

583/B, MARKET YARD, GULTEKADI, PUNE-411037

CAPACITY						1080
SIZE	OUTER	1 X	26.292	X	22.492	591.36
	INNER	1 X	25.59	X	21.792	557.70

FOUNDATION DEPTHS	Av Depth
EARTH SOIL 0 TO 1.50	1.30
EARTH SOIL 1.50 to 3.00	0.00
EARTH SOIL 3.00 to 5.00	0.00
H.M.lift up to 1.5m	0.40
H.M. lift 1.5 to 3m	0.20
H.M.& BOULDER up to 1.50m	0.00
H.M.& BOULDER 1.50mtr to 3.00mtr	0.10
SOFT ROCK	0.00
HARD ROCK	0.00
	TOTAL
	2.00
CUTTING IN PLINTH (Provision)	0.20

Column Middle C1	2	X	3	X	2.80	X	2.30		
Column Corner C3	2	X	2	X	2.30	X	2.30		
Column Gable Middle C2	2	X	2	X	2.10	X	1.80	Big L/W	6.573
								Big L/W end	6.573
								Small L/W	7.222
Column Platform	2	X	2	X	1.30	X	1.30	S/W	7.222
Ex. Ground Beam PANEL									
C1-C1 middle	2	X	4	X	3.973	X	0.600		3.973
C3-C1 end	2	X	1	X	3.973	X	0.600		3.973
C2-C3 END WALL	2	X	2	X	4.222	X	0.600		
C2-C2 M	1	X	1	X	4.222	X	0.600	4.222	7.222 C/C
APRON long	1	X	2	X	29.39	X	1.28		7.222 C/C
APRON short	1	X	1	X	23.03	X	1.28		

Column C1	2	X	3	X	0.66	X	0.320
Column No.C2	2	X	2	X	0.55	X	0.660
Column No. C3	1	X	2	X	0.560	X	0.310
Column No.Platform	2	X	2	X	0.30	X	0.30

PANELS										
C1-C1 middle	2	X	2	X	6.25	X	0.35	6.25	6.573	C/C
C3-C1 end	2	X	2	X	6.138	X	0.35	6.138	6.573	
C2-C3 END WALL	2	X	2	X	6.74	X	0.35	6.737	7.222	
C2-C2 M	1	X	2	X	6.912	X	0.35	6.912	7.222	

S/W	1	λ	2	λ	24.49	λ	1.50	λ	0.45
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MAHARASHTRA STATE WAREHOUSING CORPORATION

583/B, MARKET YARD, GULTEKADI, PUNE-411037

**NAME OF WORK :- CONSTRUCTION OF 1/1080 MT CAP. PRE ENGINEERED WH BLDG WITH ANCILLARY WORKS
AT TIOSA, DIST. AMRAVATI.**

Part - A :- Civil work

MEASUREMENT SHEET

Item Nos & Description of Items	NO.S		LENGTH		BREDTH	DEPTH / HIGHT	TOTAL		Unit
	1	X	2				QUANTITY		
1 Clearing grass and removal of rubbish up to a distance of 50 metres outside the periphery of the area .									Sqm
	1	X	1	X	27.00	X	23.00	= 621.00	
							TOTAL	= 621.00	
Due to Existing road considered only							SAY	= 311.00	
2 Excavation for foundation in earth, soil of all types, sand, gravel and soft murum, including removing the excavated material up to adistance of 50 m. beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc. complete. (Lift upto 1.5 m.) By Mechanical									cum
Column footing									
Column C1	2	X	3	X	2.80	X	2.30	X	1.30 = 50.23
Column No. C3	2	X	2	X	2.30	X	2.30	X	1.30 = 27.51
Column No.C2	2	X	2	X	2.10	X	1.80	X	1.30 = 19.66
Column No.Platform	2	X	2	X	1.30	X	1.30	X	1.30 = 8.79
For Ground Beam PANEL									
C1-C1 middle	2	X	2	X	3.97	X	0.95	X	0.60 = 9.06
C3-C1 end	2	X	1	X	3.97	X	0.95	X	0.60 = 4.53
C2-C3 END WALL	2	X	2	X	4.22	X	0.95	X	0.60 = 9.63
C2-C2 M	1	X	2	X	4.22	X	0.95	X	0.60 = 4.81
Extra portion	2	X	1	X	2.25	X	0.95	X	0.60 = 2.57
APRON long	1	X	2	X	29.39	X	1.28	X	0.60 = 45.15
APRON short	1	X	1	X	23.032	X	1.28	X	0.60 = 17.69
							Total		199.61
							say		200.00

- 3 Excavation for foundation in earth, soils of all types, sand, gravel and soft murum, including removing the excavated material upto a distance of 50 metres beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc. complete. (Lift from 1.5m to 3.0m) cum

Column footing

Column C1	2	X	3	X	2.8	X	2.3	X	0.00	=	0.00
Column No. C3	2	X	2	X	2.3	X	2.3	X	0.00	=	0.00
Column No. C2 END	2	X	2	X	2.10	X	1.80	X	0.00	=	0.00
Column No. Platform	4	X	2	X	1.30	X	1.30	X	0.00	=	0.00

