

**GOVERNMENT OF MAKUENI COUNTY**



**TENDER DOCUMENTS**

**FOR**

**PROPOSED COMPLETION AND MODIFICATION OF  
MBOONI ISOLATION UNIT INTO MOTHER AND  
CHILD HOSPITAL (MCH)  
MAKUENI COUNTY**

**TENDER SPECIFICATION & BILLS OF QUANTITIES FOR SUPPLY, DELIVERY, INSTALLATION,  
TESTING AND COMMISSIONING OF PLUMBING, DRAINAGE AND FIRE PROTECTION**

**EMPLOYER**

**GOVERNMENT OF MAKUENI COUNTY  
DEPARTMENT OF HEALTH SERVICES  
P.O. BOX 78 - 90300, MAKUENI**

**EMPLOYER'S REPRESENTATIVE**

The Chief Officer, Health Human Resources  
Management & Administration  
County Department of Health Services  
Makueni County

**SUPERVISING CONSULTANTS**

**Cost & Value Management Consultants Ltd**  
**Quantity Surveyors | Project Managers | Arbitrators**

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**APRIL 2025**

**BILL NO. 1 - PRELIMINARY ITEMS**

<b>ITEM</b>	<b>DESCRIPTION</b>	<b>QTY</b>	<b>UNIT</b>	<b>RATE</b>	<b>KSHS</b>	<b>cts</b>
1	Discrepancies clause 1.02					
2	Conditions of sub-contract Agreement clause 1.03					
3	Payments clause 1.04					
4	Site location clause 1.06					
5	Scope of Contract Works clause 1.08					
6	Extent of the Contractor's Duties clause 1.09					
7	Firm price contract clause 1.12					
8	Variation clause 1.13					
9	Prime cost and provisional sum clause 1.14 (insert profit and attendance which is a percentage of expended PC or provisional sum.)					
10	Bond clause 1.15					
11	Government Legislation and Regulations clause 1.16					
12	Import Duty and Value Added Tax clause 1.17 (Note this clause applies for materials supplied only. VAT will also be paid by the sub-contractor as allowed in the summary page)					
13	Insurance company Fees clause 1.18					
14	Provision of services by the Main contractor clause 1.19					
15	Samples and Materials Generally clause 1.21					
	<b>SUB-TOTAL CARRIED TO PAGE 104</b>					

ITEM	DESCRIPTION	QTY	UNIT	RATE	KSHS	cts
16	Supplies clause 1.20					
17	Bills of Quantities clause 1.23					
18	Contractor's Office in Kenya clause 1.24					
19	Builder's Work clause 1.25					
20	Setting to work and Regulating system clause 1.29					
21	Identification of plant components clause 1.30					
22	Working Drawings clause 1.32					
23	Record Drawings (As Installed) and Instructions clause 1.33					
24	Maintenance Manual clause 1.34					
25	Hand over clause 1.35					
26	Painting clause 1.36					
27	Testing and Inspection – manufactured plant clause 1.38					
28	Testing and Inspection – Installation clause 1.39					
29	Storage of Materials clause 1.41					
30	Initial Maintenance clause 1.42					
	<b>SUB-TOTAL CARRIED TO PAGE 104</b>					

ITEM	DESCRIPTION	QTY	UNIT	RATE	KSHS	cts
31	Attendance Upon Tradesmen, etc. (Insert percentage only) clause 1.58					
32	Local and other Authorities notices and fees clause 1.60					
33	Temporary Works clause 1.63					
34	Patent Rights clause 1.64					
35	Mobilization and Demobilization Clause 1.65					
36	Extended Preliminaries Clause 1.66(see appendix on page C- 24)					
37	Supervision by Engineer and Site Meetings Clause 1.67					
38	Allow for profit and Attendance for the above					
39	Amendment to Scope of Sub-contract Works Clause 1.68					
40	Contractor Obligation and Employers Obligation clause 1.69(see appendix page C- 24)					
41	Any other preliminaries;					
	Subtotal above  Subtotal brought forward from page 102  Subtotal brought forward from page 103					
	<b>TOTAL FOR BILL NO. 1- PRELIMINARIES CARRIED FORWARD TO PRICE MAIN SUMMARY</b>					

