

BoQ - PROPOSED NEW WASHROOMS AT THE SALT PLANT**Bill of Quantities - PROPOSED NEW WASHROOMS AT THE SALT PLANT**

Page 1

Bill No. 1 GENERAL PRELIMINARY**Project:**

Item No.	Description	Units	Quantity	Unit Bid Rate (Kshs)	Amount (Kshs)
<u>GENERAL PRELIMINARY</u>					
1.01	Allow contractual requirements, training levy with holding tax and other GoK statutes necessary to commence and proceed with the works to completion.	SUM	1		
1.02	Allow preliminaries to cover overheads, transport, security, storage, water for construction, power supply, clients safety requirements, "Contractors all risks" and other insurances as required by the general Conditions of Contract, all temporary Works not covered elsewhere under specific items of the Bills of of Quantities (Provisional Sum not exceeding 10% of Contract Sum).	SUM	1		
Total Carried Forward to Summary					

Bill of Quantities - PROPOSED NEW WASHROOMS AT THE SALT PLANT					Page 2
Bill No. 2	EXCAVATION & EARTHWORKS				Project:
Item No.	Description	Units	Quantity	Unit Bid Rate (Kshs)	Amount (Kshs)
	<u>WASHROOMS</u>				
	<u>SUBSTRUCTURE</u> (All Provisional)				
	<u>EXCAVATIONS & EARTHWORKS</u>				
2.01	Strip top soil upto 150mm deep (average) to remove vegetable soil and cart away and deposit as directed.	SM	28		
2.02	Excavate for foundation trench commencing from reduced levels and not exceeding a further 1.5 metres deep.	CM	19		
2.03	Extra over excavation in any position for excavation in rock.	CM	1		
2.04	Allow for keeping the whole of excavation free from water.	ITEM	1		
2.05	Return and properly ram approved fill materials around foundations	CM	7		
2.06	Load and cart away surplus excavated materials from site and deposit as directed	CM	12		
2.07	Provide, lay and compact approved hardcore filling, hand packed and consolidated in layer not exceeding 300mm deep.	CM	9		
2.08	Level Surface of Hardcore filling and blind with approved quarry dust ready to receive concrete	SM	27		
2.09	Anti-termite treatment applied on surface of Hardcore	SM	27		
2.10	Single layer 500 gauge polythene sheeting with 150mm side and end laps laid under surface bed	SM	27		
	<u>CONCRETE WORK</u>				
2.11	50mm thick concrete (1:4:8) blinding in foundation trenches	SM	27		
2.12	Concrete (1:3:6) mix 20mm max. aggregate size in strip footing	CM	2		
	Total Carried Forward to Collection				

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Bill No. 2	EXCAVATION & EARTHWORKS				Project:
Item No.	Description	Units	Quantity	Unit Bid Rate	Amount (Kshs)
2.13	<u>Concrete Mix (1:2:4) in:-</u> 150mm thick Surface bed	CM	5		
2.14	<u>FORMWORK TO</u> Edge of Surface bed 75-150mm high	LM	22		
2.15	<u>STEEL FABRIC REINFORCEMENT TO B.S 4483</u> No-A 142 Fabric reinforcement laid in bed	SM	11		
2.16	<u>FOUNDATION WALLING Quarry dressed masonry block walling in cement and sand (1:3) mortar</u> 200mm Walling	SM	37		
2.17	<u>PLINTHS:</u> 20mm thick Cement and Sand (1:3) rendering steel float finished to plinth	SM	13		
2.18	Prepare and apply three coats of black bituminous paint to rendered plinth externally	SM	13		
	SUB TOTAL CARRIED TO COLLECTION				
	COLLECTION				
	From Above				
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	Total Carried Forward to Summary				

