REPUBLIC OF KENYA

MINISTRY OF TRANSPORT, INFRASTRUCTURE, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF PUBLIC WORKS

BILL OF QUANTITIES

FOR

PROPOSED CONSTRUCTION TO COMPLETION OF A 45 CAPACITY LABORATORY AT CHENGONI PRIMARY SCHOOL

NG-CDF-KILIFI SOUTH

REGIONAL QUANTITY SURVEYOR
COAST REGION
P.O. BOX 90350
MOMBASA

REGIONAL WORKS OFFICER
COAST REGION
P.O. BOX 90350
MOMBASA

F/Y 2026/2027

BQ FOR JUNIOR SECONDARY LAB

Item No	Description	Qty	Unit	Rate	Total (Kshs)
	ELEMENT NO. 1: -				
	SUBSTRUCTURE (ALL PROVISIONAL): -				
	Site clearance				
A	Clear site of all grass, shrubs and under-growth including grubbing up roots and carting away	191	Sm		
	Excavations and earthworks: -				
B	Excavate oversite average 150mm deep and cart away	191	Sm		
C	Excavate trench for strip foundation not exceeding 1.5m deep	62	Cm		
D	Extra-over excavation for excavating in rock	5	Cm		
E	Return fill and ram	32	Cm		
F	Cart away surplus excavated material	30	Cm		
G	Allow for planking and strutting	1	Item		
H	Allow for keeping excavations free from water	1	Item		
	Hardcore: -				
I	300mm thick approved hardcore	161	Sm		
J	50mm thick murram blinding	161	Sm		
K	Treat hardcore surface with approved antitermite	161	Sm		
	Concrete works: -				
L	Plain concrete (1:4:8) in 50mm blinding under strip foundation	42	Sm		
	Carried to collection				

Item No	Description	Qty	Unit	Rate	Total (Kshs)
	Vibrated reinforced concrete (1:2:4) in: -				
A	Strip foundation	12	Cm		
B	Ground beam	6	Cm		
C	100mm surface slab	173	Sm		
	Sawn formwork to: -				
D	Sides of ground beam	60	Sm		
E	Edges of surface slab 75 - 150mm wide	59	Lm		
	High yield deformed bars: -				
F	8mm diameter bars	125	Kg		
G	10mm ditto	224	Kg		
H	12mm ditto	269	Kg		
I	BRC mesh type A142	173	Sm		
	Sub-wall: -				
J	200mm coral block walling bedded and jointed in cement sand (1:3) mortar and reinforced every alternate course course with hoop iron	126	Sm		
	Damp proof course: -				
K	200mm wide Hessian based bituminous felt DPC	101	Lm		
	Damp proof membrane: -				
L	1000 gauge polythene DPM	173	Sm		
	Carried to collection				

Item No	Description	Qty	Unit	Rate	Total (Kshs)
	Plinth: -				
A	15mm thick cement sand (1:3) rendering to plinth wall	30	Sm		
B	Prepare and apply three coats bituminous paint on plinth wall	30	Sm		
	Paving slabs around the building: -				
C	600 x 600 x 50mm precast concrete paving slabs jointed in cement sand (1:3) mortar, laid on 200mm murram and 50mm sand bed in including approved antitermite treatment	30	Sm		
	Carried to collection below				
	COLLECTION: -				
	Brought forward from page LAB / 1				
	Brought forward from page LAB / 2				
	Brought down from above				
	TOTAL OF SUBSTRUCTURE, CARRIED TO SUMMARY				

