



REPUBLIC OF KENYA



COUNTY GOVERNMENT OF NYANDARUA

DEPARTMENT OF PUBLIC WORKS,ROADS,TRANSPORT HOUSING AND
ENERGY

PROPOSED CONSTRUCTION AND COMPLETION OF CHAMUKA DISPENSARY

FOR

DEPARTMENT OF HEALTH SERVICES

BILLS OF QUANTITIES

ARCHITECT,

COUNTY ARCHITECT,
DIR. OF PUBLIC WORKS,
NYANDARUA COUNTY,
P.O. BOX 701-20303,
OL KALOU

QUANTITY SURVEYOR,

COUNTY QUANTITY SURVEYOR,
DIR. OF PUBLIC WORKS,
NYANDARUA COUNTY,
P.O. BOX 701-20303,
OL KALOU

ELEC/MECH ENGINEER

COUNTY ELEC / MECH. ENGINEER,
DIR. OF PUBLIC WORKS,
NYANDARUA COUNTY,
P.O. BOX 701-20303,
OL KALOU

STRUCTURAL ENGINEER,

COUNTY ENGINEER - STRUCTURAL
DIR. OF PUBLIC WORKS,
NYANDARUA COUNTY,
P.O. BOX 701-20303,
OL KALOU

Jan-24

FORM OF TENDER

TO: _____ [Date] _____

Dear Sir,

1 In accordance with the Conditions of Contract, Specifications, Drawings and Bills of Quantities for the execution of the above named Works, we, the undersigned offer to construct, install and complete such Works and remedy

any defects therein for the sum of Kshs. _____ [Amount in figures] Kenya Shillings _____

_____ [Amount in words]

2 We undertake, if our tender is accepted, to commence the Works as soon as is reasonably possible after the receipt of the Project Manager's notice to commence, and to complete the whole of the Works comprised in the Contract within _____ Weeks

3 We agree to abide by this tender until *120 days from date of tender*, and it shall remain binding upon us and may be accepted at any time before end of the said days

4 Unless and until a formal Agreement is prepared and executed this tender together with your written acceptance thereof, shall constitute a binding Contract between us.

5 We understand that you are not bound to accept the lowest or any tender you may receive.

Dated this _____ day of _____ 20 _____

Signature _____ in the capacity of _____

Duly authorized to sign tenders for and on behalf of

_____ [Name of the Tenderer]

of _____ [Address of the tenderer]

Witness; Name _____

Address _____

Signature _____

Date _____

BUILDER'S WORKS

BUILDER'S WORK

PROPOSED CONSTRUCTION AND COMPLETION OF CHAMUKA DISPENSARY -BUILDER'S WORK

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	<u>ELEMENT NO 1 -SUBSTRUCTURES (ALL PROVISIONAL)</u>				
	<u>Site Preparation</u>				
A	Clear the site of all the bushes ,shrubs and cart away the uprising as directed by the Project Manager.	SM	943		
B	Excavate (average) 150mm to remove top soil: deposit on site in temporary spoil heaps	SM	943		
C	Excavate to reduce levels : commencing from stripped level : not exceeding 1.5 metres deep	CM	1415		
D	Excavate trenches for wall foundations : commencing from stripped level and not exceeding 1.5 metres deep	CM	450		
E	Excavate trenches for wall foundations : commencing from 1.5m deep and not exceeding 3.0 metres deep	CM	450		
F	Extra over excavation for excavating in hardrock all classes.	CM	231		
	<u>Disposal of excavated materials</u>				
G	Backfill and compact in layers : selected excavated material around foundations : placed in 200mm layers : watered and compacted to 95% MDD	CM	550		
H	Ditto : in filling to make up levels under floor slab : allow for re-excavation and wheeling from temporary spoil heaps	CM	1415		
	Carried to Collection				

PROPOSED CONSTRUCTION AND COMPLETION OF CHAMUKA DISPENSARY -BUILDER'S WORK

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
A	Surplus excavated materials : remove and deposit in spoil heaps on site <u>Disposal of water</u>	CM	350		
B	Keep excavations free from all water by baling, pumping or otherwise <u>Planking and strutting</u>	Item	1		
C	Planking and strutting to sides of all excavations : keep excavation free from all fallen materials <u>Imported hardcore Filling</u>	Item	1		
D	Approved quarry stone hardcore filling : 300mm thick (overall) : deposit, spread, level and compact in layers not exceeding 150mm thick : to receive 100mm slab (m/s) <u>Murram filling</u>	CM	465		
E	50mm Murram blinding to surface of hardcore <u>Insitu concrete : mix 1:3:6 (40mm aggregate)</u>	SM	775		
F	50mm Blinding layer : under wall foundations <u>Insitu concrete : class 25/20 : vibrated; reinforced</u>	SM	300		
G	Foundations in trenches	CM	60		
H	150mm Surface bed : laid in panels : including formwork	SM	775		
I	Ground Beam	CM	45		
Carried to Collection					

PROPOSED CONSTRUCTION AND COMPLETION OF CHAMUKA DISPENSARY -BUILDER'S WORK

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	<u>Mesh fabric reinforcement to BS 4483 : 200mm laps</u>				
A	Fabric mesh reference A142 weighing 2.22kg per square metre : in surface beds	SM	775		
	<u>High yield square twisted bar reinforcement to BS 4461 (Provisional).</u>				
B	8mm Diameter bars	KG	2251		
C	12mm Ditto	KG	1776		
D	10mm Ditto	KG	2058		
	<u>Sawn formwork : to</u>				
E	strip foundations	SM	250		
F	Vertical edge of bed : over 150 but not exceeding 225mm wide	LM	124		
G	Ground Beam	SM	450		
	<u>Approved quality local stone blocks walling; medium chisel dressed in regular courses : in cement and sand (1:3)</u>				
H	200mm Walls	SM	1375		
I	20 Gauge hoop iron wall ties 450mm long x 25mm wide : set in walling	NO	24		
	<u>Labour and sundries</u>				
J	One layer 500 gauge polythene sheet damp proof membrane : under beds ; 300mm laps	SM	775		
	Carried to Collection				