Bill of Quantities - PROPOSED NEW WASHROOMS AT THE SALT PLANT					Page 4
Bill No. 3	SUPERSTRUCTURE				Project:
Item No.	Description	Units	Quantity	Unit Bid Rate	Amount (Kshs)
	<u>SUPERSTRUCTURE:</u>				
	<u>Bituminous Felt Damp Proof Course along the Wall</u> (Measured net-no allowance for laps)				
3.01	200mm wide horizontal layer including leveling bed and setting out & establishing wall position	LM	33		
	<u>MASONRY BLOCK WALLING</u>				
	<u>Quarry dressed masonry block walling in cement and sand (1:3) mortar</u>				
3.02	200mm Walling	SM	93		
	<u>CONCRETE WORKS</u>				
	<u>Well Vibrated Reinforced Concrete (1:2:4)in:-</u>				
3.03	Beams and lintels including the necessary formwork to sides and soffits of the openings	CM	2		
	<u>STEEL REINFORCEMENT</u>				
	<u>Ribbed bar steel reinforcement to B.S 4461 and K.S. ISO 6935 - 2; 2007 Part 2</u>				
	<u>As described including cutting to lengths, bending, hoisting and fixing including all necessary wire and spacing blocks.</u>				
	<u>BEAM</u>				
3.04	8mm (nominal) High tensile cold twisted square steel reinforcement in structure	Kgs	70		
3.05	12mm Ditto	Kgs	92		
	<u>FINE CHISEL DRESSING</u>				
3.06	Extra over for fine chisel dressing to stone walls and finished with neat recessed and pointed horizontal joints.	SM	84		
	Total Carried Forward to Collection				

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Bill No. 3	SUPERSTRUCTURE				Project:
Item No.	Description	Units	Quantity	Unit Bid Rate	Amount (Kshs)
	<u>PAVING AND PLASTERWORK</u>				
	<u>CEMENT AND SAND (1:3) PAVINGS:-</u>				
3.07	50mm thick paving slabs round the buildings	SM	15		
3.08	19mm Skirting 100mm high with rounded top edge and covered angle at junction with floor.	LM	26		
	<u>PAINTING AND DECORATION PREPARE AND APPLY THREE COATS OF WEATHER GURD EMULSION PAINT EXTERNALLY ON:-</u>				
3.09	Rendered walls	SM	83		
	<u>ROOF</u>				
	<u>ROOF STRUCTURE</u>				
	<u>As described including cutting to lengths, bending, welding, hoisting and including all necessary fixing using "J" Bolts .</u>				
3.10	Supply and fix 25 x 25mm SHS steel section as struts.	KG	15		
3.11	Suply and fix 50x50mm SHS steel section as wall plate.	KG	83		
3.12	Supply and fix 50x50mm SHS steel section as rafters	KG	92		
3.13	Supply and fix 50 x 50mm SHS Steel section as purlins	KG	160		
3.14	Supply and fix Galsheet Resincot, Normal corrugated AluZINC coated sheets, Gauge 26, 2500mm long - Blue colour finish.	SM	35		
3.15	Supply and fix 225 x 25mm soft wood fascia board with all the necessary steel clits and bolting.	LM	27		
	SUB TOTAL CARRIED TO COLLECTION				
	COLLECTION				
	From Above				
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	Total Carried Forward to Summary				

Bill of Quantities - PROPOSED NEW WASHROOMS AT THE SALT PLANT					Page 6
Bill No. 4	FINISHES				Project:
Item No.	Description	Units	Quantity	Unit Bid Rate	Amount (Kshs)
	<u>INTERNAL FINISHINGS</u>				
	<u>PAVINGS AND PLASTERWORK</u>				
	<u>CEMENT AND SAND (1:3) SCREEDS</u>				
	<u>finished to receive wall finishes</u>				
4.01	25mm thick granolithic finish to floor	SM	23		
4.02	19mm Skirting 100mm high with rounded top edge and coved angle at junction with paving.	LM	27		
	<u>INTERNAL LIME PLASTER ON:</u>				
4.03	Walls	SM	107		
	<u>PAINTING AND DECORATING</u>				
	<u>PREPARE AND APPLY THREE COATS GLOSS PAINT AS SKIRTING</u>				
	<u>Internally on:-</u>				
4.04	Plastered walls	SM	107		
4.05	Supply and place 200 x 300mm ceramic wall tiles to the washrooms including binding mortar upto 1600mm height.	SM	45		
	Total Carried Forward to Summary				