Item No	Description	Qty	Unit	Rate	Total (Kshs)
	ELEMENT NO. 2: -				
	CONCRETE SUPERSTRUCTURE:-				
	Vibrated reinforced concrete (1:1.5:3) in: -				
A	Ring beam	5	Cm		
B	100mm thick gas chamber slab	4	Sm		
	Formwork to: -				
C	Sides and soffites of ring beam	64	Sm		
D	Soffites of suspended slab	4	Sm		
	Edges of surface slab 75 - 150mm wide	8	Lm		
	High yield deformed bars: -				
E	8mm diameter bars	210	Kg		
F	12mm ditto	285	Kg		
G	75mm diametercircula hollow section (CHS) mild steel column 3000mm long; one end built into concrete base and the othe end welded onto mild steel U-shaped nolder bats (measured seperately)	7	No		
H	Extra over above described for provision and welding of 100x75mm U-shaped holder bat, twice drilled for 12mm diameter bo;t, to top of CHS column to receive wall plate	7	No		
I	Prepare and apply primer and two coats gloss oil paint on 75mm diameter mild steel pipe	21	Lm		
	TOTAL OF CONCRETE SUPERSTRUCTURE				
	CARRIED TO SUMMARY				

Item No	Description	Qty	Unit	Rate	Total (Kshs)
	ELEMENT NO. 3: -				
	SUPERSTRUCTURE WALLING: -				
A	200mm thick machine cut coral block walling bedded and jointed in cement sand (1:3) mortar and reinforced every alternate course with hoop iron	176	Sm		
	TOTAL OF WALLING,				
	CARRIED TO SUMMARY				

Item No	Description	Qty	Unit	Rate	Total (Kshs)
	ELEMENT NO. 4: -				
	ROOFING: -				
	Sawn treated cypress: -				
A	100 x 50mm rafters	214	Lm		
B	150 x 50mm tie beams	168	Lm		
C	150 x 50mm king post	47	Lm		
C	100 x 50mm ties and strutts	428	Lm		
D	75 x 50mm purlins	513	Lm		
E	100 x 50mm wall plate bolted to ring beam at 1.2m centres	61	Lm		
F	200 x 25mm wrot cypress fascia and barge board	71	Lm		
	Roof coverings: -				
G	30 gauge pre-painted roofing sheets nailed to purlins (measured separately)	208	Sm		
H	Matching ridge and valley caps	17	Lm		
	Painting: -				
	Prepare and apply undercoat and two coats gloss oil paint on :-				
K	Fascia board 200 - 300mm girth	71	Lm		
	TOTAL OF ROOFING,				
	CARRIED TO SUMMARY				

Item No	Description	Qty	Unit	Rate	Total (Kshs)
	ELEMENT NO. 5: -				
	DOORS: -				
	Wrot Hardwood (mahogany or equal and approved): -				
A	150 x 50mm rebated door frame	8	Lm		
B	45 x 20mm architrave with two labours	8	Lm		
C	25mm Quadrant mould	8	Lm		
D	50mm thick solid mahogany panelled door size 900 x 2700mm including fanlight	4	No		
E	Heavy duty mild-steel door size 1800x 2700mm comprising 50 x 50 x 3mm thick RHS framing, 5mm thick gauge 14 panelled plates welded to framing, including all necessary heavy duty hinges, bolts, fanlights with mosquito gauze and metal lugs	2	No		
	Iron mongery as "UNION" or equal and approved with matching screws: -				
F	100mm brass butt hinges	6	Prs		
G	Three lever mortice locks	4	No		
H	32mm diameter rubber door stops fixed with rawl bolts	24	No		
	Signage: -				
I	Supply and fix approved pespex door signage size 150x75mm	6	No		
	Glazing: -				
J	5mm clear glass and glazing with metal putty in panes 0.1 - 0.5m2	2	Sm		
	Carried to collection				

Item No	Description	Qty	Unit	Rate	Total (Kshs)
A	Heavy duty mild-steel grill door size 1800 x 1600mm comprising 50 x 50 x 3mm thick RHS framing, 50x25x3mm thick members at 150mm both ways including all necessary heavy duty hinges, bolts and metal lugs in gas chamber	3	No		
	Painting and decorating: -				
	Prepare and apply undercoat and two coats gloss oil paint on: -				
B	General surfaces of timber	16	Sm		
C	Surfaces of timber 200 - 300mm girth	8	Lm		
D	Ditto not exceeding 100mm girth	16	Lm		
E	Prepare and apply primer and two coats first quality gloss oil paint on mild-steel surfaces	25	Sm		
F	Prime backs of frames before fixing 100 - 200mm girth	8	Lm		
	Carried to collection below				
	COLLECTION: -				
	Brought forward from page LAB / 7				
	Brought down from above				
	TOTAL OF DOORS,				
	CARRIED TO SUMMARY				

