GOVERNMENT OF CHHATTISGARH
PUBLIC WORKS DEPARTMENT

DETAILED STANDARD ESTIMATE FOR CONSTRUCTION OF 4 (2+2) "H" TYPE QUARTER

ESTIMATED COST - Rs. 24.93 LACS

EXECUTIVE ENGINEER, PUBLIC WORKS DEPARTMENT,
DIVISION NO.-2, RAIPUR (C.G.)

REPORT AND SPECIFICATIONS

1 NAME OF WORK	: Detailed Standard Estimate For Construction Of 4 (2+2) **H-Type Quarter.**
2 AMOUNT OF ESTIMATE	: **Rs.** 24.93 lacs **only.**
3 AUTHORITY	: Department of Health, Government of C.G., Raipur.
4 NECESSITY	: Detailed Standard Estimate has been framed to cover the cost of construction of 4 (2+2) H-Type quarter.
5 PROVISION	: Following provision have been made in the estimate :
Foundation	: Framed structure with 1.8m footing depth
Superstructure	: Brick Masonry in C.M. 1:6
Door & Window	: i) Door frames of pressed steel profile and 30 mm thick flush door shutters. ii) Window will be of pressed steel frame & glazed shutter. iii) PVC door shutter at W.C. & Bath.
Slab	: 120 mm thick R.C.C. Roof slab of M-20. Grading over top slab.
Plaster	: One side 12 mm thick plaster in C.M. 1:6 Other side 15 mm thick plaster in C.M. 1:6
Flooring	: 1) In general terrazzo tile Flooring has been provided. In W.C., Bath and kitchen provision of Ceramic glazed tiles has been taken.
Finishing	: Distempering for inner wall over plaster. Outer walls will be finished with water proofing cement paint.
Water Supply & Sanitary Fittings and Electrification:	Details for Water Supply and Sanitary work & Provision for Electrification work has been made and included in the cost.
6 RATES & SPECIFICATIONS	: Rates provided in the estimate are as per S.O.R. for Building work in forced from 1st June 2009. The work will be executed as per CPWD specifications with upto date amendment.

Sub-Engineer

Sub-Divisional Officer
PWD, Central Store Sub Division,
Raipur

Executive Engineer
PWD, Division No.-2,
Raipur

Superintending Engineer
P.W.D. Raipur Circle 1
RAIPUR (C.G.)

CHIEF ENGINEER
P.W.D. Raipur Zone, Raipur
(CHHATTISGARH)

GENERAL ABSTRACT FOR CONSTRUCTION OF 4 (2+2) H-TYPE QUARTER

S.No.	Description	No. of Units	Total Amount (in Rs.)
	PART "A"		
1	**Cost of 4 H Type Quarter**		
	G.F.	2	9,96,000.00
	F.F.	2	7,04,000.00
2	**Cost of Staircase**	1	213000.00
		(A)	19,13,000.00
3	**Add 4% for External Water Supply**		76520.00
4	**Add 20% for Electrification**		382600.00
5	**Cost of Septic Tank**	**1**	36600.00
		(B)	495720.00
		Total(A)+(B)	24,08720.00
6	**Add 3.5% for Work Charge & Contingencies**		84307.00
		Total Rs. -	24,93027.00
		Say Rs.	24.93 Lakh

SUB ENGINEER

SUB DIVISIONAL OFFICER
CENTRAL STORE SUB DIVISION
RAIPUR

EXECUTIVE ENGINEER
P.W.D. DIVISION No. 2
RAIPUR

CE

Superintending Engineer
P.W.D. Raipur Circle
RAIPUR (C.G.)

मुख्य अभियंता
लोक निर्माण विभाग, रायपुर (छ.ग.)

DETAILED MEASUREMENTS FOR CONSTRUCTION OF H-TYPE Quarter
GROUND FLOOR

S.N	S.O.R. ITEM No.	PARTICULARS	MEASUREMENTS No	L	B	D	QUANTITY	UNIT	RATE	AMOUNT
1	1.1	Excavation for all types and sizes of foundations, trenches and drains or for any other purpose including disposal of excavated stuff upto 1.5 m lift and lead upto 50m (at least 5m away from the excavated area), including dressing and leveling of pits.								
	1.1.1	In all types of soil								
		column footing	9	1.50	1.50	1.80	36.450	cum		
		Steps	1	1.20	0.75	0.20	0.180	cum		
							36.630	**cum**	**112.80**	**4131.86**
2	1.6	Extra for every additional lift of 1.5 m or part thereof.								
	1.6.1	All types of soil								
		column footing	9	1.50	1.50	0.30	6.075			
			1	3.00	1.80	0.20	1.080			
							7.155	**cum**	**15.30**	**109.47**
3	1.18	Providing and filling in plinth with sand/ Crusher dust and hard moorum under floor in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering, including dressing etc. complete.								
		column footing	9	1.50	1.50	1.80	36.450	cum		
		Below floor	1	6.35	6.85	0.50	21.749	cum		
		deduction for internal wall	1	6.65	0.20	0.50	0.665	cum		
			1	3.20	0.20	0.50	0.320	cum		
		deduction for footing & column	9	1.20	1.20	0.30	3.888	cum		
			9	0.20	0.30	0.90	0.486	cum		
		PCC	9	1.40	1.40	0.15	2.646	cum		
							8.005	cum		
							50.194	**cum**	**316.75**	**15898.87**
4	1.17	Filling from available excavated stuff (Excluding rock) in trenches, plinth, sides of foundation etc. in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering with a lead upto 50 M. and lift upto 1.5 M.								
		lum-sum 15% of excavation					**6.870**	**cum**	**38.15**	**262.09**
5	3.1	Providing and laying nominal mix cement concrete with crushed stone aggregate using concrete mixer in foundation, plinth and at ground level excluding cost of form work.								
	3.1.3	1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40mm nominal size).								
		column footing	9	1.50	1.50	0.15	3.038	cum		
		Base conc under floor verandah	1	2.40	0.85	0.10	0.204	cum		
		Living Room	1	3.25	3.40	0.10	1.105	cum		
		Bed room	1	3.40	3.00	0.10	1.020	cum		
		back area	1	6.85	2.70	0.10	1.850	cum		
			1	2.15	0.40	0.10	0.086	cum		
		Steps	1	1.20	0.75	0.10	0.090	cum		
							7.392	**cum**	**2310.85**	**17081.80**
6	3.4	Providing and laying nominal mix reinforcement cement concrete with crushed stone aggregate using concrete mixer in all works upto floor five level excluding cost of reinforcement and form work.								
	3.4.2	1:1½:3 (1 cement : 1½ coarse sand : 3 graded stone aggregate 20mm nominal size).								
		column Footing	9	1.20	1.20	0.40	5.184	cum		
		column up to PL	9	0.30	0.20	1.80	0.972	cum		
		column up to Slab	9	0.30	0.20	3.30	1.782	cum		
		plinth beams PB1	8	3.30	0.20	0.30	1.584	cum		
		PB2	2	2.60	0.20	0.30	0.312	cum		
		Lintel	3	1.80	0.20	0.20	0.216	cum		
		LB2	7	1.20	0.20	0.20	0.336	cum		
		Chhajja	4	1.80	0.60	0.10	0.432	cum		

S.N	S.O.R. ITEM No.	PARTICULARS	MEASUREMENTS				QUANTITY	UNIT	RATE	AMOUNT
			No	L	B	D				
			1	1.30	0.60	0.10	0.078	cum		
		Kitchen laft	1	2.60	0.60	0.10	0.156	cum		
		Slab beams SB1	8	3.30	0.20	0.30	1.584	cum		
		sB2	2	2.60	0.20	0.30	0.312	cum		
		Slab	1	7.05	7.55	0.12	6.387	cum		
		Kitchen plateform	1	2.6	0.60	0.20	0.312	cum		
							19.647	cum		
		deduction for manhole	1	0.45	0.45	0.15	0.030	cum		
							19.617	**cum**	**3290.90**	**64557.34**
7	3.14	Providing and placing in position reinforcement for R.C.C. work including straightening, cutting, bending, binding etc. complete as per drawings including cost of binding wire all complete:								
	3.14.1	Thermo-Mechanically treated bars								
		110.0 kg of RCC work					**2157.86**	**kg**	**46.80**	**100987.93**
9	2.1	Providing and fixing formwork including centering, shuttering, strutting, staging, propping bracing etc. complete and including its removal at all levels, for:								
	2.1.1	Foundations, footings, base of columns and plinth beam in any shape and size.								
		footing sides	9x4	1.20		0.40	17.28	sqm		
		plinth beams GB1	8x2	3.30		0.30	15.84	sqm		
		GB2	2x2	2.60		0.30	3.12	sqm		
		Steps	2	1.20		0.30	0.720	sqm		
		Steps	2	1.20		0.15	0.360	sqm		
							37.32	**sqm**	**73.80**	**2754.22**
	2.1.6	Columns, Pillars, Piers and like-rectangular or square in shape								
		column up to pL	9x2	0.30		1.80	9.72	sqm		
			9x2	0.20		1.80	6.48	sqm		
		column up to Slab	9x2	0.30		3.30	17.82	sqm		
			9x2	0.20		3.30	11.88	sqm		
							45.90	**sqm**	**183.50**	**8422.65**
	2.1.8	Suspended floors, roofs, access platform, balconies (plain surfaces) and shelves (cast in situ)								
		Toilet Slab	1	2.40		0.10	0.240	sqm		
			1	2.00		0.10	0.200	sqm		
			1	2.40	2.00		4.800	sqm		
		Kitchen side slab	1	2.60	0.60		1.560	sqm		
			1x2	0.60		0.10	0.120	sqm		
		Kitchen plateform	1	2.60	0.60		1.560			
			1	2.60		0.10	0.260			
		Slab beams SB1	8x2	3.30		0.30	15.840	sqm		
			8x2	0.20		0.30	0.960	sqm		
		sB2	2x2	2.60		0.30	3.120	sqm		
			2x2	0.20		0.30	0.240	sqm		
		Slab	1	7.05	7.55		53.228	sqm		
							82.13	**sqm**	**147.35**	**12101.49**
	2.1.9	Beams, lintels, cantilevers & walls								
		Lintel beams LB1	8x2	3.30		0.20	10.56	sqm		
		LB2	2x2	2.60		0.20	2.08	sqm		
		Chhajja W1	3	1.70		0.10	0.51	sqm		
			3	1.70	0.60		0.00	sqm		
			3x2	0.60		0.10	0.36	sqm		
		W2	1	1.10		0.10	0.11	sqm		
			1	1.10	0.60		0.66	sqm		
			1x2	0.60		0.10	0.12	sqm		
							14.400	**sqm**	**136.750**	**1969.200**
10	7.2	Brick work with modular well burnt clay bricks of crushing strength not less than 25 kg/sqcm and water absorption not more than 20% in foundation and plinth in:								
(a)	7.2.2	Cement Mortar 1:6 (1 Cement : 6 Coarse Sand)								
		below plinth	8	3.30	0.20	0.60	6.336	cum		
			2	2.60	0.20	0.60	1.248	cum		
		steps	1	1.20	0.30	0.20	0.072	cum		
			1	1.20	0.30	0.38	0.137	cum		
							7.793	**cum**	**2479.60**	**19323.027**