### SCHEDULE OF UNIT RATES

1. The tenderer shall insert unit rates against the items in the following schedules and may add such other items as he considers appropriate.
2. The unit rates shall include for supply, transport, insurance, delivery to site, storage as necessary, assembling, cleaning, installing, connecting, profit and maintenance in defects liability and any other obligation under this contract.
3. The unit rates will be used to assess the value of additions or omissions arising from authorized variations to the contract works.
4. Where trade names or manufacturer's catalogue numbers are mentioned in the specification, the reference is intended as a guide to the type of article or quality of material required. Alternative brands of **equal** and **approved** quality will be accepted

ITEM	DESCRIPTION	UNIT	RATE (Kshs)
1.	Ideal Standard Disabled Toilet Suite Complete with Grab Rails	No.	
2.	Pedrollo CPM 158 Booster Pump C/W Brio Controller	No.	
3.	30 M Hose Reel	No.	
4.	Water Closet Suite as Lecico Clifton	No.	
5.	Toilet Wash Hand Basin as Ideal Standard Coventry Isis	No.	
6.	Shower Wash Hand Basin as Ideal Stanard Space	No.	
7.	Medical Wash Hand Basin as Ideal Stanard Gravena Candy	No.	
8.	Donald Polo Pillar Basin Mixer	No.	
9.	Donald Medical Elbow Action Pillar Tap	No.	
10.	Donald Chrome Elbow Action Pillar Basin Mixer	No.	
11.	10,000 L Water Tank-Top Tank	No	
12.	5000L Water Tank-Top Tank	No	
13.	Dayliff PDB 6/25 Hose reel Pumpset	No	
14.	VADO Nuri Concealed 3-Way Shower Mixer	No	
15.	Stainless Steel Sluice sink	No	

16	Stainless Steel Scrub sink	No	
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**TECHNICAL SCHEDULE  
OF  
ITEMS TO BE SUPPLIED**

**TECHNICAL SCHEDULE**

1. The technical schedule shall be submitted by tenderers to facilitate and enable the Project Manager to evaluate the tenders, especially where the tenderer intends to supply or has based his tender sum on equipment which differs in manufacture, type or performance from the specifications indicated by the Project Manager/Engineer.
2. This schedule shall form part of the technical evaluation criterion, and tenderers are therefore advised to complete the schedule as they shall be considered non responsive.

**NB.** The tenderer must complete in full the technical schedule. Apart from the information required in the technical schedule, the tenderer **MUST SUBMIT LEGIBLE** comprehensive manufacturer’s technical brochures and performance details for all items listed in this schedule and **CLEARLY HIGHLIGHT THE SPECIFIC REQUIRED ITEM ONLY.**

		<b>MANUFACTURER</b>	<b>COUNTRY OF ORIGIN</b>	<b>REMARKS (Catalogue No. etc.)</b>
A	Ideal Standard Disabled WC			
B	Pedrollo CPM 158 Booster Pump C/W			
C	Brio Pump Controller			
D	30 M Hose Reel			
E	Water Closet Suite			
F	Toilet Wash Hand Basin			
G	Shower Wash Hand Basin			
H	Medical Wash Hand Basin			
I	Donald Polo Pillar Basin Mixer			
J	Donald Medical Elbow			



	Action Pillar Tap			
K	Donald Chrome Elbow			
	Action Pillar Basin			
	Mixer			
L	10,000 L Water Tank			
M	5000L Water Tank			
	Dayliff PDB 6/25			
N	Hose reel Pumpset			
O	VADO Nuri Concealed 3-Way Shower Mixer			
P	Stainless Steel Sluice sink			
Q	Stainless Steel Scrub sink			

