

Estimating & Costing -1

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*Estimation and Costing***Preparation of Unit rates for finished items of works****1 a) Cement Concrete in foundation (1:5:10)**

S.No.	Description of Item	Quantity	Unit	Rate	Per	Amount
1.	40mm HBG Metal	0.92	Cum	547.75	Cum	503.93
2.	Sand	0.46	cum	284.80	Cum	131.00
3.	Cement	0.092	Cum	2700.00	MT	357.70
4.	Mason Ist Class	0.06	No	150.00	Nos	9.00
5.	Mason 2nd Class	0.14	No	131.00	Nos	18.34
6.	Man mazdoor	1.80	No	101.00	Nos	181.80
7.	Women Mazdoor	1.40	No	101.00	Nos	141.40
8.	Add Extra 15%on M.L.					52.58
						1395.75
9.	Add T.O.T. @4%					55.83
10.	Sundries					0.42
					Total Rs.	1452.00

b). Cement Concrete in foundation (1:4:8)

S.No.	Description of Item	Quantity	Unit	Rate	Per	Amount
1.	40mm HBG Metal	0.92	Cum	547.75	Cum	503.93
2.	Sand	0.46	Cum	284.80	Cum	131.00
3.	Cement	0.115	Cum	2700.00	MT	447.12
4.	Mason Ist Class	0.06	No	150.00	Nos	9.00
5.	Mason 2nd Class	0.14	No	131.00	Nos	18.34
6.	Man mazdoor	1.80	No	101.00	Nos	181.80
7.	Women Mazdoor	1.40	No	101.00	Nos	141.40
8.	Add Extra 15%on M.L.					52.58

Analysis of Rates

2 a) P.C.C.(1:2:4)

S.No.	Description of Item	Quantity	Unit	Rate	Per	Amount
1.	20mm HBG Metal	0.92	Cum	797.75	Cum	733.93
2.	Sand	0.46	cum	284.80	Cum	131.00
3.	Cement	0.23	Cum	2700.00	MT	894.24
4.	Mason Ist Class	0.2	No	180.00	Nos	30.00
5.	Man mazdoor	1.8	No	131.00	Nos	235.80.
6.	Women Mazdoor	1.4	No	101.00	Nos	141.40
7.	Vibrating charges	1.0	Cum	101.00	Nos	101.00
8.	Machiny mixing concrete	1.0	Cum	28.80	cum	28.80
9	Add Extra 15%on M.L					76.23
Total Rs.						2372.40

b) For steel reinforcement

S.No.	Description of Item	Quantity	Unit	Rate	Per	Amount
1.	cost of steel	1.00	MT	27500	MT	27500.00
2.	Fabrication charges	1.00	MT	5.00	Kg	5000.00
3.	Add 15% on M.L.					750.00
						33250.00
4.	Add T.O.T. @4%					1330.00
5.	Sundries					0.00
Total Rs.						34580.00

c) V.R.C.C (1:2:4) for bed blocks, column footings including form work centering charges

S.No.	Description of Item	Quantity	Unit	Rate	Per	Amount
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Estimation and Costing

d) V.R.C.C (1:2:4) for columns rectangular beams, pedestals including form work at centering charges.

