ESTIMATE OF REST HOUSE

(Total Area = 1962 sq. ft. + Courtyard 278 sq.ft , Porch 300 sq.ft)

1. C/C length of walls = 55.25 x 1 + 39.75 x 1 + 46.50 x 1 +
   31.00 x 1 + 6.75 x 3 + 39.25 x 2 +
   14.75 x 5 running feet
   = 345 running feet
   = 105.16 running meter
2. C/C length of court yard wall = 26.75 x 1 + 8.75 x 1
   = 35.50 running feet
   = 10.82 running meter
3. No. of columns = 34
4. Size of each column = 22 nos. of size 12 inches x 9 inches
   = 12 nos. of size 9 inches x 9 inches
5. Plinth = 0.5 meter above ground level
6. Beam at plinth level = 9 inches x 9 inches
7. Beam at door level = 9 inches x 6 inches
8. Beam at slab level = 9 inches x 12 inches
9. Thickness of slab = 4 inches

Estimate of different works

1. Excavation:

(i) For columns = 34 x 1.0 x 1.0 x 1.2 meter
= 40.800 cubic meter

(ii) For walls = (105.16 + 10.82 - 64 x 0.5) x 0.3 x 0.5
= 12.597 cubic meter

(iii) Total excavation = 53.397 cubic meter

2. **Filling foundation with 1:3:6 (M-10) cement concrete:**

(i)	For columns	= 34 x 1.0 x 1.0 x 0.1
		= 3.400 cubic meter
(ii)	For walls	= (105.16 + 10.82) x 0.3 x 0.1
		= 3.479 cubic meter
(iii)	For flooring in rooms	= 182.51 x 0.1
		= 18.251 cubic meter
(iv)	Total CC	= 25.13 cubic meter

3. **R.C.C. work in 1:1.5:3 (M-20) in columns, beams,chajjas & slab:**

(i)	Columns footing	= 34 x (1 x 1 + 0.22 x 0.22)/2 x 0.3
		= 5.346 cubic meter
(ii)	Columns up to plinth level	= 34 x 1.2 x 0.22 x 0.22
		= 1.974 cubic meter
(iii)	Column up to roof level	= 34 x 0.22 x 0.22 x 3.1
		= 5.101 cubic meter
(iv)	Beam at plinth level	= (105.16 + 10.82) x 0.22 x 0.22
		= 5.612 cubic meter
(v)	Beam at door level	= 105.16 x 0.22 x 0.15
		= 3.470 cubic meter
(vi)	Beam at slab level	= 105.16 x 0.22 x 0.30
		= 6.940
(vii)	Chajjas	= 6 x 0.6 x 1.5 x 0.1
		= 0.540 cubic meter
(viii)	Slab	= 182.51 x 0.1
		= 18.251 cubic meter
(ix)	Total RCC	= 47.234 cubic meter

4. **Steel required in RCC** = 2.00 % of volume of RCC
= 7415 kg

5. **Masonary in foundation/plinth** = (105.16 + 10.82– 34 x 0.22) x 0.22 x 0.9
= 21.483 cubic meter

6. **Masonary in superstructure**:

(i) In main building = (105.16 + 10.82) x 0.22 x 2.90
= 73.995 cubic meter

(ii) Deduction for doors/windows = (4 x 1.07 x 2.1 + 7 x 0.838 x 2.1 +
3 x 1.5 x 1.35 + 9 x 1.2 x 1.35 +
4 x 0.6 x 0.45) x 0.22
= 9.663 cubic meter

(iii) Deduction for masonary in verandah = (19.812 x 2.1 x 0.22)
= 9.153

(iv) Total Masonary = 55.179 cubic meter

7. **Plaster in 1:6 cement mortar**

(i) In main building = 2 x (105.16 + 10.82) x 3.4
= 788.664 square meter

(ii) In roof = 182.51 sq. m

(iii) Deduction for doors/windows =2 x (4 x 1.07 x 2.1 + 7 x 0.838 x 2.1 +
3 x 1.5 x 1.35 + 9 x 1.2 x 1.35 +
4 x 0.6 x 0.45)
= 87.845 square meter

(iv)Total plaster = 883.329 square meter

8. **Centering and shuttering**:

(i) For Columns in main building = 34 x 4 x 0.22 x 4.6

= 137.632 square meter

(ii) For beam at plinth level = (105.16 + 10.82) x 0.3

= 34.794 square meter

(iii) For beam at door level = 105.16 x 0.525

= 55.209 square meter

(iii) For beam at roof level = 105.16 x 0.96

= 100.954 square meter

(iv) For chajjas = 6 x 0.6 x 1.5

= 5.400 square meter

(v) For slab = 182.51 sq. m

(vi) Total shuttering = 516.499 square meter

9. **Filling foundation with moorum** = 182.51 x 0.5

= 91.26 cubic meter

10. **Wood required for frames** = 0.0635 x 0.127 x (4 x 5.334 + 7 x 5.105 + 3 x 8.534 + 9 x 5.4 + 4 x 2.1)

