

# **BILLS OF QUANTITIES**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b><u>ELEMENT NO.1</u></b>				
	<b><u>SUBSTRUCTURES</u></b>				
	<b><u>Siteworks and Excavations</u></b>				
A	Clear site of all shrubs and undergrowth including grubbing up of roots and dispose off as directed.	288	SM		
B	Excavate to remove vegetable soil average depth 1.0m and dispose off as directed.	86	CM		
C	Excavate trenches for strip foundation in SOIL not exceeding 1.5metres from reduced level and set aside for later re-use	129	CM		
D	Ditto to column base	1	CM		
E	Extra over excavation for soft rock in any position	2	CM		
	<b>Carried to Collection</b>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b><u>SUBSTRUCTURES-(CONTINUED)</u></b>				
	<b><u>Filling and Carting away-</u></b>				
A	Return, fill and ram with selected and approved excavated material around excavations	130	CM		
B	Load and cart away excavated materials from site	86	CM		
C	Approved imported murrum filled in the entire excavated area	-	CM		
D	Approved hardcore bed handpacked, well watered and compacted laid in layers of 150mm thick	245	CM		
E	50 mm selected fine material to hardcore surfaces, well rolled and leveled to receive concrete	245	SM		
F	Apply "Termidor" or any other similar and approved anti termite chemical treatment on blinded surfaces	245	SM		
G	500 gauge polythene sheeting with sides and end laps as described laid on blinded surfaces	245	SM		
	<u>Plain concrete (1:4:8) in</u>				
H	50mm Thick blinding to strip foundation	86	SM		
I	Ditto column bases	1	SM		
	<u>Vibrated reinforced concrete grade 20/20 (1:2:4) in:</u>				
J	Strip footing	17	CM		
K	Ditto to column bases	1	CM		
L	Ditto to column	2	CM		
M	100mm Thick ground bed	245	SM		
	<b>Carried to Collection</b>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b><u>SUBSTRUCTURES-(CONTINUED)</u></b>				
	<u>Sawn formwork to:</u>				
A	Edges of floor bed 75 - 125mm high	54	LM		
B	Sides of columns	42	SM		
	<u>Mild Steel reinforcement as described including cutting to length, bending and fixing including all necessary tying wires and spacing blocks (all provisional)</u>				
C	10mm diameter High tensile square twisted bars	388	KG		
		-			
D	8mm diameter ditto	186	KG		
		-			
E	16mm diameter ditto	-	KG		
		-			
F	16mm diameter ditto	506	KG		
		-			
G	8mm diameter ditto	92	KG		
	<u>Steel fabric mesh reinforcement to B.S. 4483</u>				
H	No. A 142 fabric weighing 2.22Kg/sm fixed in bed	245	SM		
	<u>Natural stone walling in cement and sand (1:3) mortar and including reinforcing with 20 x 3mm thick hoop iron in every alternate course.</u>				
I	200mm Thick walling	298	SM		
	<u>Plinths</u>				
J	12mm thick cement and sand (1:3) render to plinths	16	SM		
K	Prepare and apply three coats bituminous paint to rendered plinths	16	SM		
	<b>Carried to Collection</b>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b><u>SUBSTRUCTURES-(CONTINUED)</u></b>				
A	Allow for keeping the whole of the excavations free from all water; include for draining or other wise keeping all works free from water as necessary over the entire contract period		ITEM		
B	Allow for maintaining and upholding sides of excavations and keeping excavations clear of all fallen materials, rubbish etc		ITEM		
	<b>Carried to Collection</b>				
	<u>COLLECTION</u>				
	FROM PAGE 1/1				
	FROM PAGE 1/2				
	FROM PAGE 1/3				
	FROM ABOVE				
	<b>TOTAL FOR ELEMENT NO. 1</b>				
	<b>(SUBSTRUCTURES)</b>				
	<b>CARRIED TO SUMMARY</b>				
		<b>KSHS</b>			

