

**LABOUR RATES**

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
1	2	3		4	5.00
			<b>(A) Skilled Workmen</b>		
			<b>First Class</b>		
1	1a		Mason and stone Cutter	Day	156.00
2	b		Brick Layer	Day	156.00
3	c		Carpenter	Day	156.00
4	d		Painter	Day	156.00
5	e		Plumber	Day	156.00
6	f		Welder	Day	156.00
7	g		Fitter	Day	156.00
8	h		Electrician	Day	156.00
9	l		Cook	Day	156.00
10	2		Mechanic	Day	156.00
11	3		Rigger	Day	156.00
12	4		Rigger Syrang	Day	156.00
13	5		Well Sinker	Day	156.00
14	6		Blaster	Day	156.00
15	7		Tipper and Heavy Vehicle Driver above 12 T	Day	165.00
16			Tanker and Medium Vehicle Driver (7.5 T to 12 T)	Day	144.00
17			Tanker and Light Vehicle Driver up to 7.5 T	Day	130.00
18			Wagon Drill Operator upto 7.5 T	Day	165.00
19	8		Lorry and Heavy Vehicle Driver above 12 T	Day	165.00
20			Road Roller Driver (7.5 T to 12 T)	Day	144.00
21			Road Roller Driver up to 7.5 T	Day	130.00
22	9		Tractor Driver above 12 T	Day	165.00
23			Tractor Driver (7.5 T to 12 T)	Day	144.00
24			Tractor Driver upto 7.5 T	Day	130.00
			<b>Operator</b>		
25	10		Pan Mixer	Day	156.00
26			Concrete mixer	Day	156.00
27			Vibrator	Day	156.00
28			Compressor	Day	156.00
29			Jack Hammer	Day	156.00
30			Driller	Day	156.00
31			Boring Maistry	Day	156.00
32	11		Pump Operator	Day	156.00
33	12		Turner Grade-I	Day	156.00
34	13		Wireless Operator	Day	165.00
35	14		Assistant Wireless Operator	Day	137.00
36	15		Jeep Driver	Day	130.00
37	16		Work inspector with I.T.I qualification	Day	151.00
38	17		Work Inspector with LCE,LME,L.E.E Qualification	Day	165.00
39	18		Work Inspector with B.E ( Civil, Mechanical and Electrical qualification)	Day	250.00
40	19		Work Inspector with Non-technical qualification SSLC/SSC/HSC	Day	137.00
41	20		Mason Spl. Grade for Mossaic and Polished shahabad stone floor	Day	165.00
42	21		Computer Operator	Day	137.00
			<b>(B) SEMI-SKILLED WORKMEN</b>		
			<b>SECOND CLASS</b>	Day	
43	1:00 AM		Mason	Day	137.00
44	b		Brick Layer and Stone Cutter	Day	137.00
45	c		Carpenter	Day	137.00
46	d		Painter	Day	137.00
47	e		Plumber	Day	137.00
48	f		Blacksmith	Day	137.00

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49	g		Welder	Day	137.00
50	h		Fitter	Day	137.00
51	l		Electrician	Day	137.00
52	2		Caulker	Day	137.00
53	3		Barbender	Day	137.00
54	4		Tinker	Day	137.00
55	5		Sawyer	Day	137.00
56	6		Brick-Moulder	Day	137.00
57	7		Pot-tile turner	Day	137.00
58	8		Pan -tile turner	Day	137.00
59	9		Brick and Lime Kiln man /Glazzer	Day	137.00
60	10		Telephone Operator	Day	137.00
61	11		Hand Driller	Day	137.00
62	12		Quarry man	Day	137.00
63	13		Hammer man	Day	137.00
64	14		Thatcher	Day	137.00
65	15		Fireman	Day	137.00
66	16		Cleaner/Helper	Day	137.00
67	17		Stone Packer	Day	137.00
68	18		Jawali	Day	137.00
69	19		Ex-Service man/Goorkha watchman	Day	106.00
70	20		Ratton worker	Day	137.00
71	21		Mate	Day	137.00
<b>(C) UNSKILLED WORKMEN</b>					
72	1		Head mazdoor(Mukaddar)	Day	106.00
73	2		Man mazdoor	Day	106.00
74	3		Watch man	Day	106.00
75	4		Picottah man	Day	deleted
76	5		Woman Mazdoor	Day	106.00
77	6(a)		Casual labour on loading & Un-loading operations	Day	
78	6(b)		Helpers/Cleaners/Sweepers/Scavengers/ Choukidaars / Security Guards / Office Boys	Day	
<b>(D) OTHER CONVEYANCE ITEMS</b>					
80	1		Single bullock with driver and cart	Day	151.00
81	2		Bullock pair with driver	Day	151.00
82	3		Bullock pair with driver and cart	Day	165.00
83	4		Bullock pair with driver and cart with Pneumatic tyres	Day	208.00
84	5		Bullock pair with driver and kapila	Day	deleted
85	6		Nava with crew	Day	144.00
86	7		Punt thundal	Day	116.00
87	8		Punt lascar	Day	116.00
88	9		Punt boy lascar	Day	deleted

## COMMON MATERIALS AND WORK ITEMS

Sl. No	S.S. Item No.	Description	Unit	SS Rate for 2005-06
1	2	3	4	5.00
<b>(A) STONE AND ROAD MATERIALS</b>				
<b>ROUGH STONE QUARRIED INCLUDING WEDGING, BREAKING,BURNING, SPLITTING AND STACKING</b>				
89	22.a	For R.R Masonary Work (other than Granite, Dolomite and Trap	1 cum	94.00
90	b.i	For SS Revetment work 225 mm	1 cum	50.00
91	b.ii	For SS Revetment work 300 mm	1 cum	66.50

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
92	b.iii		For SS Revetment work 450 mm	1 cum	80.00
93	c		Jeddy Stone above 450 mm to 600 mm	1 cum	110.00
94	d I.		Laterite for revetment 225 mm	1 cum	68.50
95	d II.		Laterite for revetment 300 mm	1 cum	80.00
96	d.iii		Granite for SS revetment 225 mm	1 cum	82.00
97	d.iv		Granite for SS revetment 300 mm	1 cum	95.00
			<b>Note:-</b> Only when other granite is not available		
98	E		Laterite for masonry	1 cum	80.00
99	F		Cyclopean stones above 0.2 cum	1 cum	148.00
100	G		For R.R.Masonry works ( granite, dolomite and trap variety	1 cum	109.00
101			<b>NOTE:-</b> For items 22(a) to 22© ,22d(iii),22d(iv) and 22(g) add extra Rs /cum, wherever quarrying is done by blasting	1 cum	52.50
			<b>COURSED RUBBLE STONE QUARRYING WEDGING, BREAKING, BURNING AND SPLITTING INCLUDING STACKING FOR SS FIRST SORT WORKS</b>		
102	23.a		Granite, dolomite and trap	1 cum	157.00
103	B		For other varieties	1 cum	108.00
104	27		Granite stone slabs for culverts, lintels and copings (3 faces dressed coarsed rubble masonry)	1 cum	998.00
105			<b>NOTE:</b> - For items 23(a), 23(b) and 27 add extra Rs. Per Cum, wherever quarrying is done by blasting	1 cum	54.00
106	28		Bond stones ( 600 x 200 x 200 mm )	each	16.00
107	b		Chainage stones and Centre line stones (750x150x150mm)	each	21.00
	29 a		Kilometers stones ( 1100 x 370 x 250 mm)	each	deleted
	b		5th Kilometers stones ( 1520 x 520 x 250 mm)	each	deleted
	30 a		Hectometers stones ( 900 x 200 x 200 mm)	each	deleted
108	31		Demarcation Stones ( 900 x 150 x 150 mm)	each	33.00
109	32 a		Guard Stones ( 1200 x 200 x 200 mm )	each	52.00
110	b		Guide Stones ( 800 x 150 x150 mm )	each	33.00
111	c		Carving letters and figures in stone up to 100 mm size	each	3.20
112	d		Carving letters and figures in stone above 100 mm size	each	4.20
			<b>HARD BROKEN STONE OF GRANITE, TRAP AND DOLERITE FREE FROM DUST OBTAINED BY QUARRYING, WEDGING, BREAKING, BURNING AND SPLITTING INCLUDING STACKING.</b>		
113	33.a		- do - 6mm size (SS 5)	1 cum	249.00
114	b		- do - 10mm size (SS 5)	1 cum	329.00
115	c		- do - 12mm size (SS 5)	1 cum	395.00
116	d		- do - 20mm size (SS 5)	1 cum	494.00
117	e		- do - 25mm size (SS 5)	1 cum	494.00
118	f		- do - 40mm size (SS 5)	1 cum	282.00
119	g		- do - 50mm size (SS 5)	1 cum	196.00
120	h		- do - 60mm size (SS 5)	1 cum	196.00
121	i		- do - 65mm size (SS 5)	1 cum	194.00
122	j		- do - 75mm size (SS 5)	1 cum	131.00
123	k		- do - 75 to 100mm size (SS 5)	1 cum	117.00
124			<b>NOTE:-</b> (1) Add extra Rs.55.50/- per cum for items 33 (a) to 33 (k) if the metal is obtained by blasting		55.50
125			(2) Add 25% extra per cum if the metal is obtained by machine crushing excluding cost of blasting.		0.25
126			(3) Deduct Rs.5.50 per cum if the metal or rubble is obtained from surface stone and boulders.		5.50
127			(4) Add Rs.11.50/- per cum for selection of stones and boulders from excavated spoil dumps for items 33 a to 33 k, when this		11.50 5.50

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
			addition of Rs. <b>11.50</b> per Cum is allowed deduction of Rs. <b>5.50</b> per Cum mentioned under Note (3) above should invariably be made.		
			<b>SOFT BROKEN STONE SCREENED AND FREE FROM DUST INCLUDING STACKING</b>		
128	33.l		- do - 40 mm size ( SS 5 )	1 Cum	63.00
129	33.m		- do - 50 mm size ( SS 5 )	1 Cum	56.50
130	33.n		- do - 60 mm size ( SS 5 )	1 Cum	44.50
131	33.o		- do - 65 mm size ( SS 5 )	1 Cum	39.50
132	33.p		- do - 75 mm size ( SS 5 )	1 Cum	37.50
			<b>HARD BROKEN STONE OF GRANITE TRAP DOLERITE AND DOLAMITE FREE FROM DUST OBTAINED BY QUARRYING WEDGING, BREAKING, BURNING AND SPLITTING INCLUDING STACKING (QUARTZITE AND BASALT WITH AGGREGATE IMPACT OF LESS THAN 20)</b>		
133	33a		-do- 5 mm to 7 mm size ( IRC and MORTH)	1 cum	249.00
134	b		-do- 9.5 mm to 11.2 mm size ( IRC and MORTH)	1 cum	329.00
135	c		-do- 12mm to 14 mm size ( IRC and MORTH )	1 cum	394.00
136	d		-do- 19 mm to 22 mm size ( IRC and MORTH )	1 cum	492.00
137	e		-do- 25 mm to 27 mm size ( IRC and MORTH )	1 cum	492.00
138	f		-do- 40 mm to 45 mm size ( IRC and MORTH )	1 cum	282.00
139	g		-do- 50 mm to 55 mm size ( IRC and MORTH )	1 cum	196.00
140	h		-do- 60 mm to 63 mm size ( IRC and MORTH )	1 cum	196.00
141	i		-do- 65 mm size ( IRC and MORTH )	1 cum	196.00
142	j		-do- 75 mm size ( IRC and MORTH )	1 cum	131.00
143	1		<b>NOTE:-</b> Add extra Rs. <b>55.50</b> per cum for items 33 (a) to 33 (j) if the metal is obtained by blasting	1 cum	55.50
144			Add <b>25%</b> extra per cum if the metal is obtained by machine crushing excluding cost of blasting.	1 cum	25%
145	3		Deduct Rs. <b>5.50</b> per cum if the metal or rubble is obtained from surface stones and boulders	1 cum	5.50
146	4		Add Rs. <b>11.50</b> per cum for selection of stones and boulders from excavated soil dumps for items 33 (a) to 33 (k), when this addition of Rs. <b>11.50</b> per cum allowed deduction of Rs. <b>5.50</b> per cum mentioned under note (3) above should invariably be made	1 cum	11.50
			<b>HARD BROKEN STONE OTHER THAN GRANITE SUCH AS QUARTZ, QUARTZ-NAPA AND BASALT SCREENED AND FREE FROM DUST INCLUDING STACKING</b>		
147	33.q		- do - 10 mm size (SS 5)	1 Cum	196.00
148			-do- 9.5 mm to 11.2 mm size ( IRC and MORTH )	1 Cum	196.00
149	r		- do - 12 mm size (SS 5)	1 Cum	184.00
150			-do- 12mm to 14 mm size ( IRC and MORTH )	1 Cum	184.00
151	s		- do - 20 mm size (SS 5)	1 Cum	149.00
152			-do- 19 mm to 22 mm size ( IRC and MORTH )	1 Cum	149.00
153	t		- do - 25 mm size (SS 5)	1 Cum	147.00
154	u		- do - 40 mm size (SS 5)	1 Cum	86.50
155			-do- 40 mm to 45 mm size ( IRC and MORTH )	1 Cum	86.50
156	v		- do - 50 mm size (SS 5)	1 Cum	76.50
157			-do- 50 mm to 55 mm size ( IRC and MORTH )	1 Cum	76.50
158	33.w		- do - 65 mm size (SS 5)	1 Cum	72.50
159			-do- 60 mm to 65 mm size ( IRC and MORTH )	1 Cum	72.50
160	x		- do - 75 mm size (SS 5)	1 Cum	60.00
161			- do - 75 mm size ( IRC &MORTH)	1 Cum	60.00
162	y		- do - 75 to 100 mm size (SS 5)	1 Cum	47.50
163			- do - 75 to 100 mm ( IRC& MORTH)	1 Cum	47.50
			<b>OTHER ITEMS INCLUDING STACKING</b>		

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
164	33.z1		Laterite 40 to 75 mm ( ring)	1 Cum	54.50
165	z2		kankar, hard broken kankar 40 to 75 mm ( ring )	1 Cum	42.50
166	z3		Soling stone of 150 mm size of granite, trap and Dolomite varieties.	1 Cum	54.50
167			<b>NOTE:-</b> (1) Add extra for items to 33(z3) Rs <b>55.50</b> Per cum, wherever quaring is done by blasting. (2) Wherever controlled blasting is resorted to the Chief Engineer concerned shall approve the observed data in support of SS item No. 22 a to 22 c , 22g, 23	1 Cum	55.50
168	z4		Soling stone of 150 mm size other than granite variety	1 Cum	38.50
169	z5		Soling Stone laterite, Kankar 150mm, surface stone	1 Cum	22.50
170	z6		Field picked metal unbroken 20 mm size	1 Cum	33.00
171	z7		- do - 25 mm size	1 Cum	25.00
172	z8		- do - 40 mm size	1 Cum	27.50
173	z9		- do - 50 mm size	1 Cum	25.00
174	z10		- do - 60 mm size	1 Cum	19.50
175	z11		- do - 80 mm size	1 Cum	15.00
176			<b>NOTE:-</b> Add Rs. <b>11.50</b> per cum for selection of stone and boulders from excavated spoil dumps for items 33 (q) to 33 z , when this addition of Rs. <b>11.50</b> per cum is allowed deduction of Rs. <b>5.50</b> per cum should invariably be made towards the metal or rubble if it is obtained from surface stone and boulders.		11.50 5.50
177	34		Gravel including stacking	1 Cum	40.00
178	35 a		Quarry rubbish	1 Cum	16.00
	b		HBG Stone Chips 2.36mm and below	1 Cum	60.00
179	36.a		Sand for mortar, ceiling coat including washing screening etc.,	1 Cum	72.00
180	b		Sand for filling and blindage	1 Cum	28.50
181	37		Clay for puddle and masonry Items 38 (a) to 39 (h) As per local prevailing rates based on competitive quotations.	1 Cum	19.00
			<b>(C) LIME AND CEMENT</b>		
182	40 to 41(c)				As per local competitive rates
183	42		Cement excluding cost of empty cement bags	Metric Tonne	2600.00
184	42.a		Labour for mixing cement mortar	1 Cum	19.50
185	b		Mixing of cement mortar by machine	1 Cum	33.00
186	c		Grinding lime mortar or Surkhi mortar	1 Cum	58.00
187	d		Shell lime slaked and screened	1 Cum	578.00
188	e		White cement	1 Kg.	13.00
			<b>(D) MORTARS</b>		
189	43 to 45		Items 43 to 45		<b>Rates have to be based on state</b>
			<b>(E) METAL AND IRON WORKS</b>		
190			Mild steel rods 6mm dia.	One Metric Tonne	29500.00
191			Mild steel flats	One Metric Tonne	29500.00
192			Mild Steel, Structural Steel, I.e., Angles, Channels and I sections.	One Metric Tonne	30000.00
193			High Yield Strength Deformed Bars	One Metric Tonne	29500.00
			<b>III RATES OF WORKS</b>		
			<b>(A) CLEARING SITE</b>		
195	1.a		Clearing heavy Jungle	1 Sqm	1.10
196	b		Clearing light Jungle	1 Sqm	1.10
197	c		Clearing Scrub Jungle	1 Sqm	1.10

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
198	d		Clearing Juliflora (Prosafis) jungle including up-rooting and removing of Juliflora stumps.	1 Sqm	2.10
199	2.a.i		Cutting and removing Palmyrah trees including stacking of girth 30 to 100 cm.	Each	19.00
200	ii		- do - 100 to 200 cm.	Each	33.00
201	2.b.i		Uprooting and removing Palmyrah stumps including stacking of girth 30 to 100 cm.	Each	23.50
202	ii		- do - 100 to 200 cm.	Each	36.00
203	2.c.i		Cutting and removing date trees including stacking of girth 30 to 100 cm	Each	14.00
204	ii		- do - 100 to 200 cm	Each	20.00
205	d.i		Uprooting and removing stumps of date trees including stacking of girth 30 to 100 cm.	Each	14.00
206	ii		- do - 100 to 200 cm	Each	19.00
207	e i		Cutting and removing other kindof trees including stacking of girth 30 to 100 cm	Each	19.00
208	ii		- do - 100 to 200 cm	Each	29.50
209	iii		- do - above 200 cm	Each	50.00
210	f.i		Uprooting and removing stumps of other kind of trees including stacking of girth 30 to 100 cm.	Each	14.00
211	ii		- do - 100 to 200 cm	Each	20.00
212	iii		- do - above 200 cm	Each	27.50
213	3.a		Uprooting and clearing prickly pear jungle	1 Sq.m	1.10
214	b		- do - under 2.5 meters height including burning and burrying as directed.	1 Sq.m	1.60
215	c		- do - over 2.5 meters height including burning and burrying with an initial lead of conveyance	1 Sq.m	2.10
216	4.a		Removing of natchu, goobi, thooti etc., from drains, channels including clearance if not more than 1 metre depth of water with an initial lead of 10 metres and lift of 2 metres.	1 Sq.m	1.10
217	b.i		Clearing alchi, tilla	1 Sq.m	2.10
218	b.ii		Removal of Jammu	1 Sq.m	1.10
219	c.i		Removal of imponea, cornea	1 Sq.m	2.10
220	c.ii		Removal of water hyacinth upto 30 cm thick.	1 Sq.m	2.10
221	c.iii		- do - more than 30 cm thick	1 Sq.m	3.10
222	d		Removal of natchu, goobi, thooti etc., for every extra lead or lift over the initial lead or lift.	1 Sq.m	0.60
			<b>(B) DISMANTLING</b>		
	5		<b>DISMANTLING, CLEARING AWAY AND CAREFULLY STACKING MATERIALS USEFUL FOR REUSE.</b>		
223	n.(i)		Dry rough stone revetment for aprons and stacking within 40 metres	1 cum	24.50
			<b>(C) QUARRYING AND BLASTING</b>		
224	6		Blasting and removing hard granite measured in solid	1 cum	covered under e
	7		<b>Drilling holes in hard granite or sheet rock</b>		
	a)		<b>Manually ( Hand)</b>		
225	i)		20 mm dia meter	1 RM	65.00
226	ii)		25 mm dia meter	1 RM	70.00
227	iii)		36 mm dia meter	1 RM	79.50
	b)		<b>Pneumatic Compressor</b>		
228	i)		20 mm dia meter	1 RM	70.50
229	ii)		25 mm dia meter	1 RM	77.50
230	iii)		36 mm dia meter	1 RM	85.00
	8		<b>Grouting the holes with neat cement slurry excluding cost of steel</b>		
231	i)		20 mm dia meter	1 RM	42.00
232	ii)		25 mm dia meter	1 RM	54.00
233	iii)		36 mm dia meter	1 RM	65.50
			<b>(D) EARTH WORK</b>		
234			<b>NOTE:-</b> 1. Standard Specification No.20-A requires breaking clods,ramming and sectioning of spoil bank etc.,		
235			2. Standard Specification No.20-B does not		

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		require that three items of work detailed above, but does require neat banking in accordance with the standard specification.		
236		3. A separate rate for these three items of work will not be necessary where the earth work is executed under the standard specification No. 20-A.		
236a		<b>Allowances for Excavation and Forming Embankment:</b>		
		(i) Top soil removal - upto 5%		
		(ii) Consolidation allowance to Proctor's Density -10%		
		(iii) Shrinkage Allowance - 2 to 2.5%		
		(iv) Wastage- 1%		
		(v) Allowance for removal of boulders - Nil		
236b		<b>Conveyance by Lorries not applicable to head leads</b>		
		(vi) Clay 25%		
		loamy, Red Earth, Gravel, Homogeneous soils-18%		
		(vii) Allowance for compaction and Shrinkage- 12 to 12.5%		
		<b>EARTH WORK EXCAVATION AND DEPOSITING ON BANK WITH AN INITIAL LEAD OF 10 METRES AND AN INITIAL LIFT OF 2 METRES IN CASE OF HEAD LEAD ONLY.</b>		
237	8.a	Sand or loose soils wet sand not under water, silt in canals, channels and drains SS 20-A.	1 cum	19.00
238	b	- do - 20-B	1 cum	20.00
239	9.a	Loamy and Clayey soils like black cotton soils, red earth and ordinary gravel SS 20-A.	1 cum	31.50
240	b	- do - 20-B	1 cum	28.50
241	10.b	Slushy soil and silt clearance upto 0.60 metres depth SS 20-B	1 cum	31.50
242	11.b	Clayey Soil in wet and slushy condition SS 20-B	1 cum	32.50
243	12.a	Hard Gravelly Soils SS 20-A	1 cum	32.50
244	b	- do - SS 20-B	1 cum	30.50
245	13.a	Mixture of gravel and soft disintegrated rock like shales ordinary gravel, stoney earth and earth mixed with fair sized boulders SS 20-A	1 cum	34.50
246	b	- do - 20-B	1 cum	31.50
247	14	Soft disintegrated rock ( removable by pick axes and crow bars)	1 cum	36.50
248	15	Stone matrix	1 cum	38.00
249	16	Hard disintegrated rock or soft rock or conglomerate rock etc., removable by pick axes and crow bars	1 cum	49.50
250	17	Hard disintegrated rock or soft rock or conglomerate rock and Hard lime kankar requiring partial blasting.	1 cum	66.00
251	18.a.i	Fissured and fractured rock and boulders upto 3 cum in size requiring blasting including stacking	1 cum	114.00
252	a.ii	- do - Stacking is not done	1 cum	106.00
253	18.b.i	Excavation of Nandyal Slabs more than 3 cum in size requiring blasting including stacking	1 cum	137.00
254	b.ii	- do - Stacking is not done	1 cum	132.00
255	19.a.i	Hard rock and boulders more than 3 cum in size requiring blasting including stacking	1 cum	240.00
256	a.ii	- do - Stacking is not done	1 cum	229.00
257	19.b	Benching, chiselling, wedging and boring in rock in foundation grade levelling.	1 cum	342.00
		<b>FOR ALL SOILS, SOFT DISINTEGRATED ROCK AND STONE MATRIX (ITEM N0s 8-b to 15 ABOVE )</b>		
258	20.a.i	Extra for every additional 10 metres lead or part there of over the initial lead for the first 3 extra leads	1 cum	1.30
259	ii	-do- from 4 th extra lead to 6 th extra lead	1 cum	2.10
260	iii	-do- from 7 th extra lead to 9 th extra lead	1 cum	3.10
		<b>FOR HARD DISINTEGRATED ROCK (ITEM 16 TO 17 ABOVE )</b>		
261	20bi	(Extra for every additional 10 metres lead or part there of) over the initial lead for the first 3 extra leads	1 cum	2.10

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
262	ii		Extra for every additional 10 mtrs. Lead or part there of from 4 th extra lead to 6 th extra lead	1 cum	3.30
263	iii		-do- from 7 th extra lead to 9 th extra lead	1 cum	4.60
			<b>FOR FISSURED AND FRACTURED HARD ROCK AND BOULDERS ETC., (ITEM 18 &amp; 19 a ABOVE)</b>		
264	20.c.i		(Extra for every additional 10 metres lead or part there of) over the initial lead for the first 3 extra leads	1 cum	3.40
265	ii		Extra for every additional 10 mtrs. Lead or part there of from 4 th extra lead to 6 th extra lead	1 cum	5.60
266	iii		-do- from 7 th extra lead to 9 th extra lead	1 cum	6.20
			<b>FOR ALL SOILS, SOFT DISINTEGRATED ROCK AND STONE MATRIX (ITEM N0s 8-b to 15 ABOVE )</b>		
267	21.a.i		Extra for every additional 1 metre lift or part there of over the initial lift for the first 3 extra lifts	1 cum	1.30
268	ii		Extra for every additional 1 mtrs. lift or part there of from 4 th extra lift to 6 th extra lift	1 cum	2.10
269	iii		-do- from 7 th extra lift and above	1 cum	3.20
			<b>FOR HARD DISINTEGRATED ROCK (ITEM 16 &amp; 17 ABOVE )</b>		
270	21.b. i		Extra for every additional 1 metres Lift or part there of over the initial lift for first 3 extra lifts	1 cum	2.10
271	ii		Extra for every additional 1 mtrs. lift or part there of from 4 th extra lift to 6 th extra lift	1 cum	3.10
272	21.b.iii		-do- from 7 th extra lift and above	1 cum	4.60
			<b>FOR FISSURED AND FRACTURED, HARD ROCK AND BOULDERS ETC.,(ITEM 18 TO 19 a ABOVE ).</b>		
273	21.c.i		Extra for every additional lift of 1 metre or part there of over the initial lift for the first 3 extra lifts	1 cum	4.10
274	ii		Extra for every additional lift of 1metre or part there of over from 4th extra lift to 6 th extra lift	1 cum	5.10
275	iii		-do- from 7 th extra lift and above	1 cum	6.60
276			Note: The lift charges mentioned in SS item Nos 21a,21 b, and 21c under (D) Earth work are applicable to delifts also.		
277	22.a		Add to relevant SS 20-A rates for new tank bunds, closing breaches, road formation and embankments for extra watering and consolidation by stone roller upto 1 tonne.	1 cum	2.10
278	b		- do - with stone roller 2 tonnes or cattle treading	1 cum	3.40
	b(i)		Add to relevant SS 20-A rates for new tank bunds, closing breaches, road formation and embankments for extra watering and consolidation by pneumatic tampers at 90% proctor's density.	1 cum	3.90
279	c		Add to relevant SS 20-A rates for new tank bunds,closing breaches, road formation and embankments for extra watering and consolidation of proctor's density with 8 to 10 tonne power roller including watering and conveyance of water for initial lead of 1/2 kilometer.	1 cum	20.50
280			Note: The element of Hire charges is Rs 51.76 per 10 cum corresponding to the hire charges of 8 to 10 Tonne power roller fixed at Rs. 2200/- per day of 8 hours. The rate shall be increased when the element of hire charges increases for item No. 22 c above,if the roller is lent to the contractor at a rate of Rs 275/- per hour(i.e., Rs 2200/- per day of 8 hours may be effected).	1 cum	
281	22.d		Extra for every additional 1/2 km lead for water over the initial lead of 1/2 Km for consolidation of banks .	1 cum	2.20
282	23.a		Benching old embankment slopes 0.45 x 0.45 metres.	1 RM	1.30
283	23.b		Puddle wall work	1 cum	33.50
284	24		Turfing slopes including watering for 3 months with initial lead for conveyance of water and grass for 1 hectometre.	1 Sq.m	13.50
285	25		Refilling with the excavated sand complying with the standard specifications for filling foundations	1 cum	10.50
286	26.a		Refilling with the excavated soils ( other than sand) complying with the standard specifications for filling foundations.	1 cum	7.10
287	b		Trimming of slopes of embankments and depositing the soils on the top of the bank.	1 cum	<b>50% of earth w of similar classi</b>
288	c		Ploughing	1 Sq.m	<b>0.30</b>
			<b>(E) CONCRETE AND (G) STONE MASONRY</b>		



Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
289			SSI NOS 31a to 39 and SSI Nos. 60 to 87		Rates have to be based on standard
290			Note:		
291			1. Add for vibrating concrete	1 cum	32.00
292			2. Add for machine mixing of concrete.	1 cum	31.50
293			3. Add where the power is available for operating the mixer, the rate is,	1 cum	21.00
294	a 1		White washing and colour banding for guard and guide stones including cost of materials	each	4.10
295	b 1		Screening sand and gravel	1 cum	4.10
296	b 2		Screening chips and metal	1 cum	8.70
297	c 1		Removing and refixing Hectometre or Demarcation stones	each	5.10
			<b>CENTERING CHARGES</b>		
298	L 1		Centering charges for culvert slabs and other structures of 3 mts. span and above	1 cum	699.00
299	L 2		Centering charges for bed blocks and culvert slabs and other structures of less than 3 mts. span.	1 cum	572.00
			<b>CENTERING CHARGES FOR MINOR AND MAJOR BRIDGE WORKS</b>		
300	L3		For mass concrete piers, abutments and steining well curbs, well caps etc.,	1 cum	507.00
301	L 4		For RCC piers, abutments, wing wall, steining, well curbs, well caps etc.,	1 cum	634.00
302			<b>NOTE:-</b> The rates under L3 and L 4 are applicable to Roads and Buildings and Irrigation structures up to 2 metres width		
303	L 5		For RCC deck slabs	1 cum	1206.00
304	L 6		For RCC beams	1 cum	1524.00
305	L 7		For RCC hand rails	1 cum	1627.00
306	L 8		For CC pavements, wearing coats, approach, slabs, guide stone, J. M. stone etc.,	1 cum	121.00
	n		Laying and fixing RCC Hume pipes in position including lifting, aligning etc., complete with (fixing ) collars for the following diametres of pipes but excluding cost of materials ( NP2 Class )		
307	n 1		250 mm diameter	1 Rm	12.00
308	n 2		300 mm diameter	1 Rm	16.00
309	n 3		450 mm diameter	1 Rm	22.00
310	n 4		600 mm diameter	1 Rm	35.00
311	n 5		750 mm diameter	1 Rm	44.00
312	n 6		800 mm diameter	1 Rm	52.00
313	n 7		1000 mm diameter	1 Rm	58.00
314	n 8		1220 mm diameter	1 Rm	74.00
315			<b>Note:-</b> For NP3 class 50% extra over the rates of NP2. Class may be allowed.		
			<b>(S) ROAD WORK ITEMS</b>		
			<b>PICKING OLD METALLED SURFACE TO DEPTH OF 40 TO 100 mm SPREADING OLD METAL AND NEW METAL SECTIONING INCLUDING EDGE BUNDS AND SUBGRADE ROLLING, SPREADING METAL INCLUDING BLINDAGE OF GRAVEL WATERING WITH AN INITIAL LEAD OF 2 HECTOMETERS AND HAND ROLLER ( 1.5 TO 2 TONNES) ROLLING ETC., INCLUDING BARRICADING, DIVERSION OF TRAFFIC AND WETTING THE NEW CONSOLIDATION FOR A FORTNIGHT COMPLETE.</b>		
			<b>( For a compact thickness )</b>		
	1 (I)		<b>HARD METAL</b>		
316	a		40 mm thickness	10 sqm	39.00
317	b		50 mm thickness	10 sqm	41.00
318	c		75 mm thickness	10 sqm	46.00
319	d		100 mm thickness	10 sqm	49.00
	1 (ii)		<b>( For compact thickness of soft metal )</b>		
320	a		50 mm thickness	10 sqm	31.00
321	b		75 mm thickness	10 sqm	35.00
322	c		100 mm thickness	10 sqm	39.00

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
323	2		Picking 5 to 100 mm old metalled surface and sectioning	10 sqm	14.00
324	3		Picking gravelled surface 25 mm deep and levelling and sectioning	10 sqm	4.10
325	4		Picking the existing B.T. surface and removal of chips	10 sqm	14.50
326	5		<b>Picking old metalled surface to a depth of 40 to 100 mm and spreading metal including watering with an initial lead of 2 Hectometres and rolling with power rollers watering and spreading gravel for blindage and power roller rolling including hire chages of power roller( 8 to 10 t of) barricading and diversion of traffic and wetting the new consolidation for a fortnight(for compacted thickness of )</b>		
			<b>HARD METAL</b>		
327	5 (a)		40 mm thick ness	10 sqm	100.00
328	(b)		50 mm thick ness	10 sqm	114.00
329	(c )		75 mm thick ness	10 sqm	127.00
330	(d )		100 mm thick ness	10 sqm	134.00
331	(e)		150 mm thick excluding hire charges	10 sqm	240.00
			<b>Spreading gravel watering with an initial lead of 2 hectometres and power roller ( 8 to 10 T ) rolling excluding hire charges of power roller and barricading etc., ( for a compact thickness of )</b>		
332	6a		50 mm thickness	10 sqm	18.50
333	b		75 mm thickness	10 sqm	24.50
334	c		100 mm thickness	10 sqm	39.50
335	d		150 mm thickness	10 sqm	44.50
336	7a		<b>Blinding the road surface 6 mm thick with gravel or sand available at site after remaining loose stones including watering.</b>	10 sqm	1.10
337	b		-do- without watering	10 sqm	1.00
338	8a		<b>Blinding the road surface 6 mm thick with gravel or sand dug from road site including watering.</b>	10 sqm	2.10
339	b		-do- without watering	10 sqm	1.60
340			<b>Spreading gravel sand including watering and roller rolling ( for compacted thickness of )</b>		
341	9a		-do- 6mm to 20 mm thick	1 cum	28.50
342	b		-do- from 20 to 25 mm thick	1 cum	24.50
343	c		-do- from 25 to 40 mm thick	1 cum	23.50
344	d		-do- from 40 to 50 mm thick	1 cum	21.50
345	10		Picking 50 to 100 mm Old metalled surface, spreading metal and blindage watering tamping for patch repairs ( labour only )	10 sqm	19.50
346	11		Picking old metalled surface 50 to 100 mm deep spreading gravel watering and tamping ( labour only )	10 sqm	10.00
347	12		Levelling ruts and tamping gravelled roads	10 sqm	2.40
348	13		Levelling ruts and tamping metalled roads	10 sqm	4.20
349	14		Spreading gravel or sand including watering and rolling with hand roller irrespective of thickness in layer	10 cum	173.00
350	15		Carrying for water for WBM consolidation metal and blindage of 40 to 150 mm thickness for every one hectometre beyond initial lead of 2 hectometres	10 sqm	2.40
351			Gelatin(For MORTH data,for works of state & national high ways only)	Per Kg	36.00
352			Electric Detonators(For MORTH data,for works of state & national high ways only)	each	1.00
353			Hot applied thermoplastic compound(For MORTH data,for works of state & national high ways only)	Per Litre	150.00
354			Reflectionising glass beads of 2 mm thick(For MORTH data,for works of state & national high ways only)	Per Kg	50.00
355			Road marking paint conforming to IS 164(For MORTH data,for works of state & national high ways only)	Per Kg	125.00
			<b>BAILING OUT WATER CHARGES FOR CD &amp; CM WORKS (WHEREVER REQUIRED)</b>		
356	l 14		For earth work excavation for foundations below low water level	1 cum	85.00
357	l 15		For cement concrete for foundation below low water level	1cum	85.00
358	n		Labour charges for laying filters with coarse aggregate.	1 cum	34.00
359	o		Labour charges for laying filter with sand.	1 cum	16.00

Sl. No.	S.S. No.	Item	Description	Unit (per)	SS RATE FOR 2005-06
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## BUILDING ITEMS

S. No	Details	Unit	SS RATE FOR 2005-06
1	2	3	4.00
	<b>IV . RATES OF MATERIALS</b>		
	<b>(A) BRICKS &amp; TILE PRODUCTS</b>		
1	Bricks second class or ground moulded (Non-Modular or traditional size) 23 x 11 x 7 cm	1000 Nos	1350.00
2	- do- modular size 19 x 9 x 9 cm	1000 Nos	1404.00
3	Bricks country (Non-modular traditional size) 22 x 11 x 5 cm	1000 Nos	972.00
	<b>Flyash lime solid blocks with compressive strength of 100 kg/sq.cm</b>		
4	290 x 225 x 140 mm	Each	8.30
5	290 x 200 x 140 mm	Each	7.10
6	290 x 122 x 140 mm	Each	4.80
7	290 x 100 x 140 mm	Each	4.00
8	225 x 100 x 60 mm	Each	1.70
9	145 x 225 x 140 mm	Each	4.80
10	145 x 200 x 140 mm	Each	3.60
	<b>Flyash lime solid blocks with compressive strength of 50 kg/sq.cm</b>		
11	290 x 225 x 140 mm	Each	7.10
12	290 x 200 x 140 mm	Each	5.90
13	290 x 122 x 140 mm	Each	3.60
14	290 x 100 x 140 mm	Each	3.00
15	225 x 100 x 60 mm	Each	1.30
16	145 x 225 x 140 mm	Each	3.60
17	145 x 200 x 140 mm	Each	3.20
18	Cynder	1 Cum	248.40
	<b>Supply of 'AEROCON' HQ building Blocks &amp; 'COMFORTILE-Thermal Roof Tile' ('Ex-factory price) including all taxes.</b>		
	<b>A. AEROCON – HQ BUILDING BLOCKS</b>		
19	600 x 200 x 75 mm	Each	24.80
20	600 x 200 x 100 mm	Each	33.50
21	600 x 200 x 125 mm	Each	40.00
22	600 x 200 x 150 mm	Each	46.40
23	600 x 200 x 200 mm	Each	62.60
24	600 x 200 x 230 mm	Each	72.40
	<b>B. COMFORTILE -Thermal Roof Tile</b>		
25	300 x 200 x 50 mm	Each	9.70
	<b>Supply &amp; fixing of AEROCON PANELS</b>		
26	Supply & fixing of 50mm thick Aerocon sandwich Panels having Tongue and Groove joint for partitions and walls using G.I. Flooring & Ceiling channels, hardware, Labour, transportation, wastages, etc.,as a complete item of work excluding finishings, fittings & fixtures.	Sqm.	918.00
27	Supply & fixing of 75mm thick Aerocon sandwich Panels having Tongue & groove joint for partitions And walls using G.I. Flooring & Ceiling channels, hardware, Labour, transportation, wastages, etc.,As a complete item of work Excluding finishings, fittings & fixtures	Sqm.	1026.00
	<b>AEROCON PANELS</b>		
28	50mm thick x 600mm standard width x 2400mm, 2700mm & 3000mm lengths	Sqm.	648.00
29	75mm thick x 600mm standard width x 2400mm, 2700mm & 3000mm lengths	Sqm.	864.00
	<b>CUDDAPAH/SHAHABAD STONES</b>		
30	Cuddapah/Shahabad slab 40 mm thick and size not less than 0.457 M x 0.457 M	1 Sqm	90.70

Sl. No.	S.S. No.	Item Description	Unit (per)	S S RATE FOR 2005-06
	31	Cuddapah/Shahabad slab 50 mm thick and size not less than 0.457 M x 0.457 M	1 Sqm	101.50
		<b>Shahabad Stone slab of Tandur 25.4 mm thick</b>		
	32	White	10 Sqm	680.40
	33	Blue	10 Sqm	734.40
		<b>Shahabad Stone slab of Tandur 50.8 mm thick</b>		
	34	White	10 Sqm	777.60
	35	Blue	10 Sqm	885.60
		<b>Polished Shabad stone slab 25.4mm thick (0.457 x 0.457M)</b>		
	36	White	10 Sqm	1323.00
	37	Blue	10 Sqm	1674.00
	38	Polished black cuddapah slabs 25.4 mm thick (0.457x 0.457M)	10 Sqm	1247.40
	39	Polished Bethamcherla white stone 25.4 mm thick (0.254M x0.254M)	10 Sqm	3267.00
	40	Polished Bethamcherla colored stone 25.4 mm thick (0.254M x0.254M)	10 Sqm	3483.00
	41	High Polished Granite 18 to 20 mm thick up to 8'-00 (2.43 M) other than black	1Sqm	1587.60
	42	High Polished Granite 16 to 18 mm thick up to 8'-00 (2.43 M) other than black	1Sqm	1458.00
	43	High Polished Granite 18 to 20 mm thick up to 8'-00 (2.43 M) black	1Sqm	1360.80
	44	High Polished Granite 16 to 18 mm thick up to 8'-00 (2.43 M) black	1Sqm	1231.20
	45	Rounding the edges of cuddapah Slabs and Shahabad stone slabs & Marble slabs including polishing the same.	1 Rm	27.00
	46	Rounding the edges of Granite slabs including polishing the same.	1 Rm	81.00
	47	Flat nosing to Cuddapah slabs and Shahabad stone slabs 40mm thick	1 Rm	3.90
	48	Flat nosing to Cuddapah slabs and Shahabad stone slabs 50mm thick	1 Rm	4.50
	49	Flat nosing to Cuddapah slabs and Shahabad stone slabs 60mm thick	1 Rm	5.70
	50	Flat nosing to Cuddapah slabs and Shahabad stone slabs 75mm thick	1 Rm	6.50
		<b>FLOORING SLABS/ TILES</b>		
	51	Dongari Adanga marble slab polished 18 mm to 20 mm (average ) thick (size 0.457 M x 0.457 M)/ (0.6M x 0.6M)	1 sqm	486.00
	52	Dongari Adanga marble slab polished 16 mm to 20 mm (average ) thick (size 0.457 M x 0.457 M)/ (0.6M x 0.6M)	1 sqm	432.00
	53	Dongari Adanga marble slab polished 18 mm to 20 mm (average ) thick 0.305 M x 0.305 M	1 sqm	405.00
	54	Dongari Adanga marble slab polished 16 mm to 20 mm (average ) thick 0.305 M x 0.305 M	1 sqm	351.00
	55	Dongari Adanga marble slab polished 18 mm to 20 mm (average ) thick ( 0.610 M width of any length).	1 sqm	648.00
	56	Dongari Adanga marble slab polished 16 mm to 20 mm (average ) thick ( 0.610 M width of any length)	1 sqm	594.00
	57	Marble Tiles polished 8 mm thick	1 sqm	280.80
	58	Cutting marble slabs up to 50 mm thick by mechanical device.	1 RM	5.40
	59	Granite stone tiles 8 mm thick ( mirror polished of all shades)	1 sqm	604.80
	60	Ceramic tiles 7.3mm thick 1st quality of all shades ( as per manufacture specification)	1 sqm	324.00
	61	Chequered Terrazo tiles of 22 mm thick ( Medium shade) 0.254 M x 0.406 M	1 sqm	189.00
	62	Chequered Terrazo tiles of 22 mm thick (Dark shade) 0.254 M x 0.406 M	1 sqm	172.80
	63	Chequered Terrazo tiles of 30 mm thick ( Light shade) 0.305 M x 0.305 M	1 sqm	172.80
	64	Chequered Terrazo tiles of 30 mm thick (Dark shade) 0.305 M x 0.305 M	1 sqm	183.60

Sl. No.	S.S. No.	Item Description	Unit (per)	S S RATE FOR 2005-06
	65	Chequered Terrazo tiles of 30 mm thick (medium shade) 0.305 M x 0.305 M	1 sqm	162.00
	66	Decorated white background glazed tiles 200 mm x 152 mm	1 sqm	397.40
	67	Decorated coloured background glazed tiles 200 mm x 300 mm	1 sqm	443.90
	68	Fantasy Glazed Tiles size 200mm x152 mm	1 sqm	420.10
	69	White glazed Tiles of any size 1st quality	1 sqm	243.00
	70	Glazed coloured Tiles of any size 1st Quality	1 sqm	287.30
	71	Precast Terrazo Tiles 20 mm thick (Medium shade)	1 sqm	205.20
	72	Precast Terazo Tiles 20 mm thick (dark shade)	1 Sqm	199.80
	73	Supply & Fixing precast Terrazo Tiles Marbleite in white & colour vains 20 mm thick	1 Sqm	216.00
	74	a) Fixing charges only	1 Sqm	17.80
	75	b) Polishing charges only	1 Sqm	23.80
	76	c) Wax polishing charges only.	1 Sqm	14.60
	77	Supply & Fixing precast Terrazo Tiles Marbleite in white tiles 20 mm thick	1 Sqm	167.40
	78	a) Fixing charges only	1 Sqm	17.80
	79	b) Polishing charges only	1 Sqm	23.80
	80	c) Wax polishing charges only.	1 Sqm	14.60
	81	Supply & fixing Terrazo tiles 20 mm thick grey tiles	1 Sqm	97.20
	82	a) Fixing charges only	1 Sqm	17.80
	83	b) Polishing charges only	1 Sqm	23.80
	84	c) Wax polishing charges only.	1 Sqm	14.60
		<b>Supply &amp; fixing of Crazy Marble flooring</b>		
	85	Marble powder	1 Kg	2.10
	86	Marble chips	1 Sqm	351.00
	87	Mosaic chips	1 Sqm	1984.00
	88	Grinding, Polishing, electricity charges	1 Sqm	69.70
	89	Vitrified polished floor tiles 800x 800x10 mm thickness premium type 1st quality	1 Sqm	1220.40
	90	Vitrified polished floor tiles 600x 600x 8mm thickness premium colour 1st quality.	1 Sqm	864.00
	91	Vitrified polished floor tiles 600x 600x 8mm thickness normal colour 1st quality.	1 Sqm	756.00
	92	Vitrified polished floor tiles 400x 400x 7mm thickness normal colour 1st quality.	1 Sqm	702.00
	93	Providing Bisazza glass Tiles Group 1 series or equivalent quality 20 x 20x4 mm thick to be applied on sponge finish using laucratic 290 thin set polymer based adhesive.	1 Sqm	1395.40
	94	Supplying <b>ART CERAMIC OR EQUIVALENT (GT-C2331,GT-C2341,GT-C2332, GT-C2342, GT--C2333, GT-C2343)</b> tiles of 450mmx450mmx3mm and Fixing with solvent for flooring ideal FOR Shops,Restaurants,,Food Plazas, Interior of Shops, Showrooms, VIP lounges, departmental stores etc., inclusive of cost and conveyance of materials and cost of labour inclusive of all taxes at site and rate for finished item.	1 Sqm	1110.00
	95	Labour charges only	1 Sqm	32.50
	96	Supplying <b>DEEP EMBOSSED OR EQUIVALENT (GE-T0051, GE-T0053, GE-T0054, GE-T0055)</b> tiles of 450mmx450mmx3mm and Fixing with solvent for flooring ideal for Corridors, Stairs, Ramps, Hospitals, Entrance Doors, Shops, departmental stores, Railway coaches, Bus coaches etc., inclusive of cost and conveyance of materials and cost of labour inclusive of all taxes at site and rate for finished item.	1 Sqm	1110.00
	97	Labour charges only	1 Sqm	32.50