**CATALOGUE MUST BE ATTACHED FOR ALL THE ITEMS IN THE  
SCHEDULE OF MATERIAL ABOVE**

<b>BILL NO.2 PLUMBING ,DRAINAGE INSTALLATIONS</b>					
<b>GROUND FLOOR</b>					
<b>Item</b>	<b>Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Rate (Kshs)</b>	<b>Amount (Kshs)</b>
	<p><b><u>SANITARY FITTINGS</u></b> Supply, deliver, install and fix the following sanitary fittings including all materials and jointing to supply, waste/soil and overflow pipes.Brand names for products are specified only as an indication of quality. Equal and approved appliances may be supplied. Where trade names are mentioned, the Ref. No. is intended only as a guide to the type and quality of fittings</p>				
A	<p><b>Water Closet</b> Lecico Clifton close coupled WC complete with WC pan , Cistern with push button , seat &amp; cover , WC connector, SS304 45cm Donald connection hose 1/2" x 1/2" and Yorke Angle Valve 1/2" x 1/2" with 1/4 turn.</p>	No	12		
B	<p><b><u>Disabled Toilet</u></b> Disabled toilet complete assembly comprising of Wc bowl with horizontal outlet, cistern fittings, cistern cover clips and standard lever. Cistern to have side inlet and overflow. Seat ring 25mm and hinge, no cover,germ shield. Washbasin with one tap hole, no overflow and no chain stay. Wash Hand to be complete with wall hangers, grid waste, lever operated pillar tap, 5 no. 600mm long grab rail,hinged support rail with Toilet Roll Holder, plate glass Mirror size 400 x 900 mm. The disabled toilet assembly shall be as "Ideal standard" or equal and approved.</p>	No	1		
C	<p><b><u>Urinal &amp; Division</u></b> Ideal Standard Urinal Division White Model No G410001</p>	No	5		
D	<p>Ideal Standard Mini Urinal with back inlet complete with Bri Concealed Flush valve</p>	No	6		
<b>Total c/f to next page</b>					

Item	Description	Unit		Rate (Kshs)	Amount (Kshs)
	<b>Total carried forward from previous page</b>				
E	<b>Toilet roll holder</b> Yorke chrome round Toilet paper holder	No	12		
F	Domus White <b>toilet brush holder and brush.</b>	No	12		
G	Showers Wash Hand Basin as <b>Ideal Standard Space Pedestal wash hand basin</b> size 550 x 480mm with single tap hole Complete with Donald Polo Chrome Basin Pillar Type Mixer with PUW,SS304 45CM Connection hose as Donald 1/2"x 1/2" Ends, YORKE 1/4 Turn angle valves and VEIGA bottle trap .	No	2		
H	Toilets Wash Hand Basin as <b>Ideal Standard Coventry Isis vanity wash hand basin</b> as model G-060001 complete with Yorke Clic Clack Unslotted Basin waste, Donald Medical Elbow Action Pillar Type Tap , SS304 Wired Connection Hose as Donald 1/2"x 1/2" Ends , Yorke 1/4 Turn Angle Valve 1/2"x 1/2" for cold and hot water line and 1 1/4" WHITE Plastic Bottle trap as VIEGA.	No	14		
I	<b>Medical Wash Hand Basin</b> Gravena Candy Wash Hand Basin with wall half pedestal size 435mm length x 560mm width complete with complete with, Donald Chrome Elbow Action Pillar Type Basin Mixer with PUW , SS304 45CM Connection hose as Donald 1/2"x 1/2" Ends , Yorke 1/4 Turn Angle Valve 1/2"x 1/2" for cold and hot water line and 1 1/4" WHITE Plastic Bottle trap as VIEGA.	No	8		
J	<b>Vezuv Shower Tray</b> Pentagon Flat Slimblock 900mm x 900mm x65mm complete with waste	No	2		
K	<b>Shower set</b> comprising VADO Nuri Concealed 3-Way shower mixer model NUR-145A-C/P and VADO 8.5cm shower rose with arm model WG-SFKIT2-C/P.	No	2		
L	YORKE large trinagular corner soap basket Model #B017	No	2		
M	YORKE Towel bar Model # 6508	No	2		
	<b>Total carried forward to next page</b>				<b>0</b>