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b><u>ELEMENT NO. 2</u></b>				
	<b><u>REINFORCED CONCRETE SUPERSTRUCTURE</u></b>				
	<b><u>CONTAINER</u></b>				
A	Supply 40ft dry freight container overall size 12,035 x 2,350 x 2,385mm high, Allow for unloading & proper placement into position on site as directed by the Client's Representative.	3	NO		
	<u>Vibrated reinforced concrete (1:2:4) Class 20/20 in :</u>				
B	Columns	1	CM		
C	Beams	2	CM		
	<u>Sawn formwork to:</u>				
D	Sides of columns	54	SM		
E	Sides and soffites of beams	72	SM		
	<b>Carried to Collection</b>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b>REINFORCED CONCRETE SUPERSTRUCTURE</b> <i>(continued)</i>				
	<u>Steel reinforcement as described including cutting to length, bending, hoisting and fixing including all necessary tying wires and spacing blocks (all provisional)</u>				
A	8mm diameter High tensile round ribbed bars	85	KG		
B	Ditto but 16mm diameter.	-	KG		
C	16mm diameter ditto	209	KG		
D	16mm diameter ditto	-	KG		
D	8mm diameter ditto	21	KG		
		-	KG		
		6	KG		
		-			

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b><u>ELEMENT NO. 3</u></b>				
	<b><u>WALLING</u></b>				
A	200 mm wide approved quality 3-ply bituminous felt damp proof course under walls	54	LM		
	<b><u>External Walling</u></b>				
	<u>Smooth chisel dressed natural stone walling in cement and sand (1:4) mortar reinforced with and including 25 x 3mm thick hoop iron in every alternate course</u>				
B	200mm Thick walling	130	SM		
	<b><u>Internal Walling</u></b>				
C	200 mm wide approved quality 3-ply bituminous felt damp proof course under walls	15	LM		
	<u>Smooth chisel dressed natural stone walling in cement and sand (1:4) mortar reinforced with and including 25 x 3mm thick hoop iron in every alternate course</u>				
D	200mm Thick walling	3	SM		
E	150mm Thick walling	36	SM		
	<b>TOTAL FOR ELEMENT NO. 3 (WALLING) CARRIED TO SUMMARY</b>				



ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b><u>ELEMENT NO. 4</u></b>				
	<b><u>ROOFING</u></b>				
A	Approved IT5 roofing sheets laid in accordance to pertinent drawings	280	SM		
B	Ridge cap and hip cap to match roof covering	32	LM		
C	Gauge 26 galvanized iron valley gutter 750mm girth	1	LM		
	<b><u>STRUCTURAL STEEL CONSTRUCTION</u></b>				
	<i>1. Prices shall include for unloading, hoisting and fixing in position including requisite staging for erection.</i>				
	<i>2. Allow for factory priming in lead oxide and touching up the priming on site later</i>				
	<i>3. Prices should allow for fillet weld and welded connections</i>				
	<u>The following in Steel Trusses including hoisting and fixing in position 9m above ground floor</u>				
D	25 x 25 x 2mm Thick SHS purlins	320	LM		
E	50 x 50 x 3mm. Thick SHS external members	168	LM		
F	50 x 25 x 3mm. Thick RHS internal members	80	LM		
	Carried to Collection				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b><u>ROOFING - (CONTINUED)</u></b>				
	<u>Steel Fascia</u>				
A	250mm wide mild steel fascia welded to lattice girders.	80	LM		
	<b><u>Rain water goods</u></b>				
	<u>Gutters</u>				
B	175 x 150mm galvanized iron gutter gauge 24 fixed to steel fascia (m/s) with and including approved steel brackets at 1000mm centres	64	LM		
	<u>Downpipe</u>				
C	100 mm diameter galvanized iron downpipe gauge 24 fixed to wall with and including holder butts at 1000mm centres	12	LM		
D	Extra over downpipe for swanneck 1200mm long	5	NO		
E	Ditto horse shoe 500 mm long	5	NO		
	<u>Decoration and painting</u>				
	<u>Knot, stain prepare and apply three coats gloss oil paint to:</u>				
F	Surfaces of steel fascia 200-300mm girth	80	LM		
G	General surfaces of metal gutters	64	LM		
H	Surfaces of large pipes	22	LM		
	Carried to Collection				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<p><b><u>COLLECTION</u></b></p> <p>FROM PAGE BW/8</p> <p>FROM PAGE BW/9</p>				
	<p><b>TOTAL FOR ELEMENT NO. 4      CARRIED TO</b></p> <p><b>(ROOFING)                              SUMMARY</b></p>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b><u>ELEMENT NO. 5</u></b>				
	<b><u>DOORS</u></b>				
	<u>Steel Doors</u>				
A	25mm thick Steel panel door overall size 1500 x 2400mm high with 150 x 50mm top, bottom and middle rail.	4	NO		
B	25mm thick Steel panel door overall size 900 x 2400mm high with 150 x 50mm top, bottom and middle rail.	4	NO		
	<u>Flush doors</u>				
C	45mm thick semi - solid core flush door overall size 900 x 2400mm high, faced both sides with 6 mm interior quality mahogany and lipped on all edges including 900 x 300 x 6mm thick clear glass fanlight.	3	NO		
	<u>Wrot cypress or other equal and approved :-</u>				
D	100mm x 50mm Frame with two labours plugged	15	LM		
E	45 x 38mm architrave	15	LM		
F	25mm diameter quadrant	15	LM		
	<u>Supply and fix the following ironmongery with screws to match.</u>				
G	2-Lever mortice lock and set furniture	3	NO.		
H	100mm aluminium butts hinges	5	PRS		
	<b>Carried to Collection</b>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b><u>DOORS - (CONTINUED)</u></b>				
A	Prepare and apply three coats wood preservative primer to backs of timber frame not exceeding 100mm girth  <u>Knot, stain, prime, prepare and apply three coats clear polyurethane varnish to:</u>	15	LM		
B	General surfaces of timber  <u>Knot, prime, prepare and apply three coats gloss oil paint to:</u>	13	SM		
C	General surfaces of metal doors	17	SM		
	<b>Carried to Collection</b>				
	<u>COLLECTION</u>				
	FROM PAGE 1/8				
	FROM ABOVE				
	<b>TOTAL FOR ELEMENT NO. 5      CARRIED TO</b>				
	<b>(DOORS)                                      SUMMARY</b>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<p><b><u>ELEMENT NO. 6</u></b></p> <p><b><u>WINDOWS</u></b></p> <p>A 250 x 25mm Precast concrete window cill bedded and jointed with cement and sand (1:3) mortar</p> <p><u>Supply &amp; fix the following purpose made steel casement windows fabricated from standard sections complete with frames, mullions and transomes including all necessary locking and window stays, screws, nuts and burglar proof grills to architect's detail once shop primed before delivery to site</u></p> <p>B Steel casement window size 1200 x 600mm high</p> <p>C Ditto size 800 x 600mm high</p>	<p>33</p> <p>20</p> <p>1</p>	<p>LM</p> <p>NO</p> <p>NO</p>		
	<b>Carried to Collection</b>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b><u>WINDOWS - (CONTINUED)</u></b>				
	<u>4mm Thick one glass and glazing fixed with and including putty to steel windows</u>				
A	Panes 0.1 - 0.5 square metres	13	SM		
	<u>4mm Thick obscure glass and glazing fixed with and including putty to steel windows</u>				
B	Panes 0.1 - 0.5 square metres	1	SM		
	<u>Prepare and apply three coats gloss oil paint to:</u>				
C	General surfaces of metal windows (measured both ways)	15	SM		
	<b>Carried to Collection</b>				
	<b><u>COLLECTION</u></b>				
	FROM PAGE 1/13				
	FROM ABOVE				
	<b>TOTAL FOR ELEMENT NO. 6 CARRIED TO</b>				
	<b>(WINDOWS) SUMMARY</b>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b><u>ELEMENT NO. 7</u></b>				
	<b><u>EXTERNAL FINISHES</u></b>				
	<u>12mm thick 2 coat gauged Lime (1:2:9) plaster to:</u>				
A	General surfaces of walls	130	SM		
	<u>Prepare and apply three coats of first grade silk vinyl emulsion paint to:</u>				
B	General surfaces of walls	130	SM		
	<b>TOTAL FOR ELEMENT NO. 7</b>				
	<b>(EXTERNAL FINISHES)</b>				
	<b>CARRIED TO SUMMARY</b>				



ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b><u>ELEMENT NO. 8</u></b>				
	<b><u>INTERNAL FINISHES</u></b>				
	<b><u>FLOORS</u></b>				
	<u>Cement and sand (1:4) screeding smooth trowelled</u>				
A	28mm Thick to receive ceramic floor tiles (m.s)	353	SM		
	<u>Non-Slip ceramic floor tiles</u>				
B	Size 300 x 300 x 12mm thick	353	SM		
C	100 x 20mm Thick skirting	81	LM		
	<b>Carried to Collection</b>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b><u>INTERNAL FINISHES - (CONTINUED)</u></b>				
	<b><u>CEILING</u></b>				
A	50 X 50mm celcured cypress timber brandering	539	LM		
B	Ditto but plugged	81	LM		
C	10mm thick GYPSUM ceiling nailed to timber brandering (m/s)	88	SM		
D	Extra over gypsum ceiling for trap door size 600 x 450mm wide comprising with and including 50 x 50mm timber framing	3	NO		
E	100 x 25mm Thick wrot softwood moulded cornice	81	LM		
	<u>Prepare and apply three coats first grade plastic emulsion paint to:</u>				
F	Celotex ceiling surfaces	88	SM		
G	Timber surfaces not exceeding 100mm girth	81	LM		
	<b>Carried to Collection</b>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<b><u>INTERNAL FINISHES - (CONTINUED)</u></b>				
	<b><u>WALL FINISHES</u></b>				
A	15 mm thick cement sand (1:3) backing to walls to receive coloured glazed tiles  <u>Coloured glazed ceramic tiles bedding and jointing in cement and sand (1:3) mortar and flush pointed with white cement:</u>	46	SM		
B	150 x 150 x 6mm Thick tiles  <u>12mm Thick cement and sand (1:3) plaster to:</u>	46	SM		
C	Natural stone wall surfaces  <u>Prepare and apply three coats first grade plastic emulsion paint to:</u>	136.00	SM		
D	Plastered walls surfaces	436	SM		
	<b>Carried to Collection below</b>				
	<b><u>COLLECTION</u></b>  FROM PAGE 1/16  FROM PAGE 1/17  FROM ABOVE				
	<b>TOTAL FOR ELEMENT NO. 8</b>				
	<b>(INTERNAL FINISHES)</b>				
	<b>CARRIED TO SUMMARY</b>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
A	<p><b><u>ELEMENT NO. 9</u></b></p> <p><b><u>ELECTRICAL WORKS</u></b></p> <p>The following provisional items are to be measured on completion of the works and priced in accordance with rates contained in these Bills of Quantities or pro-rata thereto or deducted in whole if not required.</p> <p>Allow a provisional sum of Kenya Shillings one hundred thousand (Kshs 100,000.00)for Electrical Installations</p>		SUM		
	<p><b>TOTAL FOR ELEMENT NO. 9 CARRIED TO</b> <b>(ELECTRICAL WORKS) SUMMARY</b></p>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
A	<p><b><u>ELEMENT NO. 10</u></b></p> <p><b><u>MECHANICAL WORKS</u></b></p> <p><u>The following provisional items are to be measured on completion of the works and priced in accordance with rates contained in these Bills of Quantities or pro-rata thereto or deducted in whole if not required.</u></p> <p>Allow a provisional sum of Kenya Shillings six hundred thousand (Kshs 600,000.00) for Mechanical works</p>		SUM		
	<p><b>TOTAL FOR ELEMENT NO. 10      CARRIED TO</b>  <b>(MECHANICAL WORKS)              SUMMARY</b></p>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
A	<p><b><u>ELEMENT NO. 11</u></b></p> <p><b><u>CIVIL WORKS</u></b></p> <p><u>The following provisional items are to be measured on completion of the works and priced in accordance with rates contained in these Bills of Quantities or pro-rata thereto or deducted in whole if not required.</u></p> <p>Allow a provisional sum of Kenya Shillings Fifty thousand (Kshs 50,000.00)for Civil Works</p>		SUM		
	<p><b>TOTAL FOR ELEMENT NO. 11 CARRIED TO</b> <b>(CIVIL WORKS ) SUMMARY</b></p>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<p><b><u>ELEMENT NO. 12</u></b></p> <p><b><u>PROJECT MANAGEMENT EXPENSES</u></b></p> <p>The following provisional items are to be measured on completion of the works and priced in accordance with rates contained in these Bills of Quantities or pro-rata thereto or deducted in whole if not required.</p> <p>Allow a provisional sum of Kenya Shillings four hundred thousand (Kshs 400,000.00) for Project Management Expenses</p>		SUM		
	<p><b>TOTAL FOR ELEMENT NO. 12</b></p> <p><b>(PROJECT MANAGEMENT EXPENSES)</b></p>				<p><b>CARRIED TO</b></p> <p><b>SUMMARY</b></p>

