

Bill of Quantity - Transitional Mudbrick Shelter with Veranda (3.3x6.5m, 2.3m height), all inclusive

No.	Description	Unit	Quantity	Estimated Cost (NGN)		Estimated Cost (USD)		Remarks
				Unit Cost (NGN)	Total Cost (NGN)	Unit Cost (USD)	Total Cost (USD)	
Excavation and Backfilling of excavated soil								
1	Excavate foundation trench to a maximum depth of 350mm below natural ground. In width 450mm to receive the blinding of 75 to 100mm thick.							Included in labour costs
2	Backfill and Rammer internal space including verandah with excavated material to serve as base for finishing with sand cement floor finish.							Included in labour costs
Perimeter blockwork								
3	Sandcrete hollow blocks: 6"x 18"x 9" (150x450x230mm) -- for perimeter blockwork (floor plinth), one course below and one course above NGL, to be filled with mud, and for front doorsteps	Pcs	110.00		0.00	0.00	0.00	
5	Sandcrete hollow blocks: 6"x 18"x 9" (150x450x230mm) -- for one layer perimeter blockwork around the verandah.	Pcs	22.00		0.00	0.00	0.00	
6	Cement in 50Kg bags -- for blockwork and blinding. Two bags for the mortar and three bags for the blinding. Including for footing of studded poles at verandah.	Bags	5.00		0.00	0.00	0.00	
8	Cement in 50Kg bags -- for cement-sand screeded floor; for verandah and two internal rooms; one bag for veranda including foundation blinding and mortar, and the second bag for internal rooms.	Bags	2.00		0.00	0.00	0.00	
9	Sharp sand for blockwork and blinding, inclusive of transport to site. 0.4m ³ (6 wheelbarrows) for mortar, 0.6m ³ (8 wheelbarrows) for blinding.	CuM	1.50		0.00	0.00	0.00	To be sourced locally where possible
10	Water for mixing/curing	L	500.00		0.00	0.00	0.00	To be sourced locally
11	Damp proof membrane (DPM). Plastic sheet high puncture resistance extremely durable water & vapour resistant polythene, 1mm thickness. To cover a perimeter of 23m with 300mm width per shelter. To protect walls from water capillarity	SqM	8.00		0.00	0.00	0.00	
Subtotal perimeter blockwork					0.00	0.00	0.00	
Superstructure (walls)								
12	Locally hand-made Mudbricks (150x150x450mm), including preparation and screening of soil of agreed grain composition, mixing with water and vegetable fibres, labour for moulding. To be moulded on site or including transport to site.	pcs	700.00		0.00	0.00	0.00	12 courses of bricks above the plinth to reach 2.3m above NGL, plus overhead course above wall plate on long sides. Including internal partition and gables. Bricks to be molded with local workers where possible, including direct shelter beneficiaries.
13	Earth-based mortar (mud) for laying of mudbricks wall, soil and water to be delivered and mixed at construction site.	CuM	1.50		0.00	0.00	0.00	
14	External earth-based plaster , 15mm thickness, mixture of soil, sharp sand, boiled bitumen and used engine oil, to be applied in at least two coats. Inclusive of all required materials for the mixture, water and labour costs.	SqM	50.00		0.00	0.00	0.00	
Subtotal walls					0.00	0.00	0.00	
Timbers and roofing sheets								
15	Obeche Timber poles , 2x6 inches - 330 cm length, pre-treated with antitermit/engine oil solution	Pcs	5.00		0.00	0.00	0.00	For lintel for front windows (1pcs) and wall plates (4pcs) at 2.3m above NGL. To be secured with langalanga to the brick walls at least two courses below.
16	Obeche Timber poles , 2x6 inches - 330 cm length for studded poles, pre-treated with antitermit/engine oil solution and fully termite treated at base	Pcs	5.00		0.00	0.00	0.00	5 pcs for studded poles at front verandah, 60cm deep below NGL and termite treated at base by soaking in antitermite solution up to 30cm above NGL. To be cast in sand-cement footing.
17	Obeche Timber poles , 2x4 inches - full length 330cm, pre-treated with antitermit/engine oil solution	Pcs	23.00		0.00	0.00	0.00	For ridge beam (2.5 pcs), 5pcs of 100 cm length - for tie collar; 5pcs front rafters (330cm); 5pcs back rafters (230cm); 2pcs for wall plate for front verandah only; 1pc for corner braces at verandah; 2pcs for Tie beams at second and fourth rafters, and 4pcs for door frames;