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
	98		Supplying <b>METAL OR EQUIVALENT (GT-M0001, GT-M0002, GT-M0015, GT-M0013,GT-M001, GT-M0016)</b> tiles of 450mmx450mmx3mm and Fixing with solvent for flooring ideal for place of Entertainment, House hold Electrical appliancesshops,Computer rooms, Conference halls etc., inclusive of cost and conveyance of materials and cost of labour inclusive of all taxes at site and rate for finished item.	1 Sqm	786.00
	99		Labour charges only	1 Sqm	32.50
	100		Supplying <b>TERRAZO OR EQUIVALENT (GT-T9221, GT-T9222, GT-T9223, GT-T9224, GT-T9225)</b> tiles of 450mmx450mmx3mm and Fixing with solvent for flooring ideal for Commercial Establishments, Restaurants, Lobbies, showrooms, Departmental stores etc., inclusive of cost and conveyance of materials and cost of labour inclusive of all taxes at site and rate for finished item.	1 Sqm	786.00
	101		Labour charges only	1 Sqm	32.50
	102		Supplying <b>NOBLE OR EQUIVALENT (GT-N2101, GT-N2102, GT-N2103, GTN2104, GT-N2105)</b> tiles of 450mmx450mmx3mm and Fixing with solvent for flooring ideal for Exhibition halls, Lounges, Hotels, Restaurant, Departmental stores etc., inclusive of cost and conveyance of materials and cost of labour inclusive of all taxes at site and rate for finished item.	1 Sqm	786.00
	103		Labour charges only	1 Sqm	32.50
	104		Supplying <b>MARBLE OR EQUIVALENT (GT-M9201, GT-M9202)</b> tiles of 450mmx450mmx3mm and Fixing with solvent for flooring ideal for Commercial establishments, lounges, Hotels, Restaurants, Departmental stores, Lobbies etc., inclusive of cost and conveyance of materials and cost of labour inclusive of all taxes at site and rate for finished item.	1 Sqm	786.00
	105		Labour charges only	1 Sqm	32.50
	106		Supplying <b>ABSTRACT OR EQUIVALENT (GT-A-9308, GTA-9309, GTA9301, GTA9302, GTA9304,GTA8305,GTA-9305, GTA8309)</b> tiles of 450mmx450mmx3mm and Fixing with solvent for flooring ideal for Office corridors,, Hospitals, shops, Departmental stores etc., inclusive of cost and conveyance of materials and cost of labour inclusive of all taxes at site and rate for finished item.	1 Sqm	786.00
	107		Labour charges only	1 Sqm	32.50
	108		Supplying <b>OA OR EQUIVALENT (GO-A9701)</b> tiles of 450mmx450mmx3mm and Fixing with solvent for flooring ideal for Office, Computer rooms, Banks, Public facilities, Research centres etc., inclusive of cost and conveyance of materials and cost of labour inclusive of all taxes at site and rate for finished item.	1 Sqm	786.00
	109		Labour charges only	1 Sqm	32.50
	110		Supplying <b>CARPET OR EQUIVALENT (GT-E9701, GT-E9702, GT-E9703, GT-E9711,GT-E9707, GT-E9708, GT-E9709, GT-E9710, GT-E9712, GT-E9713)</b> tiles of 450mmx450mmx3mm and Fixing with solvent for flooring ideal for Office, Lobbies, Showrooms, Various Sles facilities and VIP lounges etc., inclusive of cost and conveyance of materials and cost of labour inclusive of all taxes at site and rate for finished item.	1 Sqm	786.00
	111		Labour charges only	1 Sqm	32.50
	112		Supplying <b>SOLID OR EQUIVALENT (GT-S9901, GT-S9906)</b> tiles of 450mmx450mmx3mm and Fixing with solvent for flooring ideal for Lounges,Sales outlets, VIP rooms etc., inclusive of cost and conveyance of materials and cost of labour inclusive of all taxes at site and rate for finished item.	1 Sqm	786.00
	113		Labour charges only	1 Sqm	32.50
	114		Supplying <b>CODI WOOD OR EQUIVALENT (CW 9925-CHERRY, CW 9942 - OAK, CW 9952-BIRCH, CW 9922- CHERRY)</b> tiles of 450mmx450mmx3mm and Fixing with solvent for flooring ideal for Lounges, Hotels, Exhibition,Departmental stores, VIP rooms etc., inclusive of cost and conveyance of materials and cost of labour inclusive of all taxes at site and rate for finished item.	1 Sqm	786.00

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
	115		Labour charges only	1 Sqm	32.50
	116		Supplying <b>WOOD CLASSIC OR EQUIVALENT (GWTC-9833, GWTC-9831, GTWC-9832, GTWC-9834, GTWC-9835, GTWC-9836, GTWC-9837)</b> tiles of 450mmx450mmx3mm and Fixing with solvent for flooring ideal for Cafeterias, Restaurant, Clubs, Various shops, Stair case etc., inclusive of cost and conveyance of materials and cost of labour inclusive of all taxes at site and rate for finished item.	1 Sqm	1110.00
	117		Labour charges only	1 Sqm	32.50
	118		Supplying <b>WOOD ANTIQUE OR EQUIVALENT (GWTA-8452-OAK, GTWA-9403-OAK, GTWA-9417-OAK, GTWA-9410CHERRY, GTWA-9402-MAPLE, GTWA-9411-ALDER, GTWA-0403-CHERRY, GTWA-9416-OAK, GTWA-0405 &amp;0404 WALNUT)</b> tiles of 450mmx450mmx3mm and Fixing with solvent for flooring ideal for Offices, Conference rooms, Living rooms, Kitchens, Sales outlets, Departmental stores, Dance floors etc., inclusive of cost and conveyance of materials and cost of labour inclusive of all taxes at site and rate for finished item.	1 Sqm	786.00
	119		Labour charges only	1 Sqm	32.50
	120		Supplying <b>DELUXE TILE OR EQUIVALENT (NGX1117, NGX-1101, NGX-1104, NGX-1102, NGX-1109, NGX-1107, NGX-1108, NGX-1105, NGX-1110, NGX-81933, NGX-1106, NGX-1197, NGX-81899, NGX-81918, NGX-1118, NGX-81945)</b> tiles of 450mmx450mmx3mm and Fixing with solvent for flooring ideal for low, medium and high traffic areas etc., inclusive of cost and conveyance of materials and cost of labour inclusive of all taxes at site and rate for finished item.	1 Sqm	463.00
	121		Labour charges only	1 Sqm	32.50
			<b>(C) TIMBER AND ROOFING MATERIALS</b>		
			<b>TEAK WOOD</b>		
	122		Teak wood scantlings below 2 meters First class	1 cum	56160.00
	123		Teak wood scantlings below 2 meters Second class	1 cum	45360.00
	124		Teak wood scantlings above 2 meters First class	1 cum	58320.00
	125		Teak wood scantlings above 2 meters Second class	1 cum	47520.00
	126		Teak wood planks of all sizes First Class	1 cum	61560.00
	127		Teak wood Planks of all sizes second class.	1 cum	50760.00
	128		Burma Teak Wood Scantlings below 2 meters	1 cum	66960.00
	129		Burma Teak wod Scantings above 2 meters	1 cum	69411.60
	130		Burma Teak wood planks 0.150 M to 1 m	1 cum	83916.00
	131		Assam Teak Wood frames	1 cum	24786.00
	132		Assam Teak Wood Planks	1 cum	30240.00
	133		Sal Wood Frames	1 cum	24786.00
	134		Sal Wood Planks	1 cum	30240.00
	135		Corrugalated Galvanized iron sheets (1 mm thickness)	1 Sqm	198.70
	136		Plain Galvanized Iron sheets	1 Sqm	130.70
	137		Country Nails	1 Kg	22.70
	138		Wire Nails	1 Kg	22.70
	139		Labour charges for petty Iron work for truss straps etc., wrought & plut up (lahour only)	1 Kg	6.50
	140		labour for fabrication of reinforcement including bending and placing at site in position including cost of binding wire	1 Kg	4.30
			Galvanized Steel Barbed wire		
	141		I.O.A. 12 Gauge	1 Kg	23.80
	142		I.O.A. 14 Gauge	1 Kg	22.70
	143		Supply & fixing of Rolling shutter made of 80 x 1.25 mm machine rolled laths (rate includes top cover bearings, and locking arrangements etc. )	1 Sqm	1296.00
	144		Supplying & fixing collapsable steel shutters with verticle, double channel of 20 x10x2 mm of 100 mm center Bracers with flat iron 40x40x6 mm with 38 mm dia steel plully with all fixtures and furniture as per special spn. 1105	1 Sqm	1080.00

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
			<b>(D) DOOR FITTINGS</b>		
			<b>1) TOWR BOLTS AS PER IS 204</b>		
			<b>BRASS</b>		
	145		100 mm Long	Each	42.10
	146		150 mm Long	Each	62.60
	147		200 mm Long	Each	84.20
	148		250 mm Long	Each	104.80
	149		300 mm Long	Each	128.50
			<b>ALLUMINIUM</b>		
	150		75 MM Long	Each	29.20
	151		100 mm Long	Each	34.60
	152		150 mm Long	Each	42.10
	153		200 mm Long	Each	52.90
	154		250 mm Long	Each	62.60
	155		300 mm Long	Each	73.40
			<b>MILD STEEL (POWDER COATED)</b>		
	156		100 mm Long	Each	10.80
	157		150 mm Long	Each	16.20
	158		200 mm Long	Each	22.70
	159		250 mm Long	Each	31.30
	160		300 mm Long	Each	38.90
			<b>2) BUTT HINGES AS PER IS : 205</b>		
			<b>BRASS</b>		
	161		75 MM Long	Each	18.40
	162		100 mm Long	Each	58.30
	163		125 mm Long	Each	70.20
	164		150 mm Long	Each	92.90
			<b>ALLUMINIUM</b>		
	165		75 MM Long	Each	41.00
	166		100 mm Long	Each	49.70
	167		125 mm Long	Each	58.30
	168		150 mm Long	Each	58.30
			<b>MILD STEEL (POWDER COATED)</b>		
	169		75 mm Long	Each	5.40
	170		100 mm Long	Each	9.70
	171		125 mm Long	Each	14.00
	172		150 mm Long	Each	19.40
			<b>3) DOOR HANDLES AS PER IS:208</b>		
			<b>ALLUMINIUM</b>		
	173		75 mm Long	Each	27.00
	174		100 mm Long	Each	31.30
	175		125 mm Long	Each	46.40
	176		150 mm Long	Each	51.80
			<b>MILD STEEL (POWDER COATED)</b>		
	177		125 mm Long	Each	14.00
	178		150 mm Long	Each	20.50
			<b>ALDROPS AS PER IS:2681</b>		
			<b>BRASS</b>		
	179		300 mm long	Each	379.10
			<b>ALLUMINIUM</b>		
	180		200 mm long	Each	122.00
	181		250 mm long	Each	145.80
	182		300 mm long	Each	157.70
			<b>MILD STEEL (POWDER COATED)</b>		
	183		200 mm long	Each	48.60
	184		250 mm long	Each	63.70



Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
	185		300 mm long	Each	75.60
			<b>5)FLAT LATCHES</b>		
			<b>BRASS</b>		
	186		Door Stoppers	Each	75.60
	187		Windows Stay	Each	86.40
			<b>ALLUMINIUM</b>		
	188		200 mm long	Each	58.30
	189		250 mm long	Each	67.00
	190		300 mm long	Each	70.20
			<b>MILD STEEL (POWDER COATED)</b>		
	191		250 mm long	Each	23.80
	192		300 mm long	Each	30.20
	193		Door Stoppers	Each	20.50
	194		Supply & fixing droppery rods (25.4 mm) 1" x 21 G Powder coated with PVC rings	Rft	16.20
	195		Supply & fixing droppery bracket - brass powder coated	pair	189.00
	196		Brass Aldrop heavy duty 350 mm	Each	729.00
	197		Brass Aldrop heavy duty 450 mm	Each	1037.90
	198		Alluminium Aldrop 350 mm ISI marked IS 204	Each	198.70
	199		Alluminium Aldrop 450 mm ISI marked IS 204	Each	251.60
	200		Delux window stay alluminium	Each	54.00
	201		Heavy duty alluminium Door stopper	Each	22.70
	202		Brass fancy handles 150 mm	Each	128.50
	203		Brass fancy handles 200 mm	Each	175.00
	204		Brass fancy handles 250 mm	Each	315.40
	205		Brass fancy handles 300 mm	Each	402.80
	206		Brass fancy handles 450 mm	Each	629.60
	207		Door closer automatic hyper brand IS 3564	Each	527.00
	208		Double action brass plate floor spring Hyper brand IS 6315	Each	727.90
	209		Floor spring 1st Quality for Aluminium door	Each	1283.00
	210		Heavy duty mortice lock 6/7 levers with PC or CP handles complete set	Each	326.20
	211		Heavy duty mortice lock 6/7 levers with brass heavy handles	Each	1137.20
	212		Brass latch heavy 300 mm	Each	238.70
	213		Brass latch heavy 350 mm	Each	274.30
	214		Brass latch heavy 450 mm	Each	361.80
	215		Friction stay hinges for windows	Each	48.60
	216		Keyless lockset for toilet with CP or PC handles (complete set)	Each	140.40
	217		Keyless lock set for toilet with brass handles	Each	373.70
			<b>(E) MISCELLANEOUS ITEMS</b>		
	218		Alluminium sheet 24 Gauge	1 Sqm	180.40
			<b>Alluminium strips</b>		
	219		Alluminium Strip 40 mm wide and 2 mm thick	1 Kg.	125.30
	220		Alluminium plain strip edging 38x12x3 mm	Metre	40.00
	221		Alluminium plain strip edging 57x12x3 mm	Metre	57.20
	222		Alluminium strips 10 mm	1 Kg.	113.40
	223		Alluminium Strips 25 mm	1 Kg.	113.40
	224		Alluminium Stips 38 mm wide and 1.6 mm thick.	1 Kg.	113.40
	225		7.5mm thick Alluminium Grill (as approved by the department) 3.58 Kg/Sq.m.	1 Sqm	664.20
	226		Supply & fixing MS/CI grills of any design	1 Kg.	32.40
	227		Mastic pad 2'0 " x 4'0" (0.60M x 1.2M) of 1" (25.4 mm ) thick	1 Sqm	530.30
	228		Mastic pad 2'0 " x 4'0" (0.60M x 1.2M) of 1/2" (12.7 mm ) thick	1 Sqm	303.50
	229		Expanded metal Jally 3/4" (19.05 mm ) size	1 Sqm	82.10
	230		GI (M.S) fly proof wire mesh 16 x 20 guage	1 Sqm	111.20
	231		SS fly proof mesh	1 Sqm	270.00

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
	232		Chain link mesh 8 guage 2" x2" (50.8 mm x 50.8 mm)	1 Sqm	128.50
	233		Chain link mesh 8 guage 3" x 3" (76.2 mm x 76.2 mm)	1 Sqm	87.50
	234		Chain link mesh 8 guage 4"x4" (101.6 mm x 101.6 mm)	1 Sqm	74.50
	235		Rabbit wire mesh (chicken mesh)	1 Sqm	8.60
	236		Providing Tarfelting roof repairs duly applying one coat of appropriate grade of bitumen in hot condition @ 1.2 Kg/1Sqm of roof area, fixing tarfelt (Manufactures to IS 1322/1972 specification), applying second coat of appropriate grade of hot bitumen at 1.20 Kg/1Sqm of roof area and spreading course aggregate (sand ) at 0.063 cum per 1 Sqm of roof area finished item including all taxes.	1 Sqm	113.40
	237		ROOFSHIELD-1500 OR EQUIVALENT (1.50 mm thickness, 2.25Kg per Sq.Mt and 20 X1 Mtr. roll with a center core of 90 micron thickness HMHDPE film) Water Proofing Membrane.A) apply one coat of Butiminous Emulsion, first coat of bituminous grade 85/25, fix "ROOFSHIELD-1500 OR EQUIVALENT" water proofing membrane, apply second coat of Bitumen grade 90/15 after sealing all the joints and abutments with a Gas torch and apply one coat of BITUMINOUS ALUMINIUM PAINT for heat resistance for finished item including all taxes	1 Sqm.	175.00
	238		Supply, laying & fixing of 60mm thick cement Mosaic reflective concrete pavers from "Super decorative floorings" make of grade M-40 and above including labour charges, loading & unloading, laying to desired lines and levels complete. However cement, sand, water, electricity etc shall be provided by you free of cost at site.	1 Sqm.	581.00
	239		Supply, laying & fixing of 30mm thick cement Mosaic reflective concrete pavers from "Super decorative floorings" make of grade M-40 and above including labour charges, loading & unloading, laying to desired lines and levels complete. However cement, sand, water, electricity etc shall be provided by you free of cost at site.	1 Sqm.	522.70
			<b>WATER PROOFING &amp; CONSTRUCTION CHEMICALS AND EPOXIES</b>		
			<b>Any company make As per I.SI. Standards, First Quality Rate (exfactory) including all taxes</b>		
			<b>A) Concrete Admixtures and Plasticisers</b>		
			<b>Conflow SNP1 or Equivalent</b>		
	240		Pack size 1 litre	1 litre	38.60
			<b>Conflow SNP20 or Equivalent</b>		
	241		Pack size 1 litre	1 litre	48.60
			<b>Conflow SNPA or Equivalent</b>		
	242		Pack size 1 litre	1 litre	63.40
			<b>B) Super Plasticisers</b>		
			<b>Conflow SNS 1 OR EQUIVALENT.</b>		
	243		Pack size 1 Ltr	Ltr	48.60
			<b>Conflow SNS 2 OR EQUIVALENT.</b>		
	244		Pack size 1 Ltr	Ltr	48.60
			<b>Accelerating Plasticisers</b>		
			<b>Conflow SNA OR EQUIVALENT.</b>		
	245		Pack size 1 Ltr	Ltr	60.50
			<b>Retarding Plasticisers</b>		
			<b>Conflow SNR OR EQUIVALENT.</b>		
	246		Pack size 1 Ltr	Ltr	38.60
			<b>Air Entraining Agents</b>		
			<b>Conflow SNE OR EQUIVALENT.</b>		
	247		Pack size 1 Ltr	Ltr	38.60
			<b>Retarding super Plasticisers</b>		
			<b>Conflow SNS3 SPL OR EQUIVALENT</b>		
	248		Pack size 1 Ltr	Ltr	48.60
			<b>Conflow SNS3 OR EQUIVALENT</b>		
	249		Pack size 1 Ltr	Ltr	63.40
			<b>Mortar Plasticisers</b>		

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
			<b>Morflow SN1 OR EQUIVALENT</b>		
	250		Pack size 1 Ltr	Ltr	18.40
			<b>Integral Water Proofing compounds</b>		
			<b>Conflow SNW1 OR EQUIVALENT</b>		
	251		Pack size 1 Ltr	Ltr	56.00
			<b>Conflow SNW2 OR EQUIVALENT</b>		
	252		Pack size 25 Kg	Kg	8.30
	253		Pack size 750 Gms	Pack	10.20
			<b>Block Admixtures</b>		
			<b>Conflow SNB OR EQUIVALENT</b>		
	254		Pack size 1 Ltr	Ltr	19.30
			<b>Sprayed Concrete Accelerators</b>		
			<b>Shotset SN1 OR EQUIVALENT</b>		
	255		pack size 250 Kg.	Kg	19.30
			<b>B) Concrete surface Treatments curing compounds</b>		
			<b>CURAIID SN1 OR EQUIVALENT</b>		
	256		Pack size 1 Ltr	Ltr	48.60
			<b>CURAIID SN2 OR EQUIVALENT</b>		
	257		Pack size 1 Ltr	Ltr	50.50
			<b>Formwork &amp; Mould Treatment</b>		
			<b>Shutterol SNU OR EQUIVALENT</b>		
	258		Pack size 1 Ltr	Ltr	48.70
			<b>Cleaning Agents</b>		
			<b>Uniklen SN1 OR EQUIVALENT</b>		
	259		Pack size 1 Ltr	Ltr	20.20
			<b>Uniklen SN2 OR EQUIVALENT</b>		
	260		Pack size 1 Ltr	Ltr	45.00
			<b>Uniklen SN3 OR EQUIVALENT</b>		
	261		Pack size 1 Ltr	Ltr	107.50
			<b>C)Free flow - Non shrink Grouts</b>		
			<b>Pre – Packed Cementitious Grouts</b>		
			<b>Expacrete SN 50 OR EQUIVALENT</b>		
	262		Pack size 25 Kg	Kg	8.30
			<b>Expacrete SN 70 OR EQUIVALENT</b>		
	263		Pack size 25 Kg	Kg	10.20
			<b>Expacrete SN 90 OR EQUIVALENT</b>		
	264		Pack size 25 Kg	Kg	15.70
			<b>Expacem SN 2 OR EQUIVALENT</b>		
	265		Pack size 250 gm	pack	23.80
			<b>Epoxy Resin Grouts</b>		
			<b>Expacrete SNE 1 OR EQUIVALENT</b>		
	266		Pack size 1 Kg	Kg	510.30
			<b>Expacrete SNE 3 OR EQUIVALENT</b>		
	267		Pack size 15 Kg	pack	1944.00
			<b>Polyster Resin Grouts</b>		
			<b>Anchrset SN1 OR EQUIVALENT</b>		
	268		Pack size 1 Kg	pack	121.50
			<b>Anchrset SN2 OR EQUIVALENT</b>		
	269		Pack size 10 Kg	pack	1142.10
			<b>D) Industrial Flooring systems</b>		
			<b>Floor Hardeners</b>		
			<b>Flortop SNC OR EQUIVALENT</b>		
	270		pack size 25 Kg	Kg	19.30
			<b>Floor top SNS OR EQUIVALENT</b>		
	271		Pack size 25 Kg.	Kg	11.90
			<b>Epoxy Floor coating &amp; protective coatings</b>		

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
			<b>Procoat SNF or Equivalent</b>		
	272		Pack size 1 Kg	Pack	403.40
			<b>Procoat SNS or Equivalent</b>		
	273		Pack size 1 Kg	Pack	335.30
			<b>Essenputty SNE or Equivalent</b>		
	274		pack size 1 Kg	Pack	204.10
			<b>Procoat SNZ or Equivalent</b>		
	275		Pack size 1 Ltr	Pack	486.00
			<b>Procoat SNL or Equivalent</b>		
	276		Pack size 2.5 Kg.	Pack	704.70
			<b>Epoxy Self Levelling (Flooring system)</b>		
			<b>Flortop SNSL or Equivalent</b>		
	277		Pack size 14 Kg	Pack	2818.80
			<b>Flortop SNSL (SPL) or Equivalent</b>		
	278		Pack size 14 Kg	Pack	2148.10
			<b>Heavy Duty Epoxy Base (Flooring system)</b>		
			<b>Flortop SNM or Equivalent</b>		
	279		Pack size 16 Kg	Pack	1142.10
			<b>Flortop SNFM or Equivalent</b>		
	280		Pack size 16 Kg	Pack	874.80
			<b>Epoxy resin primer</b>		
			<b>Florcoat SNP or Equivalent</b>		
	281		Pack size 1 Kg	Pack	486.00
			<b>Procoat SNC or Equivalent</b>		
	282		pack size 3 Kg	Pack	806.80
			<b>Procoat SNP or Equivalent</b>		
	283		pack size 1 Kg	Pack	470.90
			<b>Procoat SNP2 or Equivalent</b>		
	284		pack size 3 Kg	Pack	845.60
			<b>E) Repair Products</b>		
			<b>Reprete SNC or Equivalent</b>		
	285		Pack size 25 Kg	Kg	11.90
			<b>Reprete SNE1 or Equivalent</b>		
	286		Pack size 16 kg	Pack	1341.40
			<b>Reprete SNW Primer or Equivalent</b>		
	287		Pack size 1 Kg	Pack	670.70
			<b>Reprete SNW Mortor or Equivalent</b>		
	288		Pack size 1 Kg	Pack	189.50
			<b>Uniplug SN or Equivalent</b>		
	289		pack size 5 Kg	Kg	25.70
			<b>F) Water Proffing Systems</b>		
			<b>Aquacoat SNF or Equivalent</b>		
	290		Pack size 15+5 Kg	Pack	1477.40
			<b>Water Repellants</b>		
			<b>Aquarepel SN1 or Equivalent</b>		
	291		Pack size 1 Ltr	Ltr	45.90
			<b>G) Adhesive Tile Adhesives</b>		
			<b>Tilegrip SNU or Equivalent</b>		
	292		Pack size 15 Kg	Kg	15.70
			<b>Bonding Adhesives</b>		
			<b>Conbond SNA or Equivalent</b>		
	293		Pack size 1 Ltr	Ltr	204.10
			<b>Conbond SNE or Equivalent</b>		
	294		Pack size 1 Kg	Pack	558.90
			<b>Note:</b> Literature for usage / application of above construction /water proofing materials, epoxies etc, will be obtained from manufacturers.		

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
			<b>BITUMINOUS HOT SEALING COMPOUND</b>		
	295		Grade 'A' I.S.I excluding 16 % Tax	1 Kg	17.30
	296		Bitumen solution primer of aproved quality excluding 16 % tax	1 Kg	28.10
	297		Tar Felt Type - 2 Grade - 1	1 sqm	50.80
			<b>GLASS</b>		
	298		Plain Glass 4 mm thick	1 sqm	189.00
	299		Plain Glass 5 mm thick	1 sqm	259.20
	300		Tinted Glass 4 mm thick	1 sqm	356.40
	301		Tinted Glass 5 mm thick	1 sqm	475.20
	302		Pin headed Glass 4 mm thick	1 sqm	172.80
	303		Ground Glass 4 mm thick	1 sqm	248.40
	304		Ground Glass 5 mm thick	1 sqm	324.00
			<b>JALI (CEMENT CONCRETE)</b>		
	305		25 mm thick	1 sqm	91.80
	306		40 mm thick	1 sqm	118.80
	307		50 mm thick	1 sqm	162.00
			<b>BRUSHES</b>		
	308		Wire Brush	Each	21.60
	309		Soft Brush	Each	97.20
			<b>DISTEMPERS</b>		
	310		Dry Powder Distemper	1 Kg	21.60
	311		Oil Bound Washable Distemper	1 Kg	54.00
			<b>POLISH</b>		
	312		French Spirit Polish	1 Ltr	97.20
	313		Wax Polish (Ready made)	1 Kg	194.40
	314		Putty for steel work	1 Kg	14.00
	315		Putty for wood work	1 Kg	30.20
	316		Malamine Polish including cost & labour charges	1Sqm	297.00
			<b>PAINTS (CONFORMING TO I.S.I)</b>		
	317		Alluminium paint 1st Grade	1 Ltr	194.40
	318		Anti Corrosive bitumen paint (Black ) grade I	1 Ltr	297.00
	319		Red Oxide Primer Paint Grade - 1	1 Ltr	70.20
	320		Red Oxide Primer Paint Grade – II	1 Ltr	54.00
	321		Synthetic Enamel paints in all shades Grade - I	1 Ltr	135.00
	322		Synthetic Enamel paints in all shades Grade - II	1 Ltr	97.20
	323		Plastic Emulsion Paint Grade – I	1 Ltr	216.00
	324		Water proof Cement paint of Superior Quality	1 Kg	29.20
	325		White Lead	1 Kg	56.20
	326		Marble Powder	1 Kg	14.00
	327		Cement primer Grade –I	1 Kg	70.20
	328		Cement primer Grade –II	1 Kg	54.00
	329		Impervios Water Proofing compound	1 Kg	18.40
	330		Fevicol/Wood adhesive compound	1 Kg	118.80
	331		Wood Primer	1 Ltr	97.20
	332		Oil bound Distemper Primer.	1 Ltr	54.00
	333		Supplying and finishing (Altek or equivalent brand) to interior faces of new walls and ceiling of approved colour as per manufacturers specification including cost and conveyance of materials to site and labour charges such as preparing the wall, applying primary coat etc, complete for finished item of work.	1 Sqm	70.20
	334		Altek paint	25 Kg	313.20
	335		Trump	1 Ltr	129.60
	336		Snowcem or equivalent quality	25 Kg	864.00
	337		Surya Cem or equivalent quality	25 Kg	162.00
	338		a).Unitek Fine Grade or equivalent brand	25kg	259.20
			b).Supply and finishing of Unitek fine Grade or equivalent brand t with superfine grade to interior		

Sl. No.	S.S. No.	Item Description	Unit (per)	S S RATE FOR 2005-06
		faces of new walls and ceiling of approved colour as per manufacturers specification including cost and conveyance of materials to site and labour charges such as preparing the wall, applying the primary coat etc., complete for finished item of work	1 sqm	99.40
	339	Unitek Superfine Grade or equivalent brand	25kg	280.80
	340	Supply and finishing of Unitek Superfine Grade or equivalent brand to interior faces of new walls and ceiling of approved colour as per manufacturers specification including cost and conveyance of materials to site and labour charges such as preparing the wall, applying the primary coat etc., complete for finished item of work	1sqm.	70.20
	341	Unitek Granito Grade or equivalent brand	1kg	1296.00
	342	Unitek Granito Grade or equivalent brand	5kg	6318.00
	343	Unitek Granito Grade or equivalent brand	20kg	25110.00
	344	Supply and finishing of Unitek Granito Grade or equivalent brand to interior faces of new walls and ceiling of approved colour as per manufacturers specification including cost and conveyance of materials to site and labour charges such as preparing the wall, applying the primary coat etc., complete for finished item of work	1sqm.	1274.40
		a).Unitek Superfine (Water resistant )Grade or equivalent brand	25kg	810.00
	345	b).Supply and finishing of Unitek Superfine(Water resistant)Grade or equivalent brand to interior and exterior faces of new walls and ceiling of approved colour as per manufacturers specifications including cost and conveyance of materials to site and labour charges such as preparing the wall,applying the primary coat etc.,complete for finished item of work.	1 sqm.	135.00
	346	Unitek Orient Grade or equivalent brand	25kg	1058.40
	347	Supply and finishing of Unitek Orient Grade or equivalent brand to interior and exterior faces of new walls and ceiling of approved colour as per manufacturers specification including cost and conveyance of materials to site and labour charges such as preparing the wall, applying the primary coat etc., complete for finished item of work	1sqm.	194.40
	348	Unitek Antico Grade or equivalent brand	25kg	1123.20
	349	Supply and finishing of Unitek Antico Grade or equivalent brand to interior and exterior faces of new walls and ceiling of approved colour as per manufacturers specification including cost and conveyance of materials to site and labour charges such as preparing the wall, applying the primary coat etc., complete for finished item of work	1Sqm.	178.20
	350	Supply & Application of Two Coats of Alltek Super Fine, One Coat of Alltek Water Based Cement Primer & Two Coats of Alltek Flora (Plastic Emulsion Paint)	1 Sqm.	97.00
	351	Supply & Application of Two Coats of Alltek Super Fine, One Coat of Alltek Water Based Cement Primer & Two Coats of Delight (Acrylic Washable Distemper)	1 Sqm.	81.00
	352	Supply & Application One Coat of Alltek Water Based Cement Primer & Two Coats of Alltek Harmony (Acrylic Emulsion Paint Extr. Grade).	1 Sqm.	86.00
	353	Supply & Application of One Coat of Alltek Water Based Cement Primer & Two Coats of Alltek Alltime (100% Pure Acrylic Emulsion Paint)	1 Sqm.	118.00
		<b>ANTI TERMITE TREATMENT TO OLD &amp; EXISTING BUILDINGS</b>		

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
	354		Providing post construction anti termite treatment to drilling 1/2 inch dia., holes in 12mm depth at the edges of wall floor junction every foot apart and pouring anti termite chemical (Chloriphriphos 20% E.C / Lindine - 20 % E.C. ) with a hand operator pressure pump until refusal or to a maximum of one litre per hole. Holes will sealed with cement motor after treatment and providing spraying and injenction termiticides fro treating and applying doors, windows, frames, removing , crusting treating with preventive chemicals ( the plinth area of the building each floor shall be taken for purpose of payment) finished item including all costs, conveyances and all taxes.	1 Sqm.	118.00
	355		Providing pre construction anti termite treatment for new buildings:Providing, applying and Injecting for pre construction anti termite treatment to wall tenches bottom excavation, foundations, vertical walls, top surface of plinth filling wall and floor junctions, joints, conduits and external perimeter of the building (Chloriphriphos 20% E.C / Lindine - 20 % E.C. ) with a hand operator pressure pump at applicable areas as per site condition in various stages as per IS: 6313, the plinth area of the building each floor shall be taken for purpose of payment and finished item including all costs, conveyances and all taxes.	1 Sqm.	133.00
	356		Vinycide, Matt finish plastic emulsion Artilin Anti Insect paint OR EQUIVALENT for interior walls and ceilings, which will be applied on cement plastered surface, brick, old matt finish paints adhering to the substrate, wood etc., washable finished item .	1 Sqm.	226.00
	357		Kremasoie INS, Semi gloss finish Artilin Anti Insect paint OR EQUIVALENT for interior and exterior surfaces, which will be applied on cement plastered surface, brick, old matt finish paints adhering to the substrate, wood, wood products, plasttic products, tiles, glass texttile covering etc., washable finished item .	1 Sqm.	262.00
	358		Kremacrlyl, Matt finish Artilin Anti Insect paint OR EQUIVALENT for interior and exterior, which will be applied on cement plastered surface, brick, old matt finish paints adhering to the substrate, wood etc., washable finished item .	1 Sqm.	287.00
	359		Vernis 107, Semi gloss finish transparent Artilin Anti Insect Varnish OR EQUIVALENT for wood work, works against wood borers and termites also for interiors only, which will be applied on wooden surfaces, steel surfaces and tiles, washable finished item .	1 Sqm.	262.00
	360		Kermasoie Fongicide, Semi gloss finish Artilin Anti Fungus paint OR EQUIVALENT for inreriors and exteriors which will be applied on cement plastered surface, brick, old Matt finish paints adhering to the substrate,wood and wood products, plaster products, tiles and glass texttile covering etc., washable finished item .	1 Sqm.	237.00
	361		Kermasoie INS& Fong, Semi gloss finish acrylic Artilin Anti Insect and Anti Fungus paint OR EQUIVALENT for inreriors and exteriors which will be applied on cement plastered surface, brick, old Matt finish paints adhering to the substrate,wood and wood products, plaster products, tiles and glass texttile covering etc., washable finished item .	1 Sqm.	292.00
	362		Bactesoie, Semi gloss finish Artilin bactericidal and fungicidal paint OR EQUIVALENT for inreriors only which will be applied on cement plastered surface, brick, old Matt finish paints adhering to the substrate,wood and wood products, plaster products, tiles and glass texttile covering etc., washable finished item .	1 Sqm.	320.00
			<b>Prelaminated particle Board</b>		
			<b>(One side choice colour and other side balancing white lamination)</b>		
			<b>A EXTERIOR (GRADE-I)</b>		
	363		9 mm thick	1 Sqm	567.00
	364		12 mm thick	1 Sqm	626.40
	365		18 mm thick	1 Sqm	756.00
	366		25 mm thick	1 Sqm	816.50
			<b>B. REGULAR (GRADE -II)</b>		

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
	367		9 mm thick	1 Sqm	489.20
	368		12 mm thick	1 Sqm	542.20
	369		18 mm thick	1 Sqm	614.50
	370		25 mm thick	1 Sqm	722.50
			<b>Prelaminated particle Board</b>		
			<b>(Both sides choice colour of same shade)</b>		
			<b>C. EXTERIOR (GRADE -I)</b>		
	371		9 mm thick	1 Sqm	659.90
	372		12 mm thick	1 Sqm	723.60
	373		18 mm thick	1 Sqm	877.00
	374		25 mm thick	1 Sqm	950.40
			<b>D. REGULAR (GRADE - II)</b>		
	375		9 mm thick	1 Sqm	565.90
	376		12 mm thick	1 Sqm	618.80
	377		18 mm thick	1 Sqm	705.20
	378		25 mm thick	1 Sqm	803.50
			<b>Particle Board (Exterior Grade ) (Bhutan or Equivalent)</b>		
			<b>A. Plain Particle Board</b>		
	379		8 mm thick	1 Sqm	208.40
	380		12 mm thick	1 Sqm	232.20
	381		18 mm thick	1 Sqm	303.50
	382		21.4 mm thick	1 Sqm	356.40
	383		25 mm thick	1 Sqm	403.90
	384		35 mm thick	1 Sqm	659.90
			<b>Melamine Faced prelaminated</b>		
			<b>B. Particle Board (Single Deco)</b>		
	385		8 mm thick	1 Sqm	432.00
	386		12 mm thick	1 Sqm	489.20
	387		18 mm thick	1 Sqm	567.00
	388		25 mm thick	1 Sqm	642.60
	389		35 mm thick	1 Sqm	1069.20
			<b>Melamine Faced prelaminated</b>		
			<b>C. Particle Board (Twin Deco)</b>		
	390		8 mm thick	1 Sqm	496.80
	391		12 mm thick	1 Sqm	567.00
	392		18 mm thick	1 Sqm	656.60
	393		25 mm thick	1 Sqm	726.80
	394		35 mm thick	1 Sqm	1366.20
			<b>Particle Board (Interior Grade)(Bhutan or Equivalent)</b>		
			<b>A. Plain Particle Board</b>		
	395		6 mm thick	1 Sqm	166.30
	396		8 mm thick	1 Sqm	178.20
	397		10 mm thick	1 Sqm	196.60
	398		12 mm thick	1 Sqm	208.40
	399		18 mm thick	1 Sqm	256.00
	400		21.4 mm thick	1 Sqm	303.50
	401		25 mm thick	1 Sqm	320.80
	402		35 mm thick	1 Sqm	558.40
			<b>Melamine Faced Prelaminated</b>		
			<b>B. Particle Board (Singel Deco)</b>		
	403		8 mm thick	1 Sqm	380.20
	404		10 mm thick	1 Sqm	402.80
	405		12 mm thick	1 Sqm	425.50
	406		18 mm thick	1 Sqm	489.20
	407		25 mm thick	1 Sqm	553.00
			<b>Melamine Faced prelaminated</b>		



Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
			<b>C. Particle Board (Twin Deco)</b>		
	408		8 mm thick	1 Sqm	434.20
	409		10 mm thick	1 Sqm	475.20
	410		12 mm thick	1 Sqm	492.50
	411		18 mm thick	1 Sqm	563.80
	412		25 mm thick	1 Sqm	619.90
			<b>NATURAL COLOUR INSULATING BOARD</b>		
	413		12 mm thick	1 Sqm	160.90
	414		18 mm thick	1 Sqm	237.60
	415		25 mm thick	1 Sqm	302.40
			<b>WHITE FACE INSULATING BOARD</b>		
	416		12 mm thick	1 Sqm	196.60
	417		18 mm thick	1 Sqm	279.70
	418		25 mm thick	1 Sqm	249.50
	419		Extra for veneered particle Board with commercial venerring on both sides.	1 Sqm	95.00
	420		Veneering on both sides with one side teak veneered and other side commercial veneered	1 Sqm	202.00
	421		Teak veneering on both sides	1Sqm	315.40
	422		Particle Board 12 mm thick (Three Layer)	1 Sqm	249.50
			<b>PANELS</b>		
			<b>Plain particle Board (PPB) (Interior Grade)</b>		
	423		9 mm thick	1 Sqm	205.20
	424		12 mm thick	1Sqm	227.90
	425		15 mm thick	1 Sqm	258.10
	426		18 mm thick	1Sqm	285.10
	427		21.4 mm thick	1 Sqm	324.00
	428		25 mm thick	1Sqm	343.40
			<b>Plain particle Board (PPB) (Exterior Grade)</b>		
	429		9 mm thick	1 Sqm	273.20
	430		12 mm thick	1Sqm	295.90
	431		15 mm thick	1 Sqm	353.20
	432		18 mm thick	1Sqm	385.60
	433		21.4 mm thick	1 Sqm	446.00
	434		25 mm thick	1Sqm	482.80
			<b>Prelaminated particle Board (OSL) (Interior Grade)</b>		
	435		9 mm thick	1 Sqm	419.00
	436		12 mm thick	1Sqm	451.40
	437		15 mm thick	1 Sqm	497.90
	438		18 mm thick	1Sqm	529.20
	439		21.4 mm thick	1 Sqm	568.10
	440		25 mm thick	1Sqm	594.00
			<b>Prelaminated particle Board (OSL) (Exterior Grade)</b>		
	441		9 mm thick	1 Sqm	470.90
	442		12 mm thick	1Sqm	529.20
	443		15 mm thick	1 Sqm	565.90
	444		18 mm thick	1Sqm	600.50
	445		21.4 mm thick	1 Sqm	661.00
	446		25 mm thick	1Sqm	698.80
			<b>Prelaminated particle Board (BSL) (Interior Grade)</b>		
	447		9 mm thick	1 Sqm	475.20
	448		12 mm thick	1Sqm	516.20
	449		15 mm thick	1 Sqm	548.60
	450		18 mm thick	1Sqm	587.50
	451		21.4 mm thick	1 Sqm	661.00
	452		25 mm thick	1Sqm	737.60

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
			<b>Prelaminated particle Board (BSL) (Exterior Grade)</b>		
	453		9 mm thick	1 Sqm	527.00
	454		12 mm thick	1Sqm	590.80
	455		15 mm thick	1 Sqm	643.70
	456		18 mm thick	1Sqm	709.60
	457		21.4 mm thick	1 Sqm	740.90
	458		25 mm thick	1Sqm	771.10
			<b>LAMINATED SHEETS (EQUIVALENT TO DECOLAM)</b>		
			<b>Glossy Finish</b>		
	459		1.00 mm thick	1 Sqm	256.00
	460		1.50 mm thick	1Sqm	368.30
	461		1.80 mm thick	1Sqm	403.90
			<b>Mat Finish</b>		
	462		1.00 mm thick	1 Sqm	273.20
	463		1.50 mm thick	1 Sqm	380.20
	464		1.80 mm thick	1Sqm	410.40
			<b>MEDIUM FIBRE BOARD INTERIOR GRADE (EQUIVALENT TO NUWUD)</b>		
	465		6 mm thick	1 Sqm	261.40
	466		8 mm thick	1Sqm	297.00
	467		12 mm thick	1 Sqm	398.50
	468		15 mm thick	1Sqm	505.40
	469		18 mm thick	1 Sqm	564.80
	470		25 mm thick	1Sqm	802.40
	471		30 mm thick	1 Sqm	968.80
	472		35 mm thick	1Sqm	1057.30
			<b>MEDIUM FIBRE BOARD EXTRIOR GRADE (EQUIVALENT TO NUWUD)</b>		
	473		6 MM Thick	1 Sqm.	357.50
	474		8 MM Thick	1 Sqm.	415.80
	475		12 MM Thick	1 Sqm.	549.70
	476		15 MM Thick	1 Sqm.	691.20
	477		18 MM Thick	1 Sqm.	773.30
	478		25 MM Thick	1 Sqm.	1031.80
	479		30 MM Thick	1 Sqm.	1284.70
	480		35 MM Thick	1 Sqm.	1517.40
			<b>GLOSSY FINISH</b>		
	481		1 mm thick	1 Sqm.	230.00
			<b>MATT FINISH</b>		
	482		1 mm thick	1 Sqm.	245.00
			<b>PARTICLE BOARD CEILINGS</b>		
	483		Gypsum Board 0.595 M x 0.595 M 12.5 mm thick of IS 2095 -1992`	1 Sqm	190.10
	484		False ceiling with 12.5 mm Gypsum Board IS 2095 -1982 using Gyp steel section including installation and complete finish excluding painting.	1 Sqm	577.80
	485		Supply & fixing GVP board 0.595 x 0.595M 12.5mm thick tile using fine line grid system including installation and complete finished excluding painting	1 Sqm	640.40
			<b>Gypboard wall lining :</b>		
	486		Supply & fixing of Gypboard wall lining using 9.5/12.5 mm thick Gyp - board (cnforming to IS 2095-1982), fixing to Gypsteel GI channels of perimeter channel (20mm x30mm x27mm x0.55mm thick) and ceiling channels of (51.5 mm x 26mm x26mmx10.5mmx0.55mm thick) and fixing and finishing using joint compound and paper tapecomplete finish as per specification without painting.	1 Sqm	591.80
			<b>Gypboard plain false ceiling:</b>		

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
487			Supply and fixing of Gypboard plain false ceiling using 12.5 mm thick Gypboard conforming to IS 2095 -1982, fixing to Gypsteel GI channels frame work using perimeter channel (20mm x30mmx27mmx0.55mm) Intermediate channels (45mm x15mmx15mmx0.9mm) and ceiling channels (51.5 mm x26mm x10.5mm x 0.55 mm thick) jointing and finishing using joint compound and paper tape complete finish as per specification without painting	1 Sqm	651.20
			<b>Gypboard (fine line) Grid suspended ceiling</b>		
			<b>Supply and fixing of Gypboard (conforming to IS 2095-1982 ) FALSE CEILING WITH FINE LINE EXPOSED Grid suspended ceiling system using pre-coated galvanized steel main "T" section (24x38x0.35 mm thick x 3600 mm) Cross "T" (24x38x0.35mm x 600mm)and wall angle of (24x24x0.8 mm thick x 3050 mm) to form Grid size 600x 600 mm using MS Rods, "J" Bolts and anchor fasteners etc as per specification &amp; as directed by dept, officers.</b>		
488			Using Plain Gypsum Board 9.5 mm laid on to the Grid	1 sqm	534.60
489			Using Plain Gypsum board 12.5 mm laid on to the Grid.	1 Sqm	577.80
			<b>Gypboard metal stud partition single layer:-</b>		
490			Supply &fixing 75mm thick metal stud partition using 12.5 mm thick Gypboard conforming to IS 2095-1982 screw fixed to either side to 48 mm studs of 0.55 mm thick with the 50 mm floor and ceiling channel 0.55 mm and the joints duly finished with joint compound, paper tape and two coats Dry wall top coat as per specification.	1 Sqm	972.00
491			Providing false ceiling with 15 mm thick Arm strong mineral fiber Board fine finished of size 600x 600mm fixed over Aluminum frame using "T" Angles 38.1x25.4 mm (1 1/2" x1") size heavy duty weight suspended from roof using 6mm dia MS Rod hooking over roof replacement and outer attached to the "J" Bolts fixed to the"T" angles including Cost &conveyance of all materials and labour charges such as cutting , fixing of standing of frame work exposing roof making complete for finished item of work	1 Sqm	702.00
492			Providing wooden paneling 12 mm thick Novapan one side laminated sheet fixed on wooden frame of BT wood size 50.8 mm x 25.4 mm (2"x1") at distance of 609.6mm (2'-0") intervals of both ways providing 3/4" x 1/2" (19.05 mm x 12.7 mm ) size BT wood ornamental cover beeding and necessary screws, fevical glue complete for finished item of work.	1 Sqm	1312.20
493			Supply , manufacturing , installing of library Rack of 19 mm thick ISI marked commercial ply All round boxing verticals, Horizontal for depth of 609.6mm (2'-0) and shelves with 3.5 mm thick teak veneer covered with on exposed surface externally and internally and each panels with 6mm thick ISI commercial ply with 3.5 mm thick teak veneer for glazed shutters teak wood size 55 mm x 28mm with 5 mm thick glass fixed with ornamental beeding and other ornamental beading is covered as per drawing including brass hinges, ornamental handles, ball catchters, buffers, locking system etc, and all the commercial ply exposed edges are to be covered with 6 mm thick teak wood lipping. All the teak veneer and teak wood and ornametnal beading is to coated with polishing and a coat of melamine finish etc, complete for finished item of work.	1 Sqm	5616.00
494			Thermocole 12 mm thick	1 Sqm	20.50
495			Thermocole 19 mm thick	1 Sqm	35.60
			<b>Supply &amp;fixing thermocole false ceiling 2' x 2' (609.6 mm x 609.6 mm ) size with all necessary fittings for finished item of work.</b>		
496			25 mm thick	1 Sqm	362.90
497			19 mm thick	1 Sqm	339.10
498			Plaster of paris 12 mm thick	1 Sqm	356.40
499			Plaster of Paris 10 mm thick	1 Sqm	297.00
500			Supply & fixing Plaster of paris false ceiling with all necessary fittings for finished item of work.	1 Sqm	387.70
			<b>PLYWOOD ITEMS</b>		