S.N	S.O.R. ITEM No.	PARTICULARS	MEASUREMENTS No	L	B	D	QUANTITY	UNIT	RATE	AMOUNT
11	7.5	Brick work in superstructure:								
	7.5.1	Above plinth and upto floor five level.								
		Bedroom	2	3.25	0.20	3.30	4.290	cum		
			1	3.40	0.20	3.30	2.244	cum		
		Living	2	3.25	0.20	3.30	4.290	cum		
			1	3.20	0.20	3.30	2.112	cum		
		Kitchen	1	2.60	0.20	3.30	1.716	cum		
			1	2.50	0.20	3.30	1.650	cum		
		Verandah	1	1.90	0.20	3.30	1.254	cum		
		Toilet	1	2.70	0.20	3.30	1.782	cum		
							19.338	cum		
		deduction for openings								
		D	1	1.00	0.20	2.10	0.420	cum		
		D1	2	0.90	0.20	2.10	0.756	cum		
		W1	3	1.50	0.20	1.20	1.080	cum		
		W2	1	0.90	0.20	1.20	0.216	cum		
							2.472	cum		
							16.866	**cum**	**2701.25**	**45559.28**
12	7.9	Half brick thick brick masonry with modular well-burnt clay bricks of crushing strength not less than 25 kg/sqcm and water absorption not more than 20% in superstructure above plinth level upto floor five level.								
	7.9.2	Cement Mortar 1:4 (1 cement : 4 coarse sand)								
		Partition Wall								
		Shelves	2	1.20		3.30	7.920	sqm		
			1	0.60		3.30	1.980	sqm		
		Toilet	1	2.40		2.40	5.760	sqm		
			1	1.00		2.40	2.400	sqm		
			1	2.00		2.40	4.800	sqm		
			1	1.05		2.40	2.520	sqm		
			1	0.80		3.30	2.640	sqm		
		Kitchen	1	2.60		3.30	8.580	sqm		
							36.600	sqm		
		deduction for openings								
		D2	4	0.80		2.10	6.720	sqm		
		V	2	0.80		0.60	0.960	sqm		
							7.680	sqm		
							28.920	**sqm**	**283.7**	**8204.60**
13	7.1	Extra for providing and placing in position hopping 25x1.60 mm or 2 Nos 6mm dia MS bars reinforcement at every third course of half brick masonry.								
		quantity same as item no12					**28.920**	**sqm**	**49.05**	**1418.53**
14	3.17	Providing and laying damp proof course (upto 50mm thick) with plain cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded crushed stone aggregate 20mm nominal size) including formwork.								
		2x7.25+2x6.75= 28	1	28.00	0.20	0.05	**0.280**	**cum**	**3,321.70**	**930.08**
15	3.19	Applying a coat of hot bitumen 30/40 using @ 1.7kg/ sqm on damp proof course after cleaning the surface with brushes and finally with a piece of cloth lightly soaked in kerosene oil.								
		2x7.25+2x6.75= 28	1	28.00	0.20		5.600	sqm	78.85	441.56

S.N	S.O.R. ITEM No.	PARTICULARS	MEASUREMENTS No	L	B	D	QUANTITY	UNIT	RATE	AMOUNT
16	9.13	Providing and fixing in position doors, windows and ventilators frames made of cold rolled pressed steel sheet framed profiles made from commercial M.S. Sheets conforming to I.S. 513 of 1973 and as per general specifications of I.S 4351 including hinges jamb, lock jamb, steel butt hinges, base tie, joints mitred and welded with 10cm long legs of size 15x3mm M.S. flat, embedded in cement concrete blocks 15x10x10cm size of grade M-10 or rawl plugs and screws or with fixing clips or with bolts and nuts including neatly compacted filling M-10 cement concrete in profile section applying a priming coat of red oxide zinc chromate primer.								
	9.13.3	Single rebate 100mmx50mm size, 1.25mm thick sheet.								
		D	1	5.30			5.300			
		D1	2	5.20			10.400			
		D2	4	5.10			20.400			
							36.100	metre	344.05	12420.21
	9.13.5	Double rebate 115mmx50mm size, 1.6mm thick sheet								
		W1	4	5.40			21.600	metre		
		W2	1	4.20			4.200	metre		
		V	2	2.80			5.600	metre		
							31.400	metre	469.75	14750.15
17	8.11	Providing and fixing flush door shutters, interior grade, commercial type, core of block board construction with frame of first class hard wood and well matched commercial ply veneering with vertical grains, cross bands and face veneers on both faces of shutters excluding hinges.								
	8.11.3	30 mm. thick (single leaf)								
		D	1	1.00		2.10	2.100	sqm		
		D1	2	0.90		2.10	3.780	sqm		
		D2	2	0.80		2.10	3.360	sqm		
							9.240	sqm	1,542.35	14251.31
18	8.158	Providing and fixing 30mm thick factory made panel PVC door shutter consisting of frame made out of M.S. tubes of 19 gauge thickness and size of 19mm x 19mm for styles and 15x15mm for top & bottom rails. M.S. frame shall have a coat of steel primers of approved make and manufacture M.S. frame covered with 5mm thick heat moulded PVC 'C' channel of size 30mm thickness, 70mm width out of which 50mm shall be flat and 20mm shall be tapered in 45degree angle on either side forming styles; and 5mm thick, 95mm wide PVC sheet out of which 75mm shall be flat and 20mm shall be tapered in 45 degree on the inner side to form top and bottom rail and 115mm wide PVC sheet out of which 75mm shall be flat and 20mm shall be tapered on both sides to form lock rail. Top, bottom and lock rails shall be provided either side of the panel. 10mm (5mm x 2) thick, 20mm wide cross PVC								
	8.158.1	PVC door shutter								
		D2	2	0.80		2.10	3.360			
							3.360	sqm	2,096.90	7045.58
19	8.6	Providing and fixing 30mm thick panelled or glazed or panelled and glazed shutter frames for doors excluding hinges and panelling. (Area of shutter to be measured without deducting panelling area)								
	8.6.2	Bijasal, benteak, khair, haldu								
		W-1	3	1.50		1.20	5.400	sqm		
		W-2	1	0.90		1.20	1.080	sqm		
		V	2	0.80		0.60	0.960	sqm		
							7.44	sqm	561.80	4179.79

S.N	S.O.R. ITEM No.	PARTICULARS	MEASUREMENTS No	L	B	D	QUANTITY	UNIT	RATE	AMOUNT
20	8.9	Providing and fixing glass panes in glazed or panelled and glazed shutters of doors and window, clerestory windows etc (area of shutter to be measured in case of full glazed shutter).								
	8.9.1	4mm thick								
		W-1	4	1.50		1.20	7.200	sqm		
		W-5	2	0.90		1.20	2.160	sqm		
		V	2	0.80		0.60	0.960	sqm		
							10.32	sqm	235.7	2432.42
21	8.107	Providing and fixing M.S. bright finished or black enameled sliding door bolts with bolts, nuts and necessary iron screws:								
	8.107.1	300x16mm	1					each	64.35	64.35
	8.107.2	250 x 16 mm	4					each	59.95	239.80
22	8.108	Providing and fixing M.S. bright finished or black enameled door latch with necessary iron screws:								
	8.108.2	250x20x6mm								
		D	7				7	each	41.75	292.25
23	9.33	Providing and fixing M.S. fan clamp/ hook for ceiling fan made out of 16 mm dia M.S. bar bent to shape with hooked ends in R.C.C. slabs, beams during laying including painting the exposed portion of loop.								
			4				4	each	74.2	296.80
24	8.110	Providing and fixing M.S. bright finished or black enameled Tower bolts (Barrel type) with necessary iron screws:								
	8.110.1	250 mm								
		D	7x1				7	each		
		W	4x3				12	each		
							19	each	28.70	545.30
	8.110.3	150 mm								
		V	2x2				4	each		
							4	each	18.90	75.60
25	8.111	Providing and fixing M.S. bright finished or black enameled handles with necessary iron screws:								
	8.111.1	125 mm								
		D	7x2				14	each		
		W	4x2				8	each		
							22	each	42.40	932.80
26	9.1	Providing and fixing M.S. grill of approved pattern made of M.S. flats or square or round bars welded to steel frame of windows etc. including applying a priming coat of red oxide zinc								
		W-1	3	1.50		1.20	5.400			
		W-2	1	0.90		1.20	1.080			
		V	2	0.80		0.60	0.960			
							7.440			
		lum-sum 30kg/sqm					223.200	kg	60.70	13548.24
27	11.1	6mm thick cement plaster of mix:								
	11.1.2	In Cement mortar 1:4 (1 cement : 4 fine sand)								
		bedroom	1	3.4	3.25		11.050	sqm		
		livingroom	1	3.25	3.40		11.050	sqm		
		almira	1	1.2	0.60		0.720	sqm		
		kitchen	1	2.4	2.70		6.480	sqm		
		w.c.	1	1.05	1.00		1.050	sqm		
			1	1.1	2.00		2.200	sqm		
		passage	1	2.2	2.70		5.940	sqm		
		chhajja	1x2	7.25	0.60		8.700	sqm		
			1	8.45	0.08		0.676	sqm		
			1x2	1.8	0.60		2.160	sqm		
			1	1.8	0.08		0.144			
			1x2	1.2	0.60		1.440	sqm		
			1	1.2	0.08		0.096			
		back space	1	2.4	0.80		1.920	sqm		
							53.626	sqm	70.55	3783.31
28	11.2.4	In cement Mortar 1:6 (1 cement : 6 fine sand)								
		(inner plaster)Back Space	1	2.15		3.03	6.51	sqm		
			1	3.20		3.03	9.70	sqm		
			2	2.70		3.03	16.36	sqm		

S.N	S.O.R. ITEM No.	PARTICULARS	MEASUREMENTS No	L	B	D	QUANTITY	UNIT	RATE	AMOUNT
		Living Room	2	3.25		3.30	21.45	sqm		
			2	3.40		3.30	22.44	sqm		
		Bed room	2	3.40		3.30	22.44	sqm		
			2	3.00		3.30	19.80	sqm		
		Almirah	6	0.60		2.10	7.56	sqm		
		Kitchen	2	2.40		3.03	14.54	sqm		
			2	2.70		3.03	16.36	sqm		
			1	2.60	0.60		1.56	sqm		
		Bath	2	1.10		3.03	6.67	sqm		
			2	2.00		3.03	12.12	sqm		
		W.C	3	1.05		3.03	9.54	sqm		
			2	1.00		3.03	6.06	sqm		
							193.12	sqm		
		deduction for openings								
		D	0.5	1.00		2.10	1.050	sqm		
		D1	2	0.90		2.10	3.780	sqm		
		D2	3.5	0.80		2.10	5.880	sqm		
		W-1	1.5	1.50		1.20	2.700	sqm		
		W-2	0.5	0.90		1.20	0.540	sqm		
		V	1	0.80		0.60	0.480	sqm		
							14.43			
							178.69	**sqm**	**68.40**	**12222.33**
29	11.3	15mm thick cement plaster on the rough side of single or half brick wall of mix:								
	11.3.1	In cement Mortar 1:6 (1 cement : 6 fine								
		back wall of w.c. & bath	2	1.10		3.30	7.26	sqm		
		outer walls	2	6.75		3.80	51.30	sqm		
			2	7.25		3.8	55.10	sqm		
		Almirah	2	0.61		3.8	4.64	sqm		
		steps	1	0.6		0.4	0.24	sqm		
							118.54	sqm		
		deduction for openings								
		D	0.5	1.00		2.10	1.050	sqm		
		D2	0.5	0.80		2.10	0.840	sqm		
		W-1	1.5	1.50		1.20	2.700	sqm		
		W-2	0.5	0.90		1.20	0.540	sqm		
		v	1	0.8		0.6	0.48	sqm		
						total	**5.61**	sqm		
							112.93	**sqm**	79.20	**8943.74**
30	12.2	Cement concrete flooring with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm) finished with a floating coat of neat cement..								
	12.2.2	50 mm thick								
		back space	1	2.40	0.90		2.16	sqm		
							2.16	**sqm**	197.25	**426.06**
31	12.6	Providing and fixing ceramic glazed wall tiles conforming to IS : 15622 of approved make, colours, shades and size on wall and dados over 12 mm thick bed of cement Mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm								
		Bath	3	1		1.5	4.50			
			1	2		1.5	3.00			
			1	1.1		1.5	1.65			
		W.C	1	1.05		1.5	1.58			
			1	0.25		1.5	0.38			
		kitchen	1	2.7		0.6	1.62			
			2	0.6		0.6	0.72			
							13.44	**sqm**	532.35	**7154.78**
32	12.7	Providing and laying ceramic glazed floor tiles 300x300mm conforming to IS : 15622 of approved make, colour, shade laid on 20 mm thick Cement Mortar 1:4 (1 cement : 4 coarse sand) including pointing the joints with white cement mixed with matching pigment								
	12.7.1	In all colours except White, Ivory, Grey, Fume Red Brown,								
		kitchen	1	2.7	2.60		7.020			
			2	2.7		0.15	0.810			
			2	2.6		0.15	0.780			
							8.610			

