

MERU WATER AND SEWERAGE SERVICES COMPANY LIMITED

schedule No. 4 - Bills of Quantities for MEWASSCO/RFQ/CLSGII/02/2025/2026

CONSTRUCTION OF NEW RAW LINE TO MILIMANI WATER TREATMENT PLANT

Installation of Water Pipeline to Milmani Water Treatment Plant

CONTRACT No.

BIL NO	ITEM DESCRIPTION	AMOUNT (Ksh)
1	Preliminary and General Items	-
2	Raw Main pipeline	-
GRAND TOTAL		-

MERU WATER TREATMENT WORKS

CONSTRUCTION OF NEW RAW LINE TO MILIMANI WATER TREATMENT PLANT

CONTRACT No.

PRELIMINARIES AND GENERAL ITEMS

ITEM No.	DESCRIPTION	UNIT	Qty	RATE Kshs	AMOUNT Kshs
	<i>CLASS A: GENERAL ITEMS</i>				
	<u>CONTRACTUAL REQUIREMENTS</u>				
A120.1	Insurance of Works and Contractor's Equipment and all risks. The contractor to exonerate the client from all site risks.	Sum			-

	<u>SPECIFIED REQUIREMENTS</u>				
A211.1	Allow for establishment of Contractor's camp , maintainance and removal of Contractor's camp including offices, stores, laboratories, cabins, canteens etc and services including electricity, water, security, transport, staff welfare, mobilisation of equipments and materials etc	Sum			-
	<u>Offices and Accomodation for the Engineer's staff</u>				
A233.1	Allow for provision and maintenance of survey equipment as specified for the sole use of the Engineer. Equipment to revert to the Contractor at the end of the Contract. The cost includes provision of survey equipment operator.	Sum			-

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	<u>Attendance upon MEWASS staff</u>				
	Provide the following Staff for the Suplitending Engineer's Office. (Note: The Staff to be employed by the Contractor but to be under the exclusive day to day instruction of the MEWASS Engineer)				
A241	Sum for attendance upon Engineer's Staff by drivers (1No.)	month	5		-
A242.1	Survey Assistants (1 No.)	month	5		-
A242.2	Chainmen (1No.)	month	5		-
A244.1	Sum for attendance upon Engineer's staff by office assistants (1No)	month	5		-
	Client's Project Manager	Man months	5		-
	Clie'n's Site Representative	Man months	5		-
	Client's Site Social Officer	Man months	5		-

	Client's Site Inspector	Man months	6		-
					-
	<u>Testing of Materials and inspection of Works</u>				-
					-
					-
A269.6	Preparation of 'As Built' Drawings and O&m manual by the Contractor	Item	1		-
					-
	<u>Temporary Works</u>				-
					-
A270	Provide and erect sign boards at the site indicated by the Project Manager's Representative and in accordance with the Conditions of Contract and as shown on Drawing	Nr	2		-
					-
A278	Allow a provisional sum for installation of gabions to hold the pipeline in position or remedy the formation of the pipeline as directed the Engineer	Item	1		-
					-
	<u>Method Related Charges</u>				-
					-
A311.1	Allow for all the cost involved in comply with ESIA management and Monitoring plan as directed by the Engineer	sum	1		-
					-
A311.2	Allow a Provisional Sum for obtaining abstraction permit, water fees and any other statutory obligation as required by WRA and other statutory site approvals during implementation of the project. The rate should include incidental costs for official site visits by government agencies and departmental officers	PC Sum	1		-
					-
A311.3	Allow a Provisional Sum for maintainng of services by MEWASSCO or any other institution and for statutory costs for road crossings. Liaison with these Authorities to be responsibility of the Contractor for the timely execution of the works.	PC Sum	1		-
					-

	<u>Other Provisional Sums</u>				-
					-
A429.1	Allow a sum of Kshs 300,000 for the MEWASSCO miscellaneous accounts to be spent in whole or part as instructed by the Engineer and to be reimbursed against receipts during site progress monthly meetings, inspections and monitoring and evaluation meetings, as shall be approved by the Engineer	PC sum	1		-
					-
	Allow percentage for Overheads and profits for Items A311.2-A429.1		1.00		-
					-

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MERU WATER TREATMENT WORKS

CONSTRUCTION OF NEW RAW LINE TO MILIMANI WATER TREATMENT PLANT

CONTRACT No.