PROPOSED CONSTRUCTION AND COMPLETION OF CHAMUKA DISPENSARY -BUILDER'S WORK

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	<p><u>COLLECTION</u></p> <p>Total Brought Forward from Page No.</p>		Page No		Amount
			BW / 1		
			BW / 2		
			BW / 3		
	Carried to Sub- Summary				

PROPOSED CONSTRUCTION AND COMPLETION OF CHAMUKA DISPENSARY -BUILDER'S WORK

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	<u>ELEMENT NO 2 - SUPERSTRUCTURE R.C</u>				
	<u>High yield square twisted bar reinforcement to BS 4461 (Provisional).</u>				
A	8mm Diameter bars	KG	1338		
B	12mm Ditto	KG	1776		
	<u>Sawn formwork : to</u>				
C	Sides and soffits : beams	SM	300		
	<u>In situ concrete : class 25/20 : vibrated : reinforced</u>				
D	Ring beam	CM	30		
	Carried to Sub- Summary				

PROPOSED CONSTRUCTION AND COMPLETION OF CHAMUKA DISPENSARY -BUILDER'S WORK

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
A	<p><u>ELEMENT 3 - SUPERSTRUCTURE WALLING</u></p> <p><u>Selected and approved quality local stone blocks : regular coursed walling of uniform colour : 200mm course heights ; medium chisel dressed finish to one face : horizontal recessed joints ; flush vertical joints bedded and jointed in cement and sand (1:3)</u></p> <p>200mm Walls : reinforced with 20 gauge hoop iron strips laid horizontally every alternate course</p>	SM	1007		
B	<p><u>Damp proof courses : bituminous felt : bedded in cement mortar (1:4) : 300mm laps</u></p> <p>Horizontal : 200mm wide</p>	LM	500		
	Carried to Sub- Summary				

PROPOSED CONSTRUCTION AND COMPLETION OF CHAMUKA DISPENSARY -BUILDER'S WORK

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	<u>ELEMENT NO 4 -ROOFING AND ROOF STRUCTURE</u>				
	<u>Decra Roofing Tiles ; fixed onto timber battens with approved screws or bolts or specials ; on timber purlins (m/s)</u>				
A	Roof coverings : to slopes not exceeding 25 degrees from horizontal.	SM	1920		
	<u>Sheet metal flashing : 18 gauge galvanised mild steel</u>				
B	Standard ridge capping	LM	40		
C	Standard ridge end piece	NO	2		
	<u>Wrot cypress : 1st grade ; selected and kept clean</u>				
D	15mm Thick x 100mm wide tongued and grooved eaves boarding	SM	48		
E	25 x 250mm Fascia or barge board	LM	80		
	Carried to Collection				

PROPOSED CONSTRUCTION AND COMPLETION OF CHAMUKA DISPENSARY -BUILDER'S WORK

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	<u>Roof Structure (Provisional)</u>				
	<u>Structural timbers : sawn cypress : pressure impregnated (provisional)</u>				
A	50 X 75mm Purlins	LM	1680		
	<u>Wall Plate</u>				
B	50 x 100mm wall plate : fixed with and including 12mm diameter mild steel rag bolt 150mm long at 900mm centres : cast ring beams	LM	80		
C	50 x 200mm Ridge board	LM	40		
	<u>The following in 34 No trusses : hoisting and fixing at 2.6 metres above ground level (provisional)</u>				
D	150 x 50mm Rafters	LM	1632		
E	150 x 50mm Bottom tie	LM	192		
F	100 x 50mm Struts and Ties	LM	1167		
G	50 x 100mm Joints	LM	185		
H	Drill 50mm thick timber for 10mm diameter bolt (provisional)	NO	370		
	<u>Galvanised mild steel (Provisional)</u>				
I	10mm Diameter bolts 100mm long : with nut and washers (provisional).	NO	370		
J	1mm Gusset plate size 350 x 75mm: with 3 No holes 10mm diameter to Engineers approval (Provisional).	NO	370		
	Carried to Collection				

PROPOSED CONSTRUCTION AND COMPLETION OF CHAMUKA DISPENSARY -BUILDER'S WORK

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	<u>Rainwater Disposal (Provisional)</u>				
	<u>Unplasticised PVC rainwater pipes and fittings : solvent welded joints</u>				
A	150mm Diameter half round gutter: fixed with approved brackets	LM	40		
B	Extra for stopped end	NO	2		
C	Extra for 90 degree bend	NO	10		
D	Extra for 100mm diameter rainwater outlet	NO	10		
E	100mm Diameter rain water pipe : fixed to wall with approved holderbats	LM	30		
F	Extra for bend	NO	10		
G	Extra for swan neck : 600mm projection.	NO	10		
H	Extra for rainwater shoe	NO	10		
I	100mm Diameter "Fulbora" roof outlet : with dome grating : joint to pipe	NO	10		
	<u>Prepare and knot coated surfaces : prime and apply two undercoats and one finishing coat gloss paint : on wood</u>				
J	General surfaces : eaves boarding	SM	48		
K	Fascia : over 200 but not exceeding 300mm girth	LM	80		
Carried to Collection					
	<u>COLLECTION</u>				
	Total Brought Forward from Page No.			Page No	Amount
				BW / 7	
				BW / 8	
				BW / 9	
Carried to Sub- Summary					