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
	501		Plywood 3 ply with teak ply on one face and commercial ply on another face 4mm thick	1 Sqm	374.80
	502		Plywood 5 ply with commercial ply on both faces 6 mm thick	1 Sqm	332.60
	503		Plywood 5 ply with commercial ply on both faces 8 mm thick	1 Sqm	339.10
	504		Plywood 5 ply with Teak ply on both faces 9 mm thick	1 Sqm	814.30
	505		Plywood 5 ply with teak ply on one face and commercial ply on another face 6 mm thick	1 Sqm	487.10
	506		Plywood 5 ply with teak ply on one face and commercial ply on another face 9 mm thick	1 Sqm	624.20
	507		Plywood 9 ply with commercial ply on both faces 12 mm thick.	1 Sqm	386.60
	508		Plywood 9 ply with commercial ply on both faces 15 mm thick.	1 Sqm	558.40
	509		Plywood 9 ply with commercial ply on both faces 19 mm thick.	1 Sqm	641.50
	510		Plywood 9 ply with teak ply on both faces 12 mm thick	1 Sqm	950.40
	511		Plywood 9 ply with teak ply on one face and commercial ply on another face 13 mm thick	1 Sqm	796.00
			<b>Flush Door Shutters ( Kutty or Equivalent ) Conforming to IS 2201</b>		
			<b>(Providing Solid core Flush Doors veneer facing).</b>		
			<b>Both Sides Teak</b>		
	512		40/38 mm thick	1 Sqm	1303.00
	513		35mm thick	1 sqm	1272.20
	514		30 mm thick	1 sqm	1213.90
			<b>One Side teak wood and other side commercial</b>		
	515		40/38 mm thick	1 sqm	1172.90
	516		35 mm thick	1 sqm	1123.70
	517		30 mm thick	1 sqm	1075.70
			<b>One Side teak wood and other side Kutty Coat</b>		
	518		40/38 mm thick	1 sqm	1386.70
	519		35 mm thick	1 sqm	1332.50
	520		30 mm thick	1 sqm	1279.30
			<b>Both Side Commercial</b>		
	521		40/38 mm thick	1 sqm	995.80
	522		35 mm thick	1 sqm	948.20
	523		30 mm thick	1 sqm	899.10
			<b>Both Sides Kutty Coat</b>		
	524		40/38 mm thick	1 sqm	1236.60
	525		35 mm thick	1 sqm	1183.70
	526		30 mm thick	1 sqm	1129.70
			<b>Providing Internal Lipping by Teak Wood Single Leaf</b>		
	527		All edges 30 mm thick & below	1 sqm	317.50
	528		35 mm thick	1 sqm	359.60
	529		38/40 mm thick	1 sqm	395.30
			<b>Providing Internal Lipping by Teak Wood Double Leaf</b>		
	530		All edges 30 mm thick & below	1 sqm	485.50
	531		35 mm thick	1 sqm	509.50
	532		38/40 mm thick	1 sqm	671.20
			<b>Providing External Lipping by Teak Wood Single Leaf</b>		
	533		All edges 30 mm thick & below	1 sqm	221.40
	534		35 mm thick	1 sqm	245.70
	535		38/40 mm thick	1 sqm	245.70
	536		Bottom edges only	1 sqm	23.80
			<b>Providing External Lipping by Teak Wood Double Leaf</b>		
	537		All edges 30 mm thick & below	1 sqm	263.50
	538		35 mm thick	1 sqm	293.80
	539		38/40 mm thick	1 sqm	293.80
	540		Bottom edges only	1 sqm	23.80
			<b>Providing External Lipping by Hard Wood Single Leaf</b>		
	541		All edges 30 mm thick & below	1 sqm	83.90

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
	542		35 mm thick	1 sqm	95.90
	543		38/40 mm thick	1 sqm	95.90
	544		Bottom edges only	1 sqm	19.20
			<b>Providing External Lipping by Hard Wood Double Leaf</b>		
	545		All edges 30 mm thick & below	1 sqm	108.00
	546		35 mm thick	1 sqm	119.90
	547		38/40 mm thick	1 sqm	119.90
	548		Bottom edges only	1 sqm	19.20
			<b>Designers Doors by Teak wood</b>		
	549		Torina	1 sqm	401.50
	550		Penta Torina	1 sqm	467.60
	551		Arch Torina	1 sqm	401.50
			<b>Designers Doors by Hard Wood</b>		
	552		Torina	1 sqm	179.80
	553		Penta Torina	1 sqm	239.80
	554		Arch Torina	1 sqm	179.80
	555		Tanjore Art	1 sqm	677.20
			<b>Kutty's New International Eleganza range Panel Doors OR EQUIVALENT with imported phenolic moulded fiber board panels</b>		
			<b>Kutty's Vishala Heavy Duty</b>		
	556		975 x 2035 x 30 mm thick	1 sqm	1775.50
	557		920 x 2065 x 30 mm thick	1 sqm	1775.50
	558		830 x 2065 x 30 mm thick	1 sqm	1775.50
	559		680 x 2065 x 30 mm thick	1 sqm	1775.50
	560		975 x 2035 x 35 mm thick	1 sqm	1831.70
	561		920 x 2065 x 35 mm thick	1 sqm	1831.70
	562		830 x 2065 x 35 mm thick	1 sqm	1831.70
	563		680 x 2065 x 35 mm thick	1 sqm	1831.70
	564		975 x 2035 x 38 mm thick	1 sqm	1882.40
	565		920 x 2065 x 38 mm thick	1 sqm	1882.40
	566		830 x 2065 x 38 mm thick	1 sqm	1882.40
	567		680 x 2065 x 38 mm thick	1 sqm	1882.40
			<b>Kutty's Vishala Light Duty</b>		
	568		975 x 2035 x 30 mm thick	1 sqm	1704.20
	569		920 x 2065 x 30 mm thick	1 sqm	1704.20
	570		830 x 2065 x 30 mm thick	1 sqm	1704.20
	571		680 x 2065 x 30 mm thick	1 sqm	1704.20
	572		975 x 2035 x 35 mm thick	1 sqm	1745.80
	573		920 x 2065 x 35 mm thick	1 sqm	1745.80
	574		830 x 2065 x 35 mm thick	1 sqm	1745.80
	575		680 x 2065 x 35 mm thick	1 sqm	1745.80
	576		975 x 2035 x 38 mm thick	1 sqm	1786.30
	577		920 x 2065 x 38 mm thick	1 sqm	1786.30
	578		830 x 2065 x 38 mm thick	1 sqm	1786.30
	579		680 x 2065 x 38 mm thick	1 sqm	1786.30
			<b>Kutty's Heera Heavy Duty</b>		
	580		920 x 2035 x 30 mm thick	1 sqm	1775.50
	581		815 x 2035 x 30 mm thick	1 sqm	1775.50
	582		660 x 2035 x 30 mm thick	1 sqm	1775.50
	583		920 x 2035 x 35 mm thick	1 sqm	1831.70
	584		815 x 2035 x 35 mm thick	1 sqm	1831.70
	585		660 x 2035 x 35 mm thick	1 sqm	1831.70
	586		920 x 2035 x 38 mm thick	1 sqm	1882.40
	587		815 x 2035 x 38 mm thick	1 sqm	1882.40
	588		660 x 2035 x 38 mm thick	1 sqm	1882.40
			<b>Kutty's Heera Light Duty</b>		

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
	589		920 x 2035 x 30 mm thick	1 sqm	1704.20
	590		815 x 2035 x 30 mm thick	1 sqm	1704.20
	591		660 x 2035 x 30 mm thick	1 sqm	1704.20
	592		920 x 2035 x 35 mm thick	1 sqm	1745.80
	593		815 x 2035 x 35 mm thick	1 sqm	1745.80
	594		660 x 2035 x 35 mm thick	1 sqm	1745.80
	595		920 x 2035 x 38 mm thick	1 sqm	1786.30
	596		815 x 2035 x 38 mm thick	1 sqm	1786.30
	597		660 x 2035 x 38 mm thick	1 sqm	1786.30
			<b>Kutty's Fantasy Heavy Duty</b>		
	598		815 x 2065 x 30 mm thick	1 sqm	1797.10
	599		660 x 2065 x 30 mm thick	1 sqm	1797.10
	600		815 x 2065 x 35 mm thick	1 sqm	1831.70
	601		660 x 2065 x 35 mm thick	1 sqm	1831.70
	602		815 x 2065 x 38 mm thick	1 sqm	1882.40
	603		660 x 2065 x 38 mm thick	1 sqm	1882.40
			<b>Kutty Fantasy Light duty</b>		
	604		815 x 2065 x 30 mm thick	1 sqm	1704.20
	605		660 x 2065 x 30 mm thick	1 sqm	1704.20
	606		815 x 2065 x 35 mm thick	1 sqm	1745.30
	607		660 x 2065 x 35 mm thick	1 sqm	1745.30
	608		815 x 2065 x 38 mm thick	1 sqm	1786.30
	609		660 x 2065 x 38 mm thick	1 sqm	1786.30
			<b>Kutty's Eleganza Heavy Duty</b>		
	610		815 x 2065 x 30 mm thick	1 sqm	1797.10
	611		660 x 2065 x 30 mm thick	1 sqm	1797.10
	612		815 x 2065 x 35 mm thick	1 sqm	1831.70
	613		660 x 2065 x 35 mm thick	1 sqm	1831.70
	614		815 x 2065 x 38 mm thick	1 sqm	1882.40
	615		660 x 2065 x 38 mm thick	1 sqm	1882.40
			<b>Kutty's Eleganza Light Duty</b>		
	616		815 x 2065 x 30 mm thick	1 sqm	1704.20
	617		660 x 2065 x 30 mm thick	1 sqm	1704.20
	618		815 x 2065 x 35 mm thick	1 sqm	1745.30
	619		660 x 2065 x 35 mm thick	1 sqm	1745.30
	620		815 x 2065 x 38 mm thick	1 sqm	1786.30
	621		660 x 2065 x 38 mm thick	1 sqm	1786.30
			<b>Kutty's Heleganza Golden Oak Heavy Duty</b>		
	622		850 x 2035 x 30 mm thick	1 sqm	1797.10
	623		850 x 2035 x 35 mm thick	1 sqm	1831.70
	624		850 x 2035 x 38 mm thick	1 sqm	1882.40
			<b>Kutty's Heleganza Golden Oak Light Duty</b>		
	625		850 x 2035 x 30 mm thick	1 sqm	1704.20
	626		850 x 2035 x 35 mm thick	1 sqm	1745.30
	627		850 x 2035 x 38 mm thick	1 sqm	1786.30
			<b>Providing external Lipping with teak wood.</b>		
	628		30/32 mm thick	1 sqm	221.40
	629		35/38 mm thick	1 sqm	245.70
			<b>Providing external Lipping with Hard wood.</b>		
	630		30/32 mm thick	1 sqm	95.60
	631		35/38 mm thick	1 sqm	119.90
	632		Ployurethene coating for extra water resistance for bath / toilet doors for each side.	1 sqm	89.60
			<b>DOOR FRAMES</b>		
	633		<b>ACCUCEL OR EQUIVALENT BATHROOM DOOR CHAUKHAT FRAME: Single Rebate size 60mmx 30mm</b>		

Sl. No.	S.S. No.	Item Description	Unit (per)	S S RATE FOR 2005-06
		The Door Chaukhat Frame (Single Rebate) shall be made of solid PVC foam profile with homogenous fine cellular structure having smooth outer integral skin having 60mm width and 30mm thickness and shall be fixed to wall as per instructions of engineer in charge using 100 x 8 sheet metal CSK screws. Door frame should be waterproof, termite proof, elegant and should have excellent screw holding strength to fix hinges and hold doors properly for a long life for finished item of work including all taxes.	1 Rm	245.00
	634	<b>ACCUCEL OR EQUIVALENT PANEL DOOR SHUTTER: 750mm(W) x2100mm(L) x28mm (T)</b>		
		The door shutter shall be made of solid PVC foam profile with homogenous fine cellular structure having smooth outer integral skin having 71mm width and 28mm thick as vertical and horizontal stiles, joints are made using solvent adhesive and GI 'C' sections (39mm x 19mm x 19mm x 0.6mm thick) or MS pipe (40mm x 20mm) stiffener frame insert and telescopic polymeric 'L' corners. The panel shall be filled with 3mm thick high-pressure compact laminate as per manufacturer's guidelines. Cover molding shall be provided for covering fixing screws and elegant look. Panel Door shutter should be waterproof, termite proof, elegant and should have excellent screw holding strength to fix hinges and hold doors properly for a long life. Normal hardware and fitting shall be fixed for finished item of work including all taxes.	1 sqm	2350.00
	635	<b>ACCUCEL OR EQUIVALENT OPENABLE WINDOW SHUTTER WITH DOUBLE REBATE CHAUKHAT FRAME (1600mm x 1600mm)</b>		
		The Window Chaukhat Frame (Double Rebate) shall be made of solid PVC foam profile with homogenous fine cellular structure having smooth outer integral skin having 100mm width and 30mm thickness. Made of two sections joined together with solvent adhesive and GI 'C' section (25mm x 19mm x 0.6mm thick) stiffener insert. Press fit type 'Tee' section 25mm width and 19mm thick is fixed in the frame after fixing it to wall as per instructions of engineer in charge using 100x8 sheet metal CSK screws. The Open able Window shutter should made of solid PVC foam profile with homogenous fine cellular structure having smooth outer integral skin having 71mm width x 28mm thick as vertical and horizontal stiles. Joints are made using solvent adhesive and GI 'C' sections (39mm x 19mm x 19mm x 0.6mm thick) stiffener frame insert and telescopic polymeric 'L' corners. The 4mm thick glass panel shall be fixed using PVC foam profile beading (12mm x 10mm) for finished item of work including all taxes.	1 Sqm.	4600.00
	636	<b>RAJSHRI OR EQUIVALENT SOLID DOOR FRAME</b>		
		Providing and fixing factory made polyvinyl chloride (PVC) Door Frame of the size 50 x 47mm with a wall thickness of 5mm, made out of extruded 5mm rigid PVC foam sheet, mitre cut at two corners and joined with 2nos. of 150mm long brackets of 15x15mm M.S. square tube. The two vertical door profiles are to be reinforced with 19x19mm M.S. Square tube of 19 gauge. The door frame shall be fixed to the wall using 65/100mm long M.S. Screws through the frame by using PVC fasteners. A minimum of 4nos. of screws to be provided for each vertical member & minimum 2nos. for horizontal member etc. complete as per manufacturers specification and direction of Engineer-in-charge for finished item of work including all taxes.	1 Rm	253.00
	637	<b>RAJSHRI OR EQUIVALENT SOLID PANEL DOOR SHUTTER</b>		

Sl. No.	S.S. No.	Item Description	Unit (per)	S S RATE FOR 2005-06
		Providing and fixing 30mm thick Solid panel PVC door shutter consisting of frame made out of M.S. tubes of 19 gauge thickness and size of 19mm x 19mm for stiles, & 15mm x 15mm for top & bottom rails. M.S. frame shall have a coat of steel primers of approved make and manufacture. M.S. frame shall be covered with 5mm thick heat moulded PVC 'C' channel of size 30 x 50mm forming stiles, and 5mm thick, 75mm wide PVC sheets for top rail, lock rail & bottom rail on either side, and 10mm (5mm x 2) thick, 20mm wide cross PVC sheet as gap insert for top rail & bottom rail. Panelling of 5mm thick PVC sheet to be fitted in the M.S. frame welded / sealed to the stiles & rails with 30mm wide x 5mm thick PVC sheet beading on either side, and joined together with solvent cement adhesive etc. An additional 5mm thick PVC strip of 20mm width is to be stuck on the interior side of the 'C' Channel using PVC solvent adhesive. complete as per direction of Engineer-in-charge, manufacturer's specification & drawing for finished item of work including all taxes.	1 Sqm.	1743.00
		<b>DOOR FRAMES</b>		
638		MS. Hallow door frames manufactured by cold roll formed process steel sheet 1.25mm thick bright CRCA confirming to IS 4351 - 1976 with Hinges tower Bolts etc.	1 Rm	167.40
		<b>Flush door shutters, solid bond wood block board type with teak ply on both faces.</b>		
639		25 mm thick	1 sqm	902.90
640		30 mm thick	1 sqm	933.10
641		35 mm thick	1 sqm	1004.40
		<b>Flush door shutters, solid bond wood block board type with commercial ply on both faces.</b>		
642		25 mm thick	1 sqm	459.00
643		30 mm thick	1 sqm	517.30
644		35 mm thick	1 sqm	567.00
645		40 mm thick	1 sqm	675.00
		<b>Flush door shutters, solid bond wood block board type with teak venner on one face and commercial ply on another face (liping)</b>		
646		20 mm thick	1 sqm	605.90
647		25 mm thick	1 sqm	675.00
648		30 mm thick	1 sqm	756.00
649		35 mm thick	1 sqm	810.00
650		40 mm thick	1 sqm	864.00
		<b>Plain cement bonded particle boards conforming to IS 14276 truly exterior grade (Bison panel or equivalent)</b>		
651		6 mm thick	1 sqm	150.10
652		8 mm thick	1 sqm	184.70
653		10 mm thick	1 sqm	217.10
654		12 mm thick	1 sqm	251.60
655		16 mm thick	1 sqm	335.90
656		20 mm thick	1 sqm	402.80
657		25 mm thick	1 sqm	487.10
658		30 mm thick	1 sqm	569.20
659		40 mm thick	1 sqm	737.60
		<b>Prelaminated cement particle board truly exterior board one side laminated (Bison Lam or equivalent)</b>		
660		6 mm thick	1 sqm	400.70
661		8 mm thick	1 sqm	423.40
662		10 mm thick	1 sqm	446.00
663		12 mm thick	1 sqm	468.70
664		16 mm thick	1 sqm	521.60
		<b>Prelaminated cement particle board truly exterior board both side laminated (Bison Lam or equivalent)</b>		
665		6 mm thick	1 sqm	446.00



Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
	666		8 mm thick	1 sqm	468.70
	667		10 mm thick	1 sqm	491.40
	668		12 mm thick	1 sqm	514.10
	669		16 mm thick	1 sqm	567.00
			<b>ECO-BOARD MULTI PURPOSE CEMENT BOARDS (HIGH PRESSURED STEAM CURED)</b>		
	670		4 mm thick	1 Sqm.	103.00
	671		6 mm thick	1 Sqm.	156.00
	672		8 mm thick	1 Sqm.	203.00
	673		10 mm thick	1 Sqm.	227.00
	674		12 mm thick	1 Sqm.	260.00
	675		14 mm thick	1 Sqm.	300.00
	676		16 mm thick	1 Sqm.	345.00
	677		18 mm thick	1 Sqm.	390.00
	678		20 mm thick	1 Sqm.	430.00
			<b>ECO-BOARD CLASSIC</b>		
	679		4 mm thick	1 Sqm.	175.00
	680		6 mm thick	1 Sqm.	260.00
			<b>ECO-BOARD PEARL</b>		
	681		4 mm of size 595mm X 595mm	1 Sqm.	216.00
			<b>MULTIPURPOSE CEMENT BOARDS FALSE CEILING WITH EXPOSED METAL E-GRID IS 14862 : 2000</b>		
	682		Using 6 mm thick E-board	1 Sqm	600.00
	683		Using 8 mm thick E-board	1 Sqm	660.00
	684		Using 4 mm thick E-board classic*	1 Sqm	620.00
	685		Using 6 mm thick E-board Classic*	1 Sqm	724.00
	686		Using 4 mm thick E-board Pearl	1 Sqm	672.00
			<b>WALL PANELLING</b>		
			<b>Supply and fixing of E-board wall paneling (water, fire and Termite proof) with frame work made of GI stud profile of size 48 x 40 10 x 0.6 mm thick placed at every 610 mm C/C intervals fixed vertically in between floor and roof `U' track of size 50 x 30 x 0.6 mm thick duly fixed with self expansion screws and with 8 mm thick E-board / 6 mm thick E-board classic cladded around with self tapping self embedding screws fixed at every 300 mm (centres) leaving a 3 mm gap between two panels of width 2'-0". The Gap will be covered with a decorative beading.Surface will be given a smooth finish over a coat of primer.</b>		
	687		With 8 mm E-board	1 Sqm.	797.00
	688		With 6 mm E-board Classic	1 Sqm.	860.00
			<b>DOUBLE SKIN PARTITION</b>		
	689		Supply and fixing double skin E-board partition with Frame work made of GI stud profile of size 48 x 40 x 10 x 0.6 mm thick placed at every 610 mm C/C intervals and 915 mm horizontal intervals duly fixed with self expansion screws, the E-board of 8 mm thick cladded around with self tapping self embedding screws fixed at every 300 mm (centres) leaving 3 mm gap between two panels of width 2'-0" (610 mm). The gap will be covered with decorative molding surface will be given a smooth finish over cement primer. The rate is inclusive of cost and conveyance of all materials and labour charges etc. complete.	1 Sqm.	1226.00
			<b>DOOR</b>		
	690		Supply and fixing of E-board door shutter with around style "U" lipping size 15 x 18 x 15 mm made from 0.8 mm thick powder coated cold rolled steel profiles with 16 mm thick E-board with necessary screws fixed at 1'-0" interval 250 mm long aldrops 2 Nos. M.S. nickel coated 250 mm long 1 No. M.S. Tower bolts including cost and conveyance of all materials at site and applying 1 coat of primar, 2 coats of luppum and 2 coats of synthetic enamel paint as per approved design for finished item of work.	1 Sqm.	1050.00

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
			<b>DOOR WITH CRCA FRAME</b>		
	691		Providing and fixing frame made from 1.2 mm powder coated cold rolled steel profiles of overall section size of 60 mm x 45 mm with 21 mm rivet for shutter with necessary stiffners hinges and screws. E-board shutter with around `U` lipping of size 15 X 18 X 15 mm made from 0.8 mm thick CRCA powder coated steel profile with 16 mm thick E-board with necessary screws fixed at every 1'-0" interval 250 mm long aldrops 2 Nos. MS Nickel coated 250 mm long 1 No. MS tower bolt including cost and conveyance. One coat of primer, 2 coats of luppum and 2 coats of synthetic enamel paint as per approved colour, labour charges etc.	1 Sqm.	1600.00
			<b>Cup Boards Shutters using Cement Bonded Particle Board (Bison Panel or Equivalent )</b>		
	692		Supply and fixing of cup board shutters and frames using 16mm thick Cement Bonded Particle Board (Bison Panel or Equivalent) duly painted both sides with one coat of primer and two coats of synthetic / enamel paint of approved shade and brand including fixing of hardware like M.S. powder coated Piano hinges of size 18mm x 18mm, brass ball catches, Aluminum tower bolts and handles , Godrej locks, Fevicol, screws and nails including cost and conveyance of all materials, labour charges, all incidental and operational charges etc., complete for finished item of work at site as per the directions of Engineer in Charge.	1 sqm	1269.00
			<b>False Ceiling using Cement Bonded Particle Board (Bison Panel or Equivalent )</b>		
	693		Supply and fixing of false ceiling with galvanized and pre painted steel T section of size 24mm x 38mm x 0.4mm for main T duty pre punched to accept cross T section of size 24mm x 30mm x 0.4mm duly punched at both ends for insertion into main T. The grid size will be 610mm x 610mm. The frame work (grid) is suspended to the roof by using G.I flat of 0.60mm or 14-gauge G.I wire with necessary fixers to the roof and frame work. 8mm thick Cement Bonded Particle Board lay on the grid. The cost inclusive of necessary hardware, labour, one coat of primer (Both side) and two coats of smooth finish on visible side.	1Sqm	626.40
			<b>WALL PANELING WITH CEMENT BONDED PARTICLE BOARD (BISON PANEL OR EQUIVALENT)</b>		
	694		Supply and fixing bison panel wall paneling (water proof) with frame work made of GI stud section of size 48mm x 35mm x 0.55mm thick placed at every 610 mm C/C intervals vertically and at 1200mm internals horizontally fixed to the wall by means of self expansion screws and caps. 10 mm thick cement bonded particle board (Bison panel or Equivalent) is to be fixed to frame by means of self taping screws placed at every 300 mm intervals leaving 3mm gap between two panels. The cost inclusive of one coat of Altek primer and two coats of Altek smooth finish and cost & conveyance of all materials, labour charges etc. complete as per the direction of Engineer in charge.	1 Sqm	1004.40
			<b>DOUBLE SKIN PARTITION WITH CEMENT BONDED PARTICLE BOARD (BISON PANEL OR EQUIVALENT)</b>		
	695		Supply and fixing double skin partition made out of G.I. track section of size 50mmx 35mm x 0.55 mm for fixing to the roof and floor and stud section of size 48mm x 35mmx 0.55mm placed in track section vertically at 610mm intervalsand at 1200mm intervals horizontally fixed to the wall by means of self expansion screws and caps to the wall and roof. 10mm thick Cement bonded particle board (BISON PANEL OR EQUIVALENT) is to be fixed both sides of frame work by using self taping screws fixed at every 300mm intervals to the frame work leaving 3 mm gap between two panels. The cost inclusive with one coat of Altek primer and two coats of Altek smooth finish and cost and conveyance of all materials to site, labour charges etc., complete as per the direction of Engineer in charge.	1 Sqm	1609.20

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
			<b>DOUBLE SHUTTER WITH CEMENT BONDED PARTICLE BOARD (BISON PANEL OR EQUIVALENT)</b>		
	696		Supply and fixing cement bonded particle board shutter with alround "U" section of size 12mmx18mm x12mm made from 0.6 mm thick galvanized, color quoted cold rolled steel profiles 16 mm thick panel with necessary screws fixed at every 304.8 mm intervals. The cost inclusive of MS Nickel coated Aldrops of size 255 mm long 2 Nos., 200 mm long tower bolts 1 No., 125 mm handles 2 Nos. 300 mm long "T" hing cost and conveyance of all materials at site and applying 1 coat primer, 1 coat of luppum and 2 coats of synthetic enamel paint as per approved design for finished itme of work.	1 Sqm	1188.00
			<b>Doors Frames (Colour Coated Steel Sections) &amp; Shutter using Cement Bonded Particle Board (Bison Panel or Equivalent)</b>		
	697		Providing and fixing of door frame made from cold roll formed sections made of galvanized (Base steel as per IS277 with zinc of 120 Gms/sq.mtr) colour coated steel sections with total coated thickness of 1mm, primer coated with epoxy primer coat of 5-7 microns thick, finish paint with polyester paint of 12-16 microns. The Section for door frame is to be filled with polyurethane (P.U) form of 40kg/m3. Overall size of frame section should be of 50mm x 50mm. With necessary corner brackets, stiffeners, hinges,and screws. Cement Bonded particle board shutter (Bison Panel or Equivalent) "Single Leaf" with all round styles "U" section of size 12m x 18m x 12mm made from 0.6 mm thick galvanized, colour coated cold rolled steel profiles with 16mm thick Cement Bonded particle Board (Bison Panel or Equivalent) with necessary screws fixed at every 1'-0" (304.8mm) intervals. The cost inclusive of MS nickel coated Aldorp of size 250mm long 2nos. 200mm long tower bolt 1no., 125mm handles 2nos., cost and conveyance of all materials at site and applying one coat primer , one coat of luppum and two coats of synthetic enamel paint as per approved design for finished item of work	1 Sqm	1890.00
			<b>Box Type Cup Board using Cement Bonded Particle Board (Bison Panel or Equivalent) &amp; Shutter using Pre-Laminated Cement Bonded Particle Board (Bison Lam or Equivalent)</b>		
	698		Supply and fixing of box type cup board using 20mm thick Cement Bonded Particle Board (Bison Panel or Equivalent) for making frame of size 100mm x 35mm using two sandwiched 16mm boards, one plain board and one Pre-Laminated cement bonded particle board with plain 35mm wood lipping. The Shutters are made of 16m thick Pre-Laminated Cement Bonded Particle Board (Bison Lam or Equivalent) of approved shade inclusive of hardware like M.S. powder coated Piano hinges of size ¾" x ¾" , Aluminum powder coated handles of size 4" (101.6mm), Aluminum tower bolt 4" (101.6mm) Godrej locks, screws, wood lipping and Fevicol etc., complete finish item of work.	1 Sqm	2700.00
			<b>Door Shutter with Cement Bonded Particle Board (Bison Lam or Equivalent)</b>		
	699		Supply and fixing of door shutter made out of PVC Hollow extruded section having dimensions of 47mm x 26mm with wall thickness of 1.5mm with necessary tapering to house Bison Lam thickness of 12mm. All the four corners are jointed with PVC 'L' brackets of size 4" x 8" (101.6 x 203.2mm) and the PVC lipping is filled with well-seasoned country wood to hold hinges. The hardware consists of 250mm long aldorp – 2 Nos.250mm Handle- 1 No. (all are of Aluminum). The cost is inclusive of all incidental, labour transportation charges.	1 Sqm	1239.00
			<b>Double Skin Partition with Pre Laminated Cement Bonded Particle Board (Bison Lam or Equivalent)</b>		

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
		700	Supply and fixing double skin partition made out of G.I track section of size 50 mm x 35mm x 0.55mm for fixing to the roof and floor and stud section of size 48mm x 35mm x 0.55mm placed in track section vertically at 610mm intervals and at 1200mm internals horizontally. The frame is fixed by means of self expansion screws and caps to the wall / roof. 12mm thick Pre Laminated Cement bonded particle board (Bison Lam or equivalent) is to be fixed both sides of the frame work by using 2mm thick electro plated CR flat section leaving 3mm gap between two panels. The cost inclusive of cost and conveyance of all materials to sites, other materials incidentals and labour charges as per the direction of Engineer in charges.	1 Sqm	1639.00
			<b>Wall Paneling with Pre Laminated Cement Bonded Particle Board (Bison Lam or equivalent)</b>		
		701	Supply and fixing of wall paneling with frame work made of G.I stud section of size 48mm x 35mm x 0.55mm thick placed at every 610mm intervals vertically and at 1200mm internals horizontally fixed to the wall by means of self expansion screws and caps. 12mm thick pre laminated Cement bonded particle board (Bison Lam or equivalent) is to be fixed to frame by means of self-taping screws placed at every 300mm intervals leaving 3mm gap between two panels. The cost inclusive of Conveyance of materials, Labour charges etc., complete as per the direction of Engineer in charge.	1 Sqm	1320.00
			<b>Aluminum Partition with Pre Laminated Cement Bonded Particle Board (Bison Lam or Equivalent)</b>		
		702	Supply and fixing in position aluminum glazed partitions using 5.50 mm thick plain glass to full height using with pre laminated cement bonded particle board (Bison Lam or equivalent) of 10mm thick to a height of 0.91 metre at bottom panel and remaining height with glass and aluminum sections anodized to 12 to 15 microns and of sections of size 37mm x 62mm and 1.5mm thickness with one metre centre to centre duly fixed with clip beading on both sides including fixing the frame to pillars by M.S. flats, bolts and nuts including cost and conveyance of all materials etc., complete as directed during execution.	1 Sqm	2028.10
			<b>SINTEX OR EQUIVALENT DOOR (SINGLE PANEL)</b>		
		703	Supply and fixing Sintex or equivalent doors are made out of PVC section and panels. The overall dimension of the same is 33mm X 47mm with usual process variation and having a wall thickness of 1.5mm with a variation of $\pm 0.3$ mm. The infill is seamless hallow multi chambered PVC single panel having an effective dimension of 762mm X 20mm having a wall thickness of 1mm $\pm 0.3$ mm including all taxes complete, for finished item of work.	Sqm.	1755.00
		704	Supply and fixing PVC door frames made from extruded sections in overall dimensions of 40 X 48mm having a wall thickness of 1.5mm with usual process variation of $\pm 0.3$ mm, including all taxes complete, for finished item of work.	Sqm.	164.20
			<b>SINTEX OR EQUIVALENT OPENABLE WINDOW</b>		
		705	Supply and fixing of Sintex window shall be made out of extruded PVC section. The outer frame having overall dimensions of 40 X 48mm with a wall thickness of 1.5mm with usual process variation of $\pm 0.3$ mm. The shutter frame having with overall dimensions of 26 X 47mm with wall thickness of 1.2mm $\pm 0.3$ mm provided with 5mm glazing. The centre mullion having over all dimensions of 25 X 32.5mm $\pm 0.3$ mm, including all taxes complete, for finished item of work.	Sqm.	2615.80
			<b>SINTEX OR EQUIVALENT SLIDING 2 TRACK WINDOWS</b>		
		706	Supply and fixing of two track or three track sliding window the outer frame shall be 58 X 45mm with a wall thickness of 1.2mm $\pm 0.3$ mm. The sliding shutter frame is made of PVC section 57 X 32mm with overall dimensions of 1.5mm $\pm 0.3$ mm provided with 5mm glazing. Roller bearings and arrestor type handle cum lock shall be provided, including all taxes complete, for finished item of work.	Sqm.	2268.00

Sl. No.	S.S. No.	Item Description	Unit (per)	S S RATE FOR 2005-06
		<b>SINTEX OR EQUIVALENT FALSE CEILING</b>		
	707	Supply and fixing of PVC false ceiling on MS/GI made skeleton framework. The frame shall be 24 X 48mm MS tube section fixed along with the wall. The entire frame work shall be concealed with PVC section having overall dimensions of 6 X 250mm with a wall thickness of 1mm ± 0.3mm with tongue and groove system, provided with necessary arrangements for electrical connections, including all taxes complete, for finished item of work.	Sqm.	1161.00
		<b>SINTEX OR EQUIVALENT WALL PANNELLING</b>		
	708	Supply and fixing of wall panelling on the framework of wooded rippers of 24 X 24mm of required size. The entire framework shall be panelled with PVC section having overall dimensions of 6 X 250mm with a wall thickness of 1mm ± 0.3mm. The panels are joined with tongue and groove system. Necessary cutouts for electrical connections to be provided at required places, including all taxes complete, for finished item of work.	Sqm.	1107.00
		<b>SINTEX OR EQUIVALENT PVC CABINETS</b>		
	709	Supply and fixing of PVC cupboards for kitchen and bedrooms shall be made out of multi chambered PVC sections having overall dimensions of 20 X 762mm with a wall thickness of 1.2mm ± 0.3mm. The cabinets shall be made as per the requirements of the room with groove system. The PVC section surface shall be plain and laminated finish to have good look, including all taxes complete, for finished item of work.	Sqm.	3202.20
		<b>SINTEX OR EQUIVALENT SMC SIGN BOARDS</b>		
		Supply of hot pressed compression moulded SMC sign plates for making road signs ass per the approved dimensions of National Highway Authority Of India, including all taxes complete, for finished item of work.		
	710	Circular sign plate Dia 400mm.	Each.	464.40
	711	Circular sign plate Dia 600mm.	Each.	1220.40
	712	Circular sing plate Dia 870mm	Each.	2445.10
	713	Triangular sign plate 600mm.	Each.	626.40
	714	Triangular sign plate 900mm.	Each.	1414.80
	715	Square sign plate 600mm.	Each.	1134.00
	716	Square sign plate 1000mm.	Each.	4212.00
		<b>SINTEX OR EQUIVALENT PVC PARTITION</b>		
	717	Supply and fixing of PVC Double Skin Partition. The entire framework shall be carried out by mild steel section having overall dimensions of 24 X 48mm with a wall thickness of 1.2mm. The entire framework shall be concealed with PVC section having overal dimensions of 6 X 250mm with a wall thickness of 1mm ± 0.3mm both sides. Glass provision/Door provision can be provided along the partition wherever required. Partitions can be made full or half as per requirement, including all taxes complete, for finished item of work.	Sqm.	2035.80
		<b>SINTEX OR EQUIVALENT WATER STORATGE TANKS</b>		
	718	Supply of Sintex or equivalent Polyethylene water storage tank double layer confirming to ISI 12701/96 mark with lid including all taxes.	Ltr.	5.94
		<b>PVC DOOR SHUTTER (Nandi or Equivalent)</b>		
	719	Supply and fixing of door shutters made of rigid PVC extruded hollow section(Nandi or equivalent) of 20mm X 200 mm with the wall thickness of 1.0mm +/- 0.1mm equally divided into 4 no's with tongue and groove locking arrangements.The shutter frame is made of 58 X 24 mm with the wall thickness of 1.5mm +/- 0.15mm section metri-cut and joined at 4 cornors with 125mm X 225mm plastic brackets.The shutter shall be horizontally reinforced with 2 no's of 8mm PVC rods. Teak wood battons shall be reinforced inside the door shutter during the fabrication of the door shutter at those points wherever the hardware is fixed on to the door shutter.	Sqmt.	1074.60

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
	720		Supply and fixing of door shutters made of rigid PVC extruded hollow section(Nandi or equivalent) of 20mm X 200 mm with the wall thickness of 1.0mm +/- 0.1mm equally divided into 4 no's with tongue and groove locking arrangements.The shutter frame is made of 30mm X 79mm with the wall thickness of 1.5mm +/-0.15mm section metri-cut and joined at 4 corners with 125mm X 225mm plastic brackets.The shutter shall be horizontally reinforced with 2 no's of 8mm PVC rods.Teak wood battons shall be reinforced inside the door shutter during the fabrication of the door shutter at those points wherever the hardware is fixed onto the door shutter.	Sqmt.	1295.00
			<b>PVC DOOR FRAME (Nandi or Equivalent)</b>		
	721		Supply and fixing of door frame made of hollow extruded PVC section(Nandi or equivalent) having dimensions of 40 X 57mm with the wall thickness of 2mm +/- 0.2mm duly reinforced with seasoned wood plank at the hinges side. The door frame top 2 corners shall be metri-cut/weilded.	1 RM	155.00
	722		Supply and fixing of door frame made of hollow extruded PVC section(Nandi or equivalent) having dimensions of 40 X 46 mm with the wall thickness of 2mm +/- 0.2mm duly reinforced with seasoned wood plank at the hinges side. The door frame top 2 corners shall be metri cut/weilded	1 RM	135.00
			<b>PRE- PAINTED STEEL, WINDOWS, VENTILATORS &amp; DOOR FRAMES.</b>		
			<b>Supply and fixing of windows &amp; top Hung and fixed louvered ventilators made of pre - painted steel (base steel as per IS 513 of -0.6 mm thick 'D' quality, galvanized as per IS 277 with zinc of 120 GSM) primer coated with epoxy primer of 5-7 microns thick, finish painted with a polyester paint of 12-16 microns thick and back coated with 5-7 micros thick alkyd backer. Section for outer frame should be 46 x 52 mm section for shutter should be 46 x 46 mm section for mullion should be 46 x 70 mm, and section for beading should be 18 x 25 mm and section for louvered ventilation should be 33 x57mm Box section. The windows should be panelled with 5mm thick plain float glass &amp; 4 mm pinhead glass for ventilators with Ethy propylene Diamine monomer Gasket(EPDM). The sections are to be cut to length mitre joined with corner brocket centre mullions are to be fixed using mullilon cap. Handle made of high grade aluminium powder coated and nylon receiver. Gaskets made of Ethyl propylene Diamine monomer(EPDM). Corner brackets made of</b>		
			<b>CRCA with Zinc Phasphating. Mullion caps made of glass linked nylon. The above frames should be fixed to the concrete /masonry wall by means of self expanding screws. including 10 mm square guard bars with 6" pitch and all taxes, complete for finished item of work.</b>		
			<b>Windows</b>		
	723		Single shutter 2'0 x 4'0 (609.6 x 1219.2 mm ) Outer frame section size of 46 x 52 mm shutter frame section size of 46 x 46 mm	1 sqm	2929.00
	724		Double shutter 3'-0" x 4'-0" (914.4mm x 1219.2 mm) outer frame sections size of 46 x 52 mm shuter frame section size of 46 x 46 mm	1 Sqm	2929.00
	725		Double shutter 3'-0" x 4'-0" (914.4mm x 1219.2 mm) outer frame sections size of 46 x 52 mm shutter frame section size of 46 x 46 mm Mullion section size of 46 x 70 mm	1 Sqm	3103.90
	726		Double shutter 4'-0" x 4'-0" (1219.2x1219.2mm) outer frame section size of 46 x 52 mm shutter frame section size of 46 x 46 mm	1 Sqm	2929.00
	727		Double shutter 4'-0" x 4'-0" (1219.2x1219.2mm) outer frame section size of 46 x 52 mm shutter frame section size of 46 x 46 mm Mullion section size of 46 x 70 mm	1 Sqm	3103.90
	728		Double shutter 4'-6" x 4'-6" (1371.6x1371.6mm) outer frame section size of 46 x 52 mm shutter frame section size of 46 x 46 mm Mullion section size of 46 x 70 mm	1 Sqm	2767.00

Sl. No.	S.S. No.	Item Description	Unit (per)	S S RATE FOR 2005-06
	729	Centre fixed both side openable shutter 5'-0" x 4'-0" (1524x1219.2mm) outer frame section size of 46 x 52 mm shutter frame section size of 46 x 46 mm Mullion section size of 46 x 70 mm fixed beading section size of 18 x 25 mm	1 Sqm	2767.00
	730	Centre fixed both side openable shutter 6'-0" x 4'-0" (1828.8x1219.2mm) outer frame section size of 46 x 52 mm shutter frame section size of 46 x 46 mm Mullion section size of 46 x 70 mm fixed beading section size of 18 x 25 mm	1 Sqm	2767.00
	731	Centre fixed both side openable shutter 6'-0" x 4'-6" (1828.8x1371.6mm) outer frame section size of 46 x 52 mm shutter frame section size of 46 x 46 mm Mullion section size of 46 x 70 mm fixed beading section size of 18 x 25 mm	1 Sqm	2767.00
		<b>Ventilators :</b>		
	732	Top Hung 2'-0" x 2'-0" (609.6x609.6mm) outer frame section size of 46mm x 52 mm shutter frame section size of 46mm x 46 mm	1 Sqm	3208.70
	733	Top Hung 4'-0" x 2'-0" (1219.2x609.6mm) outer frame section size of 46 x 52 m shutter frame section size of 46 x 46 mm Mullion section size of 46 x 70 mm	1 Sqm	3208.70
	734	Top Hung 4'-0" x 3'-0" (1219.2x914.4mm) outer frame section size of 46 x 52m m shutter frame section size of 46 x 46 mm Mullion section size of 46 x 70 mm	1 Sqm	3208.70
	735	Fixed louvers 2'-0" x 2'-0" (609.6x609.6mm)(Box section) outer frame section size of 33 x 57 mm	1 Sqm	2196.70
	736	Fixed louvers 4'-0" x 2'-0" (1219.2x609.6mm)(Box section) outer frame section size of 33 x 57 mm Mullion section size of 33 x 57	1 Sqm	2196.70
	737	Fixed louvers 4'-0" x 3'-0" (1219.2x914.4mm)(Box section) outer frame section size of 33 x 57 mm Mullion section size of 33 x 57	1 Sqm	2196.70
		<b>NCL or Equivalent ECO 3000 SERIES WINDOWS (SUITABLE FOR RESIDENTIAL BUILDINGS WITH GRILL PROVISION)</b>		
		<b>Providing and Fixing of windows made of pre-painted steel (Base steel as per IS 513 of 0.6mm thick galvanized as per IS 277 with Zinc of 150 GSM). Primer coated with epoxy primer of 5-7 microns thick, finish painted with a polyester paint of 12-16 microns thick and back coated with 5-7 microns thick alkyd backer. Section for outer frame should be of 48x50mm, center mullion should be of 48x50mm, section for shutter should be of 47x20mm and Fixed glass beading section should be of 12x12mm. Outer frame and mullions to have rebate for Glazed shutter and a 20mm provision for Guard bars/Grills. The sections are to be cut to length metre joined with corner bracket. Centre mullion is to be fixed with mullion cap. Seccolor Handle, 8" stay made of Aluminium, 2 nos. of Stainless Steel heavy duty Pivot hinges shall be provided per shutter. The windows should be paneled with 5mm thick plain float glass. Rubber Gaskets are provided all around the glass. The above frames should be fixed to the concrete/masonry wall by means of</b>		
		<b>self expanding screws, Including 10mm Square guard bars with 6" (152.4mm) pitch and all Taxes, etc., complete for finished item of work.</b>		
	738	Single shutter Window 2'-0"x4'-0" (609.6mm x 1219.2mm). Outer frame section size of 48x50mm shutter frame section size of 47x20mm.	1 Sqm	2696.80
	739	Double shutter Window with vertical mullion 3'-0" x 4'-0" ( 914.4mm x 1219.2mm) outer frame section size of 48x50mm shutter frame section size of 47x20mm. Mullion section size of 48x50mm.	1 Sqm	2871.70
	740	Double shutter Window with vertical member 4'-0" x 4'-0" (1219.2mm x 1219.2mm) outer frame section size of 48x50mm shutter frame section size of 47x20mm and mullion section should be of 48x50mm.	1 Sqm	2871.70
	741	Centre fixed both side openable shutter window 5'-0"x4'-0" (1524mm x1219.2mm). Outer frame section size of 48x50mm. Shutter frame section size of 47x20mm. Mullion section size of 48x50mm. Fixed beading section size of 12x12mm.	1 Sqm	2533.70

