

DETAILED ESTIMATE

**Name of Work :Construction of Village Resource
Centre (VRC) at KVK, South
Tripura, Birchandra Manu.**

Estimated Cost : Rs. 3,55,813.00

TIME FOR COMPLETION : 90 (Ninety) days.

Description of Village Resource Centre (VRC) at KVK, South Tripura, Birchandra Manu

Name of the Work : A civil construction of VRC

Description of the Work : The Work will be of 648 sqft of built up area.

Estimate framed by : Er. Tridib Choudhury, a professional Civil Engineer.

REPORT

History : The proposed building is a Village Resource Centre (VRC) at KVK, South Tripura, Birchandra Manu, The plinth area of the building is 648 sqft. Accordingly the detailed estimate has been framed for an amount of Rs. 3,55,813.00 (Rupees three lac fifty five thousand eight hundred thirteen) only.

Design Scope : Size 36ft x 18 ft and the height of the building will be ten and half from floor to ceiling. The plinth will be of 2 ft elevated from the ground. The two sides of the building will be of gravel wall and roof will be GCI sheet on steeled tubular structure. The floor will be of Cement finish. The entrance of the hall, there will be a verandah of size 10 ft x 7 ft with R.C.C. roof with 2 rounds pillars and the floor will be of cement finish. Doors are D 1 and on D 2 and window W 1 to S 5 Box Chajja with grill protection. The measurement is given as below against the D 1 and D 2 = 4.5 ft x 7 ft. of wooden door on iron angled frame, W 1 to W 6 = 6 ft x 4 ft. of aluminium framed glass sliding window.

Specification : As recommended by TSR. 20

Estimated Cost : Rs. 3,55,813.00 (Rupees three lac fifty five thousand eight hundred thirteen) only.

Rate : Based on TSR-2008

Time : 90 (ninety) days

Method : By contract after inviting tender.

Land : Available.

Estimate Based on : TSR-2008

Estimate prepared By :

Name : Er. Tridib Choudhury

SEAL of the Company

Name of Work

Construction of Village Resource Centre (VRC) at KVK South Tripura, Birchandramanu

GENERAL ABSTRACT

(a) S.H. earth work	Rs. 14466.00
(b) S.H. CEMENT CONCRETE WORK	Rs. 55826.00
(c) S.H. REINFORCED cement concrete work	Rs. 107784.00
(d) S.H. BRICK WORK	Rs. 46237.00
(e) S.H. STEEL & WOOD Work	Rs. 25152.00
(f) S.H. Floring Work	Rs. 11035.00
(g) S.H. FINISHING WORK	Rs. 26632.00
(h) S.H. ROOFING WORK	Rs.68681.00
Total	Rs. 355813.00

DETAILED ESTIMATE

Name of work	Construction of Village Resource Centre(VRC) at KVK South Tripura, Birchandramanu	
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Item	TSR Code	Particulars of Items	Unit	Quantity	Rate	Amount
		Sub Head-Earth Work				
1	TSR-2008 Chapter-2 Item-2.3	<p>Earthwork in excavation in all kinds of soil in foundation, trenches of drains (not exceeding 1.5 m in width of 10 sqm. On plan) including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil, stacking the suitable soil property for using the same in the building below floor and disposal of surplus excavated soil as directed, within a lead of 50 m as directed as per clauses of Chapter – 2 of CPWD specification</p> <p>a. Without dewatering Coll footing = $1 \times 16 \times 1.00 \times 1.00 \times 0.90 = 14.40$ cum Wall footing = $1 \times 1.36.8 \times 0.60 \times 0.60 = 13.25$ cum</p> <hr/> <p style="text-align: right;">Total = 27.65 cum</p>	cum	27.65	1.15	2806.00
2	TSR-2008 Chapter-2 Item-2.4	<p>Filling in trenches, plinth, under floor, sides of foundations etc. with available excavated suitable soil in regular horizontal layers, each not exceeding 200 mm in depth with all lead and lifts, consolidating each layer by watering and ramming with steel rammers of ½ tone roller as per clauses of Chapter – 2 of</p> <p>Under Floor = $1 \times 14.75 \times 7.5 \times 0.50 = 55.31$ cum Side of footing = $2/3 \times 27.65 = 18.43$ cum</p> <hr/> <p style="text-align: right;">Total 73.74 cum</p>	Cum	73.74	35.5	26.18.00
3	TSR-2008 Chapter-2 Item-2.8	<p>Filling in trenches, plinth, under floor, foundations etc. as per design with dands with all lifts, transporting to site, spreading in regular horizontal layers, watering, grading to required slope and compacting each layer by using plate compactor or by any suitable method as per clauses of Chapter – 2 of CPWD specification.</p> <p>1. With fine sand obtained from local quarry.</p> <p>Cool footing = $1 \times 16 \times 1.00 \times 1.00 \times 0.075 = 1.20$ cum Wall footing = $1 \times 1 \times 52.8 \times 0.60 \times 0.075 = 2.38$ cum</p>				