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
A	<p><b><u>ELEMENT NO. 13</u></b></p> <p><b><u>WORKTOP INSTALLATION</u></b></p> <p><u>WORKTOP INSTALLATION</u></p> <p>Fabricate, deliver and install on site laboratory worktop overall size 2500 x 900 x 1100mm high as per architect's details with approved formica laminate blockboard mounted on 50 x 50 x 3mm SHS steel sections fixed to concrete floor with and including all necessary holes to receive laboratory sinks measured separately.</p>	3	NO		
	<p><b>TOTAL FOR ELEMENT NO. 13 (WORKTOP INSTALLATION)</b></p>				<p><b>CARRIED TO SUMMARY</b></p>



ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
A	<p><b><u>ELEMENT NO. 14</u></b></p> <p><b><u>CONTINGENCIES</u></b></p> <p>The following provisional items are to be measured on completion of the works and priced in accordance with rates contained in these Bills of Quantities or pro-rata thereto or deducted in whole if not required.</p> <p>Allow a provisional sum of Kenya Shillings one hundred thousand (Kshs 100,000.00) for Contingencies</p>		SUM		
	<p><b>TOTAL FOR ELEMENT NO. 14 (CONTINGENCIES)</b></p>				<p><b>CARRIED TO SUMMARY</b></p>

ITEM	DESCRIPTION				AMOUNT
	<b><u>SUMMARY</u></b>				
1	<b>SUBSTRUCTURES .....</b>				
2	<b>REINFORCED CONCRETE SUPERSTRUCTURE.....</b>				
3	<b>WALLING .....</b>				
4	<b>ROOFING .....</b>				
5	<b>DOORS .....</b>				
6	<b>WINDOWS .....</b>				
7	<b>EXTERNAL FINISHES .....</b>				
8	<b>INTERNAL FINISHES .....</b>				
9	<b>ELECTRICAL WORKS .....</b>				
10	<b>MECHANICAL WORKS .....</b>				
11	<b>CIVIL WORKS .....</b>				
12	<b>PROJECT MANAGEMENT EXPENSES.....</b>				
13	<b>WORKTOP INSTALLATION.....</b>				
14	<b>CONTINGENCIES.....</b>				
	<b>TOTAL CARRIED GRAND SUMMARY</b>				

**GRAND SUMMARY**

**PROPOSED FABRICATION OF CLASSROOM AND LABORATORY AT RAMOGI  
INSTITUTE OF ADVANCED TECHNOLOGY - KISUMU**

**GRAND SUMMARY**

ITEM	DESCRIPTION	AMOUNT (KSHS)	AMOUNT (KSHS)
1	General Preliminaries		
2	Builders Works		
<b>GRAND TOTAL</b>			

**Amount of tender in words: Kenya Shilings.....**  
 .....

**Tenderer's signature and stamp.....**

**Address.....**

**Date.....**

**Witness: Name and signature.....**

**Address.....**

**Date.....**