

MOMBASA WATER



**MOMBASA WATER SUPPLY AND
SANITATION COMPANY LIMITED**

**WATER AND SANITATION DEVELOPMENT PROJECT
(WSDP)**

NCB No.: KE-MOWASCO-16771-CW-RFB

**REHABILITATION OF KIPEVU WASTEWATER TREATMENT
PLANT(WWTP, Sewers & Pumping Stations)**

**BILL OF QUANTITIES
VOLUME III**

Employer:

THE MANAGING DIRECTOR,
MOMBASA WATER SUPPLY AND SANITATION COMPANY,
P.O. BOX 1100 – 80100,
MOMBASA, KENYA.

Engineer:

GENERAL MANAGER,
ENGINEERING,
MOMBASA WATER SUPPLY AND SANITATION COMPANY,
P.O. BOX 1100 – 80100,
MOMBASA, KENYA.

NOVEMBER 2018

WATER AND SANITATION DEVELOPMENT PROJECT - (WSDP)**WASTEWATER MASTER PLAN FOR MOMBASA AND SELECTED TOWNS WITHIN THE COAST REGION****CONTRACT No. KE-MOWASCO-16771-CW-RFB - REHABILITATION OF KIPEVU WWTP****BILL NO. 1****PRELIMINARIES AND GENERAL**

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE (Kshs.)	AMOUNT (Kshs.)
1	<u>Contractual Requirements</u>				
1.1	Allow for provision of Performance Security in accordance with Clause 4.2 of Section VIII of the General Conditions.	Item	L.S		
1.2	Allow for provision of Insurance of Works and Contractor's Equipment in accordance with Clause 18.2 of Section VIII of the General Conditions.	Item	L.S		
1.3	Allow for provision of Third Party Insurance (including Employer's Property) all in accordance with Clause 18.3 of Section VIII of the General Conditions.	Item	L.S		
1.4	Allow for provision of Insurance against Accident to Workmen in accordance with Clause 18.4 of Section VIII of the General Conditions.	Item	L.S		
1.5	Allow for additional ESHS outcomes in accordance to Works Requirement Section VII and project ESMP (Volume IV)	Item	L.S		
1.6	Allow for provisional of labor influx mitigation measures, including sexual exploitation and abuse (SEA) / gender based violence (GBV) awareness and sensitization training. This in accordance to Section VII and Project ESMP (Volume IV)	Item	L.S		
2	<u>Special Requirements</u>				
2.1	Contractor's Camp and Storage Yard: Allow for establishment of the Contractor's Camp(s), Offices, Storage Yard and other facilities including mobilization, demobilization and removal on Completion. Include for all equipment, temporary measures, machines, tools, materials, facilities for workers, water and electricity supply etc. all as specified for execution of the Works, for the entire Contract Period. Note: The Employer has no available land to offer for Contractor's Camp, storage of materials and preparation of concrete etc. Identification and procurement of suitable area of land for Contractor's Camp whether rented or purchased is the responsibility of the Contractor. <u>Details of proposed land where the Contractor will establish his camp(s) to be submitted with the Bid.</u>	Item	L.S		
2.2	Allow a P.C. Sum of Kshs.1,000,000 for training of Employer's / Water Service Provider's Staff during Construction, Testing and Commissioning of the Works as	Item	P.C		1,000,000
2.3	Add% for profit, administration, attendance upon, overheads, etc. for Item 2.2 above	%	1,000,000		

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CONTRACT No. KE-MOWASCO-16771-CW-RFB - REHABILITATION OF KIPEVU WWTP

BILL NO. 1

PRELIMINARIES AND GENERAL

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE (Kshs.)	AMOUNT (Kshs.)
2.4	Test Running of the Works: Contractor to Test-run the newly constructed / rehabilitated facilities for a period of 4 weeks upon completion of the Works including measurement and production of performance data (sewerage influent quantity, influent / effluent quality etc). Test Running to be carried out in close liaison with the Water Services Provider's Staff. The Contractor to allow for 'on job' training of Operation and Maintenance Staff, Tools, etc, during the test running period and ensure that the operations are carried out full time on a 24 hour basis, all in accordance with Clause 136 of the General and Specific Specifications.	Item	L.S		
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BILL NO. 1

