

**CONSTRUCTION OF 1 NO CLASSROOM AT TIRITAGOI ECD AND EQUIPPING IN
NESSUIT WARD NJORO SUB COUNTY - 2017/2018**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO. 1</u> <u>SUBSTRUCTURE (PROVISIONAL)</u>				
A	Excavating oversite to remove top vegetable soil average 150mm disposing on site average 50m from excavations	113	SM		
B	Mass excavation to reduce level not exceeding 1.50m deep	28	CM		
C	Excavate trenches in red soil to receive foundations not exceeding 1.50m deep starting from reduced level	51	CM		
D	Ditto forstachion and pier	4	CM		
E	Extra over normal excavation for excavating in rock of any class	2	CM		
F	Backfill and compact selected excavated materials in 150mm thick layers	40	CM		
G	Load and cart away surplus excavated material	15	CM		
H	Allow for keeping all excavations free from surface and ground water		ITEM		
J	Allow for planking and strutting to uphold sides of all excavations		ITEM		
K	Approved natural stone hard-core; depositing and compacting in 150mm thick layers, levelling	21	CM		
L	25mm thick stone dust or murrum blinding over hardcore	70	SM		
M	Termidore 25 EC" insecticide treatment to hard-core beds and tops of foundation walls	70	SM		
	<u>Concrete</u>				
N	Plain concrete (1:4:8) in 50mm thick blinding under strip footings	26	SM		
	Vibrated reinforced concrete class 20/20 to:				
P	Foundations in trenches	5	CM		
Q	100mm thick horizontal verandah slab	14	SM		
R	150mm thick floor slab	61	SM		
	CARRIED TO COLLECTION				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>Fabric mesh reinforcement 200mm laps</u>				
A	Reference A1042 weighing 2.22kg per square metre	75	SM		
	<u>Square twisted mild steel reinforcement Bars</u>				
B	8mm diameter bars	56	KG		
C	10mm diameter bars	120	KG		
	<u>Sawn formwork to:</u>				
D	Vertical side of foundations	17	SM		
E	Edges of slab; 75 to 150mm wide	35	LM		
	<u>Approved natural stonework, roughly squared in cement mortar (1:4):25mm wide x20 gauge hoop iron strapping every alternate course</u>				
F	200mm thick walls in foundations	56	SM		
G	Extra for attached pier 400x200mm	7	LM		
	<u>1000 gauge polythene sheeting; 150mm laps</u>				
H	Damp proofing membrane; horizontal	75	SM		
	<u>Cement and sand (1:4) rendering as described</u>				
J	12mm thick, two coatwork to walls steel trowelled	9	SM		
	<u>Painting and Decorations</u>				
K	Prepare prime and apply three coats of black bituminous paint to rendered surface externally	9	SM		
	CARRIED TO COLLECTION				
	COLLECTION				
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CARRIED TO SUMMARY					

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO. 2</u> <u>REINFORCED CONCRETE FRAME</u> Reinforced concrete class 20/20mm mix (1:2:4) in:-				
A	Ring Beams	2	CM		
	<u>Reinforcement</u> <u>Square twisted mild steel reinforcement in structural concrete works</u>				
B	8mm diameter bars	60	KG		
C	12mm diameter bars	120	KG		
	<u>Sawn formwork as described to:</u>				
D	Sides and soffites of Ring beams	21	SM		
	<u>STEEL COLUMNS</u> <u>Galvanized mild steel Pipes</u>				
E	3000mm long, class B, 75mm diameter circular hollow section (CHS) fish tail logs at bottom at 'LS' shapes bracet 75x50x100mm high at top steel pipes, complete with concrete base,300x300x300mm deep including excavations rate to include a fixing to ground	3	NO		
CARRIED TO SUMMARY					

