

**COST ABSTRACT OF SEMI PUCCA HOUSE FOR HOUSE ON
LANDOWNER'S LAND**

Component		Amount
Cost. Cost of Semi Pucca House	TK	149064.56
Total	TK	149064.56
Deduction of Contractor's Profit, Vat and IT-19.5%	TK	29067.59
TOTAL AMOUNT	TK	119996.97
Say Total Amount	TK	1,20,000.00

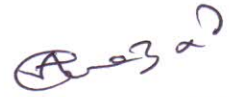
One Lac Twenty Thousand Taka Only.



মোঃ আবুল বাশার মোল্লা
সহকারী প্রকৌশলী
আশ্রয়ণ-২ প্রকল্প
প্রধানমন্ত্রীর কার্যালয়।



মোঃ শাহারুল আলম মন্ডল
উপ-প্রকল্প প্রকৌশলী
আশ্রয়ণ-২ প্রকল্প
প্রধানমন্ত্রীর কার্যালয়



আবুল কালাম আজাদ
প্রকল্প প্রকৌশলী
আশ্রয়ণ-২ প্রকল্প
প্রধানমন্ত্রীর কার্যালয়।

Detail estimate of one unit semi pucca house with latrine for house on landowner's land (16'-6"x10'-6')

(Based on PWD rate schedule-2018)

SL	Item Code	Description of Work	Unit	Location / Component	Length	Width	Height / Depth	Area / Volume	No of	Total Qty of Works	Unit Rate	Amount
1	PWD CES 02.1.2	Earthwork in excavation of foundation trenches, including layout, by excavating earth to the lines, grades and elevation as shown in the drawing providing center lines, local bench mark pillars, fixing bamboo spikes and marking layout with chalk powder filling baskets, carrying and disposing of all excavated materials at a safe distance designated by the E-I-C in all types of soils except rocky, gravelly, slushy or organic soil, leveling, ramming, dressing and preparing the base, etc. all complete for an initial excavation depth of 2m and an initial lead not exceeding 20m, including arranging all necessary tools and equipment at work site, etc. complete as per direction of the E-I-C.	cum	Main wall	15.44	0.38	0.3	1.76	1	1.76		
				Verandah wall	7.32	0.38	0.23	0.64	1	0.64		
				Stair	0.92	0.76	0.076	0.053	1	0.053		
				Toilet	2.87	0.38	0.23	0.251	1	0.251		
										2.704	88.00	237.95
2	PWD CES 02.16.4.1	Earth filling inside plinth in 150mm layers with earth available within 90m of the building site, watering, leveling and consolidating each layer up to finished level, etc. all complete as per direction of the E-I-C.. Dry density after compaction shall not be less than 90% of MDD	cum	Main wall(1/3)	15.44	0.127	0.3	0.588	1	0.588		
				Verandah(1/3)	7.32	0.127	0.23	0.214	1	0.214		
				Toilet(1/3)	2.87	0.127	0.23	0.084	1	0.084		
				Main floor	4.78	2.95	0.23	3.243	1	3.243		
				Verandha floor	4.78	1.27	0.15	0.911	1	0.911		
				Toilet floor	0.79	0.79	0.15	0.094	1	0.094		
										5.134	302.00	1550.47

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3 PWD CES 03.4.2

Mass concrete work in foundation or floor with Portland Composite Cement (CEM II/AM, 42.5N), sand (minimum FM 1.20) and 20mm down well graded 1st class/picked brick chips (LAA value not exceeding 38), including shuttering, mixing by concrete mixer machine, casting, laying compacting with mechanical vibrator machine and curing for the requisite period breaking bricks into chips etc. all complete as per direction of the E-I-C. Cylinder crushing strength of concrete should not be less than 10.5Mpa at 28 days of curing (suggested mix proportion 1:3:6). Additional quantity of cement to be added if required to attain the strength at the contractors own cost. Mass concrete in foundation (1:3:6) with Portland Composite Cement (CEM II/AM, 42.5N), sand (minimum FM 1.20) and 20mm down well graded 1st class/picked

cum

Main Floor	5.41	3.25	0.075	1.319	1	1.319		
Verandha Floor	5.41	1.57	0.075	0.637	1	0.637		
							1.956	6579.00
								12868.52