Item	Description	Unit		Rate (Kshs)	Amount (Kshs)
	<b>Total carried forward from previous page</b>				
N	<b>Sluice Unit</b> 1600mm x600mm Stainless Steel Sluice Sink by Craftsman Fabricators complete with high level cistern 6.0 Litre capacity, hopper with 110mm diameter outlet and p-trap, 500mm x 400mm sink complete with waste and bottle trap, drainer, brackets, high level adaptor kit, flush pipe, lever operated mixer removeable outlet grating and all accessories necessary for it to function as required. Stainless steel to be 304 to EN 14401 and 1.5mm thick	No	1		
O	<b>Scrub sink</b> 1200mm x600mm Double Bowl Stainless Steel Scrub Sink by Craftsman Fabricators complete with waste, traps , cabinet , foot pump for water control, infra -red sensor operated soap dispenser, faucets that provide non-aerated and constant flow water and all accessories necessary for it to function as required. Stainless steel to be 304 to EN 14401 and 1.5mm thick	No	1		
P	Tapis Tissue Dispenser White ABS	No	14		
Q	Tapis Touch Free Infra red Hand Dryer 1200w White ABS	No	4		
R	<b>Soap Dispenser</b> Tapis Infra red Soap Dispenser White, capacity 1. litres complete with plastic rawl plugs, fixing screws, lock and key complete with initial fill of soap gel.	No	16		
S	<b>Mirrors</b> 6mm thick polished plate glass, silver backed mirror with beveled sides, size 600mmx800mm plugged and screwed to wall with 4No. Chrome plated chrome capped screws and 5mm thick foam back nest.	No	21		
T	<b>Robe hook</b> Yorke chrome double robe hook	No	15		
<b>Total for Sanitary Fittings carried to Collection Page</b>					

FIRST FLOOR					
Item	Description	Unit	Qty	Rate (Kshs)	Amount (Kshs)
<b>Total carried forward from previous page</b>					0
A	<b>Water Closet</b> Lecico Clifton close coupled WC complete with WC pan , Cistern with push button , seat & cover , WC connector, SS304 45cm Donald connection hose 1/2" x 1/2" and Yorke Angle Valve 1/2" x 1/2" with 1/4 turn.	No	17		
B	<b>Urinal &amp; Division</b> Ideal Standard Urinal Division White Model No G410001	No	3		
C	Ideal Standard Mini Urinal with back inlet complete with Bri Concealed Flush valve	No	5		
D	<b>Toilet roll holder</b> Yorke chrome round Toilet paper holder	No	17		
E	<b>Disabled Toilet</b> Disabled toilet complete assembly comprising of Wc bowl with horizontal outlet, cistern fittings, cistern cover clips and standard lever. Cistern to have side inlet and overflow. Seat ring 25mm and hinge, no cover, germ shield. Washbasin with one tap hole, no overflow and no chain stay. Wash Hand to be complete with wall hangers, grid waste, lever operated pillar tap, 5 no. 600mm long grab rail, hinged support rail with Toilet Roll Holder, plate glass Mirror size 400 x 900 mm. The disabled toilet assembly shall be as "Ideal standard" or equal and approved.	No	1		
F	Domus White <b>toilet brush holder and brush.</b>	No	17		
G	Showers Wash Hand Basin as <b>Ideal Standard Space Pedestal wash hand basin</b> size 550 x 480mm with single tap hole Complete with Donald Polo Chrome Basin Pillar Type Mixer with PUW, SS304 45CM Connection hose as Donald 1/2"x 1/2" Ends, YORKE 1/4 Turn angle valves and VEIGA bottle trap .	No	4		
H	Toilets Wash Hand Basin as <b>Ideal Standard Coventry Isis vanity wash hand basin</b> as model G-060001 complete with Yorke Clic Clack Unslotted Basin waste, Donald Medical Elbow Action Pillar Type Tap , SS304 Wired Connection Hose as Donald 1/2"x 1/2" Ends , Yorke 1/4 Turn Angle Valve 1/2"x 1/2" for cold and hot water line and 1 1/4" WHITE Plastic Bottle trap as VIEGA.	No	12		
I	<b>Medical Wash Hand Basin</b> Gravena Candy Wash Hand Basin with wall half pedestal size 435mm length x 560mm width complete with complete with, Donald Chrome Elbow Action Pillar Type Basin Mixer with PUW , SS304 45CM Connection hose as Donald 1/2"x 1/2" Ends , Yorke 1/4 Turn Angle Valve 1/2"x 1/2" for cold and hot water line and 1 1/4" WHITE Plastic Bottle trap as VIEGA.	No	5		