		<p>Under Floor=$1.15.00 \times 7.75 \times 0.15 = 17.44$ cum $1 \times 3.00 \times 2.15 \times 0.15 = 0.97$ cum</p> <hr/> <p>Total = 21.99 cum</p>	Cum	21.99	411.2	9042.00
		Sub Head-Cement Concrete Work				
4	TSR-2008 Chapter-3 Item-3.1	<p>Providing and laying in position cement concrete of specified grade including the cost of Form work, all work upto plinth level as per clauses of Chapter-4 of CPWD specification</p> <p>1. 1:4:8 (1 cement :4 fine sand:8graded well burnt brick aggregate of 40 mm nominal size)</p> <p>Cool footing=$1 \times 16 \times 1.00 \times 1.00 \times 0.075 = 1.20$ cum Wall footing=$1 \times 1 \times 52.8 \times 0.60 \times 0.075 = 2.38$ cum Under Floor=$1 \times 15.00 \times 7.75 \times 0.10 = 11.63$ cum $1 \times 3.00 \times 2.15 \times 0.10 = 0.27$ cum</p> <hr/> <p>Total = 16.13 cum</p>	Cum	16.13	3461	55826.00
		Sub Head – R.C.C. Work				
5	TSR-2008 Chapter-4 Item-4.1	<p>Providing and laying in position reinforced cement concrete of specified grade including the cost of Form work. But excluding finishing and reinforcement, all work upto plinth level as per</p> <p>1 1:1.5 : 3 (1 cement : 1.5 fine sand : 3 graded stone Aggregate of 20 mm nominal size)</p> <p>Coll footing=$1 \times 16 \times 1.00 \times 1.00 \times 0.15 = 2.40$ cum $1 \times 16 \times 15 / 4 (\sqrt{2} + .25 \sqrt{2} + 2(1 \times 25)) = 0.94$ cum</p> <hr/> <p>Total = 3.34 cum</p>	Cum	3.34	7397	24707.00
6	TSR-2008 Chapter-4 Item-4.3	<p>Providing and laying in positions reinforced cement concrete of specified grade in suspended floors, roofs hasving slope upto `15 degree, landings, balconies, shelves, chajjas etc. upto floor five level including the cost of frame work, but excluding finishing and</p> <p>1. 1 : 1.5 : 3 (1 cement : 1.5 fine sand : 3 graded stone aggregate of 20 mm nominal</p>				

		Ent. Slab = $1.3.00 \times 2.15 \times 0.11 = 0.71$ cum Chajja = $1 \times 6 \times 1.9 \times 0.50 \times 0.10 = 0.57$ cum <hr/> Total = 1.28 cum	Cum	1.28	8215	10515,00
7	TSR-2008 Chapter-4 Item no. 4.4	Providing and laying in position reinforced cement concrete of specified grade in beams, lintels, bands, plain window sills, stair cases, spiral stair cases excluding pre-cast spiral stair case etc. upto floor five level including the cost of frame work, but excluding finishing and reinforcement, as per clauses of Chapter- 5 of 1. 1 : 1.5 : 3 (1 cement : 1.5 fine sand : 3 graded stone aggregate of 20 mm nominal Plinth beam = $1 \times 52.80 \times 0.25 \times 0.25 = 3.30$ cum Lintel beam = $1 \times 45.5 \times 0.125 \times 0.15$ Entrance beam = $1 \times 7.20 \times 0.25 \times 0.10 = 0.34$ cum <hr/> Total 4.49 cum	Cum	4.49	8581	38527.00
8	TSR-2008 Chapter-4 Item no. 4.2	Providing and laying in position reinforced cement concrete of specified grade including the cost of Form work, but excluding finishing and reinforcement, upto floor five level as per clauses of a. In plinth & skirting courses, fillets, columns, pillars, post & struts etc. Column = $1 \times 14 \times 0.25 \times 0.25 \times 4.4 = 3.85$ cum $1 \times 2 \times 3.14 / 4 \times 25^2 \times 3.3 = 0.32$ cum <hr/> Total = 4.17 cum	Cum	4.17	8162	34035.00
		Sub Head-Brick Work				
9	TSR-2008 Chapter-6 Item no. 6.2	First class brick work in foundation and plinth including cost of all materials required and as per clauses of chapter-6 of CPWD 1. In Cement mortar 1:6 (1 cement : 6 fine sand) Wall footing = $1 \times 52.8 \times 0.254 \times 0.40 = 5.36$ cum <hr/> Total = 5.36 cum	Cum	5.36	2835	15195
10	TSR-2008 Chapter-6 Item 6.13	Half brick masonry with first class bricks in superstructure above plinth level upto floor five level including cost of all materials required and as per clauses of chapter-6 of CPWD specification. 1 In Cement mortar 1:4 (1 cement : 4 fine sand) Wall = $1 \times 30.00 \times 3.00 = 90.00$ sqm				

