AND PROTECTION, ANCILLARIES TO LAYING AND EXCAVATION				
7.17	Construct concrete stools for fitting and thrust blocks and anchor blocks to all bends along the water supply pipeline, all in accordance with details shown on drawings Thrust blocks - RC, Volume 0.2 - 0.5m ³	nr	3		
7.18	Concrete surround to pipe at directed sections	m	12		
	Amount for Bill 3 carried to Summary				

GOVERNMENT OF WAKUENI COUNTY

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Chief officer:
Environment and Climate Change

Item	Item Description	Unit	Quantity	Unit Rate	Amount
BILL 8	ESTABLISHMENT OF DEMMO FARM				
	<i>Supply and deliver the following</i>	<i>Units</i>	<i>Qty</i>	<i>Unit Price</i>	<i>Total Cost</i>
8.01	Vertical bags- Large Kitchen Garden Sacks	No.	50.00		
8.02	Conical garden dam-liner polythene sheet	No.	50.00		
8.03	Purchase and supply of Kales seeds (Hybrid)	grams	50.00		
8.04	Purchase and supply spinach seeds (Local)	grams	50.00		
8.05	Purchase and supply amarathas (Managu) seeds (Local)	grams	50.00		
8.06	Purchase and supply black night shade (Mchicha) (Local)	grams	25		
8.07	Purchase and supply Coriander (Daniah) seeds (Local)	grams	50		
8.08	Purchase and supply Onion seeds (Hybrid)	grams	250		
8.09	Purchase and supply 50 Kgs fertilizer as advised	No.	2		
8.10	Purchase and supply of pasture seeds, Cencrus ciriaris, Eragrostis superba, (Ndata Kivumbu and Mbeetwa) as shall be instructed	Kgs	100		
8.11	Purchase and supply of pasture seeds 0.5 Kg bracharia as shall be instructed	No.	2		
8.12	Supply and install 5,000 litres double layer PVC water tank on a high masonry platfoarm, and plumbing works as shall be instructed	No.	1		
8.13	Purchase and supply assorted agrochemicals as shall be directed	MI	600		
8.14	Supply all necessary items and install complete 0.25 ACRE Drip Kit as shall be instructed	No.	1		
	Amount for Demmo Farm		+		
BILL 9	APIARY ESTABLISHMENT				
	<i>Apiary Shed</i>				
9.01	Site clearance, stripping of top soil and ground leveling	m ²	12		
9.02	50*50*3mm angel lines for bench collumns and beams	m	45		
9.03	Fabricate and install 50x50x3mm SHS for shed collumns, appro 3m long, fabricated to receive timber for sloping roof as shall be directed	No.	6		
9.04	75x50mm timber rafter and 50x50mm timber purlin complete with G30 box profile iron sheet roofing	m ²	15		
9.05	Mass concrete 1:3:6 for anchorage	m ³	1		
9.06	Supply and install 2 m high x 14 gauge chainlink complete with 14 Gauge x 6 strand galvanised wired fencing with 100 x 125 mm cranked precast concrete posts at 2 m centres mortised in mass concrete sorround	m	18		
9.07	2m wide steel gate anchored on reinforced concrete columns using 4 No. Y10 Debars each column. c/w padlocks as per the provided drawing	No.	1		
9.08	Supply and install Improved Deep Super Langstroth Beehive-Brood box 505x406x244 mm, 1m high from ground level as shall be directed. Painted yellow with Makueni County Name/ FLLoCA , Plastic queen excluder included. Made of well seasoned pine wood with hive adjustable locks to bind the Superbox and brood box	No.	10		
9.09	Purchase and supply of Full Protective Gears Bee Suit, Bee Gloves	No.	2		
9.10	Smoker Gun	No.	2		
9.11	3-Frame Centrifuge Honey Extractor	No.	2		
	Amount for 1No. Apiary				

GOVERNMENT OF MAKUENI COUNTY

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Chief officer:
Environment & Climate Change

[Signature]

Item	Item Description	Unit	Quantity	Unit Rate	Amount
GRAND SUMMARY PAGE					
BILL	BILL DESCRIPTION				AMOUNT
BILL 1	PRELIMINARIES AND GENERAL ITEMS				
BILL 2	RISING MAIN PIPELINE DN90				-
BILL 3	WATER POINTS 3NO.				-
BILL 4	100 CUBIC METER STD MASONRY TANK				-
BILL 5	RETURN LINE DN63MM				-
BILL 6	MUSELELE LINE DN50MM				-
BILL 7	KWA SOO LINE DN40MM				-
BILL 8	ESTABLISHMENT OF DEMMO FARM ¼ACREA				-
BILL 9	APIARY ESTABLISHMENT, 10 BEEHIVES AND ACCESSORIES				-
	SUB TOTAL				-
	CONTIGENCIES				
	ADD KSHS 200,000 FOR CONTIGENCIES				200,000.00
	TOTAL				200,000.00
	VAT(16%)				
	AMOUNT FOR BUILDER'S WORK CARRIED TO FORM OF TENDER				200,000.00
GRAND TOTAL FOR BUDGETTING					200,000.00

GOVERNMENT OF MAKUENI COUNTY

29 AUG 2024

Chief Officer:
Environmental Management

[Signature]