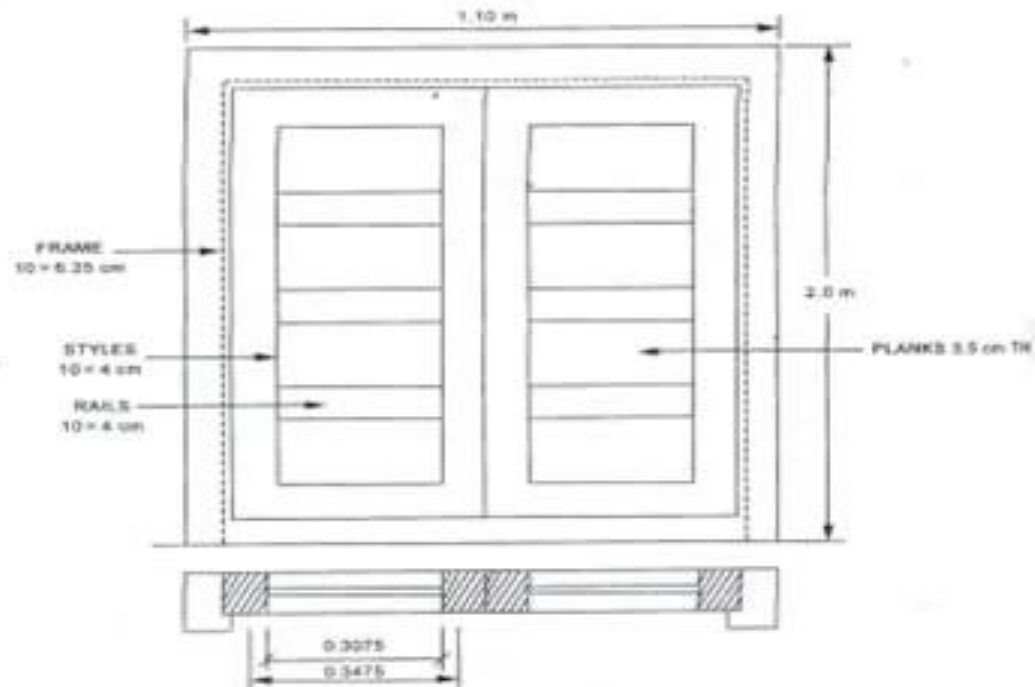
S.No.	Description of Item	Quantity	Unit	Rate	Per	Amount
1.	V.P.C.C. (1:2:4)	1.00	Cum	2372.40	Cum	2372.40
2.	Centering Charges	1.00	Cum	675.00	Cum	675.00
3.	Steel for columns, beams @1.5% = 1.5/ 100x7.85=0.117t	0.117	MT	34580.00	MT	4072.00
						<u>7119.40</u>
4.	Add T.O.T. @4%					284.77
5.	Sundries					0.83
					Total Rs.	<u>7405.00</u>

e) V.R.C.C (1:2:4) for slabs, lintels including form work at centering charges upto 100mm, thick

S.No.	Description of Item	Quantity	Unit	Rate	Per	Amount
1.	V.P.C.C (1:2:4)	1.00	Cum	2372.40	Cum	2372.40
2.	Centering Charges	10.00	Cum	710.00	Cum	710.00
3.	Steel for slabs @1% = 1/100 x 7.85 = 0.0785 t	0.0785	MT	34580.00	MT	2714.53
						<u>5796.63</u>
	Add T.O.T. @4%					231.87
	Sundries					1.20

Estimation and Costing

5 a) Supply and fixing teak wood fully paneled with 10x 4 cm styles, and 10x4cm rails and 3.5CM TH panels with teak wood fram of 6.25x 10cm size including cost of hold fasts, but hinges and labour charges for fixing door in position and fixing furniture etc., complete for one door of size 1.100 x 2.00 of area 2.2 sqm.