		$Less = D=1x2x1.4x2.1 = 5.88 \text{ sqm}$ $W=1x6x1.80x1.20 = 12.96 \text{ sqm}$ <hr/> Total = 71.16 sqm	Sqm	71.16	436.2	31042.00
11	TSR-2008 Chapter-10 Item no. 10.3	Providing and fixing glazing in aluminium aluminium doors, windows, ventilator, shutters and partition frames with P VC/neoprene gasket etc. complete as per architectural drawings and the direction of Engineer-In-charge and as per clauses of chapter 24 of CPWD specification A. With glass panes of 4.0 m thickness (weight not less than 10.0 kg/sqm) $W=1x6x1.80x1.20=12.96 \text{ sqm}$ <hr/> Total = 12.96 sqm	Sqm	12.96	520.6	6747.00
12	TSR-2008 Chapter-9 Item no. 8.19	Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flat, solid square of solid round bars etc. all complete as per clauses of Chapter-9 of CPWD specification 1. Fixed to openings in walls with rawf plugs, screws etc. $W=1x6x1.80x1.20=12.96 \text{ sqm @ } 10 \text{ kg/sqm}=129.60 \text{ kg}$ <hr/> Total = 129.6 kg	Kg	129.6	69.34	8986.0
13	TSR-2008 Chapter-9 Item no. 9.11	Providing and fixing T-iron frames for doors, windows and ventilators of mild steel tea sections, joints mitred and welded with (15x3mm)lugs 10 cm long embedded in cement concrete blocks(15x10x10 cm) of 1:3:6 (1 cement :3 fine sand:3 graded brick aggregate 20 mm nominal size) or with wooden plugs and screws or with fixing clips or with bolts and nuts as required including fixing of necessary butt hinges and screws amnd applying a priming cost of approved steel primer as per clauses of chapter 10 of CPWD specification. $D = 1x2x2x2.1=8.4 \text{ m}$ $1x2x1x1.4 = 2.8 \text{ m}$ $11.20\text{m @ } 3.5 \text{ Kg/m } =39.20 \text{ kg}$ <hr/> Total = 39.2 kg	Kg	39.2	77.34	3032.00
14	TSR-2008	Providing and fixing paneled/or paneled and				

	Chapter-8 Item no. 8.5	glazed shutters for doors, windows and clerestory windows including bright finished black enameled M.S. butt hinges with necessary screws (excluding paneling and or glazing.which will be paid for separately). But including the wooden beading of 20 x 12 mm for B Double leaf door shutter 1. Gamair wood a. 35 mm thick shutters D=1x2x1.40x2.10=5.88 sqm				
		Total = 5.88 sqm	Sqm	5.88	936.7	5508.00
15	TSR-2008 Chapter-8 Item no., 8.41	Providing and fixing ISI marked aluminium sliding door bolts anodished (anodized coating not less than grade AC 10 as per IS 1868) transparent or dyed to required colour or shade with necessary screws etc. complete as per clauses of Chapter – 9 of CPWD specification 1. 300 x 16 mm Total = 2 nos	Nos	2	218.3	437.00
16	TSR-2008 Chapter-8 Item no. 8.42	Providing and fixing ISI marked aluminium tower bolts anodized (anodished coating not less than grade AC 10 as per IS 1868) transparent or dyed to required colour or shade with necessary screws etc. complete as per clauses of Chapter – 9 of CPWD specification 1. 300x10 mm Total = 2 nos	Nos	2	84.1	168.00
17	TSR-2008 Chapter-8 Item no. 8.45	Providing and fixing ISI marked aluminium handles with plate anodized (anodized coating not less than grade AC 10 as per IS 1868) transparent or dyed to required colour or shade with necessary screws etc. complete as per clauses of Chapter – 9 of CPWD specification. 1. 150 mm Total = 4 Nos	Nos	4	68.5	274.00
		Sub Head-Flooring Work				
18	TSR-2008 Chapter-11	Providing and laying cement concrete 1:2:4 (1 cement : 2 fine sand :4 graded well burnt brick aggregate) flooring finished with a				