S.N	S.O.R. ITEM No.	PARTICULARS	MEASUREMENTS No	L	B	D	QUANTITY	UNIT	RATE	AMOUNT
		deduction for D2	1	0.8		0.15	0.120			
		Bath	1	1.10	2.00		2.20			
		W.C	1	1.05	1.00		1.05			
							11.74	**sqm**	**637.1**	**7479.55**
33	12.28	Precast Terrazzo tiles 25mm thick with graded white or black or white and black marble chips of size upto 6mm laid in floors, tread of steps and landing on 25mm thick bed of cement mortar 1:6 (1 cement : 6 coarse sand) jointed with neat cement slurry mixed with pigment to match the shade of tiles, including rubbing and polishing complete with precast tiles of								
	12.28.2	Medium shade using approximately. 50% white cement and 50% ordinary cement.								
		Living Room	1	3.25	3.40		11.05			
		Bed room	1	3.40	3.00		10.20			
			1	0.90	0.60		0.54			
		Passage	1	2.16	2.70		5.83			
			1	1.15	0.90		1.04			
		steps	2	1.20	0.30		0.72			
							29.38			
							29.38	**sqm**	**561.3**	**16490.99**
24	12.3	Precast Terrazzo tiles 25mm thick with marble chips of size upto 6mm in skirting and risers of steps and exceeding 30cm in height on 12mm thick cement plaster 1:3 (1 cement : 3 coarse sand) jointed with neat cement slurry including rubbing and polishing complete with tiles of.								
	12.30.2	Medium shade using approximately. 50% white cement and 50% ordinary cement.								
		Living Room	2	3.40		0.15	1.02			
			2	3.25		0.15	0.98			
		Bed room	2	3.40		0.15	1.02			
			2	3.00		0.15	0.90			
			2	0.60		0.15	0.18			
		steps	3	1.20		0.18	0.65			
			3	0.90		0.20	0.54			
			4	0.80		0.10	0.32			
		Passage	1	2.70		0.15	0.41			
			1	2.16		0.15	0.32			
			1	1.40		0.15	0.21			
		deduction for opening D1	2x2	0.90		0.15	0.54			
		D	1	1.00		0.15	0.15			
		D2	2	0.80		0.15	0.24			
							7.47	**sqm**	**568.9**	**4250.82**
25	6.25	Providing and fixing both side polished 30 mm thick RAJIM SAND STONE shelves fixed in walls in cement mortar 1:3 (1 cement : 3 coarse sand) including finishing complete.								
		almirah	2x3	1.15		0.55	3.795			
			3	1.3		0.61	4.758			
							8.553	**sqm**	**289.55**	**2476.52**
26	13.3	15 mm thick Marble work (machine cut, table rubbed & polished) for kitchen platform, vanity counters, window sills and similar locations of required size laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) including joints treated with white cement mixed with matching pigment including rubbing and polishing to edge moulding to give high gloss finish.								
	13.3.5	Udaipur green marble								
		plate form	1	2.70	0.60		1.62			
		side	1	2.70		0.14	0.378			
							2.00			3042.60
							2.00	**sqm**	**1,521.30**	
27	14.11	Finishing walls with water proofing cement paint to give an even shade.								
	14.11.1	On new work (Two or more coats) Quantity same as item no 26					**114.37**	**sqm**	**24.95**	**2853.53**

S.N	S.O.R. ITEM No.	PARTICULARS	MEASUREMENTS No	L	B	D	QUANTITY	UNIT	RATE	AMOUNT
28	14.5	Distempering with acrylic washable distemper to give an even shade.								
	14.5.1	On new work (Two or more coats)								
		total quantity of plaster as above - item no.25+23=53.69+178.69					232.32	sqm	29.75	6911.52
29	14.18	Painting on new work (two or more coats) to give an even shade with:								
	14.18.2	Premium synthetic enamel paint (2nd top most approved branded quality) to give an even shade.								
		D	1x2	1.00		2.10	5.040	sqm		
		D1	2x2	0.90		2.10	9.072	sqm		
		D2	2x2	0.80		2.10	12.096	sqm		
							26.208	sqm		
		taking multiplying factor 1.2					31.450	sqm		
		W-1	3x2	1.50		1.20	12.960	sqm		
		W-2	1x2	0.90		1.20	2.592	sqm		
		V	2x2	0.80		0.60	1.152	sqm		
							16.704	sqm		
		taking multiplying factor 0.8					13.363	sqm		
		M.S. grill								
		Quantity same as item no. 22					7.440	sqm		
		taking multiplying factor 1					7.440	sqm		
							52.25	sqm	34.75	1815.78
30	19.42	Providing and placing on terrace (at all levels) polyethylene water storage tank ISI marked with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank	1				1000.00	litre	5.35	5350.00
31	19.7	Providing and fixing on wall surface G.I. pipes medium class complete with G.I. fittings and clamps, including cutting, making good the walls etc. and testing of joints complete:								
	19.7.1	15 mm dia. nominal bore					10.00	metre	118.75	1187.50
	19.7.2	20 mm dia. nominal bore					10.00	metre	147.9	1479.00
	19.7.3	25 mm dia. nominal bore					10.00	metre	197.9	1979.00
32	18.1	Providing and fixing water closet squatting pan (Indian type W.C. pan), 100mm sand cast Iron P or S trap, 10 litre low level P.V.C. flushing cistern (same colour) conforming to IS : 7231, with flush bend and other fittings and fixtures complete including								
	18.1.3	White Orissa pattern W.C. pan of size 580x440 mm	1				1	each	2918.40	2918.40
33	18.16	Providing and fixing vitreous china wash basin with C.I. brackets, 32 mm C.P. brass waste of standard pattern, including painting of brackets, cutting and making good the walls wherever required :								
	18.16.3	White Size 450x350 mm	1				1	each	1042.00	1042.00
34	18.74	Providing and fixing on wall face UV stabilized Unplasticised Rigid PVC pipes (single socketed) having 3.2mm wall thickness conforming to IS : 13592 (4kg/sqcm) including jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansi								
	18.74.1	75 mm dia pipe.					10.00	metre	121.15	1211.50
	18.74.2	110 mm dia pipe.					5.00	metre	234.40	1172.00
35	18.75	Providing and fixing on wall face UV stabilized Unplasticised - PVC moulded fittings/ accessories having 3.2mm wall thickness for Rigid PVC pipes conforming to IS : 13592 (heavy) jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for therma								
	18.75.1	Coupler								

DETAILED MEASUREMENTS FOR CONSTRUCTION OF H-TYPE Quarter
FIRST FLOOR

S.N	S.O.R. ITEM No.	PARTICULARS	MEASUREMENTS No	L	B	D	QUANTITY	UNIT	RATE	AMOUNT
1	3.4	Providing and laying nominal mix reinforcement cement concrete with crushed stone aggregate using concrete mixer in all works upto floor five level excluding cost of reinforcement and form work.								
	3.4.2	1:1½:3 (1 cement : 1½ coarse sand : 3 graded stone aggregate 20mm nominal size).								
		column up to from GF slab to FF slab	9	0.30	0.20	3.30	1.782	cum		
		Lintel	3	1.80	0.20	0.20	0.216	cum		
		LB2	7	1.20	0.20	0.20	0.336	cum		
		Chhajja	4	1.80	0.60	0.10	0.432	cum		
			1	1.30	0.60	0.10	0.078	cum		
		Kitchen laft	1	2.60	0.60	0.10	0.156	cum		
			1	3.80	0.60	0.10	0.228	cum		
		Slab beams SB1	8	3.30	0.20	0.30	1.584	cum		
		sB2	2	2.60	0.20	0.30	0.312	cum		
		cantilever beam	2	0.80	0.20	0.30	0.096	cum		
		Slab	1	7.05	7.55	0.12	6.387	cum		
		Kitchen plateform	1	2.6	0.60	0.20	0.312	cum		
							11.919	**cum**	**3290.90**	**39225.22**
1	4.5	Providing and laying water proofing treatment in sunken portion of WCs, bathroom, kitchen etc., by applying cement slurry mixed with water proofing cement compound consisting of following applications including surface preparation:								
		i) First layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/sqm. This layer will be allowed to air cure for 4 hours.								
		ii) Second layer of slurry of cement @ 0.242 kg/sqm mixed with water proofing cement compound@ 0.126 kg/sqm. This layer will be allowed to air cure for 4 hours followed with water curing for 48 hours. The rate includes treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry.								
			1	2.15	2.95		**6.343**	**sqm**	**143.15**	**907.93**
3	1.18	Providing and filling in plinth with sand/ Crusher dust and hard moorum under floor in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering, including dressing etc. complete.								
			1	2.15	2.95	0.23	**1.459**	**cum**	**316.75**	**462.07**
4	4.13	Grading roof for water proofing treatment with								
	4.13.1	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)								
			1	6.85	6.35	0.08	**3.480**	**cum**	**2,998.75**	**10435.05**
5	3.16	Applying cement slurry on R.C.C. slab or cement concrete work using 2.75 kg/Sqm. for receiving cement concrete floor including roughening cleaning etc complete.								
			1	6.85	6.35		**43.498**	**sqm**	**26.45**	**1150.51**
6	3.14	Providing and placing in position reinforcement for R.C.C. work including straightening, cutting, bending, binding etc. complete as per drawings including cost of binding wire all complete:								
	3.14.1	Thermo-Mechanically treated bars								
		110.0 kg of RCC work					**1311.12**	**kg**	**46.80**	**61360.56**