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Bill No. 5	DOORS				Project:
Item No.	Description	Units	Quantity	Unit Bid Rate	Amount (Kshs)
	<u>DOORS</u>				
	<u>Wrot camphor (prime Grade)</u>				
5.01	50mm thick framed door size 815 x 2030mm high consisting of 150 x 50mm stiles and top rail 100 x 50mm middle rail and 2 No. diagonal bracing, 150 x 50mm bottom rail filled in with 25mm thick t & g boarding with 100mm matching width.	No.	7		
5.02	12mm diameter quadrant bead	LM	42		
5.03	30 x 12mm architrave	LM	42		
5.04	100 x 50mm hard wood door frame with two labours	LM	42		
	<u>PAINTING/DECORATING</u>				
	<u>KNOT, PRIME, STOP AND APPLY ONE UNDERCOAT AND TWO COATS GLOSS FINISH ON WOODWORK</u>				
	<u>Internally on:</u>				
5.05	General surfaces	SM	34		
5.06	Surfaces not exceeding 100mm girth	LM	18		
5.07	Surfaces 200mm to 300mm girth	LM	18		
	<u>Iron-mongery</u>				
	<u>Supply and fix the following Ironmongery with screws to match</u>				
5.08	2 lever mortice dead lock and set furniture	No.	2		
5.09	150mm long barrel bolts	No.	7		
5.10	100mm pressed steel butt hinges	No.	21		
	Total Carried Forward to Summary				

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Bill No. 6	WINDOWS				Project:
Item No.	Description	Units	Quantity	Unit Bid Rate	Amount (Kshs)
	<u>WINDOWS</u> <u>METALWORK</u> <u>GALVANIZED MILD STEEL Supply, assemble and fix the following purpose-made steel casement windows finished with one coat red oxide primer complete with opening accessories and permanent vents for the full width including cutting and pinning fixing lugs to concrete or blockwork jambs, bedding in cement and mortar (1:3) and pointing all around frames in mastic</u>				
6.01	Window overall size 600mm x 600mm comprising one fixed lower and one opening up	No.	6		
6.02	Window overall size 2200mm x 600mm comprising one fixed lower and one opening up	No.	1		
	<u>GLAZING</u> <u>4mm CLEAR SHEET GLASS AND GLAZING</u>				
6.03	To metal with clips and putty in panes 0.10 to 0.50 square metres each	SM	2		
	<u>PAINTING AND DECORATING</u> <u>TOUCH UP PRIMED SURFACES AND APPLY ONE UNDERCOAT AND TWO COATS GLOSS FINISH ON METALWORK</u> <u>Internally and externally</u>				
6.04	Surfaces of glazed metal windows (measured overall).	SM	2		
	Total Carried Forward to Summary				

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Bill No. 7	ELECTRICAL INSTALLATION				Project:
Item No.	Description	Units	Quantity	Unit Bid Rate	Amount (Kshs)
	<u>ELECTRICAL INSTALLATION</u>				
	<u>Original UK make switches, socket & Fittings and Cables to be genuine East Africa Cables</u>				
7.01	Supply and install 9-way Crabtree flush mounting consumer unit complete with hinged cover, blanking plates and intergral 100A main switch	No.	1		
7.02	One way gang one way switch	No	2		
7.03	25mm ² PVC conduits	No	5		
7.04	20mm ² PVC conduits	No	5		
7.05	Bulb holder	No	3		
7.06	1.5mm ² PVC Twin Flat Cable with earth	Rolls	2		
7.07	Sealing Chamber G. I. Box	No	2		
7.08	Plaster Depth Boxes Single	No	4		
7.09	Cutout with Neutral	No	2		
Total Carried Forward to Summary					

