

**3-UNIT CLASSROOM BLOCK WITH ANCILLARY
FACILITIES FOR KPENOE BASIC SCHOOL**

Item	Description	Qty	Unit	Rate	Total GH¢
	<u>BILL NO. 1</u>				
	<u>GENERAL ITEMS (PRELIMINARIES)</u>				
	(The Contractor is free to price for additional items under Preliminaries not included in the List below)				
	<u>A: GENERAL CONDITIONS</u>				
	<u>EMPLOYER'S REQUIREMENTS</u>				
A	On-site Administration	1	Item		
B	Site Meeting and Monitoring of the works	1	Item		
C	Progress Photographs	1	Item		
D	Provide adequate security at site	1	Item		
E	Project Drawing	1	Item		
F	Insurances of works	1	Item		
G	Performance Security	1	Item		
H	Testing of materials	1	Item		
	<u>ACCURACY/SETTING OUT GENERALLY</u>				
J	Setting out of the works	1	Item		
	<u>Facility/Temporary work/Services</u>				
K	Name or sign board	1	Item		
L	Telephone/Facsimile facilities	1	Item		
	<u>A40 Contractor's General Cost Items: Management and Staff</u>				
M	Provide for general and trade supervision	1	Item		
	<u>A41 Contractor's General Cost Items: Site Accommodation</u>				
N	Site accommodation for workers	1	Item		
	<u>PRELIMINARIES/GENERAL CONDITIONS</u>				
	<u>CARRIED FORWARD</u>				
		GH¢			

Item	Description	Qty	Unit	Rate	Total GH¢
	BROUGHT FORWARD				
	<u>A42 Contractor's General Cost Items: Services and facilities</u>				
A	Power for works	1	Item		
B	Lighting	1	Item		
C	Water for works	1	Item		
D	Health and safety protectives	1	Item		
E	Storage of materials	1	Item		
F	Clearing and disposal of general waste after construction	1	Item		
G	Protection of work in all sections	1	Item		
H	EPA	1	Item		
J	Fire Permit	1	Item		
K	Small plants and tools	1	Item		
	<u>A43 Contractor's General Cost Items: Mechanical plant</u>				
L	Personnel transport	1	Item		
M	Concrete plant	1	Item		
	<u>A44 Contractor's General Cost Items: Temporary Works</u>				
N	Support scaffolding and propping	1	Item		
	<u>A53 Work by Statutory Authorities</u>				
P	Work by Statutory Authorities	1	Item		
	<u>BILL NO. 1</u>				
	<u>GENERAL ITEMS (PRELIMINARIES)</u>				
	Carried to General Summay				

Item	Description	Qty	Unit	Rate	Total GH¢
	<u>BILL NO. 2</u>				
	<u>3-UNIT CLASSROOM BLOCK WITH ANCILLARY FACILITIES FOR KPENOE BASIC SCHOOL</u>				
	<u>SUBSTRUCTURE</u>				
	<u>D10 EARTH WORKS</u>				
	<u>Site Preparation</u>				
A	Clear Site of all bush and undergrowth and dispose from site	380	m ²		
B	Cut off trees girth 0.60m ≤ 1.50mm girth	2	No.		
C	Cut off trees girth exceeding 1.50m girth	3	No.		
	<u>Excavation and Earthworks</u>				
D	Excavate oversite to remove topsoil average 150mm deep	200	m ²		
E	Excavate trench not exceeding 1.50 metres deep commencing 150mm below ground level	58	m ³		
F	Excavate pit not exceeding 1.5 metres deep ditto	28	m ³		
G	Extra over all kinds of excavation for excavating in rock	3	m ³		
H	Return, fill in and well ram selected excavated material around foundation	65	m ³		
J	Remove surplus excavated material from site	69	m ³		
	<u>Hardcore as described, spread, levelled and well rammed and consolidated</u>				
K	Filling in layers not exceeding 225mm thick in making up levels under floors	170	m ³		
	<u>E10: IN-SITU CONCRETE</u>				
	<u>Plain in-situ concrete (1:4:8-20mm aggregate) in;</u>				
L	50mm thick blinding	1	m ³		
	<u>Plain in-situ concrete (1:4:8-20mm aggregate) in;</u>				
M	Foundation	15	m ³		
M	Step and Ramp	2	m ³		
P	150mm thick floor bed spread and leveled	41	m ³		
	C/F				