S.N	S.O.R. ITEM No.	PARTICULARS	MEASUREMENTS				QUANTITY	UNIT	RATE	AMOUNT
			No	L	B	D				
7	2.1	Providing and fixing formwork including centering, shuttering, strutting, staging, propping bracing etc. complete and including its removal at all levels, for:								
	2.1.6	Columns, Pillars, Piers and likes-rectangular or square in shape								
		column up to Slab	9x2	0.30		3.30	17.82	sqm		
			9x2	0.20		3.30	11.88	sqm		
							29.70	**sqm**	**183.50**	**5449.95**
	2.1.8	Suspended floors, roofs, access platform, balconies (plain surfaces) and shelves (cast in situ)								
		Toilet Slab	1	2.40		0.10	0.240	sqm		
			1	2.00		0.10	0.200	sqm		
			1	2.40	2.00		4.800	sqm		
		Kitchen laft	1	2.60	0.60		1.560	sqm		
			1x2	0.60		0.10	0.120	sqm		
		Kitchen plateform	1	2.60	0.60		1.560	sqm		
			1	2.60		0.10	0.260	sqm		
		almirah laft	1	3.80	0.60		1.560	sqm		
			1	3.80		0.10	0.260	sqm		
		Slab beams SB1	8x2	3.30		0.30	15.840	sqm		
			8x2	0.20		0.30	0.960	sqm		
		sB2	2x2	2.60		0.30	3.120	sqm		
			2x2	0.20		0.30	0.240	sqm		
		Slab	1	7.05	7.55		53.228	sqm		
							83.95	**sqm**	**147.35**	**12369.66**
	2.1.9	Beams, lintels, cantilevers & walls								
		Lintel beams LB1	8x2	3.30		0.20	10.56	sqm		
		LB2	2x2	2.60		0.20	2.08	sqm		
		cantilever beam	2	0.80	0.20		0.32	sqm		
			2x2	0.80		0.30	0.96	sqm		
		Chhajja W1	3	1.70		0.10	0.51	sqm		
			3	1.70	0.60		0.00	sqm		
			3x2	0.60		0.10	0.36	sqm		
		W2	1	1.10		0.10	0.11	sqm		
			1	1.10	0.60		0.66	sqm		
			1x2	0.60		0.10	0.12	sqm		
							15.680	**sqm**	**136.750**	**2144.240**
8	7.5	Brick work in superstructure:								
	7.5.1	Above plinth and upto floor five level.								
		Bedroom	2	3.25	0.20	3.30	4.290	cum		
			1	3.40	0.20	3.30	2.244	cum		
		Living	2	3.25	0.20	3.30	4.290	cum		
			1	3.20	0.20	3.30	2.112	cum		
		Kitchen	1	2.60	0.20	3.30	1.716	cum		
			1	2.50	0.20	3.30	1.650	cum		
		Verandah	1	1.90	0.20	3.30	1.254	cum		
		Toilet	1	2.70	0.20	3.30	1.782	cum		
							19.338	cum		
		deduction for openings								
		D	1	1.00	0.20	2.10	0.420	cum		
		D1	2	0.90	0.20	2.10	0.756	cum		
		W1	3	1.50	0.20	1.20	1.080	cum		
		W2	1	0.90	0.20	1.20	0.216	cum		
							2.472	cum		
							16.866	**cum**	**2701.25**	**45559.28**
9	7.9	Half brick thick brick masonry with modular well-burnt clay bricks of crushing strength not less than 25 kg/sqcm and water absorption not more than 20% in superstructure above plinth level upto floor five level.								
	7.9.2	Cement Mortar 1:4 (1 cement : 4 coarse sand)								
		Partition Wall								
		Shelves	2	1.20		3.30	7.920	**sqm**		
			1	0.60		3.30	1.980	**sqm**		
		Toilet	1	2.40		2.40	5.760	**sqm**		
			1	1.00		2.40	2.400	**sqm**		
			1	2.00		2.40	4.800	**sqm**		
			1	1.05		2.40	2.520	**sqm**		

S.N	S.O.R. ITEM No.	PARTICULARS	MEASUREMENTS No	L	B	D	QUANTITY	UNIT	RATE	AMOUNT
			1	0.80		3.30	2.640	sqm		
		Kitchen	1	2.60		3.30	8.580	sqm		
		back wash area	1	2.35		0.90	2.115	sqm		
			2	0.10		0.90	0.180	sqm		
							38.895	sqm		
		deduction for openings								
		D2	4	0.80		2.10	6.720	sqm		
		V	2	0.80		0.60	0.960	sqm		
							7.680	sqm		
							31.215	sqm	283.7	**8855.70**
10	7.1	Extra for providing and placing in position hopping 25x1.60 mm or 2 Nos 6mm dia MS bars reinforcement at every third course of half brick masonry.								
		quantity same as item no 9					**31.215**	sqm	49.05	**1531.10**
11	9.13	Providing and fixing in position doors, windows and ventilators frames made of cold rolled pressed steel sheet framed profiles made from commercial M.S. Sheets conforming to I.S. 513 of 1973 and as per general specifications of I.S 4351 including hinges jamb, lock jamb, steel butt hinges, base tie, joints mitred and welded with 10cm long legs of size 15x3mm M.S. flat, embedded in cement concrete blocks 15x10x10cm size of grade M-10 or rawl plugs and screws or with fixing clips or with bolts and nuts including neatly compacted filling M-10 cement concrete in profile section applying a priming coat of red oxide zinc chromate primer.								
	9.13.3	Single rebate 100mmx50mm size, 1.25mm thick sheet.								
		D	1	5.30			5.300			
		D1	2	5.20			10.400			
		D2	4	5.10			20.400			
							36.100	metre	344.05	**12420.21**
	9.13.5	Double rebate 115mmx50mm size, 1.6mm thick sheet								
		W1	4	5.40			21.600	metre		
		W2	1	4.20			4.200	metre		
		V	2	2.80			5.600	metre		
							31.400	metre	469.75	**14750.15**
12	8.11	Providing and fixing flush door shutters, interior grade, commercial type, core of block board construction with frame of first class hard wood and well matched commercial ply veneering with vertical grains, cross bands and face veneers on both faces of shutters excluding hinges.								
	8.11.3	30 mm. thick (single leaf)								
		D	1	1.00		2.10	2.100	sqm		
		D1	2	0.90		2.10	3.780	sqm		
		D2	2	0.80		2.10	3.360	sqm		
							9.240	sqm	1,542.35	**14251.31**

S.N	S.O.R. ITEM No.	PARTICULARS	MEASUREMENTS No	L	B	D	QUANTITY	UNIT	RATE	AMOUNT
13	8.158	Providing and fixing 30mm thick factory made panel PVC door shutter consisting of frame made out of M.S. tubes of 19 gauge thickness and size of 19mm x 19mm for styles and 15x15mm for top & bottom rails. M.S. frame shall have a coat of steel primers of approved make and manufacture . M.S. frame covered with 5mm thick heat moulded PVC 'C' channel of size 30mm thickness, 70mm width out of which 50mm shall be flat and 20mm shall be tapered in 45degree angle on either side forming styles; and 5mm thick, 95mm wide PVC sheet out of which 75mm shall be flat and 20mm shall be tapered in 45 degree on the inner side to form top and bottom rail and 115mm wide PVC sheet out of which 75mm shall be flat and 20mm shall be tapered on both sides to form lock rail. Top, bottom and lock rails shall								
	8.158.1	PVC door shutter								
		D2	2	0.80		2.10	3.360			
							3.360	sqm	2,096.90	7045.58
14	8.6	Providing and fixing 30mm thick panelled or glazed or panelled and glazed shutter frames for doors excluding hinges and panelling. (Area of shutter to be measured without deducting panelling area)								
	8.6.2	Bijasal, benteak, khair, haldu								
		W-1	3	1.50		1.20	5.400	sqm		
		W-2	1	0.90		1.20	1.080	sqm		
		V	2	0.80		0.60	0.960	sqm		
							7.44	sqm	561.60	4179.79
15	8.9	Providing and fixing glass panes in glazed or panelled and glazed shutters of doors and window, clerestory windows etc (area of shutter to be measured in case of full glazed shutter).								
	8.9.1	4mm thick								
		W-1	4	1.50		1.20	7.200	sqm		
		W-5	2	0.90		1.20	2.160	sqm		
		V	2	0.80		0.60	0.960	sqm		
							10.32	sqm	235.7	2432.42
16	8.107	Providing and fixing M.S. bright finished or black enameled sliding door bolts with bolts, nuts and necessary iron screws:								
	8.107.1	300x16mm	1				1.00	each	64.35	64.35
	8.107.2	250 x 16 mm	4				4.00	each	59.95	239.80
17	8.108	Providing and fixing M.S. bright finished or black enameled door latch with necessary iron screws:								
	8.108.2	250x20x6mm								
		D	7				7	each	41.75	292.25
18	9.33	Providing and fixing M.S. fan clamp/ hook for ceiling fan made out of 16 mm dia M.S. bar bent to shape with hooked ends in R.C.C. slabs, beams during laying including painting the exposed portion of loop.								
			4				4	each	74.2	296.80
19	8.110	Providing and fixing M.S. bright finished or black enameled Tower bolts (Barrel type) with necessary iron screws:								
	8.110.1	250 mm								
		D	7x1				7			
		W	4x3				12			
	8.110.3	150 mm					19	each	28.70	545.30
		V	2x2				4			
20	8.111	Providing and fixing M.S. bright finished or black enameled handles with necessary iron screws:					4	each	18.90	75.60
	8.111.1	125 mm								

S.N	S.O.R. ITEM No.	PARTICULARS	MEASUREMENTS				QUANTITY	UNIT	RATE	AMOUNT
			No	L	B	D				
		D	7x2				14			
		W	4x2				8			
							22	each	42.40	932.80
21	9.1	Providing and fixing M.S. grill of approved pattern made of M.S. flats or square or round bars welded to steel frame of windows etc. including applying a priming coat of red oxide								
		W-1	3	1.50		1.20	5.400			
		W-2	1	0.90		1.20	1.080			
		V	2	0.80		0.60	0.960			
							7.440			
		lum-sum 30kg/sqm					223.200	kg	60.70	13548.24
22	11.1 11.1.2	6mm thick cement plaster of mix: In Cement mortar 1:4 (1 cement : 4 fine sand)								
		bedroom	1	3.4	3.25		11.050	sqm		
		livingroom	1	3.25	3.40		11.050	sqm		
		almira	1	1.2	0.60		0.720	sqm		
		kitchen	1	2.4	2.70		6.480	sqm		
		w.c.	1	1.05	1.00		1.050	sqm		
			1	1.1	2.00		2.200	sqm		
		passage	1	2.2	2.70		5.940	sqm		
		chhajja	1x2	7.25	0.60		8.700	sqm		
			1	8.45	0.08		0.676	sqm		
			1x2	1.8	0.60		2.160	sqm		
			1	1.8	0.08		0.144			
			1x2	1.2	0.60		1.440	sqm		
			1	1.2	0.08		0.096			
		back space	1	2.4	0.80		1.920	sqm		
							53.626	sqm	70.55	3783.31
23	11.2.4	In cement Mortar 1:6 (1 cement : 6 fine sand)								
		(inner plaster)Back Space	1	2.15		3.03	6.51	sqm		
			1	3.20		3.03	9.70	sqm		
			2	2.70		3.03	16.36	sqm		
		Living Room	2	3.25		3.30	21.45	sqm		
			2	3.40		3.30	22.44	sqm		
		Bed room	2	3.40		3.30	22.44	sqm		
			2	3.00		3.30	19.80	sqm		
		Almirah	6	0.60		2.10	7.56	sqm		
		Kitchen	2	2.40		3.03	14.54	sqm		
			2	2.70		3.03	16.36	sqm		
			1	2.60	0.60		1.56	sqm		
		Bath	2	1.10		3.03	6.67	sqm		
			2	2.00		3.03	12.12	sqm		
		W.C	3	1.05		3.03	9.54	sqm		
			2	1.00		3.03	6.06	sqm		
							193.12	sqm		
		deduction for openings								
		D	0.5	1.00		2.10	1.050	sqm		
		D1	2	0.90		2.10	3.780	sqm		
		D2	3.5	0.80		2.10	5.880	sqm		
		W-1	1.5	1.50		1.20	2.700	sqm		
		W-2	0.5	0.90		1.20	0.540	sqm		
		V	1	0.80		0.60	0.480	sqm		
							14.43			
							178.69	sqm	68.40	12222.33
24	11.3	15mm thick cement plaster on the rough side of single or half brick wall of mix:								
	11.3.1	In cement Mortar 1:6 (1 cement : 6								
		back wall of w.c. & bath	2	1.10		3.30	7.26	sqm		
		outer walls	2	6.75		3.30	-	sqm		
			2	7.25		3.30	47.85	sqm		
		Almirah	2	0.61		3.30	4.03	sqm		
							59.14	sqm		
		deduction for openings								
		D	0.5	1.00		2.10	1.050	sqm		
		D2	0.5	0.80		2.10	0.840	sqm		
		W-1	1.5	1.50		1.20	2.700	sqm		
		W-2	0.5	0.90		1.20	0.540	sqm		
		v	1	0.8		0.6	0.48	sqm		
						total	5.61	sqm		
							53.53	sqm	79.20	4239.26