4 PWD CES 04.1

Brick work with 1st class bricks in cement mortar (1:6) in foundation and plinth with Portland Composite cement (CEM II/AM, 42.5N) and best quality sand (minimum FM1.2), filling the interstices tightly with mortar, raking out joints, cleaning and soaking bricks at least for 24 hours before use, washing of sand, curing for requisite period, etc. all complete as per direction of the E-I-C.

cum

Main foundation	15.44	0.25	0.45	1.737	1	1.737		
Verandha foundation	7.32	0.25	0.3	0.549	1	0.549		
Toilet foundation	2.87	0.25	0.3	0.215	1	0.215		
main brick column(10"x10"x8'-6")	2.59	0.25	0.25	0.162	6	0.972		
verandha brick column(10"x10"x6'-9")	2.06	0.25	0.25	0.129	3	0.387		
Stair(3'x2'-6")	0.91	0.76	0.3	0.207	1	0.207		
							4.067	6040.00
								24564.68

5 PWD CES 04.15

125mm brick work with Kiln 1st class bricks/automatic machine made 1st class bricks in cement mortar (1:6) with machine made 1st class bricks in cement mortar (1:6) with machine made 1st class bricks in cement mortar (1:6) with Portland Composite cement (CEM II/AM, 42.5N) and best quality sand (minimum FM1.2) and making bond with connected walls with uniform width and depth joints, true to vertical and horizontal lines in/c necessary scaffolding, raking out joints, cleaning and soaking the bricks at least for 24 hours before use, washing of sand, curing for requisite period, etc. all complete as per direction of the E-I-C. Kiln bricks, Ground Floor water-cement (W/C) ratio (Doses of admixture to be fixed

sqm

Main wall	2.59	15.46		40.041	1	40.041		
Varendah wall	0.23	7.32		1.684	1	1.684		
Toilet wall	2.87	2.06		5.912	1	5.912		
Door-D1	0.91	1.82		1.656	1 (-)		1.656	
D2	0.76	1.82		1.383	1 (-)		1.383	
Window	0.91	0.91		0.828	4 (-)		3.312	
							41.286	917.00
								37859.26

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6 PWD CES 07.1.3

RCC:1:2:4, 17MPa, Brick Chips (BC): Reinforced cement concrete works with minimum cement content relates to mix ratio (tentative 1:2:4) and maximum water cement ratio 0.45 having minimum required average strength, $f_{cr} = 24$ Mpa and satisfied a specified compressive strength $f_c = 17$ Mpa at 28 days on standard cylinders as per $f_c = 17$ Mpa at 28 days on standard cylinders as per standard practice of Code AASHTO/ ASTM and Portland Composite Cement conforming to BDS EN 197-1 : 2003 CEM-II 42.5N sand of minimum FM 1.8 and 20mm down well graded picked brick chips (LAA value and maximum water absorption not exceeding 38 and 15% respectively) conforming to ASTM C 33 or Aggregate Grading Appendix-3 LGED Schedule of Rates or any other International recognized envelop in/c breaking chips and screening through proper sieves, centering, shuttering in position, making shuttering fully leak proof & shuttering with plain 16 BWG steel sheet fitted over 38mm thick wooden plank panels and Standard size Bamboo Props suitably braced, placing of reinforcement in position, mixing the aggregates with standard mixer machine with hopper, fed by standard measuring boxes, maintaining allowable slump of 50mm (without plasticizer) & 75mm to 100mm (when plasticizer use), pouring, casting, compacting by mechanical vibrator machine and curing at least for 28 days, removing centering-shuttering after approved specified time period, i/c cost of additional testing charges of materials and cylinders required. Excluding the cost of reinforcement and its fabrication, welding, coupling, placing, binding etc. Additional quantity of cement and Plasticizer i.e. Water reducing chemical admixture of complying type A under ASTM C 494 to reduce mixing water required for normal workability and to maintain low by the mix design from approved laboratory instruction by the Engineer) Additional quantity of cement to be added if required to attain the strength at the contractor's own cost) etc. all complete as per direction and approval of the Engineer in charge. Note : Using Concrete Mixer. In Tie Beam and Lintel :Below Plinth Level and in Ground Floor