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
	742		Centre fixed both side openable shutter window 6'0"x4'0" (1828.8mm x1219.2mm). Outer frame section size of 48x50mm. Shutter frame section size of 47x20mm. Mullion section size of 48x50mm. Fixed beading section size of 12x12mm.	1 Sqm	2533.70
			<b>NCL or Equivalent ECO 4000 SERIES WINDOWS (SUITABLE FOR RESIDENTIAL BUILDINGS WITH GRILL &amp; FLYMESH PROVISION)</b>		
			<b>Providing &amp; Fixing of windows made of pre-painted steel (Base Steel as per IS 513 of 0.6mm thick galvanized as per IS 277 with zinc of 150 GSM). Primer coated with epoxy primer of 5-7 microns thick, finish painted with a polyester paint of 12-16 microns thick and back coated with 5-7 microns thick alkyd backer. Section for outer frame should be of 72x50mm, center mullion should be of 72x50mm, Section for fixed glass beading section should be of 12x12mm and section for shutters should be of 47x20mm. Outer frame &amp; mullion sections to have rebate for glazed shutters, flymesh and a 20mm provision for guard bars/grills. Flymesh shutter section should be of 20x40mm. The sections are to be cut to length metre joined with corner bracket. Centre mullions are to be fixed with mullion cap. Telescopic Stay, 'D' type handle, 2 nos' of 3" Tower Bolt made of Aluminium. 2 Nos of heavy duty stainless steel pivot hinges shall be provided per Shutter. The windows should be paneled with 5mm thick plain float glass and S.S. Mesh for flymesh shutter(304 grade). Rubber Gaskets are provided all around the glass.</b>		
			<b>The above frames should be fixed to the concrete/masonry wall by means of self expanding screws. Including 10mm Square guard bars with 6" (152.4mm) pitch and all Taxes, complete for finished item of work</b>		
	743		Single shutter Window 2'0"x4'0" (609.6mm x 1219.2mm). Outer frame section size of 72x50mm shutter frame section size of 47x20mm.	1 Sqm	3580.20
	744		Double shutter Window with vertical mullion 3'0" x 4'0" ( 914.4mm x 1219.2mm) outer frame section size of 72x50mm shutter frame section size of 47x20mm. Mullion section size of 72x50mm.	1 Sqm	3755.20
	745		Double shutter Window with vertical member 4'0" x 4'0" (1219.2mm x 1219.2mm) outer frame section size of 72x50mm shutter frame section size of 47x20mm and mullion section should be of 72x50mm.	1 Sqm	3755.20
	746		Centre fixed both side openable shutter window 5'0"x4'0" (1524mm x1219.2mm). Outer frame section size of 72x50mm. Shutter frame section size of 47x20mm. Mullion section size of 72x50mm. Fixed beading section size of 12x12mm.	1 Sqm	3418.20
	747		Centre fixed both side openable shutter window 6'0"x4'0" (1828.8mm x1219.2mm). Outer frame section size of 72x50mm. Shutter frame section size of 47x20mm. Mullion section size of 72x50mm. Fixed beading section size of 12x12mm.	1 Sqm	3418.20
			<b>Flymesh Shutters</b>		
			<b>Supply &amp; fixing of Flymesh shtters of size 20 x 40 mm fly proof mesh with std. Spn (S.S.) flymesh inclding cost and conveyance of all materials, all taxes and labour charges etc. complete for finished item of work.</b>		
	748		Single shutter 2'-0" x 4'-0" (609.6x1219.2mm) shutter section size 20 x 40 mm	1 Sqm	673.90
	749		Double shutter 3'-0" x 4'-0" (914.4x1219.2mm) shutter section size 20 x 40 mm	1 Sqm	673.90
	750		Double shutter 4'-0" x 4'-0" (1219.2x1219.2mm) shutter section size 20 x 40 mm	1 Sqm	673.90
			<b>Supply &amp; fixing of Flymesh shutters of size 20 x 40 mm fly proof mesh with Netlon flymesh inclding cost and conveyance of all materials, all taxes and labour charges etc. complete for finished item of work.</b>		
	751		Single shutter 2'-0" x 4'-0" (609.6x1219.2mm) shutter section size 20 x 40 mm	1 Sqm	581.00



Sl. No.	S.S. No.	Item Description	Unit (per)	S S RATE FOR 2005-06
	752	Double shutter 3'-0" x 4'-0" (914.4x1219.2mm) shutter section size 20 x 40 mm	1 Sqm	581.00
	753	Double shutter 4'-0" x 4'-0" (1219.2x1219.2mm) shutter section size 20 x 40 mm	1 Sqm	581.00
		<b>Door frames</b>		
		<b>Supply &amp; fixing of Door frames made of all formed sections of 1.25mm thick CRCA section, size should be 50x60mm with 32mm rebate. The corner of the frame should be welded. The frame should be painted with one coat of primer and finished painted with pure polyester paint. The frame should be provided with approved quality butt hinges of 3 Nos. including all taxes complete for finished item of work.</b>		
	754	Single shutter 3'-0" x 7'-0" (914.4x2133.6mm) outer frame section size of 50 x 60 mm	1RM	146.90
	755	Double shutter 5'-0" x 7'-0" (1524x2133.6mm) outer frame section size of 50 x 60 mm	1 RM	146.90
		Supplying & fixing of Door frame made of roll formed section of 1.25 mm thick CRCA section, size should be 50 x 60 mm with 32 mm rebate. The corner of the frame should be welded. The frame should be painted with one coat of primer and finished painted with pure polyester paint. The frame should be provided with approved quality butt hinges of 3 Nos. including all taxes complete for finished item of work.		
	756	Single shutter 3'-0" x 7'-0" (914.4x2133.6mm) outer frame section size of 50 x 75 mm	1 RM	167.40
	757	Single shutter 5'-0" x 7'-0" (1524x2133.6mm) outer frame section size of 50 x 75 mm	1 RM	167.40
		<b>SPECIFICATION OF HARDWYN OR EQUIVALENT DOOR CLOSER ISI MARKED</b>		
	758	Providing and fixing IS:3564 marked Aluminium Die cast body tubular type universal hydraulic door closer, Hardwyn make (Classic Queen) with necessary accessories and screws etc complete	Each	453.60
	759	Providing and fixing IS:3564 marked Aluminium Extruded Section body tubular type universal hydraulic door closer with double speed adjustment, Hardwyn make (Mytel) with necessary accessories and screws etc complete	Each	604.80
	760	Providing and fixing IS:3564 marked Aluminium Extruded Section body tubular type universal hydraulic door closer with double speed adjustment, Hardwyn make (Eddy) with necessary accessories and screws etc complete	Each	712.80
	761	Providing and fixing IS:3564 marked Aluminium Extruded Section body tubular type universal hydraulic door closer with double speed adjustment, Hardwyn make (Gazel) with necessary accessories and screws etc complete	Each	745.20
		<b>SPECIFICATION OF HARDWYN OR EQUIVALENT FLOOR SPRING ISI MARKED</b>		
	762	Providing and fixing double action hydraulic floor spring of approved brand manufacture IS : 6315 marked, Hardwyn make (U-32) for doors including cost of cutting floors as required, embedding in floors and S.S cover plates with Aluminum Pivot and single piece M.S. Sheet outer box with slide plate etc. complete (Weight Capacity upto 130 Kgs)	Each	1803.60
	763	Providing and fixing double action hydraulic floor spring of approved brand manufacture IS : 6315 marked, Hardwyn make (U-32) for doors including cost of cutting floors as required, embedding in floors and Brass cover plates with Aluminum Pivot and single piece M.S. Sheet outer box with slide plate etc. complete (Weight Capacity upto 130 Kgs)	Each	1911.60

Sl. No.	S.S. No.	Item Description	Unit (per)	S S RATE FOR 2005-06
	764	Providing and fixing double action hydraulic floor spring of approved brand manufacture Hardwyn make (U-88) for doors including cost of cutting floors as required, embedding in floors and S.S cover plates with Aluminum Pivot and single piece M.S. Sheet outer box with slide plate etc. complete (Weight Capacity upto 80 Kgs)	Each	1350.00
	765	Providing and fixing double action hydraulic floor spring of approved brand manufacture Hardwyn make (U-88) for doors including cost of cutting floors as required, embedding in floors and Brass cover plates with Aluminum Pivot and single piece M.S. Sheet outer box with slide plate etc. complete (Weight Capacity upto 80 Kgs)	Each	1458.00
		<b>Curtain Glazing</b>		
		<b>Supply and fixing of curtain Glazing made of pre painted steel (base steel as per IS 513 of 0.6 mm thick D quality, galvanized as per IS 277 with Zinc of 120 GSM) Primer coated with epoxy primer of 5-7 microns thick, finish painted with a polyester paint of 12- 16 microns thick and back coated with 5-7 microns thick alkyad backer. Section for outer frame should be 46 x 52 mm , section for mullion should be 46 x 70 mm and section for beading should be 18 x 25 mm. The Glazing should be panelled with 5 mm thick plain float Glass with Ethyl Propylene diameine Monomer (EPDM) Gaskets. The sections are to be cut to length, mitre joined with corner bracket. Cnetre mullions are to be fixed suing mullion cap. Handle made of high grade alluminium powder coated and nylon receiver. Gaskets made of Ethyl propylene Diamine Monomer (EPDM) Corner brackets made of CRCA with zinc phosphating. Mullion caps made of Glass filled nylon. The above frames should be fixed to the concrete / masonry wall be means of self expanding screws. Including all taxes &amp; complete for finished item of work.</b>		
	766	Fixed Glazing 2'-0" x 2'-0" (609.6x609.6mm) grid outer frames section size of 46 x 52 mm	1 Sqm	2708.60
		<b>Mullion section size of 46 x 70mm</b>		
		<b>Beading section size of 18 x 25 mm</b>		
	767	Fixed Glazing 2'-0" x 3'-0" (609.6x914.4mm) grid outer frame section size of 46 x 52 mm	1 sqm	2708.60
		<b>Mullion section size of 46 x 70 mm</b>		
		<b>Beading section size of 18 x 25 mm</b>		
	768	Fixed Glazing 3'-0" x 3'-0" (914.4x914.4mm) grid outer frame section size of 46 x 52 mm	1 sqm	2313.40
		<b>Mullion section size of 46 x 70 mm</b>		
		<b>Beading section size of 18 x 25 mm</b>		
	769	Fixed Glazing 3'-0" x 4'-0" (914.4x1219.2mm) grid outer frame section size of 46 x 52 mm	1 sqm	2313.40
		<b>Mullion section size of 46 x 70 mm</b>		
		<b>Beading section size of 18 x 25 mm</b>		
		<b>ALLUMINIUM DOORS AND WINDOWS</b>		
	770	Supplying alluminium Door frames with rectangular box hollw section (including annodisation cost)	1 Kg	190.10
	771	Supplying alluminium annodised openable sliding window, Ventgilator (including annodisation cost)	1 Kg	190.10
	772	A.C sheet Corrugated 6 mm thick	1 sqm	102.60
	773	A.C sheet plain 4 m thick	1 sqm	95.00
	774	A.C sheet plain 6 m thick	1 sqm	97.20
	775	Sun Control film to the glazed windows partition including labour charges.	1 sqm	259.20
	776	Alluminium Venetian blinds horizontal 25.4 mm wide with all accessories.	1 sqm	629.60
	777	Alluminium Venetian blinds Verticle 100 mm wide with all accessories.	1 sqm	1069.20
	778	S & F of marblex flooring with 2.0 mm thick in rolls.	1 sqm	351.00

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
	779		S&F Vinyl Flooring with tiles 1.5 mm thick in rolls	1 sqm	351.00
			<b>RATES OF WORKS</b>		
			<b>A. DISMANTLING</b>		
			<b>Dismantling clearing away and carefully stacking materials useful for reuse.</b>		
	780		Brick or stone masonry in clay upto 3 M height	1 Cum	54.00
	781		Brick or stone masonry in clay over 3 M height	1 Cum	64.80
	782		Brick or stone masonry in lime motar or brick masonry in cement mortar upto 3 M height	1 Cum	91.80
	783		Brick in lime mortar wall up to 3 M height	1 Cum	54.00
	784		Brick or stone masonry in lime motar or brick masonry in cement mortar over 3 M height	1 Cum	91.80
	785		Brick in lime mortar wall up to 3 M height	1 Cum	54.00
	786		Stone masonry in cement mortar upto 3 M height	1 Cum	129.60
	787		Stone masonry in cement mortar over 3 M height	1 Cum	156.60
	788		Terracing work in roofs or floors	10 Sqm	64.80
	789		Flat stones in roof or floors includng lifting	10 Sqm	54.00
	790		pan tiled or mangalore tiled roof without roof timbers.	10 Sqm	48.60
	791		Flat and pan tiles or Mangalore tiles over flat tiles without roof timbers	10 Sqm	54.00
	792		Old thatched roofing including tying materials into small bundles for reuse.	10 Sqm	16.20
	793		Wrought and framed timber in roofs or floors	1 Cum	81.00
	794		Doors and windows including removal of frame, hinges and fastening.	1 sqm	27.00
	795		Old lime mortor plaster	10 Sqm	16.20
	796		Old cement mortar plaster	10 Sqm	19.40
	797		Dry rough stone revetment for aprons and stacking within 40 M lead	1 Cum	25.90
	798		Revetment for aprons and stacking grouted within 40 lead	1 Cum	19.40
	799		Lime concrete	1 Cum	86.40
	800		Surki or cement concrete	1 Cum	135.00
	801		Cuddapah slabs or shahabad stone slabs fooring on sand bed	10 Sqm	27.00
	802		reinforced cement concrete	1 Cum	793.80
	803		Through scraping of old pastered surface	10 Sqm	16.20
	804		Washing of platered surface with soap, soda and water (or with soda lime cumbly and water)	10 Sqm	5.40
	805		clean removal of lime plaster from walls and raking out joints 20mm deep or from terraced roof and raking out joints 100 mm deep	10 Sqm	17.30
	806		Clean removal of cement pllater from walls and raking out joint 200 mm deep	10 Sqm	18.40
			Bailing out water for earth work excavation /concrete for foundatin below water level.(For building items only)		
			a) other than sandy soil		
	807		0.0 M to 1.0 M	1 cum	69.10
	808		1.0 M to 2.0 M	1 cum	82.10
	809		2.0 M to 3.0 M	1 cum	96.10
			b) Sandy soil		
	810		0.0 M to 1.0 M	1 cum	110.20
	811		1.0 M to 2.0 M	1 cum	170.60
	812		2.0 M to 3.0 M	1 cum	206.30
			<b>(E) CONCRETE</b>		
	813		a) Supply and placing of the ready (design ) standard mix concrete M 20 grade from standard suppliers approved by the Department including cost and conveyance, pumping upto 5 floors and curing etc complete for finished item of work	1 Cum	2484.00
	814		For each additional floor for M20 grade concrete	1 Cum	32.40
	815		a) Supply and placing of the ready (design ) standard mix concrete M 25 grade from standard suppliers approved by the Department including cost and conveyance, pumping upto 5 floors and curing etc complete for finished item of work	1 Cum	2548.80

Sl. No.	S.S. No.	Item Description	Unit (per)	S S RATE FOR 2005-06
	816	For each additional floor for M25 grade concrete	1 Cum	32.40
		<b>(F) labour charges for wrought and put up including fixing in position frames, shutters for doors, windows, ventilators etc.</b>		
	817	Fully panelled doors external or internal	1 Sqm	356.40
	818	Glazed and panelled doors	1 Sqm	343.40
	819	Framed and planked doors	1 Sqm	335.90
	820	Ledged, braced and planked doors	1 Sqm	288.40
	821	Windows glazed	1 Sqm	343.40
	822	Windows panelled	1 Sqm	452.50
	823	Windows ledged, braced and planked	1 Sqm	288.40
	824	Windows framed and planked	1 Sqm	274.30
	825	Ventilators glazed, fixed with double frame with wire netting.	1 Sqm	343.40
	826	Swing ventilators glazed	1 Sqm	370.40
	827	Weldmesh doors and windows	1 Sqm	288.40
	828	G.I or .AC sheet door & windows	1 Sqm	144.70
		<b>(G) MISCELLANEOUS ITEMS</b>		
	829	Preparing gabions with jungle wood	Each	2.60
	830	Planting plants	Each	1.90
	831	Pruning plants	Each	1.90
	832	Maintaining avenues including fencing, weeding, milching, watering etc per plant.	Each	4.50
	833	- do - When scattered in hot weather with extra conveyance from March to June	Each	5.20
	834	Hoisting or lowering of slab	1 cum	72.40
	835	Dressing faces of granite stone (double line dressing)	1 Sqm	119.90
	836	Dressing faces of other than granite stone(double line dressing)	1 Sqm	74.50
		<b>Expansion Joint fillers</b>		
		<b>SUPPLY OF HIGH PERFORMANCE EXPANSION</b>		
		<b>JOINT FILLER BOARD. CONFIRMING TO M.O.S.T</b>		
		<b>(FOR ROADS&amp;BUILDINGS)</b>		
		<b>"SILFLEX" CAPCELL HD-100</b>		
	837	A. 18MM THICK	1 Sqm	540.00
	838	B. 20MM THICK	1 Sqm	604.80
	839	C. 25MM THICK	1 Sqm	756.00
		<b>SUPPLY OF EXPANSION JOINT FILLER BOARD</b>		
		<b>FOR BUILDINGS, COLUMNS, BEAMS AND</b>		
		<b>SLABS</b>		
		<b>"ARMOUR BOARD" SILFILL</b>		
	840	A. 20MM THICK	1 Sqm	216.00
	841	B. 25MM THICK	1 Sqm	270.00
	842	C. 50MM THICK	1 Sqm	540.00
		<b>SUPPLY OF BACK UP TO COLD APPLIED</b>		
		<b>SEALANT IN CONSTRUCTION AND</b>		
		<b>LONGITUDINAL JOINT</b>		
		<b>"BACK UP ROAD" SILSEAL</b>		
	843	A. 10MM OD	1 RM	8.60
	844	B. 12MM OD	1 RM	10.40
	845	C. 15MM OD	1 RM	13.00
	846	D. 20MM OD	1 RM	17.30
	847	E. 25MM OD	1 RM	21.60
		<b>(H) SCAFFOLDING</b>		
	848	For superstructure in first floor over the rate of foundation and basement	1 cum	31.30
	849	For second floor over the rate of first floor superstructure	1 cum	37.80
	850	For third floor over the rate of 11nd floor superstructure	1 cum	50.80
	851	For each additional floor over third floor	1 cum	22.70

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
			<b>Scaffolding for plastering of walls and ceiling or painting of roof timber or walls, where height is more than 3 M</b>		
	852		1st and 2nd floor	10 Sqm	34.60
	853		2nd and 3rd floor	10 Sqm	69.10
	854		3rd and 4th floor	10 Sqm	103.70
	855		Extra for every additional floor over 4th floor	10 Sqm	24.80
			<b>Centering charges</b>		
	856		centering charges for all RCC roof slabs upto 150 mm depth and upto 3.66 M of floor height	10 Sqm	788.40
	857		Centering charges for all RCC roof slabs upto 150 mm depth & more than 3.66 M of floor height. Add for each additional metre height or part there of over the rate as in item above.	10 Sqm	216.00
	858		centering charges for all RCC roof slabs above 150 mm upto 300 mm depth and upto 3.66 M of floor height	10 Sqm	1170.70
	859		Centering charges for all RCC roof slabs above 150 mm and upto 300depth & more than 3.66 M of floor height. Add for each additional metre height or part there of over the rate as in item above.	10 Sqm	319.70
			<b>Centering charges for all R.C.C roof slabs projection upto 1.2 M only, at higher level without having such slab projections at lower levels.</b>		
	860		At 2nd floor level	10 Sqm	722.50
	861		At 3rd floor level	10 Sqm	754.90
	862		At 4th floor level	10 Sqm	788.40
	863		Centering charges for all RCC waffle slabs including ribs etc.(plain area) upto 3.66 M of floor height	10 Sqm	1203.10
	864		Centering charges for all RCC waffle slabs including ribs etc. (plain area) & more than 3.66 M of floor height. Add for each additional metre height or part there of over the rate as in item above.	10 Sqm	328.30
	865		Centering charges for all R.C.C helical stair cases.	10 Sqm	1284.10
	866		Centering charges for RCM facia/ railing 50 to 75 mm thickness	1 Sqm	45.40
	867		Centering charges for sunshade 0.6 M width	1 RM	34.00
	868		Centering charges for sunshade 0.8 M width	1 RM	42.10
	869		Centering charges for sunshade 1.00 M width	1 RM	47.50
	870		Centering charges for T beams upto 3.66 M of floor height	1 cum	878.00
	871		Centering charges for T beams more than 3.66 M of floor height . Add for each additional metre height or part there of over the rate as in item above	1 cum	239.80
	872		Centering charges for Rectangular beam, L beams, upto 3.66 M of floor height	1 cum	744.10
	873		Centering charges for Rectangular beams & L beams more than 3.66 M of floor height . Add for each additional metre height or part there of over the rate as in item above	1 cum	203.00
	874		Centering charges for columns, pedestals	1 cum	744.10
	875		Centering charges for Templates, bed blocks and footings	1 cum	468.70
	876		Centering charges for arches upto 1.5 M span	1 cum	1013.00
	877		Centering charges for arches above 1.5 M span	1 cum	1081.10
	878		Centering charges for lintels and plinth beams ( less than 3.0 span)	1 cum	605.90
	879		Centering charges for slabs above 300 mm depth	1 cum	703.10
	880		Labour charges for 50 to 75 mm thick RCM Paradah walls	1 sqm	64.80
	881		Labour charges for fixing A.C sheets including cost of J.Bots bitumen washers etc. with or without ridges.	10 sqm	371.50
			<b>(j) LIFT CHARGES</b>		
			<b>For RCC items</b>		
	882		Between 1 st and 2 nd floor	1 cum	40.00
	883		Between 2nd and 3rd floor	1 cum	98.30
	884		Between 3rd and 4th floor	1 cum	183.60
	885		Between 4th and 5th floor	1 cum	288.40
	886		Between 5th and 6 th floor	1 cum	314.30
	887		between 6ht and 7 th floor	1 cum	393.10

Sl. No.	S.S. No.	Item Description	Unit (per)	S S RATE FOR 2005-06
	888	Between 7th and 8 th floor	1 cum	457.90
	889	Between 8th and 9 th floor	1 cum	510.80
	890	Between 9th and 10th floor	1 cum	589.70
		<b>LIFT CHARGES FOR BRICK MASONRY &amp; STONE MASONRY</b>		
	891	Between 1 st and 2 nd floor	1 cum	32.90
	892	Between 2nd and 3rd floor	1 cum	46.40
	893	Between 3rd and 4th floor	1 cum	59.40
	894	Add extra for every additional floor above 4th floor	1 cum	19.40
		Lift charges for impervious coat upto 26 mm thick plastering with impermo compound or shahabad stone flooring:		
	895	Between 1 st and 2nd floor	10 Sqm	16.20
	896	Between 2nd and 3rd floor	10 Sqm	29.50
	897	Between 3rd and 4th floor	10 Sqm	43.20
	898	Add extra for every additional floor above 4th floor	10 Sqm	15.10
		Lift charges for plastering		
	899	Between 1 st and 2 nd floor	10 Sqm	8.00
	900	Between 2nd and 3rd floor	10 Sqm	14.00
	901	Between 3rd and 4th floor	10 Sqm	20.50
	902	Add extra for every additional floor above 4th floor	10 Sqm	9.10
<p><b>Note:- SSR rates for Building Items are purely for guidance for the officers for preparation of estimates vide para 113 of APPWD code. Authority who prepares the estimate is however responsible for proper rates as envisaged in para 45 of APPWD code.</b></p>				

## SANITARY AND WATER SUPPLY ITEMS

S.No	Description of item	Unit	S S RATE FOR 2005-06
1	2	3	
1	Supplying, laying, jointing and testing 101.6 mm SWG pipes of ISI make conforming to ISI 651 &4127 with airtight cement joints in CM 1.5 : 1 prop. including excavation of trenches and socket pits in any soil (except rock requiring blasting) upto 1524 mm(5'0") depth and refilling with watering and tamping.	1 RM	135.20
2	Supplying, laying, jointing and testing 101.6 mm SWG pipes of ISI make conforming to ISI 651 &4127 with airtight cement joints in CM 1:5:1 prop. including excavation of trenches and socket pits in any soil (except rock requiring blasting) upto 914.4 mm (3'0") depth and refilling with watering and tamping.	1 RM	105.60
3	a) Supplying & fixing SWG bends 101.6 mm	Each	33.00
4	b) - do - labour charges only	Each	12.10
5	Supplying & fixing 152.4 mm x 101.6 mm SWG gully traps of ISI make conforming to ISI 651 &4127 with C.I Grating & Constg. Brick masonry in CM 1 :6 prop. Intermediae chamber and fitted with 304.8 mm x 288.6mm (12"x9")C.I Frame and hinged cover	Each	254.10
6	Supply of SWG pipe of ISI make conforming to ISI 651 4" dia (101.6mm)	1 RM	46.00
7	Supply of SWG pipe of ISI make conforming to ISI 651 6" dia (152.4mm)	1 RM	62.20
8	Supply of SWG pipe of ISI make conforming to ISI 651 8" dia (203.2mm)	1 RM	156.80
9	Supply of SWG pipe of ISI make conforming to ISI 651 10" dia (254mm)	1 RM	229.90

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
10			Constructing 914.4 mm (3'0") dia brick in CM 1:6 prop. Masonry inspection chamber upto 1524 mm (5'0") depth including plastering with CM 1:3 prop. 12.7 mm (1/2")thick both inside and outside and fitted with 508 mm (20") dia light weight 20 kg CI frame and cover.	Each	2420.00
11			Constructing 914.4 mm (3'0")dia brick in CM 1:6 prop. Masonry inspection chamber upto 914.4 mm (3'0") depth including plastering with CM 1:3 prop. 12.7 mm (1/2")thick both inside and outside and fitted with 508 mm (20") dia light weight 20 kg CI frame and cover.	Each	1754.50
12			Extra for provision of medium weight 40 Kg in place of light weight cover.	Each	357.50
13			Constructing 914.4 mm x 457.2 mm (3'0"x1'6") brick in CM 1:6 prop. Masonry Inspection chamber upto 914.4 mm (3'0") and fitted with light weight 914.4 mm x 457.2 mm (3'0"x1'6") C.I frame and cover of 40 Kg.	Each	1870.00
14			Constructing 457.2 mm x 457.2 mm (1'6"x1'6") brick in CM 1:6 prop. Masonry. Inspection chamber upto 914.4 mm (3'0") and fitted with light weight 457.2 mm x 457.2 mm (1'6"x1'6") C.I frame and cover of 20 Kg.	Each	1127.50
15			a) Supplying & fixing 101.6 mm C.I Plug Bend	Each	165.00
16			b) - do - labour charges only	Each	33.00
17			a) Supplying & fixing 152.4mm dia CI plug bend 1st quality	Each	377.00
18			b) - do - labour charges only	Each	43.70
19			a) Supplying & fixing 101.6mm dia CI Plain bend 1st quality	Each	154.00
20			b) - do - labour charges only	Each	33.00
21			a)Making drainage connection in the existing inspection including all repairs	Each	66.00
22			b) - do - labour charges only	Each	38.50
23			a)Supplying , laying, jointing and testing 152.4 mm SWG pipes of ISI make conforming to ISI 651 &4127 with airtight cement joints in CM 1.5 : 1 prop. including excavation of trenches and socket pits in any soil (except rock requiring blasting) upto 151.2 cm depth and refilling with watering and tamping.	1 RM	176.00
24			b) - do - labour charges only	1 RM	38.50
25			a)Supplying , laying, jointing and testing 152.4 mm CC bed 1 : 2 : 4 Prop: using 19.05 mm gauge graded granite metal chips and cradling 101.6 mm SWG pipe line all round to have 76.2 mm thick cover over the sockets.	1 RM	44.00
26			b) - do - labour charges only	1 RM	5.50
27			a)Supplying , laying, jointing and testing 152.4 mm CC bed 1:2:4 Prop: using 19.05 mm gauge graded granite metal chips and cradling 152.4 mm SWG pipe line all round to have 76.2 mm thick cover over the sockets.	1 RM	77.00
28			b) - do - labour charges only	1 RM	27.50
29			Supplying & Laying 101.6 mm SWG channels with cement mortor joints with suitable brick masonry for fixing the channels in position	1 RM	46.10
30			b) - do - labour charges only	1 RM	19.00
31			a) Supplying & Laying 152.4 mm SWG channels with cement mortor joints with suitable brick masonry for fixing the channels in position	1 RM	86.10
32			b) - do - labour charges only	1 RM	26.60
33			a) Supplying & fixing 101.6 mm C.I Soil pipes with cement caulked joints and painted black	1 RM	258.50
34			b) - do - labour charges only	1 RM	74.80
35			a) Supplying and fixing 152.4 mm (6") CI soil pipe 1st quality with cement caulked joints and painted black ( single socket)	1 RM	467.50
36			b) - do - labour charges only	1 RM	74.80
37			a) Supplying and fixing 76.2 mm (3") CI soil pipe 1st quality with cement caulked joints and painted black ( single socket)	1 RM	154.00
38			b) - do - labour charges only	1 RM	74.30
39			a) Supplying and fixing 152.4 mm(6") CI soil pipe 1st quality with cement caulked joints and painted black ( Double socket)	1 RM	495.00
40			b) - do - labour charges only	1 RM	74.30

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
	41	a)	Supplying and fixing 76.2 mm(3") CI soil pipe 1st quality with cement caulked joints and painted black ( Double socket)	1 RM	176.00
	42	b)	- do - labour charges only	1 RM	74.30
	43	a)	Supplying & fixing 101.6 mm (4") CI soil single junction with plug	Each	220.00
	44	b)	- do - labour charges only	Each	22.00
	45	a)	Supplying & fixing 152.4 mm (6") CI soil single junction with plain	Each	377.00
	46	b)	- do - labour charges only	Each	43.70
	47	a)	Supplying & fixing 152.4 x 152.4 mm (6"x6") CI single junction plug /door 1st quality	Each	434.50
	48	b)	- do - labour charges only	Each	26.20
	49	a)	S& F 101.6 mm (4") CI soil double junction with plug	Each	237.60
	50	b)	- do - labour charges only	Each	33.00
	51	a)	S & F 101.6 x 76.2 mm CI soil offsets (calcutta make)	Each	148.50
	52	b)	- do - labour charges only	Each	16.50
	53	a)	Supplying & fixing 152.4 x 152.4 mm CI single offset 1st quality	Each	290.20
	54	b)	- do - labour charges only	Each	26.20
	55	a)	Supplying & fixing 203.2 x 76.2 mm CI soil offsets 1st quality	Each	246.20
	56	b)	- do - labour charges only	Each	26.20
	57	a)	Supplying & fixing 101.6 mm x 152.4 mm C.I soil offsets (Calcutta make)	Each	176.00
	58	b)	- do - labour charges only	Each	19.80
	59	a)	Supplying & fixing 88.9 mm A.C cowls	Each	38.50
	60	b)	- do - labour charges only	Each	6.60
	61	a)	Supplying & fixing A.C Cowl 63.5 mm dia	Each	27.50
	62	b)	- do - labour charges only	Each	5.50
	63	a)	supplying & fixing 101.6 mm x 63.5 mm CI inverted double junction (Calcutta/Nagpur make)	Each	330.00
	64	b)	- do - labour charges only	Each	28.60
	65	a)	S & F 76.2 mm CI Naharytrap (Calcutta/Nagpur make)	Each	170.50
	66	b)	- do - labour charges only	Each	26.40
	67		Removing and refixing W.C s	Each	133.10
	68		Removing and refixing wash hand basins of any size with fittings complete	Each	104.50
	69	a)	S & F 76.2 x 101.6 mm teak wood block complete	Each	14.30
	70	b)	- do - labour charges only	Each	4.40
	71	a)	S& F 76.2 mm C.I plug bends (Calcutta/Nagpur make)	Each	110.00
	72	b)	- do - labour charges only	Each	13.20
	73	a)	S & F 76.2 mm CI plain beds (Calcutta/Nagpur make)	Each	96.80
	74	b)	- do - labour charges only	Each	11.00
	75	a)	S&F 76.2 mm C.I single junction with Plug ( Calcutta / Nagapur make)	Each	148.50
	76	b)	- do - labour charges only	Each	18.70
	77	a)	S&F 76.2 mm C.I double junction with Plug ( Calcutta / Nagapur make)	Each	209.00
	78	b)	- do - labour charges only	Each	22.00
	79	a)	Supplying & fixing 76.2 mm x 76.2 mm CI offsets (Calcutta/Nagpur make)	Each	115.50
	80	b)	- do - labour charges only	Each	3.30
	81	a)	Supplying & fixing 76.2 mm x 152.4 mm CI offsets (Calcutta/Nagpur make)	Each	126.50
	82	b)	- do - labour charges only	Each	16.50
	83		Supply & fixing 101.6 mm dia CI floor traps 1st quality	Each	205.70
	84	a)	Boxing of Nahany traps in RCC floors	Each	88.00
	85	b)	- do - labour charges only	Each	44.00
	86		Boxing of W.C Trap in R.C.C floor in 1st floor Labour charges only	Each	176.00
	87		Cutting holes in C.C; basement & repairs Labour charges only	Each	49.50
	88		Cutting holes in stone masonry & basement and repairs Labour charges only	Each	33.00



Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
		89	Cutting holes in Brick masonry & repairs Labour charges only	Each	22.00
		90	Cutting holes in RCC slab floor & repairs Labour charges only	Each	33.00
		91	a) S & F 584.2 mm long Indian pattern white glazed W.C and trap	Each	506.00
		92	b) - do - labour charges only	Each	121.00
		93	a) S& F 584.2 mm long Orissa pan of parry Neycer/H.S.W make with 'P' & 'S' trap	Each	849.20
		94	b) - do - labour charges only	Each	151.80
		95	a) S & F porcelanin foot rest for I.W.C.(Rectangular pair)	Pair	121.00
		96	b) - do - labour charges only	Pair	27.50
		97	a) S & F low down porcelain flushing tank Hindustan Sanitary wae/ parry/ Neycer with internal components	Each	1210.00
		98	b) - do - labour charges only	Each	220.00
		99	a)S & F European type Hindustan / Neycer or parry W.C best Indian make white glazed (P trap)	Each	605.00
		100	b) - do - labour charges only	Each	110.00
		101	a) S & F European type Hindustan / Neycer or parry W.C best Indian make white glazed with 'S' trap	Each	715.00
		102	b) - do - labour charges only	Each	110.00
		103	a) S& F best Indian make plastic seat and lid for European water closets & Buffers as per IS 2548-1963	Each	242.00
		104	b) - do - labour charges only	Each	33.00
			<b>Supply, Installation and commissioning approved make EWC(suit) CASCADE model P' or S' trap with porcelin cistern fixed on EWC with all internal parts of cistern vis. White seat cover of aproved make with rubber buffer and cap 15 mm angle stop cock 450 mm long PVC inter connection pipe wall flanges all of approved make etc. complete for finished item of work in all respects</b>		
		105	a) white	Each	4878.50
		106	b) Extra for colour	Each	1985.50
		107	c) Extra for spl. Colour	Each	3971.00
		108	a) Supplying & Fixing 12.7 mm PVC connection with brass union nut C.P coated	Each	55.00
		109	b) - do - labour charges only	Each	11.00
		110	a) S & F 12.7 mm NP stop cock Indian make 300 grams	Each	101.20
		111	b) - do - labour charges only	Each	13.20
		112	a) S & F concealed stop cock 12.7 mm (1/2")	Each	148.50
		113	b) - do - labour charges only	Each	15.20
		114	a) S & F angle stop cock 12.7 mm dia first quality	Each	105.60
		115	b) - do - labour charges only	Each	15.20
		116	a) S&F 12.7 mm N.P bib tap Indian make 300 grams	Each	101.20
		117	b) - do - labour charges only	Each	13.20
		118	a) S&F 12.7mm N.P bib tap Indian make 250 grams	Each	85.80
		119	b) - do - labour charges only	Each	11.00
		120	a)S & F 31.75 mm brass plumber Union best Indian first quality	Each	27.50
		121	b) - do - labour charges only	Each	5.50
		122	a) S & F 12.7 mm brass stop cock Indian make 400 grams	Each	88.00
		123	b) - do - labour charges only	Each	11.00
		124	a) S & F 12.7 mm brass stop cock Indian make 300 grams	Each	82.50
		125	b) - do - labour charges only	Each	11.00
		126	a) S & F 12.7 mm brass bib cock Indian make 400 grams	Each	96.80
		127	b) - do - labour charges only	Each	11.00
		128	a) S & F 12.7 mm brass bib cock Indian make 300 grams	Each	82.50
		129	b) - do - labour charges only	Each	12.10
		130	S & F CP long body bib cock fancy type delux 300 grams dia 12.7 mm	Each	171.60
		131	S & F 12.7mm dia high neck pillar cock Ist quality Indian make 400 grams	Each	274.60
		132	a) S & F 12.7 mm .M.P couplings	Each	19.80

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
	133	b)	- do - labour charges only	Each	5.50
	134	a)	S & F 19.05 mm M.P couplings	Each	22.00
	135	b)	- do - labour charges only	Each	5.50
	136	a)	S& F MP coupling 25.4 mm dia	Each	52.80
	137	a)	S & F PVC Rubber adopter for LLC and bend	Each	11.00
	138	b)	- do - labour charges only	Each	3.30
	139	a)	S& F 31.75 mm Brass union nuts	Each	19.80
	140	b)	- do - labour charges only	Each	3.30
	141	a)	S& F 38.1 mm Brass union nuts	Each	20.90
	142	b)	- do - labour charges only	Each	4.40
	143		S& F GI union 12.7 mm 1st Quality	Each	21.10
	144		S& F GI union 19.05 mm 1st Quality	Each	26.40
	145		S& F GI union 25.4 mm 1st Quality	Each	39.60
	146		S& F GI union 31.75 mm 1st Quality	Each	49.50
	147		S& F GI union 38.1 mm 1st Quality	Each	59.40
	148		S& F GI union 50.8 mm 1st Quality	Each	72.60
	149		S& F GI connector 25.4 mm dia	Each	44.00
	150		S& F 12.7 m GI 'T' A class 1st quality	Each	27.50
	151		S& F 31.75 mm dia GI bend 1st quality	Each	39.60
	152		S & F 31.75 mm dia GI 'T' 1st Quality	Each	38.70
	153	a)	Supplying & Fixing solder joints upto 50.8 mm dia	Each	34.10
	154	b)	- do - labour charges only	Each	11.00
	155	a)	Supplying & Fixing solution joints upto 50.8 dia 1st quality.	Each	6.80
	156	b)	- do - labour charges only	Each	1.30
	157	a)	S & F 558.8 mm x 406.4 mm Indian make wash hand basins (HSW/Parry/Earthenware) with 12.70 mm double N.P 400 grams pillar taps wast plug chain complete with CI brackets including wooden block	Each	605.00
	158	b)	- do - labour charges only	Each	154.00
	159	a)	S& F pedestal (H.S.W / Parry/ Earthenware)	Each	594.00
	160	b)	- do - labour charges only	Each	55.00
	161	a)	S & F 31.75 mm C.P bottle trap (Heavy type)	Each	165.00
	162	b)	- do - labour charges only	Each	22.00
	163	a)	S & F 31.75 mm C.P TRAPS	Each	165.00
	164	b)	- do - labour charges only	Each	22.00
	165	a)	S & F 12.7 mm NP elbow action bib cock 600 gms	Each	253.00
	166	b)	- do - labour charges only	Each	19.00
	167	a)	S&F 12.7 m NP elbow action pillar cock 600 gms	Each	211.20
	168	b)	- do - labour charges only	Each	16.50
	169		S&F 12.7 mm dia NP pillar cock 1st quality	Each	102.90
	170		S&F 12.7 mm dia NP push cock 1st quality	Each	110.00
	171		S&F 12.7 mm dia NP lift cock 1st quality	Each	88.00
	172	a)	S & F 38.1 mm C.P waste coupling	Each	50.60
	173	b)	- do - labour charges only	Each	13.20
	174	a)	S & F 31.75 mm PVC bottle trap	Each	71.50
	175	b)	- do - labour charges only	Each	11.00
	176	a)	S& F 38.1 mm brass plumber union	Each	36.70
	177	b)	- do - labour charges only	Each	5.50
	178	a)	S & F white glazed flat back urinals with screws complete Indian make (TWYFORT)(Parry/Neycer)	Each	385.00
	179	b)	- do - labour charges only	Each	60.50
	180	a)	S & F 19.05 mm NP stop cock Indian make with ISI mark 400 grams	Each	143.00
	181	b)	- do - labour charges only	Each	11.00
	182		Chiselling the stone masonry wall for fixing of wooden blocks including finishing as directed by the department	Each	16.50
	183		Chiselling the stone masonry wall and repairs as directed by the department.	1 Rm	77.00

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
		184	Chiselling the brick masonry wall and repairs as directed by the department.	1 Rm	16.50
		185	a) S & F NP telephonic shower spray set & valve mixer with rest and all fittings complete (ARK/ESSCO make)	Each	825.00
		186	b) - do - labour charges only	Each	198.00
		187	a) S & F NP shower spray fancy with NP Flexible pipe	Each	275.00
		188	b) - do - labour charges only	Each	66.00
		189	a) S & F NP cover for nahany trap	Each	17.60
		190	b) - do - labour charges only	Each	8.80
		191	a) Painting the flushing tank with white enamel paint	Each	60.50
		192	b) - do - labour charges only	Each	30.80
		193	S & F internal fittings for flush tank	Each	330.00
		194	Repairing and over hauling flushing tank	Each	44.00
		195	a) Supplying & Fixing NP chain rubber and plugh for baisn	Each	22.00
		196	b) - do - labour charges only	Each	3.30
		197	a) S & F 609.6 x 457.2 x 254 mm Indian make white glazed sink on cantilever brackets with 2 NP couplings, plug and chain complete	Each	2035.00
		198	b) - do - labour charges only	Each	165.00
		199	a) S & F 762.00 x 457.2 x 228.6 mm Indian make white glazed sink on cantilever brackets with 2 NP couplings, plug and chain complete	Each	2420.00
		200	b) - do - labour charges only	Each	165.00
		201	a) S & F 609.6 x 457.2 x 254 mm RCC terrazo finished sink (or constructed at site with 50.8mm thick) brass plug and chain including CI cantilever brackets	Each	330.00
		202	b) - do - labour charges only	Each	110.00
		203	a) S & F 25.4 mm dia & 609.6 mm long aluminium anodized towel rod with brackets and aluminium screws	Each	82.50
		204	b) - do - labour charges only	Each	22.00
		205	a) S & F 19.04 mm dia & 609.6 mm long aluminium anodized towel rod with brackets and aluminium screws	Each	71.50
		206	b) - do - labour charges only	Each	33.00
		207	a) S & F 609.6 mm long 127 mm wide plate glass shelf with superior quality aluminium railing complete with aluminium screws	Each	104.50
		208	b) - do - labour charges only	Each	27.50
		209	a) S & F 609.6 mm long 127 mm wide plate glass shelf only	Each	33.00
		210	b) - do - labour charges only	Each	5.50
		211	a) S & F NP soap dish heavy type with NP SCREWS	Each	132.00
		212	b) - do - labour charges only	Each	6.10
		213	a) S & F NP holder brackets with screws	Each	27.50
		214	b) - do - labour charges only	Each	6.60
		215	a) S & F liquid soap container NP metallic with NP brackets and screws.	Each	121.00
		216	b) - do - labour charges only	Each	11.00
		217	a) Constructing R.C.C over head tank with partition complete	1 Lt	3.90
		218	b) - do - labour charges only	1 Lt	0.90
		219	a) Constructing R.C.C over head tank with out partition complete	1 Lt	3.30
		220	b) - do - labour charges only	1 Lt	0.80
		221	a) S & F 25.4 mm copper ball cock ith PVC ball Indian make ISI mark	Each	209.00
		222	b) - do - labour charges only	Each	22.00
		223	a) S & F 19.05 mm copper ball cock ith PVC ball Indian make ISI mark	Each	170.50
		224	b) - do - labour charges only	Each	22.00
		225	a) S & F 12.7 mm copper ball cock ith PVC ball Indian make ISI mark	Each	110.00
		226	b) - do - labour charges only	Each	22.00
		227	a) S & F 25.4 mm GM peet valve Indian make heavy type	Each	231.00
		228	b) - do - labour charges only	Each	22.00
		229	a) S & F 19.05 mm GM peet valve Indian make heavy type	Each	178.20
		230	b) - do - labour charges only	Each	22.00
		231	a) S & F 12.7 mm GM peet valve Indian make heavy type	Each	137.50

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
		232	b) - do - labour charges only	Each	22.00
		233	a) S & F 31.75 mm GM peet valve Indian make heavy type 1st quality	Each	346.50
		234	a) S & F 38.1 mm GM peet valve Indian make heavy type 1st quality	Each	545.60
		235	b) - do - labour charges only	Each	33.00
		236	a) S & F 50.8 mm dia GM peet valve 1st quality	Each	704.00
		237	b) - do - labour charges only	Each	44.00
		238	a) S & F 63.5 mm dia GM peet valve 1st quality	Each	1328.80
		239	b) - do - labour charges only	Each	55.00
		240	a) S & F 76.2 mm dia GM peet valve 1st quality	Each	1948.10
		241	b) - do - labour charges only	Each	66.00
		242	a) S & F 12.7 mm GI pipe 'A' class ISI mark with GI fittings including the cost of pipe & its fittings & labour charges complete	1 RM	71.50
		243	b) - do - labour charges only	1 RM	19.80
		244	a) S & F 19.05 mm GI pipe 'A' class ISI mark with GI fittings including the cost of pipe & its fittings & labour charges complete	1 RM	77.00
		245	b) - do - labour charges only	1 RM	19.80
		246	a) S & F 25.4 mm GI pipe 'A' class ISI mark with GI fittings including the cost of pipe & its fittings & labour charges complete	1 RM	121.00
		247	b) - do - labour charges only	1 RM	19.80
		248	a) S & F 38.1 mm GI pipe 'A' class ISI mark with GI fittings including the cost of pipe & its fittings & labour charges complete	1 RM	165.00
		249	b) - do - labour charges only	1 RM	22.00
		250	a) S & F 50.8 mm GI pipe 'A' class ISI mark with GI fittings including the cost of pipe & its fittings & labour charges complete	1 RM	203.50
		251	b) - do - labour charges only	1 RM	33.00
		252	a) S & F 12.7 mm GI pipe 'B' class ISI mark with GI fittings including the cost of pipe & its fittings & labour charges complete	1 RM	88.00
		253	b) - do - labour charges only	1 RM	19.80
		254	a) S & F 19.05 mm GI pipe 'B' class ISI mark with GI fittings including the cost of pipe & its fittings & labour charges complete	1 RM	93.50
		255	b) - do - labour charges only	1 RM	19.80
		256	a) S & F 25.4 mm GI pipe 'B' class ISI mark with GI fittings including the cost of pipe & its fittings & labour charges complete	1 RM	137.50
		257	b) - do - labour charges only	1 RM	19.80
		258	a) S & F 38.1 mm GI pipe 'B' class ISI mark with GI fittings including the cost of pipe & its fittings & labour charges complete	1 RM	192.50
		259	b) - do - labour charges only	1 RM	22.00
		260	a) S & F 50.8 mm GI pipe 'B' class ISI mark with GI fittings including the cost of pipe & its fittings & labour charges complete	1 RM	247.50
		261	b) - do - labour charges only	1 RM	33.00
		262	a) S & F 31.75 mm GI pipe 'B' class ISI mark with GI fittings including the cost & conveyance of all labour charges complete	1 RM	154.00
		263	S & F 63.5 mm dia GI pipe 'B' class with GI fittings such as elbows tees couplings, nipples, plugs including excavation for trenches and refilling the trenches complete except for GI bends union and GI connectors with checknut and socket Tata or Zenith make.	1 RM	257.40
		264	a) S & F 12.7 mm holder bat clamps	Each	6.60
		265	b) - do - labour charges only	Each	3.30
		266	a) S & F 19.05 mm holder bat clamps	Each	11.00
		267	b) - do - labour charges only	Each	3.30
		268	a) S & F 25.4 mm holder bat clamps	Each	13.20
		269	b) - do - labour charges only	Each	3.30
		270	a) S & F 38.1 mm holder bat clamps	Each	16.50
		271	b) - do - labour charges only	Each	4.40
		272	a) Constructing Brick masonry chamber over the gully trap or peet valve and fitted with 304.8 x 228.6 m size CI frame and hinged cover.	Each	198.00
		273	b) - do - labour charges only	Each	49.50