PRELIMINARIES AND GENERAL

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE (Kshs.)	AMOUNT (Kshs.)
2.5	Allow for provision of As-Built Drawings in accordance with Clause 141 of the General and Specific Specifications.	Item	L.S		
2.6	Allow for provision of Operation and Maintenance (O&M) Manuals in accordance with Clause 138 of the General and Specific Specifications.	Item	L.S		
3	<u>Specified Requirements</u>				
	<u>Sign Boards</u>				
3.1	Provide and erect sign boards at the site indicated by the Engineer's Representative and in accordance with the Conditions of Contract. Details of the sign Board are shown on the standard drawings	Nr	2		
	<u>Setting Out and Survey Work</u>				
3.2	Allow for Setting Out of the Works in accordance Clause 4.7 of Section VIII, General Conditions of Bid Document Volume I and Clause 104 of Section I, General & Specific Specifications of Bid Document Volume II. The Work will mainly comprise of establishment of Level Datum, setting out of the Works in accordance with Specifications, staking out of the construction wayleave along all Sewer Line routes and preparation of Setting Out Survey Report including submission to the Engineer for approval.	Item	L.S		
	The Setting Out Work / Survey Work including production of Survey Drawings to an agreed scale will include the following:				
	i) Engineering Survey of Reticulation Sewers including preparation of Plans and Profiles, approximate length 17km				
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BILL NO. 1

PRELIMINARIES AND GENERAL

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE (Kshs.)	AMOUNT (Kshs.)
	<u>Office for the Resident Engineer</u>				
3.3	Provide all materials and construct office for use of the Resident Engineer as per Clause 101 of General and Specific Specifications including maintenance, water supply, sewerage, drainage, electrical supply, telephone and other facilities for the Resident Engineer, all as specified (Building, furniture and equipment to revert to Employer). Include for all water borne sanitation including waste pipes, inspection chambers, Septic Tank etc. Include for KPLC Power Supply with a Meter Board. Building to be constructed using permanent building materials as per Ministry of Public Works Building By-laws or approved equivalent. Note: This is to be carried out as Priority Works within the first 10 Weeks after date of Mobilisation. Floor area not exceeding 200m². The Office to include also, hard stand and access drive, shaded carport for at least 3 cars, chain link fence etc. all as specified.	Item	L.S		
	<u>Equipment for the Resident Engineer's Offices</u>				
3.4	P.C Sum of Kshs. 2,000,000/- for provision of furniture and equipment for the Senior Resident Engineer's Office as specified under Clause 101(a) of the Specifications. Note: Final List of Furniture & Equipment to be procured will be provided by the Resident Engineer prior to commencement of Works. The furniture and equipment to revert to the Employer at the end of the Contract.	Item	12		2,000,000
3.5	Add% for profit, administration, attendance upon, overheads, etc. for Item 3.4 above.	%	2,000,000		
3.6	Provision and maintenance of Survey Equipment as specified under Clause 101(g) of the Specifications, for the sole use of the Resident Engineer during the duration of the Contract. Equipment to revert to the Contractor at the end of the Contract.	Item	L.S		
3.7	Maintenance and attendance of the Resident Engineer's Office, including supply of provisions and consumables as specified under Clause 101(b) of the Specifications for the duration of the Contract. Note: Contractor to price for the monthly requirement of stationery, cleaning materials and other consumables specified in the Specifications.	month	20		
	<u>Resident Engineer's Staff</u>				
	Provide the following Staff for the Resident Engineer's Office in accordance with Clause 101 of General and Specific Specifications. (Note: The Staff to be employed by the Contractor but to be under the exclusive day to day instruction of the Resident Engineer).				
3.8	Secretary, ref. Clause 101(c)	month	20		
3.9	Office Assistant, ref Clause 101(c)	month	20		

