

**TIMBWANI SEC SCHOOL TAKEOFF****MEASUREMENTS**

1

**SUBSTRUCTURE****Clear Site**

length	width	Area
56.75	12	<u>681</u>

681

**Excavation for Strip Footing**

Length	Width	Depth	No.	Volume
282.2	0.6	1.2	1	203.184

203.184**Excavation for Column Bases**

	Length	Width	Depth	No of clmn	Volume
CB1	1.4	1.6	1.5	24	80.64
CB2	1.2	1.4	1.5	21	52.92
CB3	1.2	1.2	1.5	2	4.32
				<b>47</b>	<u>137.88</u>

137.88**Hardcore Filling**

	Length	Width	Area	No	Total
A	4.85	4	19.4	2	38.8
B	9.7	8	77.6	3	232.8
C	7.5	8	60	1	60
D	1.4	8	11.2	1	11.2
E	6.25	2	12.5	1	12.5
F	9.7	2	19.4	4	77.6
G	4.85	8	38.8	1	38.8
H	4.85	2	9.7	2	19.4
J	7	8	56	1	56
					<u>547.1</u>

547.1**Rock excavtion**

Length	Width	Depth	No.	Volume
282.2	0.6	0.6	1	101.59

101.59**QTY**

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**681**

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203

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138

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**547**

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**102**

Blinding to.

**Strip Footing**

282.2      0.6      169.32

169.32

169

**Ditto Column Bases**

	Length	Width	No.	Volume
CB1	1.4	1.6	24	53.76
CB2	1.2	1.4	21	35.28
CB3	1.2	1.2	2	2.88

91.92

92

**REINFORCED CONCRETE**

**Strip Footing**

Length	Width	Depth	Volume
282.2	0.6	0.2	33.864

33.864

34

**Bases**

Length	Width	Depth	No	Volume	
CB1	1.4	1.6	0.3	24	16.128
CB2	1.2	1.4	0.3	21	10.584
CB2	1.2	1.2	0.3	2	0.864

27.576

28

**Columns**

Length	Width	Depth	No	Volume	
C1	0.4	0.2	1.2	24	2.304
C2	0.2	0.2	1.2	21	1.008
C3	0.2	0.2	1.2	2	0.096

3.408

3

**150mm thick floor slab**

Length	width	Area
54.95	10.2	560.49

560.49

560

**Ground Beam**

Length	Width	Depth	Volume
282.2	0.2	0.15	8.466

8.466

8

**Reinforcement****Strip footing**

Length	No	Conv.	weight in kgs	Bar
282.2	3	0.3951	334.46	D8
0.7	941	0.6173	406.46	D10

**Bases**

D8 334  
D10 406

	Length	No	Times	Total No Cols	conv	weight	Bar
CB1	1.6	9	B1	24	0.8889	307.2	D12
	1.8	8	B2	24	0.8889	307.2	D12
CB2	1.4	8	B1	21	0.8889	209.07	D12
	1.6	7	B2	21	0.8889	209.07	D12
CB3	1.4	7	B1	2	0.8889	17.42	D12
	1.4	7	B2	2	0.8889	17.42	D12

1067.38

**Columns**

D12 1,067

	Length	No	Conv	Cols	Weight	Bar
C1	2.45	6	1.5802	24	557.51	D16
	1.1	10	0.3951	24	104.30	D8
C2	2.45	4	0.8889	21	182.93	D12
	0.8	10	0.3951	21	66.37	D8
C3	2.45	4	0.8889	2	17.42	D12
	0.8	4	0.8889	2	5.69	D8

D16 558  
D12 200  
D8 176

**Ground Beam**

283.2	4	0.617284	699.259315	D10
1	453	0.395062	178.962963	D8

**Reinforcement Summary Substructure**

D8 510.81 D8 511  
D10 406 D10 406  
D12 1,268 D12 1,268  
D16 557.51 D16 558

-

**Formwork To:-**

**Sides of Strip**

Length	Width	No of side:	Volume
282.2	0.2	2	112.88

112.88

113

**Ground Beam**

Length	Width	No of side:	Volume
282.2	0.15	2	84.66

84.66

85

**Sides of bases**

	Length	Width	No of side:	cols	Volume
CB1	3	0.3	2	24	43.2
CB2	2.6	0.3	2	21	32.76
CB2	1.2	0.3	4	2	2.88

78.84

79

**Sides of Columns**

	Length	Width	No of side:	cols	Volume
C1	1.2	0.4	2	24	23.04
	1.2	0.2	2	24	11.52
C2	1.2	0.2	4	21	20.16
C3	1.2	0.2	4	2	1.92

56.64

57

**Edges of slab**

	sides	Total
Length	54.95	2 109.9
Width	10.2	2 20.4

130.3

130

**Substructure walling**

Length	Height	Area
282.2	1	282.2

282.2

282

**Plinth Finishes**

Length	Height	Area
115	0.45	51.75

51.75

52

**Cart away**

142.816

142.816

143

**Return Fill and Rum**

341.00

198.184

198

2 SUPERSTRUCTURE CONCRETE STRUCTURE

**Concrete To:-**

**Beams**

	Length	Width	Depth	Volume	No.Beam	Total Vol
Beam 1	54.75	0.2	0.45	4.93	3	14.78
Beam 2	10	0.2	0.45	0.9	13	11.7
Beam 3	6.25	0.2	0.45	0.56	1	0.5625
Beam 4	4.85	0.2	0.45	0.44	1	0.4365

75.85

27.48

**Columns**

	Length	Width	Depth	No	Volume
C1	0.4	0.2	6.6	24	12.672
C2	0.2	0.2	6.6	21	5.544
C3	0.2	0.2	3.3	2	0.264