PROPOSED CONSTRUCTION AND COMPLETION OF CHAMUKA DISPENSARY -BUILDER'S WORK

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	<u>ELEMENT NO 5 - DOORS</u>				
	<u>STEEL DOORS</u>				
	<u>Purpose made standard section steel casement doors : supplied with handles, two lever mortice lock and hinges : 5mm clear sheet glass : fixed with lugs built into concrete or stone walls : pointed externally in mastic : one shop coat primer</u>				
A	Double leaf steel door size 2700x 2800 mm high : comprising glazed panels each size 600 x 600mm : and a 1800 x 1800mm high bottom panel 2mm mild steel sheet welded over with 3mm flat two face : and 1 no fixed top fanlight 700mm high.	NO	1		
B	Double acting leaf steel door size 1500x 2800 mm high : comprising glazed panels each size 600 x 600mm : and a 1800 x 1800mm high bottom panel 2mm mild steel sheet welded over with 3mm flat two face : and 1 no fixed top fanlight 700mm high.	NO	2		
C	Single Panel door size 900 x 2800 mm high : comprising glazed panels each size 600 x 600mm : and a 1800 x 1800mm high bottom panel 2mm mild steel sheet welded over with 3mm flat two face : and 1 no fixed top fanlight 700mm high.	NO	1		
	<u>Prepare, touch primer and apply one undercoat and two finishing coats gloss paint : to metal</u>				
D	General surfaces ; panel doors	SM	30		
	Carried to Collection				

PROPOSED CONSTRUCTION AND COMPLETION OF CHAMUKA DISPENSARY -BUILDER'S WORK

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	FLUSH DOORS				
	Flush doors to B.S. 459 [Part 2]				
	50 mm Solid core flush doors faced both sides with 6 mm plywood zen veneered for polishing , moulded and hardwood lipped all round, size				
A	- 900 x 2400 mm -Single leaf	NO	23		
B	- 1500 x 2400 mm Double leaf	NO	11		
	Doors, frames and finishings in wrought cypress				
	Architraves with two labours				
C	- 50 x 38 mm	LM	65		
	Transoms with three labours				
D	- 150 x 50 mm	LM	40		
	Frame with three labours				
E	- 150 x 50 mm	LM	65		
	Ironmongery - supply and fix the following or other equal and approved with matching screws				
	Pairs brass butt hinges				
F	- 100 mm	PRS	67.5		
	Three lever stainless steel cylinder deadlock complete with handle				
G	- "Union 7203 SSS"	NO	34		
H	Oval Satin anodised aluminium door stop [Ref: Union DS-01AS]	NO	34		
	Carried to Collection				

PROPOSED CONSTRUCTION AND COMPLETION OF CHAMUKA DISPENSARY -BUILDER'S WORK

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	<u>Prepare, prime and apply two undercoats and one finishing coat gloss paint; on woodwork</u>				
A	General surfaces : doors : (both sides measured flat overall)	SM	179		
B	Frames : over 150mm but not exceeding 200mm girth	LM	65		
Carried to Collection					
	<u>COLLECTION</u>				
	Total Brought Forward from Page No.			Page No	Amount
				BW / 10	
				BW / 11	
				BW / 12	
Carried to Sub- Summary					

PROPOSED CONSTRUCTION AND COMPLETION OF CHAMUKA DISPENSARY -BUILDER'S WORK

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	<u>ELEMENT NO 6 - WINDOWS</u>				
	<u>Precast concrete units : class 20/20 : reinforced as necessary for handling ; fair face finished on all exposed faces</u>				
A	250 x 75mm Cill : once weathered and throated : bedded in cement mortar (1:4)	LM	76		
	<u>METAL WORK</u>				
	<u>Standard section steel casement windows of approved manufacture : with polished brass handles, stays and hinges ; permanent vents along full length of top edge : fixed with lugs built into concrete or blockwork : pointed externally in mastic and oiling.</u>				
B	Window size 900 x 900mm high : 1 No. fixed panel ; 1 no. top hung openable panel.	NO	15		
C	Ditto size 1200 x 1500mm high.	NO	2		
D	Window size 2000x 1500mm high	NO	30		
	<u>4mm sheet glass to Architect's approval : fixed with putty to metal frames</u>				
E	In panes over 0.1 but not exceeding 0.5 square metres	SM	106		
	<u>Prepare, prime and apply two undercoats and one finishing coat gloss paint : on metal</u>				
F	Window casements (both sides measured flat overall)	SM	212		
	<u>Purpose made mild steel burglar proofing to windows as detailed: 16mm square section steel bars welded together with smooth joints at 150mm centres both ways: welded onto 40x20x3mm RHS frame : fixed with lugs built 20x3mm RHS frame : fixed with lugs built into and including mortice in concrete or stone blockwall : one shop coat primer</u>				
G	Grille overall size 900x900mm high	NO	15		
H	Grille overall size 1200x1500mm high	NO	2		
I	Grille overall size 2000x1500mm high	NO	30		
	Carried to Summary				

PROPOSED CONSTRUCTION AND COMPLETION OF CHAMUKA DISPENSARY -BUILDER'S WORK

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	<u>ELEMENT NO 7 - INTERNAL FINISHES</u>				
	<u>FLOOR FINISHES</u>				
	<u>Cement and sand (1:4) trowelled beds : on concrete : to</u>				
A	40mm Floors to receive ceramic floor tiles	SM	775		
B	25mm Skirting 100mm high : rounded top edge and coved junction	LM	502		
	<u>Coloured glazed ceramic floor tiles size 300 x 300 x 10mm as approved by the Architect : on and including cement and sand backing ; fixed with approved quality adhesive : grouted, jointed and pointed in matching colour cement mortar : on</u>				
C	300 x 300 x 10mm Thick floor tiles	SM	775		
D	100mm high skirting	LM	502		
	<u>WALL FINISHES</u>				
	<u>12mm Lime plaster in two coats : steel trowelled finish : on concrete or blockwork ; to</u>				
E	Walls	SM	1007		
	<u>200 x 250 x 6mm Thick white glazed ceramic wall tiles ; fixed with approved quality adhesive in accordance with the manufacturers instructions ; on and including 12mm thick cement and sand screed backing ; jointed, pointed and grouted in matching colour.</u>				
F	Walls	SM	600		
	<u>Prepare and apply three coats 1st grade gloss oil paint : on</u>				
G	Plastered walls	SM	407		
	Carried to Collection				