For Ground Beam PANEL

C1-C1 middle	2	X	2	X	3.61	X	0.65	X	0.00	=	0.00
C1-C1 middle end	2	X	2	X	2.52	X	0.65	X	0.00	=	0.00
C3-C2	2	X	2	X	2.52	X	0.65	X	0.00	=	0.00
C2-C2 E	1	X	1	X	4.222	X	0.65	X	0.00	=	0.00
Extra portion	2	X	1	X	2.25	X	0.65	X	0.00	=	0.00
APRON long	1	X	2	X	29.39	X	1.28	X	0.00	=	0.00
APRON short	1	X	1	X	23.032	X	1.28	X	0.00	=	0.00

Total = 0.00

Provision **say = 1.00**

- 4 Excavation for foundation in hard murum including removing the excavated material upto a distance of 50 metres beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc. complete. (Lift upto 1.50 m) By Mechanical Means cum

Column footing

Column C1	2	X	3	X	2.8	X	2.3	X	0.40	=	15.46
Column No. C3	2	X	2	X	2.3	X	2.3	X	0.40	=	8.46
Column No. C2	2	X	2	X	2.1	X	1.8	X	0.40	=	6.05
Column No. Platform	2	X	2	X	1.30	X	1.30	X	0.40	=	2.70
									Total	=	32.67
									say	=	33.00

- 5 Excavation for foundation in hard murum including removing the excavated material upto a distance of 50 metres beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc. complete. (Lift 1.50 to 3.00 m) By Mechanical Means cum

Column footing

Column C1	2	X	3.00	X	2.80	X	2.30	X	0.20	=	7.73
Column No. C3	2	X	2.00	X	2.30	X	2.30	X	0.20	=	4.23
Column No. C2 END	2	X	2.00	X	2.10	X	1.80	X	0.20	=	3.02
Column No. Platform	2	X	2.00	X	1.30	X	1.30	X	0.00	=	0.00
									Total	=	14.98
									say	=	15.00

- 6 Excavation for foundation in hard murum and boulders including removing the excavated material up to a distance 50 metres, beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc. complete. (Lift upto 1.5m.) By Mechanical Means cum

Column footing

Column C1	2	X	3	X	2.8	X	2.3	X	0.00	=	0.00
Column No. C3	2	X	2	X	2.3	X	2.3	X	0.00	=	0.00
Column No.C2 END	2	X	2	X	2.1	X	1.8	X	0.00	=	0.00
Column No.Platform	2	X	2	X	1.3	X	1.3	X	0.00	=	0.00
Provision									Total		0.00
									say		1.00

- 7 Excavation for foundation in hard murum and boulders including removing the excavated material up to a distance 50 metres, beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc. complete. (Lift 1.50 to 3.00 m) By Mechanical Means cum

Column footing

Column C1	2	X	3	X	2.80	X	2.30	X	0.10	=	3.86
Column No. C3	2	X	2	X	2.30	X	2.30	X	0.10	=	2.12
Column No.C2 END	2	X	2	X	2.10	X	1.80	X	0.10	=	1.51
Column No.Platform	2	X	2	X	1.30	X	1.30	X	0.00	=	0.00
									Total		7.49
									say		8.00

- 8 Excavation for foundation in Soft rock and old cement or lime masonry foundations including removing the excavated material upto a distance of 50 metres beyond the building area and stacking as directed, including dewatering, preparing the bed for the foundation and necessary back filling with available earth/murum, ramming ,watering including shoring and strutting etc. complete. (Lift up to 1.5m) By Mechanical Means cum

Provision											1.00
									Total		1.00
									Say		1.00

- 9 Excavation for foundation in Soft rock and old cement or lime masonry foundations including removing the excavated material upto a distance of 50 metres beyond the building area and stacking as directed, including dewatering, preparing the bed for the foundation and necessary back filling with available earth/murum, ramming ,watering including shoring and strutting etc. complete. (Lift from 1.5m to 3.00 m.) By Mechanical Means cum

Column footing

Column C1	2	X	3	X	2.8	X	2.3	X	0.00	=	0.00
Column No. C3	2	X	2	X	2.3	X	2.3	X	0.00	=	0.00
Column No.C2 END	2	X	2	X	2.1	X	1.8	X	0.00	=	0.00
Column No.Platform	2	X	2	X	1.3	X	1.3	X	0.00	=	0.00
									Total		0.00
									Total		0.00
									say		1.00

- 10 Excavation for foundation in Hard rock by chiselling, wedging, line drilling, etc. including trimming and levelling the bed, removing the excavated material upto a distance of 50 metres beyond the building area stacking as directed, dewatering and back filling with available earth/ murum watering, ramming etc. complete. (Lift upto 1.5 m). By Mechanical Means cum

	1	X	1	X	0.00	X	0.00	X	0.00	=	0.00
									Total	=	0.00
									Say	=	1.00

- 11 Excavation for foundation in Hard rock up to required depth by pocklain machine with needle breaker including removing the excavated stuff up to a distance of 50 m beyond the building area all lifts stacking , spreading directed. cum

Column footing

SAY = 1.00

- 12 Excavation in plinth in earth soil of all types of sand or gravel or soft murum including dressing section to the required grade, cambers & side slope & conveying the excavated materials with lead of 50 M and spreading for embakment or stacking as directed cum