Item	Description	Qty	Unit	Rate	Total GH¢
	B/F				
	<u>Reinforced in-situ vibrated concrete (1:2:4-20mm aggregate) as described filled into formwork and packed around reinforcement (both measured separately)</u>				
A	Column base	7	m ³		
B	Column	2	m ³		
C	Ground beam	5	m ³		
	<u>E30: REINFORCEMENT FOR IN-SITU CONCRETE</u>				
	<u>Supply and fix as described the following mild steel round bar reinforcement with and including all necessary binding wire:</u>				
	<u>Colmn Bases</u>				
D	12mm diameter bars in column base	366	Kg.		
	<u>Column</u>				
E	16mm diameter bars in column	354	Kg.		
F	10mm diameter bars as stirrups	70	Kg.		
	<u>Ground beam</u>				
G	12mm diameter bars in column	440	Kg.		
H	10mm diameter bars as links	96	Kg.		
	<u>BRC Mesh Reinforcement; BS 4483, hard drawn plain round steel, welded</u>				
J	Steel fabric reinforcement Ref. No. A142 and fixing in bed with 200mm minimum side and end laps (measured net - no allowance made for laps)	270	m ²		
	<u>E20: FORMWORK FOR IN-SITU CONCRETE</u>				
	<u>Sawn formwork as described to:</u>				
K	Vertical side of column	34	m ²		
L	Sides of horizontal beam	94	m ²		
M	Vertical side of step	1	m ²		
N	Edge of bed 150mm wide	76	m		
P	Edge of riser 150mm wide	24	m		
	C/F				

Item	Description	Qty	Unit	Rate	Total GH¢
	B/F				
	<u>F10:BRICK/BLOCK WALLING</u>				
	<u>Sandcrate,lightweight aggregate blocks, 450mm x 225mm,solid; compressive strength 2.5N/mm2 in cement mortar (1:4)</u>				
A	150mm thick wall	180	m ²		
	<u>M20:PLASTERING/RENDERED/ROUGHCAST COATINGS</u>				
	<u>Mortar,cement and sand (1:4);steel trowelled</u>				
B	12mm Cement and sand render to wall	70	m ²		
	<u>M60:PAINTING/CLEAR FINISHING</u>				
	<u>Prepare and apply three coats of Acrylic emulsion paint on:</u>				
C	Prepare and apply three coats of emulsion paint on rendered wall	70	m ²		
	<u>Surface Treatment</u>				
D	Treat all surfaces of excavation and filling with anti - termite treatment before laying concrete (Dieldrex anti-termite treatment to foundations)	1	Item		
	<u>J20: WATER PROOFING</u>				
	<u>J31: Transparent polythene sheet</u>				
E	Transparent polythene sheet; to soffit of concrete slab	270	m ²		
F	Allow a provisional sum of Eight Thousand Ghana Cedis (GH¢ 8,000.00) for any additional works that may arise from earth works.	1	Item		
	<u>SUBSTRUCTURE</u>				
	Carried to Summary				