PROPOSED CONSTRUCTION AND COMPLETION OF CHAMUKA DISPENSARY -BUILDER'S WORK

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	<u>CEILING FINISHES</u>				
	<u>Chipboard ceiling lining</u>				
A	12mm Chipboard ceiling lining : fixed to and including 50 x 50mm sawn cypress bandering at 600mm centres bothways	SM	775		
B	Extra over for forming 600 x 600mm access door trap : 25 x 100mm wrot cypress frame and 20 x 50mm wrot cypress stop : piano hinges : door catch	NO	1		
	<u>Wrot camphor : selected and kept clean</u>				
C	100 x 25mm Moulded cornice : plugged and screwed	LM	549		
	<u>Prepare, prime and apply one undercoat and two finishing coats gloss paint ; to wood</u>				
D	Cornice : not exceeding 100mm girth	LM	549		
	<u>Prepare and apply three coats 1st grade plastic emulsion paint : to</u>				
E	Horizontal soffits : celotex ceiling soffits	SM	775		
	Carried to Collection				
	Total Brought Forward from Page No.				
			Page No BW / 14		Amount
			BW / 15		
	INTERNAL FINISHES				
	Carried to Sub- Summary				

PROPOSED CONSTRUCTION AND COMPLETION OF CHAMUKA DISPENSARY -BUILDER'S WORK

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	<u>ELEMENT NO 8 - EXTERNAL FINISHINGS</u>				
	<u>FLOOR FINISHES</u>				
	<u>PAVEMENT</u>				
A	200mm Hardcore bed : deposited, spread levelled and compacted : to receive sand bed	SM	144		
B	50mm Sand bed : levelled and compacted to receive paving	SM	144		
C	50 x 600 x 600 mm Precast concrete (class 20) paving slabs : laid on sand bed (measured separately) : jointed and pointed in cement mortar (1:4)	SM	144		
	<u>WALL FINISHES</u>				
	<u>Extra over walling for : horizontal recessed and flush vertical joints as work proceeds : in cement and sand (1:3) mortar</u>				
D	Medium chisel dressed stone : wall finish	SM	172		
E	Cement and sand (1:4) render : wood float finish to : concrete or blockwall	SM	20		
	<u>Prepare and apply three coats first grade plastic emulsion paint : to</u>				
F	Plastered walls and beams	SM	58		
	<u>Prepare and apply three coats first grade bituminous paint : to</u>				
G	Rendered Plinth surfaces	SM	20		
	Carried to Sub- Summary				

PROPOSED CONSTRUCTION AND COMPLETION OF CHAMUKA DISPENSARY -BUILDER'S WORK

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	<u>ELEMENT NO 9- FIXTURES AND FITTINGS</u>				
	ALL PROVISIONAL)				
	<u>The following in 7 no. worktop cabinets of various sizes; 600 mm wide x 1000mm high; overall length of all worktops is 22600 mm long.</u>				
	In situ concrete works; mass concrete 1:3:6/20/12mm aggregate				
A	100mm plinths	SM	18		
B	150mm thick reinforced concrete worktop	SM	18		
	Fabric; B.S. 4483				
C	Reference A142 mesh 200 x 200 mm , weight 2.22 KGs per square meter (measured net - no allowance made for laps(including bends, tying wire and distance blocks	SM	18		
D	100mm thick support walling bedded and jointed in cement and sand (1:3) mortar	SM	30		
	<u>Sawn formwork</u>				
E	Soffites of worktop	SM	18		
F	Ditto edges of worktop 75-150mm girth	LM	30		
	<u>Tile, Slab or Block Finishings</u>				
	<u>Approved ceramic tiles to B.S. 1281; local; white glazed wall tiles to regular or approved other pattern; bedding and jointing in cement</u>				
G	6mm thick; butt joints straight both ways; to cement sand base (m/s) to walls internal	SM	18		
H	Plastic edging (provisional)	LM	60		
	Carried to Collection				

PROPOSED CONSTRUCTION AND COMPLETION OF CHAMUKA DISPENSARY -BUILDER'S WORK

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	<u>Beds or Backings</u>				
	<u>Render; cement and sand (1:3)</u>				
A	14mm thick one coat backings; wood floated to receive ceramic tiles (m/s) to concrete or blockwork base; to walls internally	SM	18		
	<u>The following in wrot cypress</u>				
B	75 x 50mm frames with one labour, plugged	LM	379		
C	50 x 25mm bearers; plugged	LM	400		
	<u>Blockboard to B.S 3444</u>				
D	25mm thick shelving	SM	14		
E	Ditto; doors size 800 x 950mm high; lipped all round	NO	29		
	<u>Supply and fix the following ironmongery</u>				
F	75mm steel butt hinges	Prs	29		
G	Cup-board lock complete with keys	NO	29		
H	Brass door knobs	NO	29		
I	100mm aluminium "D" pull handle	NO	29		
	<u>On wood</u>				
	<u>Knot, prime and stop; prepare and apply one undercoat and two coats of gloss oil paint to:-</u>				
J	To cabinet shelving	SM	14		
K	Ditto; doors	SM	44		
L	To frames n.e 100mm girth	LM	191		
	<u>END OF WORKTOP CABINETS</u>				
	<u>Carried to Collection</u>				

PROPOSED CONSTRUCTION AND COMPLETION OF CHAMUKA DISPENSARY -BUILDER'S WORK

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	<u>The following in 6 no. 600mm wide × 400mm high framed wrot mahogany benches in various sizes</u>				
	<u>The following in mild steel</u>				
A	50 × 50 × 3mm thick rectangular hollow section (R.H.S); welded and ground to as smooth finish	LM	130		
B	Ditto, 500mm long stands embedded in concrete, 50mm deep including making good in c/s (1:3) mortar	NO	51		
	<u>Wrot mahogany</u>				
C	75 × 50mm thick battens countersunk, screwed and pelleted thrice to metal frame (m/s) (5 no.)	LM	248		
	<u>Sundries</u>				
D	Forming 12mm diameter hole in 75mm thick hardwood	NO	420		
E	100mm long, 12mm diameter rawl bolt complete with nut and washer	NO	420		
	<u>Painting and Decorations</u>				
	<u>On Metal work</u>				
	<u>Prepare and apply one etching primer and two finishing coats of gloss oil paint to:-</u>				
F	Frames; not exceeding 100mm girth; internal	LM	155		
	On wood				
	<u>Knot, prime and stop, prepare and apply three coats polyurathane varnish; internal</u>				
G	To frames exceeding 200 but n.e 300mm girth; internal	LM	248		
	END OF 6 no BENCHES				
	Carried to Collection				