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ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE (Kshs.)	AMOUNT (Kshs.)
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3.10	Two Drivers, ref Clause 101(f) of the Specifications - (2Nr x 18Months each)	month	40		
3.11	Surveyor, ref Clause 101 (g)	month	20		
3.12	Two Chainmen, ref Clause 101(g) - (2Nr. x 12 Months each)	month	48		
	Vehicles				
3.13	P.C. Sum of Kshs. 6,500,000/- for supply of 1Nr. 4WD Station Wagon Vehicles to be used by the Resident Engineer and his staff, including registration, inspection, etc. The vehicle to revert to the Employer after completion of Contract. Minimum specifications include but not limited to the following: <ul style="list-style-type: none"> • 3.0 litre Turbo Diesel Engine • Rear Differential Gear Lock • Braking System to include ABS (Anti-Lock Brake System) • Power Steering with adjustable Steering Column • Electronic Fuel Injection System. • 5 Speed Manual Transmission • Power Windows and Air Conditioning • Immobiliser and Alarm System • Fuel tank capacity between 80 litres and 100 litres 	Item	P.C		6,500,000
3.14	P.C. Sum of Kshs. 5,300,000/- for supply of 1Nr. 4WD Double-Cab Pick-up Vehicles to be used by the Resident Engineer and his staff, including registration, inspection, etc. The vehicle to revert to the Employer after completion of Contract. Minimum specifications similar to those for the 4WD Station Wagon Vehicle above.	Item	P.C.		5,300,000
3.15	P.C. Sum of Kshs 1,000,000/- for provision of Comprehensive Insurance Cover for the Project Vehicles above for a period of 2 years up to the end of the Defects Liability Period.	Item	P.C.		1,000,000
3.16	P.C. Sum of Kshs. 3,500,000/- for Running and Maintaining the Project Vehicles procured under the items above including costs of transfer to the Employer at the end of Contract.	Item	P.C.		3,500,000
3.17	P.C. Sum of Kshs. 500,000/- for provision of temporary Project Supervision Vehicles whilst the vehicles under the Contract are being procured, including cost of vehicle hire, fuels, lubricants, servicing, and any other related running costs.	Item	P.C.		500,000
3.18	Add% for profit, administration, attendance upon, overheads, etc. for Items 3.13 to 3.17 above.	%	16,900,000		
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ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE (Kshs.)	AMOUNT (Kshs.)
	<u>Accommodation of Engineer's Representative's Staff (Provisional)</u>				
3.19	Allow a P.C. Sum of Kshs. 2,500,000 for provision of 1Nr. fully furnished Rental Accommodation for the use of the Resident Engineer as per clause 101(d) of the Specifications, including day & night security, House Cleaner, Crockery, Electricity, Water Supply, Beddings etc. All to the satisfaction of the Engineer.	Item	P.C.		2,500,000
3.20	Add% for profit, administration, attendance upon, overheads, etc. for Item 3.19 above.	%	2,500,000		
3.21	Allow a P.C. Sum of Kshs.6,000,000 for provision of 3Nr. fully furnished Accommodation for the use of Assistant Resident Engineer and Inspectors of Works (2Nr) as per Clause 101(d) of the Specifications.	Item	P.C.		6,000,000
3.22	Add% for profit, administration, attendance upon, overheads, etc. for Item 3.21 above.	%	6,000,000		
	<u>Communications</u>				
3.23	P.C. Sum of Kshs 600,000 for provision of communication facilities and services (telephone, email, fax, postal, courier services, etc.) for the Project / Site Offices and the Supervision Staff.	Item	P.C.		600,000
3.24	Add% for profit, administration, attendance upon, overheads, etc. for Item 3.23 above.	%	600,000		
	<u>Other Supplies</u>				
	<u>Employers Counterpart Staff Costs</u>				
3.25	P.C. Sum of Kshs. 2,000,000/- to cover costs of the Employer's Counterpart Staff assigned to the Project	Item	P.C.		2,000,000
3.26	Add% for profit, administration, attendance upon, overheads, etc. for Item 3.25 above.	%	2,000,000		
4	<u>Other Costs</u>				
	<u>Cadastral Survey</u>				
4.1	Allow a Provisional Sum of Kshs.1,000,000 for carrying out cadastral survey by licenced Surveyor, wayleave acquisition, etc. including obtaining approval by Director of Surveys and issuance of Title Deeds at various Project sites, or for any requisite Engineering Survey, as directed by the Engineer.	Item	P.S		1,000,000
	<u>Existing Services</u>				
4.2	P.C. Sum of Kshs. 5,000,000/- for Payments demanded by the Authorities for re-location of existing services, Road and Railway crossings, etc., including any statutory levies to relevant Authorities. Liaison with the relevant Authorities shall be the responsibility of the Contractor for the timely execution of the Works.	Item	P.C.		5,000,000
4.3	Add% for profit, administration, attendance upon, overheads, etc. for Item 4.2 above.	%	5,000,000		