1 X 1 X 25.59 X 21.79 X 0.10 = 55.77
TOTAL = 20.00
SAY = 20.00

- 13 Excavation in plinth in Hard murum including dressing section to the required grade, cambers & side slope & conveying the excavated materials with lead of 50 M and spreading for embakment or stacking etc. Complete cum

1 X 1 X 25.59 X 21.79 X 0.00 = 0.00
TOTAL = 0.00
SAY = 1.00

- 14 Providing and fixing 25mm diameter steel anchor dowel in hard rock including drilling hole of 32 mm diameter up to 0.75 mtrs depth,placing the dowel in position and effectively grouting the hole with CM 1:1 proportion etc. complete. Nos

Provision 0.5 X 5 X 4.00 X 1.00 X 1.00 = 10.00
TOTAL = 10.00

- 15 Construction of dry lean cement concrete Sub- base over a prepared sub-grade with coarse and fine aggregate (Cum VSI grade finely washed crushed sand) conforming to IS: 383, the size of coarse aggregate not exceeding 25 mm, , cement content not to be less than 150 kg/ cum, optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant/ Weigh batch mixer, transported to site with all leads and lifts, laid with a paver with electronic sensor /by suitable means as approved by Engineer-in-charge , compacting with vibratory roller, finishing, curing and including preparation of subgrade surface if required etc. complete.(Crushed sand VSI Grade)

Bed concrete in WH. 1 X 1 X 25.59 X 21.79 X 0.10 = 55.77
Total = 55.77
Say = 56.00

- | | | |
|----|---|-----|
| 16 | Providing and laying Cast in situ/Ready Mix cement concrete in M-10 of trap/ granite/ quartzite/ gneiss metal for foundation and bedding including bailing out water, Steel centering, formwork, laying/pumping, compacting, roughening them if special finish is to be provided, finishing if required and curing complete. With fine aggregate (Crushed sand VSI Grade) | cum |
|----|---|-----|

Column footing

Column C1	2	X	3	X	2.80	X	2.30	X	0.10	=	3.86
Column No. C3	2	X	2	X	2.30	X	2.30	X	0.10	=	2.12
Column No.C2 END	2	X	2	X	2.10	X	1.80	X	0.10	=	1.51
Column No.Platform	2	X	2	X	1.30	X	1.30	X	0.10	=	0.68

For Ground Beam PANEL

C1-C1 middle	2	X	2	X	6.25	X	0.95	X	0.10	=	2.38
C3-C1 middle end	2	X	2	X	6.14	X	0.95	X	0.10	=	2.33
C3-C2	2	X	2	X	6.74	X	0.95	X	0.10	=	2.56
C2-C2 E	1	X	2	X	6.91	X	0.95	X	0.10	=	1.31
Extra portion	2	X	1	X	2.25	X	0.95	X	0.10	=	0.43
APRON long	1	X	2	X	29.39	X	1.28	X	0.10	=	7.52
APRON short	1	X	2	X	23.03	X	1.28	X	0.10	=	5.90
									Total	=	30.60
									say	=	31.00

- | | | |
|----|--|-----|
| 17 | Providing uncoursed rubble masonry of trap / granite / quartzite / gneiss stones in cement mortar 1:6 in foundation and plinth of inner walls / in plinth of external walls including bailing out water manually ,striking joints on un exposed faces and watering etc.complete.(Crushed sand VSI Grade) | cum |
|----|--|-----|

APRON long	1	X	2	X	29.19	X	0.45	X	0.35	=	9.20
APRON short	1	X	1	X	24.49	X	0.45	X	0.35	=	3.86
									Total	=	13.05
									say	=	14.00

- | | | |
|----|--|-----|
| 18 | Providing second class Burnt Brick masonry with conventional/ I.S. type bricks in cement mortar 1:6 in foundations and plinth of inner walls/ in plinth external walls including bailing out water manually , striking joints on unexposed faces, raking out joints on exposed faces and watering etc. Complete.(Crushed sand VSI Grade) | cum |
|----|--|-----|

For PANEL

C1-C1 middle	2	X	2	X	6.25	X	0.35	X	1.05	=	9.19
C3-C1 middle end	2	X	2	X	6.14	X	0.35	X	1.05	=	9.02
C3-C2	2	X	2	X	6.74	X	0.35	X	1.05	=	9.90
C2-C2	2	X	1	X	6.91	X	0.35	X	1.05	=	5.08
Extra portion	2	X	1	X	2.25	X	0.95	X	0.10	=	0.43
APRON long	1	X	2	X	27.49	X	0.23	X	0.65	=	8.22
APRON short	1	X	2	X	22.53	X	0.23	X	0.65	=	6.74
Deductions for											
Munim columns	2	X	5	X	0.230	X	0.230	X	1.20	=	-0.63

Total = 47.95
say = **48.00**

- | | | |
|----|---|----|
| 19 | Providing and fixing in position TMT - FE - 500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete. | MT |
|----|---|----|