18	Obeche Timber poles , 2x3 inches - 330 cm length, pre-treated with antitermit/engine oil solution	Pcs	34.00		0.00	0.00	0.00	For 10 lines of purlins (25pcs), for door panels and bracing (6pcs) and for windows frames and panels (3pcs). Purlins to be nailed to rafters and secured with langalanga
19	Timber plank , 1x6 inches - 330cm length - for fascia board along the whole perimeter of the roof, pre-treated with antitermit/engine oil solution	Pcs	10.00		0.00	0.00	0.00	Fascia board
20	Provide and install CGI Sheet (2.4m x 0.6m x 0.2mm thick) with Branded IOM logo in blue color on each sheet.	Pcs	40.00		0.00	0.00	0.00	30 pcs full length for roof. Plus 3pcs for cladding of doors/windows. 6 pcs cut in half for verandah roof extension. Logo may be applied on construction site.
21	Aluzinc ridge cap , 0.35mm thick * 400mm wide, folded at the centre	m	8.00		0.00	0.00	0.00	
Subtotal roofing							0.00	0.00
Doors and windows (hinges and latches)								
22	100 mm (4 inch) Door hinges	Pair	3.00		0.00	0.00	0.00	Three per door, for two doors
23	125mm Internal Door latches	Pair	2.00		0.00	0.00	0.00	
24	125mm External Door latches	Pair	2.00		0.00	0.00	0.00	
25	75 mm (3 inch) Window hinges	Pair	4.00		0.00	0.00	0.00	
26	100mm (4 inches) Tower bolts for windows (inside)	Nos	4.00		0.00	0.00	0.00	
Subtotal doors and windows							0.00	0.00
Fixings								
27	Nails - 5 inch	Kg	5.00		0.00	0.00	0.00	Fixing thicker wooden poles together (mainly rafters to ridge beam)
28	Nails - 4 inch	Kg	10.00		0.00	0.00	0.00	Fixing thicker wooden poles together
29	Nails - 3 inch	Kg	10.00		0.00	0.00	0.00	Fixing wooden poles together (mainly doors and window frames)
30	Nails - 1 1/2 inch	Kg	2.00		0.00	0.00	0.00	For fixing langalangas and battens
31	Wind security (Langa langa) - 1.5m length each.	Pcs	50.00		0.00	0.00	0.00	For key connections including tying of purlins and rafters to the superstructure, and tying of wall plate to walls
32	Cap nails	Packet	2.00		0.00	0.00	0.00	Fixing the CGI roof
Subtotal fixings							0.00	0.00
33	Labour (Masonry, Carpentry, Excavation and backfilling)	LS	1.00		0.00	0.00	0.00	Masonry: Setting out, excavation, bricklaying and backfilling of internal space and veranda with excavated soil. Carpentry: Assembling of doors/windows, roof structure and covering. Brick molding and plastering labour costs excluded. Workforce to be employed locally where available.
Subtotal Labor							0.00	0.00
34	Transport of materials (excluding mudbricks, soil, sand and water)	LS	1.00		0.00	0.00	0.00	Excluding transport of bricks, soil and sand and water (local transport)
Tree plantation on plot								
35	Provision and planting of tree seedling on the shelter plot	Pcs	1.00		0.00	0.00	0.00	Tree species to be agreed based on location, including: neem, papaya, guava, huru, mango
36	Supply and fix cylindrical plant protector (cage) made from palm stick size 1.2m x 0.45mm dia.	Pcs	1.00		0.00	0.00	0.00	
Subtotal tree planting							0.00	0.00
Total Cost for 1 Shelter							0.00	0.00