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO. 3</u>				
	<u>EXTERNAL WALLING</u>				
	<u>Machine cut natural quarry stone-work bedded and jointed in cement and sand (1:4) mortar as described in:-</u>				
A	150mm thick walls	67	SM		
B	150mm thick gable walls	16	SM		
	<u>Vent Blocks</u>				
C	Fix 200x200x25 mm thick pre-cast concrete vents jointed in 1:3 mortar	8	Prs		
	<u>Damp Proofing</u>				
D	200mm wide hesian based damp proof course: 150mm laps	31	LM		
E	Eaves filling to 200mm walls; 300 mm average height	17	LM		
F	Raking cutting to 200mm thick wall	20	LM		
	TOTAL ELEMENT NO. 3 WALL CARRIED TO SUMMARY				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO. 4</u>				
	<u>ROOF CONSTRUCTION, COVERINGS AND RAINWATER DISPOSAL</u>				
	<u>Construction</u>				
	<u>Truss joints to be bolted with appropriated No. of shear connectors or as instructed by Structural Engineer and hoisting approximately 3000mm above ground floor level</u>				
	<u>All carpentry timber to be treated and sawn cypress second grade seasoned to an equilibrium moisture content of between 9% and 15%</u>				
A	100x50mm Wall plate bolted to concrete with and including 12mm diameter bolts at 1500mm centres	17	LM		
B	200x50mm Ridge Board	9	LM		
	<u>The following in 6 No. nailed timber trusses including hoisting and placing 2700mm above ground floor slab level at 1500mm general spacing</u>				
C	150x50mm Rafters	70	LM		
D	Ditto, king post	13	LM		
E	Ditto, Tie beam	54	LM		
F	100x50mm struts and ties	79	LM		
G	75x50mm purlins	108	LM		
H	225mm x25mm Fascia and barge board	41	LM		
J	150x50mm Bearer top of CHS	9	LM		
	<u>ROOF COVERINGS</u>				
K	28 Gauge Resincot galvanized IT4 iron roofing sheets nailed on purlins labour and material	105	SM		
L	Ditto Ridge capping	9	LM		
	CARRIED TO TOLLECTION				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>RAINWATER DISPOSAL</u>				
A	150x120mm wide 22 gauge Prepainted galvanised mild steel purpose made box gutter	18	LM		
B	Extra over gutter for stopped ends	4	NO		
C	Ditto for rainwater outlets	4	NO		
D	100mmx22 gauge galvanized mild steel purpose made rainwater down pipe	11	LM		
E	Extra over rainwater down pipe for swanek offset, projecting 600mm	4	NO		
F	Ditto for shoes	4	NO		
	<u>Painting and decoration</u>				
	<u>Prepare surfaces and apply one coat of zinc chromate metal primer and two finishing coats of gloss oil paint on:-</u>				
G	Surfaces of metal gutter 200-300mm girth	18	LM		
H	Surfaces of large pipes	11	LM		
	<u>Knot, prime, stop, prepare surfaces and apply one undercoat and two finishing coats of gloss oil paint on:</u>				
J	General timber surfaces 200-300mm girth externally	41	LM		
	CARRIED TO COLLECTION				
	<u>COLLECTION</u>				
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	above				
	TOTAL ELEMENT NO. 4 CARRIED TO SUMMARY				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<p>ELEMENT NO. 5</p> <p>MILD STEEL CASEMENT DOORS</p> <p><u>Standard door complete with hinges, stays, fasteners permanent vent with mosquito gauze and sheet metal hood etc assembled and fixed to opening including cutting and pinning lugs to concrete or blockwork surround and bedding frame in cement and sand (1:4) mortar, Grille and glazing included, steel casement door comprising 40x25x3mm stiles, bottom and top rail & 4 No. intermediate rails all primed with red oxide.</u></p>				
A	<p>2100x900mm door complete with 50x50x3mm fixed angle frame, 2.5mm thick black sheet checkered plate built into panels, top panels left open ffor glazing "Union" 3 lever steel door lock 3x200mm lockable tower bolts</p>	1	NO		
	<p><u>Iron mongery</u></p> <p><u>Supply and fix the following ironmongery with screws to match (Ref. is to Union Catalogue or other equal abd approved)</u></p>				
B	<p>Rubber door stop fixed to concrete floor or masonary walling with and including 38mm raw bolt</p>	1	NO		
	<p><u>Prepare and apply two undercoat and one finishing coat gloss paint in metak work</u></p>				
C	<p>General surfaces; steel casement doors</p>	5	SM		
	<p>TOTAL ELEMENT NO. 5 CARRIED TO SUMMARY</p>				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT NO. 6</u>				
	WINDOWS				
	<u>Purpose made steel casement windows in 25mm wide standard casement 'z' sections comprising permanent ventilators with T-bar, gauze and metal hood for full width of window; all ironmongery and one coat red oxide primer by manufacturer.</u>				
A	1500x1500mm window	4	NO		
B	1500x900mm window	3	NO		
	<u>Cill</u>				
C	100x150x15mm clay tile cills, bedding; jointing in cement mortar (1:4); pointing in coloured cement mortar (1:4)	12	LM		
	<u>Glass and glazing to metal with glazing compound</u>				
D	4mm thick clear sheet glass 0.10 to 0.50 square metres	13	SM		
	<u>Painting and Decoration</u>				
E	Touching up manufacturer's priming coat, two undercoats and one finishing coat to glazed metal surfaces internally	13	SM		
F	Ditto to glazed metal surfaces externally	13	SM		
TOTAL FOR ELEMENT NO. 6 WINDOWS CARRIED TO SUMMARY					