Item No	Description	Qty	Unit	Rate	Total (Kshs)
	ELEMENT NO. 6: -				
	WINDOWS: -				
	Heavy duty mild-steel casement window comprising 40 x 40 x 2mm thick framing ("Z" and "T" - Sections) including all necessary hinges, bolts, fasteners, stays, fanlights with mosquito gauze and metal lugs: -				
A	Window size 1500 x 1500mm	13	No		
	Supply and fix the following coloured aluminium windows; aluminium sections from approved manufacture complete with frames, transoms, mullions and coupling mullions; complete with permanent vents, hinges, stays, fasteners, approved iron mongery and all accessories and fixing lugs, nuts and scews fixed to head and cill all to architect's detal, specification and approval				
B	Window size 1200x 1500mm at gas chamber	2	No		
C	5mm clear glass and glazing with metal putty in panes 0.1 - 0.5sm	32	Sm		
D	Prepare and apply primer and two coats gloss oil paint on mild-steel surfaces	58	Sm		
E	250x50mm reinforced concrete (1:2:4) window cill including all necessary renforcement, formwork and plaster	23	Lm		
	Painting: -				
F	Prepare and apply primer and two coats gloss oil paint on mild-steel surfaces	58	Sm		
	Prepare and apply undercoat and two coats gloss oil paint on: -				
G	Surfaces of timber 200 - 300mm girth	23	Lm		
	TOTAL OF WINDOWS,				
	CARRIED TO SUMMARY				

Item No	Description	Qty	Unit	Rate	Total (Kshs)
	ELEMENT NO. 7: -				
	FIXTURES AND FITTINGS: -				
	worktops : -				
A	Plain concrete (1:3:6) in 75mm toe kick	39	Sm		
B	Reinforced concrete (1:2:4) in 100mm worktops	39	Sm		
	Formwork to: -				
C	Soffites of worktops	39	Sm		
D	Edges of worktops 75 - 150mm wide	119	Lm		
E	Edges of toe kick ditto	119	Lm		
F	Box out formwork to form opening size 500 x 400mm	16	No		
G	10mm diameter high yield deformed bars	391	Kg		
H	150mm thick coral block dwarf walling in cement sand (1:3) mortar	86	Sm		
I	15mm thick cement sand (1:3) plaster on dwarf walls	173	Sm		
J	Ditto on worktops and edges	39	Sm		
	White Board				
N	White Board size 6000x1200mm	1	No		
	TOTAL OF FIXTURES AND FITTINGS,				
	CARRIED TO SUMMARY				

Item No	Description	Qty	Unit	Rate	Total (Kshs)
	ELEMENT NO. 8: -				
	FINISHES: -				
	Wall finishes: - (Keying)				
A	15mm thick cement, sand, lime (1:1:6) plaster on walls internally	295	Sm		
C	15mm thick cement sand (1:3) rendering on walls externally	241	Sm		
	Floor finishes: -				
G	25mm thick cement sand (1:4) screed to receive floor tiles	161	Sm		
H	300 x 300 x 8mm ceramic floor tiles fixed with approved adhesive	161	Sm		
I	100 x 8mm ditto skirting	101	Lm		
	Ceiling finishes: -				
J	50 x 50mm sawn treated cypress brandering	179	Lm		
K	75 x 50mm ditto	168	Lm		
	9mm thick chip board ceiling fixed to brandering (measured seperately)	160.5	Sm		
	Extra-over ditto for trap door size 800 x 800mm	2	No		
	75 x 20mm wrot cypress moulded covetto cornice	150	Lm		
	Carried to collection				