Bill of Quantities - PROPOSED NEW WASHROOMS AT THE SALT PLANT					Page 10
Bill No. 8	SANITARY FITTINGS AND ACCESSORIES				Project:
Item No.	Description	Units	Quantity	Unit Bid Rate	Amount
	<u>PLUMBING AND DRAINAGE INSTALLATIONS</u>				
	<u>PPR PIPING COMPLETE WITH FITTINGS</u>				
8.01	20mm diameter tubing and laying in trench	LM	80		
8.02	20mm diameter tubing fixing in wall/duct roof	LM	6		
8.03	12mm diameter tubing and fixing in chases	LM	5		
	<u>Extra over tubing for:-</u>				
8.04	20mm diameter Bend	No.	6		
8.05	32mm x 32mm x 20mm diameter Tee	No.	8		
8.06	20mm x 20mm x 12mm Tee	No.	4		
8.07	12mm diameter elbow	No.	6		
	<u>WATER STORAGE TANK</u>				
8.08	20mm Diameter high pressure equilibrium ball valve of the portsmouth type, or equivalent and approved with brass stem and plastic float.	No.	1		
8.09	20mm Diameter high pressure screw down full way gate valve with wheel head, two unions and screwed jointing to mild steel tubing.	No.	1		
8.10	2500 Litres (nominal) capacity plastic (Roto) water storage tank including cover, perforation and connection for 3 No. 20mm diameter tubing, and hoisting and fixing tank at roof level 3000mm above ground level.	No.	1		
	<u>Sanitary Fittings as Armitage Twyford's catalogue numbers specified. All installed tested commissioned to CP 305 and 310 as described:-</u>				
8.11	White glazed vitreous china HIGH level w.c suite as Armitage shanks heavy duty washdown w. c. pan with p-trap and horizontal outlet, 9 litres side entry cistern with cover, freeflow plastic syphon, 12mm low pressure button inlet ball valve with , silencer tube and flush bend overflow facility, pointed cistern support, inlet connector, black solid plastic seat with with stainless pillars and cover.	No.	3		
8.12	Wash Hand Basin complete	No.	2		
8.13	Shower rose	No.	2		
	Total Carried Forward to Summary				

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Bill No. 9	SEPTIC TANK				Project:
Item No.	Description	Units	Quantity	Unit Bid Rate	Amount (Kshs)
	<u>SEPTIC TANK</u>				
9.01	Excavate to form Septic tank commencing at existting ground level not exceeding 1.5m deep.	CM	11		
9.02	Ditto but 1.50 - 3.00 deep	CM	5		
9.03	Return fill in and ram selected excavated maaterial around septic tank.	CM	4		
9.04	Remove surplus excavated materials from site.	CM	12		
9.05	1500 mm Plain concrete (1:3:6) to base of manhole.	SM	1		
9.06	Benching average 175mm high to bottom of manhole size 800 x 600mm internaly finished to falls including forming half round main and brach channels to any section or curve and finished with waterproofed cement and sand (1:2);12mm thick trowelled hard and swooth.	No.	2		
9.07	50mm Plain Concrete (1:4:8) blinding under base slab.	SM	10		
	<u>Vibrated reinforced concrete (Class 20/20)</u>				
9.08	150mm suspended cover slab	SM	10		
9.09	100mm Scum baffle wall	SM	3		
9.10	100mm division wall	SM	3		
9.12	150mm concrete base	SM	10		
	<u>Ribbed bar steel reinforcement to B.S 4461 and K.S. ISO 6935 - 2; 2007 Part 2</u>				
	<u>As described including cutting to lengths, bending, hoisting and fixing including all necessary wire and</u>				
9.13	10mm Square bar	KG	130		
9.14	8mm Square bar	KG	170		
9.15	Steel wire fabric mesh reinforcement to B.S 4483 Ref : A 142 in concrete base otherwise as before.	SM	10		
	Total Carried Forward to Collection				