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
274		a)	Constructing Brick masonry supprt for G.I pipe with C.M 304.8 x 228.6 x228.6 mm size including plastering and finishing etc. complete.	Each	33.00
275		b)	- do - labour charges only	Each	11.00
276		a)	S & F 12.7 x 152.0 mm NP shower rose heavy	Each	82.50
277		b)	- do - labour charges only	Each	9.90
278		a)	S & F 12.7 x 137.0 mm NP shower rose heavy	Each	82.50
279		b)	- do - labour charges only	Each	11.00
280		a)	S & F 12.7 x 101.6 mm NP shower rose heavy	Each	71.50
281		b)	- do - labour charges only	Each	11.00
282		a)	S & F 12.7 x 88.9 CP fancy shower	Each	132.00
283		b)	- do - labour charges only	Each	11.00
284		a)	Supplying & fixing 12.7 mm GI drain pipe with plug for tanks (Mudvalve) including making a hole	Each	22.00
285		b)	- do - labour charges only	Each	11.00
286		a)	Supplying & fixing 19.05 mm GI drain pipe with plug for tanks (Mud valve) including making a hole	Each	33.00
287		b)	- do - labour charges only	Each	11.00
288		a)	Supplying & fixing 25.4 mm GI drain pipe with plug for tanks (Mud valve) including making a hole	Each	38.50
289		b)	- do - labour charges only	Each	13.20
290		a)	Taking branch water connection from the existing 25.4 mm GI pipe including cutting threading, etc, complete with fitting,	Each	77.00
291		b)	- do - labour charges only	Each	22.00
292		a)	Taking branch water connection from the existing 19.05 mm GI pipe including cutting threading, etc, complete with fitting,	Each	44.00
293		b)	- do - labour charges only	Each	19.80
294		a)	Taking branch water connection from the existing 12.7 mm GI pipe including cutting threading, etc, complete with fitting,	Each	33.00
295		b)	- do - labour charges only	Each	16.50
296			Supplying & fixing leather washers for 12.7 mm bib tap and stop cock	Each	1.10
297			Supplying & fixing leather washers for 19.05 mm bib tap and stop cock	Each	2.20
298			Supplying & Fixing 12.7 mm fibre washers	Each	2.20
299			Supplying & Fixing 19.05 mm fibre washers	Each	2.80
300		a)	Supplying & fixing 304.8 x 228.6 mm CI frame & cover over gully taps	Each	66.00
301		b)	- do - labour charges only	Each	17.60
302		a)	Supplying & fixing CI Nahany trap grating	Each	11.00
303		b)	- do - labour charges only	Each	5.50
304		a)	Supplying & fixing CI gully trap grating	Each	27.50
305		b)	- do - labour charges only	Each	5.50
306		a)	Supplying & fixing valves for brass ball cocks 25.4 mm dia	Each	11.00
307		b)	- do - labour charges only	Each	4.40
308		a)	Supplying & fixing 12.7 m valve for bib tap or stop cocks	Each	10.10
309		b)	- do - labour charges only	Each	2.80
310		a)	Supplying & fixing 19.05 m valve for bib tap or stop cocks	Each	16.50
311		b)	- do - labour charges only	Each	3.30
312			Removing 12.7 mm GI pipe and refixing the same	Rm	28.60
313			Removing 19.05 mm GI pipe and refixing the same	Rm	33.00
314			Removing 25.4 mm GI pipe and refixing the same	Rm	48.40
315			Removing 38.1 mm GI pipe and refixing the same	Rm	60.50
316			Removing 50.8 mm GI pipe and refixing the same	Rm	71.50
317			Cleaning the W.C with acid and Vim powder	Each	16.50
318			Cleaning the Urinal with acid and Vim power	Each	16.50
319			Cleaning the wash basin with acid and Vim power	Each	16.50
320			Cleaning the E.W.C with acid and Vim power	Each	16.50

Sl. No.	S.S. No.	Item Description	Unit (per)	S S RATE FOR 2005-06
	321	a) Supplying & fixing 914.4 x 457.2 mm CI man hole frame and cover (light weight)	Each	462.00
	322	b) - do - labour charges only	Each	44.00
	323	a) Supplying & fixing CI steps for septic tank.	Each	27.50
	324	b) - do - labour charges only	Each	5.50
	325	a) Supplying & fixing 50.8 cm dia man hole frame & cover for 914.4 mm dia chambr (Light weight)	Each	357.50
	326	b) - do - labour charges only	Each	33.00
	327	a) Supplying & fixing 50.8 cm dia man hole frame & cover for 914.4 mm dia chambr (Medium weight)	Each	660.00
	328	b) - do - labour charges only	Each	71.50
	329	a) Supplying & fixing 101.6 x 101.6 mm SWG Tee	Each	49.50
	330	b) - do - labour charges only	Each	12.10
	331	a) S & F SWG pipe 101.6 mm of 1st Class with cement joints	1 RM	50.60
	332	b) - do - labour charges only	1 RM	5.50
	333	a) Supplying & Fixing SWG pipe 152.4 mm of 1st Class with cement joints	1 RM	66.00
	334	b) - do - labour charges only	1 RM	11.00
	335	Constg. 50.8 mm thick RCM baffle wall with 2.267 Kg steel & rabbit wire mesh in CM 1:3 with fine rendering in neat cement	1 Sqm	115.50
	336	a) Constg. 50.8 mm RCC partition wall	1 Sqm	132.00
	337	b) - do - labour charges only	1 Sqm	22.00
	338	a) S & F double layer of bamboo matting tarred on both sides.	10 Sqm	330.00
	339	b) - do - labour charges only	10 Sqm	55.00
	340	Removing of 101.6 mm or 76.2 mm CI pipe	1 RM	16.50
	341	a) Supplying & fixing 76.2 mm W.I clamps	Each	8.80
	342	b) - do - labour charges only	Each	3.30
	343	Extra depth of inspection chamber of 914.4 mm diameter excluding rock cutting.	1 Rm	660.00
	344	Extra depth of inspection chamber of 914.4 x 457.2mm diameter excluding rock cutting.	1 Rm	660.00
	345	a) Supplying & fixing NP coat hook	Each	22.00
	346	b) - do - labour charges only	Each	5.50
	347	Supplying & fixing small precast RCC water tanks including cover over the roof of building	1 Lit	3.30
	348	Labour charges for laying glazed tiles	1 Sqm	55.00
	349	a) Providing & Placing on Terrace (at all floor levels) polyethylene water storage tank with Double layer approved brand & manufacture with cover and suitable locking arrangement & making necessary holes for inlet & outlets and over flow pipes but without fittings & base support for tanks	1 Lit	4.50
	350	b) - do - labour charges only	1 Lit	0.30
	351	Supply of Plastic storage tank lid with hinges	Each	49.50
	352	Supply & Fixing 76.2 mm dia PVC elbow 1st quality	Each	28.60
	353	Supply & fixing 31.75 mm dia PVC flexible waste pipe of 914.4 mm length of 1st quality	Each	16.50
	354	Supply & Fixing 38.1 mm dia PVC solid waste pipe outlet	Each	55.00
	355	Supply & fixing Fancy PVC shelf including all fittings	Each	132.00
	356	a) Supplying and fixing TV shape mirror with plastic frame size 609.6 mm x 457.2 mm	Each	276.10
	357	b) - do - labour charges only	Each	57.00
	358	a) Supplying & fixing GI pipe plug of size 12.7 mm dia	Each	2.80
	359	b) - do - labour charges only	Each	0.60
	360	a) Supplying & fixing 19.06 mm dia GI plug	Each	3.30
	361	b) - do - labour charges only	Each	0.60
	362	a) Supplying and fixing 38.1 mm dia of GI plug	Each	12.10
	363	b) - do - labour charges only	Each	3.30
	364	a) Supplying & fixing 50.8 mm dia of GI PLUG	Each	27.50

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
		365	b) - do - labour charges only	Each	5.50
		366	a) Supplying & fixing 76.2 mm dia of GI PLUG	Each	38.50
		367	b) - do - labour charges only	Each	8.80
		368	a) Supplying & fixing 19.05 mm non return valve	Each	187.00
		369	b) - do - labour charges only	Each	27.50
		370	a) Supplying & fixing 25.4 mm dia non return valve	Each	249.70
		371	b) - do - labour charges only	Each	33.00
		372	a) Supplying & fixing 38.1 mm dia non return valve	Each	445.50
		373	b) - do - labour charges only	Each	55.00
		374	a) Supplying & fixing 50.8 mm dia non return valve	Each	638.00
		375	b) - do - labour charges only	Each	55.00
		376	a) Supplying & fixing C.P flange.	Each	8.80
		377	b) - do - labour charges only	Each	3.30
		378	a) Supplying & fixing stainless steel sink size 36" x 18" (914.4x457.2mm) 1 mm thick with accessories	Each	3520.00
		379	b) - do - labour charges only	Each	165.00
		380	a) Supplying & fixing stainless steel sink size 24" x 18" x 8" (609.6x457.2x203.2mm) 1 mm thick with accessories	Each	2915.00
		381	b) - do - labour charges only	Each	165.00
		382	a) Supplying & fixing stainless steel sink size 20" x 18" x 8" (508x457.2x203.2mm) 1 mm thick with accessories	Each	2640.00
		383	b) - do - labour charges only	Each	165.00
		384	Supplying & fixing 4" x 24" (101.6x609.6mm) white glazed porcelain channel fixed in brick masonry white cement pointing.	Each	250.80
		385	Supply & Fixing of steel surgical long elbow action handle 12.7 mm dia bib cock indian make heavy type including all materials	Each	506.00
		386	Supply & fixing 2 1/2" (63.5mm) dia Sluice valve ISI mark with 2 Nos. flanges, 8 nos, 3/4" dia nuts & bolts and all necessary washers and packing materials etc. complete	Each	2989.80
		387	Supply & fixing porcelain P' trap	Each	132.00
		388	Supplying & fixing oval shape basin white (520x410mm) parry or equivalent	Each	1298.00
		389	Supply & fixing RCC cover 22" dia with nominal reinforcement 3" thick and hooks for lifting	Each	440.00
		390	Supply & fixing cp spl. Grating with frame and cover of 1st quality	Each	31.40
		391	Supply & fixing towel rod (CP) of 24" long and 3/4" dia	Each	204.60
		392	Supply & fixing of LLC handle set 1st quality	Each	44.00
			<b>Supply &amp; fixing 4" dia CP thimble pipe</b>		
		393	a) 150 mm long	Each	220.00
		394	b) 220 mm long	Each	330.00
		395	c) 300 mm long	Each	440.00
		396	Supply & fixing CP long bend	Each	178.80
		397	Supply & fixing CP short bend	Each	89.10
			<b>Supply &amp; fixing of PVC low level system parryware, slimline with internal components &amp; short bend.</b>		
		398	a) 10 Ltrs capacity white	Each	605.00
		399	b) 10 ltrs capacity colour	Each	671.00
		400	c) 8 lts capacity tuffmate white & colour	Each	407.00
		401	Supplying & fixing bib cock with flange C.P Jaquar make queen series.	Each	752.00
			<b>Supply &amp; fixing bib cock cum health faucet with 1 m long flexible tube and wall hook of Jaquar make queen series</b>		
		402	a) Chrome plated	Each	2139.80
		403	b) Ivory gold	Each	3684.50
			<b>Supply &amp; fixing pillar cock Jaquar make Queen series</b>		
		404	a) Chrome plated	Each	783.20
		405	b) Ivory gold	Each	1371.70
			<b>Supply &amp; fixing Angular stop cock with wall flange Jaquar make Queen series</b>		

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
	406	a )	Chrome plated	Each	723.30
	407	b)	Ivory gold	Each	1338.70
			<b>Supply &amp; fixing Waste coupling jaquar make</b>		
	408	a )	Chrome plated	Each	134.60
	409	b)	Ivory gold	Each	147.60
			<b>Supply &amp; fixng of Bottle trap jaquar make</b>		
	410	a )	Chrome plated	Each	504.90
	411	b)	Ivory gold	Each	1027.40
			<b>Supply &amp; Fixing copper pipe 450 mm long with nuts &amp; washers Jaquar make</b>		
	412	a )	Chrome plated	Each	153.20
	413	b)	Ivory gold	Each	271.70
			<b>Supply and fixing wall mirror with provision for ove head shower and 115 mm long bend pipe with wall flange jaquar make queen series</b>		
	414	a )	Chrome plated	Each	2476.10
	415	b)	Ivory gold	Each	4596.40
			<b>Supply &amp; fixing overhead shower rose with revolving joint and 150 mm long swivel shower arm Jaquar make qureen sseries.</b>		
	416	a)	Chrome plated	Each	969.10
	417	b)	Ivory Gold	Each	1712.60
	418		Supply and Fixing Wall Mixer with Telephonic shower arrangement with crutch and flexible pipe Jaquar series Ivory gold colour for bath tub.	Each	4522.30
	419		Suply & fixing Bath tub overflow set complete with over flow cap, 450 mm Ball chain with rubber plug & union bend with brass nut jaquar make, Ivory gold colour.	Each	775.00
	420		Supply & fixing sink cock with regular swinging spout with wall flange chromeplated Jaquar make Queen series	Each	1084.50
			<b>Supply &amp; fixing soap dish jaquar make queen series:</b>		
	421	a)	Chrome plated	Each	624.50
	422	b)	Ivory Gold	Each	996.30
			<b>Supply &amp; fixng of toilet paper holder Jaquar make Queen series.</b>		
	423	a)	Chrome plated	Each	507.40
	424	b)	Ivory Gold	Each	803.40
			<b>Supply &amp; Fixing of Towel ring Jaquar make Queen series</b>		
	425	a)	Chrome plated	Each	523.20
	426	b)	Ivory Gold	Each	803.40
			<b>Supply &amp; Fixing of towel coat hok Jaquar make Queen series</b>		
	427	a)	Chrome plated	Each	355.60
	428	b)	Ivory Gold	Each	563.80
	429		Supply & Fixing of Towel rod 24 " Jaquar make Queen series Ivory gold colour	Each	2740.10
	430		Supply & Fixing of Tumbler holder Jaquar make Queen series, Ivory gtold colour	Each	877.50
	431		Supply & fixing of Glass shelf 22" Jaquar make Queen series, Ivory gold colour	Each	1680.90
			<b>"CZAR" OR EQUIVALENT BATH ROOM FITTINGS ACCESSORIES PRICES INCLUSION OF ALL THE TAXES</b>		
	432		Polo 3 flow hand shower-ts1000	Each	950.00
	433		Polo 3 flow overhead shower - ts 1001	Each	779.00
	434		Polo 4 flow hand shower - ts 1002	Each	1425.00
	435		Rain head shower 6"-ts 1003	Each	665.00
	436		Rain head shower 9"- ts 1004	Each	1425.00
	437		Rio hand 4 flow shower -ts 1005	Each	903.00
	438		Rio 4 flow overhead shower -ts 1006	Each	713.00
	439		Viva 4 flow hand shower -ts 1007	Each	1378.00
	440		Viva 4 flow overhead shower –ts1008	Each	1045.00



Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
		441	Sliding tel shower rail -ts 1009	Each	665.00
		442	Flexi shower rail -ts 1010	Each	950.00
		443	Tel shower jet/w/1.5 mtr pipe & wall hook -s 2302 -cp	Each	570.00
		444	Tel shower jet/w/1.5 mtr pipe & wall hook -s 2302 -col/cp	Each	760.00
		445	Tel shower jet/w/1.5 mtr pipe & wall hook -s 2302 -col/gold	Each	894.00
		446	Tel shower jet/w/1.5 mtr pipe & wall hook -s 2302 -spl/gold	Each	994.00
		447	Tel shower jet/w/1.5 mtr pipe & wall hook -s 2302 -gold	Each	1169.00
		448	Health faucet -s 2307 -cp	Each	676.00
		449	Health faucet -s 2307 -col/cp	Each	901.00
		450	Health faucet -s 2307 -col/gold	Each	1061.00
		451	Health faucet -s 2307 -spl/gold	Each	1179.00
		452	Health faucet -s 2307 -gold	Each	1387.00
		453	Bottle trap h/ casted 40/32mm -s 2061-cp	Each	575.00
		454	Bottle trap h/ casted 40/32mm -s 2061-col/cp	Each	765.00
		455	Bottle trap h/ casted 40/32mm -s 2061-col/gold	Each	902.00
		456	Bottle trap h/ casted 40/32mm -s 2061-spl/gold	Each	1001.00
		457	Bottle trap h/ casted 40/32mm -s 2061-gold	Each	1179.00
		458	Bottle trap exclu 40/32mm -s 2602 cp	Each	405.00
		459	Waste coupling heavy - s2603 cp 32mm	Each	138.00
		460	Waste coupling heavy - s2604cp 40mm	Each	157.00
		461	Waste coupling heavy - s2603 col/cp 32mm	Each	183.00
		462	Waste coupling heavy - s2604 col/cp 40mm	Each	209.00
		463	Waste coupling heavy - s2603 spl/gold 32mm	Each	240.00
		464	Waste coupling heavy - s2604 spl/gold 40mm	Each	274.00
		465	Waste coupling heavy - s2603 gold 32mm	Each	282.00
		466	Waste coupling heavy - s2604 gold 40mm	Each	321.00
		467	Waste coupling 150 mm long - s2605 cp 40mm	Each	217.00
		468	Waste coupling 150 mm long - s2605 col/cp 40mm	Each	289.00
		469	Waste coupling 150 mm long - s2605 spl/gold 40mm	Each	377.00
		470	Waste coupling 150 mm long - s2605 gold 40mm	Each	445.00
		471	Bath tub over flow set-s2606 -cp	Each	426.00
		472	Bath tub over flow set-s2606 -col/cp	Each	567.00
		473	Bath tub over flow set-s2606 -col/gold	Each	668.00
		474	Bath tub over flow set-s2606 -spl/gold	Each	742.00
		475	Bath tub over flow set-s2606 -gold	Each	873.00
		476	Concealed flush valve 32mm -sy 163 cp	Each	1615.00
		477	Concealed flush valve 32mm -sy 163 col/cp	Each	2154.00
		478	Concealed flush valve 32mm -sy 163 col/gold	Each	2534.00
		479	Concealed flush valve 32mm -sy 163 spl/gold	Each	2815.00
		480	Concealed flush valve 32mm -sy 163 gold	Each	3312.00
		481	Urinal flush valve 15mm -sy 2404 cp	Each	1055.00
		482	Urinal flush valve 15mm -sy 2404 col/cp	Each	1406.00
		483	Urinal flush valve 15mm -sy 2404 col/gold	Each	1654.00
		484	Urinal flush valve 15mm -sy 2404 spl/gold	Each	1837.00
		485	Urinal flush valve 15mm -sy 2404 gold	Each	2162.00
		486	Single line flush valve 32 mm w/elbow bend & flange - sy 2405 cp	Each	1587.00
		487	Single line flush valve 32 mm w/elbow bend & flange - sy 2405 col/cp	Each	2116.00
		488	Single line flush valve 32 mm w/elbow bend & flange - sy 2405 col/gold	Each	2489.00
		489	Single line flush valve 32 mm w/elbow bend & flange - sy 2405 spl/gold	Each	2765.00
		490	Single line flush valve 32 mm w/elbow bend & flange - sy 2405 gold	Each	3253.00
		491	Single line flush valve 32 mm w/o elbow bend - sy 2406 cp	Each	1397.00
		492	Single line flush valve 32 mm w/elbow bend & flange - sy 2406 col/cp	Each	1862.00
		493	Single line flush valve 32 mm w/elbow bend & flange - sy 2406 col/gold	Each	2191.00

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
		494	Single line flush valve 32 mm w/elbow bend & flange - sy 2406 spl/gold	Each	2434.00
		495	Single line flush valve 32 mm w/elbow bend & flange - sy 2406 gold	Each	2863.00
		496	Flush cock half turn -25mm -s2407 cp	Each	713.00
		497	Flush cock half turn -25mm -s2407 col/cp	Each	950.00
		498	Flush cock half turn -25mm -s2407 col/gold	Each	1117.00
		499	Flush cock half turn -25mm -s2407 spl/gold	Each	1242.00
		500	Flush cock half turn -25mm -s2407 gold	Each	1461.00
		501	Flush cock lever type -25mm -s2408 cp	Each	806.00
		502	Flush cock lever type -25mm -s2408 col/cp	Each	1076.00
		503	Flush cock lever type -25mm -s2408 col/gold	Each	1266.00
		504	Flush cock lever type -25mm -s2408 spl/gold	Each	1407.00
		505	Flush cock lever type -25mm -s2408 gold	Each	1656.00
		506	Push cock 25mm -s2409 cp	Each	722.00
		507	Push cock 25mm -s2409 col/cp	Each	962.00
		508	Push cock 25mm -s2409 col/gold	Each	1132.00
		509	Push cock 25mm -s2409 spl/gold	Each	1258.00
		510	Push cock 25mm -s2409 gold	Each	1480.00
		511	Urinal push cook 15 mm - s 2410 cp	Each	229.00
		512	Urinal push cook 15 mm - s 2410 col/cp	Each	305.00
		513	Urinal push cook 15 mm - s 2410 col/gold	Each	359.00
		514	Urinal push cook 15 mm - s 2410 spl/goldcp	Each	399.00
		515	Urinal push cook 15 mm - s 2410 gold	Each	469.00
		516	Pillar cock deluxe s 2000 15mm	Each	309.00
		517	Pillar cock regular s 2001 15mm	Each	371.00
		518	Bib cock with flange s 2002 15mm	Each	301.00
		519	Bib cock long nose with flange s 2003 15mm	Each	407.00
		520	Bib cock long body straight with flange s 2004 15mm	Each	356.00
		521	Concealed stop cock sheet flange s 2007 15mm	Each	372.00
		522	Concealed sheet sliding s 2010 15mm	Each	405.00
		523	Concealed sheet sliding s 2006 20mm	Each	466.00
		524	Concealed casted sliding wall flange s 2009 15mm	Each	483.00
		525	Concealed casted sliding wall flange s 2013 20mm	Each	676.00
		526	Concealed casted s 2008 15mm	Each	475.00
		527	Concealed casted s 2012 20mm	Each	638.00
		528	Angle cock with wall flange s 2014 15mm	Each	290.00
		529	Angle cock with long thread with flange s 2015 15mm	Each	314.00
		530	Angle cock with 18" connection with flange s 2016 15mm	Each	368.00
		531	Swan neck (left/right) s 2018 15mm	Each	608.00
		532	Sink cock with casted swivel spout with flange s 2019 15mm	Each	590.00
		533	Bath cock with wall flange s 2020 15mm	Each	618.00
		534	Two way bib cock with flange s 2021 15mm	Each	475.00
		535	Two way angle cock with flange s 2022 15mm	Each	475.00
		536	Sink cock table mounted with casted swivel spout s 2023 15mm	Each	594.00
		537	Sink cock pipe spout "goose" s 2024 15mm	Each	594.00
		538	Central hole basin mixer s 2101 15mm	Each	1235.00
		539	Close hole basin mixer s 2102 15mm	Each	1235.00
		540	Three hole basin mixer without pop up waste system s 2103 15mm	Each	1435.00
		541	Three hole basin with pop up waste system s 8-2103 a 15mm	Each	1710.00
		542	Wall mixer with arrangement for telephonic shower s 2105 a 15mm	Each	1406.00
		543	Wall mixer non telephonic shower arrangement s 2106 15mm	Each	1159.00
		544	Wall mixer with bend for over head shower s 2105 15mm	Each	1454.00
		545	Wall mixer with tip ton for telephonic shower arrangement s 2104 15mm	Each	1425.00
		546	Wall mixer 3 in 1 for both telephonic shower & overlead shower s 2107 15mm	Each	1710.00

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
		547	Sink mixer with casted swivel spout s 2109 15mm	Each	1088.00
		548	Sink mixer table mounted with casted swivel spout s 2111 15mm	Each	1197.00
		549	Sink mixer pipe spout "goose" s 2112 15mm	Each	1259.00
		550	Four hole bidet mixer with pop up waste system (bottom spray) s 2110 15 mm	Each	1910.00
		551	One hole bidet mixer with pop up waste system s 2108 15 mm	Each	1663.00
		552	Spout plain with flange s 2201 15mm	Each	485.00
		553	Spout plain with flange s 2202 20mm	Each	525.00
		554	Spout with flange 9" long s 2203 15mm	Each	609.00
		555	Tip ton spout with flange s 2205 15mm	Each	796.00
		556	Shower arm with wall range s 2306 15mm	Each	243.00
		557	Sona shower s 2305 15mm	Each	335.00
		558	Tushar shower s 2304 15mm	Each	330.00
		559	Flush valve without elbow bend s 2401 32mm	Each	1563.00
		560	Flush valve with elbow blend & wall falnge s 2402 32 mm	Each	1781.00
		561	Two way bvertor with flange s 2501 15 mm	Each	875.00
		562	Four way owertor with nrv s 2503 15mm	Each	1363.00
		563	Four way fflvertor with nrv extended for duct provision s 2504 15mm	Each	1811.00
		564	Concealed casted sliding extended for duct s 2505 15mm	Each	829.00
		565	Piller cock sy 101 cp	Each	380.00
		566	Piller cock sy 101 col/cp	Each	506.00
		567	Piller cock sy 101 col/gold	Each	596.00
		568	Piller cock sy 101 spl/gold	Each	662.00
		569	Piller cock sy 101 gold	Each	779.00
		570	Bib cock with flange sy 102 cp	Each	366.00
		571	Bib cock with flange sy 102 col/cp	Each	501.00
		572	Bib cock with flange sy 102 col/gold	Each	589.00
		573	Bib cock with flange sy 102 spl/gold	Each	654.00
		574	Bib cock with flange sy 102 gold	Each	770.00
		575	Bib cock long nose with flange sy 103 cp	Each	475.00
		576	Bib cock long nose with flange sy 103 col/cp	Each	634.00
		577	Bib cock long nose with flange sy 103 col/gold	Each	745.00
		578	Bib cock long nose with flange sy 103 spl/gold	Each	827.00
		579	Bib cock long nose with flange sy 103 gold	Each	974.00
		580	Stop cock male/female sy 105 cp	Each	342.00
		581	Stop cock male/female sy 105 col/cp	Each	456.00
		582	Stop cock male/female sy 105 col/gold	Each	537.00
		583	Stop cock male/female sy 105 spl/gold	Each	596.00
		584	Stop cock male/female sy 105 gold	Each	701.00
		585	Concealed casted 15 mm with adjustable w/f sy 106 cp	Each	534.00
		586	Concealed casted 15 mm with adjustable w/f sy 106 col/cp	Each	712.00
		587	Concealed casted 15 mm with adjustable w/f sy 106 col/gold	Each	837.00
		588	Concealed casted 15 mm with adjustable w/f sy 106 spl/gold	Each	930.00
		589	Concealed casted 15 mm with adjustable w/f sy 106 gold	Each	1094.00
		590	Concealed casted 20mm with adjustable w/f sy 107 cp	Each	724.00
		591	Concealed casted 20mm with adjustable w/f sy 107 col/cp	Each	965.00
		592	Concealed casted 20mm with adjustable w/f sy 107 col/gold	Each	1135.00
		593	Concealed casted 20mm with adjustable w/f sy 107 spl/gold	Each	1262.00
		594	Concealed casted 20mm with adjustable w/f sy 107 gold	Each	1484.00
		595	Concealed casted heavy 20mm with adjustable w/f sy 107a cp	Each	770.00
		596	Concealed casted heavy 20mm with adjustable w/f sy 107a col/cp	Each	1027.00
		597	Concealed casted heavy 20mm with adjustable w/f sy 107a col/gold	Each	1208.00
		598	Concealed casted heavy 20mm with adjustable w/f sy 107a spl/gold	Each	1342.00
		599	Concealed casted heavy 20mm with adjustable w/f sy 107a gold	Each	1580.00
		600	Angle cock with wall flange sy 100 cp	Each	342.00

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
		601	Angle cock with wall flange sy 100 col/cp	Each	456.00
		602	Angle cock with wall flange sy 100 col/gold	Each	537.00
		603	Angle cock with wall flange sy 100 spl/gold	Each	596.00
		604	Angle cock with wall flange sy 100 gold	Each	701.00
		605	Angle cock with 18" connection & flange sy 100a cp	Each	491.00
		606	Angle cock with 18" connection & flange sy 100a col/cp	Each	656.00
		607	Angle cock with 18" connection & flange sy 100a col/gold	Each	771.00
		608	Angle cock with 18" connection & flange sy 100a spl/gold	Each	857.00
		609	Angle cock with 18" connection & flange sy 100a gold	Each	1008.00
		610	Two way angle cock with flange sy 100b cp	Each	665.00
		611	Two way angle cock with flange sy 100b col/cp	Each	886.00
		612	Two way angle cock with flange sy 100b col/gold	Each	1043.00
		613	Two way angle cock with flange sy 100b spl/gold	Each	1159.00
		614	Two way angle cock with flange sy 100b gold	Each	1363.00
			Swan neck (left/right) sy 111 cp	Each	694.00
		615	Swan neck (left/right) sy 111 col/cp	Each	924.00
		616	Swan neck (left/right) sy 111 col/gold	Each	1088.00
		617	Swan neck (left/right) sy 111 spl/gold	Each	1208.00
		618	Swan neck (left/right) sy 111 gold	Each	1422.00
		619	Sink cock with casted swivel spout sy 112 cp	Each	656.00
		620	Sink cock with casted swivel spout sy 112 col/cp	Each	874.00
		621	Sink cock with casted swivel spout sy 112 col/gold	Each	1028.00
		622	Sink cock with casted swivel spout sy 112 spl/gold	Each	1142.00
		623	Sink cock with casted swivel spout sy 112 gold	Each	1344.00
		624	Bib cock surgical with flange sy 114 cp	Each	702.00
		625	Bib cock surgical with flange sy 114 col/cp	Each	936.00
		626	Bib cock surgical with flange sy 114 col/gold	Each	1101.00
		627	Bib cock surgical with flange sy 114 spl/gold	Each	1224.00
		628	Bib cock surgical with flange sy 114 gold	Each	1440.00
		629	Pillar cock surgical sy 115 cp	Each	653.00
		630	Pillar cock surgical sy 115 col/cp	Each	870.00
		631	Pillar cock surgical sy 115 col/gold	Each	1024.00
		632	Pillar cock surgical sy 115 spl/gold	Each	1137.00
		633	Pillar cock surgical sy 115 gold	Each	1339.00
		634	Two way bib cock with flange sy 116 cp	Each	665.00
		635	Two way bib cock with flange sy 116 col/cp	Each	886.00
		636	Two way bib cock with flange sy 116 col/gold	Each	1043.00
		637	Two way bib cock with flange sy 116 spl/gold	Each	1159.00
		638	Two way bib cock with flange sy 116 gold	Each	1363.00
		639	Bib cock tip ton with wall flange sy 116a cp	Each	665.00
		640	Bib cock tip ton with wall flange sy 116a col/cp	Each	886.00
		641	Bib cock tip ton with wall flange sy 116a spl/gold	Each	1043.00
		642	Bib cock tip ton with wall flange sy 116a spl/gold	Each	1159.00
		643	Bib cock tip ton with wall flange sy 116a gold	Each	1363.00
		644	Swan neck with casted swivel spout sy 118 cp	Each	732.00
		645	Swan neck with casted swivel spout sy 118 col/cp	Each	976.00
		646	Swan neck with casted swivel spout sy 118 col/gold	Each	1148.00
		647	Swan neck with casted swivel spout sy 118 spl/gold	Each	1275.00
		648	Swan neck with casted swivel spout sy 118 gold	Each	1500.00
		649	Sink cock table top with casted swivel spout sy 119 cp	Each	689.00
		650	Sink cock table top with casted swivel spout sy 119 col/cp	Each	919.00
		651	Sink cock table top with casted swivel spout sy 119 col/gold	Each	1080.00
		652	Sink cock table top with casted swivel spout sy 119 spl/gold	Each	1200.00
		653	Sink cock table top with casted swivel spout sy 119 gold	Each	1413.00
		654	Cental hole basin mixer sy 121 cp	Each	1335.00
		655	Cental hole basin mixer sy 121 col/cp	Each	1779.00

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
		656	Cental hole basin mixer sy 121 col/gold	Each	2094.00
		657	Cental hole basin mixer sy 121 spl/gold	Each	2327.00
		658	Cental hole basin mixer sy 121 gold	Each	2737.00
		659	3 tap hole basin mixer w/o pop up waste system sy 122 cp	Each	1525.00
		660	3 tap hole basin mixer w/o pop up waste system sy 122 col/cp	Each	2033.00
		661	3 tap hole basin mixer w/o pop up waste system sy 122 col/gold	Each	2392.00
		662	3 tap hole basin mixer w/o pop up waste system sy 122 spl/gold	Each	2657.00
		663	3 tap hole basin mixer w/o pop up waste system sy 122 gold	Each	3126.00
		664	3 top hole with pop up waste system sy 134 cp	Each	1899.00
		665	3 top hole with pop up waste system sy 134 col/cp	Each	2518.00
		666	3 top hole with pop up waste system sy 134 col/gold	Each	2962.00
		667	3 top hole with pop up waste system sy 134 spl/gold	Each	3292.00
		668	3 top hole with pop up waste system sy 134 gold	Each	3872.00
		669	Wall mixer with bend for over head shower sy 123 cp	Each	1699.00
		670	Wall mixer with bend for over head shower sy 123 col/cp	Each	2265.00
		671	Wall mixer with bend for over head shower sy 123 col/gold	Each	2665.00
		672	Wall mixer with bend for over head shower sy 123 spl/gold	Each	2960.00
		673	Wall mixer with bend for over head shower sy 123 gold	Each	3483.00
		674	Wall mixer with arrangement for telephonic shower sy 124 cp	Each	1618.00
		675	Wall mixer with arrangement for telephonic shower sy 124 col/cp	Each	2157.00
		676	Wall mixer with arrangement for telephonic shower sy 124 col/gold	Each	2537.00
		677	Wall mixer with arrangement for telephonic shower sy 124 spl/gold	Each	2820.00
		678	Wall mixer with arrangement for telephonic shower sy 124 gold	Each	3317.00
		679	Wall mixer tip ton for telephonic shower arrangement sy 125 cp	Each	1618.00
		680	Wall mixer tip ton for telephonic shower arrangement sy 125 col/cp	Each	2157.00
		681	Wall mixer tip ton for telephonic shower arrangement sy 125 col/gold	Each	2537.00
		682	Wall mixer tip ton for telephonic shower arrangement sy 125 spl/gold	Each	2820.00
		683	Wall mixer tip ton for telephonic shower arrangement sy 125 gold	Each	3317.00
		684	Wall mixer non telephonic shower system sy 126 cp	Each	1224.00
		685	Wall mixer non telephonic shower system sy 126 col/cp	Each	1631.00
		686	Wall mixer non telephonic shower system sy 126 col/gold	Each	1919.00
		687	Wall mixer non telephonic shower system sy 126 spl/gold	Each	2133.00
		688	Wall mixer non telephonic shower system sy 126 gold	Each	2509.00
		689	Wall mixer 2 in i for both telephonic shower & o/s sy 127 cp	Each	2110.00
		690	Wall mixer 2 in i for both telephonic shower & o/s sy 127 col/cp	Each	2813.00
		691	Wall mixer 2 in i for both telephonic shower & o/s sy 127 col/gold	Each	3310.00
		692	Wall mixer 2 in i for both telephonic shower & o/s sy 127 spl/gold	Each	3677.00
		693	Wall mixer 2 in i for both telephonic shower & o/s sy 127 gold	Each	4326.00
		694	Sink mixer with casted swivel spout sy 126 cp	Each	1224.00
		695	Sink mixer with casted swivel spout sy 126 col/cp	Each	1631.00
		696	Sink mixer with casted swivel spout sy 126 col/gold	Each	1919.00
		697	Sink mixer with casted swivel spout sy 126 spl/gold	Each	2133.00
		698	Sink mixer with casted swivel spout sy 126 gold	Each	2509.00
		699	Four hole bidet mixer with pop up waste system (bottom spray) sy 130 cp	Each	2119.00
		700	Four hole bidet mixer with pop up waste system (bottom spray) sy 130 col/cp	Each	2826.00
		701	Four hole bidet mixer with pop up waste system (bottom spray) sy 130 col/gold	Each	3325.00
		702	Four hole bidet mixer with pop up waste system (bottom spray) sy 130 spl/gold	Each	3694.00
		703	Four hole bidet mixer with pop up waste system (bottom spray) sy 130 gold	Each	4346.00
		704	One hole bidet mixer with pop up waste system sy131 cp	Each	1816.00
		705	One hole bidet mixer with pop up waste system sy131 col/cp	Each	2422.00
		706	One hole bidet mixer with pop up waste system sy131 col/gold	Each	2849.00

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
		707	One hole bidet mixer with pop up waste system sy131 spl/gold	Each	3165.00
		708	One hole bidet mixer with pop up waste system sy131 gold	Each	3725.00
		709	Single hole sink mixer table top with waste system sy 132 cp	Each	1321.00
		710	Single hole sink mixer table top with waste system sy 132 col/cp	Each	1760.00
		711	Single hole sink mixer table top with waste system sy 132 col/gold	Each	2071.00
		712	Single hole sink mixer table top with waste system sy 132 spl/gold	Each	2301.00
		713	Single hole sink mixer table top with waste system sy 132 gold	Each	2708.00
		714	Bath tub mixer table mounted with telephone shower arrangement (exposed adjustable legs) sy 133 cp	Each	1777.00
		715	Bath tub mixer table mounted with telephone shower arrangement (exposed adjustable legs) sy 133 col/cp	Each	2370.00
		716	Bath tub mixer table mounted with telephone shower arrangement (exposed adjustable legs) sy 133 col/gold	Each	2788.00
		717	Bath tub mixer table mounted with telephone shower arrangement (exposed adjustable legs) sy 133 spl/gold	Each	3098.00
		718	Bath tub mixer table mounted with telephone shower arrangement (exposed adjustable legs) sy 133 gold	Each	3645.00
		719	Spout up ton with flange sy 141 cp	Each	948.00
		720	Spout up ton with flange sy 141 col/cp	Each	1264.00
		721	Spout up ton with flange sy 141 col/gold	Each	1487.00
		722	Spout up ton with flange sy 141 spl/gold	Each	1652.00
		723	Spout up ton with flange sy 141 gold	Each	1944.00
		724	Spout plain with flange sy 142 cp	Each	632.00
		725	Spout plain with flange sy 142 col/cp	Each	843.00
		726	Spout plain with flange sy 142 col/gold	Each	991.00
		727	Spout plain with flange sy 142 spl/gold	Each	1101.00
		728	Spout plain with flange sy 142 gold	Each	1296.00
		729	Telephonic shower fitted with 1.5 metre pvc tube & swivel hook sy 152 cp	Each	673.00
		730	Telephonic shower fitted with 1.5 metre pvc tube & swivel hook sy 152 col/cp	Each	896.00
		731	Telephonic shower fitted with 1.5 metre pvc tube & swivel hook sy 152 col/gold	Each	1055.00
		732	Telephonic shower fitted with 1.5 metre pvc tube & swivel hook sy 152 spl/gold	Each	1171.00
		733	Telephonic shower fitted with 1.5 metre pvc tube & swivel hook sy 152 gold	Each	1378.00
		734	Bell shower sy 155 cp	Each	352.00
		735	Bell shower sy 155 col/cp	Each	469.00
		736	Bell shower sy 155 col/gold	Each	552.00
		737	Bell shower sy 155 spl/gold	Each	614.00
		738	Bell shower sy 155 gold	Each	722.00
		739	Shower arm with flange cp	Each	287.00
		740	Shower arm with flange col/cp	Each	383.00
		741	Shower arm with flange col/gold	Each	450.00
		742	Shower arm with flange spl/gold	Each	501.00
		743	Shower arm with flange gold	Each	589.00
		744	Flush valve with elbow bend 32mm & wall range sy 161 cp	Each	1933.00
		745	Flush valve with elbow bend 32mm & wall range sy 161 col/cp	Each	2577.00
		746	Flush valve with elbow bend 32mm & wall range sy 161 col/gold	Each	3032.00
		747	Flush valve with elbow bend 32mm & wall range sy 161 spl/gold	Each	3369.00
		748	Flush valve with elbow bend 32mm & wall range sy 161 gold	Each	3963.00
		749	Flush valve with out elbow bend 32mm sy 162 cp	Each	1673.00
		750	Flush valve with out elbow bend 32mm sy 162 col/cp	Each	2231.00
		751	Flush valve with out elbow bend 32mm sy 162 col/gold	Each	2624.00
		752	Flush valve with out elbow bend 32mm sy 162 spl/gold	Each	2916.00
		753	Flush valve with out elbow bend 32mm sy 162 gold	Each	3430.00
		754	Flush cock half turn 25mm cp	Each	950.00

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
		755	Flush cock half turn 25mm col/cp	Each	1266.00
		756	Flush cock half turn 25mm col/gold	Each	1491.00
		757	Flush cock half turn 25mm spl/gold	Each	1656.00
		758	Flush cock half turn 25mm gold	Each	1948.00
		759	Two way divertor with flange sy 172 cp	Each	888.00
		760	Two way divertor with flange sy 172 col/cp	Each	1184.00
		761	Two way divertor with flange sy 172 col/gold	Each	1393.00
		762	Two way divertor with flange sy 172 spl/gold	Each	1548.00
		763	Two way divertor with flange sy 172 gold	Each	1821.00
		764	Four way divertor with nrv sy 173 cp	Each	1440.00
		765	Four way divertor with nrv sy 173 col/cp	Each	1921.00
		766	Four way divertor with nrv sy 173 col/gold	Each	2259.00
		767	Four way divertor with nrv sy 173 spl/gold	Each	2510.00
		768	Four way divertor with nrv sy 173 gold	Each	2954.00
		769	Single lever basin mixer without pop up waste system with 455mm copper connections & nuts sy 181 cp	Each	2594.00
		770	Single lever basin mixer without pop up waste system with 455mm copper connections & nuts sy 181 col/cp	Each	3458.00
		771	Single lever basin mixer without pop up waste system with 455mm copper connections & nuts sy 181 col/gold	Each	4068.00
		772	Single lever basin mixer without pop up waste system with 455mm copper connections & nuts sy 181 spl/gold	Each	4520.00
		773	Single lever basin mixer without pop up waste system with 455mm copper connections & nuts sy 181 gold	Each	5318.00
		774	Single lever basin mixer with pop up waste system with 455mm copper connections & nuts sy 185 cp	Each	2898.00
		775	Single lever basin mixer with pop up waste system with 455mm copper connections & nuts sy 185 col/cp	Each	3864.00
		776	Single lever basin mixer with pop up waste system with 455mm copper connections & nuts sy 185 col/gold	Each	4545.00
		777	Single lever basin mixer with pop up waste system with 455mm copper connections & nuts sy 185 spl/gold	Each	5049.00
		778	Single lever basin mixer with pop up waste system with 455mm copper connections & nuts sy 185 gold	Each	5941.00
		779	Single lever concealed divertor for bath & over head shower system sy 182 cp	Each	2898.00
		780	Single lever concealed divertor for bath & over head shower system sy 182 col/cp	Each	3864.00
		781	Single lever concealed divertor for bath & over head shower system sy 182 col/gold	Each	4545.00
		782	Single lever concealed divertor for bath & over head shower system sy 182 spl/gold	Each	5049.00
		783	Single lever concealed divertor for bath & over head shower system sy 182 gold	Each	5941.00
		784	Single lever wall mixer with telephonic shower arrangement sy 183 cp	Each	3705.00
		785	Single lever wall mixer with telephonic shower arrangement sy 183 col/cp	Each	4940.00
		786	Single lever wall mixer with telephonic shower arrangement sy 183 col/gold	Each	5812.00
		787	Single lever wall mixer with telephonic shower arrangement sy 183 spl/gold	Each	6457.00
		788	Single lever wall mixer with telephonic shower arrangement sy 183 gold	Each	7597.00
		789	Single lever sink mixer with casted swivel spout sy 184 cp	Each	3409.00
		790	Single lever sink mixer with casted swivel spout sy 184 col/cp	Each	4545.00
		791	Single lever sink mixer with casted swivel spout sy 184 col/gold	Each	5347.00
		792	Single lever sink mixer with casted swivel spout sy 184 spl/gold	Each	5940.00
		793	Single lever sink mixer with casted swivel spout sy 184 gold	Each	6989.00
		794	Single lever bidet mixer with pop up waste system sy 186 cp	Each	3408.00

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
		795	Single lever bidet mixer with pop up waste system sy 186 col/cp	Each	4544.00
		796	Single lever bidet mixer with pop up waste system sy 186 col/gold	Each	5346.00
		797	Single lever bidet mixer with pop up waste system sy 186 spl/gold	Each	5938.00
		798	Single lever bidet mixer with pop up waste system sy 186 gold	Each	6987.00
		799	Single lever concealed divertor extended (quotable) sy 187 cp	Each	3548.00
		800	Single lever concealed divertor extended (quotable) sy 187 col/cp	Each	4731.00
		801	Single lever concealed divertor extended (quotable) sy 187 col/gold	Each	5566.00
		802	Single lever concealed divertor extended (quotable) sy 187 spl/gold	Each	6184.00
		803	Single lever concealed divertor extended (quotable) sy 187 gold	Each	7276.00
		804	Sur single lever basin mixer with 455 mm copper connection & nuts sy 188 cp	Each	3148.00
		805	Sur single lever basin mixer with 455 mm copper connection & nuts sy 188 col/cp	Each	4198.00
		806	Sur single lever basin mixer with 455 mm copper connection & nuts sy 188 col/gold	Each	4938.00
		807	Sur single lever basin mixer with 455 mm copper connection & nuts sy 188 spl/gold	Each	5486.00
		808	Sur single lever basin mixer with 455 mm copper connection & nuts sy 188 gold	Each	6455.00
		809	Towel rail sy 191 cp	Each	575.00
		810	Towel rail sy 191 col/cp	Each	766.00
		811	Towel rail sy 191 col/gold	Each	902.00
		812	Towel rail sy 191 spl/gold	Each	1001.00
		813	Towel rail sy 191 gold	Each	1178.00
		814	Towel ring sy 192 cp	Each	350.00
		815	Towel ring sy 192 col/cp	Each	466.00
		816	Towel ring sy 192 col/gold	Each	549.00
		817	Towel ring sy 192 spl/gold	Each	610.00
		818	Towel ring sy 192 gold	Each	717.00
		819	Soap dish sy 193 cp	Each	413.00
		820	Soap dish sy 193 col/cp	Each	551.00
		821	Soap dish sy 193 col/gold	Each	649.00
		822	Soap dish sy 193 spl/gold	Each	721.00
		823	Soap dish sy 193 gold	Each	848.00
		824	Tooth brush holder sy 194 cp	Each	382.00
		825	Tooth brush holder sy 194 col/cp	Each	509.00
		826	Tooth brush holder sy 194 col/gold	Each	599.00
		827	Tooth brush holder sy 194 spl/gold	Each	666.00
		828	Tooth brush holder sy 194 gold	Each	784.00
		829	Toilet paper holder sy 194 cp	Each	432.00
		830	Toilet paper holder sy 194 col/cp	Each	577.00
		831	Toilet paper holder sy 194 col/gold	Each	678.00
		832	Toilet paper holder sy 194 spl/gold	Each	753.00
		833	Toilet paper holder sy 194 gold	Each	886.00
		834	Robe hook sy 195 cp	Each	255.00
		835	Robe hook sy 195 col/cp	Each	339.00
		836	Robe hook sy 195 col/gold	Each	399.00
		837	Robe hook sy 195 spl/gold	Each	444.00
		838	Robe hook sy 195 gold	Each	523.00
		839	Bath set complete sy 196 cp	Each	2399.00
		840	Bath set complete sy 196 col/cp	Each	3199.00
		841	Bath set complete sy 196 col/gold	Each	3763.00
		842	Bath set complete sy 196 spl/gold	Each	4180.00
		843	Bath set complete sy 196 gold	Each	4919.00
		844	Towel rack 18 " sy 197 cp	Each	1012.00
		845	Towel rack 18 " sy 197 col/cp	Each	1348.00
		846	Towel rack 18 " sy 197 col/gold	Each	1587.00



Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
		847	Towel rack 18 " sy 197 spl/gold	Each	1762.00
		848	Towel rack 18 " sy 197 gold	Each	2074.00
		849	Towel rack 24 " sy 197a cp	Each	1207.00
		850	Towel rack 24 " sy 197a col/cp	Each	1609.00
		851	Towel rack 24 " sy 197a col/gold	Each	1893.00
		852	Towel rack 24 " sy 197a spl/gold	Each	2103.00
		853	Towel rack 24 " sy 197a gold	Each	2475.00
		854	Counted mounted soap dish sy 199 cp	Each	805.00
		855	Counted mounted soap dish sy 199 col/cp	Each	1073.00
		856	Counted mounted soap dish sy 199 col/gold	Each	1263.00
		857	Counted mounted soap dish sy 199 spl/gold	Each	1402.00
		858	Counted mounted soap dish sy 199 gold	Each	1650.00
		859	Toilet paper with brass cover sy 201 cp	Each	751.00
		860	Toilet paper with brass cover sy 201 col/cp	Each	1001.00
		861	Toilet paper with brass cover sy 201 col/gold	Each	1178.00
		862	Toilet paper with brass cover sy 201 spl/gold	Each	1309.00
		863	Toilet paper with brass cover sy 201 gold	Each	1540.00
		864	Grab 8 ar 9" sy 200 cp	Each	644.00
		865	Grab 8 ar 9" sy 200 col/cp	Each	858.00
		866	Grab 8 ar 9" sy 200 col/gold	Each	1010.00
		867	Grab 8 ar 9" sy 200 spl/gold	Each	1122.00
		868	Grab 8 ar 9" sy 200 gold	Each	1320.00
			<b>PRINCE/SUDHAKAR PVC/SWR PIPES &amp; FITTINGS (OR EQUIVALENT)</b>		
			<b>Prince/ Sudhakar make or equivalent quality PVC /SWR pipes &amp; fittings ( asper ISI standards) 4kg/cm2</b>		
		869	75 mm dia 3 M Single Socket pipe	Each	158.70
		870	90 mm dia 3 M single socket pipe	Each	252.30
		871	110 mm dia 3 M Single socket pipe	Each	301.70
		872	75 mm dia 3 M Double socket pipe	Each	179.50
		873	90 mm dia 3 M Double socket pipe	Each	286.30
		874	110 mm dia 3 M Double socket pipe	Each	349.40
		875	75 mm dia 1828.8 mm (6'-0") Single Socket pipe	Each	111.20
		876	90 mm dia 1828.8 mm (6'-0") Single Socket pipe	Each	173.00
		877	110 mm dia 1828.8 mm (6'-0") Single Socket pipe	Each	213.80
		878	75 mm dia 1828.8 mm (6'-0") Double Socket pipe	Each	118.70
		879	90 mm dia 1828.8 mm (6'-0") Double Socket pipe	Each	182.40
		880	110 mm dia 1828.8 mm (6'-0") Double Socket pipe	Each	222.40
		881	75 mm dia 1219. mm (4'-0") Double Socket pipe	Each	82.20
		882	90 mm dia 1219. mm (4'-0") Double Socket pipe	Each	125.50
		883	110 mm dia 1219. mm (4'-0") Double Socket pipe	Each	151.60
		884	75 mm dia 914.4mm (3'-0") Double Socket pipe	Each	69.10
		885	90 mm dia 914.4mm (3'-0") Double Socket pipe	Each	102.00
		886	110 mm dia 914.4mm (3'-0") Double Socket pipe	Each	130.70
		887	75 mm dia 609.6mm (2'-0") Double Socket pipe	Each	41.00
		888	90 mm dia 609.6mm (2'-0") Double Socket pipe	Each	70.10
		889	110 mm dia 609.6mm (2'-0") Double Socket pipe	Each	87.20
		890	160 MM dia 3 M Double socket pipe	Each	717.20
			<b>Prince/ Sudhakar make or equivalent quality PVC /SWR pipes &amp; fittings ( asper ISI standards) 6kg/cm2</b>		
		891	75 mm dia 3 M Single Socket pipe	Each	269.30
		892	90 mm dia 3 M single socket pipe	Each	433.00
		893	110 mm dia 3 M Single socket pipe	Each	515.40
		894	75 mm dia 3 M Double socket pipe	Each	293.90
		895	90 mm dia 3 M Double socket pipe	Each	466.60
		896	110 mm dia 3 M Double socket pipe	Each	569.10
		897	75 mm dia 1828.8 mm (6'-0") Single Socket pipe	Each	176.30

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
		898	90 mm dia 1828.8 mm (6'-0") Single Socket pipe	Each	274.70
		899	110 mm dia 1828.8 mm (6'-0") Single Socket pipe	Each	326.50
		900	75 mm dia 1828.8 mm (6'-0") Double Socket pipe	Each	188.10
		901	90 mm dia 1828.8 mm (6'-0") Double Socket pipe	Each	285.70
		902	110 mm dia 1828.8 mm (6'-0") Double Socket pipe	Each	352.90
		903	75 mm dia 1219. mm (4'-0") Double Socket pipe	Each	127.60
		904	90 mm dia 1219. mm (4'-0") Double Socket pipe	Each	197.70
		905	110 mm dia 1219. mm (4'-0") Double Socket pipe	Each	240.60
		906	75 mm dia 914.4mm (3'-0") Double Socket pipe	Each	109.80
		907	90 mm dia 914.4mm (3'-0") Double Socket pipe	Each	160.80
		908	110 mm dia 914.4mm (3'-0") Double Socket pipe	Each	194.90
		909	75 mm dia 609.6mm (2'-0") Double Socket pipe	Each	70.80
		910	90 mm dia 609.6mm (2'-0") Double Socket pipe	Each	110.60
		911	110 mm dia 609.6mm (2'-0") Double Socket pipe	Each	140.50
		912	160 mm dia 3 M Double socket pipe	Each	1173.00
			<b>Prince/ Sudhakar make or equivalent quality U.V resistant UPVC) SWR pipe fittings (as per ISI standards )</b>		
			<b>Plain Bend 87.5 Degrees.</b>		
		913	75 mm dia	Each	30.50
		914	90 mm dia	Each	44.00
		915	110 mm dia	Each	51.30
			<b>Door Bend 87.5 Degrees.</b>		
		916	75 mm dia	Each	41.60
		917	90 mm dia	Each	58.90
		918	110 mm dia	Each	65.80
			<b>45 Degree Bend</b>		
		919	75 mm dia	Each	23.70
		920	90 mm dia	Each	34.10
		921	110 mm dia	Each	43.90
			<b>Cleaning Pipe</b>		
		922	75 mm dia	Each	41.50
		923	90 mm dia	Each	60.50
		924	110 mm dia	Each	73.50
			<b>Single Tee</b>		
		925	75 mm dia	Each	36.90
		926	90 mm dia	Each	55.20
		927	110 mm dia	Each	67.00
			<b>Single Tee (With Door)</b>		
		928	75 mm dia	Each	44.30
		929	90 mm dia	Each	66.80
		930	110 mm dia	Each	80.70
			<b>Double Tee</b>		
		931	75 mm dia	Each	78.00
		932	90 mm dia	Each	113.50
		933	110 mm dia	Each	160.80
			<b>Double Tee (With Door)</b>		
		934	75 mm dia	Each	123.80
		935	90 mm dia	Each	177.30
		936	110 mm dia	Each	183.50
			<b>Single ' Y'</b>		
		937	75 mm dia	Each	45.70
		938	90 mm dia	Each	73.70
		939	110 mm dia	Each	84.90
			<b>Single ' Y' (With Door)</b>		
		940	75 mm dia	Each	58.30
		941	90 mm dia	Each	91.50

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
	942	110 mm dia		Each	106.90
		<b>Double ' Y'</b>			
	943	75 mm dia		Each	63.70
	944	90 mm dia		Each	98.50
	945	110 mm dia		Each	111.80
		<b>Double ' Y' (With Door )</b>			
	946	75 mm dia		Each	82.10
	947	90 mm dia		Each	127.90
	948	110 mm dia		Each	143.80
		<b>Coupler</b>			
	949	75 mm dia		Each	22.40
	950	90 mm dia		Each	31.70
	951	110 mm dia		Each	35.60
		<b>Reducer</b>			
	952	90 x 75 mm dia		Each	37.20
	953	110 x 75 mm dia		Each	35.80
	954	90 x 110 mm dia		Each	49.50
		<b>Vent Cowl</b>			
	955	63 mm dia		Each	6.10
	956	75 mm dia		Each	8.00
	957	90 mm dia		Each	10.30
	958	110 mm dia		Each	11.30
		<b>Pipe Clip</b>			
	959	40 mm dia		Each	7.20
	960	50 mm dia		Each	7.90
	961	63 mm dia		Each	7.90
	962	75 mm dia		Each	9.00
	963	90 mm dia		Each	10.00
	964	110 mm		Each	11.10
	965	160 mm dia		Each	22.20
		<b>P Trap</b>			
	966	P' Trap ( Small without Airvent ) 110 mm		Each	117.70
	967	P' Trap ( Small with Airvent ) 110 mm		Each	129.30
	968	P' Trap (Big with Airvent ) 110 mm		Each	148.10
	969	P' Trap ( Big without Airvent ) 110 mm		Each	136.20
	970	Floor Trap (Bell Mouth ) 110 mm		Each	140.10
	971	Bell Mouth Trap 7 " ( 177.8 mm)		Each	205.90
	972	4" (101.6 mm ) Nahani Trap ( Without Jali with inlet)		Each	70.40
	973	3" (76.2 mm ) Nahani Trap ( without Jali without inlet)		Each	54.20
	974	4" (101.6 mm ) Nahani Trap ( without inlet with out Jali)		Each	66.60
	975	Mini Trap		Each	33.20
	976	3" (76.2 mm ) nahani Trap with Jali		Each	63.90
	977	4" (101.6 mm ) multi floor trap with jali		Each	89.70
	978	4" (101.6) multi floor trap with out jali		Each	70.10
	979	Round Jali		Each	15.00
	980	Square tile & jali		Each	23.90
	981	Pipe connector ( with LIP ring)		Each	93.70
	982	Pipe connector ( with out LIP ring)		Each	72.80
		<b>Floor Traps</b>			
	983	4" (101.6 mm ) Floor Trap		Each	85.80
	984	5" (127.mm ) floor Trap		Each	91.20
		<b>Door cap</b>			0.00
	985	75 mm dia		Each	35.40
	986	90 mm dia		Each	39.30
	987	110 mm dia		Each	45.10
		<b>Socket Plug</b>			

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
	988		75 mm dia	Each	32.90
	989		90 mm dia	Each	38.00
	990		110 mm dia	Each	39.30
			<b>Rubber Ring for socket</b>		
	991		75 mm dia	Each	4.80
	992		90 mm dia	Each	6.10
	993		110 mm dia	Each	7.20
			<b>Door Socket</b>		
	994		75 mm dia	Each	5.70
	995		90 mm dia	Each	7.20
	996		110 mm dia	Each	7.90
	997		LIP ring 110 mm	Each	42.90
			<b>Rubber Lubricant</b>		
	998		100 Grams	Each	18.40
	999		250 Grams	Each	40.40
	1000		500 Grams	Each	73.50
	1001		1000 Grams	Each	136.00
	1002		P <sup>n</sup> Trap with lip Ring	Each	185.90
			<b>Solvent Cement</b>		
	1003		50 ml	Each	9.40
	1004		100 ml	Each	16.10
	1005		250 ml	Each	37.40
	1006		500 ml	Each	71.80
	1007		1000 ml	Each	140.10
			<b>Internal Reducer.</b>		
	1008		110mm x 90 mm	Each	55.80
	1009		160 mm x 110 mm	Each	139.40
			<b>CENTIFUGAL CAST IRON PIPES &amp; FITTINGS AS PER IS : 3989 - 1984</b>		
			<b>Note : Sales Tax and Excise duties extra</b>		
			<b>CI (spun) soils Waste &amp; Ventilating pipe (3 M)</b>		
	1010		75 mm dia	Each	693.00
	1011		100 mm dia	Each	924.00
	1012		150 mm dia	Each	1694.00
			<b>CI (spun) soils Waste &amp; Ventilating pipe (3 M) Double socket</b>		
	1013		75 mm dia	Each	770.00
	1014		100 mm dia	Each	1039.50
			<b>9 feet (2743.2 mm ) pipes</b>		
	1015		75 mm dia	Each	624.80
	1016		100 mm dia	Each	832.70
			<b>8 feet (2438.4 mm ) pipes</b>		
	1017		75 mm dia	Each	557.70
	1018		100 mm dia	Each	742.50
			<b>6 feet (1828.8 mm ) pipes</b>		
	1018		75 mm dia	Each	454.30
	1019		100 mm dia	Each	592.90
			<b>6 feet (1828.8 mm ) pipes Double socket</b>		
	1020		75 mm dia	Each	477.40
	1021		100 mm dia	Each	592.90
			<b>Cut pipes (pieces) 1 foot (304.8 mm)</b>		
	1022		75 mm dia	Each	107.80
	1023		100 mm dia	Each	115.50
			<b>Cut pipes (pieces) 1'.6" (457.2 mm )</b>		
	1024		75 mm dia	Each	146.30
	1025		100 mm dia	Each	169.40
	1026		150 mm dia	Each	322.30
			<b>Cut pipes (pieces ) 2 feet (609.6 mm)</b>		

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
		1027	75 mm dia	Each	200.20
		1028	100 mm dia	Each	223.30
		1029	150 mm dia	Each	401.50
			<b>Cut pipes (pieces ) 3 feet (914.4 mm)</b>		
		1030	75 mm dia	Each	254.10
		1031	100 mm dia	Each	308.00
			<b>Cut pipes (pieces ) 4 feet (1219.2 mm)</b>		
		1032	75 mm dia	Each	284.90
		1033	100 mm dia	Each	400.40
			<b>Plain Bend</b>		
		1034	75 mm dia	Each	91.30
		1035	100 mm dia	Each	119.90
		1036	150 mm dia	Each	261.80
			<b>Door Bend</b>		
		1037	75 mm dia	Each	106.70
		1038	100 mm dia	Each	138.60
		1039	150 mm dia	Each	289.30
			<b>Plain Bend 45 Degrees.</b>		
		1040	75 mm dia	Each	92.40
		1041	100 mm dia	Each	107.80
		1042	150 mm dia	Each	231.00
			<b>Door Bend 45 Degrees.</b>		
		1043	75 mm dia	Each	104.50
		1044	100 mm dia	Each	123.20
		1045	150 mm dia	Each	243.10
		1046	Horn Bend Plain 101.6 x 50.8 mm (4" x 2") 100 mm dia	Each	210.10
		1047	Horn Bend door 101.6 x 50.8 mm (4" x 2") 100 mm dia	Each	243.10
			<b>Heel Rest Bend</b>		
		1048	75 mm dia	Each	107.80
		1049	100 mm dia	Each	138.60
		1050	150 mm dia	Each	289.30
			<b>Single Branch Plain "T"</b>		
		1051	75 mm dia	Each	136.40
		1052	100 mm dia	Each	181.50
		1053	150 mm dia	Each	377.30
			<b>Single Branch Door "T"</b>		
		1054	75 mm dia	Each	154.00
		1055	100 mm dia	Each	204.60
		1056	150 mm dia	Each	408.10
			<b>Single Branch plain "Y"</b>		
		1057	75 mm dia	Each	154.00
		1058	100 mm dia	Each	207.90
		1059	150 mm dia	Each	466.40
			<b>Single Branch Door "Y"</b>		
		1060	75 mm dia	Each	169.40
		1061	100 mm dia	Each	231.00
		1062	150 mm dia	Each	492.80
			<b>Double Branch Plain "T"</b>		
		1063	75 mm dia	Each	181.50
		1064	100 mm dia	Each	246.40
			<b>Double Branch Door "T"</b>		
		1065	75 mm dia	Each	204.60
		1066	100 mm dia	Each	254.10
			<b>Double Branch Plain " Y"</b>		
		1067	75 mm dia	Each	204.60
		1068	100 mm dia	Each	273.90

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
			<b>Double Branch Door " Y "</b>		
	1069		75 mm dia	Each	215.60
	1070		100 mm dia	Each	297.00
			<b>Shoe bend</b>		
	1071		75 mm dia	Each	89.10
	1072		100 mm dia	Each	107.80
	1073		150 mm dia	Each	231.00
			<b>Collar</b>		
	1074		75 mm dia	Each	89.10
	1075		100 mm dia	Each	107.80
	1076		150 mm dia	Each	212.30
			<b>Cowel</b>		
	1077		75 mm dia	Each	73.70
	1078		100 mm dia	Each	85.80
	1079		150 mm dia	Each	192.50
			<b>Offset 3" (76.2 mm ) projection</b>		
	1080		75 mm dia	Each	104.50
	1081		100 mm dia	Each	137.50
	1082		150 mm dia	Each	278.30
			<b>Offset 6" (152.4mm ) projection</b>		
	1083		75 mm dia	Each	116.60
	1084		100 mm dia	Each	152.90
	1085		150 mm dia	Each	315.70
			<b>Long Door Bend</b>		
	1086		75 mm dia	Each	261.80
	1087		100 mm dia	Each	281.60
			<b>Hand Hole pipe ( Inspection pipe)</b>		
	1088		75 mm dia	Each	150.70
	1089		100 mm dia	Each	204.60
	1090		150 mm dia	Each	267.30
			<b>P Traps</b>		
	1091		75 mm dia	Each	161.70
	1092		100 mm dia	Each	223.30
	1093		4" x 3" (101.6 mm x 76.2mm ) P. Traps 100 mm dia	Each	231.00
	1094		4" x 3" (101.6 mm x 76.2mm ) Vent Traps 100 mm dia	Each	231.00
	1095		4" x 3" (101.6 mm x 76.2mm ) Reducer 75 mm dia	Each	154.00
	1096		6" x 4" (152.4 mm x101.6 mm ) Reducer 75 mm dia	Each	192.50
	1097		3" x 2" ( 76.2 mm x 50.8 mm ) plain T 75 mm dia	Each	158.40
	1098		3" x 2" ( 76.2 mm x 50.8 mm ) Door T 75 mm dia	Each	184.80
	1099		3" x 2" ( 76.2 mm x 50.8 mm ) Plain Y 75 mm dia	Each	184.80
	1100		3" x 2" ( 76.2 mm x 50.8 mm ) Door Y 75 mm dia	Each	184.80
	1101		4" x 3" (101.6 mm x 76.2mm ) Plain T 75 mm dia	Each	184.80
	1102		4" x 3" (101.6 mm x 76.2mm ) Door T 75 mm dia	Each	207.90
	1103		4" x 3" (101.6 mm x 76.2mm ) Plain Y 75 mm dia	Each	207.90
	1104		4" x 3" (101.6 mm x 76.2mm ) Door Y 75 mm dia	Each	231.00
	1105		6" x 4" (152.4 mm x101.6 mm ) Plain T 75 mm dia	Each	346.50
	1106		6" x 4" (152.4 mm x101.6 mm ) Door T 75 mm dia	Each	385.00
	1107		6" x 4" (152.4 mm x101.6 mm ) Plain Y 75 mm dia	Each	400.40
	1108		6" x 4" (152.4 mm x101.6 mm ) Door Y 75 mm dia	Each	431.20
			<b>Special Types of Long Fittings</b>		
			<b>Plain " T" 27 " (685.8 mm )</b>		
	1109		75 mm dia	Each	454.30
	1110		100 mm dia	Each	639.10
			<b>Door "T" 27" (685.8 mm )</b>		
	1111		75 mm dia	Each	508.20
	1112		100mm dia	Each	700.70

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
			<b>Plain " Y" 27" (685.8 mm)</b>		
	1113		75 mm dia	Each	508.20
	1114		100mm dia	Each	700.70
			<b>Door " Y" 27" (685.8 mm)</b>		
	1115		75 mm dia	Each	566.50
	1116		100mm dia	Each	770.00

## PUBLIC HEALTH ITEMS

S.No.	Description	Unit	S S RATE FOR 2005-06
1	2	3	4.00
1	<b>RATES OF LABOUR (SKILLED WORKMEN)</b>		
	1. Caulkar	Per Day	As per common SSR
	2. Plumber 1st Class	Per Day	
	3. Plumber 2nd Class	Per Day	
	4. Sewer Cleaner	Per Day	
	5. Well Sinkers	Per Day	
	6. Pipe line Fitter 1st Class	Per Day	
	7. Pipe line Fitter 2nd Class	Per Day	
	8. Pump Driver	Per Day	
	9. Bore Mechanic	Per Day	
	10. Light Vehicle Driver	Per Day	
	<b>Note:</b> The rate at relevant item in common SSR is applicable for occasional employment.		
2	<b>RATES FOR EARTH WORK :</b>		
a.	Earth work excavation in all soils for pipe lines, for drainage and water supply, where the depth is 1.5 times more than the width.		AS PER COMMON SSR  25% extra over relevant SSR item
b.	Earth work excavation in all soils for pipe lines, for drainage and water supply, where the depth is less than 1.5 times the width.		
c.	Earth work excavation in all soils for open trenches, for valve pits, inspection chambers, etc.		
3. a.	Excavation of pipe line trenches for drainage and water supply in rock requiring blasting with initial lead and lift including cost of blasting materials where the depth is 1.5 times more than the width, in places where there is no habitation.		
b.	Excavation of pipe line trenches for drainage and water supply in rock requiring blasting with initial lead and lift including cost of blasting materials where the depth is less than 1.5 times the width, in places where there is no habitation.		
c.	Cutting rock for pipe line trenches by hammers, nuckles and chisels including stacking where the depth is 1.5 times or more than the width.		
d.	Cutting rock for pipe line trenches by hammers, nuckles and chisels including stacking where the depth is less than 1.5 times the width.		
e.	Cutting rock for works other than pipe lines trenches by hammers, nuckles and chisels including stacking.		
f.	For control blasting at restricted places		
	<b>NOTE :-</b> Rock should be measured in solids. In case it is not possible, stacks should be made in which case 40% for voids to be deducted from the stack measurements.		
4	<b>Loading or unloading materials such as C.I. Pipes, PVC Pipes, AC Pressure Pipes, DI Pipes, SW Pipes, PVC Pipes, A.C/Specials less than 300 mm dia upto 4 m in length including stacking.</b>		
a.	C.I. Pipes/D.I. Pipes and fittings	Per Tonne	55.60

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
	b.		A.C. Pipes & Specials	Per Tonne	46.40
	c.		Stoneware pipes & Specials	Per Tonne	46.60
	d.		P.V.C. Pipes and fittings	Per Tonne	45.80
	5		<b>Loading or unloading materials such as C.I. Pipes, DI pipes, SW pipes, AC pressure pipes &amp; fittings/ specials from 300 mm to 600 mm dia upto 4 m in length including stacking.</b>		
	a.		C.I. Pipes/D.I. Pipes and fittings	Per Tonne	69.60
	b.		A.C. Pipes & Specials	Per Tonne	63.10
	c.		Stoneware pipes & Specials	Per Tonne	63.50
	6		<b>Loading or unloading materials such as C.I. Pipes, DI pipes, PVC pipes, AC pipes less than 300 mm dia, above 4 m in length including stacking.</b>		
	a.		C.I. Pipes/D.I. Pipes and fittings	Per Tonne	68.70
	b.		A.C. Pipes & Specials	Per Tonne	63.10
	c.		P.V.C. Pipes and fittings	Per Tonne	62.70
			<b>Note:-</b> For loading and unloading the above materials at Railway Stations, the rates may be adopted based on the competitive quotations or the hammalae charges if prevailing.		
	7		<b>Loading or unloading materials such as C.I. Pipes, DI pipes, AC pipes from 300 mm to 600 mm above 4 m in length including stacking.</b>		
	a.		C.I. Pipes/D.I. Pipes and fittings	Per Tonne	83.40
	b.		A.C. Pipes & Specials	Per Tonne	78.20
	8. a.		<b>Lowering the C.I. Pipes, D.I. Pipes and fittings with S/S ends carefully into the trenches and laying them true to alignment and gradient including all sundries, but excluding conveyance from source of supply as per BIS No.3114/85.</b>		
			<b>DIAMETER OF PIPE : (S/S Pipes) in mm :</b>		
			80	Per Metre	12.50
			100	Per Metre	12.50
			125	Per Metre	12.50
			150	Per Metre	12.50
			180	Per Metre	14.40
			200	Per Metre	16.10
			225	Per Metre	17.10
			250	Per Metre	18.20
			300	Per Metre	23.40
			350	Per Metre	42.20
			380	Per Metre	42.70
			400	Per Metre	44.60
			450	Per Metre	52.00
			500	Per Metre	56.10
			530	Per Metre	63.80
			560	Per Metre	69.90
			600	Per Metre	74.60
			650	Per Metre	77.20
			680	Per Metre	82.00
			700	Per Metre	90.80
			750	Per Metre	104.80
			800	Per Metre	121.50
			900	Per Metre	145.70
			1000	Per Metre	176.00
			1100	Per Metre	209.10
			1200	Per Metre	245.30



Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
	8. b.		<b>Lowering the C.I. Pipes, D.I. Pipes and fittings with flanged ends carefully into the trenches and laying them true to alignment and gradient including all sundries, but excluding conveyance from source of supply as per BIS No.3114/85.</b>		
			<b>DIAMETER OF PIPE : (D/F Pipes) in mm :</b>		
			80	Per Metre	15.20
			100	Per Metre	15.20
			125	Per Metre	15.20
			150	Per Metre	15.90
			180	Per Metre	16.30
			200	Per Metre	17.80
			225	Per Metre	19.00
			250	Per Metre	20.30
			300	Per Metre	25.90
			350	Per Metre	46.40
			380	Per Metre	47.80
			400	Per Metre	51.30
			450	Per Metre	57.00
			500	Per Metre	59.60
			530	Per Metre	66.60
			560	Per Metre	71.60
			600	Per Metre	78.00
			650	Per Metre	80.00
			680	Per Metre	86.50
			700	Per Metre	99.70
			750	Per Metre	112.70
			800	Per Metre	138.20
			900	Per Metre	167.00
			1000	Per Metre	197.80
			1100	Per Metre	232.10
			1200	Per Metre	270.50
	9. a.		<b>Jointing the C.I. / DI Pipes &amp; fittings with S/S ends excluding cost of jointing materials such as lead or lead wool and hemp yarn but including sundries such as cost of fuel for melting lead, filling with water, with a water lead upto 500 m and testing to required pressure etc, complete as BIS No.3114/85</b>		
			<b>DIAMETER OF PIPE : (S/S Pipes) in mm :</b>		
			80	Each Joint	40.50
			100	Each Joint	43.40
			125	Each Joint	62.50
			150	Each Joint	65.20
			180	Each Joint	75.70
			200	Each Joint	85.30
			225	Each Joint	96.30
			250	Each Joint	106.30
			300	Each Joint	124.80
			350	Each Joint	136.60
			380	Each Joint	156.60
			400	Each Joint	177.70
			450	Each Joint	197.50
			500	Each Joint	209.60
			530	Each Joint	227.60
			560	Each Joint	245.90
			600	Each Joint	282.20
			650	Each Joint	301.50
			680	Each Joint	306.50
			700	Each Joint	314.30

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06	
				750	Each Joint	342.70
				800	Each Joint	366.90
				900	Each Joint	426.40
				1000	Each Joint	483.50
				1100	Each Joint	545.30
				1200	Each Joint	600.20
	9. b.		<b>Jointing the C.I. Pipes, D.I. Pipes &amp; fittings with Rubber Gasket, excluding the cost of the gasket but including all sundries filling with water with a water lead upto 500 m and testing to required pressure etc., complete as per BIS No.3114/85.</b>			
			<b>DIAMETER OF PIPE : in mm :</b>			
				80	Each Joint	37.50
				100	Each Joint	40.20
				125	Each Joint	58.20
				150	Each Joint	60.70
				180	Each Joint	70.10
				200	Each Joint	80.60
				225	Each Joint	91.20
				250	Each Joint	99.00
				300	Each Joint	118.00
				350	Each Joint	127.30
				380	Each Joint	146.00
				400	Each Joint	167.40
				450	Each Joint	186.10
				500	Each Joint	197.40
				530	Each Joint	214.30
				560	Each Joint	231.60
				600	Each Joint	268.50
				650	Each Joint	287.00
				680	Each Joint	291.70
				700	Each Joint	299.10
				750	Each Joint	326.10
				800	Each Joint	349.30
				900	Each Joint	405.80
				1000	Each Joint	460.30
				1100	Each Joint	509.20
				1200	Each Joint	557.40
	10		<b>Jointing the C.I. Pipes, fittings and valves with flanged ends excluding cost of jointing materials such as bolts, nuts, rubber insertion, white lead and including filling with water with a water lead upto 500 m and testing to required pressure etc., comp as per BIS No.3114/85.</b>			
			<b>DIAMETER OF PIPE : in mm :</b>			
				80	Each Joint	47.70
				100	Each Joint	50.90
				125	Each Joint	73.40
				150	Each Joint	76.50
				180	Each Joint	89.20
				200	Each Joint	100.90
				225	Each Joint	114.90
				250	Each Joint	124.70
				300	Each Joint	149.30
				350	Each Joint	163.40
				380	Each Joint	186.90
				400	Each Joint	210.30
				450	Each Joint	235.80
				500	Each Joint	247.80

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06	
				530	Each Joint	273.20
				560	Each Joint	293.10
				600	Each Joint	345.70
				650	Each Joint	371.50
				680	Each Joint	375.90
				700	Each Joint	386.40
				750	Each Joint	421.40
				800	Each Joint	451.80
				900	Each Joint	524.30
				1000	Each Joint	629.60
				1100	Each Joint	670.40
				1200	Each Joint	739.00
	11a		Lowering the RCC plain ended pipes carefully into the trench laying them true to alignment and gradient, jointing RCC pipes with cement joints including curing, the cost of jointing materials i.e., Cement Mortar (1:1.5), hemp yarn etc., and testing including filling		Per Metre	7.30
	11b		Lowering the RCC S/S pipes carefully into the trenches, laying them true to the alignment and gradient, jointing with rubber rings and testing including filling with water with a water lead upto 500 metres excluding cost of rubber rings as per BIS No.783/		Per Metre	4.80
	12		Laying, jointing of G.I. / PVC/HDPE pipes and specials/fittings including excavation upto 0.5 m depth in all soils except rock requiring blasting and re-filling trenches after laying and jointing pipes.			
	a		<b>G.I. PIPES :</b>			
			<b>DIA in mm</b>			
				50	Per Metre	12.30
				40	Per Metre	12.30
				32	Per Metre	11.30
				25	Per Metre	11.30
				20	Per Metre	10.20
				15	Per Metre	10.20
	b		<b>PVC/HDPE pipes as per BIS No.7634 part-III/75 for PVC and BIS No.7634 part-II/75 for HDPE pipes.</b>			
			<b>DIA in mm</b>			
				50	Per Metre	11.30
				40	Per Metre	11.30
				32	Per Metre	10.40
				25	Per Metre	10.40
				20	Per Metre	9.50
			<b>NOTE :- (i) The above rates are applicable for the works in District only.</b>			
			<b>(ii) If the depth of excavation is more than 0.5 m separate rates to be worked out.</b>			
	13		<b>Lowering &amp; laying AC pressure pipes in ready made trenches true to alignment and gradient including all sundries but excluding conveyance from source of supply, as per BIS No.6530/72.</b>			
			<b>Dia of Pipes in mm.</b>			
				80	Per Metre	7.10
				100	Per Metre	7.10
				125	Per Metre	7.10
				150	Per Metre	7.40
				200	Per Metre	9.00
				250	Per Metre	10.40
				300	Per Metre	12.70
				350	Per Metre	22.30
				400	Per Metre	25.10
				450	Per Metre	27.90

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06	
				500	Per Metre	33.20
				600	Per Metre	35.50
	14		<b>Jointing AC pressure pipes with AC couplings or CID joints complete with Rubber Rings including filling with water with a water lead upto 500 m and testing to required pressure, etc., complete but excluding cost of jointing materials and conveyance of pipes.</b>			
				80	Each Joint	15.70
				100	Each Joint	21.70
				125	Each Joint	21.70
				150	Each Joint	25.10
				200	Each Joint	25.10
				250	Each Joint	33.40
				300	Each Joint	33.40
				350	Each Joint	37.60
				400	Each Joint	37.60
				450	Each Joint	43.70
				500	Each Joint	43.70
				600	Each Joint	50.20
	15		Lowering and laying in ready made trenches true to alignment and gradient, jointing and testing of <b>stoneware pipes</b> excluding cost of jointing materials such as cement mortar and hemp yarn as per BIS No. 4127/83.			
			DIA of Pipes in mm .			
				100	Per Metre	18.90
				150	Per Metre	23.80
				200	Per Metre	26.50
				225	Per Metre	27.80
				250	Per Metre	31.70
				300	Per Metre	36.40
				400	Per Metre	40.60
				450	Per Metre	54.50
	16		Lowering, laying, jointing & testing to Hydraulic Field test pressure including cost of water with minimum water lead of 500 M (Labour charges only) for <b>PVC pipes</b> excluding the cost of jointing materials.			
			DIA of Pipes in mm .			
				63	Per Metre	6.70
				75	Per Metre	7.10
				90	Per Metre	7.20
				110	Per Metre	7.70
				125	Per Metre	8.10
				140	Per Metre	8.30
				160	Per Metre	8.50
				180	Per Metre	8.90
				200	Per Metre	9.50
				225	Per Metre	10.00
				250	Per Metre	10.40
				280	Per Metre	10.90
				315	Per Metre	11.50
			<b>NOTE:-</b> For item 9 to 16 the element of testing charges is to be considered as 20% of the combined rate for laying, jointing and testing. This 20% shall be released only after satisfactory testing of the pipe line to the required pressure.			
	17		<b>Labour charges for lowering and keeping in position of C.I. Sluice valves, reflux valves and scour valves. Dia of Valve in mm.</b>			
				80	Each	19.20
				100	Each	25.30

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06	
				125	Each	33.20
				150	Each	39.20
				200	Each	72.70
				250	Each	98.20
				300	Each	148.80
				350	Each	255.90
				400	Each	313.90
				450	Each	411.00
	18 a.		<b>Labour charges for fixing Air Valves including boring the mains, threading the bore and fixing nipple etc., complete. Dia of Air valve in mm.</b>			
				25	Each	52.70
				40	Each	60.40
				50	Each	63.80
				65	Each	68.00
				80	Each	74.70
				100	Each	87.70
				125	Each	135.90
				150	Each	148.60
	18 b.		<b>Labour charges for fixing Kinetic Air Valves with isolating Sluice valves, Double Air valves/ Air Cushion valve excluding cost of jointing materials such as bolts, nuts and rubber insertions etc., complete. Dia of Air Valve in mm .</b>			
				25	Each	52.40
				40	Each	60.10
				50	Each	63.40
				65	Each	67.70
				80	Each	74.40
				100	Each	87.30
				125	Each	135.30
				150	Each	147.90
	19		<b>Labour charges for fixing fire hydrants excluding cost of jointing materials.</b>			
			65 mm		Each	59.80
			80 mm		Each	74.50
	20		<b>Uprooting C.I./ DI Pipes by melting the lead, loosening the joints, scraping the pipes, hoisting and keeping within a lead of 10 m but excluding earth work excavation and refilling. Dia of Pipes in mm.</b>			
				80	Per Metre	
				100	Per Metre	
				125	Per Metre	
				150	Per Metre	
				180	Per Metre	
				200	Per Metre	
				225	Per Metre	
				250	Per Metre	
				300	Per Metre	
				350	Per Metre	
				400	Per Metre	
				450	Per Metre	
				500	Per Metre	
				600	Per Metre	Observed data only
	21		<b>Uprooting of RCC pipes including breaking the collars, loosening the joint, scraping the pipes, hoisting and keeping within a lead of 10 m but excluding earthwork excavation and refilling.</b>		Per Metre	observed data only
	22		<b>Removing GI/PVC/HDPE pipes and specials/ fittings and clearing.</b>			
			Dia of Pipes in mm			

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
				50	50% of data of laying & jointing of GI/ PVC/ HDPE pipes and fittings of relevant PH item.
				40 Per Metre	
				30 Per Metre	
				25 Per Metre	
				20 Per Metre	
				15 Per Metre	
23			<b>Cutting C.I./ DI Pipes without water in mains.Dia of pipes in mm.</b>		
				80 Each cut	28.80
				100 Each cut	28.80
				125 Each cut	28.80
				150 Each cut	28.80
				180 Each cut	32.90
				200 Each cut	32.90
				225 Each cut	32.90
				250 Each cut	47.30
				300 Each cut	47.30
				350 Each cut	65.90
				380 Each cut	72.30
				400 Each cut	75.40
				450 Each cut	93.70
				500 Each cut	112.70
				530 Each cut	122.50
				560 Each cut	132.30
				600 Each cut	150.00
				680 Each cut	169.20
24			<b>Cutting A.C. Pipes without water in mains.Dia of pipes in mm.</b>		
				80 Each cut	12.30
				100 Each cut	12.30
				125 Each cut	12.30
				150 Each cut	12.30
				200 Each cut	12.90
				250 Each cut	20.90
				300 Each cut	20.90
				350 Each cut	26.20
				400 Each cut	29.00
				450 Each cut	35.60
				500 Each cut	39.60
				600 Each cut	44.30
25			<b>Drilling and tapping CI/ DI Main and fixing brass screw down ferrule and plug.</b>		
			10 mm to 20mm	Each Tapping	57.40
			25 mm to 40mm	Each Tapping	68.50
26			<b>Cutting road surface including stacking of excavated materials for pipe line trench work.</b>		
			a) Cutting open B.T. road surface (as well as asphalt concrete upto 75 mm thick) including water bound macadam	10 Sqm	186.80
			b) Cutting open C.C. road surface	1 Cum	354.80
			c) Cutting open water bound macadam road including soiling	1 Cum	60.80
27			<b>Bailing out water.(For PH item)</b>		

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
			a) Bailing out water from the pipe line trenches with oil engine driven pumpsets, including hire charges, fuel charges and wages for Driver and Helper.	HP/Hour	13.00
			b) Bailing out water from the pipe line trenches with Electric Driven pumpset including hire charges, current charges and wages for Driver and Helper.	HP/Hour	10.20
			<b>NOTE:-</b> The rate is payable on the total H.P. hours ignoring fractions less than 0.5 HP hour and rounding off 0.5 HP hour or more to the next higher integer.		
28			<b>Shoring and strutting of trenches for water and sewer main.</b>		
			a) Single Staging from (0 to 2.5 Mts.)	10 Sqm of Shoring area	543.80
			b) Double staging from (2.5 m to 4.5 Mts.)	10 Sqm of Shoring area	735.30
29			<b>Barricading, hoarding, lighting and watching etc., for water supply and sewerage works for trenches.</b>	10 RM	29.40
30			<b>Excavation of trenches for infiltration galleries, syphon lines and connecting mains in all soils under water including all leads, lifts, shoring, strutting, bailing out water and removal of shoring and strutting materials, after completion of pipe line w</b>		
			a) 0 to 1 m deep under water.	10 Cum	4381.20
			b) 1 to 2 m deep under water.	10 Cum	6276.00
			c) 2 to 5 m deep under water.	10 Cum	9058.60
			d) Beyond 5 m deep under water for every additional 1 m depth over item 'c'	10 Cum	1714.20
			<b>NOTE:-</b> The above rates do not include rock requiring blasting or chiselling		
31			<b>Laying and jointing glazed stoneware pipes including loose jointing with cement fillets and all other incidental charges for infiltration gallery, inclusive of bailing out water by pumping to keep the trench reasonably dry to facilitate the work excluding cost of stoneware pipes</b>		
			a) 200 mm to 400 mm	Per Metre	218.10
32			Laying and jointing <b>perforated</b> RCC pipes inclusive of bailing out water and jointing with cement fillets and all other incidental charges for infiltration gallery inclusive of bailing out water by pumping to keep the trench reasonably dry to facilitate the work excluding.		
			a) 200 mm to 600 mm	Per Metre	225.10
33			<b>Centring and scaffolding charges for RCC members including all materials and labour charges for forming and dismantling</b>		
			a) for R C C Elevated Service Reservoir of staging up to 15 metre below L W L.		
			1) Slabs for thickness (150 mm to 300 mm)	One Sqm of Centering area	
			2) Slabs for thickness above (300 mm)		826.20
			3) Side walls curved surfaces.		1651.70
			4) Side wall straight surfaces.		624.50
			5) Dome.		555.50
			6) Roof Slab.		676.50
					416.60

Sl. No.	S.S. No.	Item Description	Unit (per)	S S RATE FOR 2005-06
		7) Column footing.		
		8) Column braces and beams		455.40
		9) Circular braces, ring beams & circular column.		278.60
				305.20
		<b>Note:-</b> For RCC ELSR of staging above 15 m observed data may be worked out for the extra staging taking into consideration, the quantum of concrete to be lifted, extra scaffolding involved etc., and may be adopted in the working estimate after getting approval from the competent authority		
		<b>b) For Ground level works :-</b>		
		1) Slabs	1 Sqm	As per Common SSR
		2) Beams & Lintels	1 Sqm	
		3) Sun shades	1 Sqm	
		4) RCC vertical walls of plane surface upto 3 m height such as ground level tanks clarifiers and sludge digesters etc.	1 Sqm	302.30
		5) RCC vertical walls of circular faces upto 3 m height.	1 Sqm	385.70
		<b>NOTE:</b> Scaffolding for every extra height of 1 m or part thereof but not less than 0.5 m - 10 Sqm.	10 Sqm	
34		<b>Lift or delift of materials :</b>		
		a) Lifting of cement concrete for RCC elevated reservoir. For every 3 m height or part thereof over the initial lift of 5 m	1 Cum	53.90
		b) Delifting the materials such as stones, concrete etc., for concrete below ground level for construction of masonry ground level reservoirs, inspection wells, test wells and sump wells etc., for every 2 m depth or part thereof beyond the initial depth of 4 meters from ground level.	1 Cum	16.40
35		Labour charges for fixing ventilating shafts complete with all accessories.	Each	222.20
36		Labour charges for fixing water closets including fixing of foot rests (for all sizes).	Each	Relevant Common SSR item
37		Labour charges for fixing of flushing cistern including fixing of flush pipes, lead pipe, jointing etc., complete	Each	
38		Labour charges for fixing wash hand basin including fixing of inlet and waste pipe connections etc., complete	Each	
39		Fixing urinal with inlet and waste pipe connections etc., complete.	Each	
40		Refilling the trench for pipe line with excavated earth including watering and tamping etc., complete	10 Cum	
41 a		Extra allowance for isolated scattered works viz., valve pits, public fountains, meter pits and manholes etc., complete.	Each	25% extra over the cost of chamber.
41 b		Repairs to the existing mains, interconnections, replacement of valves/specials etc., including the cutting ,jointing, bailing out of water, drying, earth work excavation etc., complete.		100% extra over the cost of work
42		Removal of wet silt and sludge from sullage drains with aid of baskets and vessels.	10 Cum	554.10
43		Conveyance of C.I./ DI Pipes, C.I. Special excluding loading, unloading and stacking.		As per separate sheet enclosed
44		Conveyance of RCC pipes including loading, unloading and stacking.		Deleted



Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
		45	Conveyance of Stoneware pipes including loading unloading and stacking.		As per local competitive quotations
		46	Conveyance of A.C. pressure pipes and accessories including loading, unloading and stacking.		As per local competitive quotations
		47	Conveyance of PVC pipes and accessories including loading, unloading and stacking.		Deleted
		48	<b>Well sinking in sandy and other loose soils under water either by manual labour, divers, or dredgers, weighting the top of staining to assist sinking etc., including dewatering and other incidental charges such as hire charges for mechanical equipment etc,complete up to 4 m internal dia.</b>		
			Upto 2 m below GL/m	Per metre	9220.60
			From 2 to 4 m below GL/m	Per metre	10098.10
			From 4 to 6 m below GL/m	Per metre	11414.80
			From 6 to 8 m below GL/m	Per metre	12871.10
			From 8 to 10 m below GL/m	Per metre	14227.90
			<b>Note:-</b> Below 10 m for every metre depth or part thereof add Rs.250/- per m. For higher dia, observed data is to be prepared and got approved.		
		49	Sinking in Hard strata other than rock but in soils like limestone, gravel, clay under water including, pumping dewatering, hire charges for mechanical equipment etc., complete.		Deleted
		50	Open well excavation in various soils.		As per Common SSR
		51	<b>Rates for OHSRs/ELSRs including fixtures with a staging of 15 m.</b>		
		a	Capacity in 500 Kilo litres	Per litre	4.75
		b	Capacity in 1000 Kilo litres	Per litre	4.54
		c	Capacity in 1500 Kilo litres	Per litre	4.28
		d	Capacity in 2000 Kilo litres	Per litre	4.10
		e	Capacity in 2500 Kilo litres	Per litre	3.89
			<b>NOTE: -1)</b> The above rates are applicable for <b>Elevated Level Services Reservoirs / OHSRs</b> with <b>RAFT FOUNDATION</b> and a rate of Rs.2,700/- per tonne for cement and Rs.28,000/- per tonne for steel.		
			2) For every m height of staging above 15 m or less than 15 m the rate shall be increased/reduced by Rs.0.02 paise per litre.		
			3) For every Rs.100/- increase/decrease in price of cement per tonn increase/ decrease the rate by 0.7%		
			4) for every Rs.1000/- increase/decrease in price of steel per tonne, increase/decrease the rate by 2%		
			5) Rate inclusion of three coats of epoxy paint to inner surface of the reservoir including roof dome.		
			6) For intermediate ranges proportional rates may be adopted.		
			7) The above rates be adopted for estimate purposes for construction of ELSR for a finished work including 2 coats of snowcem painting for external surfaces, lettering fixing of all required fixtures,		

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
			pipes, bends, valves etc., for pipe connections but excluding cost of pipes, bends and valves as per departmental designs and drawings		
			8) The above rates are arrived considering a wind pressure as per BIS No.875/88		
			9) For tribal/Agency / Rural area, the above rates shall be increased by 5%		
			<b>10) Fixtures include.</b>		
			a) A balcony of 0.75 m width at floor slab level/ middle ring beam level / top ring beam level with RCC post with GI pipe hand railing.		
			b) C.I. Manhole frame and cover : 0.60 x 0.6 m size 2 Nos.		
			c) RCC Mosquito proof ventilators.		
			d) RCC Finial - 1 No.		
			e) RCC precast ladders 0.45 m wide - 2 Nos.		
			f) RCC dog legged stair case of 1.00 m width with hand railing - 1 No.		
			g) RCC hand railing 0.75 m height around at top of reservoir.		
			h) Water level indicator of approved pattern - 1 No.		
			i) Lightening arrestor with all its accessories complete including earthing - 1 No.		
52			<b>Rates for OHSRs/ELSRs including fixtures with a staging of 15 m.</b>		
	a		40,000 Litres capacity	Per litre	11.23
	b		40,001 to 60,000 Litres capacity	Per litre	8.53
	c		60,001 to 1,00,000 Litres capacity	Per litre	7.88
	d		1,00,001 to 2,00,000 Litres capacity	Per litre	6.91
	e		2,00,001 to 3,00,000 Litres capacity	Per litre	6.48
	f		3,00,001 to 4,00,000 Litres capacity	Per litre	5.72
	g		4,00,001 to 4,50,000 Litres capacity	Per litre	4.97
			<b>NOTE: -1) The above rates are applicable for Elevated Level Services Reservoirs / OHSRs with RAFT FOUNDATION and a rate of Rs.2,700/- per tonne for cement and Rs.28,000/- per tonne for steel.</b>		
			2) For every metre height of staging above 15 m or less than 15 m, the rate shall be increase/reduced by Rs.0.02 paise per litre.		
			3) For every Rs.100/- increase/decrease in price of cement per tonne increase/decrease the rate by 0.70%		
			4) For every Rs.1000/- increase/decrease in price of steel per tonne increase/decrease the rate by 2%		
			5) Rate inclusive of three coats of epoxy paint to inner surface of the reservoir including roof dome.		
			6) For intermediate ranges proportional rates may be adopted.		
			7) The above rates be adopted for estimate purposes for construction of ELSR for a finished work including 2 coats of snowcem painting for external surfaces, lettering, fixing of all required fixtures, pipes, bends, valves etc., for pipe connections, but excluding cost of pipes, bends and valves, as per departmental designs and drawings		
			8) The above rates are arrived considering a wind pressure as per BIS No.875/88		

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
			9) For Tribal/Agency/ Rural area, the above rates shall be increased by 5%.		
			10) Fixtures include :		
			a) RCC or Aluminium ladder inside 0.45 m wide.		
			b) Dog legged staircase of 1.0 m wide.		
			c) M.S. Ladder/spiral on the outside.		
			d) Lightening arrestor, including conductor and earthing etc.		
			e) RCC ventilators with copper or stainless steel fly proof mesh.		
			f) RCC finial ventilators with copper or stainless steel fly proof mesh.		
			g) Manholes frame and cover 0.75x0.75 m with frame as per IS specifications (light duty) – 2 Nos.		
			h) Railing with 32 mm dia G.I. Pipes (A class) in two rows around OHSR fixed in RCC (1:2:4) posts of size 100x75x75 mm with 1.5 m intervals around periphery on top of the OHSR for smaller capacities.		
			i) Water level indicator of good quality with ebonite/ copper float approved pattern- 1 No.		
	53		<b>Construction of Rapid Gravity Filtration Plant including civil, mechanical and electrical trial running etc., complete.</b>		
			1) 2.0 Mld	Per litre	1.25
			2) 5.0 Mld	Per litre	1.15
			3) 10.0 Mld	Per litre	1.04
			4) 20.0 Mld	Per litre	0.94
			<b>NOTE:</b> - a) Above 20 mld the litre rate shall be arrived by reducing the litre rate of 20 mld @ Rs.0.01 P per each additional mld. For intermediate capacities, propotional rates shall be adopted.		
			b) The above rates are applicable with cement @ rate of Rs.2,700/-MT and steel of 28,000/MT.		
			c) For every Rs.100/MT increase/decrease the price of cement increase/reduce the rate by 0.7%.		
			d) For every Rs.1000/MT increase/decrease in price of steel increase/reduce the rate by 2%.		
			e) For rural areas an extra allowance of 5% shall be given on basic rate.		
			<b>NOTE:-</b> The prices of cement and steel will be reviewed and fixed quarterly and rates will be communicated separately by ENC (IW) I & CAD Dept Hyderabad.		