Footing	37.00	80	2.96
Column , Beam & landing	76.00	110	8.36

Total	11.32
say	12.00

- 20 Providing and laying in situ /Ready Mix cement concrete M-25 of trap / granite / quartzite/ gneiss metal for R.C.C. cum work in foundations like raft, strip foundations, grillage and footings of R.C.C. columns and steel stanchions etc. including bailing out water, Steel centering formwork, laying/pumping cover blocks, compaction and curing roughening the surface if special finish is to be provided (Excluding reinforcement and structural steel) etc. complete. With fine aggregate (**Crushed sand VSI Grade**)

Column footing

Column Footing	2	X	3	X	2.50	X	2.00	X	0.60	=	18.00
Column C1	2	X	2	X	2.00	X	2.00	X	0.60	=	9.60
Column No. C3	2	X	2	X	1.80	X	1.50	X	0.60	=	6.48
Column No.C2 END	2	X	2	X	1.00	X	1.00	X	0.50	=	2.00
Column No.Platform											
									Total		36.08
									say		37.00

- 21 Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap / granite /quartzite/ gneiss metal for cum R.C.C. columns as per detailed designs and drawing or as directed including steel centering, formwork, cover blocks, laying/pumping, compaction finishing the formed surfaces with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc. complete,(Excluding reinforcement and structural steel). **(Crushed sand VSI Grade)**

Column up to plinth

									Av.			
Column C1	2	X	6	X	0.66	X	0.320	X	2.50	=	6.34	
Column No.C2	2	X	2	X	0.55	X	0.660	X	2.50	=	3.63	
Column No. C3	2	X	2	X	0.560	X	0.310	X	2.50	=	1.74	
Munim columns	2	X	5	X	0.230	X	0.230	X	1.80	=	0.95	
Column No.Platform	2	X	2	X	0.30	X	0.30	X	2.70	=	0.97	

Column above plinth

Column C1	2	X	6	X	0.23	X	0.35	X	3.00	=	2.90	
Column No.C2	2	X	2	X	0.23	X	0.35	X	3.00	=	0.97	
Column No. C3	2	X	2	X	0.23	X	0.560	X	3.00	=	1.55	
Munim columns	2	X	5	X	0.230	X	0.230	X	3.00	=	1.59	
Dummy col at rollling shutter	2	X	2	X	0.23	X	0.23	X	3.00	=	0.63	
									Total		21.26	
									say		22.00	

- 22 Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap / granite /quartzite/ gneiss metal for cum R.C.C. beams and lintels as per detailed designs and drawings or as directed including steel centering, formwork, cover blocks, laying/pumping, compactionand roughening the surface if special finish is to be provided and curing etc. complete. (Excluding reinforcement and structural steel). With fine aggregate (Crushed sand VSI Grade)

Ground Beam

C1-C1 middle	2	X	2	X	6.253	X	0.35	X	0.60	=	5.25	
C1-C3 end wall	2	X	2	X	6.138	X	0.35	X	0.60	=	5.16	
C3-C2	2	X	2	X	6.737	X	0.35	X	0.60	=	5.66	
C2-C2	1	X	2	X	6.912	X	0.35	X	0.60	=	2.90	
Extra portion	2	X	1	X	2.25	X	0.35	X	0.60	=	0.95	

Plinth Beam (Patli)

C1-C1 middle	2	X	2	X	6.253	X	0.35	X	0.15	=	1.31	
C1-C3 end wall	2	X	2	X	6.138	X	0.35	X	0.15	=	1.29	
C3-C2	2	X	2	X	6.737	X	0.35	X	0.15	=	1.41	
C2-C2	1	X	2	X	6.912	X	0.35	X	0.15	=	0.73	
Extra portion	2	X	1	X	2.25	X	0.35	X	0.15	=	0.24	

lintel Above V1

C1-C1 middle	2	X	2	X	1.75	X	0.23	X	0.15	=	0.24	
C1-C3 end wall	2	X	2	X	1.75	X	0.23	X	0.15	=	0.24	

Door Beam

C1-C1 middle	2	X	2	X	6.253	X	0.23	X	0.45	=	2.59	
C1-C3 end wall	2	X	2	X	6.138	X	0.23	X	0.45	=	2.54	
C3-C2	2	X	2	X	6.737	X	0.23	X	0.45	=	2.79	
C2-C2	1	X	2	X	6.912	X	0.23		0.45	=	1.43	

Platform beam

PB2	2	X	2	X	1.90	X	0.23	X	0.60	=	1.05	
PB1	2	X	1	X	9.52	X	0.23	X	0.60	=	2.63	
PB3	2	X	1	X	9.520	X	0.35	X	0.60	=	4.00	
OFFSET	2	X	2	X	9.520	X	0.205	X	0.15	=	1.17	
OFFSET	2	X	2	X	1.900	X	0.205	X	0.15	=	0.23	
									Total		43.81	
									say		44.00	

- 23 Providing and laying Cast in situ/Ready Mixcement concrete M-25 of trap/ granite/ quartzite/ gneiss metal for R.C.C. chajja as per detailed design and drawings including steel centering, formwork, cover blocks, laying/pumping, compacting and roughening the surface if special finish is to be provided and curing complete. (Excluding reinforcement and structural steel). With fine aggregate (Crushed sand VSI Grade)

Cum

Ventilators - V1 Long side	2	x	5	x	2.05	x	0.450	x	0.075	=	0.69	
									Total		0.69	
									Say		1.00	