S.N	S.O.R. ITEM No.	PARTICULARS	MEASUREMENTS No	L	B	D	QUANTITY	UNIT	RATE	AMOUNT
25	12.2	Cement concrete flooring with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm) finished with a floating coat of neat cement..								
	12.2.2	50 mm thick								
		back space	1	2.40	0.90		2.16	sqm		
							2.16	**sqm**	**197.25**	**426.06**
26	12.6	Providing and fixing ceramic glazed wall tiles conforming to IS : 15622 of approved make, colours, shades and size on wall and dados over 12 mm thick bed of cement Mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm								
		Bath	3	1		1.5	4.50			
			1	2		1.5	3.00			
			1	1.1		1.5	1.65			
		W.C	1	1.05		1.5	1.58			
			1	0.25		1.5	0.38			
		kitchen	1	2.7		0.6	1.62			
			2	0.6		0.6	0.72			
							13.44	**sqm**	**532.35**	**7154.78**
27	12.7	Providing and laying ceramic glazed floor tiles 300x300mm conforming to IS : 15622 of approved make, colour, shade laid on 20 mm thick Cement Mortar 1:4 (1 cement : 4 coarse sand) including pointing the joints with white cement mixed with matching pigment								
	12.7.1	In all colours except White, Ivory, Grey, Fume Red Brown,								
		kitchen	1	2.7	2.60		7.020			
			2	2.7		0.15	0.810			
			2	2.6		0.15	0.780			
							8.610			
		deduction for D2	1	0.8		0.15	0.120			
		Bath	1	1.10	2.00		2.20			
		W.C	1	1.05	1.00		1.05			
							11.74	**sqm**	**637.1**	**7479.55**
28	12.28	Precast Terrazzo tiles 25mm thick with graded white or black or white and black marble chips of size upto 6mm laid in floors, tread of steps and landing on 25mm thick bed of cement mortar 1:6 (1 cement : 6 coarse sand) jointed with neat cement slurry mixed with pigment to match the shade of tiles, including rubbing and polishing complete with precast tiles of								
	12.28.2	Medium shade using approximately. 50% white cement and 50% ordinary cement.								
		Living Room	1	3.25	3.40		11.05			
		Bed room	1	3.40	3.00		10.20			
			1	0.90	0.60		0.54			
		Passage	1	2.16	2.70		5.83			
			1	1.15	0.90		1.04			
							28.66			
							29.38	**sqm**	**561.3**	**16490.99**
29	12.3	Precast Terrazzo tiles 25mm thick with marble chips of size upto 6mm in skirting and risers of steps and exceeding 30cm in height on 12mm thick cement plaster 1:3 (1 cement : 3 coarse sand) jointed with neat cement slurry including rubbing and polishing complete with tiles of.								
	12.30.2	Medium shade using approximately. 50% white cement and 50% ordinary cement.								
		Living Room	2	3.40		0.15	1.02			
			2	3.25		0.15	0.98			
		Bed room	2	3.40		0.15	1.02			
			2	3.00		0.15	0.90			
			2	0.60		0.15	0.18			
			3	0.90		0.20	0.54			

S.N	S.O.R. ITEM No.	PARTICULARS	MEASUREMENTS No	L	B	D	QUANTITY	UNIT	RATE	AMOUNT
			4	0.80		0.10	0.32			
		Passage	1	2.70		0.15	0.41			
			1	2.16		0.15	0.32			
			1	1.40		0.15	0.21			
		deduction for opening D1	2x2	0.90		0.15	0.54			
		D	1	1.00		0.15	0.15			
		D2	2	0.80		0.15	0.24			
							6.82	**sqm**	**568.9**	**3882.17**
30	6.25	Providing and fixing both side polished 30 mm thick RAJIM SAND STONE shelves fixed in walls in cement mortar 1:3 (1 cement : 3 coarse sand) including finishing complete.								
		almirah	2x3	1.15		0.55	3.795			
			3	1.3		0.61	4.758			
							8.553	**sqm**	**289.55**	**2476.52**
31	13.3	15 mm thick Marble work (machine cut, table rubbed & polished) for kitchen platform, vanity counters, window sills and similar locations of required size laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) including joints treated with white cement mixed with matching pigment including rubbing and polishing to edge moulding to give high gloss finish.								
	13.3.5	Udaipur green marble								
		plate form	1	2.70	0.60		1.62			
		side	1	2.70		0.14	0.378			
							2.00			3042-00
							2.00	**sqm**	**1,521.30**	
32	14.11	Finishing walls with water proofing cement paint to give an even shade.								
	14.11.1	On new work (Two or more coats)								
		Quantity same as item no 26					**114.37**	**sqm**	**24.95**	**2853.53**
33	14.5	Distempering with acrylic washable distemper to give an even shade.								
	14.5.1	On new work (Two or more coats)								
		total quantity of plaster as above - item no.25+23=53.69+178.69					**232.32**	**sqm**	**29.75**	**6911.52**
34	14.18	Painting on new work (two or more coats) to give an even shade with:								
	14.18.2	Premium synthetic enamel paint (2nd top most approved branded quality) to give an even shade.								
		D	1x2	1.00		2.10	5.040	sqm		
		D1	2x2	0.90		2.10	9.072	sqm		
		D2	2x2	0.80		2.10	12.096	sqm		
							26.208	sqm		
		taking multiplying factor 1.2					**31.450**	**sqm**		
		W-1	3x2	1.50		1.20	12.960	sqm		
		W-2	1x2	0.90		1.20	2.592	sqm		
		V	2x2	0.80		0.60	1.152	sqm		
							16.704	sqm		
		taking multiplying factor 0.8					**13.363**	**sqm**		
		M.S. grill								
		Quantity same as item no. 22					7.440	sqm		
		taking multiplying factor 1					**7.440**	sqm		
35	19.42	Providing and placing on terrace (at all levels) polyethylene water storage tank ISI marked with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without					**52.25**	**sqm**	34.75	1815.78
			1				**1000.00**	**litre**	5.35	5350.00
36	19.7	Providing and fixing on wall surface G.I. pipes medium class complete with G.I. fittings and clamps, including cutting, making good the walls etc. and testing of joints complete:								
	19.7.1	15 mm dia. nominal bore					**10.00**	**metre**	118.75	1187.50

S.N	S.O.R. ITEM No.	PARTICULARS	MEASUREMENTS No	L	B	D	QUANTITY	UNIT	RATE	AMOUNT
	19.7.2	20 mm dia. nominal bore					10.00	metre	147.9	1479.00
	19.7.3	25 mm dia. nominal bore					10.00	metre	197.9	1979.00
37	18.1	Providing and fixing water closet squatting pan (Indian type W.C. pan), 100mm sand cast Iron P or S trap, 10 litre low level P.V.C. flushing cistern (same colour) conforming to IS : 7231, with flush bend and other fittings and fixtures complete including								
	18.1.3	White Orissa pattern W.C. pan of size 580x440 mm	1				1	each	2918.40	2918.40
38	18.16	Providing and fixing vitreous china wash basin with C.I. brackets, 32 mm C.P. brass waste of standard pattern, including painting of brackets, cutting and making good the walls wherever required :								
	18.16.3	White Size 450x350 mm	1				1	each	1042.00	1042.00
39	18.74	Providing and fixing on wall face UV stabilized Unplasticised Rigid PVC pipes (single socketed) having 3.2mm wall thickness conforming to IS : 13592 (4kg/sqcm) including jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansi								
	18.74.1	75 mm dia pipe.					15.00	metre	121.15	1817.25
	18.74.2	110 mm dia pipe.					10.00	metre	234.40	2344.00
40	18.75	Providing and fixing on wall face UV stabilized Unplasticised - PVC moulded fittings/ accessories having 3.2mm wall thickness for Rigid PVC pipes conforming to IS : 13592 (heavy) jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for therma								
	18.75.1	Coupler								
	18.75.1.1	75 mm					3	each	65.55	196.65
	18.75.1.2	110 mm					3	each	90.55	271.65
	18.75.2	Single tee with door								
	18.75.2.1	75x75x75 mm					2	each	104.60	209.20
	18.75.2.2	110x110x110 mm					2	each	196.75	393.50
	18.75.5	Plain bend								
	18.75.5.1	75 mm bend					2	each	146.75	293.50
	18.75.5.2	110 mm bend					2	each	183.45	366.90
	18.75.6	Vent covel								
	18.75.6.1	75 mm					2	each	29.65	59.30
	18.75.9	Nahani trap 110x75mm					3	each	100.70	302.10
	19.13	Providing and fixing 15 mm nominal bore Brass bib/stop cock of approved quality and weighting not less than 400 grams):								
	19.13.1	Bib cock					4.00	each	230.15	920.60
	19.13.2	Stop cock					2.00	each	230.15	460.30
									Total	3,51,853.00
									Say Rs	3,52,000.00

3.52 Lakh

SUB-ENGINEER

SUB DIVISIONAL OFFICER
P.W.D. (B & R)Central Store SUB Dn.
RAIPUR (C.G.)

EXECUTIVE ENGINEER
P.W.D. (B & R) DIVISION No.2
RAIPUR (C.G.)