PROPOSED CONSTRUCTION AND COMPLETION OF CHAMUKA DISPENSARY -BUILDER'S WORK

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	<u>The following in Pharmacy drug shelves 450mm wide, overall length 7200mm x 2400 mm high</u>				
	<u>The following in wrot cypress:-</u>				
A	50 x 25mm bearer; plugged	LM	81		
B	75 x 50mm frame with one labour	LM	31		
	<u>Blockboard to B.S 3444</u>				
C	25mm thick shelving	SM	13		
D	Ditto; doors size 600 x 600mm high; lipped all round; rebated meeting edges	NO	48		
	<u>Supply and fix the following ironmongery to timber with matching screws</u>				
E	75mm steel butt hinges	Prs	48		
F	Cup-board lock complete with keys	NO	48		
G	Brass door knobs	NO	48		
H	100mm aluminium "D" pull handle	NO	48		
	<u>Painting and Decorations</u>				
	<u>Knot, prime and stop; prepare and apply one undercoat and two coats of gloss oil paint to:-</u>				
I	Timber surfaces	SM	26		
J	To frames; not exceeding 100mm girth; internal	LM	112		
	END OF PHARMACY STORE SHELVES				
	Carried to Collection				

PROPOSED CONSTRUCTION AND COMPLETION OF CHAMUKA DISPENSARY -BUILDER'S WORK

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	<u>The following in 9 no. high-level shelves overall size 18600mm long x 450mm wide x 600mm high</u>				
	<u>The following in wrot cypress:-</u>				
A	50 x 25mm bearer; plugged	LM	29		
B	75 x 50mm frame with one labour	LM	38		
	Blockboard to B.S 3444				
C	25mm thick shelving	SM	8		
D	Ditto; doors size 600 x 600mm high; lipped all round; rebated meeting edges	NO	32		
	Supply and fix the following ironmongery to timber with matching screws				
E	75mm steel butt hinges	PRS	32		
F	Cup-board lock complete with keys	NO	32		
G	Brass door knobs	NO	32		
H	100mm aluminium "D" pull handle	NO	32		
	Painting and Decorations				
	<u>Knot, prime and stop; prepare and apply one undercoat and two coats of gloss oil paint to:-</u>				
I	Timber surfaces	SM	17		
J	To frames; not exceeding 100mm girth; internal	LM	67		
	END OF HIGH-LEVEL SHELVES				
	Carried to Collection				

PROPOSED CONSTRUCTION AND COMPLETION OF CHAMUKA DISPENSARY -BUILDER'S WORK

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	<u>COLLECTION</u>		Page No		Amount
	Total Brought Forward from Page No.		BW / 17		
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	Carried to Sub- Summary				

	<u>BUILDERS WORKS-SUB-SUMMARY</u>	<u>Page No.</u>	<u>Amount</u>
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3	WALLING	BW / 6	
4	ROOFING	BW / 9	
5	DOORS	BW / 12	
6	WINDOW	BW / 13	
7	INTERNAL FINISHES	BW / 15	
8	EXTERNAL FINISHES	BW / 16	
9	FITTING & FIXTURES	BW / 22	
	BUILDERS WORK		
	CARRIED TO GRAND SUMMARY		

SERVICES

PROPOSED CONSTRUCTION AND COMPLETION OF CHAMUKA DISPENSARY -MECHANICAL WORKS

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	<u>SANITARY FITTINGS, PLUMBING, DRAINAGE AND FIRE FIGHTING EQUIPMENT.</u>				
	<u>SANITARY FITTINGS</u> Supply, deliver, install, test and commission the following sanitary appliances complete with all the accessories including all connections to the services, waste, jointing to water supply overflows, supports and all plugging and screwing to walls and floors. Note: (i) All sanitary fittings shall be in approved colour. (ii) The Model and Ref No. indicated is only a guide to the type and quality of fittings. (iii) Equivalent and Approved models may be acceptable.				
A	Water closet (wc) suite Squatting water closet suit in vitreous china comprising of water closet bowl with top plate and integral foot threads, S/P-trap connector, 9 litres high cistern and fittings and pull chain including siphon, 15mm dia side inlet ball valve, 200mm dia side overflow, plastic flush pipe, inlet connector and cistern supports. All to be as "Twyfords Oriental" or approved equivalent.	NO	7		
B	Urinal Urinal bowl in white vitreous china t complete with 7.5 litres automatic ceramic cistern ref CX 8611 WH, and fittings including siphon ball valve, cistern supports and drip tap in brass, chrome plated bottle trap, chrome plated flushpipe and spreader ref SS 6071SS with all connections, wall hangers/supports. To be as Twyfords 'Camden' or approved equivalent.	NO	4		
C	Wash hand basin Wash hand basin as Twyford "Advent 565 Countertop" size 565 x 425mm with one central tap hole Cat. No. AD4531 WH complete with 32mm diameter lift-up waste (No.WF9365CP) and 32mm plastic bottle trap (No.WF8482XX)	NO	6		
D	Toilet Roll Holder Semi recessed toilet roll holder in Vitreous China of size 165 x 165mm in approved colour as Twyfords 9806WH or equal and approved.	NO	7		
E	Mirrors 6mm thick polished plate glass silver backed mirror with bevelled edges, size 610 x 610mm, plugged and screwed to wall with 4No. chrome plated dome capped screws. The mirror shall rest against a layer of 5mm thick foam.	NO	6		
	Carried to Collection				