Bill No. 2: - 2.4 KM RAW WATER GRAVITY MAIN

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE (Kshs)	AMOUNT (Kshs)
	<u>CLASS D: DEMOLITION AND SITE CLEARANCE</u>				

	<p>Note:- Trench width and minimum cover to pipes is as per the Specification. The cost shall include for strutting, shuttering, stabilizing the earth faces of trenches and keeping the trenches free of water from whatever source by pumping or other means and cost of use of selected soil from the excavated material for compaction in bed and surround to backfilling of trenches, etc., all as specified.</p> <p>Clear site 2m wide along the alignment of the pipeline in readiness of the excavation. The rate shall include uprooting of any tree stumps and any superficial hindrances like rocks, fences and reinstate as directed by the Engineer</p> <p>Excavate trenches not exceeding 900mm wide and 2000mm deep in ordinary soil. General clearance for pipeline including grubbing out all shrubs etc, removal of all trees of girth < 0.5m, demolition and carting away natural and artificial articles, objects and obstructions which are above the original surface, 3m on either side of the water pipeline</p>	m	2,400	0
	Extra over excavation in trenches in hard and rocky grounds .	m ³	1,600	0
	<p><u>Tree Cutting (Provisional)</u></p> <p>Cut down trees, grub up roots and cart away to tips (<i>Note:- Girth shall be measured 1.0 m above the ground level</i>)</p>			
3-D21	Girth: not exceeding 0.25 m	Number	10	0
3-D21	Girth: within 0.251m to 0.75 m	Number	15	0

3-D22	Girth within : 0.751 m to 1.0 m	Number	5		0
<u>CLASS I: PIPE WORK - PIPES</u>					
<u>SUPPLY, DELIVER AND LAY PIPES</u>					
Supply, deliver and store, handle, joint pipes and lay in excavated trenches, prepare excavated surfaces, dispose pff extra material, protect excavated trenches against falling, bed 100mm depth and backfill in layers of 300mm after laying pipes. Supply and deliver Pipes to site store and handle safely					
3-I731	Supply and install Double flanged steel pipe, Ordinary Diameter 315mm PN 16 in 12m lengths.The cost should include trn labours for excavation, labour, concrete works for pillars, haunching as necessary on river crossings, laying , etc	No.	17		0
	Supply OD315mm HDPE PE 100, PN 10 Pipes in 12m lengths.	No.	123		-
	Supply OD315mm HDPE PE 100, PN 12.5 Pipes in 12m lengths.	No.	60		-
Transport pipes to site and Lay pipes on 100mm soft material bed. The rate should include handling safely, transporting to site, butt fusion welding of pipes, bends, and fitting points, etc					
	Install OD315mm HDPE PE 100, PN 10 Pipes in 12m lengths.	No.	123	-	-
	Install Supply OD315mm HDPE PE 100, PN 12.5 Pipes in 12m lengths.	No.	60	-	-

3-K612				
	<u>Crossings</u>			
	Provide support river, road and valley crossings for 300mm dia steel raw water delivery pipe as width 20 m; at chainages 0+640 and 0+720km. And any other point as directed by engineer and as shown in drawings. The rate should include reinforced concrete piers of class 25 Concrete, cured to 28 days, done with timber form work	No.	3	0

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ITEM	DESCRIPTION	UNIT	QUANTITY	RATE (Kshs)	AMOUNT (Kshs)
	CLASS J: PIPEWORK- FITTINGS AND VALVES <i>Supply,deliver, store and transport to installation site and fix. The rate is all inclusive upto buglar proofing and installation sundries, with rubber or heavy duty gasket as shall be approved by the Engineer</i> <i>Sectional Valves on OD 315MM Main Pipeline and OD 110 MM Washouts</i> <u>Sluice Valves to PN16:DF to DIN 3352 PART 4, FACE TO FACE dimension to DIN 3202 part1, F5, flanges and drilling to ISO 7005-2, PN 10 (Type AVK - Denmark or similar approved) as specified</u> Double Collars to PN16 as specified Supply and install nominal bore 315/315 HDPE/Steel stepped coupling complete with HDPE stub end and flange, bolts, nuts, gasket and steel pipe weld-on flange.				
3-J633		Number	5		0
3-J331	Supply and install nominal bore 110mm flexible HDPE couplings (for	Number	5		0