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CONTRACT No. KE-MOWASCO-16771-CW-RFB - REHABILITATION OF KIPEVU WWTP

BILL NO. 1

PRELIMINARIES AND GENERAL

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE (Kshs.)	AMOUNT (Kshs.)
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WATER AND SANITATION DEVELOPMENT PROJECT - (WSDP)

WASTEWATER MASTER PLAN FOR MOMBASA AND SELECTED TOWNS WITHIN THE COAST REGION

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BILL NO. 1

PRELIMINARIES AND GENERAL

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE (Kshs.)	AMOUNT (Kshs.)
	Costs as Directed by the Engineer				
4.4	Provisional Sum of Kshs.2,000,000/- to be used as directed by the Employer / Engineer.	Item	P.S		2,000,000
5	<u>Specific Works</u>				
5.1	Allow for all specific works related to connecting new sewers to active Sewers and maintaining continuity flow in the existing System for the during of construction activity.	Item	L.S.		
6	<u>Other Works, Obligations</u>				
6.1	The Contractor shall describe in detail hereunder other works, obligations and things which may be referred to in the Specifications or which he may consider to have been omitted from the Bills of Quantities and for which he desires to enter a separate charge (the charge to be carried direct to the amount column). FULL DESCRIPTION OF ITEM(S) OF WORK OR ANY OTHER ISSUE SHOULD BE MADE. If no separate charge is made hereunder, the rates in the Bills of Quantities will be held as covering all expenses for all such Works.				
	i)				
	ii)				
	iii)				
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BILL No.1 COLLECTION SHEET

WATER AND SANITATION DEVELOPMENT PROJECT - (WSDP)
WASTEWATER MASTER PLAN FOR MOMBASA AND SELECTED TOWNS WITHIN THE COAST REGION
CONTRACT No. KE-MOWASCO-16771-CW-RFB - REHABILITATION OF KIPEVU WWTP

BILL NO. 1
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WATER AND SANITATION DEVELOPMENT PROJECT - (WSDP)

WASTEWATER MASTER PLAN FOR MOMBASA AND SELECTED TOWNS WITHIN THE COAST REGION

CONTRACT No. KE-MOWASCO-16771-CW-RFB - REHABILITATION OF KIPEVU WWTP

BILL NO. 2

REHABILITATION OF EXISTING 4NR. PUMPING STATIONS & EXISTING KIPEVU WASTEWATER TREATMENT PLANT IN WEST MAINLAND

ELECTROMECHANICAL AND MISCELLANEOUS WORKS

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE (Kshs.)	AMOUNT (Kshs.)
	This Bill is Provisional and can be deleted as decided by the Employer. This should have no effect on the rates of works in other Bills of Quantities				
	The rates quoted by the Contractor shall be deemed to include provision by the Contractor to provide temporary vehicular access to all construction sites including negotiating with private land owners and paying the necessary charges as required.				
1	EXISTING PUMPING STATIONS				
1.1	Mikindani Pumping Station				
	Allow a Provisional Sum of Kshs. 2,500,000 for rehabilitation of existing Pumping Station Facilities. The Works will mainly comprise of the following:	PS	1		2,500,000
	i) Detailed condition survey and testing of the electromechanical components to ascertain and quantify requisite rehabilitation Works, in addition to the ones mentioned here below				
	ii) Service / repair of the Pumps				
	iii) Replacement of Pump Sump				
	iv) Servicing of the Generator and replacement of missing Battery				
	v) Replacement of Automatic Level Control for Submersible Pump				
	vi) Rehabilitation of existing Buildings e.g. plaster repair, painting, replacement of broken windows etc.				
1.2	Miritini Pumping Station				
	Allow a Provisional Sum of Kshs. 4,500,000 for rehabilitation of existing Pumping Station Facilities. The Works will mainly comprise of the following:	PS	1		4,500,000
	i) Detailed condition survey and testing of the electromechanical components to ascertain and quantify requisite rehabilitation Works, in addition to the ones mentioned here below				
	ii) Service / repair of the Pumps				
	iii) Replacement of Submersible Pump				
	iv) Servicing of the Generator and replacement of missing Battery				
	v) Replacement of Automatic Level Control				
	vi) Rehabilitation of existing Buildings e.g. plaster repair, painting, replacement of broken windows etc.				
	vii) Rehabilitation of existing Sanitation Facilities				
	viii) Repair sections of the Electric Fence				
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1.3	Miritini Screw Pumping Station				

