



BILL OF QUANTITIES FOR CONSTRUCTION OF PROPOSED 1 BLOCK OF 2 PERMANENT CLASSROOMS IN KAKUMA REFUGEE CAMP.

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	SUBSTRUCTURE				
	EXCAVATION AND EARTHWORKS				
	SITE PREPARATION				
	<i>Clearing site vegetation;grabbing up roots and filling up voids left with selected materials</i>				
A	Bushes ,shrubs, undergrowth or the like and cartaway from site	160.0	SM		
	EXCAVATIONS				
	<i>Excavating trenches ; to receive foundations starting from reduced level</i>				
C	Not exceeding 1.2m deep	48.96	CM		
D	Excavate for column bases size 400x400x200mm , 100 by 100mm by 4mm thick RHS to be used as columns to support the structure 26 nos.	0.512	CM		
E	Ditto for Dia 75 mm x 4mm thick CHS pillars at the veranda	1	CM		
	Carried to collection				-

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>DISPOSAL</u>				
	<u>FILLING</u>				
	<u>MURRUM</u>				
B	Blinding surface of fill 50mm thick	142.8	SM		
	<u>HARDCORE</u>				
C	300mm thick hardcore filling, well watered and compacted in layers not exceeding 150mm, to Engineer's approval.	42.8	CM		
	ANT-TERMITEAND HERBICIDE TREATMENT				
	<i>Apply "termidor 25 EC" solutions or other equal and approved sprayed evenly</i>				
E	To surface of fill and tops of foundation wall	142.8	SM		
	<u>CONCRETE WORK</u>				
	INSITU CONCRETE:				
	<u>Plain concrete Class X (1:4:8)</u>				
F	Blinding to strip foundations	2.46	CM		
	<u>Normal:class 20/20mm) vibrated (1:2:4) as described in</u>				
G	200mm thick Strip foundations	9.84	CM		
	Supply and fix high tensile reinforcement bars; cold worked to BS 4461 (provisional) for the Ground beam and lintel.				
H	12mm diameter Ribbed steel bars	310	KGS		
	8mm diameter bars	130	KGS		
I	300mm thick reinforced vibrated concrete class 20/20 ground beam.	6	CM		
J	Stud columns and column bases, Class (20/20) reinforced vibrated concrete	2.2	CM		
K	150mm thick ground floor slab, class (20/20) reinforced BRC mesh A142 reinforced vibrated concrete	20.4	CM		
	Carried to collection				-

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>REINFORCEMENT</u> Supply and fix bars reinforcement with 200c/c spacing including bending hooks, tying wire, cutting spacers and supporting in all positions as described in;				
A i	10mm Diameter deformed bars in foundation strip	305.04	KG		
ii	12mm Diameter deformed bars in columns and column bases	156.06	KG		
iii	Ditto but 8mm diameter for reinforcement links for columns	62.4	KG		
	<u>fabrics B.S 4483</u> Refernce No. A142; mesh 200X200mm weight 2.22kgper square meter (including laps,typing wire spacer blocks in location measured Net)	136	SM		
	<u>SAWN FORMWORK TO INSITU CONCRETE AS DESCRIBED</u>				
C (i)	Sides of columns and column bases	32	SM		
(ii)	Edges of the floor bed and beams 75 to 150mm wide	30	SM		
	<u>FOUNDATION WALLING</u> <i>Load bearing natural stones from approved quarry of minimum crushing strength 7N/mm2 built to courses in cement/sand (1:4) sand mortar as described in:-</i> 200mm thick approved natural stone, roughly squared, laid over mortar (1:4) reinforced with hoop iron 500 gauge in every alternate course. Foundation not exceeding 1500mm deep.	75.9	SM		
	Carried to collection				-

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	DAMP PROOF MEMBRANES Polythene , 1000 gauge, or other equal and approved plastic sheet laid over blinding (measured separately-allow for laps)				
A	Horizontal 1No of layer(s) overlap, 300mm wide	142	SM		
B	200 mm wide DPC	50.6	LM		
	Carried to collection				
	<u>COLLECTION</u>				
	Brought forward from SPC/ 1				
	Brought forward from SPC/ 2				
	Brought forward from SPC/ 3				
	From above				
	TOTAL SUBSTRUCTURE CARRIED TO SUMMARY				

SPC/ 4

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>WALLING</u>				
	<u>CARPENTRY</u>				
	<u>STRUCTURAL TIMBERS</u>				
	Wrot cypress prime grade ,pressure impregnated				
A	100mm x50mm Base plate fastened to masonry walls with hoop iron gauge 500 at 600mm intervals.	32	LM		
D	75mm diameter 3m Long CHS pillars @ 2700mm centres cast in class Q Mass concrete to support roof	7	NO		
E	Steel casement window made of 25 x 25 x 2 mm G18 metal sheet panelled on side sashes and fixed gridded middle sash of 100 mm spacing grills with all necessary iron mongery, permanent vent with mosquito gauze and sheet hood assembled and fixed to opening including cutting and pinning to concrete or blockwork surround and bedding frame in cement sand (1:4) SEE ATTACHED DRAWING. Supply and fix steel casement windows (measuring 1,800 x 1,500 mm inclusive frame) with high quality windle hinge fasteners.	12000.00	NO		
	<i>Load bearing natural stones from approved quarry of minimum crushing strength 7N/mm2 built to courses in cement/sand (1:4) sand mortar as described in:-</i>				
F	200mm thick approved natural stone,well dressed laid over mortar (1:4) reinforced with hoop iron 500 gauge in every alternate course, 1800mm high on rare and front elevations and 3m high on the gable and walls	141.68	SM		
	Total wall carried to summary				-