- 24 Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap/ granite / quartzite/ gneiss metal for R.C.C. slabs and landings as per detailed designs and drawings including steel centering, formwork, cover blocks, laying/pumping, compaction finishing the formed surfaces with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc. complete,(Excluding reinforcement and structural steel). With fine aggregate (Crushed sand VSI Grade)

PLATFORM SLAB	2	X	1	X	9.68	X	1.870	X	0.20	=	7.24
									Total		7.24
									say		8.00

- 25 Providing second class Burnt Brick masonry with conventional/ I.S. type bricks in cement mortar 1:6 in cum superstructure including striking joints, raking out joints, watering and scaffolding etc. Complete(Crushed sand VSI Grade)

Provision	2	X	10	X	0.60	X	0.35	X	0.10	=	1.00
											1.00
									net		1.00

For PANEL

C1-C1 middle	2	X	2	X	6.253	X	0.23	X	2.55	=	14.67
C3-C1 middle end	1	X	2	X	6.138	X	0.23	X	2.55	=	7.20
C3-C2	1	X	2	X	6.737	X	0.23	0	2.55	=	7.90
C2-C2	2	X	1	X	6.912	X	0.23	X	2.55	=	8.11
Extra portion	2	X	1	X	2.25	X	0.23	X	2.55	=	2.64

Deduction for

Munim columns	2	X	5	X	0.23	X	0.23	X	2.55	=	1.35
Rolling shutters	2	X	2	X	2.10	X	0.23	X	2.55	=	4.93
V1	2	X	10	X	0.75	X	0.23	X	0.75	=	2.59
V1, Lintel										=	
C2 near R.S.										=	0.63
Bed block below V1 ,etc	2	X	10	X	0.75	X	0.23	X	0.10	=	0.35
							Total deduction				9.84
									net		30.68
									say		31.00

- 26 Providing and laying Cast in situ/Ready Mix cement concrete in M15 of trap/ granite/quartzite/gneiss metal for cum bed blocks, foundation blocks and such other items including bailing out water, Steel centering, formwork, laying/ pumping, compacting, roughening them if special finish is to be provided, finishing uneven and honeycombed surface and curing etc. complete. The Cement Mortar 1:3 plaster is considered for rendering uneven and honeycombed surface only. Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc. (Wooden centering will not be allowed. complete. With fine aggregate (Crushed sand VSI Grade)

Below V1	2	X	10	X	0.75	X	0.23	X	0.1	=	0.35
At fire bucket	2	X	2	X	0.20	X	0.20	X	0.35	=	0.06
ladder bedblock	1	X	2	X	0.20	X	0.20	X	0.35	=	0.03
									Total		0.43
									say		1.00

- 27 Providing sand faced cement plaster 20 mm thick in C.M. 1:4 outside to the W.H. bldg. Without smooth neeru sqm finish to concrete or brick surface in all positions including scaffolding curing etc. complete as directed by engineer in charge

Outside											
Long wall	1	X	2	X	26.29	X	3.00			=	157.75
short wall	1	X	1	X	22.49	X	3.00			=	67.48
R S Jams	2	X	1	X	10.00	X	0.23			=	4.60
Weather sheds over											
V1 top, bottom	2	x	5	x	2.05	x	0.45			=	9.23
Sides	2	X	10	X	0.450	X	0.08			=	0.68
									Total		239.73
Deduction											
rolling shutter	2	X	2	X	2.1	X	2.5			=	21.00
									Dedu.		21.00
									Net		218.73
									Say		219.00

- 28 Providing cement plaster 20 mm thick in C.M. 1:4 inside to the W.H. bldg. with smooth neeru finish to concrete sqm or brick surface in all positions including scaffolding curing etc. complete as directed by engineer in charge

Inside											
Long wall	1	X	2	X	25.59	X	3.23			=	165.32
	1	X	2	X	21.79	X	3.23			=	140.78
									Total		306.10
Deduction											
rolling shutter	2	X	2	X	2.1	X	2.5			=	21.00
									Dedu.		21.00
									Net		285.10
									Say		286.00

- | | | | | | | | | | |
|-------------------|---|---|---|---|--------|---|-------|---|---------------|
| Outside | | | | | | | | | |
| Apron L/W | 1 | X | 2 | X | 29.19 | X | 0.60 | = | 35.03 |
| S/W | 1 | X | 2 | X | 24.49 | X | 0.60 | = | 29.39 |
| Gutter L/W | 1 | X | 2 | X | 27.49 | X | 1.95 | = | 107.22 |
| S/W | 1 | X | 2 | X | 22.53 | X | 1.95 | = | 87.87 |
| Long wall plinth | 1 | X | 2 | X | 26.292 | X | 1.20 | = | 63.10 |
| short wall plinth | 1 | X | 1 | X | 22.492 | X | 1.20 | = | 26.99 |
| | | | | | | | Total | | 349.61 |
| | | | | | | | Say | | 350.00 |

- [illegible]