	Item no. 11.9	floating cost of neat cement including cement slurry, rounding of edges and strips etc. complete as per clauses of Chapter – 11 of CPWD specification. 1. 25 mm thick with 12.5 mm stone aggregate <u>Floor = 1x11.00x5.50=60.50 sqm</u> Total 60.5 sqm	Sqm	60.5	182.4	11035.00
		Sub Head-Finishing Work				
19	TSR-2008 Chapter-13 Item no. 13.1	12 mm cement plaster in single layer including cost of materials required and finishing even and smooth and curing complete as per clauses of chapter 13 of CPWD specification. 1. Cement mortar 1:6 (1 cement :6 fine sand) 1x4x10.00x3.00=120.00 1x4x6.00x3.00 = 72.00 Less D=1x4x(1/2)x1.4x2.1 =5.88 W=1x12x(1/2)x1.8x1.2=5.88 <u>Total 173.16 sqm</u>	Sqm	173.16	71.63	12403.00
20	TSR-2008 Chapter-13 Item no. 13.4	Wall painting with plastic emulsion paint (two or more coats) of required colour of approved brand and manufacture on new work to give an even shade including cost of materials required and as per clauses of chapter 13 of CPWD specification. Inside wall =1x2x15.00x3.20=96.00 1x2x7.75x3.20=49.60 Less-E=1x2x(1/2)x1.4x2.1=2.94 W=1x6x(1/2)x1.8x1.2=6.48 <u>Total = 136.18 sqm</u>	Sqm	136.18	44.12	6008.00
21	TSR-2008 Chapter-13 Item no. 13.2	Finishing walls with acrylic smooth exterior paint of required shade of approved brand and manufacture on new work (two or more coats applied @1.667 kg/10 sqm) over and including base coat water proofing cement paint applied @ 2.20 kg/10 sqm complete including cost of materials required and as per clauses of chapter Outside wall = 1x2x15.00x3.20=96.00 1x2x7.75x3.20 = 49.60 Less-D=1x2x(1/2)x1.4x2.1 = 2.94				

		$W=1 \times 6 \times (1/2) \times 1.8 \times 1.2 = 6.48$ <hr/> Total = 136.18 sqm	Sqm	136.18	60.37	8221.00
22	TSR-2008 Chapter= 9 Item no. 9.12	Providing and fixing steel work in built up tubular trusses including cutting. Hoisting, fixing in position and applying a priming coat of approved steel primer, welded and bolted including special shaped washers etc. complete as per clauses of chapter-10 of CPWD specification. 1. With mild steel tubes Hot finished welded (HFW) type medium class. Total = 350 kg	Kg	350	79.94	27979.00
23	TSR-1008 Chapter- 12 Item no. 12.1	Providing and fixing corrugated G.S. Sheet roofing fixed with polymer coated J or L hooks 8 mm diameter, bolts and nuts 6 mm diameter with bitumen and G.I. limpet washers or with G.I. limpet washers filled with lead and including a coat of approved steel primer and two coats of approved epoxy paint on overlapping of sheets complete (upto a pitch of 60 degrees) over a built structure including all types of necessary scaffoldings etc. but excluding the cost of the purlins, rafters and trusses etc. as per clauses of Chapter-12 of CPWD specification 1. 0.63 mm thick with zinc coating not less than 275 gm/m ² $\text{roof} = 1 \times 2 \times 11.00 \times 2.75 = 60.50 \text{ sqm}$ <hr/> Total = 60.5 sqm	Sqm	60.5	599.4	36266.00
24	TSR-2008 Chapter- 12 Item no. 12.4	Providing and fixing ridges or hips of 60 cm overall width of plain G.S. Sheet (class-1) fixed with polymer coated J or L hooks 8 mm diameter, bolts and nuts 6 mm diameter with bitumen and G.I. limpet washers and including a coat of approved steel primer and two coats of approved epoxy paint on overlapping of sheets complete as per clauses of Chapter – 12 of CPWD specification. 1. 0.63 mm thick with zinc coating not				

		less than 275 gm/m ² roof = 1x1x11.00 = 11.00 sqm <hr/> Total = 11.00 mtr.	Mtr.	11	403.3	4436.00
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Total Rs. 355813.00

Er. Tridib Choudhury
 B.E. CIVIL
 Professional Civil Engineer