J	<b>Vezuv Shower Tray</b> Pentagon Flat Slimblock 900mm x 900mm x65mm complete with waste	No	4		
<b>Total carried forward to next page</b>					<b>0</b>
<b>Item</b>	<b>Description</b>	<b>Unit</b>		<b>Rate (Kshs)</b>	<b>Amount (Kshs)</b>
<b>Total carried forward from previous page</b>					
K	<b>Shower set</b> comprising VADO Nuri Concealed 3-Way shower mixer model NUR-145A-C/P and VADO 8.5cm shower rose	No	4		
L	<b>YORKE</b> large trinagular corner soap basket Model #B017	No	4		
M	<b>YORKE</b> Towel bar Model # 6508	No	4		
N	<b>Sluice Unit</b> <b>1600mm x600mm</b> Stainless Steel Sluice Sink by Craftsman Fabricators complete with high level cistern 6.0 Litre capacity, hopper with 110mm diameter outlet and p-trap, 500mm x 400mm sink complete with waste and bottle trap, drainer, brackets, high level adaptor kit, flush pipe, lever operated mixer removeable outlet grating and all accessories necessary for it to function as required. Stainless steel to be 304 to EN 14401 and 1.5mm thick	No	1		
O	<b>Tapis</b> Tissue Dispenser White ABS	No	9		
P	<b>Tapis</b> Touch Free Infra red Hand Dryer 1200w White ABS	No	4		
<b>Soap Dispenser</b>					
Q	<b>Tapis</b> Infra red Soap Dispenser White, capacity 1. litres complete with plastic rawl plugs, fixing screws, lock and key complete with initial fill of soap gel.	No	13		
R	<b>Mirrors</b> 6mm thick polished plate glass, silver backed mirror with beveled sides, size 600mmx800mm plugged and screwed to wall with 4No. Chrome plated chrome capped screws and 5mm thick foam back seat	No	21		
S	<b>Robe hook</b> Yorke chrome double robe hook	No	13		
<b>Total for Sanitary Fittings carried to Collection Page</b>					

<b>PLUMBING PIPEWORKS</b>					
<b>Item</b>	<b>Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Rate (Kshs)</b>	<b>Amount</b>
	<b>Total carried forward from previous page</b>				
	<b>PPR PN20 Pipework</b>				
	Supply, deliver and install PPR PN 20 pipes, tubing and fittings as described and shown on the drawings. Rates must allow for all Metal/plastic threaded adaptors where required for the connection of sanitary fixtures, valves, sockets, sliding and fixed joints, support raceways, isolating sheaths, elastic materials, expansion arms and bends, crossovers, couplings, clippings, connectors, joints etc. as required in the running lengths of pipework and also where necessary, for pipe fixing clips, holder bats plugged and screwed for the proper and satisfactory functioning of the system. The pipes will be pressure tested before the plastering of wall commences and as per the manufacturers recommended testing pressures.				
A	20mm diameter pipe	Lm	0		
B	25mm ditto	Lm	110		
C	32mm ditto	Lm	70		
D	40mm ditto	Lm	40		
E	50mm ditto	Lm	12		
F	65mm ditto	Lm	6		
	<b>Bends</b>				
G	20mm diameter bend	No	0		
H	25mm ditto	No	35		
I	32mm ditto	No	20		
J	40mm ditto	No	11		
K	50mm ditto	No	3		
L	65mm ditto	No	2		
	<b>Tees</b>				
M	65 mm diameter equal tee	No	2		
N	50mm diameter equal tee	No	3		
O	40mm diameter equal tee	No	11		
P	32mm diameter equal tee	No	17		
Q	25mm diameter equal tee	No	10		
R	65 x 65mm x 25mm tee	No	0		
	<b>Reducers</b>				
S	65 x 50mm diameter reducer	No	15		
T	65 x 50mm diameter reducer	No	10		
U	65 x 40mm diameter reducer	No	8		
V	65 x 32mm diameter reducer	No	6		
W	50 x 40mm diameter reducer	No	6		
X	32 x 25mm diameter reducer	No	15		
	<b>Total carried forward to next page</b>				