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|--------------------|---|---|----|---|-------|---|-------|-------|--------|---------------|
| Outside | | | | | | | | | | |
| Long wall | 1 | X | 2 | X | 26.29 | X | 4.25 | = | 223.48 | |
| short wall | 1 | X | 1 | X | 22.49 | X | 4.25 | = | 95.59 | |
| R S Jams | 2 | X | 1 | X | 10.00 | X | 0.35 | = | 7.00 | |
| Weather sheds over | | | | | | | | | | |
| V1 top, bottom | 2 | x | 5 | x | 2.05 | x | 0.45 | = | 9.23 | |
| Sides | 2 | X | 10 | X | 0.45 | X | 0.075 | = | 0.68 | |
| | | | | | | | | Total | = | 335.97 |
| rolling shutter | 2 | X | 2 | X | 2.1 | X | 2.5 | = | 21.00 | |
| | | | | | | | | Dedu. | | 21.00 |
| | | | | | | | | Net | | 314.97 |
| | | | | | | | | Sav | | 315.00 |

- | | | | | | | | | | | |
|-----------------|---|---|---|---|------|---|------|-------|---|-------------|
| Inside Below V1 | 2 | x | 5 | x | 0.75 | X | 0.20 | | = | 1.50 |
| | | | | | | | | Total | | 1.50 |
| | | | | | | | | Say | | 2.00 |

- | | | | | | | | | | |
|----------------------|---|---|----|---|------|---|------|-------|--------------|
| Plinth | | | | | | | | | |
| stack lines | | | | | | | | | |
| Long | 1 | X | 12 | X | 9.00 | X | 0.10 | = | 10.80 |
| Short | 1 | X | 12 | X | 5.80 | X | 0.10 | = | 6.96 |
| Long Middle portion | 1 | X | 6 | X | 5.80 | X | 0.10 | = | 3.48 |
| Short middle portion | 1 | X | 6 | X | 3.40 | X | 0.10 | = | 2.04 |
| | | | | | | | | Total | 23.28 |
| | | | | | | | | Sav | 24.00 |

- 34 Providing & applying oilpainting name of M S W C with three coat with background of approved colour & shade sqm including scaffolding etc complete.

Qty	0	X	1	X	20.00	X	1.00	=	0.00
								Total	0.00
								Say	1.00

- 35 Providing and fixing in position aluminium openable ventilators as per detailed drawing and as directed by sqm Engineer in charge with all necessary aluminium sections with powder coating including necessary fixtures and fastening with 5 mm thick float glass etc. complete. (Note While arriving at the rate of item weight at 6.90 kg/Sqm is considered for only aluminium ventilators) and with G.I. wiremesh of 18 Gauge, 6 mm square mesh fixed to outside the frame of ventilator and grill of 12 mm sq. bars in vertical directions at 10 cms c/c fixed to outside surface of the frame and approved quality and type fixtures, fittings including red oxide & oilpainting three coats.As per detailed drawing and as directed.

V1	2	x	10	x	0.75	X	0.75	=	11.25
								Total	11.25
								Say	12.00

- 36 Providing & fixing steel rolling shutter fabricated from 20 gauge steel laths with side guides, bottom rails, brackets sqm of 10 G.M.S. sheet door suspension shaft, rolling springs, locking arrangements with not less than 6mm thick strip and central lock as per specifications, housing box prepared out of 20 G sheets at the top, handles prepared out

Qty	2	x	2	X	2.10	x	2.55	x	0.00	21.42
								Total		21.42
								Say		22.00

- 37 Providing & fixing steel grill rolling shutter with fabricated from 20 gauge steel laths with side guides, bottom rails, sqm brackets of 10 G.M.S. sheet door suspension shaft, rolling springs, locking arrangements with not less than 6mm thick strip and central lock as per specifications, housing box prepared out of 20 G sheets at the top, handles prepared out of 6mm thick flats 4 no's, holdfast patti 6 nos, for each side guide with 12 concrete nails / fastener, including applying three coats of oil paint of approved color & shade etc. complete (Grill portion size should be 2.10 M x 1.70 M) As directed by Engineer in Charge

2 10 M x1 70 M) As directed by Engineer-in Charge										
Qty	2	x	2	X	2.10	x	2.55	x	0.00	21.42
								Total		21.42
								Say		22.00

- 38 Providing and fixing rolling shutter fabricated from steel lath s of minimum thickness 0.9mm with lockplate of 3.15 mm thickness reinforced with 35x35x5 mm angle section fitted with sliding bolts and handles for both sides, deep M.S. channe l section of depth and thick ness not less than 65mm and3.15mm respectively with hold fast arrangements, M.S.Brace plate300x300x3.15mm minimum size and shape with square bar, suspension shaft of minimum 32mm diameter, hood cover ofM.S.sheet notl ess than 0.9 mm thickness and of any size at top and safety devices including mechanical gear operation arrangement consisting of worm gear wheels and worms of high grade cast iron or mild steel and one coat of red lead primer and 3 Coat of oil painting including central lock, MS Locking patti 3mm thick etc.complete. (With mechanical gear)

Qty	1	x	2	3.00	x	3.50	x	0.00	21.00
								Total	21.00
								Say	21.00

- 39 **Filling in plinth** with approved **excavated stuff** obtained from departmental land including watering, compacting cum etc. complete as directed.

Qty received from excavation								Total	10.00
								Say	10.00

- 40 Providing Hard Murum cohesive non-swelling materials in plinth in layers of 20 cms etc. complete as directed. [cum Only compacted thickness is payable.