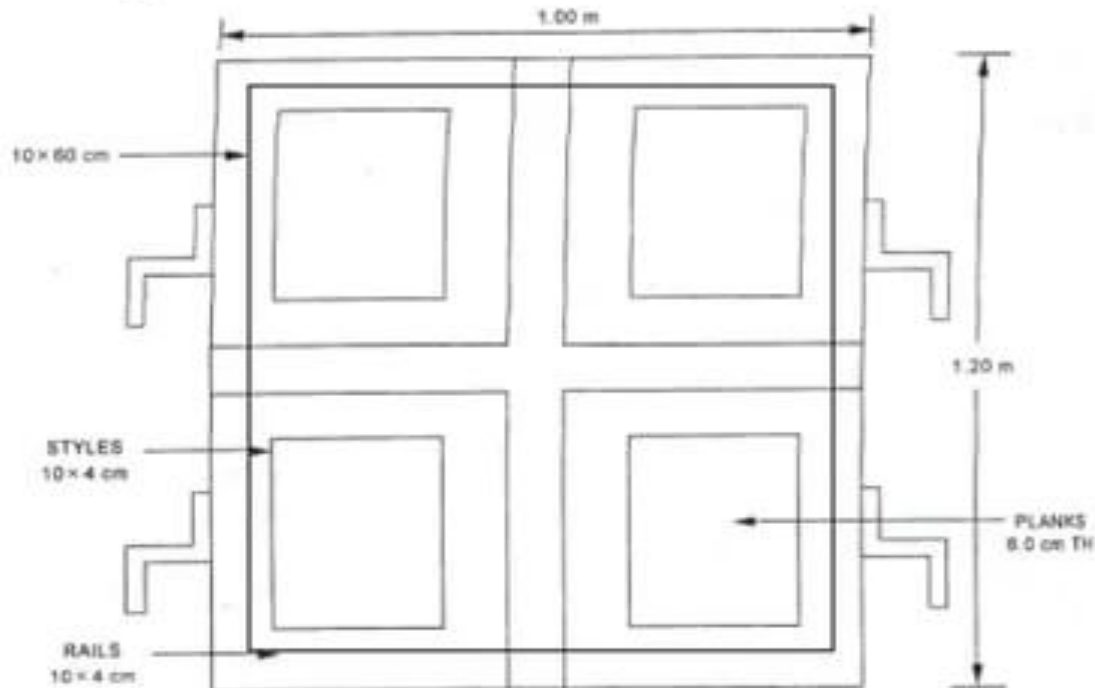


Requirements :

- i) Verticals = $2 \times 2.0 \times 0.10 \times 0.0625 = 0.0250$
- ii) Horizontals = $1 \times 1.10 \times 0.10 \times 0.0625 = 0.0068$
- iii) Styles = $4 \times 1.937 \times 0.10 \times 0.04 = 0.0300$

Analysis of Rates

5 b) Supply and fixing teak wood fully panneded with 10x 4 cm styles, and 10x4cm rails and 3.5CM TH panels with teak wood fram of 6.25x 10cm size including cost of hold fasts, but hinges and labour charges for fixing window in position and fixing furniture etc., complete for one window of size 1.0x1.2 of area 1.2 sqm.



Requirements :

- i) Verticals = $3 \times 1.2 \times 0.10 \times 0.0625 = 0.0225$
- ii) Horizontals = $3 \times 1.00 \times 0.10 \times 0.0625 = 0.0188$
- iii) Styles = $4 \times 2 \times 0.10 \times 0.04 = 0.0160$

Analysis of Rates

S.No.	Description of Item	Quantity	Unit	Rate	Per	Amount
	Cost of CM(1:4)	0.09	Cum			
1.	Cement = $\frac{1}{4} \times 1.44 \times 0.09$	0.032	t	2700.00	Mt	87.48
2.	Sand = $\frac{1}{4} \times 0.09$	0.09	Cum	284.80	Cum	25.63
3.	Mining Charges	1.0	Cum	32.50	Cum	32.50
4.	mason 1st Class	0.48	Nos.	150.00	Nos	72.00
5.	2nd Class	1.12	Nos	131.00	Nos	146.72
6.	Man mazdoor	0.50	Nos	101.00	Nos	55.00
7.	Women Mazdoor	1.10	Nos	101.00	Nos	111.10
8.	Add 15% on ML					57.72
						588.15
9.	Add TOT @ 4%					23.53
10.	Sundries					0.32
Total Rs.						612.00

4. Cement concrete flooring (1:2:4) using 12mm HBG machine crushed chips from approved quarry to site of work including curing cost and conveyance of all materials completed.

S.No.	Description of Item	Quantity	Unit	Rate	Per	Amount
1.	12mm HBG metal	0.92	Cum	680.25	cum	625.83
2.	crushed chips					
3.	Sand	0.46	cum	284.80	cum	131.00