**PUBLIC HEALTH (PIPES AND SPECIAL)  
RATES FOR R.C.C. PLAIN ENDED PIPES**

Code No.	Description	Unit	Rate
1	MANUFACTURE, SUPPLY AND DELIVERY OF R.C.C. PLAIN ENDED PIPES CONFORMING TO B.I.S. 458/1988 AT E TRANSPORTATION, TAXES & DUTIES		
	Size		
			NP - 2 Class
	80 mm dia	Meter	60.77
	100 mm dia	Meter	70.56
	150 mm dia	Meter	83.2
	200 mm dia	Meter	98.37
	225 mm dia	Meter	107.68
	250 mm dia	Meter	114.75

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
			300 mm dia	Meter	165.02
			350 mm dia	Meter	205.31
			400 mm dia	Meter	236.97
			450 mm dia	Meter	290.4
			500 mm dia	Meter	318.98
			600 mm dia	Meter	471.46
			700 mm dia	Meter	604.3
			800 mm dia	Meter	742.62
			900 mm dia	Meter	933.94
			1000 mm dia	Meter	1134.91
			1100 mm dia	Meter	1349.09
			1200 mm dia	Meter	1606.7
			1400 mm dia	Meter	2185.99
			1600 mm dia	Meter	2356.34
			1800 mm dia	Meter	3322.43

### RATES FOR R.C.C. COLLARS

Code No.	Description		
1	2		
	MANUFACTURE, SUPPLY AND DELIVERY OF R.C.C. COLLARS CONFORMING TO B.I.S. 458/1988 (RATE PER EA FOR R.C.C. PLAIN ENDED PIPES INCLUDING TRANSPORTATION BUT EXCLUDING TAXES & DUTIES		
	Size	Unit	S S
			NP - 2 Class
	80 mm dia	Each	16.58
	100 mm dia	Each	17.95
	150 mm dia	Each	18.65
	200 mm dia	Each	24.71
	225 mm dia	Each	27.1
	250 mm dia	Each	29.36
	300 mm dia	Each	38.67
	350 mm dia	Each	47.64
	400 mm dia	Each	51.54
	450 mm dia	Each	81.75
	500 mm dia	Each	93.75
	600 mm dia	Each	124.62
	700 mm dia	Each	162.92
	800 mm dia	Each	228.66
	900 mm dia	Each	274.39
	1000 mm dia	Each	320.12
	1100 mm dia	Each	392.15
	1200 mm dia	Each	476.76
	1400 mm dia	Each	615.1
	1600 mm dia	Each	784.3
	1800 mm dia	Each	815.17

### RATES FOR R.C.C. S/S PIPES (Non Pressure)

Code No.	Description
1	2

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
			<b>MANUFACTURE, SUPPLY AND DELIVERY OF R.C.C. SOCKET AND SPIGOT PIPES CONFORMING TO FACTORY (RATE PER METER OF EFFECTIVE LENGTH) EXCLUDING TRANSPORTATION, TAXES &amp;</b>		
			<b>Size</b>	<b>Unit</b>	<b>S S R</b>
					<b>NP - 2 Class</b>
			80 mm dia	Meter	80.43
			100 mm dia	Meter	88.74
			150 mm dia	Meter	107.46
			200 mm dia	Meter	131.03
			225 mm dia	Meter	142.82
			250 mm dia	Meter	152.54
			300 mm dia	Meter	214
			350 mm dia	Meter	274.43
			400 mm dia	Meter	303.68
			450 mm dia	Meter	377.61
			500 mm dia	Meter	434.69
			600 mm dia	Meter	612.52
			700 mm dia	Meter	793.64
			800 mm dia	Meter	1017.57
			900 mm dia	Meter	1284.31
			1000 mm dia	Meter	1557.64
			1100 mm dia	Meter	1830.96
			1200 mm dia	Meter	2077.95
			1400 mm dia	Meter	2950.62
			1600 mm dia	Meter	3649.85
			1800 mm dia	Meter	4110.89

**RATES FOR R.C.C. S/S PIPES  
(Pressure)**

Code No.	Description	Unit	S S R
1	2		
	<b>MANUFACTURE, SUPPLY AND DELIVERY OF R.C.C. SOCKET AND SPIGOT PIPES CONFORMING TO FACTORY (RATE PER METER OF EFFECTIVE LENGTH) EXCLUDING TRANSPORTATION, TAXES &amp;</b>		
	<b>Size</b>	<b>Unit</b>	<b>S S R</b>
			<b>P1 - Class</b>
	80 mm dia	Meter	100.06
	100 mm dia	Meter	113.46
	150 mm dia	Meter	155.87
	200 mm dia	Meter	181.35
	225 mm dia	Meter	204.27
	250 mm dia	Meter	223.56
	300 mm dia	Meter	302.08
	350 mm dia	Meter	375.84
	400 mm dia	Meter	445.65
	450 mm dia	Meter	479.82
	500 mm dia	Meter	634.33
	600 mm dia	Meter	868.76
	700 mm dia	Meter	1154.90
	800 mm dia	Meter	1446.78
	900 mm dia	Meter	1747.86
	1000 mm dia	Meter	2199.47
	1100 mm dia	Meter	2637.30
	1200 mm dia	Meter	3099.26

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
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**RATES FOR RUBBER RINGS TO SUIT R.C.C. S/S PIPES**

Code No.	Description	Unit	S S R
1	2		
	<b>MANUFACTURE, SUPPLY AND DELIVERY OF RUBBER RINGS TO SUIT R.C.C. SOCKET AND SPIGO TO B.I.S. 5382/ 1985 (RATE PER EACH RUBBER RING) INCLUDING TRANSPORTATION BUT EXCLU</b>		
	<b>Size</b>	<b>Unit</b>	<b>S S R</b>
			<b>NP - 2 Class</b>
	80 mm dia		10.00
	100 mm dia		12.00
	150 mm dia		21.00
	200 mm dia		25.00
	225 mm dia		27.00
	250 mm dia		31.00
	300 mm dia		38.00
	350 mm dia		44.00
	400 mm dia		48.00
	450 mm dia		55.00
	500 mm dia		72.00
	600 mm dia		94.00
	700 mm dia		129.00
	800 mm dia		163.00
	900 mm dia		204.00
	1000 mm dia		239.00
	1100 mm dia		288.00
	1200 mm dia		460.00
	1400 mm dia		506.00
	1600 mm dia		630.00
	1800 mm dia		785.00
	<b>Size</b>		<b>P1 - Class</b>
	80 mm dia	Each	10.00
	100 mm dia	Each	12.00
	150 mm dia	Each	21.00
	200 mm dia	Each	25.00
	225 mm dia	Each	27.00
	250 mm dia	Each	31.00
	300 mm dia	Each	38.00
	350 mm dia	Each	44.00
	400 mm dia	Each	48.00
	450 mm dia	Each	55.00
	500 mm dia	Each	72.00
	600 mm dia	Each	94.00
	700 mm dia	Each	129.00
	800 mm dia	Each	163.00
	900 mm dia	Each	204.00
	1000 mm dia	Each	239.00
	1100 mm dia	Each	288.00
	1200 mm dia	Each	460.00

**S.S. RATES FOR CONVEYANCE OF R.C.C. PLAIN ENDED PIPES**

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
				Rate upto 5 Kms Lead including Loading, unloading and stacking	Rate for every additional 1 KM lead or part thereof.
	<b>Code No.</b>		<b>Description</b>		
	<b>1</b>		<b>2</b>	<b>3</b>	<b>4</b>
<b>CONVEYANCE OF R.C.C. PLAIN ENDED PIPES ON ALL WEATHER ROADS INCLUDING LOADING, UNLOADING / Meter)</b>					
				<b>NP - 2 Class</b>	
			80 mm dia	1.30	0.06
			100 mm dia	1.60	0.08
			150 mm dia	2.25	0.13
			200 mm dia	3.00	0.16
			225 mm dia	3.50	0.20
			250 mm dia	4.00	0.24
			300 mm dia	6.00	0.30
			350 mm dia	7.80	0.38
			400 mm dia	9.00	0.50
			450 mm dia	11.50	0.65
			500 mm dia	12.50	0.75
			600 mm dia	18.00	1.10
			700 mm dia	23.00	1.60
			800 mm dia	27.00	1.60
			900 mm dia	31.00	1.60
			1000 mm dia	46.00	3.25
			1100 mm dia	50.50	3.25
			1200 mm dia	57.00	3.45
			1400 mm dia	69.00	3.45
			1600 mm dia	80.00	3.50
			1800 mm dia	92.00	3.50

### S.S. RATES FOR CONVEYANCE OF R.C.C. S/S PIPES

				Rate upto 5 Kms Lead including Loading, unloading and stacking	Rate for every additional 1 KM lead or part thereof.
	<b>Code No.</b>		<b>Description</b>		
	<b>1</b>		<b>2</b>	<b>3</b>	
<b>CONVEYANCE OF R.C.C. SOCKET AND SPIGOT PIPES ON ALL WEATHER ROADS INCLUDING LOA STACKING (per Meter of effective length)</b>					
				<b>NP - 2 &amp; P1 Class</b>	
			<b>Size</b>		
			80 mm dia	1.65	0.10
			100 mm dia	1.90	0.11
			150 mm dia	2.65	0.15
			200 mm dia	3.40	0.25
			225 mm dia	4.10	0.30
			250 mm dia	4.60	0.36

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
			300 mm dia	6.80	0.40
			350 mm dia	8.50	0.50
			400 mm dia	10.30	0.65
			450 mm dia	11.80	0.70
			500 mm dia	13.25	0.75
			600 mm dia	17.50	1.21
			700 mm dia	21.25	1.30
			800 mm dia	29.50	2.00
			900 mm dia	44.00	3.65
			1000 mm dia	50.00	3.65
			1100 mm dia	56.50	3.65
			1200 mm dia	63.00	3.70
			1400 mm dia	78.00	3.70
			1600 mm dia	93.00	3.75
			1800 mm dia	115.00	3.75
				<b>P2 - Class</b>	
			80 mm dia	1.65	0.10
			100 mm dia	1.90	0.11
			150 mm dia	2.65	0.15
			200 mm dia	3.69	0.30
			225 mm dia	5.00	0.37
			250 mm dia	5.25	0.39
			300 mm dia	10.00	0.52
			350 mm dia	12.60	0.70
			400 mm dia	15.00	0.75
			450 mm dia	19.00	1.17
			500 mm dia	21.50	1.20
			600 mm dia	28.50	1.27
			700 mm dia	42.00	2.45
			800 mm dia	56.00	3.50
			900 mm dia	66.00	3.70
			1000 mm dia	84.00	3.75

### S.S.RATES FOR A.C. PIPES

Code No.	Description		
1	2		
	MANUFACTURE AS PER BIS NO: 1592/1989 AS AMENDED FROM TIME TO TIME (MAZZA PROCESS) WITH BIS MARK, INCLUDING COST OF MATERIAL, INCIDENTAL HANDLING, LOADING AND PAC TRANSPORTATION, UNLOADING, STACKING AT DEPARTMENTAL STORES, EXCISE DUTY, VAT 0		
	Size	Unit	Class -5
	80 mm dia	Rate/Meter	77.27
	100 mm dia	Rate/Meter	97.34
	125 mm dia	Rate/Meter	122.3
	150 mm dia	Rate/Meter	151.63
	200 mm dia	Rate/Meter	211.85
	250 mm dia	Rate/Meter	261.77
	300 mm dia	Rate/Meter	337.27
	350 mm dia	Rate/Meter	494.21
	400 mm dia	Rate/Meter	613.08
	450 mm dia	Rate/Meter	739.13
	500 mm dia	Rate/Meter	913.54
	600 mm dia	Rate/Meter	1279.2



Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
<b>SCHEDULE OF RATES FOR TRANSPORTATION OF A.C. PRESSURE PIPES AT SITE OF WORK WITH ANDHRA PRADESH</b>					
			Stores delivery charges for transportation of AC pressure pipes at site of work anywhere in Andhra Pradesh on motor including transit insurance, unloading, and stacking at Departmental stores etc., complete (A.C. couplings and Rubber of transportation charges).		

**Note** The duties and taxes as applicable may be added as per rules at the time of preparation of estimate.

### RATES FOR A.C. COUPLINGS

Code No.	Description		
1	2		
	<b>MANUFACTURE AS PER MANUFACTURERS SPECIFICATION (MAZZA PROCESS) AND SUPPLY OF A.C. PRESSURE PIPES INCLUDING COST OF MATERIAL, INCIDENTAL HANDLING, PACKING TRANSPORTATION CHARGES EXCLUDING EXCISE DUTY, VAT AND OTHER GOVT. LEVIES.</b>		
	<b>Size</b>	<b>Unit</b>	<b>Class - 5</b>
	80 mm dia	Rate/Each	40.25
	100 mm dia	Rate/Each	50.54
	125 mm dia	Rate/Each	61.78
	150 mm dia	Rate/Each	71.14
	200 mm dia	Rate/Each	89.86
	250 mmdia	Rate/Each	101.09
	300 mm dia	Rate/Each	117.94
	350 mm dia	Rate/Each	220.90
	400 mm dia	Rate/Each	301.39
	450 mm dia	Rate/Each	357.55
	500 mm dia	Rate/Each	426.82
	600 mm dia	Rate/Each	570.96

### RATES FOR RUBBER RINGS TO SUIT A.C. PIPES

Code No.	Description		
1	2		
	<b>SCHEDULE OF RATE FOR SUPPLY OF RUBBER RINGS MANUFACTURED AS PER BIS: 5382/88 AND FOR A.C. COUPLINGS INCLUDING COST OF MATERIAL, INCIDENTAL, HANDLING, PACKING, TRANSPORTATION CHARGES ETC., BUT EXCLUDING VAT.</b>		
	<b>Size</b>	<b>Unit</b>	<b>Class - 5</b>
	80 mm dia	Each Set	25.27
	100 mm dia	Each Set	30.99
	125 mm dia	Each Set	40.56
	150 mm dia	Each Set	51.79
	200 mm dia	Each Set	53.04
	250 mmdia	Each Set	61.88
	300 mm dia	Each Set	62.09

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
			350 mm dia	Each Set	<b>69.89</b>
			400 mm dia	Each Set	<b>85.38</b>
			450 mm dia	Each Set	<b>100.88</b>
			500 mm dia	Each Set	<b>116.48</b>
			600 mm dia	Each Set	<b>131.98</b>

**RATES FOR PRE-STRESSED (NON-CYLINDER) CONCRETE PIPES**

Code No.	Description		
1	2		
	<b>MANUFACTURE, SUPPLY, DELIVERY OF PRE-STRESSED (NON-CYLINDER) CONCRETE PIPES COI transportation and taxes &amp; duties.</b>		
	<b>Size</b>	<b>Unit</b>	
			<b>6 Kg/cm2</b>
	350 MM DIA	Meter	1060.00
	400 MM DIA	Meter	1140.00
	450 MM DIA	Meter	1210.00
	500 MM DIA	Meter	1310.00
	600 MM DIA	Meter	1510.00
	700 MM DIA	Meter	1850.00
	800 MM DIA	Meter	2190.00
	900 MM DIA	Meter	2540.00
	1000 MM DIA	Meter	2980.00
	1100 MM DIA	Meter	3390.00
	1200 MM DIA	Meter	3760.00
	<b>Cost of laying jointing, testing to Hydrostatic field test pressure including cost of rubber rings, completion of field testing etc.</b>		
	350 MM DIA	Meter	75.00
	400 MM DIA	Meter	85.00
	450 MM DIA	Meter	95.00
	500 MM DIA	Meter	100.00
	600 MM DIA	Meter	125.00
	700 MM DIA	Meter	145.00
	800 MM DIA	Meter	165.00
	900 MM DIA	Meter	185.00
	1000 MM DIA	Meter	210.00
	1100 MM DIA	Meter	235.00
	1200 MM DIA	Meter	255.00

	<b>CONVEYANCE OF PRE-STRESSED (NON-CYLINDER) CONCRETE PIPES AND ACCESSORIES including the following sizes.</b>		
	350 MM DIA	Per KM/M	0.38
	400 MM DIA	Per KM/M	0.38
	450 MM DIA	Per KM/M	0.43
	500 MM DIA	Per KM/M	0.50
	600 MM DIA	Per KM/M	0.60
	700 MM DIA	Per KM/M	1.00
	800 MM DIA	Per KM/M	1.00
	900 MM DIA	Per KM/M	1.00
	1000 MM DIA	Per KM/M	1.50
	1100 MM DIA	Per KM/M	1.50
	1200 MM DIA	Per KM/M	3.00

**RATES FOR BAR WRAPPED STEEL CYLINDRICAL (BWSC) PIPES**

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
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Code No.			
1			
	<b>BAR WRAPPED STEEL CYLINDRICAL (BWSC) PIPES CONFORMING TO IS 15155 - 2002 @ Ex-facto</b>		
	<b>Size</b>	<b>Unit</b>	
			4 - 12 Kg/cm <sup>2</sup>
	250 MM DIA	Meter	1,027.00
	300 MM DIA	Meter	1,157.00
	350 MM DIA	Meter	1,418.00
	400 MM DIA	Meter	1,561.00
	450 MM DIA	Meter	1,704.00
	500 MM DIA	Meter	1,901.00
	600 MM DIA	Meter	2,502.00
	700 MM DIA	Meter	2,834.00
	800 MM DIA	Meter	3,221.00
	900 MM DIA	Meter	3,992.00
	1000 MM DIA	Meter	4,503.00
	<b>Cost of laying jointing, testing to hydrostatic field test pressure including cost of site welding an</b>		
	<b>Size</b>	<b>Unit</b>	
			4 - 12 Kg/cm <sup>2</sup>
	250 MM DIA	Meter	180.00
	300 MM DIA	Meter	210.00
	350 MM DIA	Meter	250.00
	400 MM DIA	Meter	280.00
	450 MM DIA	Meter	320.00
	500 MM DIA	Meter	350.00
	600 MM DIA	Meter	430.00
	700 MM DIA	Meter	500.00
	800 MM DIA	Meter	570.00
	900 MM DIA	Meter	670.00
	1000 MM DIA	Meter	740.00

<b>Conveyance of Bar Wrapped steel Cylindrical (BWSC) pipes and accessories including loading at F:</b>			
	250 MM DIA	Per KM/M	0.20
	300 MM DIA	Per KM/M	0.20
	350 MM DIA	Per KM/M	0.25
	400 MM DIA	Per KM/M	0.30
	450 MM DIA	Per KM/M	0.38
	500 MM DIA	Per KM/M	0.43
	600 MM DIA	Per KM/M	0.50
	700 MM DIA	Per KM/M	0.60
	800 MM DIA	Per KM/M	0.75
	900 MM DIA	Per KM/M	0.75
	1000 MM DIA	Per KM/M	1.00

### RATES FOR DUCTILE IRON PRESSURE PIPES

Code No.	Description	Unit	S S Rates
1	2	3	4

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
1			CENTRIFUGALLY CAST (SPUN) DUCTILE IRON PRESSURE PIPES FOR WATER, GAS AND SEWAGE WITH SOCKET SPIGOT ENDS CONFORMING TO I.S.: 8329/2000 IN STANDARD WORKING LENGTHS OF 4, 5 5.5 & 6 METER FOR CLASSIFICATION K9 & K7 SUITABLE FOR PUSH-ON-JOINT (RUBBER GASKET D JOINTING) WITH CEMENT MOTOR LINING INSIDE THE PIPES WITH OUTSIDE ZINC COATING. RATES ARE EX-FACTORY EXCLUDING TRANSPORTATION, TAXES & DUTIES.		<b>NOTE : The rates of DI P D.G.S. &amp; D R shal</b>  <b>adop</b>
2			CENTRIFUGALLY CAST (SPUN) DUCTILE IRON PRESSURE PIES WITH FLANGED (WELDED) ENDS FOR WATER, GAS, SEWAGE CONFORMING TO I.S.: 8329/2000 IN STANDARD WORKING LENGTHS OF 4, 5, AND 5.5. Mts FOR CLASSIFICATION K9 & K7 WITH CEMENT MORTOR LINING INSIDE THE PIPES WITH OUTSIDE ZINC COATING. RATES ARE EX-FACTORY EXCLUDING TRANSPORTATION, TAXES & DUTIES.		
3			CENTRIFUGALLY CAST (SPUN) DUCTILE IRON PRESSURE PIPES FOR WATER, GAS AND SEWAGE WITH PLAIN ENDS CONFORMING TO I.S.: 8329/2000 IN STANDARD WORKING LENGTHS OF 4, 5, 5.5 & 6 METER FOR CLASSIFICATION K9 & K7 WITH CEMENT MOTOR LINING INSIDE THE PIPES WITH OUTSIDE ZINC COATING. RATES ARE EX-FACTORY EXCLUDING TRANSPORTATION, TAXES & DUTIES.		

**Note:** The duties and taxes as applicable may be added as per rules at the time of preparation of estimate.

### RATES FOR DUCTILE IRON FITTINGS

Code No.	Description	Unit	S S rate 2005
1	2	3	4
	<b>CENTRIFUGALLY CAST (SPUN) DUCTILE IRON FITTINGS CONFORMING TO IS:9523/2000 HAVING D AS PER TABLE. THE RATES MENTIONED HERE UNDER ARE FOR FITTINGS, ZINC COATED EXTER INSIDE MOTOR LINING (WITH FINISHING AS PER CLASS 13/IS 9523/2000) ( Ex-works) Excluding tra taxes and duties etc.</b>		
<b>I</b>	<b>DI double socket branch flange Tee</b>		
	Nominal dia in mm		
	80 x 80	Each	<b>585.00</b>
	100 x 80	Each	<b>675.00</b>
	100 x 100	Each	<b>765.00</b>
	150 x 80	Each	<b>945.00</b>
	150 x 100	Each	<b>1035.00</b>
	150 x 150	Each	<b>1260.00</b>
	200 x 80	Each	<b>1305.00</b>
	200 x 100	Each	<b>1395.00</b>
	200 x 150	Each	<b>1665.00</b>
	200 x 200	Each	<b>1980.00</b>
	250 x 80	Each	<b>1620.00</b>
	250 x 100	Each	<b>1755.00</b>
	250 x 150	Each	<b>2025.00</b>
	250 x 200	Each	<b>2385.00</b>
	250 x 250	Each	<b>2835.00</b>
	300 x 100	Each	<b>2295.00</b>
	300x 200	Each	<b>2970.00</b>
	300 x 300	Each	<b>3960.00</b>
	350 x 100	Each	<b>3000.00</b>
	350 x 200	Each	<b>3900.00</b>
	350 x 350	Each	<b>5850.00</b>
	400 x 80	Each	<b>3400.00</b>

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
			400 x 100	Each	3600.00
			400 x 150	Each	4050.00
			400 x 200	Each	4550.00
			400 x 300	Each	5800.00
			400 x 400	Each	7500.00
			450 x 100	Each	4400.00
			450 x 250	Each	6000.00
			500 x 100	Each	5665.00
			500 x 200	Each	6875.00
			500 x 400	Each	10065.00
			500 x 500	Each	12320.00
			600 x 200	Each	9405.00
	<b>II</b>		<b>DI All socket Tees+B16</b>		
			Nominal dia in mm		
			80 x 80	Each	540.00
			100 x 80	Each	630.00
			100 x 100	Each	675.00
			150 x 80	Each	900.00
			150 x 100	Each	945.00
			150 x 150	Each	1125.00
			200 x 80	Each	1260.00
			200 x 100	Each	1350.00
			200 x 150	Each	1530.00
			200 x 200	Each	1800.00
			250 x 80	Each	1575.00
			250 x 100	Each	1665.00
			250 x 150	Each	1890.00
			250 x 200	Each	2160.00
			250 x 250	Each	2475.00
			300 x 100	Each	2250.00
			300x 200	Each	2790.00
			300 x 300	Each	3465.00
	<b>III</b>		<b>DI double socket concentric TAPERS</b>		
			Nominal dia in mm		
			100 x 80	Unit	360.00
			150 x 80	Unit	585.00
			150 x 100	Unit	585.00
			200 x 100	Unit	900.00
			200 x 150	Unit	900.00
			250 x 150	Unit	1260.00
			250 x 200	Unit	1215.00
			300 x 150	Unit	1710.00
			300x 200	Unit	1710.00
			300 x 250	Unit	1575.00
			350 x 200	Unit	2500.00
			350 x 250	Unit	2400.00
			350 x 300	Unit	2250.00
			400 x 250	Unit	3100.00
			400 x 300	Unit	3000.00
			400 x 350	Unit	2750.00
			450 x 350	Unit	3700.00
			450 x 400	Unit	3450.00
			500 x 350	Unit	5115.00
			500 x 400	Unit	4785.00
			600 x 500	Unit	6710.00
	<b>IV</b>		<b>DI Flanged socket</b>	<b>PN-10</b>	<b>PN-16</b>

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06	
			Nominal dia in mm	Rate/Unit		
				80	400	400.00
				100	450	450.00
				150	700	700.00
				200	1,000.00	1000.00
				250	1,300.00	1300.00
				300	1,650.00	1750.00
				350	2,310.00	2475.00
				400	2,750.00	3025.00
				450	3,190.00	3740.00
				500	4,140.00	5040.00
				600	-	8160.00
	V		DI Flanged Spigot	PN-10	PN-16	
			Nominal dia in mm	Rate/Unit		
				80	400	400.00
				100	500	500.00
				150	800	800.00
				200	1,150.00	1150.00
				250	1,600.00	1600.00
				300	2,100.00	2150.00
				350	2,915.00	3080.00
				400	3,575.00	3905.00
				450	4,290.00	4840.00
				500	5,700.00	-
				600	8,100.00	9540.00

### S S RATES FOR D.I. DOUBLE SOCKET BENDS

Code No.	Description		
1	2	3	4
	CENTRIFUGALLY CAST (SPUN) DUCTILE IRON FITTINGS CONFORMING TO IS:9523/2000 HAVING DIMENTIONS AS PER TABLE. THE RATES MENTIONED HERE UNDER ARE FOR FITTINGS, ZINC COATED EXTERNALLY WITH INSIDE MOTOR LINING (WITH FINISHING AS PER CLASS 13/IS 9523/2000) Ex - works excluding transportation, taxes and duties etc.		
	DI double socket Bends		
	Nominal dia in mm	Rate/Each	
			90°
			45°
		80	-
		100	495.00
		150	-
			720.00
		200	1440.00
			1170.00
		250	2025.00
			1575.00
		300	2925.00
			2205.00
		350	-
			3200.00
		400	-
			4000.00
		450	-
			5300.00
		500	-
			7040.00
		600	-
			10890.00

### RATES FOR CENTRIFUGALLY CAST (SPUN) IRON PRESSURE PIPES

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
	Code No.		Description	Unit	S S Rate: 2005-06
1	2			3	4
			Socket and spigot centrifugally cast (spun) iron pressure pipes for water, gas and sewage conforming to specification no: i.s 1536/1989 (third revision) with amdt. No: 1 & 2 in standard lengths of 3.66 m, 4 m, 4.5m, 5 m, 5.5 m & 6 m and details given below, suitable either for lead jointing or rubber gasket (pushon) jointing at purchasers option at ex-factory excluding transportation, taxes & duties.		Note: The price for Centrifugal (Spun) Iron Pipes as per DGS Contract shall

### RATES FOR GLASS FIBRE REINFORCED PLASTIC (GRP) PIPES

Code No.	Description	Unit	
1	2		3 Bar
	GLASSFIBRE REINFORCED PLASTIC (GRP) PIPES CONFORMING TO IS 12709 - 1994 Stiffness class jointing materials i.e., Reka couplings, Rubber Gaskets etc., for jointing pipes including cost of spigot jointing excluding Central Excise duty and sale tax.		
	Size	Unit	
			3 Bar
	350 MM DIA	Meter	1,523.00
	400 MM DIA	Meter	1,696.00
	450 MM DIA	Meter	1,990.00
	500 MM DIA	Meter	2,266.00
	600 MM DIA	Meter	2,880.00
	700 MM DIA	Meter	3,645.00
	800 MM DIA	Meter	4,462.00
	900 MM DIA	Meter	5,578.00
	1000 MM DIA	Meter	6,685.00
	Cost of laying jointing, testing to Hydrostatic field test pressure including cost of transportation and testing.		
	Size	Unit	
			3 Bar
	350 mm dia	Meter	120.00
	400 mm dia	Meter	180.00
	450 mm dia	Meter	220.00
	500 mm dia	Meter	280.00
	600 mm dia	Meter	300.00
	700 mm dia	Meter	340.00
	800 mm dia	Meter	400.00
	900 mm dia	Meter	440.00
	1000 mm dia	Meter	510.00

### S S RATES FOR H.D.P.E PIPES FOR THE YEAR 2005-06 (PE - 80 Grade)

Code No.	Description	2.5 kg/ sqcm	4.0 kg/ sqcm
1	2	3	4
	Manufacture, supply, & delivery of HDPE pipes conforming to IS 4984 - 1995 including transportation to any where in A.P, excluding excise duty, sale tax and specials etc., complete. ( Supply upto 90 mm dia in coil & above 90 mm dia stright length in 6 M.)		
	Rate per Meter		

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
			OD 20 mm	-	-
			OD 25 mm	-	-
			OD 32 mm	-	-
			OD 40 mm	-	17.55
			OD 50 mm	-	25.10
			OD 63 mm	21.20	34.39
			OD 75 mm	36.20	47.00
			OD 90 mm	46.28	68.00
			OD 110 mm	65.55	101.68
			OD 125 mm	81.00	130.49
			OD 140 mm	107.43	161.56
			OD 160 mm	138.96	211.67
			OD 180 mm	172.79	266.83
			OD 200 mm	212.22	326.45
			OD 225 mm	279.90	432.15
			OD 250 mm	345.30	534.60
			OD 280 mm	433.90	665.80
			OD 315 mm	544.70	846.90

### RATES FOR SFRC MAN-HOLE FRAME WITH COVERS

S.No.	Description	Unit	S S Rate 2005-06
1	2	3	4
I	Manufacture as per BIS:12592 (Part 1&2) Supply & Delivery of manhole covers and frames anywhere in A.P., F.O.R. destination including, loading, un-loading & stacking at site but excluding central excise duty, sales tax, octroi and other Govt levies etc., as applicable.		
a)	M.D. -10 with 500mm dia clear opening	Each	594
b)	H.D.-20 with 500mm dia clear opening	Each	765
	H.D.-20 with 560mm dia clear opening	Each	821
	H.D.-35 with 560mm dia clear opening.	Each	880
II	Manufacture as per companys standard specification supply and delivery of encapsulated plastic steps for man holes anywhere in A.P. including cost of materials packing as per companys standards, loading, transportation, unloading and stacking at site of work etc, complete but excluding taxes such as sales tax,C.E.D and others etc., as applicable.	Each	65.

### S S RATES FOR C.I. D/F VALVES

Code No.	Description		
1	2	3	4
1(a)	Manufacture, Supply and delivery of CI D/F sluice valves conforming to IS 14846/2000 with amdt. No.1 & 2 components / parts. Excluding transportation, Central Excise duty and sale tax etc., complete. The valves shall be tested for (closed and test) against Hydrostatic test requirement. ISI Marked.		
	With Cap	Rate/Each	PN-1.0
			PN-1.6
	DIA IN MM	Rs.	Rs.
		50	1230.00
		65	1332.00
		80	1612.00
		100	2152.00
		125	2665.00



Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06	
				150	3364.00	3500.00
				200	6076.00	6600.00
				250	8965.00	9700.00
				300	10829.00	11500.00
	1(b)		<b>Manufacture, Supply and delivery of CI D/F sluice valves conforming to IS 14846/2000 with amdt. No.1 &amp; 2 components / parts. Excluding transportation, Central Excise duty and sale tax etc., complete. The valves shall be tested for (closed and test) against Hydrostatic test requirment. ISI Marked.</b>			
			<b>With hand wheel</b>	<b>Rate/Each</b>	<b>PN-1.0</b>	<b>PN-1.6</b>
			<b>DIA IN MM</b>		<b>Rs.</b>	<b>Rs.</b>
				50	1250.00	1250.00
				65	1398.00	1538.00
				80	1705.00	1700.00
				100	2255.00	2260.00
				125	2814.00	2820.00
				150	3373.00	3550.00
				200	6533.00	6700.00
				250	9515.00	9800.00
				300	11389.00	11710.00
	1 (c)		<b>Manufacture, Supply and delivery of CI D/F sluice valves conforming to IS 14846/2000 Non-rising spindle type with /SS 410 Spindle &amp; GM working parts. excluding transportation, Central Excise duty and sale tax etc., complete. The operation can be done with handwheel/cap ISI Marked.</b>			
			<b>With handwheel/cap</b>	<b>Rate/Each</b>	<b>PN-1.0</b>	<b>PN-1.6</b>
			<b>DIA IN MM</b>		<b>Rs.</b>	<b>Rs.</b>
				350	26475.00	34032.00
				400	32700.00	42045.00
				450	47040.00	60940.00
				500	59160.00	74907.00
				600	79095.00	100125.00
				700	139215.00	N.A.
				750	235690.00	N.A.
				800	272250.00	N.A.
				900	328175.00	N.A.
	2		<b>Manufacture, Supply and delivery of CI D/F Non Return Valve Heavy Duty Round Body conforming to IS 5312/Part1/1984. excluding transportation, Central Excise duty and sale tax etc., complete.</b>			
				<b>Rate/Each</b>	<b>PN-1.0</b>	<b>PN-1.6</b>
			<b>DIA IN MM</b>		<b>Rs.</b>	<b>Rs.</b>
				50	1260.00	1260.00
				65	1575.00	1575.00
				80	1890.00	1890.00
				100	2520.00	2520.00
				125	3150.00	3150.00
				150	3780.00	4725.00
				200	7540.00	9425.00
				250	10935.00	13670.00
				300	16452.00	20565.00
				350	22635.00	28300.00
				400	28923.00	36150.00
				450	48717.00	60900.00
				500	58765.00	73460.00
				600	93885.00	117360.00

Sl. No.	S.S. No.	Item Description	Unit (per)	S S RATE FOR 2005-06
	3	Manufacture, Supply and delivery of CI D/F Kinetic Double Air Valve Heavy Duty suitable for working pressure upto 16kg/Cm2 without isolating valve, conforming to IS 14845 excluding transportation, Central Excise duty and sale tax etc., complete.		
		DIA IN MM	Rate/Each	Rs.
		40		1680.00
		50		2030.00
		80		2716.00
		100		3640.00
		150		8200.00
		200		13580.00
	4	Manufacture, Supply and delivery of CI D/F Double Air Valve suitable for working pressure upto 10kg/Cm2 conforming to G & K Fig.H7 excluding transportation, Central Excise duty and sale tax etc., complete.		
		DIA IN MM	Rate/Each	
		40		1043.00
		50		1440.00
		80		1995.00
		100		2475.00
		150		6450.00
		200		11250.00
	5	Manufacture, Supply and delivery of CI D/F Kinetic Air Valve as per IS:14845 Heavy Duty with isolating valve bevel gear operated as per IS 14846 excluding transportation, Central Excise duty and sales tax etc., complete.		
		DIA IN MM	Rate/Each in Rs.	
			PIN 1.0	PIN 1.6
		40	4782.00	5500.00
		50	5580.00	6417.00
		80	7350.00	8450.00
		100	10125.00	11650.00
		150	19950.00	22950.00
		200	29750.00	34215.00
	6	Manufacture, Supply and delivery of CI D/F Kinetic Air Valve as per G&K H42K with isolating valve bevel gear operated as per IS 14845 excluding transportation, Central Excise duty and sales tax etc., complete.		
		DIA IN MM	Rate/Each in Rs.	
			PIN 1.0	PIN 1.6
		40	3825.00	4782.00
		50	4463.00	5580.00
		80	5880.00	7350.00
		100	8100.00	10125.00
		150	15960.00	19950.00
		200	23800.00	29750.00
		Conveyance of valves and accessories including loading at factory and unloading, stacking at site of work.	10% on basic	

**S S RATES FOR WATER HAMMER CONTROL DEVICES**

Sl. No.	S.S. No.	Item Description	Unit (per)	S S RATE FOR 2005-06
Code No.	Description		10 Kgs/cm <sup>2</sup>	15 Kgs/cm <sup>2</sup>
1	2		3	4
	Manufacture, Supply and delivery of zero velocity valve/ PSLV with CI body with flanged ends as per Central Excise duty and sale tax etc., complete.			
	DIA IN MM	Rate/Each		
		100		
		125		
		150	36375.00	42459.00
		200	38000.00	43700.00
		250	42875.00	49306.00
		300	48250.00	55488.00
	Manufacture, Supply and delivery of zero velocity valve/ PSLV with MS Fabricated Body with Plain Transportation, Central Excise duty and sale tax etc., complete.			
	DIA IN MM	Rate/Each		
		350	49055.00	56413.00
		400	54223.00	62356.00
		450	63066.00	72526.00
		500	72888.00	83820.00
	525/550		78290.00	89000.00
		600	87659.00	100808.00
		650	98125.00	107938.00
		700	114375.00	125875.00
		750	126688.00	139375.00
		800	154328.00	177478.00
		900	183429.00	210943.00
		1000	222500.00	222500.00
		1050	224725.00	224725.00
		1100	283475.00	321438.00
		1200	341188.00	375313.00
		1400	511782.00	562969.50
		1500	596313.00	655938.00
		1600	608239.26	669056.76
	Manufacture, Supply and delivery of Air Cushan valves / Quick Released damped Air Valves transportation, Central Excise duty and sale tax etc., complete.			
	DIA IN MM	Rate/Each		
		100	31750.00	36513.00
		150	48250.00	55488.00
		200	51500.00	59225.00
	Conveyance of valves and accessories including loading at factory and unloading, stacking at site of work.			10% on basic

### S S RATES FOR DI D/F VALVES

Code No.	Description	TES	
		PN 10	PN 16
1	2	3	4

Sl. No.	S.S. No.	Item Description	Unit (per)	S S RATE FOR 2005-06
	1	Manufacture, supply and delivery of Single Chamber DI <b>DUOJET Air Valve</b> with Body and cover in Ductile Iron of grade GGG40. All internal parts such as float, shell etc., all cover bolts, of austenitic alloy steel, Dn50 Float of HOSTAFILON and Gaskets and seals of EPDM. Epoxy powder coating (EP-P) inside and outside colour blue RAL 5005.		
		<b>DIA IN MM                      Rate/Each in Rs.</b>		
			50	22150.00                      22150.00
			80	29550.00                      29550.00
			100	34500.00                      34500.00
			150	42000.00                      42000.00
			200	46000.00                      46000.00
	2	Manufacture, Supply and delivery of DI D/F <b>EKO/EKO plus Gate Valves</b> (Soft Seated) Resilient seated soft sealing gate valves (Sluice valves) with body bonnet of ductile cast iron of grade GGG40, wedge fully rubber lined with EPDM and seals of NBR and the valves should be of vacuum tight and 100% leak proof with face to face dimensions as per BS5163-89/IS14846-2000/DIN3202 F 4. All the valves should be with Electrostatic powder coating both inside and outside without pocket less body passage.		
		<b>DIA IN MM                      Rate/Each in Rs.</b>		
			50	5303.00                      5303.00
			80	6790.00                      6790.00
			100	8970.00                      8970.00
			150	14670.00                      14670.00
			200	23640.00                      23640.00
			250	32462.00                      32462.00
			300	54912.00                      54912.00
			350	160227.00                      160227.00
			400	177078.00                      177078.00
	3	Manufacture, Supply and delivery of DI D/F <b>EKN Butterfly Valves</b> Double eccentrically Disc., with renewable soft seal on the disc and Body seat face of nickel weld overlay micro finished, with powder or liquid Epoxy coating with minimum thickness of 250 microns applied on both body and disc inside and outside. Face to face dimensions as per EN558-1 basic series 14 (DIN3202 F4) or AWWA C 504:80 or BS 5155 or IS:13095.		
		<b>DIA IN MM                      Rate/Each in Rs.</b>		
			400	123348.00                      139748.00
			450	135414.00                      150291.00
			500	136702.00                      161360.00
			600	179166.00                      252964.00
			700	353704.00                      425628.00
			800	383458.00                      528301.00
			900	603681.00                      707408.00
			1000	704070.00                      879897.00
			1100	812190.00
			1200	975249.00                      1209295.00
	4	Manufacture, Supply and delivery of DI D/F <b>Tilting disc Swing Check Valves</b> Slanted/Straight seated with metallic, corrosion proof and wear resistant seat faces, Body and Disc of ductile cast iron GGG 40/SG IRON 420/12. Shafts of stainless steel, shaft bearing of zincfree bronze and seat faces with nickel weld overlay, micro finished. All the inside and outside of the body is to be coated with double coating of epoxy liquid lacquer (EP-F).		
		<b>DIA IN MM                      Rate/Each in Rs.</b>		
			200	57038.00                      60431.00
			250	62771.00                      66573.00
			300	78683.00                      83363.00
			350	92606.00                      98163.00

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
				400	112496.00
				500	143033.00
				600	214600.00
				700	309750.00
				800	387300.00

**RATES FOR RUBBER GASKETS SUITABLE FOR C.I/ D.I. S/S PIPES**

Sl. No.	Description	Unit	S S Rates For 2005-06
1	2	3	4
	<b>MANUFACTURE AS PER BIS 12820/89 WITH S.B.R. QUALITY RUBBER CONFIRMING TO BIS: 5382/85, SUPPLY AND DELIVERY OF RUBBER GASKETS SUITABLE FOR C.I/ D.I. S/S PIPES ANYWHERE IN A.P. F.O.R. DESTINATION DEPARTMENTAL STORES INCLUDING COST OF MATERIAL, LOADING, INCIDENTAL HANDLING WITH COMPANYS STANDARD PACKING, TRANSPORTATION, UNLOADING &amp; STACKING BUT EXCLUDING CENTRAL EXCISE DUTY, SALES TAX, OCTROI AND OTHER GOVT. LEVIES ETC., COMPLETE.</b>		
	80mm dia	Each	27.80
	100mm dia	Each	40.00
	150mm dia	Each	63.85
	200mm dia	Each	78.30
	250mm dia	Each	87.55
	300mm dia	Each	133.90
	350mm dia	Each	168.90
	400mm dia	Each	184.35
	450mm dia	Each	198.80
	500mm dia	Each	299.75
	600mm dia	Each	354.25
	700mm dia	Each	470.90
	750mm dia	Each	523.20
	800mm dia	Each	626.75
	900mm dia	Each	757.55
	1000mm dia	Each	828.40

**S S RATES FOR PVC PIPES**

Code No.	Description	TE	
		2.5 Kgs/cm <sup>2</sup>	4.0 Kgs/cm <sup>2</sup>
1	2	3	4
	<b>Manufacture, Supply and delivery of Unplasticised PVCs Pipes for potable water supplies conforming to IS : 4985/2000 (third revision) with bell ends (Socket) as per specification in light Grey/Natural Ivory Grey/ Any other Color (except White) inclusive of transportation to the sub-divisional stores anywhere in AP excluding Excise duty and Sales Tax etc.</b>		
	<b>DIA IN MM      Rate/Metre</b>		
		20	--
		25	--
		32	--
		40	--
		50	--
		63	24.50
		75	35.10
		90	32.35      49.43
		110	48.75      71.50

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06	
				125	62.86	93.25
				140	77.00	116.20
				160	102.45	153.55
				180	128.52	195.80
				200	165.12	238.30
				225	213.13	313.72
				250	257.00	339.60
				280	331.27	478.94
				315	416.94	608.13

### OTHER ITEMS

Sl. No.	Description	Unit	S S Rates for 2005-06
1	2	3	4
1	Supply and delivery of pig lead 99.99 % pure including cost and conveyance etc., complete.	Per Kg	48.70
2	Supply and delivery of spun yarn of best quality including cost and conveyance etc., complete.	Per Kg	37.50
3	<b>Supply and delivery of rubber packing including cost and conveyance etc., complete.</b>		
	a) 3 mm thick	Per Kg	32.00
	b) 6 mm thick	Per Kg	35.50
4	Supply and delivery of bolts and nuts with double washers including cost and conveyance etc., complete. (1/2" to 1")	Per Kg	34.50

### S S RATES FOR CI PIPES AND SPECIALS

Sl. No.	Description	Quality or sort	Rate including forwarding, transport, delivery any where for the year 2005-06
1	2	3	4
	<b>MANUFACTURE, SUPPLY AND DELIVERY OF CAST IRON PIPES AND FITTINGS (Spl.) CONFIRMING TO I.S. No. 7181/1986, 5531/1988, 3950/1979 AND C.I.D. JOINTS CONFIRMING TO IS No.8794/1988 AT SITE OF WORK ANYWHERE IN A.P. INCLUDING, LOADING, UNLOADING, TRANSPORTATION TO SITE OF WORK STACKING AT SITE TRANSIT RISK AND PACKAGE, EXCLUDING TAXES AND DUTIES.</b>	I.S. No. 7181/1986, 5531/1988, 3950/1979 & 8794/1988	33.25
	<b>Foot Note:</b> The rate of CI pipes, CI Specials and CID Joints etc., which are to be incorporated in the SSR are based on the following raw materials cost.		
	<b>Pig Iron:</b> Rs.20,000/- per M.T.		
	<b>Coke :</b> Rs.20,000/- per M.T.		
	The rates may be revised depending upon the increase/decrease in the cost of raw materials as per the following method. For every increase/decrease of Rs.1000/- in the cost of raw materials or part there of proportionately.		
	<b>In respect of Pig Iron:</b> The increase/decrease in cost of CI Specials per Kg is 3.43%.		
	<b>In respect of coke:</b> The increase/decrease in cost of CI Specials per Kg is 0.67%.		
	The above price is at site of work , Excise duty, CST/VAT extra as applicable at the time of supply.		

