

Bill of Quantity - Transitional Mudbrick Shelter with Veranda (3.3x6.45m, 2.3m height), all inclusive											
No.	Description	Unit	9			5			11.5		
			Quantity (2 room shelter)	Quantity (4 rooms)	Quantity (6 rooms)	Total quantity	Estimated Cost (NGN)	Estimated Cost (USD)	Unit Cost (NGN)	Unit Cost (USD)	Total Cost (USD)
A Setting out, Excavation and Backfilling of excavated soil											
1	Clear site, set out the shelter according to layout provided by ICM and Excavate foundation trench to a minimum depth of 200mm below natural ground and to width 300mm to receive the foundation footing of 75mm thick. And excavate foundation holes for studded poles each 200x100mm by 600mm deep.	CuM	3.07	5.41	7.73	143.48	0.00	0.00	0.00		
2	Backfill and Rammer sides of the excavated trench, as well as internal rooms and veranda to serve as base for finishing with sand cement floor, using excavated material from the foundation and the latrine pit excavation.	CuM	6.08	12.07	18.02	322.31	0.00	0.00	0.00		
B) Substructure											
3	Foundation footings: plain in situ sandcrete for foundations footing and studded poles (ratio 1:4 of cement:sharp sand - batching 1 cement bag for 2 wheelbarrows of sharp sand). 1 Footing of 75mm thick and 300mm wide, and 2. Fill the sides of the excavated footing of studded poles. Note: Poles should be pre-washed before inserting into the ground.	CuM	0.54	1.03	1.48	27.04	0.00	0.00	0.00		
4	Perimeter blockwork: Sandcrete hollow blocks 4's 19" x 9" (150x50x230mm) hollow and jointed in cement-sand mortar (ratio 1:6 - batching is 1 cement bag for 3 wheelbarrows of sand), block holes filled with mud. Two courses for the foundation of the main rooms and one course for the veranda.	SqM	13.54	25.08	35.90	660.06	0.00	0.00	0.00		
B1) Substructure finishing and floor											
5	Plastering of blockwork: External sand-cement plastering of foundation blockwork above ground level (ratio 1:6 cement to plaster sand. Batching is 1 cement bag for 3 wheelbarrows of sand).	SqM	4.18	6.37	8.54	167.67	0.00	0.00	0.00		
6	Damp proof membrane (DPM): Plastic sheet high tensile resistance extremely durable, water & vapour resistant polythene, 0.1mm thickness. To cover the perimeter of the rooms including mid partitions with 250mm width. To protect walls from water capillary.	SqM	5.63	10.63	15.25	279.13	0.00	0.00	0.00		
7	Floor: Plain in situ sandcrete floor 50mm thick (ratio 1:4 - batching is 1 cement bag for 2 wheelbarrows of sand) cast over backfilled and compacted soil.	CuM	1.34	2.65	3.98	70.99	0.00	0.00	0.00		
8	Floor finish: cement grout covering a surface of 26.7sqm for the internal rooms and veranda.	SqM	26.71	53.01	79.52	1,419.84	0.00	0.00	0.00		
Subtotal substructure							0.00	0.00	0.00		
C Superstructure (mudbrick wall)											
9	Walling: Construct walls with Locally hand-made Mudbricks (150mmx150mmx300mm), including preparation and screening of soil of agreed grain composition, mixing with water and vegetable fibres, laid with mud mortar. Where possible, bricks to be moulded on site by local workers, including direct shelter beneficiaries.	SqM	52.38	97.86	139.73	2,567.65	0.00	0.00	0.00	13 courses of bricks above the plinth to reach 2.49m above NGL, plus overhead course above wall plate on long side. Including internal partition and gables. Provide 50mm ventilation gaps at the overhead course as per design.	