For Train → 2 × 3.52 → 7.04 Lacs

DETAILED MEASUREMENTS FOR CONSTRUCTION OF STAIR CASE & PARAPET Of G TYPE Quarter

S.N	S.O.R. ITEM No.	PARTICULARS	MEASUREMENTS No	L	B	D	QUANTITY	UNIT	RATE	AMOUNT
1	1.1	Excavation for all types and sizes of foundations, trenches and drains or for any other purpose including disposal of excavated stuff upto 1.5 m lift and lead upto 50m (at least 5m away from the excavated area), including dressing and leveling of pits.								
	1.1.1	In all types of soil								
		front steps	1	2.40	0.60	0.10	0.144	cum		
		for Ground beam	3	2.40	0.40	0.20	0.576	cum		
							0.576	**cum**	**112.80**	**64.97**
2	3.1	Providing and laying nominal mix cement concrete with crushed stone aggregate using concrete mixer in foundation, plinth and at ground level excluding cost of form work.								
	3.1.3	1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40mm nominal size).								
		front steps	1	2.40	0.60	0.10	0.144			
		for Ground beam	3	2.40	0.40	0.10	0.288			
		below floor	1	2.40	6.35	0.10	1.524			
							1.956	**cum**	**2310.85**	**4520.02**
3	3.4	Providing and laying nominal mix reinforcement cement concrete with crushed stone aggregate using concrete mixer in all works upto floor five level excluding cost of reinforcement and form work								
	3.4.2	1:1½:3 (1 cement : 1½ coarse sand : 3 graded stone aggregate 20mm nominal size).								
		GB	3	2.40	0.20	0.30	0.432	cum		
		landing and floor beam	3	2.40	0.20	0.30	0.432	cum		
		landing and floor beam FF	3	2.40	0.20	0.30	0.432	cum		
		lintel beam	2	2.40	0.20	0.20	0.192	cum		
		lintel beam FF	2	2.40	0.20	0.20	0.192	cum		
		chajja	1	2.40	0.60	0.08	0.108	cum		
		chajja FF	1	2.40	0.60	0.08	0.108	cum		
			1	1.20	0.60	0.08	0.054	cum		
		waist slab	2	1.20	2.70	0.15	0.972	cum		
		waist slab FF	2	1.20	2.70	0.15	0.972	cum		
		slab 1st landing	1	2.40	1.20	0.15	0.432	cum		
		slab 2nd landing F.F	1	2.40	1.20	0.15	0.432	cum		
		steps	18x.5	1.20	0.26	0.15	0.405	cum		
		F.F steps	18x.5	1.20	0.25	0.15	0.405	cum		
		Lobby slab	1	2.4	2.65	0.15	0.954	cum		
		Lobby slab FF	1	2.40	2.65	0.15	0.954	cum		
		column	4	2.40	0.20	0.30	0.576	cum		
							8.052	**cum**	**3290.90**	**26498.33**
4	3.14	Providing and placing in position reinforcement for R.C.C. work including straightening, cutting, bending, binding etc. complete as per drawings including cost of binding wire all complete:								
	3.14.1	Thermo-Mechanically treated bars								
		110.0 kg of RCC work					**885.72**	**kg**	**46.80**	**41451.70**
5	2.1	Providing and fixing formwork including centering, shuttering, strutting, staging, propping bracing etc. complete and including its removal at all levels, for								
	2.1.8	Suspended floors, roofs, access platform, balconies (plain surfaces) and shelves (cast in situ)								
		Lobby slab	1	2.40		2.65	6.360	sqm		
			1	1.2	0.15		0.18	sqm		
		Lobby slab	1	2.40		2.65	6.360	sqm		
			1	1.2	0.15		0.18	sqm		
							6.54	**sqm**	**147.35**	**963.67**
	2.1.16	Stair cases of all types excluding spiral and folded plate type, including risers and landings								

S.N	S.O.R. ITEM No.	PARTICULARS	MEASUREMENTS No	L	B	D	QUANTITY	UNIT	RATE	AMOUNT
		waist slab	2	1.20	2.70		6.480	sqm		
			2	2.70		0.15	0.810	sqm		
		waist slab of F.F	2	1.20	2.70		6.480	sqm		
			2	2.70		0.15	0.810	sqm		
		slab 1st landing	1	2.40	1.20		2.880	sqm		
			1	2.40	1.20		2.880	sqm		
		slab 2nd landing of F.F.	1	2.40	1.20		2.880	sqm		
			1	2.40	1.20		2.880	sqm		
		steps	18	1.20		0.17	3.672	sqm		
		steps of F.F	18	1.20		0.17	3.672	sqm		
			18x0.5	0.25		0.17	0.383	sqm		
		for F.F	18x0.5	0.25		0.17	0.383	sqm		
							33.827	sqm	**163.8**	**5540.78**
	2.1.6	Columns, Pillars, Piers and likes- rectangular or square in shape								
		Columns,	4x2	2.4		0.20	3.840	sqm		
			4x2	2.4		0.30	5.760	sqm		
							9.600	**sqm**	**183.5**	**1761.60**
	2.1.14	Weather shade, chhajja, Comices and mouldings								
		front chhajja	1	2.40	0.60		1.440	sqm		
			1	2.40		0.08	0.180	sqm		
		back chhajja	1	1.20	0.60		0.720	sqm		
			1	1.2		0.08	0.090	sqm		
			2	0.6		0.08	0.090	sqm		
		back chhajja of F.F.	1	1.20	0.60		0.720	sqm		
			1	1.2		0.08	0.090	sqm		
			2	0.6		0.08	0.090	sqm		
							3.420	**sqm**	**190.7**	**652.19**
	2.1.9	Beams, lintels, cantilevers & walls								
		GB	3x2	2.40		0.30	4.320	sqm		
		landing and floor beam	3x2	2.40		0.30	4.320	sqm		
			3x1	2.4	0.2		1.44	sqm		
		for F.F landing beam	3x2	2.40		0.30	4.320	sqm		
			3x1	2.4	0.2		1.44	sqm		
		lintel beam	2	2.40	0.20		0.000	sqm		
			1	2.40		0.20	0.480	sqm		
			3	2.40		0.30	2.160	sqm		
		lintel beam of F.F	2	2.40	0.20		0.000	sqm		
			1	2.40		0.20	0.480	sqm		
			3	2.40		0.30	2.160	sqm		
							8.880	**sqm**	**136.75**	**1214.34**
6	7.2	Brick work with modular well burnt clay bricks of crushing strength not less than 25 kg/sqcm and water absorption not more than 20% in foundation and plinth in:								
			2	2.40	0.20	0.30	0.288	cum		
		steps	1	2.40	0.30	0.18	0.130	cum		
			1	2.40	0.60	0.18	0.259	cum		
							0.677	cum	2479.60	**1678.19**
7	3.17	Providing and laying damp proof course (upto 50mm thick) with plain cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded crushed stone aggregate 20mm nominal size) including formwork.								
			2	2.40	0.20	0.05	**0.048**	cum	3,321.70	**159.44**
8	7.5	Extra for brick work in superstructure:								
	7.5.1	Above plinth and upto floor five level.								
		outer parapet	2	16.90	0.20	0.75	2.535	cum		
			2	6.75	0.20	0.75	1.013	cum		
		stair case room	2	3.90	0.20	2.40	1.872	cum		
			1	2.40	0.20	2.40	1.152	cum		
			1	2.40	0.20	1.65	0.792	cum		
		Front & Back Wall	2	2.40	0.20	3.30	1.584	cum		
		Back Wall in FF	1	2.40	0.20	3.30	1.584	cum		

S.N	S.O.R. ITEM No.	PARTICULARS	MEASUREMENTS No	L	B	D	QUANTITY	UNIT	RATE	AMOUNT
		Front	1	2.40	0.20	0.30	0.144	cum		
							10.676	cum		
		deduction for CG	1	2.40	0.20	2.10	1.008	cum		
		v	2	0.90	0.20	1.50	0.270	cum		
		D	1	1.00	0.20	2.10	0.420	cum		
							8.978	cum		
							8.978	**cum**	**2701.25**	**24250.47**
9	11.1 11.1.2	6mm thick cement plaster of mix: In Cement mortar 1:4 (1 cement : 4 fine sand)								
		stair	1	4	1.20		4.800	sqm		
			1	1.5	1.20		1.800	sqm		
		stair of FF	1	4	1.20		4.800	sqm		
			1	1.5	1.20		1.800	sqm		
		landing	1	2.4	1.20		2.880	sqm		
			1	1.2	2.00		2.400	sqm		
			1	2.4	1.65		3.960	sqm		
		landing of FF	1	2.4	1.20		2.880	sqm		
			1	1.2	2.00		2.400	sqm		
			1	2.4	1.65		3.960	sqm		
		front chhajja	1	2.40	0.60		1.440	sqm		
			1	2.40		0.08	0.180	sqm		
		back chhajja	1	1.20	0.60		0.720	sqm		
			1	1.2		0.08	0.090	sqm		
			2	0.6		0.08	0.090	sqm		
		back chhajja of F.F.	1	1.20	0.60		0.720	sqm		
			1	1.2		0.08	0.090	sqm		
			2	0.6		0.08	0.090	sqm		
							35.100	**sqm**	**70.55**	**2476.31**
10	11.2	12mm thick cement plaster of mix:								
	11.2.4	In cement Mortar 1:6 (1 cement : 6 fine sand)								
		Back Wall	1.00	2.40		3.30	7.92	sqm		
		Front wall	2.00	2.40		3.30	15.84	sqm		
		Back Wall of FF	1.00	2.40		3.30	7.92	sqm		
		Front wall of FF	2.00	2.40		3.30	15.84	sqm		
		stair case	2x2	2.40		2.40	23.04	sqm		
			2x2	3.90		2.40	37.44	sqm		
							108.00	sqm		
		CG	1	2.40		2.10	5.040	sqm		
		v	1	0.80		0.60	0.480	sqm		
							102.48	**sqm**	**68.40**	**7009.63**
11	3.2.2	1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size).								
		outer parapet	2	16.90	0.20	0.05	0.338	cum		
			2	6.75	0.20	0.05	0.135	cum		
		front wall of lobby	1	2.40	0.20	0.05	0.024	cum		
							0.50	**cum**	**2,860.95**	**1421.89**
12	11.3	15mm thick cement plaster on the rough side of single or half brick wall of mix:								
	11.3.1	In cement Mortar 1:6 (1 cement : 6 fine sand)								
		outer parapet	2x2	16.90		0.75	50.700	sqm		
			2x2	6.75		0.75	20.250	sqm		
		back wall stair	1	2.40		3.30	7.920	sqm		
		front wall	1	2.40		3.30	7.920	sqm		
		back wall stair of FF	1	2.40		3.30	7.920	sqm		
		front wall	1	2.40		0.30	0.720			
		stair room SF	2	4.30		2.40	20.640			
			2	2.80		2.40	13.440			
							129.510			
		deduct CG	1	2.40		2.10	5.040			
		D	0.5	1.00		2.10	1.050			
							123.42	**sqm**	**79.20**	**9774.86**
13	10.13	Providing asbestos cement 6mm thick corrugated or semi corrugated sheets roofing fixed with galvanized J or L hooks, bolts and nuts 8mm dia G.I. plain bitumen washers complete excluding the cost of purlins, rafters and trusses.								
		a.c	1	4.56	3.11		**14.18**	**sqm**	**335.65**	**4760.05**