Main bldg.	1	X	1	X	25.59	X	21.79	X	0.75	=	418.28
Back filling											125.48
Apron											
Long	1	X	2	X	27.03	X	0.37	X	0.45	=	9.00
Short	1	X	1	X	21.79	X	0.37	X	0.45	=	3.63
Below apron& gutter											
Long	2	X	2	X	29.192	X	1.5	X	0.45	=	78.82
Short	1	X	1	X	24.492	X	1.5	X	0.45	=	16.53
Deduction for											
O.S.metal in plinth											
Long	1	X	2	X	25.59	X	0.60	X	0.60	=	-18.43
Short	1	X	1	X	20.59	X	0.60	X	0.60	=	-7.41
									Total		625.90
									Say		626.00

- 41 Compacting the hard murum side widths including laying in layers on each side with vibratory roller including sqm artificial watering etc. complete.

Main bldg.	1	X	2	X	25.59	X	21.79		=	1115.40
Deduction for O.S.metal in plinth Long	1	X	2	X	25.59	X	0.60		=	-30.71
	1	X	2	X	20.59	X	0.60		=	-24.71
								Total Say		1059.98
										1060.00

- 42 Providing & laying stone metal layer of 20 cm thickness with 60 mm over size metal 65% and 40 mm size metal cum 35% with sand or stone chips spreading & leveling handpacking complete.

Main bldg.	1	X	1	X	25.59	X	21.79	X	0.20	=	111.54
Apron											
Long	1	X	2	X	27.03	X	0.37	X	0.18	=	3.60
Short	1	X	1	X	24.49	X	0.37	X	0.18	=	1.63
O.S.metal in plinth along periphery.											
Long	1	X	2	X	25.59	X	0.60	X	0.60	=	18.43
	1	X	1	X	20.59		0.60		0.60	=	7.41
									Total		142.61
									Say		142.60

- 43 Compacting the sub grade / gravel / size metal (100 mm loose) layers for all widths with Power roller having sqm weight 8 to 10 MT. including necessary, labour, materials and artificial watering complete.

Main bldg.	1	X	1	X	25.59	X	21.79		=	557.70
O.S.metal in plinth along periphery. Long	1	X	2	X	25.59	X	0.60		=	30.71
Short	1	X	2	X	20.59	X	0.60		=	24.71
								Total Say		613.12
										613.10

- 44 Providing and laying in situ Tremix Cement Concrete M-20, with Natural Sand, with Tremix treatment for 150 mm Sq.M thickness for flooring with groove cutting of 4 mm wide and 20 mm deep at every 4.00 m c/c both sides with necessary refilling with bitumen,etc. complete as directed by Engineer Incharge. With fine aggregate (Crushed sand VSI Grade finely washed etc

Provision	1	X	2	X	0.00	X	0.00		=	1.00
Main bldg.	1	X	1	X	25.59	X	21.79		=	557.70
								Total Say		557.70
										557.70

- 45 Providing and casting in situ / ready mix PCC M15 grade of trap metal for coping to head walls / parapet including centering, form work, compaction and curing etc. complete. ((Crushed sand VSI Grade)

Provision	2	X	2	X	2.00	X	0.45	X	0.10	=	1.00
								Total			1.00
Apron											
Long	2	X	2	X	27.49	X	0.60	X	0.10	=	6.60
Short	1	X	2	X	25.59	X	0.60	X	0.10	=	3.07
Coping over gutter											
Long	2	X	2	X	29.19	X	0.45	X	0.10	=	5.25
Short	1	X	2	X	23.79	X	0.45	X	0.10	=	2.14
								Total			17.06
								Say			18.00

- 46 Providing & fixing M.S. angle 50 x 50 x 6 mm with holdfasts at doorsills including fixing in bed concrete and then RMT applying three coats of oilpaint etc. complete.

For Platforms	2	X	2	X	2.50				=	10.00
								Total Say		10.00
										10.00

- 47 Providing and fabricating structural steel work in rolled sections like joists, channels, angles, tees etc. as per Kgs detailed design and drawings or as directed including cutting, fabricating, hoisting, erecting, fixing in position making riveted / bolted /welded connections without connecting plates, braces etc. and including one coat of anticorrosive paint and over it two coats of oil painting of approved quality and shade etc. complete.