18.48

**150 mm suspended slab**

	Length	Width	Area
	54.95	10.2	560.49
Less	4.65	7.8	36.27
			524.22

524.22

**150 mm roof slab**

	Length	Width	Area
	54.95	10.2	560.49

560.49

**150mm ramp slab**

	Length	Width	Height	Volume	no	Total V
Ramp	5.76	1.16	0.2	1.34	4	5.36
Landing	2.33	1.35	0.2	0.63	3	1.88
	1.16	1.35	0.2	0.31	1	0.31

Ramp 5.36

Landing 2.20

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**Formwork To:-**

**Sides and soffits of Beams**

	Length	Width	Area	Sides	No.Beams	Total Area		
Beam 1	54.75	0.45	24.64	2	3	147.83	-	-
Beam 2	10	0.45	4.5	2	13	117	-	-
Beam3	6.25	0.45	2.81	2	1	5.63	-	-
Beam4	4.85	0.45	2.18	2	1	4.37	-	-
						<u>274.82</u>	-	275

**Sides of Columns**

	Height	Width	No of sides	cols	Volume		
C1	6.6	0.4	2	24	126.72	-	-
	6.6	0.2	2	24	63.36	-	-
C2	6.6	0.2	4	21	110.88	-	-
C3	3.3	0.2	4	2	5.28	-	-
					<u>306.24</u>	-	306

**Soffits of suspended slab**

	Length	Width	Area		
	54.95	10.2	560.49	-	-
less	4.65	7.8	36.27	-	-
			<u>524.22</u>	-	524

**Edges of suspended slab**

	No.Sides	Height	Area		
Length	54.95	2	0.15	16.485	-
Width	10.2	2	0.15	3.06	-
add				<u>19.545</u>	-
Length	4.65	2	0.15	1.395	-
Width	7.8	2	0.15	2.34	-
				<u>3.735</u>	-
				<u>23.28</u>	23
				<b>547.5</b>	

**Soffits of roof slab**

	Length	Width	Area		
	54.95	10.2	560.49	-	-
			<u>560.49</u>	-	-
				<u>19.545</u>	-
				<u>580.04</u>	-
					1,128

[illegible]

### 3 WALLING

#### External walling

Grnd Flr	Length	Height	No.walls	Area
	54.75	2.7	2	295.65
	48.5	2.7	1	130.95
	10	2.7	2	54
	8	2.7	3	64.8
				<u>545.40</u>

1st Flr	length	Height	No.Walls	Area
	54.75	2.7	2	295.65
	48.5	2.7	1	130.95
	10	2.7	2	54
	8	2.7	3	64.8
				<u>545.4</u>

#### DPC

	Ddt doors			
	length	no.door	total le	
150mm	15.05	0.9	6	14.90
200mm	264.95		67.15	197.8

#### Total external walling Grnd and 1st floor

Grnd floor	545.40
1st Floor	<u>545.4</u>
	<u>1090.80</u>

Less	windows	226.8
	Doors	<u>302.88</u>
		<u>529.68</u>

561.12

#### Windows Grnd Floor

	Width	Height	No.windo	Area
w1	1.8	1.8	34	110.16
w2	0.9	0.6	10	5.4
				<u>115.56</u>

#### Window 1st Floor

w1	1.8	1.8	33	106.92
w2	0.9	0.6	8	4.32
				<u>111.24</u>

#### Doors Exter grnd floor

	Width	Height	No.door	Area
D1	1.8	2.7	5	24.3
D2	0.9	2.7	3	7.29

8

#### Width Area No.open Area

Opening 1	4.05	9.72	11	106.92
Opening 2	3.2	7.68	2	15.36
				<u>153.87</u>

-269.43

#### Door exter 1st floor

	Width	Height	No.door	Area
D1	1.8	2.7	4	19.44
D2	0.9	2.7	3	7.29

7

#### Width Area No.open

Open 1	4.05	9.72	11	106.92
Open 2	3.2	7.68	2	15.36
				<u>149.01</u>

15  
198

561

(269.00)



Internal walling				
200 mm thick				
<b>Grnd Flr</b>	<b>Length</b>	<b>Height</b>	<b>No.walls</b>	<b>Area</b>
	8	2.7	4	86.4
	7.05	2.7	1	19.035
	4.5	2.7	1	12.15
	14.55	2.7	4	157.14
				<u>274.725</u>

150mm thick				
	Length	Height	No.walls	Area
	2.15	2.7	7	40.635
				<u>40.635</u>

200mm thick				
<b>1st Floor</b>	<b>Length</b>	<b>Height</b>	<b>No.walls</b>	<b>Area</b>
	8	2.7	4	86.4
	4.85	2.7	2	26.19
				<u>112.59</u>

150mm thick				
	Length	Height	No.walls	Area
	2.15	2.7	7	40.635
				<u>40.635</u>

Total internal walling				
	200mm	150mm		
Grnd Floor	274.73	40.635		
1st floor	112.59	40.635		
	<u>387.32</u>	<u>81.27</u>		

Less	Doors	17.01	29.16	200mm	150mm
				<u>370.31</u>	<u>52.11</u>
				Total internal walling	<u>422.42</u>

thus Total ext and internal wallings

200mm 931

150mm 52

Doors internal Grnd floor				
	Width	Height	No.door	Area
D1	0.9	2.7	5	12.15
D2	0.9	2.7	6	14.58
			11	<u>26.73</u>

Door internal 1st floor				
	Width	Height	No.door	Area
D1	0.9	2.7	2	4.86
D2	0.9	2.7	6	14.58
			8	<u>19.44</u>
				<u>46.17</u>

46.00

#### 4 ROOFING

	Length	Width	Area
	54.95	10.2	560.49

560.49

560