= 1.126 cubic meter

11. Frame work for doors/window = (4 x 1.07 x 2.1 + 7 x 0.838 x 2.1 + 3 x 1.5 x 1.35 + 9 x 1.2 x 1.35 + 4 x 0.6 x 0.45)

= 43.922 square meter

12 **Flooring** = 182.51 square meter

Estimate of expenditure for forest Rest House

Sr.	CSR item no.	Description of the work	Quantity	Rate in Rs.		Amount
				Amount	Unit	
1	2.2	Clearing jungle including uprooting of rank vegetation, grass, brush wood etc	350	4.14	Sqm	1449
2	2.6.	Earth work in excavation in all kinds of soil	53.397	129.00	Cum	6888
3	4.1.1.4	Filling foundation- Providing and laying in position cement concrete of M-10 grade with 20 mm nominal size graded stone aggregate	25.13	3890.00	Cum	97756
4	5.1.1	Providing and laying in position M-20 grade of reinforced cement concrete with 20 mm nominal size graded stone aggregate excluding cost of centering/shuttering/steel	47.234	6153.00	Cum	290631
5	5.16.6	Reinforcement for RCC work including straighening, cutting, bending etc with TMT bars	7415	80.00	Kg	593200
6	6.5.2	Brick work with well burnt open bhatta bricks with crushing strength no less than 25 kg/sq.cm and absorption not more than 20% in 1:6 cement mortar	21.483	4155.00	Cum	89262
7	6.6.2	Brick work with well burnt chimney bricks with crushing strength no less than 25 kg/sq.cm and absorption not more than 20% in 1:6 cement mortar	55.179	4350.00	Cum	240029
8	13.2.2	15 mm thick plaster in 1:6 cement mortar	883.329	128.00	Sqm	113066
9	5.9.1	Centering and shuttering including removal in beams, columns, slab etc	516.499	190.60	Sqm	98445
10	2.26	Supplying and filling in plinth with Stone dust including ramming, watering etc	91.26	672.00	Cum	61327
11	9.1.2	Providing wood work in frames of doors and fixed in position with sal wood	1.126	71309.00	Cum	80294
12	9.5.2.2	Providing and fixing panelled shutters for doors with prelaminated board with decorative lamination on one side and balancing lamination on other side	43.922	1956.00	Sqm	85911

Sr.	CSR item no.	Description of the work	Quantity	Rate in Rs.		Amount
				Amount	Unit	
13	11.78.1.1	Providing and laying vitrified floor tiles laid on 20 mm thick cement mortar in 1:4 with 600 mm x 600 mm x 9 mm size tiles (additional 10% for skirting)	182.51	1104.00	Sqm	201491
14		Cost of window grills as per market rate	390	80.00	Kg	31200
15		Aluminium window frame 3 track sliding (2Glass+1 Mosquito mesh shutter) & fly proof outer doors	LS			100000
16		Cost of septic tank of size 6` feet x 6 feet x 6 feet; 1 no.	LS			40000
		Miscellaneous Expnese	LS			20000
17		**Total**				**2150948**
18		Add 5% for electrification				107547
19		Add 5% for sanitary fittings including 1500 liter tank				107547
20		Add for tile work in bath/toilets	LS			70000
21		Add 7% for white washing (with 2 coats of cement based putty and emulsion				150566
22		Add for almirah (one each in both suites, one in kitchen, one in dining room) 4 nos.				80000
23		Cost of 2 gysers, 10 fans, 2 AC	LS			120000
24		Add for covered shade in court yard with flagstone flooring	LS			50000
25		Add for furniture (two double beds, 2 study tables, one dining table, 8 cane chaire, one sofa set in dining room, 6 chairs, ione steel almirah in kitchen, one aqua guard				220000
26		Add for granite platform with vertical support & ss sink in kitchen				50000
27		Add for Porch 300 sq.ft				120000
28		Add for parapet wall and stair case with railing				100000
		Total				**3326609**
29		Add for GST	18.00%			598790
		Total				**3925399**
30		Add 1% for labour welfare tax				39254
		Grand Total				**3964653**

Sr.	CSR item no.	Description of the work	Quantity	Rate in Rs.		Amount
				Amount	Unit	
31		**Provision for Boundarywall (100 rmt)**				400000
		Grand Total				**4364653**