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
<u>ROOFING</u>					
<u>ROOF COVERING</u>					
A	Gauge 28 box profile pre-painted Blue G.C.I roofing sheets fixed to purlins (measured separately)	172.0	SM		
B	Gauge28 pre-painted ridgeship cap	17.60	LM		
<u>CARPENTRY</u>					
<u>STRUCTURAL TIMBERS</u>					
Wrot cypress prime grade ,pressure impregnated					
C	75x50mm purlins	192	LM		
D	100x50mm wall plate nailed to standards,fastened with hoop iron and braced as necessary.	48	LM		
E	100x50mm Tie or Stut	120	LM		
F	100x50mm Rafters	120	LM		
G	Ditto tie beam	90	LM		
H	Ditto king post	10	LM		
I	200x25mm fascia board and barge board	72	LM		
TOTAL FOR ROOFING CARRIED TO SUMMARY					

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	DOORS				
	STEEL DOORS				
	Standard steel panelled door in equal embossed panels framed in 25 x3mm SHS frame complete with all necessary iron mongery assembled and fixed to opening including cutting and pinning to concrete or blockwork surround and bedding frame in cement) all primed with red oxide before fixing. The Double door opening outwards.				
A	Overall size 1600x2400mm External Double door	2.00	No		
	<u>PAINING AND DECORATING</u>				
	<u>ONE UNDERCOAT TWO COATS OIL PAINTFULL GLOSS FINISH TO CROWN PAINTS OR EQUAL AND APPROVED</u>				
B	Metal door surfaces over 300mm girth internal	11.52	SM		
	TOTAL FOR DOORS TO SUMMARY				

SPC/7

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>FINISHES</u>				
	<u>FLOOR FINISHES</u>				
A	25mm thick coloured cement sand (1:4) m/s	136	SM		
	<u>WALL FINISHES</u>				
B	12mm thick cement and sand to concrete or blockwork to internal walls with steel finish, allow for provision of blackboard	283.36	SM		
C	Keying to external walls and recess with a bituminous or approved gloss black paint	48	SM		
D	Allow for provision 6m x1.5 m insitu walling chalkboards to LWF specification	2	NO		
	<u>PAINTING & DECORATING</u>				
	ONE UNDERCOAT AND 3 COATS OF PLASTIC EMULSION PAINT (SILK VINYL) TO CROWN PAINTS OR EQUAL AND APPROVED				
E	Supply and apply approved quality undercoat and 3 coats of soft white Emulsion paint, (quality crown super premium grade silk vinyl matt soft-white).	20	SM		
F	Ditto but approved LWF colour gloss paint for steel columns for the verandah	7	NO		
G	Provide a Provisional Sum for Signage, Doors & cabinets Tags and Visibility as provided (GoK, PRM, UNHCR & LWF)	2	NO		
	<u>Supply, install, test and commission the following power sockets as shown on drawing, as per the preamble, the specifications and supervision engineer's requirements.</u>				
H	Supply, install and connect 13Amp switched double socket outlets for normal power as Carl and Gilberts or equivalent	8	NO		

	<p><u>Supply, install, test and commission 450/750 volts 6491X cables with all required accessories for proper installation and operation including conduits, pipes(each cable in separate conduit or pipe), cable lugs, ties... etc. as shown on drawing, as per the preamble, the specifications and supervision engineer's requirements. All drawing from distribution boards</u></p>				
I	<p>Supply, install and connect complete 3x1.5 sq. mm color-coded SC cables to internal lighting points/switching boxes/distribution board drawn in Concealed /surface 20mm HG PVC conduits, complete with draw boxes, switch boxes and other necessary accessories.</p>	8	NO		
J	<p>Supply, install, connect, testing and commission the following final distribution boards, distribution terminal blocks according to drawings, specifications and relevant codes and as Merlin Gerin or equal and approved</p> <p>Supply, install, connect-up complete 63 Amp 6 way TP/N main Distribution Board as Merlin Gerin or equal and approved for normal power supply, for main DB-KI complete with integral isolator as specified</p>	1	NO		
K	<p>Provide for 2 No. 1.5m wide Disability friendly ramps in class 20 concrete and finished in non skid screed to approved gradients.</p>	2	NO		
TOTAL FINISHES CARRIED TO SUMMARY					
SPC/8					
ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<p style="text-align: center;"><u>SUMMARY</u></p> <p>SUBSTRUCTURES FROM SPC/4</p> <p>WALLING FROM PAGE SPC/5</p> <p>ROOFING FROM PAGESPC/6</p> <p>DOORS FROM PAGE SPC/7</p> <p>FINISHES FROM PAGES PC/8</p>				
TOTAL FOR 1 BLOCK OF 2 CLASSROOM					