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ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE (Kshs.)	AMOUNT (Kshs.)
	Allow a Provisional Sum of Kshs. 1,500,000 for rehabilitation of existing Pumping Station Facilities. The Works will mainly comprise of the following:	PS	1		1,500,000
	i) Detailed condition survey and testing of the electromechanical components to ascertain and quantify requisite rehabilitation Works, in addition to the ones mentioned here below				
	ii) Replacement of Automatic Level Control				
	iii) Rehabilitation of Pumping Station Building e.g. plaster repair, painting, replacement of broken windows etc.				
	iv) Rehabilitation of existing Sanitation Facilities				
	v) Repair sections of the Electric Fence				
1.4	Port Reitz Pumping Station				
	Allow a Provisional Sum of Kshs. 8,000,000 for rehabilitation of the existing Pumping Station Facilities. The Works will mainly comprise of the following:	PS	1		8,000,000
	i) Detailed condition survey and testing of the electromechanical components to ascertain and quantify requisite rehabilitation Works, in addition to the ones mentioned here below				
	ii) Replacement of 2Nr. Defective Pumps. Capacity 55.56l/sec, pumping head 48m, 1480rpm				
	iii) Repair / servicing of Generator				
	iv) Replacement of Automatic Level Control				
	v) Rehabilitation of Pumping Station Building e.g. plaster repair, painting, replacement of broken windows etc.				
	vi) Rehabilitation of existing Sanitation Facilities				
2	Kipevu Waste Water Treatment Plant				
2.1	Allow a Provisional Sum of Kshs. 40,000,000 for rehabilitation of the existing Waste Water Treatment Plant Facilities. The Works will mainly comprise of the following:	PS	1		40,000,000
	i) Detailed condition survey and testing of the electromechanical components to ascertain, quantify and carry out requisite Rehabilitation Works, in addition to the ones mentioned here below				
	ii) Replacement of defective valves				
	iii) Installation of new flow measuring device at the Inlet Works				
	iv) Replacement of 2nr. Motors for the Settlement Tanks				
	v) Installation of 2Nr. Sludge Pumps				
	vi) Minor repair works to the existing Buildings e.g. repair to plumbing works, electrical works, painting, fixing of window panes, repair of ceiling, provision of furniture etc.				
	vii) Construction of rest room for staff, floor area n.e. 25m ² and providing all furniture and recreation equipment as directed by the Engineer				
	vii) Construction of washroom/ changing facilities to provide separate facilities for ladies and gents				
	viii) Repair of approach roads within the wwtp				
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BILL No. 3 COLLECTION SHEET

WATER AND SANITATION DEVELOPMENT PROJECT - (WSDP)
WASTEWATER MASTER PLAN FOR MOMBASA AND SELECTED TOWNS WITHIN THE COAST REGION
CONTRACT No. KE-MOWASCO-16771-CW-RFB - REHABILITATION OF KIPEVU WWTP

BILL NO. 2

REHABILITATION OF EXISTING 4NR. PUMPING STATIONS & EXISTING KIPEVU WASTEWATER TREATMENT PLANT IN WEST MAINLAND

ELECTROMECHANICAL AND MISCELLANEOUS WORKS

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SECTION 2
ELECTROMECHANICAL AND MISCELLENEOUS WORKS
(BILL No. 2)
SUMMARY SHEET