Item	Description	Qty	Unit	Rate	Total GH¢
	<u>SUPERSTRUCTURE</u>				
	<u>IN-SITU CONCRETE/LARGE PRECAST CONCRETE</u>				
	<u>Reinforced in-situ vibrated concrete (1:2:4-20mm aggregate) as described filled into formwork and around reinforcement (both measured separately)</u>				
A	Horizontal beam	6	m ³		
B	Column	4	m ³		
	<u>E30:REINFORCEMENT FOR IN-SITU CONCRETRE</u>				
	<u>Mild steel round bar reinforcement to BS4449 in:</u>				
	<u>Supply and fix as described the following mild steel round bar reinforcement with and including all necessary binding wire</u>				
	<u>Column</u>				
C	Straight or bent, 16mm diameter	707	kg		
D	Links, 10mm diameter	138	kg		
	<u>Beam</u>				
E	Straight or bent, 16mm diameter	897	kg		
F	Links, 10mm diameter	287	kg		
	<u>E20:FORMWORK FOR IN-SITU CONCRETE</u>				
	<u>Sawn Formwork to:</u>				
G	Column	89	m ²		
H	Beam	72	m ²		
	<u>CONCRETE WORK</u>				
	Carried to Summary				
	<u>MASONRY</u>				
	<u>Sandcrate, lightweight aggregate blocks, 450mm x 125mm, solid; compressive strength 2.5N/mm² in cement mortar (1:4)</u>				
J	125mm Wall	389	m ²		
K	75mm thick honey comb wall	2	m ²		
	<u>BLOCKWORK</u>				
	Carried to Summary				

Item	Description	Qty	Unit	Rate	Total GH¢
<u>CLADDING/COVERING</u>					
<u>H72: ALUMINIUM SHEET COVERING/FLASHINGS</u>					
<u>Corrugated aluminium roofing sheet; standard profile; 0.30mm gauge, two corrugations side laps, 150mm end laps; bedded with mastic sealing strips</u>					
A	Roofing coverings; fixing to timber purlins at 1050mm general spacing with roofing nails; pitch 45 degrees	614	m ²		
B	Preformed Ridge Capping; preformed, 600mm girth; 150mm lapped joints; fixing to timber with nails.	32	m		
<u>COVERING</u>					
Carried to Summary					
<u>STRUCTURAL/CARCASSING METAL/TIMBER</u>					
<u>G20: CARPENTRY/TIMBER FRAMING/FIRST FIXING</u>					
<u>Hardwood; treated with preservative; sawn</u>					
C	50 x 150mm Ridge Board	30	m		
E	50 x 100mm Rafters	493	m		
F	50 x 75mm Purlins	535	m		
G	50 x 50mm Noggings	618	m		
H	50 x 50mm Hangers	98	m		
<u>The following in 7No. Hardwood Trusses, with span over 9.0m. but not exceeding 12.0m. overall height 4.0m. above ground level including hoisting into position</u>					
J	50x150mm Top chord	66	m		
K	50x150mm Bottom chord	50	m		
L	50x100mm Struts and ties	88	m		
C/F					

Item	Description	Qty	Unit	Rate	Total GH¢
	B/F				-
	<u>Carpenter's Metalwork</u>				
A	16mm Diameter mild steel rag bolt, 250mm long cast in concrete	24	No		
B	100x100mm Equal angle plate, bolted	6	No		
	CARPENTRY				
	Carried to Summary				
	<u>JOINNERY/METAL WORKS</u>				
	<u>WINDOWS/DOORS/STAIRS</u>				
	<u>Eaves and verge boarding</u>				
	<u>Wrought hardwood as described</u>				
C	25 x 275mm fascia board	79	m		
	<u>L20: TIMBER DOORS/SHUTTERS/HATCHES</u>				
	<u>Doors in hardwood; treated with preservative; wrought</u>				
D	44mm thick (finished) hardwood panel; Size 1500 x 2050mm	3	No.		
E	Ditto: size 900 x 2050mm	4	No.		
	<u>Door and window frames in hardwood; treated with preservative; wrought</u>				
F	50 x 150mm hardwood frame plugged to wall	168	m		
	<u>Fillet, etc</u>				
G	12mm x 50mm Planted door stops	34	m		
H	12 x 50mm Window stoper	125	m		
J	25mm x 14mm thick Cover Battern	92	m		
K	Ceilling Battern	280	m		
	<u>Ironmongery</u>				
	<u>Supply and fix the following ironmongery to hardwood with matching screws</u>				
L	100mm Mortice lock set	2	No		
M	High quality Pad lock	6	No		
N	Hasp and staple	6	No		
P	Pair 100mm Brass butt hinges	9	No		
Q	Pair 75mm Brass butt hinges	6	No		
R	100mm Brass barrel bolt	12	No		
	<u>JOINERY</u>				
	Carried to Summary				