8/6/23

महेंद्र सिंह धाकड़
मुख्य कार्यपालन अधिकारी (कैम्पा),
मध्यप्रदेश, भोपाल

8/6/23

राजेश खरे
वन संरक्षक ,भोपाल

8/6/2023

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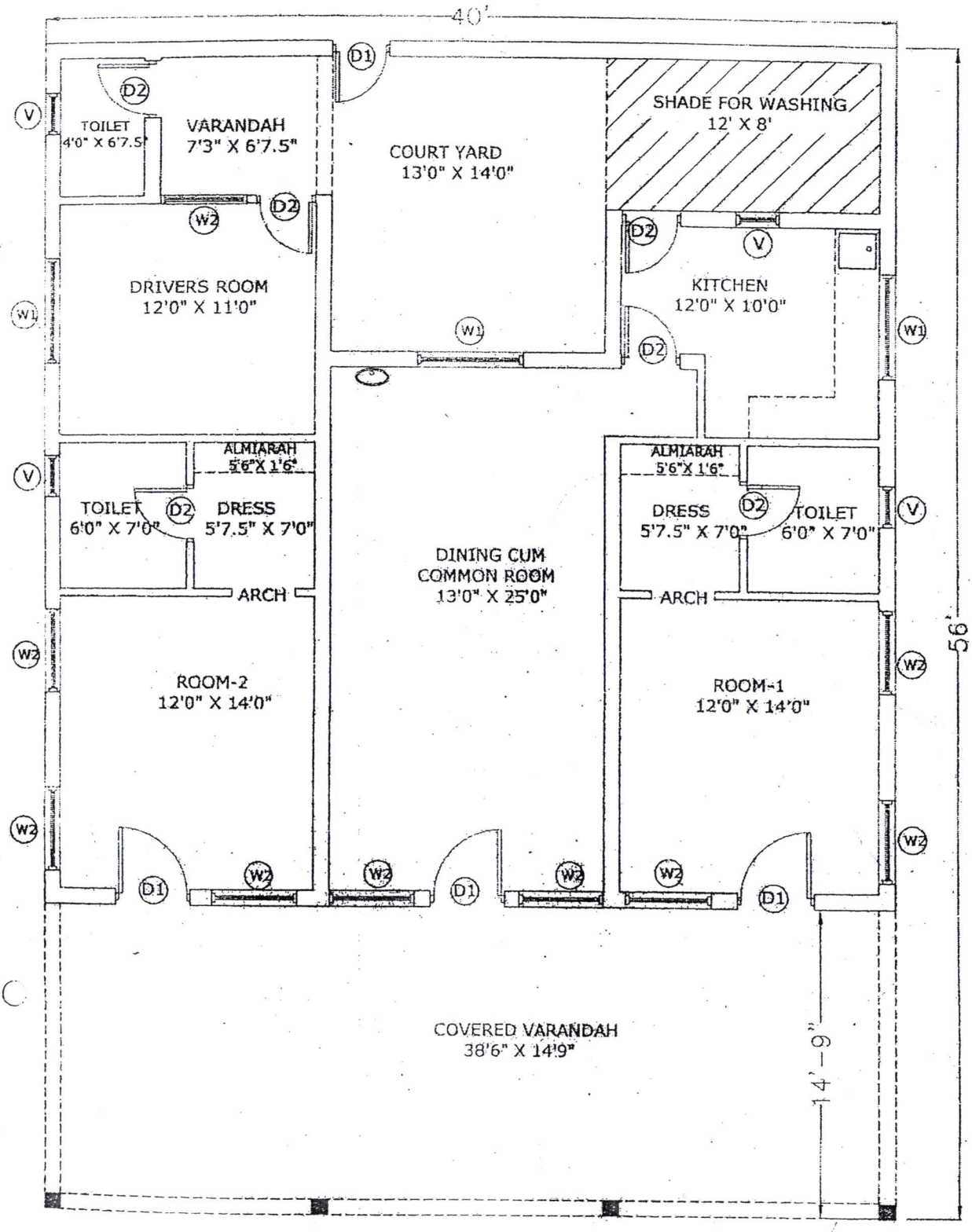
अपर प्रधान मुख्य वन संरक्षक
(विकास), मध्यप्रदेश, भोपाल

8/6

सुनील अग्रवाल
प्रधान मुख्य वन संरक्षक (कैम्पा),
मध्यप्रदेश, भोपाल



NOTE- WALL THICKNESS 9" & 4.5"

SPECIFICATION OF DOOR & WINDOW

D1- 3'6" X 7'0" = 4NOS.
D2- 2'9" X 7'0" = 7NOS.
W1- 5'0" X 4'6" = 3NOS.
W2- 4'0" X 4'6" = 9NOS.
V- 2'0" X 1'6" = 4NOS.

PLAN OF REST HOUSE

TOTAL PLOT SIZE - 40'0" X 56'0" = 2240.0 SQFT.

CONSTRUCTION AREA = 1940.0 SQFT. +COURT YARD & WASHING SHADE