Item No	Description	Qty	Unit	Rate	Total (Kshs)
	Painting: -				
A	Prepare and apply undercoat and two coats first quality plastic emulsion paint on plastered walls internally	295	Sm		
B	Ditto rendered walls externally	241	Sm		
C	Prepare and apply undercoat and two coats plastic distemper on ceiling board	160.5	Sm		
D	Ditto cornice not exceeding 100mm girth	150	Lm		
	Carried to collection below				
	COLLECTION: -				
	Brought forward from page LAB/11				
	Brought down from above				
	TOTAL OF FINISHES,				
	CARRIED TO SUMMARY				

Item No	Description	Qty	Unit	Rate	Total (Kshs)
	ELEMNT NO 9 **MECHANICAL WORKS** **LP GAS INSTALLATION**				
A	LP Gass supply	1	Kg		
B	LP Gass pressure gauge	1	No		
	Carried to collection				

Item No	Description	Qty	Unit	Rate	Total (Kshs)
A	Manifold pipe complete with mounting plugs	1	No		
	Copper tubing:-				
B	3/8 dia copper tubing	80	Lm		
C	15mm diameter GI pipr	40	Lm		
	Extra over Copper tubing for the fittings				
D	3/8 dia brass equal tee complete with flare nut	20	No		
E	3/8 dia brass equal cross complete with flare nut	20	No		
F	3/8 dia brass elbow	27	No		
	Gas outlet (taps):-				
G	Low pressure 2-way bench mounted gas outlet with 2 cocks spaced at 9 degrees and with a saftey drop lever to prevent accident "turn on". To be as Vulex Lab line model No VL2601/D.	27	No		
	Bunsen Burners:-				
H	Bunsen Burner with 9mm outside diameter riffled gas inlet tube and air regulator. Overall height 120mm and burner tube of 13mm outside diameter. The burner shall be as PARCO Ltd Ref BYB-045R or equal and approved	17	No		
I	12mm diax600mm long gas pipe to fit	17	No		
	Gas Valve:-				
J	6/8" dia approved quarter turn lever operated ball valve	1	No		
	Pressure regulator:-				
K	15mm dia second stage pressure regulator as Rego 2403 V.9 com[lete with connections and brackets for gas tank	1	No		
	CARRIED TO COLLECTION				

Item No	Description	Qty	Unit	Rate	Total (Kshs)
A	15mm dia second stage gas pressure regulator as Rego 2503 B for supply pipe	1	No		
	PLUMBING & DRAINAGE WORKS:-				
	Lab sinks:-				
B	'Vulcathene" black injection moulded polypropylene sink with self-draining base and outlet to accept the waste and complete with: waste, plug, back nut butyl rubber gusket, grating and chain	17	No		
C	'Vultex Labline" one way swan neck brass outlet fitting with inlet for supply and side valve having swivel nozzle and spout	17	No		
D	'Vulcathene" 11/2" anti-syphone bottle trap	17	No		
E	1/2" x300mm flexible tubing	17	No		
	Piping				
F	25mm dia PPR pipe as PN 20	20	Lm		
G	20mm ditto	60	Lm		
H	25mm dia gate valve peggler	2	No		
I	25mm dia angle valve peggler	17	No		
	Extra over pipework for				
J	25x20mm unequal tee	14	No		
K	20mm male threaded elbow	23	No		
L	20mm equal tee	8	No		
M	25mm beng	17	No		
N	20mm ditto	17	No		
	Carried to collection				

Item No	Description	Qty	Unit	Rate	Total (Kshs)
	Drainage				
A	40mm diameter heavy duty PVC pipe	60	Lm		
B	40mm dia bend	30	No		
C	40mm dia tee and plug	17	No		
D	40mm dia bottle trap	17	No		
	PORTABLE FIRE PROTECTION EQUIPMENT Supply, deliver, install, test & commission the following fire protection equipment				
	Dry chemical powder fire extinguiser:-				
E	Automatic overhead 9Kg dry chemical powder portable extinguisher complete with pressure gauge, initial charge and mounting brackets	1	No		
	Water/carbon dioxide gas fire extinguisher				
F	9 litres water/carbon dioxide gas portable fire portable extinguisher complete with pressure gauge, initial charge and mounting brackets	1	No		
	CARRIED TO COLLECTION				