S.N	S.O.R. ITEM No.	PARTICULARS	MEASUREMENTS No	L	B	D	QUANTITY	UNIT	RATE	AMOUNT
14	8.11	Providing and fixing flush door shutters, interior grade, commercial type, core of block board construction with frame of first class hard wood and well matched commercial ply veneering with vertical grains, cross bands and face veneers on both faces of shutters excluding hinges.								
	8.11.3	30 mm. thick (single leaf)								
		D	1	1.00		2.10	2.100	sqm	1,542.35	3238.94
15	9.13	Providing and fixing in position doors, windows and ventilators frames made of cold rolled pressed steel sheet framed profiles made from commercial M.S. Sheets conforming to I.S. 513 of 1973 and as per general specifications of I.S 4351 including hinges jamb, lock jamb, steel butt hinges, base tie, joints mitred and welded with 10cm long legs of size 15x3mm M.S. flat, embedded in cement concrete blocks 15x10x10cm size of grade M-10 or rawl plugs and screws or with fixing clips or with bolts and nuts including neatly compacted filling M-10 cement concrete in profile section applying a priming coat of red oxide zinc chromate primer.								
	9.13.3	Single rebate 100mmx50mm size, 1.25mm thick sheet.								
		D	1	5.30			5.300	metre	344.05	1823.47
16	8.110	Providing and fixing M.S. bright finished or black enameled Tower bolts (Barrel type) with necessary iron screws:								
	8.110.1	250 mm								
		D	1				1	each	28.70	28.70
17	8.111	Providing and fixing M.S. bright finished or black enameled handles with necessary iron screws:								
	8.111.1	125 mm								
		D	2				2	each	42.40	84.80
18	9.6	Providing and fixing in position collapsible steel shutters with vertical channels 20x10x2mm and braced with flat iron diagonals 20x5mm size with top and bottom rails of T-iron 40x40x6mm with 38mm steel pulleys complete with bolts, nuts, locking arrangement stoppers, handles including applying a priming coat of red oxide zinc chromate primer.								
		collapsible	1	2.4	0.1		0.24	sqm	2,355.95	565.43
19	9.31	Providing and fixing approved pipe hand rail by welding to iron railing including applying a priming coat of red oxide zinc chromate primer.								
	9.31.1	M.S Pipe								
		FF & GF stair case	4	3.12			63.65	kg		
		front grill	1	2.4			12.24	kg		
		50mm dia at the rate of 5.1 kg /m					75.89	kg	65.5	4970.66
20	9.1	Providing and fixing M.S. grill of approved pattern made of M.S. flats or square or round bars welded to steel frame of windows etc. including applying a priming coat of red oxide								
		V	2	0.90		0.60	1.080			
		below handrail	4	3.12		0.75	9.360			
		FF Front grill	1	2.40		0.50	1.200			
							11.640			
		lum-sum 30kg/sqm					349.200	kg	60.70	21196.44

S.N	S.O.R. ITEM No.	PARTICULARS	MEASUREMENTS No	L	B	D	QUANTITY	UNIT	RATE	AMOUNT
21	9.3	Steel work in tubular structure in built-up sections, trusses and frame work including cutting, hoisting, fixing in position upto a height of 5m above plinth level, consisting of columns trusses, roof and bottom purlins, base plate, holding down bolts, wind ties bracing (if required), bolts, nuts and washers for fastening etc. complete with applying a priming coat of red oxide zinc chromate primer.								
	9.3.1	Hot finished welded tubes								
		quantity same as item no13					28.56	kg	65.85	1880.68
22		Extra for hoisting trusses and placing in position over height above 5m for every 2.5 m height or part thereof.								
		quantity same as item no13					28.56	kg	2.1	59.98
23	12.46	KOTA stone slab 25mm thick in risers and treads of steps, skirting dado and pillar laid in 12mm (average) thick cement mortar 1:3 (1 cement : 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slab including rubbing and polishing complete. (single stone is to be used for riser and treads of steps and the width of stone for skirting and dado shall be equal to the height of skirting/ dado with a minimum length of 1.0 M.)								
		steps trade	18	1.2	0.28		6.05	sqm		
		riser	19	1.2		0.18	4.10	sqm		
		skirting of steps	18	0.3		0.15	0.81	sqm		
			2	2.4		0.15	0.72	sqm		
			1	1.2		0.15	0.18	sqm		
		skirting	2	6.75		0.15	2.03	sqm		
			1	2.4		0.15	0.36	sqm		
		steps trade of FF	18	1.2	0.28		6.05	sqm		
		riser of FF	19	1.2		0.18	4.10	sqm		
		skirting of steps	18	0.3		0.15	0.81	sqm		
			2	2.4		0.15	0.72	sqm		
			1	1.2		0.15	0.18	sqm		
		skirting	2	2.85		0.15	0.86	sqm		
			1	2.4		0.15	0.36	sqm		
		front steps trade	2	2.4	0.3		1.44	sqm		
		riser	3	2.4		0.18	1.30	sqm		
							30.06	sqm	650.1	19542.01
24	12.45	25 mm thick KOTA stone slab flooring over 20mm (average) thick base of cement mortar 1:4 laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab including grinding rubbing and polishing etc. complete (Area of slab to be over 0.20 sq.m and upto 0.50 sq.m)								
		landing	1	2.4	1.2		2.88	sqm		
		flooring	1	2.4	6.75		16.20	sqm		
		landing for FF	1	2.4	1.2		2.88	sqm		
		flooring of FF	1	2.4	2.85		6.84	sqm		
							28.80			
		deduction	2	1.2	0.25		0.60	sqm		
							28.20	sqm	584.65	16487.13
25	12.47	Extra for nosing in steps and treads of kota stone slab.								
		steps	18	1.2			21.60	RM		
		front steps trade	2	2.4			4.80	RM		
		steps of FF	18	1.2			21.60	RM		
							21.60	metre	45.9	991.44
26	14.11	Finishing walls with water proofing cement paint to give an even shade.								
	14.11.1	On new work (Two or more coats)								
		Qty same as outer plaster								
		quantity same as item no.10					123.42	sqm	24.95	3079.33

S.N	S.O.R. ITEM No.	PARTICULARS	MEASUREMENTS No	L	B	D	QUANTITY	UNIT	RATE	AMOUNT
27	14.18 14.18.2	Painting on new work (two or more coats) to give an even shade with: Premium synthetic enamel paint (2nd top most approved branded quality) to give an even shade. quantity same as item no. 8 + item no. 9								
		3.14*0.05m diameter	2	3.12			0.98			
		for FF	2	3.12			0.98			
		facter 1.2 D	2	1		2.10	5.04			
		grill qntty same as item no 18 above					11.640 18.64	sqm	34.75	647.72
28	14.5	Distempering with acrylic washable distemper to give an even shade.								
	14.5.1	On new work (Two or more coats)								
		total quantity of plaster as above - item no.8+9					137.58	sqm	29.75	4093.01
									TOTAL	212888.17
									SAY Rs	2,13,000.00
		SUB-ENGINEER	SUB DIVISIONAL OFFICER P.W.D. Central Store SUB Dn. RAIPUR (C.G.)						EXECUTIVE ENGINEER P.W.D., DIVISION No.2 RAIPUR (C.G.)	

DETAILED MEASUREMENTS FOR CONSTRUCTION OF SEPTIC TANK

S.N	S.O.R. ITEM No.	PARTICULARS	MEASUREMENTS No	L	B	D	QUANTITY	UNIT	RATE	AMOUNT
1	1.1	Excavation for all types and sizes of foundations, trenches and drains or for any other purpose including disposal of excavated stuff upto 1.5 m lift and lead upto 50m (at least 5m away from the excavated area), including dressing and leveling of pits.								
	1.1.1	In all types of soil								
		septic tank	1	3.00	1.80	1.70	9.180	cum		
							9.180	**cum**	**112.80**	**1035.50**
2	1.6	Extra for every additional lift of 1.5 m or part thereof.								
	1.6.1	All types of soil								
			1	3.00	1.80	0.20	1.080			
							1.080	**cum**	**15.30**	**16.52**
3	1.17	Filling from available excavated stuff (Excluding rock) in trenches, plinth, sides of foundation etc. in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering with a lead upto 50 M. and lift upto 1.5 M.								
		lum-sum					**2.000**	**cum**	**38.15**	**76.30**
4	3.1	Providing and laying nominal mix cement concrete with crushed stone aggregate using concrete mixer in foundation, plinth and at ground level excluding cost of form work.								
	3.1.3	1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40mm nominal size).								
		septic tank	1	3.00	1.80	0.10	0.540	cum		
							0.540	**cum**	**2310.85**	**1247.86**
5	3.4	Providing and laying nominal mix reinforcement cement concrete with crushed stone aggregate using concrete mixer in all works upto floor five level excluding cost of reinforcement and form work.								
	3.4.2	1:1½:3 (1 cement : 1½ coarse sand : 3 graded stone aggregate 20mm nominal size).								
		septic tank buffale valve	1	1.6	0.10	0.60	0.096	cum		
		septic tank slab	1	2.80	1.60	0.15	0.672	cum		
							0.768	cum		
		deduction for manhole	1	0.45	0.45	0.15	0.030	cum		
							0.738	**cum**	**3290.90**	**2427.45**
6	3.1	Providing and laying nominal mix cement concrete with crushed stone aggregate using concrete mixer in foundation, plinth and at ground level excluding cost of form work.								
	3.1.4	1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 40mm nominal size).								
		septic tank	1	2.20	1.00	0.12	0.264	cum		
							0.264	**cum**	**2,800.90**	**739.44**
7	11.5	Neat Cement punning								
		septic tank	1	2.20	1.00		2.200	sqm		
			2	2.2		2	8.800	sqm		
			2	1.00		2	4.000	sqm		
							15.000	**sqm**	**25.9**	**388.50**
8	20.15	Providing and fixing in position precast R.C.C. manhole cover and frame M D- 10 of required shape and approved quality								
	20.15.1	Square shape 450mm internal dimension	1				**1.000**	**each**	**930.1**	**930.10**
9	3.14	Providing and placing in position reinforcement for R.C.C. work including straightening, cutting, bending, binding etc. complete as per drawings including cost of binding wire all complete:								
	3.14.1	Thermo-Mechanically treated bars								
		110.0 kg of RCC work					**81.18**	**kg**	**46.80**	**3799.22**