PROPOSED CONSTRUCTION AND COMPLETION OF CHAMUKA DISPENSARY -MECHANICAL WORKS

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
A	Robe Hook Robe hook in Satin Aluminium to be mounted by concealed screws to wall wedges. To be as Twyfords Spectrum 2000 accessories or equal and approved.	NO	11		
B	Flexible Tubing 15mm diameter x 300mm long flexible connectors complete with integral chrome plated angle valve for connecting the sanitary fitting to water supply. To be as Cobra or equal and approved.	NO	9		
C	Soap Dish Semi recessed built in soap tray in Vitreous China of size: 305 x 150mm in approved colour as Twyfords or equal and approved	NO	4		
D	Soap Dispenser Soap Dispenser, capacity 1.136 litres complete with plastic rawl plugs, fixing screws, lock and key complete with initial fill of soap gel. The soap dispenser to be as ZALPON'S MARK 7 model, size 125 x 100 x 290mm high or approved equivalent	NO	4		
E	Hand drier Automatic hand drier in white colour, operating on an infra-red automatic sensing system with heating element safely cut-out complete with a 30 seconds safety timer, plastic rawl plugs and fixing screws. The hand drier to have a heating capacity of 2.1kw and performance flow rate of 135cfm(3.82m ³ /min) and to be of size 270x264x143mm deep it shall have a noise level below 72.5dBA at 1.5m. It shall be as "Heatrae Sadia" or approved equivalent	NO	4		
F	Slope hopper Twyfords 'CALDON' S.H.S cat No.FC 4362WH complete with vitreous china high level 7.5 Litre cistern, valveless fittings and chain pull CX7610WH cistern, white plastic flush pipe and chip CF 4218XX sink 760x455mm FC 1350WH, Drainer 760 with anti-stripe FC 9684 or equal and approved.	NO	2		
E	Kitchen sink Single bowl single drainer (SB SD) stainless steel size 1500x600mm, bowl size 430x430mm complete with overflow waste fittings, chain stays and 40mm diameter bottle trap with 75mm deep sill complete with chrome sink mixer	NO	1		
F	Ground Tank Supply and install a plastic water tank of capacity 20000litres made of plastic. The tank to be assembled complete with medium pressure ball valve inlet, outlet connections and drain cock and all other connections including ball valve and Float. Tank shall be mounted on a concrete platform and any other necessary item for its proper functioning. The tank to be "Kentank Model" or approved equivalent.	NO	1		
	Carried to Collection				0.00

PROPOSED CONSTRUCTION AND COMPLETION OF CHAMUKA DISPENSARY -MECHANICAL WORKS

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
A	Shower Fittings 15mm diameter concealed shower fitting complete with 600mm long by 25mm dia chrome plated towel rail, 25mm dia gate valve	NO	4		
B	Instantaneous shower heater Shower, Overhead mounted, instantan-eous shower heater with 4.4kW heating element and complete with electric cable. To be as "LORENZETTI" or equal and approved	NO	4		
G	Booster Pump Supply, deliver and install electrically driven water booster pumps capable of delivering 0.8 litres/sec against a total static head of 10	NO	1		
	Carried to Collection				

PROPOSED CONSTRUCTION AND COMPLETION OF CHAMUKA DISPENSARY -MECHANICAL WORKS

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	INTERNAL PLUMBING.				
	PPR Pipes				
	Supply, deliver and install Polypropylene Random (PP-R) 20 pipework to DIN 8077 with joints, couplings, reducers, tees, adaptors, pipe fixing clips etc all to DIN 16962 and DIN 16928 .Pipe jointing shall be by polyfusion or use of electric coupling. Where pipework is not chased proper anchoring using approved fixtures shall be done. No pipework shall be left exposed to the sun. 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.				
	PPR PIPEWORK				
A	20mm dia pipe	LM	200		
B	25mm -ditto-	LM	56		
C	32mm -ditto	LM	70		
D	40mm -ditto	LM	10		
E	50mm -ditto	LM	10		
	Extra-over PPR pipework for the following:-				
	Bends				
F	20mm -ditto-	NO	10		
G	25mm -ditto-	NO	10		
H	32mm -ditto-	NO	5		
	Threaded bend				
	20mmx1/2' threaded bend	NO	5		
	Equal Tees				
I	25mm dia tee	NO	10		
J	32mm dia tee	NO	10		
K	40mm dia tee	NO	3		
L	50mm dia tee	NO	3		
	25mmx1/2' threaded tee	NO	10		
	Unions				
M	20mm	NO	2		
N	25mm	NO	5		
O	32mm	NO	2		
P	40mm	NO	2		
Q	50mm	NO	2		
	Carried to Collection				

PROPOSED CONSTRUCTION AND COMPLETION OF CHAMUKA DISPENSARY -MECHANICAL WORKS

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Reducers				
A	50x40mm reducer	NO	2		
B	50x32mm reducer	NO	2		
C	40x32mm reducer	NO	4		
D	32x25mm reducer	NO	5		
E	32x20mm reducer	NO	10		
F	25x20mm reducer	NO	10		
	Gate valves				
G	20mm diameter approved medium pressure screw down full way non-rising stem wedge gate valve to BS 5154 PN 20 for series B rating, with wheel and head joints to steel tubing and complete with round male threaded transition fittings. The gate valve to be as PEGLER or approved equivalent.	NO	2		
H	25mm -ditto-	NO	5		
I	32mm -ditto-	NO	2		
J	40mm -ditto-	NO	1		
K	50mm -ditto-	NO	1		
	Roof Water Storage Tank				
L	Supply, deliver and install vertical close end plastic moulded tank of capacity 920 litres (200 gallons) and diameter 1080 x 1120mm high. The tank to be assembled complete with cover and having screwed connections for inlet, outlet, overflow, 50mm medium pressure ball valve, drain pipes and any other necessary item for its proper functioning. The tank shall be mounted in the roof space, as Kentank or equal and approved equivalent	NO	2		
M	Connection to existing water pipes	ITEM	1		
	Carried to Collection				