	washouts)				
3-J323	Supply and install OD315mm steel saddle clamps complete with bolting with OD 110MM level invert flanged branch (for washouts)	Number	5		0
3-J323	Supply and install OD 315MM steel saddle clamps with DN80 flanged branch (for air valves)	Number	5		0
3-J811.1	Nominal bore 80mm isolating double flanged steel sluice valve for Air Valves	Nr	5		0
3-J811.2	Nominal bore 100mm double flanged sluice valve with tee-key operation (for washouts)	Nr	5		0
3-J811.3	Supply and install OD 315mm ranger steel coupling complete with bolts and nuts.	Number	5		0
3-J811.3	Supply and install OD 315 MM Double flanged Steel Sluice Valves to DIN 3352 PART 4, FACE TO FACE dimension to DIN 3202 part1, F5, flanges and drilling to ISO 7005-2, PN 16 (Type AVK - Denmark or similar approved)	Number	5		0
	<u>Fixed Flanged Adaptors to PN16 as specified</u>				
3-J351	Nominal bore 100mm flanged HDPE adaptors (for washouts) Straight specials to PN10 as specified	Number	5		0
3-J381.1	Nominal bore 80mm double flanged riser HDPE piece 600- 1200mm long for air valves	Number	5		0
3-J381.2	Nominal bore 100mm flanged HDPE spigot 750mm long with a central thrust flange for washouts	Number	5		0

	<u>Supply Air Valves</u>				
3-J861	Nominal bore 80mm flanged double Steel orifice air valve	Nr	5		0

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ITEM	DESCRIPTION	UNIT	QUANTITY	RATE (Kshs)	
	<u>CLASS K: PIPEWORK-PIPEWORK ANCILLARIES</u> Chambers, ducts, culverts, crossings, thrust and anchor blocks, reinstatement and others as listed and specified in drawings. <u>Note:-</u> Items for work in this class shall include:- - Excavation, preparation of surfaces, disposal of excavated material, shoring sides of excavation, backfilling and removal of redundant services. - Concrete, reinforcement, formwork, joints and finishes. Tips for disposal of excavated material or debris to be identified by the Contractor in liaison with the Local Authority. rate shall include excavation costs etc				
3-K211	<u>Air valve Chambers with lockable covers</u> Provide all materials and construct Air valve chambers as detailed in drawings.SRC/W/03-02 Depth 2 - 2.5 m	Number	5		0
3-K23-1	<u>Washout Chambers with lockable covers</u> Provide all materials and construct valve box for washout as detailed in drawings.SRC/W/03-01 T o include a concrete outfall works depth 1.5 - 2.0 m	Number	5		0

3-K211					
	<u>Section valves Chamber with lockable covers</u>				
	Depth 2 - 2.5 m	nr	5		0
3-L731	<u>CLASS L: PIPEWORK - SUPPORTS AND PROTECTION AXILLARIES TO LAYING AND EXCAVATION.</u>				
	<u>Extras to Excavation and Backfilling (Provisional)</u>				
	<u>In Pipe Trench & Chambers</u>				
	<u>Concrete Support, Thrust Blocks and Anchor Blocks</u>				
	<u>Note:-</u> The work includes pipe and fitting fixing To pipes nominal bore not exceeding 80 mm (for washout valves)	Nr	1		0
3.1	<u>Flow Meter</u>				
	Install 300mm Dia Nominal Bulk Water Meters PN 16 H4000 - ISO 4064 - BS 5728 with Flanges (type Woltman Cold Water Meters or similar approved). Accessories to DN 300mm include strainer. The rate shall include costs for 2 No. stub end OD 315MM, 2 No. ranger adaptor couplingall bolts, nuts, gaskets, etc	Number	1		0
	3.2 Supply OD 315MM ultrasonic flow Bulk Water Meter, double flanged in steel housing, complete with software and display module. As all rate inclusive. For cold water or similar as shall be approved). The rate shall include costs for 2 No. stub end OD 315MM, 2 No. ranger adaptor coupling,all bolts, nuts, gaskets, etc	Number	1		0

	<u>Mass concrete Class 15</u>				
	<u>Concrete thrust blocks as shown SRC/W/03-03</u>				
3-L734.1	DN 315 , 11.25 Volume 0.24m3	Nr	5		0
3-L734	DN 315 , 22.5 Volume 0.24m3	Nr	5		0
3-L734	DN 315 , 45 Volume 0.24 m3	Nr	2		0
3-L734	DN 315 , 90 Volume 0.32m3	Nr	1		0
	<u>CLASS A: GENERAL ITEM</u>				
3-A260.1	Pipeline testing and commissioning for the whole work on this line, including all necessary equipment, materials and works necessary for testing, such as thrust and anchor blocks, transportation and use of water, pipe fittings, disposal of used water.	m	2,400		0
3-A260.2	Disinfection of Pipe lines: flushing with clear water, filling with water containing 0.05 g/l calcium hypochlorite, left for 24 hours. This includes supply of all necessary equipment, materials, chemicals and water, measurement of residual chlorine, all as specified.	m	2,400		0

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