WATER AND SANITATION DEVELOPMENT PROJECT - (WSDP)
WASTEWATER MASTER PLAN FOR MOMBASA AND SELECTED TOWNS WITHIN THE COAST REGION
CONTRACT No. KE-MOWASCO-16771-CW-RFB - REHABILITATION OF KIPEVU WWTP

	Amount (Kshs.)
Bill No. 2 - Electro-Mechanical and Miscellenaenous Works
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WATER AND SANITATION DEVELOPMENT PROJECT - (WSDP)

WASTEWATER MASTER PLAN FOR MOMBASA AND SELECTED TOWNS WITHIN THE COAST REGION

CONTRACT No. KE-MOWASCO-16771-CW-RFB - REHABILITATION OF KIPEVU WWTP

BILL No. 3

SCHEDULE OF DAYWORKS

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
				Kshs.	Kshs.
	NOTE: THE WHOLE OF THIS BILL IS PROVISIONAL				
	Notes:				
i)	The whole of this Section is Provisional				
ii)	The rates inserted in this Schedule are to cover all establishment charges, insurances, holidays with pay, use and sharpening of all tools, supply of water, scaffolding, plant, hoisting gear etc., travelling and all other charges, overheads and profit				
iii)	The rates for materials are to cover delivery to the usual points at which materials are received on the site and for distribution to the individual sites, storage, handling, overheads and profit				
iv)	The rates for plant shall be rates for working time only and maintenance, fuel, oil and operator's time shall be included in the hourly rates				
v)	The time of gangers working with their gangs is to be paid for under the appropriate items, but the time of foremen and walking gangers is to be covered by Superintendence of the Contract generally				
vi)	The Contractor will not be paid for any work as day and hour unless he shall have obtained a written order from the Engineer before the commencement of the said work. All claims made by the Contractor for day and hour work must be supported by certified copies and the written order from the Engineer				
vii)	The rates will be used in assessing the cost of any extra work ordered by the Engineer for execution on daywork basis. In case any rate is found to be grossly in excess of prevailing market rates the Engineer shall use the market rate for this purpose				
viii)	The quantities indicated in this schedule are for the purpose of obtaining competitive rates. The work to be done may not be restricted to these quantities. The Contractor shall be required to work on the rates quoted irrespective of the quantities being greater or less than those quoted in this schedule				
ix)	If any of the following items is not priced, then other priced items will be deemed to cover for the costs for executing the item which is not priced				
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WATER AND SANITATION DEVELOPMENT PROJECT - (WSDP)**WASTEWATER MASTER PLAN FOR MOMBASA AND SELECTED TOWNS WITHIN THE COAST REGION****CONTRACT No. KE-MOWASCO-16771-CW-RFB - REHABILITATION OF KIPEVU WWTP****BILL No. 3****SCHEDULE OF DAYWORKS**

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
				Kshs.	Kshs.
1	LABOUR				
	The rates inserted herein should include for all costs such as insurance, travelling time, overtime, accommodation, use and maintenance of small tools of trade, supervision, overheads and profit. Only time engaged upon work will be paid for.				
1.1	Unskilled Labourer	Hrs	75		
1.2	Timberman	Hrs	25		
1.3	Stone Mason	Hrs	75		
1.4	Carpenter	Hrs	75		
1.5	Concreter	Hrs	100		
1.6	Blaster (Certified)	Hrs	10		
1.7	Pipelayer	Hrs	75		
1.8	Painter	Hrs	30		
1.9	Surveyor	Hrs	50		
1.10	Foreman	Hrs	75		
1.11	Watchman (including use of firewood, lights, day, night, Sunday and Public Holiday watching)	Hrs	75		
2	PLANT				
	The rates inserted herein should include for all operational and maintenance costs, fuel, oil, grease, operators, turnboys, supervision, overhead and profits. Only the time actually employed on works will be paid for and the rates should include for idle, travelling and overtime.				
2.1	Compressor complete (3.0 m ³ /minute)	Hrs	25		
2.2	Compressor complete (6.0 m ³ /minute)	Hrs	25		
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WATER AND SANITATION DEVELOPMENT PROJECT - (WSDP)**WASTEWATER MASTER PLAN FOR MOMBASA AND SELECTED TOWNS WITHIN THE COAST REGION****CONTRACT No. KE-MOWASCO-16771-CW-RFB - REHABILITATION OF KIPEVU WWTP****BILL No. 3****SCHEDULE OF DAYWORKS**