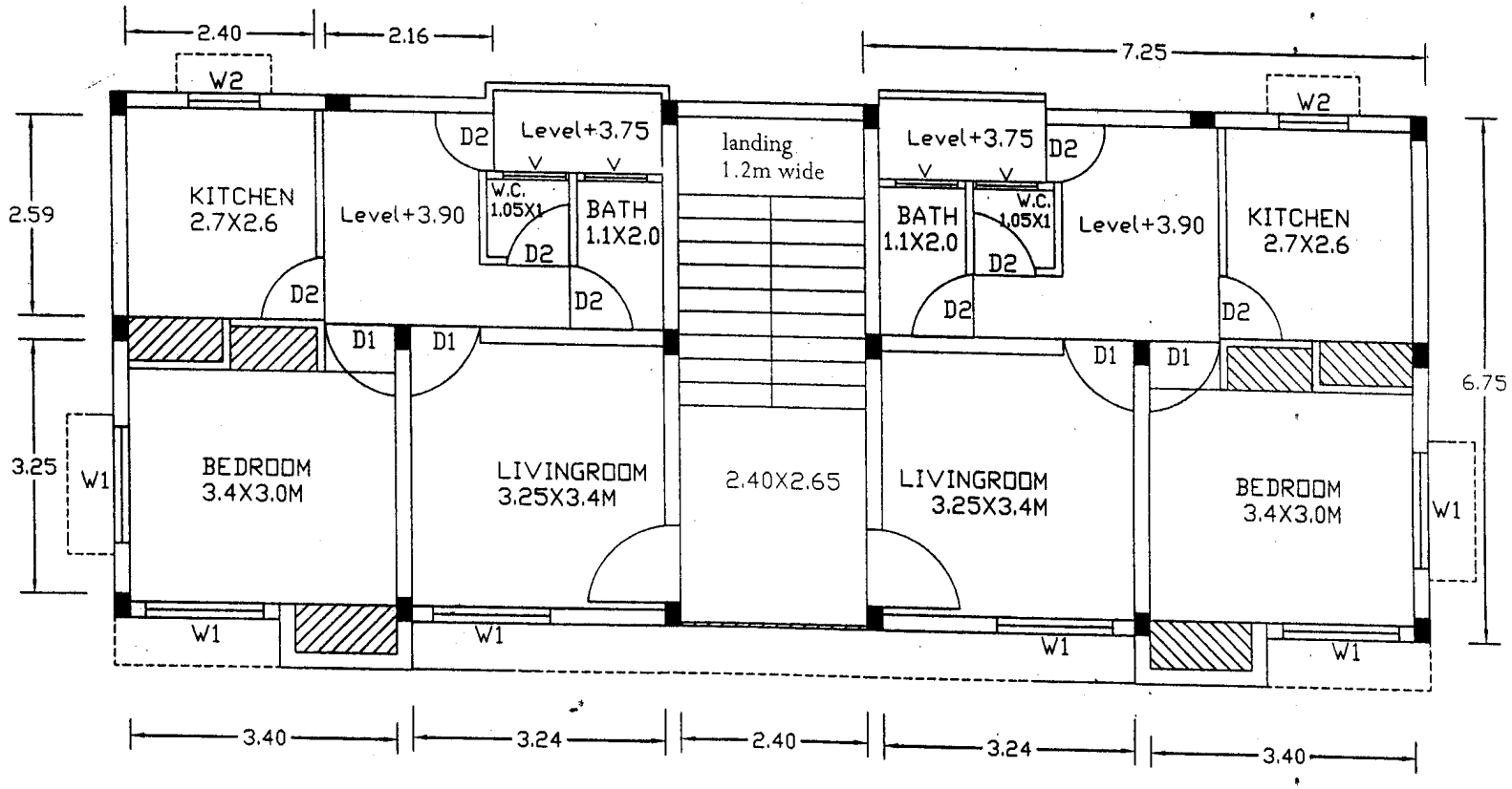
S.N	S.O.R. ITEM No.	PARTICULARS	MEASUREMENTS No	L	B	D	QUANTITY	UNIT	RATE	AMOUNT
10	2.1	Providing and fixing formwork including centering, shuttering, strutting, staging, propping bracing etc. complete and including its removal at all levels, for:								
	2.1.8	Suspended floors, roofs, access platform, balconies (plain surfaces) and shelves (cast in situ)								
		septic tank	1x2	2.80		0.15	0.840	sqm		
			1x2	1.60		0.15	0.480	sqm		
			1	2.40	1.20		2.880	sqm		
							0.84	sqm	147.35	123.77
	2.1.9	Beams, lintels, cantilevers & walls								
		buffale wall	2	1.60		0.60	1.92	sqm		
			1	1.60	0.10		0.16	sqm		
							2.080	**sqm**	**136.750**	**284.440**
11	7.2	Brick work with modular well burnt clay bricks of crushing strength not less than 25 kg/sqcm and water absorption not more than 20% in foundation and plinth in:								
(a)	7.2.2	Cement Mortar 1:6 (1 Cement : 6 Coarse Sand)								
		septic tank	2	2.80	0.20	1.00	2.240	cum		
			2	1.20	0.20	1.00	0.960	cum		
			2	2.8	0.30	1.00	3.360	cum		
			2	1	0.30	1.00	1.200	cum		
							7.760	**cum**	**2479.60**	**19241.696**
12	11.2	12mm thick cement plaster of mix:								
	11.2.1	In cement Mortar 1:3 (1 cement : 3 fine sand)								
		septic tank	2	2.20		2.00	8.80	sqm		
			2	1.20		2.00	4.80	sqm		
							13.60	**sqm**	**87.90**	**1195.44**
13	12.2	Cement concrete flooring with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm) finished with a floating coat of neat cement..								
	12.2.2	50 mm thick								
		For Septic Tank	1	1.20	2.40		2.88	sqm		
							2.88	**sqm**	**197.25**	**568.08**
14	20.27	Providing and constructing brick masonry chamber for underground C.I. inspection chamber and bends with well burnt modular clay bricks crushing strength not less than 35kg/cm² in cement mortar 1:4 (1 cement : 4 coarse sand) C.I. cover with frame (light du								
	20.27.1	Inside dimensions 455x610 mm and 45 cm deep for single pipe line :	1				1	each	3519.95	3519.95
15	20.30	Providing and constructing soak pit 1.20x1.20x1.20m filled with brickbats including S.W. drain pipe 100 mm diameter and 1.20 m long complete as per standard design.	1				1	each	999.00	999.00
									TOTAL	36593.28

Say Rs 36600.00

SUB-ENGINEER

SUB DIVISIONAL OFFICER
P.W.D. (B & R)Central Store SUB Dn.
RAIPUR (C.G.)

EXECUTIVE ENGINEER
P.W.D. (B & R) DIVISION No.2
RAIPUR (C.G.)



FIRST FLOOR PLAN

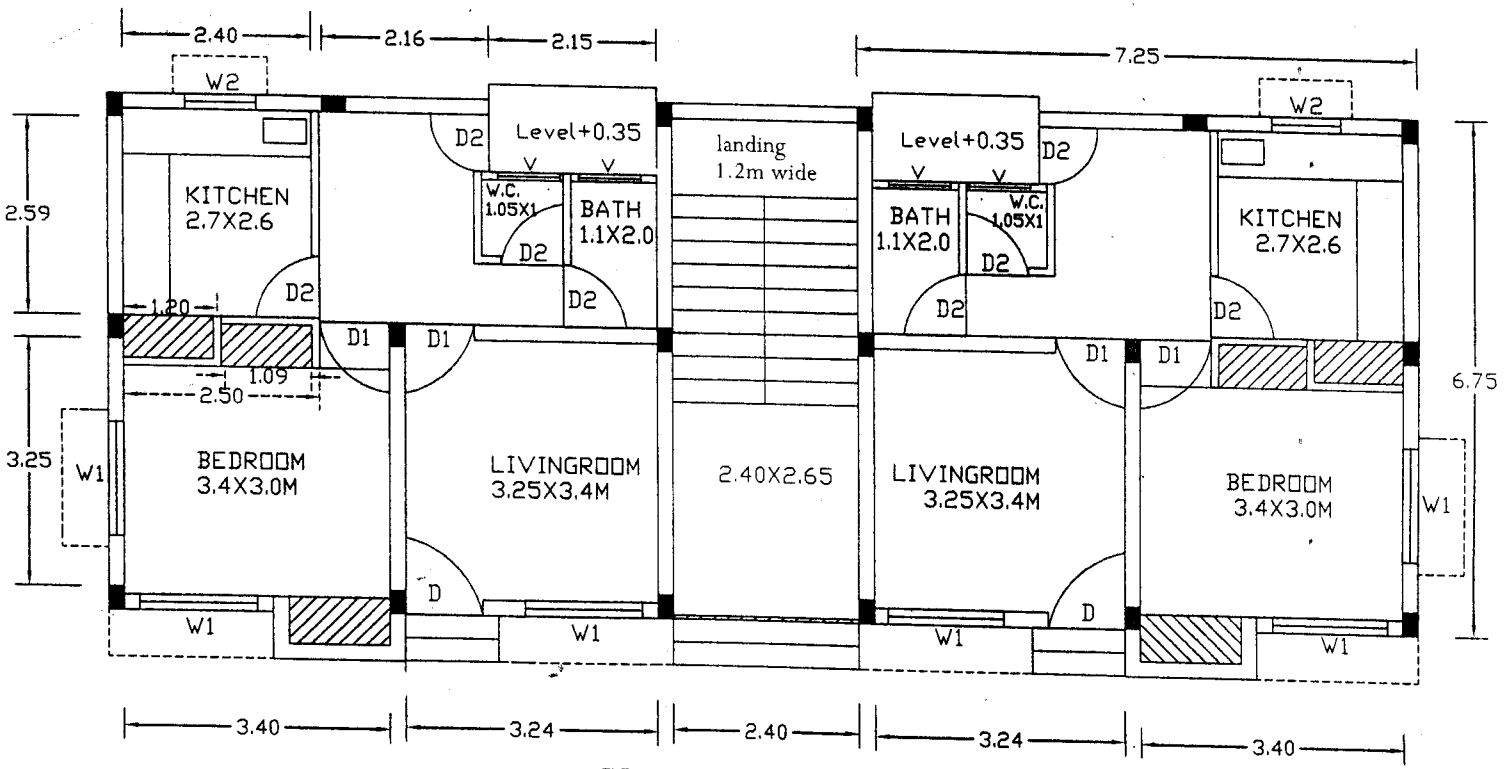
S.NO	SCHEDULE OF OPENINGS			
	PARTICULATE		NO.s	SIZE
1.	DOOR	D	1	1x2.1M
		D1	2	0.9x2.1M
		D2	4	0.8x2.1M
		D3	-	
2.	WINDOW	W1	3	1.5x1.2M
		W2	1	0.9x1.2M
3.	VENTILATOR	V	2	0.8x0.6M

Sub Engr.

Sub-Divisional Officer
P.W.D. Central Store Sub-Division
Raipur (C.G.)

Executive Engineer
P.W.D. Div.-No. 2
Raipur (C.G.)

DWG. NAME :	H TYPE QUARTER	
SCALE :		DATE : 04.03.2010
PLINTH LEVEL-0.5M	DRAWN BY	CHECKED BY
GROUND LEVEL-0.0M	SUB Er. Amlaka	



GROUND FLOOR PLAN

S.NO	SCHEDULE OF OPENINGS			
	PARTICULATE		NO.s	SIZE
1.	DOOR	D	1	1×2.1M
		D1	2	0.9×2.1M
		D2	4	0.8×2.1M
		D3	-	
2.	WINDOW	W1	3	1.5×1.2M
		W2	1	0.9×1.2M
3.	VENTILATOR	V	2	0.8×0.6M

Sub-Divisional Officer
P.W.D. Central Store Sub-Division
Raipur (C.G.)

Executive Engineer
P.W.D. Div.-No. 2
Raipur (C.G.)

DWG. NAME :	H TYPE QUARTER	
SCALE : 1		DATE : 04.03.2010
PLINTH LEVEL-0.5M	DRAWN BY	CHECKED BY
GROUND LEVEL-0.0M	SUB Er. Ankita	

गणना प्रमाण-पत्र

प्रमाणित किया जाता है कि **4 (2+2) 'H'** टाईप क्वार्टर का मानक प्राक्कलन संलग्न मानचित्र के अनुसार बनाया गया है। [redacted] की गणना भवन एस.ओ.आर., दिनॉक 01.06.2009 के अनुसार की गई है।

अनुविभागीय अधिकारी
लोक निर्माण विभाग, सेंटल स्टोर उपसंभाग
रायपुर (छ.ग.)

कार्यपालन अभियंता
लोक निर्माण विभाग संभाग क्रं.–2
रायपुर (छ.ग.)