Item	Description	Unit	Qty	Rate (Kshs)	Amount
	<b>Total carried forward from previous page</b>				
	<b>Male/Female Threaded Brass Adapters</b>				
A	25mm threaded brass coupling	No	22		
	<b>Unions</b>				
B	20mm diameter bend	No	15		
C	25mm ditto	No	17		
D	32mm ditto	No	17		
E	40mm ditto	No	25		
F	50mm ditto	No	1		
G	65mm ditto	No	0		
	<b>Gate Valves</b>				
	20mm diameter screwed- in bonnet, full way non-rising stem, solid wedge disk, bronze gate valve to BS 5154 PN 20 for series 'B' ratings with wheel head and transition fitting for jointing to pipework.	No	10		
H	25mm ditto	No	5		
I	32mm ditto	No	6		
J	40mm ditto	No	15		
K	50mm ditto	No	10		
L	65mm ditto	No	1		
	<b>Non return valves</b>				
M	32mm diameter non return valve	No	3		
	<b>Water Tanks-Ground &amp; Roof</b>				
N	Supply, deliver and install vertical close end plastic moulded tank of capacity 5000 litres .The tank to be assembled complete with cover and having screwed connections for inlet, outlet, overflow, 40 mm medium pressure ball valve, drain pipes and any other necessary item for its proper functioning. The tank shall be mounted on a flat roof slab and shall be as Top Tank Model or approved equivalent.	No	5		
O	Ditto but 10,000 litres for ground water storage	No	2		
P	Allow for Plinth of above tanks	No	4		
Q	Pedrollo CPM 158 complete with Brio Pup Controller and AVS 13	No	1		
	<b>Sterilization</b>				
R	Allow for flushing out and sterilizing the whole system with chlorine to the satisfaction of the Project Engineer.	Item	1		
	<b>Testing and Commissioning</b>				
S	Allow for setting to work, testing and commissioning of the whole plumbing system to the satisfaction of the Engineer	Item	1		
	<b>Total carried forward to summary page</b>				



Item	Description	Unit	Qty	Rate (Kshs)	Amount
	<b><u>INTERNAL FOUL WATER DRAINAGE</u></b>				
	Supply, deliver and install the following UPVC, MUPVC, soil and waste systems respectively to B.S 5255 with fittings fixed to Manufactures Printed instructions and manufactured by reputable manufacturers. Tenderers must allow in their pipework prices for all the couplings, clippings, connectors, joints etc. as required in the running lengths of pipework and also where necessary, for pipe fixing clips, holder bats plugged and screwed for the proper and satisfactory functioning of the system.				
	<b>MuPVC and uPVC Waste and Soil pipework</b>				
B	100mm diameter heavy gauge golden brown UPVC pipe	Lm	100		
C	100mm diameter heavy gauge grey mUPVC pipe	Lm	40		
D	75mm diameter heavy gauge grey mUPVC pipe	Lm	20		
E	50mm diameter waste pipe	Lm	30		
F	40mm diameter waste pipe	Lm	24		
G	32mm diameter waste pipe	Lm	0		
	<b>Bends</b>				
H	100mm diameter bend with access	No	18		
I	100mm diameter long radius bend	No	5		
J	75mm diameter long radius bend	No	10		
K	100mm diameter sweep bend	No	26		
L	50mm diameter sweep bend	No	8		
M	40mm diameter sweep bend	No	22		
N	32mm diameter sweep bend	No	0		
	<b>Tees</b>				
O	50mm diameter sweep tee	No	16		
P	40mm diameter sweep tee	No	10		
Q	32mm diameter sweep tee	No	4		
	<b>Access Caps</b>				
R	50mm diameter access cap	No	8		
S	40mm diameter access cap	No	14		
T	32mm diameter access cap	No	40		
	<b>Boss Connectors</b>				
U	75 x 40mm diameter boss connector	No	4		
	<b>Reducing Sockets</b>				
V	100 x 75 reducing socket	No	4		
W	100 x 50 reducing socket	No	4		
X	50 x 32 reducing socket	No	10		
Y	40 x 32 reducing socket	No	12		
Z	100mm diameter WC connector	No	20		
	<b>Total carried forward to next page</b>				