PROPOSED CONSTRUCTION AND COMPLETION OF CHAMUKA DISPENSARY -MECHANICAL WORKS

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	<u>INTERNAL DRAINAGE</u>				
	Supply, deliver and install the following uPVC and muPVC soil and <u>uPVC and muPVC pipes</u>				
A	100mm diameter heavy gauge golden brown mUPVC pipe	LM	60		
B	100mm diameter heavy gauge golden grey mUPVC pipe				
C	50mm-ditto-	LM	15		
		LM	10		
D	32mm -ditto-	LM	10		
	<u>Extra-over uPVC and muPVC pipework for the following:-</u>				
	Traps				
E	100x50mm dia floor trap	NO	2		
F	Standard 300 x 300 x 450mm masonry gully trap complete with	NO	4		
	Weathering Slates and Vent Cows	NO			
G	100mm dia vent cowl and weathering slate.	NO	2		
	Bends				
H	100mm bend	NO	2		
I	32mm ditto	NO	10		
J	38mm diameter Vulcathene sweep bends	NO	10		
	Sweep tees				
K	32mm dia sweep tee	NO	6		
L	100mm WC connector	NO	5		
M	38mm diameter Vulcathene tees	NO	10		
	Access Caps				
	38mm diameter Vulcathene access caps	NO	10		
M	Testing and commissioning				
	Testing and commissioning of the internal Plumbing and internal	SUM	1		
	Carried to Collection				

PROPOSED CONSTRUCTION AND COMPLETION OF CHAMUKA DISPENSARY -MECHANICAL WORKS

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Disabled person water closet and wash hand basin facility				
	Wheel chair accessible W.C facility Comprising of the following:- i)Close coupled W.C with 7.5 litre cistern with bottom inlet and overflow. The bowl shall be of size 375x560x420mm high. The bowl and cistern shall be manufactured from vitreous china complying with B.S 3402 .The unit shall be complete with valve less cistern fittings including syphon, 15mm side inlet ball valve, 3 /4" side overflow, plastics flushbend, inlet connector and reversible metallic chrome plated cistern lever. There shall also be a heavy duty seat(25mmhigh) and cover with chrome plated metal hinges, toilet roll holder, 610 x 610 x 6mm thick mirror and robe hook.				
	ii) Semi pedestal wall mounted W.H.B of size 600x500x545mm high with flexible connectors to waste and taps. The basin shall be manufactured from vitreous china complying with B.S 3402.It shall have one L/H tap hole with 15mm chrome plated lever action pillar tap, chrome plated waste with height adjustable trap, pedestal and wall fixing bolts.				
A	iii) Hinged support rail with toilet roll holder 770mm long manufactured in nylon coated aluminium and mounted on a wall fixing plate size 230x100 mm. 4No. 600mm grab rails with covered	NO	2		
	FIRE FIGHTING EQUIPMENT				
	Carbon dioxide Gas Fire Extinguisher				
B	4.5 Kg carbon dioxide gas portable fire extinguisher complete with pressure gauge, initial charge and mounting brankets.	NO	6		
	Water/Carbon dioxide Gas Fire Extinguisher				
C	9 litres water/Carbon dioxide gas portable fire extinguisher complete with pressure gauge, initial charge and mounting brankets.	NO	6		
D	3x2m Fire Blanket	NO	2		
E	9" (225mm) manual fire alarm bell	NO	2		
F	Fire notices	NO	2		
G	Testing and Commissioning	ITEM	1		
	Carried to Collection				

PROPOSED CONSTRUCTION AND COMPLETION OF CHAMUKA DISPENSARY -MECHANICAL WORKS

			Page No		Amount
	<p><u>COLLECTION</u></p> <p>Total Brought Forward from Page No.</p>		MW / 1		
			MW / 2		
			MW / 3		
			MW / 4		
			MW / 5		
			MW / 6		
			MW / 7		
	CARRIED TO GRAND SUMMARY				

PROPOSED CONSTRUCTION AND COMPLETION OF CHAMUKA DISPENSARY-ELECTRICAL WORK

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	ELECTRICAL INSTALLATIONS Supply, install, test and commission the following:				
	LIGHTING POINTS Lighting points wired in 3x1.5mm ² PVC insulated single core conduits including all wiring accessories but excluding the light fitting and switches for;				
A	One way switching	NO	27		
B	Two way switching	NO	22		
	10A lighting switches with screw covers as CLIPSAL or approved equivalent;				
C	1 gang 1 way	NO	13		
D	1gang 2 way	NO	6		
E	2 gang 2 way	NO	1		
F	Intermediate switch	NO	2		
	Light fittings complete with bulbs and tubes of appropriate wattage and quality as follows;				
G	1x36W, 1200mm long LED fitting as Phillips WT099C or approved equivalent	NO	9		
H	20W circular surface mounted LED luminaire as Phillips Essential SmartBright model DN027C or approved equivalent	NO	6		
I	1200mm, 40W LED panel as Philips SmartBright WT066C or approved equivalent	NO	22		
J	50W LED Floodlight fitting wall mounted as Nikkon or approved equivalent	NO	11		
K	Single or double sided emergency LED exit light as THORN or approved equivalent.	NO	4		
	POWER POINTS Ring Main Socket power points wired in 3x2.5mm ² PVC insulated single core copper cables drawn in 25mm Dia. HG concealed conduits including all necessary wiring accessories excluding all fitting as follows;				
L	a)Single outlet	NO	8		
M	b)Twin outlet	NO	19		
	Carried to Sub- Summary				