Item	Description	Qty	Unit	Rate	Total GH¢
	<u>METALWORK</u>				
	<u>Nasco' anodised aluminium louvre carriers and fittings as produced and marketed by Messers PASICO Gh. Limited, or equal approved in approved mastic sealers and screwed to hardwood:</u>				
A	Pair Ditto 1143mm long with clip for 8No. 150mm blades	24	No.		
B	16mm diameter mild steel burglar proof bar	399	Kg		
	<u>Mild steel</u>				
C	2.5mm x 5mm x 50mm mild steel square welded mesh	38	m ²		
	<u>Sundries</u>				
D	Nylon mosquito proof woven plastic gauze cut to size and fixed to hardwood frame with battens (measured separately)	38	m ²		
	<u>METALWORK</u>				
	Carried to Summary				
	<u>ELECTRICAL INSTALLATIONS</u>				
	<u>ELECTRICAL</u>				
E	Include a provisional sum of GHC10,000.00 for work in connection power from the National Grid to the facility and its associated works.	1	Sum		
	<u>The rates inserted in the section of the bill of Quantities are to include all cost associated with the material, handling, fixing and contractor's mark-up.</u>				
F	To supply and install electrogalvanised metalclad, Distribution board with 12-Way 1 incoming 100A TPN Adjustable MCCB, CT's Indicating light, metering panel, cable termination, with outgoing as per specification and Drawings. Include surge arrestor.	1	No.		
G	Supply and install 100A RCD Circuit Breaker	1	No.		
	<u>CABLES AND ACCESSORIES</u>				
H	1.5mm tropical cables for lighting systems (Red and Black)	240	m		
J	2.5mm tropical cable for electrical sockets (Red, Black and Yellow)	360	m		
	<u>Supply, fix and connect the following complete with all accessories</u>				
K	1.4m Sweep ceiling fan complete with multi-speed regulator as Crompton Greaves or approved equivalent	8	No.		
	C/F				

Item	Description	Qty	Unit	Rate	Total GH¢
	B/F				-
	<u>LUMINAIRES</u>				
	Supply, install and connect the following luminaires with all Necessary accessories complete (lamps, attachment etc.)				
A	1200mm long florescent frame with bulb and associated fittings	17	No.		
	<u>FLUSH PLATE SWITCHES</u>				
B	6 Amp; 1 Gang ; 2 way; single pole switch	5	No.		
C	6 Amp; 2 Gang ; 2 way; single pole switch	5	No.		
D	6 Amp; 3 Gang ; 2 way; single pole switch	5	No.		
	<u>SOCKETS</u>				
E	13Amp; 2 Gang socket	24	No.		
	<u>CONDUIT</u>				
F	PVC pipes in wall	240	m		
G	75mm x 75mm conduit box	15	No.		
H	75mm x 150mm conduit box	24	No.		
J	4way Circular conduit box	30	No.		
K	Supply and install suitable earthing system for the above installation	1	Item		
	<u>ELECTRICAL INSTALLATIONS</u>				
	Carried to Summary				
	<u>GLAZING</u>				
L	150mm wide plain/obscre glass louvre blade with slightly round long exposed edges and into metal clip 900mm long clip	336	No.		
	Glazing Carried to Summary				