Item	Description	Unit		Rate (Kshs)	Amount
	<b>Total carried forward from previous page</b>				
	<b>Traps</b>				
A	100 x 50mm diameter floor trap and grating	No	16		
B	100 x 100mm diameter floor drain and stainless steel grating	No	6		
C	150mm diameter heavy gauge golden brown UPVC pipe buried in depth not exceeding 1000mm	No	100		
D	Standard 300 x 300 x 450mm masonry gully trap complete with 125mm thick reinforced concrete cover.	No	12		
E	Construct inspection chamber size 600 x 450mm and averaging 750mm deep constructed in 100mm thick concrete base (1:3:6), approved 150mm block sides rendered all around in cement and sand (1:4). It shall have an approved cast iron cover and frame . Include all necessary excavations, disposal and form work.	No	24		
	<b>Weathering Slates and Vent Cows</b>				
F	100mm diameter weathering slate and apron.	No	12		
G	100mm diameter vent cowl	No	12		
<b>Total Drainage Works c/f to summary page</b>					

Bill No.4 STORM WATER DRAINAGE					
Item	Description	Qty	Unit	Rate (Kshs)	Amount (Kshs)
	Supply and fix uPVC pipes to BS 4660 and BS 4515 and MuPVC pipes to BS 5255 with screwed and socketed joints to BS 21. Solvent welded joints shall be as per the system's manufacturer's written instructions. Tenderers must allow in their pipework prices for all the couplings, clippings, connectors, joints etc. as required in the running lengths of pipework and also where necessary, for pipe fixing clips, holder bats plugged and screwed for the proper and satisfactory functioning of the system.				
A	100mm diameter heavy gauge grey mUPVC down pipes	60	Lm		
B	100mm diameter heavy gauge golden brown UPVC down pipes	60	Lm		
C	150mm diameter heavy gauge golden brown UPVC down pipes	10	Lm		
D	100mm diameter sweep bend	10	No.		
E	100mm diameter sweep tee	2	No.		
F	100mm access caps	2	No.		
G	100mm diameter rain water shoe	10	No.		
H	100mm diameter cast iron fullbora	10	No.		
	<b>Rain water Manholes and Inspection Chambers</b>				
I	Construct inspection chamber size 600 x 450mm and averaging 750mm deep constructed in 100mm thick concrete base (1:3:6), approved 150mm block sides rendered all around in cement and sand (1:4). It shall have an approved cast iron cover and frame . Include all necessary excavations, disposal and form work.	10	No.		
J	Excavate trench in soil/murram for above pipes not exceeding 2000mm deep, part return in, fill, ram and surplus cart away.	100	LM		
<b>TOTAL FOR STROM WATER DRIANAGECARRIED FORWARD TO</b>					

**BILL No. 5 FIRE PROTECTION**

Item	Description	Unit	Qty	Rate (Kshs)	Amount (Kshs)
	<b>HOSEREEL AND PORTABLE EXTINGUISHERS</b> Supply, deliver and install the following fire fighting equipment in positions indicated on the contract drawings or as shall be instructed by the Engineer.				
	<b>Hose Reel</b> Swinging type hosereel fitted with 30 metres long, 20mm diameter reinforced non-kink rubber hose with 5/6 mm lever operated shut-off nozzle, mild steel feed pipe, isolation valve, guide and all other accessories as 'Sffecco' or equal and approved.				
A		No.	4		
	<b>GMS Pipes Class B</b>				
B	25mm diameter pipework	Lm	12		
C	50mm diameter pipework	Lm	60		
D	65mm diameter pipework	Lm	6		
	<b>Extra Over Pipework</b>				
	<b>Bends</b>				
E	25mm diameter bends	No.	20		
F	50mm diameter bends	No.	6		
G	65mm diameter bends	No.	2		
	<b>Tees</b>				
H	50mm diameter equal Tee	No.	10		
I	65mm diameter equal Tee	No.	2		
	<b>Reducers</b>				
J	50 x 25 mm diameter reducer	No.	6		
K	65 x 50 mm diameter reducer	No.	2		
	<b>Valves</b>				
L	25mm diameter approved medium pressure screw down full way non-rising stem wedge gate valve to BS 1952, with wheel and head joints to steel tubing. The gate valve to be as PEGLER or approved equivalent.	No.	6		
M	50mm diameter gate valves	No.	2		
N	65mm diameter gate valves	No.	0		
O	65mm diameter non-return valves	No.	0		
	<b>Unions</b>				
P	25mm diameter pipe union	No.	6		
Q	50mm diameter pipe union	No.	2		
R	65mm diameter pipe union	No.	2		
	<b>Total carried to Next page</b>				