Item No	Description	Qty	Unit	Rate	Total (Kshs)
	COLLECTION: -				
	Brought forward from page LAB/15				
	Brought forward from page LAB/14				
	Brought forward from page LAB/15				
	Brought forward from page LAB/16				
	TOTAL OF MECHANICAL WORKS				
	CARRIED TO SUMMARY				

Item No	Description	Qty	Unit	Rate	Total (Kshs)
	ELEMNT NO 10:-				
	EXTERNAL SOIL DRAINAGE:-				
A	Excavate trench for drain pipe average 1000mm deep and cart away	40	Lm		
B	100mm diameter PVC drain pipe laid in trench	40	Lm		
C	450x450mm manholes	10	No		
	Soakpit 2m diameter x 4.5m deep:-				
D	Excavate pit not exceeding 1.5m deep	5	Cm		
E	Ditto 1.5-3.0m deep	5	Cm		
F	Ditto 3.0-4.5m deep	5	Cm		
G	Ditto 4.5-6.0m deep	5	Cm		
H	Extra over excavaion for excavating in rock	12	Cm		
I	Cart away excavated material from site	20	Cm		
J	Mass concrete (1:3:6) in foundation	1	Cm		
K	Vibrated reinforced concrete (1:2:4) in 100mm cover slab	3	Sm		
	Formwork to:-				
L	Soffites of suspended slab	3	Sm		
M	Sides of foundation	2	Sm		
N	Edges of cover slab 75-150mm high	8	Lm		
O	10mm diuameter high yield reinforcement bars	25	Kg		
	CARRIED TO COLLECTION				

Item No	Description	Qty	Unit	Rate	Total (Kshs)
A	200mm thick natural stone walling in cement sand (1:3) mortar	18	Sm		
B	15mm thick cement sand (1:3) plaster externally	6	Sm		
C	Approved hard-core back-fill	18	Cm		
D	600x450mm heavy duty fibre man-hole cover and frame	1	No		
	Testing:-				
E	Allow for testing the drainage systeme to the satisfaction of the project manager	1	Item		
	CARRIECD TO COLLECTION BELOW				
	COLLECTION: -				
	Brought forward from page LAB/18				
	Brought down from above				
	TOTAL OF EXTERNAL DRAINAGE				
	CARRIED TO SUMMARY				

Item No	Description	Qty	Unit	Rate	Total (Kshs)
	ELEMENT NO 11				
	ELECTRICAL WORKS:-				
	LIGHTING INSTALLATION				
	LIGHTING POINTS				
A	Lighting points wired in 3x1.5mm2 PVC/SC copper cables drawn in concealed 20mm diameter heavy duty gauge PVC conduits including all boxes, sadles and accessories excluding the light fitting and switch for:				
	i)One way switching	11	No		
	ii)Two way switching	5	No		
	LIGHTING ACCESSORIES:-				
B	10A Single plates moulded plate switch for flush mounting				
	i)One gang two way	7	No		
	ii)Two gang two way	2	No		
	LIGHT FITTINGS WITH LAMPS:-				
C	14W, 1x1200mm LED Luminaire	14	No		
D	Weather proof bulkhead fitting complete with a glass cover, metallic base and 9W LED lamp	2	No		
	Celing fanpoints wired in 3x1.5mm2 PVC/SC copper cables drawn in concealed 20mm diameter heavy duty gauge PVC conduits including all boxes, sadles and accessories excluding the fitting	7	No		
	1400mm ceiling fans as ORIENT or equal and approved complete with regulator	7	No		
	carried to collection				