10	Apply earth-based plaster: 15mm thickness, mixture of mud, boiled bitumen and used regime of (or water-based bitumen), to be applied in at least two coats. Include of all required materials for the mixture, water and labour costs. For all external mudbrick walls, and only 300mm height from floor level for the internal rooms.	SqM	51.48	91.78	120.80	2,311.29	0.00	0.00	0.00		
Subtotal walls							0.00	0.00	0.00		
D Timbers for roof structure and door frame											
11	Provide and install Obeche Timber poles, 246 inches - full length min. 3m, pre-treated with antitermite/engie oil solution. For wall plates (6pcs), door frames (6pcs) and final of front windows (1pc cut into two). To be secured with langlaga to the brick walls.	Pcs	9.00	18.00	27.00	481.50	0.00	0.00	0.00		
12	Provide and install Obeche Timber poles, 246 inches - full length min. 3m for studded poles at front veranda, pre-treated with antitermite/engie oil solution and fully terminate treated at base (soaked in metal drum min 900mm from base). To be cast in sand-cement footing.	Pcs	5.00	10.00	14.00	354.00	0.00	0.00	0.00		
13	Provide and install Obeche Timber poles, 244 inches - full length min. 3m, pre-treated with antitermite/engie oil solution. For ridge beam (2.5 pcs), 7 pcs from rafters (330mm); 12 pcs back rafters (230mm); 2 pcs for wall plate for front veranda; 2 pcs for tie beams at trusses no. 2 and 4. 2x tie collar at trusses 1-3,5 (100 cm length) and 2 long posts (80cm length) at trusses no. 2 and 4, to be obtained from rafters offcuts.	Pcs	19.00	38.00	54.50	987.75	0.00	0.00	0.00		
14	Provide and install Obeche Timber poles, 243 inches - full length min. 3m, pre-treated with antitermite/engie oil solution, for 10 lines of purins, to be nailed to rafters and secured with langlaga.	Pcs	25.00	50.00	75.00	1,337.50	0.00	0.00	0.00		
15	Provide and install Fascia board, 1x5 inches timber-plank - full length min. 3m - along the whole perimeter of the roof, pre-treated with antitermite/engie oil solution.	Pcs	9.00	18.00	27.00	341.50	0.00	0.00	0.00		
Roof cover											
16	Provide and install CGI Sheets (2.4m x 0.6m x 0.2mm thick) with 75mm cap nails fixed at every corrugation at the edges of the roof, with side overlap of 2 corrugations and min. 200mm end overlap between sheets. Folded and fixed over fascia board at gable ends. With Branded ICM logo in blue color on selected sheets as per design (logos may be applied on construction site).	SqM	41.18	77.14	113.48	2,063.64	0.00	0.00	0.00		
17	Provide and install Aluzinc ridge cap, 0.35mm thick - 400mm wide, blue color, folded at six corners. Overlap of minimum 250mm. Well secured with 4 cap nails over the fascia board at each gable end.	m	7.50	13.50	20.00	365.00	0.00	0.00	0.00		
Subtotal timbers and roof cover							0.00	0.00	0.00		
Doors and windows											
18	Install purpose made doors of 2.1x0.7m with 2x3" timbers for door leaf, three 100mm hinges per door to fix leaf on frame, clad with CGI sheet 0.2mm thick branded with ICM logo; internal and external finishes 125mm, padlock of 0.25kg and keys.	Pcs	2.00	4.00	6.00	107.00	0.00	0.00	0.00		
19	Install purpose made windows of 600mm height by 300mm width, with 2x3" timbers for frame and leaf, two 75mm hinges (one pair) and clad with blue aluzinc, with internal 100mm cover bolts. Branded with white ICM logo.	Pcs	2.00	4.00	6.00	107.00	0.00	0.00	0.00		
20	Install purpose made fly screen net for ventilation of 250mm height by 150mm width, with timber battens for frame nailed to the net to wall and wall plate.	Pcs	8.00	16.00	24.00	428.00	0.00	0.00	0.00	Refer to design for location and size of ventilation holes.	
Subtotal doors and windows							0.00	0.00	0.00		
Finings											
21	Nails - 5 inch	Kg	2.00	4.00	6.00	107.00	0.00	0.00	0.00	Facing thicker wooden poles together (mainly rafters to ridge beam)	
22	Nails - 4 inch	Kg	10.00	20.00	30.00	535.00	0.00	0.00	0.00	Facing thicker wooden poles together	
23	Nails - 3 inch	Kg	8.00	16.00	24.00	428.00	0.00	0.00	0.00	Facing wooden poles together (mainly doors and window frames)	
24	Nails - 1 1/2 inch	Kg	2.00	4.00	6.00	107.00	0.00	0.00	0.00	For facing timbers/battens and battens	
25	Wind security (langlaga) - 1.5m length each.	Pcs	56.00	112.00	168.00	2,996.00	0.00	0.00	0.00	For key connections including tying of purins and rafters to the superstructure, tying of wall plate to walls and secure connection of door and window frames to walls	
Subtotal finings							0.00	0.00	0.00		
Subtotal substructure							0.00	0.00	0.00		
Subtotal walls							0.00	0.00	0.00		
Subtotal timbers and roof cover							0.00	0.00	0.00		
Subtotal doors and windows							0.00	0.00	0.00		
Subtotal finings							0.00	0.00	0.00		
Subtotal Cost for 1 Shelter							0.00	0.00	0.00		
Contingency (7% of subtotal cost)							0.00	0.00	0.00	Provisional sum to cover for any minor variation, unexpected events and improvements or upgrades for people with disability.	
Total Cost							0.00	0.00	0.00		