ITEM No.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
				Kshs.	Kshs.
2.3	Pneumatic Pick	Hrs	15		
2.4	D4 Tractor	Hrs	30		
2.5	D8 Tractor	Hrs	30		
2.6	Concrete Vibrator (Petrol or Diesel)	Hrs	30		
2.7	Concrete Mixer 14/10 (including batch weighing gear and drag feed shovel)	Hrs	75		
2.8	-Ditto- but 7/5	Hrs	15		
2.9	Dumper 0.38 m ³	Hrs	75		
2.10	Dumper 0.76 m ³	Hrs	20		
2.11	5 Tonne Lorry (Tipper)	Hrs	75		
2.12	7 Tonne Lorry (Tipper)	Hrs	25		
2.13	Portable water pump 50mm diameter (inclusive of hoses, couplings, etc.)	Hrs	20		
2.14	Oxy-Acetylene cutting and welding set including oxygen and acetylene	Hrs	20		
2.15	Electric welding set including electrodes	Hrs	20		
3	MATERIALS				
	All materials are to comply with the specifications. The rates inserted herein are to include for delivery to site, storage, handling, overheads and profits.				
3.1	Ordinary Portland Cement	Tonne	10		
3.2	Mild Steel (any size from 6mm to 25mm dia.)	Kg	500		
3.3	High Tensile Steel (any size from 8mm to 25mm dia.)	Kg	500		
3.4	Fine Aggregate for Concrete	m ³	50		
PAGE TOTAL CARRIED FORWARD TO BILL NO 3 SECTION COLLECTION SHEET					

BILL No. 4 COLLECTION SHEET

WATER AND SANITATION DEVELOPMENT PROJECT - (WSDP)

WASTEWATER MASTER PLAN FOR MOMBASA AND SELECTED TOWNS WITHIN THE COAST REGION

CONTRACT No. KE-MOWASCO-16771-CW-RFB - REHABILITATION OF KIPEVU WWTP

COLLECTION PAGE BILL No. 3

SCHEDULE OF DAYWORKS

	Amount (Kshs.)
Page Total, Page 1 of 4
Page Total, Page 2 of 4
Page Total, Page 3 of 4
Page Total, Page 4 of 4
TOTAL CARRIED TO SECTION 3 SUMMARY SHEET (SCHEDULE OF DAY WORKS)

SECTION 3

SCHEDULE OF DAYWORKS

(BILL No. 3)

SUMMARY SHEET

WATER AND SANITATION DEVELOPMENT PROJECT - (WSDP)

WASTEWATER MASTER PLAN FOR MOMBASA AND SELECTED TOWNS WITHIN THE COAST REGION

CONTRACT No. KE-MOWASCO-16771-CW-RFB - REHABILITATION OF KIPEVU WWTP

SCHEDULE OF DAY WORKS

	Amount (Kshs.)
Bill No.3 - Shedule of Dayworks
TOTAL CARRIED TO GRAND SUMMARY

WATER AND SANITATION DEVELOPMENT PROJECT - (WSDP)

WASTEWATER MASTER PLAN FOR MOMBASA AND SELECTED TOWNS WITHIN THE COAST REGION

CONTRACT No. KE-MOWASCO-16771-CW-RFB - REHABILITATION OF KIPEVU WWTP

BILL NO.	DESCRIPTION	AMOUNT Kshs.
1	PRELIMINARIES AND GENERAL
2	ELECTRO-MECHANICAL AND MISCELLANEOUS WORKS
3	SCHEDULE OF DAYWORKS
	Bills Total (A)	
	Add 10% of (A) for Physical Contingences (B)	
	SUB-Total [(A)+(B)] (C)	
	Add 10% of (C) for Price Contingences (D)	
	SUB-Total [(C)+(D)] (E)	
	Add out put VAT - 16% of (E) (F)	
	TOTAL [(E)+(F)] (GRAND TOTAL CARRIED TO THE FORM OF BID)	