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>ELEMENT No. 7</u> <u>FINISHES</u> <u>EXTERNAL WALL FINISHES</u>				
A	Extra over dressed stone walling labour for forming recessed horizontal joints and flush vertical joints on walls in cement mortar (1:3) externally	67	SM		
	<u>INTERNAL WALL FINISHES</u> <u>Cement and sand (1:2:9) plaster as describes in:-</u>				
B	15mm Thick to vertical surfaces	75	SM		
C	Extra over for black board	15	SM		
	<u>FLOOR FINISHES</u> <u>EXTERNAL FLOOR FINISHES</u> <u>Cement and sand (1:3) screed finished with Red Oxide as described in:-</u>				
D	Floors 40mm thick, trowelled hard and smooth	14	SM		
E	20x100mm high skirting	7	LM		
	<u>INTERNAL FINISHES</u> <u>Cement and sand (1:3) screed finished with Red Nil Oxide as described in:-</u>				
F	Floors 40mm thick, trowelld hard and smooth	56	SM		
G	20x100mm high skirting	29	LM		
	<u>CEILING FINISHES</u> <u>Sawn cypress, pressure impregnated as described in:-</u>				
H	50x50mm brandering	235	LM		
J	75x50mm ditto plugging	38	LM		
	<u>Wrot cypress prime grade as described in:-</u>				
K	75x25mm cornice with three labours; plugged	38	LM		
L	12mm thick 'celotex' ceiling lining with vee butt joints	70	SM		
M	Extra for access panel size 600x600mm; including 50x50mm framing	1	NO		
	<u>Prepare and apply three coats silk vinyl plastic emulsion paint as described on:-</u>				
N	Plastered surfaces	75	SM		
	CARRIED TO COLLECTION				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	<u>Paved areas around Building plinth</u>				
A	50mm thick in-situ concrete 600mm wide screeded with cement sand 1:4 mix steel trowelled hard and smooth	10	SM		
	<u>External Wall finishes</u>				
B	12mm render mix (1:4) to gable walls	15	SM		
C	12mm render mix (1:4) to beams externally	8	SM		
D	12mm ditto to eaves	9	SM		
	<u>Painting and Decorations</u>				
	<u>Prepare and apply three coats silk vinyl plastic emulsion paint as described on:-</u>				
E	Soft board ceiling	70	SM		
F	Rendered surfaces external	32	SM		
	<u>Prepare and apply thre coats black board paint to:</u>				
G	Plastered surfaces	15	SM		
	<u>Painting and Decoration</u>				
	<u>Prepare surfaces and apply one coat of zinc chromate metal primer rand two finishing coats of gloss oil paint on:</u>				
H	Surface of large pipes	9	LM		
	<u>COLLECTION</u>				
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	above				
	TOTAL FOR ELEMENT NO. 7 CARRIED TO SUMMARY				

Electrification of ECD classes - Typical Single Classroom

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	Supply, install, test and commission the following				
1	Lighting points wired in 3 x 1.5 sq mm sc PVC copper cables drawn in 20mm diameter HG PVC conduits concealed in building fabric including all accessories but without lighting switches and fittings for one way switching	8	NO		
2	5A white included lighting switches as MK or approved equivalent				
	a) One way switching	1	NO		
	b) Two way switching	1	NO		
3	Lighting fittings complete with appropriate rated lamps as follows: -				
	a) 1200mm, 1X36 W, single fluorescent lighting fitting with opal diffuser for surface mounting as Thorn or approved equivalent	7	NO		
	b) 2x8 W fluorescent bulk head fitting as Thorn or approved equivalent	1	NO		
4	Power point wired in 3 x 2.5 sq mm sc PVC copper cables drawn in 25mm diameter HG PVC conduits concealed in building fabric including all accessories	2	NO		
5	13A twin switched socket outlet plate ivory type as MK or approved equivalent	2	NO		
6	Sub mains comprising 3x6.0 sq mm sc PVC copper cables in concealed in 32mm diameter HG PVC conduits from the CLB to the consumer unit	10	M		
7	4-way SPN consumer unit complete with a 100A integral isolator as havells or approved equivalent	1	NO		
8	MCBs as harvell or approved equivalent:-				
	a) 5A	1	NO		
	b) 30A	1	NO		
9	Standard cable loop in box	1	NO		
10	Earthing the cable loop in box	1	NO		
	TOTAL FOR 1 NO. TYPICAL SINGLE ECD CLASSROOM				

ITEM	DESCRIPTION			AMOUNT	
SUMMARY 1 NO ECD CLASSROOM & EQUIPPING					
A	SUBSTRUCTURE FROM PAGE 1/2				
B	REINFORCED CONCRETE FRAME FROM PAGE 1/3				
C	WALLING FROM PAGE 1/4				
D	ROOFING FROM PAGE 1/6				
E	DOORS FROM PAGE 1/7				
F	WINDOWS FROM PAGE 1/8				
G	FINISHES FROM PAGE 1/10				
H	ELECTRICAL INSTALLATION FROM PAGE 1/11				
Sub-Total 01					
J	Fabricate and erect project name board in 50mm diameter 3mm thick steel pipes as per attached drawing	1	NO		20,000.00
K	Sum of Kenya shillings fourty Thousand only for transport costs of Engineers site supervisory staff		SUM		40,000.00
L	Sum of Kenya shillings twenty thousand only for project management		SUM		20,000.00
M	Sum of Kenya shillings fourty thousand only for supply, delivery, installation and commissioning of 1 no. 3000 litres rainwater plumbing cylindrical UPVC water tank complete with concrete base pipe and 12mm pegrar bib tap (In No. 1)		SUM		40,000.00
N	Sum of Kenya shillings Eighty five thousand for classroom equipping		SUM		85,000.00
Sub total 02					
P	Add 16% V.A.T				
GRAND TOTAL CARRIED TO FORM OF TENDER					

Contract Periodweeks

Amount in words

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Tenderers Name

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Adress

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SignatureDate.....

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