Item	Description	Unit	Qty	Rate (Kshs)	Amount (Kshs)
<p>A</p> <p>B</p>	<p><b>Total carried From Previous page</b>  <b>Hosereel Pumpset &amp; Control Panel</b>  Hose Reel Pumpset  Fully automatic packaged unit water pressure booster pump set, capable of delivering 6m<sup>3</sup>/hr against a static head of 25 metres. The pump set shall comprise 2 No. pumps (Duty Assist), mountings, control gear, pressure switch and pneumatic vessel, all on a common frame. Control shall be effected via a pressure switch through a pre-wired control panel, and which shall give full automatic changeover after every cycle of operation. The controls shall also include motor under-voltage / over-voltage protection devices and incorporate a float switch for protection against dry running. The pump set shall be pre-assembled complete with pipework, and fittings (unions, strainers, isolation valves, non-return valves etc) ready for connection to water tank outlet and to the hose reel supply to pipework. The pump set shall be as "Dayliff PDB 06/25" or approved equivalent.</p> <p>Control panel for above pumps with contactors, over voltage and under voltage protection relays, MCBs, phase failure protection, timer, 10 meters long float switch control 4-core cable to the roof tanks, start/stop push buttons and indicator lights. All these shall be housed in a lockable cabinet (with integral isolator) made from SWG 18 mild steel sheet that is oven powder coated. There shall also be an adjustable time delay switch to ensure pumping cycles are controlled to not more than 6 per hour. It should include a change-over switch to enable the pumps to work alternately.</p>	Item	1		
	<b>Total carried to Next page</b>				

Item	Description	Unit	Qty2	Rate (Kshs)	Amount (Kshs)
	<b>Total carried From Previous page</b>				
	<b>Portable Fire Extinguishers</b> Supply, deliver, install, test and commission the following portable fire extinguishers and conforming to BS EN 3 / BS 1449.				
C	<b>Water/Carbon Dioxide Gas Fire Extinguisher</b> 9 litres water/carbon dioxide gas portable fire extinguisher complete with pressure gauge, initial charge and mounting brackets.	No	4		
D	<b>Carbon Dioxide Gas Fire Extinguisher</b> 5 Kg carbon dioxide gas portable fire extinguisher complete with pressure gauge, initial charge and mounting brackets.	No	4		
E	<b>Dry Chemical Powder Fire Extinguisher</b> 6kg dry chemical powder portable fire extinguisher complete with pressure gauge, initial charge and mounting brackets.	No	4		
F	<b>Manual Alarm Bell</b> 9" (225mm) manual operated alarm bell (Gong)	No	3		
G	<b>Painting</b> Allow for painting of the hose reel pipework as per particular specifications.	Item	1		
H	<b>Fire Notices</b> Allow for fire signage for the hose reel system, fire exits and fire instructions as directed by the Project Engineer.	No	14		
	<b>Total for Hosereel and Portables carried to Summary</b>				

<b><u>SUMMARY PAGE</u></b>		
<b>ITEM</b>	<b>DESCRIPTION</b>	<b>AMOUNT (KSHS)</b>
1	Preliminaries.....	
2	Total for Plumbing .....	
3	Total for Drainage .....	
4	Total for Sanitaryware .....	
5	Total for Storm Water .....	
6	Total for Fire Protection.....	
7	PC Sum For Design and Supervision of Specialized Mechanical Works.....	650,000.00
8	Allow for contingency sum to be used at the discretion of the project engineer	500,000.00
	<b>Sub-Contract Sum for Plumbing , Drainage and Fire Protection Carried to Form of Tender</b>	

Amount in Words: .....

.....

Tenderer's Name and Stamp: .....

Sub contract period. ....Weeks

Signature..... Date: .....

PIN NO. .... VAT CERTIFICATE No. ....  
 (Provide copy) (Provide copy)

Witness Address: .....

Signature..... Date: .....