Item No	Description	Qty	Unit	Rate	Total (Kshs)
	INTERNAL POWER INSTALLATION				
	POWER POINTS				
A	13A Socket outlet points comprising wiring in 3x2.5mm2 SC-PVC pure copper cables in the ring circuit drawn in 20mm DIA HG PVC conduits concealed in the Building Fabric from the Distribution board but without the outlet plate	12	No		
	POWER ACCESSORIES:-				
B	13A twin white moulded single socket outlet plate for flush mounting and connection to the raw power supply	12	No		
	POWER DISTRIBUTION:-				
C	Recessed 8-Way SPN Consumer Unit incorporating 32A DP MCB isolator, lockable front door, labeling front cover	1	No		
	Miniature circuit breakers for incorporating in distribution board				
B	5A SP	4	No		
C	10A SP	4	No		
	32A SP	2	No		
	Total carried to collection				

Item No	Description	Qty	Unit	Rate	Total (Kshs)
	SUB-MAINS CABLE :-				
A	Submains comprising 3x10mm2 single core PVCI copper cable drawn in 32mm diameter HG PVC Conduit concealed in the building fabric from the cable looping box to the consumer unit	20	Lm		
B	300x300x200mm cable looping box fabricated from steel sheet Gauge 28	1	No		
C	10mm2 2C CU/PVC/SWA/PVC cable drawn 750mm underground from the Meterboard to the cable Looping box	20	Lm		
D	**EARTHING:-**				
	i)1500mmx5/8'' diameter copper electrode complete with Gunmetal rod to cable clamp	1	No		
	ii)10.0 sq mm yellow/green PVC earth lead	3	Lm		
	iii)Pre-cast inspection pit complete with concrte cover and earth enhancing compound	1	Item		
	CARRIED TO COLLECTION BELOW				
	COLLECTION Brought forward from page LAB/20 Brougt forward from page LAB/21 Brought down from above				
	TOTAL OF ELECTRICAL WORKS				

Item No	Description	Qty	Unit	Rate	Total (Kshs)
	SUMMARY: -				
1	SUBSTRUCTURE FROM PAGE MH / 3				
2	RING BEAM AND COLUMNS FROM PAGE MH / 4				
3	WALLING FROM PAGE MH / 5				
4	ROOFING FROM PAGE MH / 6				
5	DOORS FROM PAGE MH / 9				
6	WINDOWS FROM PAGE MH / 10				
7	FIXTURES AND FITTINGS FROM PAGE MH / 14				
8	FINISHES FROM PAGE MH / 16				
9	MECHANICAL WORKS FROM PAGE MH / 23				
10	EXTERNAL DRAINAGE FROM PAGE MH / 26				
11	ELECTRICAL WORKS FROM				
	TOTAL OF BUILDERS WORK,				
	CARRIED TO MAIN SUMMARY				

Item No	Description	Qty	Unit	Rate	Total (Kshs)
	PRIME COST AND PROVISIONAL SUMS: -				
	PROVISIONAL SUMS: -				
A	Provide a provisional sum of Kenya Shillings One Hundred Thousand for Contigencies				100,000
B	Provide a provisional sums of Kenya Shillings One Hundred Thousand for Project Management Supervision Technical team				100,000
C	Provide a provisional sums of Kenya Shillings Seventy Thousand for Project Management PMC				70,000
D	Provide a provisional sums of Kenya Shillings Twenty Thousand for Project branding				20,000
	TOTAL OF PROVISIONAL AND PRIMECOST				

	SUMS, CARRIED TO SUMMARY				**290,000**

No	Description	Qty	Unit	Rate	Total (Kshs)
	MAIN SUMMARY: -				
A	BUILDERS WORK FROM PAGE LAB/23				
B	P.C SUM & PROVISIONAL SUMS FROM PAGE PS / 1				290,000
C	ADD 0.03% CAPACITY BUILDING LEVY				
	TOTAL CARRIED TO FORM OF TENDER				

AMOUNT IN WORDS: …….

…….

CONTRACTOR'S NAME: …….

ADDRESS: …….

SIGNATURE: …….. ……..

NAME OF WITNESS: ……

ADDRESS: …….

SIGNATURE: …….. ……..