Bill of Quantities - PROPOSED NEW WASHROOMS AT THE SALT PLANT					Page 12
Bill No. 9	SEPTIC TANK				Project:
Item No.	Description	Units	Quantity	Unit Bid Rate	Amount (Kshs)
	<u>Sawn Formwork</u>				
9.16	Soffit of suspended cover slab	SM	10		
9.17	Sides of wall	SM	4		
9.18	Edge of suspended cover slab 75 - 150mm	LM	14		
9.19	Edge of base 225 - 300mm	LM	13		
9.20	Temporary boxing to form rebated opening in 150mm suspended cover slab for manhole cover and frame size 600 x 400mm	No.	2		
	<u>Approved local stone walling in cement mortar (1:3)</u>				
9.21	200mm Walling	SM	27		
9.22	Hole through 200mm wall for large pipe and make good	No.	2		
9.23	20mm cement and sand (1:4) paving on concrete cover slab trowelled hard and smooth.	SM	9		
9.24	Ditto but to edge of suspended cover slab 150mm wide.	LM	11		
9.25	12mm Waterproofed cement and sand (1:4) with 5% "Pudlo" or any other equal and approved admixture rendering to sides of Septic Tank trowelled hard and smooth.	SM	27		
9.26	Do but on concrete base	SM	9		
9.27	150mm diameter "T" Shaped cast iron or other equal and approved pipe 1100mm girth with one end capped including casting through 200mm stone wall.	No.	1		
9.28	200mm x 200mm x 6mm mild steel or R.C.C trapped gully cover plates	No.	2		
	Total Carried Forward to Collection				

Bill of Quantities - PROPOSED NEW WASHROOMS AT THE SALT PLANT					Page 13
Bill No. 9	SEPTIC TANK				Project:
Item No.	Description	Units	Quantity	Unit Bid Rate	Amount (Kshs)
	<u>BUILDER'S WORK IN CONNECTION WITH PLUMBING AND DRAINAGE INSTALLATIONS</u>				
9.29	Excavate trench for small pipes not exceeding 1.50 metres deep and average 750 mm including providing and laying selected granular bedding material under pipes with similar material to sides and above to a total thickness of 75mm after laying and thereafter backfilling with selected excavated material and remove surplus excavated material from site.	LM	80		
9.30	Supply and install 100mm diameter key terrain uPVC golden brown drain pipes class D, laid and jointed in trench and encaesd in 150mm diameter concrete.	LM	20		
9.31	Supply and fix to walling outside rising duct 100mm PVC stack vent pipe including all necessary jointings.	LM	6		
9.32	Provide manholes size 900x 800mm include excavation,masonry walling,plastering 7 benching to the inside to make good.	No.	6		
9.33	Supply and fix coated cast iron medium duty double seal manhole cover and frame to B.S.497 size 600 x 450mm and bed frame in cement and sand (1:3) and seal cover in greae and sand.	No.	6		
9.34	<u>TESTING</u> Allow for testing the whole Plumbing and Drainage Installation both during the progress and on completion to the satisfaction of the client.	ITEM	1		
	SUB TOTAL CARRIED TO COLLECTION				
	COLLECTION				
	From Above				
	From Page 12				
	From Page 11				
	Total Carried Forward to Grand Summary				

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	GRAND SUMMARY	Project:	
Bill No.	Description	Amount (Kshs)	
	<u>GRAND SUMMARY</u>		
1.0	General Preliminaries		
2.0	Substructure		
3.0	Superstructure		
4.0	Internal Finishes		
5.0	Doors		
6.0	Windows		
7.0	Electrical Installation		
8.0	Sanitary Fittings and Accessories		
9.0	Septic Tank		
	Total		
	Contingencies + VOP*** (@ 10%)		
	Sub-Total		
	VAT.	16	%
	Grand Total Carried to page on the form of Tender		

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0.60	9000	5,400.00
		200.00

1.60

14.00

2.50	2.8	1	7
2.80	2.8	1	7.84
2.70	2.4	2	12.96
2.70	3.8	1	10.26
			38.06

0.96

60.00 0.88 52.80

2.50	2.8	1	7
2.80	2.8	1	7.84
2.70	2.4	2	12.96
2.70	3.8	1	10.26
			38.06

3.80	0.6	2	4.56
2.80	0.6	2	3.36
			7.92

5.60

4.50	2.8	12.60
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22.00

1.05	12500	13,125.00
		1,312.50