Lintel	1.22	0.127	0.15	0.023	5	0.115		
							0.115	7602.00
								874.23

7 PWD CES 08.1.1

Supplying and fabrication of Ribbed or deformed bar reinforcement for all types of RCC work including straightening, removing ruts, cleaning, cutting, hooking, bending, lapping and/or welding wherever required as directed, placing in position, tying with 22 BWG black annealed binding wire (PVC coated in case of FBEC rebar) double fold, cost of binding wire and anchoring to the adjoining members wherever necessary, supplying and placing with proper cover blocks (1:1), supports, chairs, spacers, splices or laps etc. including cost of all materials, cost of labour, cost of equipment & machinery, loading and unloading, transportation, all other incidental charges and work at all leads and lifts etc. to complete the work as per design, drawing, specifications and direction of the E-I-C. Measurement relating to nominal mass, dimensions and tolerances of various types of steel shall conform to relevant BDS/ ASTM codes. Reinforcement shall be measured only in lengths of bar as actually placed in position on standard weight i.e. 7850 kg/m³ (BNBC Table 6.2.1) basis. No separate payment shall be allowed for Chairs of any shape & profile, spacer bar of any shape & profile, lap/ splice unless otherwise shown in the drawing, wastages, binding wire, concrete cover blocks etc. as the cost of these is included in the unit rate. Note: Tests for reinforcing bars shall be conducted at LGED/ BUET/ CUET/ KUET/ RUET. Grade 300 (RB 300): Ribbed or Deformed bar produced and marked as per BDS ISO 6935-2:2006 with minimum yield strength, f_y (ReH) = 300 MPa, but the tested yield strength shall not exceed f_y by more than the 125 MPa and the ratio of tested ultimate strength, f_u (Re) to tested elongation after fracture (A5.65) & minimum total elongation at maximum force (Agt) is 16% and 2.5% respectively.

kg

Main bar (dia-10mm)	1.15	0.62	0.713	15	10.695		
Stirrup (dia-8mm)	0.45	0.39	0.176	45	7.92		
						18.615	79.00
							1470.59

8 Analysis

Supplying and making well matured natural seasoned solid wood works in frames of roof truss of required length and size with wall plates as per design in/c length and size with wall plates as per design in/c supplying, fabricating, hoisting, scaffolding, fitting and fixing in position with bolts and nuts for all floors etc. all complete as per direction of the E-I-C. (All sizes of wood are finished). Mehagoni/Shishu wood

cum

Wall plate long	4.775	0.075	0.05	0.018	3	0.054	
Tie beam	3.078	0.075	0.05	0.012	5	0.06	
Rafter	2.006	0.05	0.05	0.005	8	0.04	
Rafter (Verandha)	1.829	0.05	0.05	0.005	8	0.04	
Tie for v.rafter	4.775	0.05	0.05	0.012	1	0.012	
Tie Triangle portion triangle portion	2.49	0.05	0.05	0.006	4	0.024	
rafter	1.041	0.05	0.05	0.003	10	0.03	
triangle portion for rafter (av)	0.899	0.05	0.05	0.002	8	0.016	
Tie for ridge	2.438	0.05	0.05	0.006	1	0.006	

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