For Platforms @ 16.80 kg/m	2	X	2	X	13.60	X	16.80	Kg/M.	=	913.92
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Holdfasts 20 mm dia @ 2.50 kg/m L50x50x6 mm for fire bucket. @ 4.50 kg/m	2	X	18	X	0.60	X	2.50	Kg/M.	=	54.00
										180.00
								Total		1147.92
								Say		1148.00
48 Providing & Fixing in position M.S. ladder of 45 cms width made out 50 x 50 x 6 mm two angles for rails and M.S. RMT angle stiffeners at three places as directed with M.S. round bars of 20 mm dia for steps @ every 30 cm c/c including fixing	1	X	1	X	8.00				=	8.00
								Total		8.00
								Say		8.00
49 Providing and fixing lightening conductor system comprising of erecting Air-Termination consisting of tubular RMT copper rod of 25mm dia. 1.2 mm thick with multiple points head 1.2 mt. long (Heavy Duty) welded or clam ped to G.I. pipe pole B grade 50 mm diaof requiired length with M.S. round bnase plate 25 Cm diam and 10mm thick at bottom embeded in cement concrete 1:3:6 dfoundation of size 45 cm diam x 45 cm Height and providing earthing with copper earth plate of size 60 x 60 x 0.3 cms with cadmium plated nut bolts to fix earthing strip burried in specially prepared earth pits 1.5 metre below ground level with 40 kg charcoal and salt with altemate layers of charcoal and salt and G.I.pipe 40mm dia 2 meter length burried in earthe upto earthling plate remining portion above ground level for watering and refilling comcpete.	1	X	15	X					=	15.00
								Total		15.00
								Say		15.00
50 Providing and fixing Marble plate engraving 10 cm.height letter, figures including painting the letters/figures with sqm approved colour and shade complete	1	X	1	X	0.90	X	0.60		=	0.54
								Total		0.54
								Say		0.54
51 Conveying materials obtained from road cutting including all lifts, laying in layers of 20cm to 30cm. breaking cum clods, dressing to the required lines, curves, grades and section, watering and compacting to not less than 97% of standard Proctor density for a lead of over 50m. to 300m. inclusive from the site of excavation to the site of deposition as directed.										
I-1-A										0.00
I-1A'										0.00
I-1A"										0.00
								Total		0.00
								Say		10.00
52 Conveying materials obtained from road cutting including all lifts, for a lead of upto 5km. from the site of cum excavation to the site of deposition as directed.										
AS PER ITEM No 3										200.00
										200.00
								Total		200.00
								Say		200.00

- 53 Providing soling using 80 mm size trap metal in 15 cm. layer including filling voids with Crushed sand/grit, cum ramming, watering etc. complete.

Column footing

Column C1	2	X	2	X	0.65	X	0.35	X	0.00	=	0.00
Column No. C3	2	X	2	X	0.45	X	0.35	X	0.00	=	0.00
Column No.C2 END	2	X	2	X	0.65	X	0.523	X	0.00	=	0.00
Column No.Platform	4	X	2	X	0.45	X	0.23	X	0.00	=	0.00
APRON long	1	X	2	X	29.392	X	1.28	X	0.00	=	0.00
APRON short	1	X	1	X	23.032	X	1.28	X	0.00	=	0.00

Total = 0.00

Provision

say 1.00

- 54 Supply of pre-constructional Anti-termite treatment chemical as per I.S. 6313 (Part-II) - 1973 by treating the top surface of plinth filling at the rate of 5 litres of emulsion concentrates of 0.5 percent of Clorophyrifos /Hephoclore per square meter of surface

Litre

Provision	1	X	1	X	25.59	X	21.79			=	27.89
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Total = 28

Say = 28.00

- 55 Labour charges for pre-constructional Anti-termite treatment as per I.S. 6313 (Part-II) - 1973 by treating the top surface of plinth filling at the rate of 5 litres of emulsion concentrates of 0.5 percent of Clorophyrifos /Hephoclore per square meter of surface

Sqm

Provision	1	X	1	X	25.59	X	21.79			=	557.70
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Total = 558

Say = 558.00

- 56 Providing and laying Cast in situ/Ready Mix cement concrete in M-25 of trap/ granite/ quartzite/ gneiss metal for Cum R.C.C. pardi of required thickness including steel centering, formwork, cover blocks, laying/pumping, compacting and roughening them if special finish is to be provided and curing complete. (Excluding reinforcement and structural steel). With fine aggregate (Crushed sand VSI Grade)

Provision for Plinth Padadi	1	X	1	X						=	1.00
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Total = 1.00

Say = 1.00

- 57 Providing and fixing colour coated Zincolume (R) AZ150 (min 150 gms/sq.mt. total on each side) profiled Sqm sheets for flashing at parapet. The feed material is manufactured out of nominal 0.45 mm Base Metal Thickness (BMT) (0.5 mm TCT), Hi-strength steel with min.550 MPa yield strength, metallic hot dip coated with Aluminium-Zinc alloy (55% aluminium 43.4% zinc 1.6% silicon) with super durable polyester paint coat (SDP) or similar. The paint shall have a total coating thickness of nominal 35 um, comprising of nominal 25 um exterior coat on top surface and nominal 10 um reverse coat on back surface. The feed material should have coil manufacturers product details marked a regular interval including fasteners with min. fastened with min. 25 um Zinc-Tin alloy coated, Hex head, self-drilling screw etc. complete. (weight of profile 4.52 kg/sqm) As directed by Engineer in charge.

Flashing to cover existing parapet and junction at gable wall roof	1	X	2	X	15.00					=	30.00
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Total = 30.00

Say = 30.00 Sqm

Part - B :- PEB work

- 1 Above Plinth PEB Structure - providing & erecting PEB structure with zincallume sheets etc.complete.

1	X	1	X	25.80	X	21.300		=	549.54
							Total	=	549.54
							Say	=	550.00

- 2 Turbo ventilator 24"

2	X	4						=	8.00
							Total	=	8.00
							Say	=	8.00

Jr.Engineer
MSWC-Amravati

Dy.Manager (Engg.)
MSWC-Amravati