PROPOSED CONSTRUCTION AND COMPLETION OF CHAMUKA DISPENSARY-ELECTRICAL WORK

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	13Amps switched socket outlet plates with neon indicator & screw covers as CLIPSAL or approved equivalent				
A	a) Single	NO	8		
B	b) Twin	NO	19		
C	Power points wired in 3x4.0mm ² PVC insulated single core copper cables drawn in 25mm Dia. HG conduits concealed for hand drier	NO	2		
D	20A Double Pole hand drier switch with neon indicator as CLIPSAL or approved equivalent	NO	2		
E	Power points wired in 3x6.0mm ² single core PVC Cu cables drawn in 32mm Dia. HG conduit concealed for cooker control socket	NO	1		
F	45A Cooker control Unit complete with auxiliary 13A socket	NO	1		
G	TV/Telephone/Data outlet points comprising of coaxial cable drawn in concealed 25mm Dia. HG PVC conduits	NO	15		
H	Telephone / Data / Twin Data & Telephone outlet plate with screw covers as CLIPSAL or approved equivalent.	NO	14		
I	Moulded plate T.V. outlet as CLIPSAL or approved equivalent	NO	1		
	<u>DISTRIBUTION BOARD</u>				
J	12 Ways Consumer Unit with 100A single isolator as MEM, CRABTREE or approved equivalent	NO	1		
	The following MCBs for item 'E23' above;				
K	45A MCB	NO	1		
L	30A Ditto	NO	3		
M	20A Ditto	NO	1		
N	10A Ditto	NO	4		
O	Blank spare	NO	3		
P	Cables comprising 3x25mm ² SC copper cables drawn in 32mm.Dia HG PVC conduits concealed	LM	60		
Q	Cable Loop-in Box	NO	1		
Carried to Sub- Summary					

PROPOSED CONSTRUCTION AND COMPLETION OF CHAMUKA DISPENSARY-ELECTRICAL WORK

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<u>FIRE ALARM SYSTEM</u>					
A	Fire alarm outlet point comprising of wiring in 3x1.5mm ² special fire resistant single core copper cables concealed in 25mm Dia. HG conduits	NO	23		
B	Photoelectric smoke and heat detectors as MENVIER or approved equivalent	NO	17		
C	Fire alarm bell/sounder with 150mm gong as MENVIER or approved equivalent	NO	3		
D	Fire Alarm manual break glass call point as MENVIER or approved equivalent	NO	3		
E	24-Zone Addressable Fire Alarm Control Panel flush mounted on wall complete with 72 hour standby battery, as MENVIER or approved equivalent	NO	1		
F	Conduct comprehensive training of 3No. of staff on the operation of the fire alarm system	ITEM			
<u>METERBOARD</u>					
G	Standard heavy gauge meter box 450mmx300mm fabricated gauge 14 sheet metal including 80A/100A twin cut-out with HRC fuse	NO	1		
H	100/125A MCCB as an incomer (Main switch) placed in the meterbox	NO	1		
<u>EARTHING</u>					
I	Earthing comprising of the following and any other necessary accessories; 1800mmx15mm diameter copper electrode with clamp	NO	1		
J	16.0mm ² yellow/green PVC SC cables	LM	20		
	Concrete inspection pit complete with cover (or a well made 320mm x320mmx210mm depth pit)	NO	1		
<u>LIGHTNING PROTECTION</u>					
K	Supply and install 25x3mm copper tape including copper saddles at 1500mm intervals bonding to other metal working on the roof for lightning protection. All as FURSE	LM	30		
L	Earthing comprising of 15mmx1800mm copper rod complete with clamps and concrete inspection earth pit, to the satisfaction of the Project Engineer	NO	3		
Carried to Sub- Summary					

PROPOSED CONSTRUCTION AND COMPLETION OF CHAMUKA DISPENSARY-ELECTRICAL WORK

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
A	Copper lightning arrestors with 3 spikes (air terminations) properly mounted and fastened on the roof, including base clamps and fixing materials	NO	1		
B	Test clamps as FURSE	NO	4		
C	Junction clamps as FURSE	NO	4		
	<u>OTHER WORKS</u>				
D	Allow for trenching, laying, back-filling, and manholes for KPLC power supply works	LM	50		
E	Allow for testing of the whole installation to the satisfaction of the Project Electrical Engineer	ITEM	1		
F	Allow for the production of 'As Installed Drawings' to be forwarded to the Project Electrical Engineer upon completion of the works	ITEM	1		
	Carried to Sub- Summary				

<u>ELECTRICAL WORKS-SUB SUMMARY</u>	<u>Page No.</u>		<u>Amount</u>
	EW / 1		
	EW / 2		
	EW / 3		
	EW / 4		
ELECTRICAL WORKS			
CARRIED TO GRAND SUMMARY			-

PROVISIONAL SUM

	PROVISIONAL SUMS		SUM
	<p>The following provisional sums are to be measured on completion and priced in accordance with the rates contained in these bills of quantities or prorata thereto or deducted in whole if not required</p> <p>A Allow a Provisional Sum of Kenya shillings Three hundred Thousand only for Supervisory Expenses</p> <p>B Allow a Provisional Sum of Kenya shillings One million only for Contingencies to be expended in whole or part only at the discretion of the Project Manager</p>	<p>ITEM</p> <p>ITEM</p>	<p>300,000</p> <p>1,000,000</p>
	TOTAL FOR PROVISIONAL SUMS CARRIED TO GRAND SUMMARY		1,300,000

GRAND SUMMARY

ITEM	DESCRIPTION		FOR OFFICIAL USE	FOR TENDERER USE ONLY
			ONLY	
			KSHS.	KSHS.
A	General Preliminaries	GP / 13		
B	Particular Preliminaries	PP / 7		
C	Builders works	B / S		
D	Mechanical Works	MW / 8		
E	Electrical Works	E / S		
F	Provisional Sum	PP / S		1,300,000.00
	SUB-TOTAL			
	ADD 2% PROJECT MANAGEMENT PAYABLE TO COUNTY REVENUE ACCOUNT			
	TOTAL CARRIED TO FORM OF TENDER INCLUSIVE OF 16% V.A.T.		-	

Amount in words. Kenya shillings

.....Cents

Tenderer's Signature and stamp.....

Address

.....

Date

Witness Signature

Address

.....

Date