Item	Description	Qty	Unit	Rate	Total GH¢
	<u>M20:PLASTERING/RENDERED/ROUGHCAST COATINGS</u>				
	<u>PLASTERWORK AND OTHER FLOOR, WALL, AND CEILING FINISHINGS</u>				
	<u>In-situ finishings 12mm Cement and sand render (1:4) on concrete and blockwork</u>				
A	Wall	572	m ²		
B	Column	8	m ²		
	<u>25mm Cement and sand render (1:3) on concrete and blockwork</u>				
C	Wall, as writing board	9	m ²		
	<u>Plain sheet finishings</u>				
D	6mm Plywood (Redwood) ceiling lining, fixed to horizontal soffits of hardwood noggings and joists	270	m ²		
	<u>Beds and backings</u> <u>Cement and sand (1:3) as described on blockwork or concrete</u>				
E	50mm Level paving, trowelled smooth	258	m ²		
	<u>PLASTERWORK AND OTHER FLOOR WALL AND CEILING FINISHINGS</u>				
	Carried to Summary				
	<u>PAINTING AND DECORATING</u>				
	<u>Prepare and apply one under coat as skimming to wall :</u>				
F	Skimming to wall	376	m ²		
G	Prime back only joinery before fixing	68	m ²		
	<u>Prepare and apply three coats of Acrylic emulsion paint on:</u>				
H	Rendered wall	376	m ²		
J	Soffits of plywood ceiling	270	m ²		
	<u>Knot, prime, stop and paint two undercoats and one finishing coat of leyland/leylac oil paint on woodwork</u>				
K	General surfaces	52	m ²		
L	Surfaces not exceeding 300mm girth	20	m ²		
M	Approved writing board paint on rendered walls	18	m ²		
	<u>PAINTING AND DECORATING</u>				
	Carried to Summary				

Item	Description	Qty	Unit	Rate	Total GH¢
	<u>SUMMARY</u> <u>BILL NO. 2</u> <u>3-UNIT CLASSROOM BLOCK WITH ANCILLARY</u> <u>FACILITIES FOR KPENOE BASIC SCHOOL</u>				
	SUBSTRUCTURE				
	CONCRETEWORK				
	BLOCKWORK				
	ROOFING				
	CARPENTRY				
	JOINERY				
	METALWORK				
	ELECTRICAL INSTALLTION				
	GLAZING				
	PLASTERWORK AND OTHER FLOOR WALL AND CEILING FINISHINGS				
	PAINTING AND DECORATING				
	<u>BILL NO. 2 - 3-UNIT CLASSROOM BLOCK WITH</u> <u>ANCILLARY FACILITY</u>				
	Carried to General Summary				
	<u>BILL NO. 4 EXTERNAL WORKS</u> <u>APRON</u>				

Item	Description	Qty	Unit	Rate	Total GH¢
	<u>Excavation and Earthworks</u>				
A	Excavate trench not exceeding 1.50m metres deep commencing 150mm below ground level	9	m ³		
B	Return, fill in and well ram selected excavated material around foundation	3	m ³		
C	Remove surplus excavated material from site	6	m ³		
	<u>Hardcore as described, spread, levelled and well rammed and consolidated</u>				
D	Filling in layers not exceeding 225mm thick in making up levels under floors.	17	m ³		
	<u>Concrete Work</u>				
E	Plain in-situ concrete (1:3:6-40mm aggregate) as described foundation in trenches	4	m ³		
F	Concrete Slab	3	m ³		
	<u>Formwork</u>				
	Sawn formwork to				
G	Edge of slab, 100mm wide	36	m		
	<u>Blockwork</u>				
	<u>Sandcrete blockwork in cement and sand (1:4) mortar</u>				
H	125mm thick solid wall	37	m ²		
J	20mm Cement and sand render to wall	25	m ²		
K	Prepare and apply three coats of emulsion paint on rendered wall	25	m ²		
	<u>BILL NO.4: EXTERNAL WORKS (APRON)</u>				
	Carried to General Summary				

Item	Description	Qty	Unit	Rate	Total GH¢
	<u>GENERAL SUMMARY</u>				
	BILL NO.1 - GENERAL CONDITIONS OF CONTRACT AND PRELIMINARIES				
	BILL NO.2 -3-UNIT CLASSROOM BLOCK				
	BILL NO.3 - EXTERNAL WORKS (APRON)				
	SUB-TOTAL				
	Add: Contingencies..... 2%				
	<u>TOTAL</u>				
	COST CARRIED TO FORM OF TENDER				