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
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**RATES FOR SALT GLAZED STONEWARE PIPES AND FITTINGS**

Sl. No.	Description	Unit	S S Rate for 2005-06
1	2	3	4
	<b>MANUFACTURE, SUPPLY AND DELIVERY OF SALT GLAZED STONEWARE PIPES AND FITTINGS AS PER B.I.S. No. 651/1992 F.O.R. DEPARTMENTAL STORES ANYWHERE IN A.P. INCLUDING PACKING AS PER STANDARD SPECIFICATION, LOADING AT FACTORY, TRANSPORTATION, UNLOADING AND STACKING ETC., COMPLETE BUT EXCLUDING VAT AND OTHER GOVT. LEVIES.</b>		
	<b>Salt Glazed Stoneware pipes.</b>		
	4" dia (101.6 mm)	1 Rmt.	<b>Rates as proposed by R &amp; B in S &amp; WS items for Building items</b>
	6" dia (152.4 mm)	1 Rmt.	
	8" dia (203.2 mm)	1 Rmt.	
	10" dia (254.0 mm)	1 Rmt.	
	<b>Bends (Dia in mm)</b>		
		100 Each	<b>28.30</b>
		150 Each	<b>52.40</b>
		200 Each	<b>99.20</b>
		250 Each	<b>200.30</b>
	<b>Junctions (T's &amp; Y's) (Dia in mm)</b>		
	Length of barrel is 60 cm		
	100 x 100	Each	<b>52.40</b>
	150 x 100	Each	<b>77.90</b>
	150 x 150	Each	<b>85.00</b>
	200 x 100	Each	<b>120.40</b>
	200 x 150	Each	<b>141.70</b>
	200 x 200	Each	<b>162.90</b>
	250 x 100	Each	<b>191.30</b>
	250 x 150	Each	<b>252.10</b>
	250 x 200	Each	<b>312.90</b>
	250 x 250	Each	<b>373.70</b>
	<b>Plugs (Diameter in mm)</b>		
		100 Each	<b>10.40</b>
		150 Each	<b>19.80</b>
		200 Each	<b>38.00</b>
		250 Each	<b>66.10</b>
	<b>S.W. Gully Traps (Round and Square)</b>		
	150 mm x 100 mm	Each	<b>80.70</b>

**S S RATES FOR FUSION BONDED EPOXY COATING**

Sl. No.	Description	Unit	S S Rate 2005
1	2	3	4

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
			Providing <b>fusion bonded epoxy coating</b> not less than 175 microns thickness and upto 300 microns to reinforcement of all diameters as per IS 13620-1993 including testing of coating at plant. The rate is inclusive of cost on account of careful handling, PVC coated binding wire instead of GI binding wire, touch up material supplied by coating agency, repair work, transportation from the source of supply of steel to the plant and transportation of coated steel from the plant to site of work, loading, unloading and straightening of bent rods etc., complete as per specification and as directed by the Engineer-in-charge.	per MT	<b>8964.00</b>

#### S S RATES FOR C.I BUTTERFLY VALVES (WAFER LUG)

Code No.	Description	TEST PRE	
1	2	3	4
	Manufacture, Supply and delivery of CI Wafer Lug type Butterfly Valves conforming to IS 13095/1991 (Reaffirmed 1998) <b>excluding transportation</b> and taxes etc., complete. Operation done with worm actuator ISI marked Rate at Ex-Factory.	PN-0.25	PN-0.6
	<b>DIA IN MM      Rate / Each</b>	<b>Rs.</b>	<b>Rs.</b>
	40	1590.00	1640.00
	50	1725.00	1775.00
	65	2035.00	2100.00
	80	2510.00	2590.00
	100	3360.00	3470.00
	125	4210.00	4340.00
	150	5050.00	5200.00
	200	7860.00	8100.00
	250	11250.00	11600.00
	300	15500.00	16000.00
	350	23500.00	24200.00
	400	28300.00	29200.00
	450	36400.00	37500.00
	500	49100.00	50600.00
	600	71500.00	73700.00
	700	106700.00	109700.00
	800	147000.00	151500.00
	900	183000.00	188000.00
	1000	223000.00	230000.00
	1100	264000.00	272000.00
	1200	299000.00	308000.00

## CONVEYANCE RATES OF MATERIALS

#### S S RATES FOR CONVEYANCE OF EARTH,SAND&GRAVEL INCLUDING LOADING, UNLOADING & STACKING ON

S.No.	LEAD	PER	SS rate for 2005-06
1	2	3	4
1	UP TO 250 METRES	cum	37.00
2	250 To 500 METRES	cum	54.60
3	1 Km.	cum	71.60
4	2 Km.	cum	75.00
5	3 Km.	cum	79.40
6	4 Km.	cum	82.90
7	5 Km.	cum	86.40
8	6 Km.	cum	89.70
9	7 Km.	cum	94.20



Sl. No.	S.S. No.	Item Description	Unit (per)	S S RATE FOR 2005-06
	10	8 Km.	cum	97.70
	11	9 Km.	cum	102.10
	12	10 Km.	cum	105.70
	13	11 Km.	cum	111.00
	14	12 Km.	cum	113.50
	15	13 Km.	cum	117.00
	16	14 Km.	cum	121.20
	17	15 Km.	cum	124.90
	18	16 Km.	cum	127.30
	19	17 Km.	cum	132.70
	20	18 Km.	cum	136.40
	21	19 Km.	cum	139.70
	22	20 Km.	cum	144.10
	23	Beyond 20 and up to 30 Km (Rate/Km)	cum	3.10
	24	Beyond 30 and up to 50 Km (Rate/Km)	cum	3.00
	25	Beyond 50 and up to 80 Km (Rate/Km)	cum	2.90
	26	Beyond 80 and up to 100 Km (Rate/Km)	cum	2.80
	27	Beyond 100 Km (Rate / Km)	cum	2.60
	28	LOADING	cum	7.20
	29	UNLOADING	cum	5.90
	30	STACKING	cum	3.80

**S S RATES FOR CONVEYANCE OF METAL, STONE, RUBBLE INCLUDING CUDDAPAH SLABS INCLUDING LOADING, UNLOADING & STACKING ON METALLED ROAD**

S.No.	LEAD	UNIT	SS Rate for 2005-06
1	2	3	4
1	UP TO 500 mts.	cum	83.30
2	1 Km.	cum	86.70
3	2 Km.	cum	88.90
4	3 Km.	cum	93.40
5	4 Km.	cum	97.10
6	5 Km.	cum	100.50
7	6 Km.	cum	106.20
8	7 Km.	cum	108.70
9	8 Km.	cum	110.80
10	9 Km.	cum	116.60
11	10 Km.	cum	119.10
12	11 Km.	cum	123.20
13	12 Km.	cum	128.10
14	13 Km.	cum	131.60
15	14 Km.	cum	136.20
16	15 Km.	cum	138.50
17	16 Km.	cum	142.00
18	17 Km.	cum	146.60
19	18 Km.	cum	150.20
20	19 Km.	cum	152.40
21	20 Km.	cum	158.10
22	Beyond 20 and up to 30 Km (Rate/Km)	cum	4.00
23	Beyond 30 and up to 50 Km (Rate/Km)	cum	3.60
24	Beyond 50 and up to 80 Km (Rate/Km)	cum	3.30
25	Beyond 80 and up to 100 Km (Rate/Km)	cum	3.20
26	Beyond 100 Km (Rate / Km)	cum	2.90
27	LOADING	cum	9.20

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
		28	UNLOADING	cum	6.30
		29	STACKING	cum	6.30

**S S RATES FOR CONVEYANCE OF LIME STONE, BROKEN LATERITE AND BRICK JELLY INCLUDING LOADING, UNLOADING & STACKING ON METALLED ROAD**

S.No.	LEAD	UNIT	SS Rate for 2005-06
1	2	3	4
1	0 To 250 mts.	cum	79.90
2	251 To 500 mts.	cum	80.50
3	1 Km.	cum	83.20
4	2 Km.	cum	85.20
5	3 Km.	cum	89.50
6	4 Km.	cum	93.30
7	5 Km.	cum	97.00
8	6 Km.	cum	99.90
9	7 Km.	cum	103.70
10	8 Km.	cum	107.40
11	9 Km.	cum	110.80
12	10 Km.	cum	112.90
13	11 Km.	cum	117.70
14	12 Km.	cum	120.30
15	13 Km.	cum	125.20
16	14 Km.	cum	128.10
17	15 Km.	cum	131.20
18	16 Km.	cum	134.40
19	17 Km.	cum	137.70
20	18 Km.	cum	141.70
21	19 Km.	cum	145.60
22	20 Km.	cum	148.10
23	Beyond 20 and up to 30 Km (Rate/Km)	cum	3.70
24	Beyond 30 and up to 50 Km (Rate/Km)	cum	3.50
25	Beyond 50 and up to 80 Km (Rate/Km)	cum	2.90
26	Beyond 80 and up to 100 Km (Rate/Km)	cum	2.80
27	Beyond 100 Km (Rate / Km)	cum	2.50
28	LOADING	cum	7.30
29	UNLOADING	cum	5.80
30	STACKING	cum	4.00

**S S RATES FOR CONVEYANCE OF SURKI AND FLYASH INCLUDING LOADING, UNLOADING & STACKING ON METALLED ROAD**

S.No.	LEAD	UNIT	SS Rate for 2005-06
1	2	3	4
1	0 To 250 mts.	Tonne	68.30
2	250 To 500 mts.	Tonne	68.70
3	1 Km.	Tonne	71.80
4	2 Km.	Tonne	75.40
5	3 Km.	Tonne	77.40
6	4 Km.	Tonne	80.90
7	5 Km.	Tonne	84.20
8	6 Km.	Tonne	87.00

Sl. No.	S.S. No.	Item Description	Unit (per)	S S RATE FOR 2005-06
	9	7 Km.	Tonne	90.30
	10	8 Km.	Tonne	93.10
	11	9 Km.	Tonne	95.80
	12	10 Km.	Tonne	99.00
	13	11 Km.	Tonne	101.70
	14	12 Km.	Tonne	104.50
	15	13 Km.	Tonne	108.00
	16	14 Km.	Tonne	110.10
	17	15 Km.	Tonne	113.10
	18	16 Km.	Tonne	116.50
	19	17 Km.	Tonne	119.10
	20	18 Km.	Tonne	122.70
	21	19 Km.	Tonne	125.10
	22	20 Km.	Tonne	127.70
	23	Beyond 20 and up to 30 Km (Rate/Km)	Tonne	2.80
	24	Beyond 30 and up to 50 Km (Rate/Km)	Tonne	2.80
	25	Beyond 50 and up to 80 Km (Rate/Km)	Tonne	2.60
	26	Beyond 80 and up to 100 Km (Rate/Km)	Tonne	2.20
	27	Beyond 100 Km (Rate / Km)	Tonne	2.20
	28	LOADING	Tonne	12.30
	29	UNLOADING	Tonne	7.90
	30	STACKING	Tonne	5.00

**S S RATES FOR CONVEYANCE OF STEEL AND LUBRICATING OIL INCLUDING LOADING, UNLOADING & STACKING ON METALLED ROAD**

S.No.	LEAD	UNIT	SS Rate for 2005-06
1	2	3	4
1	0 To 500 mts.	Tonne	93.90
2	1 Km.	Tonne	95.30
3	2 Km.	Tonne	99.10
4	3 Km.	Tonne	103.30
5	4 Km.	Tonne	107.10
6	5 Km.	Tonne	110.80
7	6 Km.	Tonne	115.20
8	7 Km.	Tonne	118.30
9	8 Km.	Tonne	122.50
10	9 Km.	Tonne	125.90
11	10 Km.	Tonne	130.30
12	11 Km.	Tonne	134.30
13	12 Km.	Tonne	137.70
14	13 Km.	Tonne	141.80
15	14 Km.	Tonne	145.10
16	15 Km.	Tonne	149.40
17	16 Km.	Tonne	152.60
18	17 Km.	Tonne	156.30
19	18 Km.	Tonne	160.20
20	19 Km.	Tonne	163.80
21	20 Km.	Tonne	168.70
22	Beyond 20 and up to 30 Km (Rate/Km)	Tonne	3.50
23	Beyond 30 and up to 50 Km (Rate/Km)	Tonne	2.90
24	Beyond 50 and up to 80 Km (Rate/Km)	Tonne	2.90
25	Beyond 80 and up to 100 Km (Rate/Km)	Tonne	2.50

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
	26	Beyond 100 Km (Rate / Km)		Tonne	2.30
	27	LOADING		Tonne	16.00
	28	UNLOADING		Tonne	12.40
	29	STACKING		Tonne	7.20

**S S RATES FOR CONVEYANCE OF C.I. PIPES, SPECIALS & VALVES PER METRIC TONNE EXCLUDING LOADING & UNLOADING & STACKING**

Lead in Kilometers	80	100	125
1	2	3	4
For every K.M. or part thereof			
<b>2005-06</b>	<b>2.70</b>	<b>2.80</b>	<b>2.90</b>

**RATES FOR CONVEYANCE OF BRICKS, MANGLORE TILES, TERRACE BRICKS, FLAT TILES, LIME, COKE, AND OTHERS INCLUDING LOADING, UNLOADING & STACKING ON METALLED ROAD**

S.No	Description	S S RATE FOR	
		Bricks Mangalore Tiles 2500 Kgs per 1000 Nos	Terrace Bricks, Flat Tiles pan tiles 2500 Kgs per 1000 Nos
1	2	3	4
1	0 - 500 Mts	152.00	42.30
2	1 km	156.10	42.80
3	2 Km	161.20	44.60
4	3 Km	166.40	45.80
5	4 Km	171.50	48.70
6	5 Km	176.70	50.00
7	6 Km	181.80	52.50
8	7 Km	188.20	53.80
9	8 Km	192.00	56.10
10	9 Km	196.70	57.10
11	10 Km	202.30	60.10
12	11 Km	208.70	61.50
13	12 Km	213.80	64.10
14	13 Km	217.20	65.20
15	14 Km	222.80	66.40
16	15 Km	228.70	68.60
17	16 Km	234.40	70.40
18	17 Km	239.00	73.00
19	18 Km	243.30	74.30
20	19 Km	249.30	76.70
21	20 Km	254.80	77.70
22	BEYOND 20 to 50 Km (per Km)	6.80	2.20
23	Above 50 Km (per Km)	5.70	1.70
24	loading	16.00	7.70
25	Unloading	12.80	6.20
26	Stacking	6.20	4.60
	<b>Total</b>	<b>35.00</b>	<b>18.50</b>

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
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# HIRE CHARGES

## HIRE/USAGE CHARGES FOR PLANT AND MACHINERY FOR 2005-06

Sl. No.	Description of Machine	Capacity / Output of machine	Unit of Measurement
1	2	3	4
1	Drum Mix Plant 40 / 60 TPH	50 TPH	Per Hour
2	Hot Mix Plant 30/45 TPH	40 TPH	Per Hour
3	Hot Mix Plant 30/45 TPH 20/30	25 TPH	Per Hour
4	Hot Mix Plant 30/45 TPH 6/10 TPH	8 TPH	Per Hour
5	Paver finisher Hydraulic with sensor	75 TPH	Per Hour
6	Paver finisher mechanical sold	75 TPH	Per Hour
7	1) Bitumen pressure	4T	Per Hour
8	Generating get 125 KVA	100 KVA	Per Hour
9	Loader of 1 Cu.M.	1 Cu. M	Per Hour
10	Tipper 5 cum capacity one trip /hour		
11	Tipper 10 T	10 T	Per Km.
12	Tandam Road Roller	8.5 T	Per Hour
13	Pneumatic tyre Roller	8 T	Per Hour
14	Road Roller	8/10 T	Per Hour
15	JCB Excavator	0.24 / 1 Cu.M	Per Hour
16	Wheeled Dozer. D 30 BEML		Per Hour
17	Mortar Grader BEML		Per Hour
18	Vibratory Roller	10 T	Per Hour
19	Tractor	50 HP	Per Hour
20	Air Compressor	170 Cu. M	Per Hour
21	Bitumen Boiler	1.5 T	Per Hour
22	Wet Mix Plant	60 T	Per Hour
23	Batching Plant	30 Cu.M PH	Per Hour
24	Batching Plant	15 Cu.M PH	Per Hour
25	Transit Mixture	4 Cu. M.	Per Hour
26	Concrete Pump	6 Cu. M. PH	Per Hour
27	Grab dredging crane (1cum) (normally runs for 4 hours a day)		Per Hour
28	Mastic Cooker	1 T	Per Hour
29	Drilling equipment		Per Hour
30	Needle Vibrator		Per Hour
31	Concrete Mixture		Per Hour
32	Tipper /Dumper 1 hour		Per Hour
33	Vibrating Roller		Per Hour
34	Front End Roller		Per Hour
35	Water Tanker		Per Hour
36	Crane (Rate of sinking 0.8 mts. per day)		Per Hour
37	Compressor Charges (6 cum per minit capacity)		Per Hour
38	Compressor Charges (10.5 cum per minit capacity)		Per Hour
39	Pump (23 KW)		Per Hour
40	Hydraulic Excavator 0.9 Cum bucket capacity at 60 CUM per hour		Per Hour
41	Hydraulic Excavator 1 CUM per hour		Per Hour
42	Water Tanker 6 KL.		Per Hour
43	Electric Generator Set 33.KVA.		per hour
44	Electric Generator Set 63.KVA.		Per Hour
45	Electric Generator Set 125.KVA.		Per Hour
46	Electric Generator Set 250.KVA.		Per Hour

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
		47	Plate Compactor @3.5 CUMt/Hour		Per Hour
		48	Crane with Grab Bucket of 0.75 CUM and 1 CUM of 35 tonnes to 80 tonnes		Per Hour
		49	Air Compressor 250 cum with two jack hammers		Per Hour
		50	Dozer-D-50-A15		Per Hour
		51	Dozer-D-80-A-12.		Per Hour
		52	Mortor Grader 3.35 M Blade		Per Hour
		53	Front end loader 1 cum bucket capacity		Per Hour
		54	Vibratory Roller 8 Tonne		Per Hour
		55	Smooth Wheeled Roller -8 Ton		Per Hour
		56	Water tanker per KM.		Per Km.
		57	Rotavator		Per Km.
		58	Ripper-Scarifying		Per Hour
		59	Mechanical Broom Hydraulic		Per Hour
		60	Bitumen Pressure Distributor		Per Hour
		61	Emulsion Pressure Distributor		Per Hour
		62	Hot Mix Plant-120 T/PH		Per Hour
		63	Hot Mix Plant-100 T/PH		Per Hour
		64	Hydraulic Chip Spreader		Per Hour
		65	Pot hole repairing Machine		Per Hour
		66	Bitumen boiler oil fired		Per Hour
		67	GSB Plant 50 CUM		Per Hour
		68	Mastic Cooker		Per Hour
		69	Concrete Pump of 45 & 30 CUM capacity		Per Hour
				A. 80 TON	
				B 35 TON	
		70	Crane	C 3 TON	Per Hour
		71	concrete bucket		Per Hour
		72	Kerb casting machine		Per Hour
		73	Concrete mixer		
		74	a)04/0.28 cum		Per Hour
		75	b) 1 Cum		Per Hour
		76	a) Piling Rig with Bantonite pump		Per Hour
		77	b) Hot Mix Plant 60-90 TPH		Per Hour
		78	c) Hot Mix Plant 40-60 TPH		Per Hour
		79	d) Paver Finisher with sensor control 100 TPH		Per Hour
		80	e) Paver finisher mechanical 100 TPH		Per Hour
		81	Concrete paver finisher with 40HP motor		Per Hour
		82	Intigrated Stone Crusher		Per Hour
		83	Prestressing Jack with pump and Acess		Per Hour
		84	Generator 100 KVA		Per Hour
		85	Pnumatic sinking plant		Per Hour
					Per Km
		86	Truck 5.5 Cum per 10 T		Per Tonn Km
		87	Road Marking machine		Per hour
		88	Mobile Slurry seal equipment		Per hour







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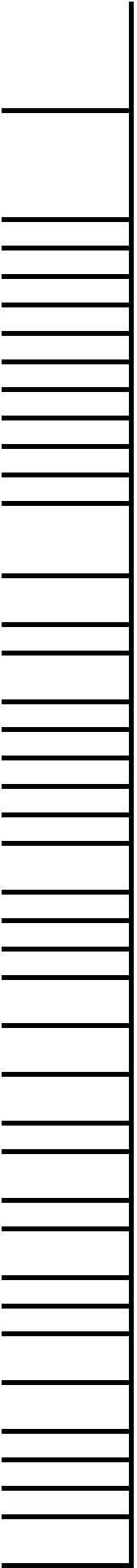
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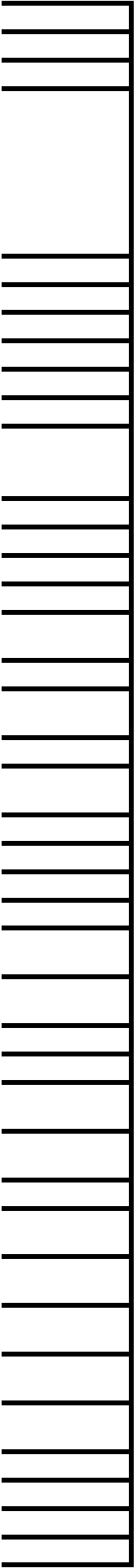




















































































































































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B.I.S. 458/1988 AT EX-DUTIES.

Rates for 2005-06

NP - 3 Class	NP - 4 Class
656.42	668.5
727.78	740.95
803.52	810.1
918.77	997.81
1287.6	1326.02
1643.26	1919.88
2173.45	2509.34
2731.08	3151.5
3093.32	3951.72
3648.75	4564.24
4304.08	5341.41
5700.36	7570.84
7396.3	9125.18
9800.27	12237.16

B.I.S. 458/1988 AT EX-DUTIES.

rates for 2005-06

P2 - Class	P3 - Class
112.74	128.39
134.70	156.54
201.77	247.70
259.87	343.19
295.23	382.91
317.15	403.37
456.58	569.66
633.26	821.46
746.78	1082.81
992.87	1336.71
1083.05	1523.41
1613.71	2120.35
2130.52	2701.10
2544.13	3274.73
3002.10	
3440.68	





20.00	0.70
25.00	1.22
27.50	1.25
30.00	1.30
41.00	1.85
55.00	3.68
65.00	3.70
75.00	3.70
79.00	3.70
85.00	3.70
95.00	3.75
127.00	3.75
150.00	4.00
200.00	5.50
<b>P3 – Class</b>	
1.65	0.10
1.90	0.11
2.65	0.15
5.00	0.33
5.60	0.38
6.60	0.50
11.50	0.60
16.00	0.75
21.50	1.22
26.50	1.25
32.50	1.75
46.50	2.32
68.50	3.70
87.00	3.70

<b>AND SUPPLY OF AC PRESSURE PIPES DULY MARKED</b>			
<b>WORKING CHARGES BUT ARE EXCLUSIVE OF</b>			
<b>CONTRACTOR AND OTHER GOVT. LEVIES.</b>			
<b>S S Rates for 2005-06</b>			
<b>Class - 10</b>	<b>Class - 15</b>	<b>Class - 20</b>	<b>Class - 25</b>
77.27	77.74	84.08	105.51
97.34	102.09	129.17	160.06
122.3	133.85	166.61	209.98
151.63	189.45	235.87	295.15
238.37	315.74	400.61	508.56
310.75	399.36	513.86	644.59
401.86	560.66	725.09	924.14
494.21	684.84	889.51	1117.58
613.08	891.38	1161.26	1440.19
739.13	1048.63	1388.71	1740.34
913.54	1301.04	1701.34	2137.51
1279.2	1847.35	2407.7	3068.83

WITHIN THE STATE OF

able roads for full truck loads  
rings are to be supplied free

10% on the value of AC Pressure  
pipes only. (on basic price)

A.C. COUPLINGS WITHOUT RUBBER RINGS TO SUIT AC  
TRANSPORTATION AND UNLOADING AT SITE TRANSIT RISK BUT

S S Rates for 2005-06

Class - 10	Class - 15	Class - 20	Class - 25
40.25	40.25	42.12	48.67
50.54	52.42	54.29	65.52
61.78	65.52	71.14	86.11
71.14	74.88	93.60	116.06
102.96	138.53	147.89	189.07
132.91	160.99	202.18	258.34
164.74	209.66	271.44	348.19
220.90	273.31	353.81	453.02
301.39	421.20	550.37	709.49
357.55	505.44	666.43	859.25
426.82	602.78	806.83	1033.34
570.96	692.64	904.18	1156.90

WITH BIS MARK EMBOSSED PER EACH SET SUITABLE  
TRANSPORTATION AND UNLOADING AT SITE TRANSIT RISK

S S Rates for 2005-06

Class - 10	Class - 15	Class - 20	Class - 25
25.27	25.27	25.27	25.272
30.99	30.99	30.99	30.992
40.56	40.56	40.56	40.56
51.79	51.79	51.79	51.792
53.04	53.04	53.04	53.04
61.88	61.88	61.88	61.88
62.09	62.09	62.09	62.088

69.89	69.89	69.89	69.888
85.38	85.38	85.38	85.384
100.88	100.88	100.88	100.88
116.48	116.48	116.48	116.48
131.98	131.98	131.98	131.976

INFORMING TO IS 784/2001 @ Ex-factory excluding				
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**S S Rates for 2005-06**

8 Kg/cm2	10 Kg/cm2	12 Kg/cm2	14 Kg/cm2	16 Kg/cm2
1060.00	1070.00	1080.00	1100.00	1140.00
1150.00	1160.00	1180.00	1200.00	1220.00
1220.00	1230.00	1260.00	1290.00	1320.00
1320.00	1330.00	1360.00	1390.00	1430.00
1520.00	1540.00	1590.00	1640.00	1690.00
1860.00	1890.00	1940.00	2010.00	2070.00
2210.00	2270.00	2330.00	2420.00	2510.00
2560.00	2620.00	2730.00	2840.00	3000.00
3010.00	3100.00	3220.00	3410.00	3560.00
3440.00	3540.00	3730.00	3900.00	4070.00
3830.00	3960.00	4170.00	4380.00	4580.00

**cost of transportation of water and emptying pipe line after**

75.00	75.00	75.00	75.00	75.00
85.00	85.00	85.00	85.00	85.00
95.00	95.00	95.00	95.00	95.00
100.00	100.00	100.00	100.00	100.00
125.00	125.00	125.00	125.00	125.00
145.00	145.00	145.00	145.00	145.00
165.00	165.00	165.00	165.00	165.00
185.00	185.00	185.00	185.00	185.00
210.00	210.00	210.00	210.00	210.00
235.00	235.00	235.00	235.00	235.00
255.00	255.00	255.00	255.00	255.00

**ding loading at Factory, un-loading at site and stacking for**

0.38	0.38	0.38	0.38	0.38
0.38	0.38	0.38	0.38	0.38
0.43	0.43	0.43	0.43	0.43
0.50	0.50	0.50	0.50	0.50
0.60	0.60	0.60	0.60	0.60
1.00	1.00	1.00	1.00	1.00
1.00	1.00	1.00	1.00	1.00
1.00	1.00	1.00	1.00	1.00
1.50	1.50	1.50	1.50	1.50
1.50	1.50	1.50	1.50	1.50
3.00	3.00	3.00	3.00	3.00



<b>Description</b>
<b>2</b>
Price excluding transportation, taxes and duties etc., for Bar wrapped steel cylindrical pipes.

**S S Rates for 2005-06**

14 Kg/cm <sup>2</sup>	16 Kg/cm <sup>2</sup>	18 Kg/cm <sup>2</sup>	20 Kg/cm <sup>2</sup>	22 Kg/cm <sup>2</sup>	24 Kg/cm <sup>2</sup>	26 Kg/cm <sup>2</sup>	28 Kg/cm <sup>2</sup>	30 Kg/cm <sup>2</sup>
1,027.00	1,027.00	1,027.00	1,027.00	1,027.00	1,027.00	1,027.00	1,037.00	1,075.00
1,157.00	1,157.00	1,157.00	1,157.00	1,157.00	1,185.00	1,230.00	1,252.00	1,297.00
1,418.00	1,418.00	1,418.00	1,418.00	1,418.00	1,453.00	1,502.00	1,544.00	1,587.00
1,561.00	1,561.00	1,561.00	1,561.00	1,633.00	1,696.00	1,760.00	1,824.00	2,044.00
1,704.00	1,704.00	1,722.00	1,802.00	1,881.00	1,961.00	2,041.00	2,122.00	2,279.00
1,901.00	1,921.00	2,010.00	2,109.00	2,209.00	2,317.00	2,404.00	2,589.00	2,687.00
2,502.00	2,537.00	2,679.00	2,820.00	2,949.00	3,097.00	3,241.00	2,441.00	3,564.00
2,902.00	3,092.00	3,282.00	3,473.00	3,663.00	3,917.00	4,084.00	1,284.00	4,501.00
3,467.00	3,714.00	3,953.00	4,195.00	4,526.00	4,775.00	5,162.00	5,411.00	5,677.00
4,147.00	4,457.00	4,758.00	5,060.00	5,388.00	5,867.00	6,231.00	6,557.00	6,919.00
4,884.00	5,259.00	5,625.00	5,992.00	6,556.00	7,022.00	7,685.00	8,045.00	8,528.00

and fixing of polypropylene diapher cloth, cost of tranfortation of water and emptying pipeline after completion of field testing

**S S Rates for 2005-06**

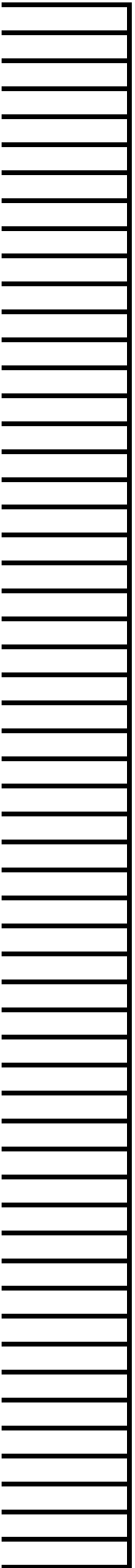
14 Kg/cm <sup>2</sup>	16 Kg/cm <sup>2</sup>	18 Kg/cm <sup>2</sup>	20 Kg/cm <sup>2</sup>	22 Kg/cm <sup>2</sup>	24 Kg/cm <sup>2</sup>	26 Kg/cm <sup>2</sup>	28 Kg/cm <sup>2</sup>	30 Kg/cm <sup>2</sup>
180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00
210.00	210.00	210.00	210.00	210.00	210.00	220.00	220.00	220.00
250.00	250.00	250.00	250.00	250.00	250.00	260.00	260.00	260.00
280.00	280.00	280.00	280.00	290.00	290.00	300.00	300.00	310.00
320.00	320.00	320.00	320.00	330.00	330.00	340.00	340.00	350.00
350.00	350.00	360.00	360.00	370.00	380.00	380.00	390.00	400.00
430.00	440.00	440.00	450.00	460.00	470.00	480.00	490.00	490.00
510.00	520.00	530.00	540.00	550.00	560.00	570.00	580.00	590.00
590.00	600.00	610.00	630.00	650.00	660.00	680.00	690.00	710.00
670.00	690.00	710.00	720.00	740.00	770.00	790.00	810.00	830.00
760.00	780.00	800.00	830.00	860.00	880.00	920.00	940.00	960.00

factory, un-loading at site and stacking for the following sizes.

0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38
0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43
0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

for 2005-06







s for

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evailing rates  
 ugally Cast  
 ressure Pipes  
 & D Rate  
 be adopted.

is 124 Kpa including transportation to any where in A.P. with  
 specials, loading, un-loading and stacking etc., complete but

**S S Rates for 2005-06**

6 Bar	9 Bar	12 Bar	15 Bar
1,544.00	1,592.00	1,636.00	1,712.00
1,771.00	1,836.00	1,922.00	1,998.00
2,066.00	2,179.00	2,287.00	2,417.00
2,358.00	2,493.00	2,649.00	2,800.00
2,999.00	3,182.00	3,506.00	3,669.00
3,812.00	4,050.00	4,417.00	4,752.00
4,673.00	5,045.00	5,488.00	5,926.00
5,815.00	6,318.00	6,852.00	7,420.00
6,993.00	7,522.00	8,203.00	8,845.00

n of water and emptying pipe line after completion of field

**S S Rates for 2005-06**

6 Bar	9 Bar	12 Bar	15 Bar
120.00	120.00	120.00	120.00
180.00	180.00	180.00	180.00
220.00	220.00	220.00	220.00
280.00	280.00	280.00	280.00
300.00	300.00	300.00	300.00
340.00	340.00	340.00	340.00
400.00	400.00	400.00	400.00
440.00	440.00	440.00	440.00
510.00	510.00	510.00	510.00

6.0 kg/ sqcm	8.0 kg/ sqcm	10.0 kg/ sqcm
5	6	7









		Additional charges for Flanged ended valves
20 Kgs/cm <sup>2</sup>	25 Kgs/cm <sup>2</sup>	
5	6	7

· AWWA, Ex-factory excluding transportation,

44968.00	49465.00	
46978.00	51675.00	
53004.00	58304.00	
59650.00	65615.00	

ends. as per AWWA, Ex-factory excluding trans-

60644.00	66709.00	4250.00	
67033.00	73738.00	5125.00	
77965.00	85763.00	6125.00	
90108.00	99119.00	6625.00	
98023.00	107825.00	8563.00	
108369.00	119205.00	12215.00	
122688.00	132438.00	13813.00	
143000.00	154438.00	16500.00	
158375.00	171063.00	18525.00	
190788.00	209865.00	20875.00	
222500.00	249440.00	25250.00	
222500.00	309188.00	32063.00	
224725.00	325550.00	33345.00	
350454.00	385500.00	37125.00	
427563.00	460625.00	42000.00	
641344.50	690937.50	63000.00	
745375.00	804938.00	59063.00	
760282.50	821036.76	60244.26	

· (QRDA) as per AWWA, Ex-factory excluding

40164.00	44180.00	
61036.00	67140.00	
65148.00	71663.00	

cost of valves

ST PRESSURE	
PN 25	PN 40 Max. ^ P 32 bar
5	6

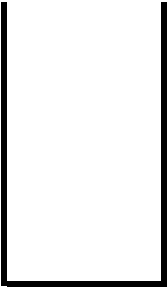


150930.00	196268.00	
191295.00	251726.00	
282000.00	364500.00	
412900.00	523600.00	
520650.00	659600.00	

ST PRESSURE		
6 Kgs/cm <sup>2</sup>	10 Kgs/cm <sup>2</sup>	
5	6	
--	6.28	
--	9.81	
--	15.66	
15.48	24.02	
22.80	37.29	
34.91	53.92	
48.69	77.00	
69.77	109.15	
101.28	163.87	



for
5-06



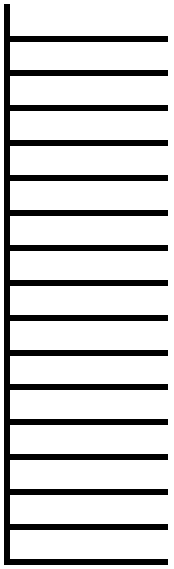
<b>ASSURES</b>
<b>5</b>
<b>PN-1.0</b>
<b>Rs.</b>
1720.00
1870.00
2200.00
2735.00
3650.00
4565.00
5475.00
8500.00
12200.00
18800.00
25200.00
30700.00
39500.00
53200.00
77500.00
113000.00
155150.00
192600.00
235400.00
278200.00
322000.00

**UNMETALLED ROAD**









**DADING**

150	200	250	300	350	400	450	500	600	700
5	6	7	8	9	10	11	12	13	14
<b>2.90</b>	<b>3.10</b>	<b>3.20</b>	<b>3.30</b>	<b>3.40</b>	<b>3.50</b>	<b>3.70</b>	<b>3.90</b>	<b>3.90</b>	<b>4.70</b>

**C. SHEETS AND WOOD**

<b>OR 2005-06</b>	
<b>Lime coke &amp; wood 1000 Kgs/ Cum</b>	<b>A.C sheets per tonne</b>
<b>5</b>	<b>6</b>
56.10	56.10
57.10	57.10
60.10	60.10
62.70	62.70
64.10	64.10
66.40	66.40
68.60	68.60
70.40	70.40
73.00	73.00
75.50	75.50
77.70	77.70
78.90	78.90
81.90	81.90
84.50	84.50
86.90	86.90
88.00	88.00
90.80	90.80
93.60	93.60
96.10	96.10
97.20	97.20
99.40	99.40
3.00	3.00
2.70	2.70
7.70	7.70
5.90	5.90
4.10	4.10
17.70	17.70

**Hire charges in Rupees**

5

6169.00

6328.00

4082.00

1268.00

1165.00

519.00

659.00

424.00

495.00

200.00

14.85

668.00

740.00

275.00

582.00

1124.00

1128.00

754.00

223.00

196.00

120.00

721.00

1500.00

1250.00

625.00

312.50

2500.00

250.00

882.00

27.87

27.73

202.55

754.00

495.00

223.00

500.00

93.00

145.25

75.00

50.00

840.00

234.00

240.00

250.00

450.00

450.00

30.00	
1250.00	
206.00	
1423.00	
2400.00	
1545.00	
520.00	
994.00	
297.00	
15.60	
11.00	
18.00	
230.00	
692.00	
516.00	
15100.00	
11167.00	
1700.00	
585.00	
128.00	
670.00	
40.00	
165.00	
825.00	
550.00	
230.00	
10.00	
200.00	
150.00	
150.00	
3525.00	
8930.00	
7150.00	
1725.00	
629.00	
1850.00	
5590.00	
83.00	
450.00	
2690.00	
14.50	
1.60	
60.00	
650.00	

















































































































































































































































750	Remarks
15	16
6.40	







**Rate Analysis as per Observations made by Engineering Staff Collage of India for Crushing of Stone Aggregate using  
Primary, Secondary - Crushers & Conveyors**

Data: Sizes of coarse aggregate considered for data rate analysis.

80 mm size

40 mm size

20 mm size

10 to 4.75 mm size range

Dust (powder)

1 No. primary jaw crusher of 120 tons / hour rated capacity each and 2 Nos. secondary jaw crushers are used

Single shift working for aggregate crushing

Daily output of crushing system with 70% efficiency and 50 minutes per hour working

Daily out turn =  $1 \times 120 \times 0.70 \times 8.00 \times 50/60 = 560$  tons or 350 cum

2 Nos secondary jaw crusher are used for recrushing over size aggregate

**Capital cost of Crusher system : Rs. 72,82,167.00**

**Requirement of electric power : energy consumption per hour in kw.hr. = 190**

**Capital cost of Conveyer System (Excluding cost of belts) : Rs. 23,67,416.00**

**RATE ANALYSIS**

**A. MATERIALS:**

Unit 343 cum (560 tonns/350 cum including 2% wastage)

Sl. No	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1.	Cost of Rubble	cum	350	175	61250
2.	Use Rate of Jaw plates 36"x24" Reconditioning charges @ 10%	hour	8	77.35	618.8 61.88
3.	Use Rate Jaw plates 42"x12" Reconditioning charges @ 10%	hour	8	42.97	343.76 34.38
4.	Use Rate of Screens	hour	8	98.59	788.72
5.	Use Rate of Conveyer belt 1000 mm	hour	8	24.9	199.2
6.	Use Rate of Conveyer belt 600 mm	hour	8	12.46	99.68
7.	Use Rate of Conveyer belt 500 mm	hour	8	8.3	66.4
8.	Use Rate of Conveyer belt 750 mm	hour	8	12.46	99.68
9.	Use Rate of Conveyer belt 400 mm	hour	8	19.93	159.44
<b>Total cost of materials</b>					<b>63,721.94</b>
<b>Say</b>					<b>63,722.00</b>

**B. MACHINERY:**

Sl. No.	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1.	Crusher system Hire Charges	hour	8	1500	12000
	Fuel/ Energy charges	hour	8	1004	8032
2.	Conveyer System Hire Charges	hour	8	353	2824
	Fuel/ Energy charges	hour	8	263	2104
<b>Total cost of machinery</b>					<b>24960</b>

**C) LABOUR:**

Sl.No.	Particulars	Unit	Quantity	Rate in Rs.	Amount in Rs.
1.	Crew for Crusher system	hour	8	165	1320
2.	Crew for conveyer system	hour	8	83	664
3.	Mazdoor	day	5 Nos.	101	505
<b>Total cost of labour</b>					<b>2,489.00</b>

**ABSTRACT**

a.	Cost of materials	63,722.00
b.	Hire Charges of Machinery	24,960.00
c.	cost of labour	2,489.00
d.	Cost of civil wokrs @ 5%	4,559.00
e.	Total cost of 343 cum	<b>Rs. 95,730.00</b>

**Rates for coarse aggregates**

Size	Crushing pattern %	Production in cum / shift	% Cost distribution	Amount	Cost per cum
80 mm size	24	82.3	15	14360	Rs.174.00
40 mm size	32	109.8	34	32548	Rs.296.00
20 mm Size	22	75.5	33	31591	Rs.418.00
10 - 4.75	12	41.1	15	14360	Rs.349.00
Dust	10	34.3	3	2871	Rs. 84.00
	100%	343.0 cum	100%	95730	Rs.279.00

# Andhra Pradesh Standard Data

## I. Roads and Bridges

### Chapter -1

#### LOADING, UNLOADING, CARRIAGE and CRUSHING OF MATERIALS

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
1	<b>Loading and Unloading of Lime, Aggregate, Stone Boulder, Brick Aggregate, Kankar, Building Rubbish, Crushed Slag, Stone for Masonry Work by Manual Means including hirecharges of truck 10t for waiting period</b>					
	<b>i Loading of Lime, Aggregate, Stone Boulder, Brick Aggregate, Kankar, Building Rubbish, Crushed Slag, Stone for Masonry Work by manual means including a lead upto 30 m</b>					
	Unit = cum					
	Taking output = 5.5 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.520			
	<b>b) Machinery</b>					
	Truck 10t	hour	0.500			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	Cost for 5.5 cum = a+b+c+d					
	<b>Rate per cum = (a+b+c+d)/5.5</b>					
	<b>ii Loading of Earth, Sand, Moorum, Manure, Flyash by manual means including a lead upto 30 m</b>					
	Unit = cum					
	Taking output = 5.5 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.260			
	<b>b) Machinery</b>					
	Truck 10t	hour	0.250			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	Cost for 5.5 cum = a+b+c+d					
	<b>Rate per cum = (a+b+c+d)/5.5</b>					
	<b>iii Unloading of Lime, Aggregate, Stone Boulder, Brick Aggregate, Kankar, Building Rubbish, Crushed Slag, Stone for Masonry Work by manual means including a lead upto 30 m</b>					
	Unit = cum					
	Taking output = 5.5 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.260			
	<b>b) Machinery</b>					
	Truck 10t	hour	0.250			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	Cost for 5.5 cum = a+b+c+d					
	<b>Rate per cum = (a+b+c+d)/5.5</b>					
	<b>iv Unloading of Earth, Sand, Moorum, Manure, Flyash by manual means including a lead upto 30 m</b>					
	Unit = cum					
	Taking output = 5.5 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.130			
	<b>b) Machinery</b>					
	Truck 10t	hour	0.166			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	Cost for 5.5 cum = a+b+c+d					
	<b>Rate per cum = (a+b+c+d)/5.5</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
2	<b>Loading and Unloading Lime, Aggregate, Stone Boulder, Brick Aggregate, Kankar, Building Rubbish, Crushed Slag, Stone for Masonry Work by Mechanical Means including hire charges of Tipper 10t for waiting period and Front end loader 1cum capacity for loading period.</b>					
	i <b>Loading of Lime, Aggregate, Stone Boulder, Brick Aggregate, Kankar, Building Rubbish, Crushed Slag, Stone for Masonry Work by mechanical means including a lead upto 30 m</b>					
	Placing tipper at loading point, loading with front end loader excluding time for haulage and return trip.					
	Unit = cum					
	Taking output = 5.5 cum					
	<b>Time required for</b>					
	i) Positioning of tipper at loading point	Min	1.000			
	ii) Loading by front end loader 1 cum bucket capacity @ 45 cum per hour	Min	7.330			
	iii) Maneuvering, reversing, dumping and turning for return	Min	-			
	iv) Waiting time, unforeseen contingencies, etc.	Min	2.000			
	<b>Total</b>	<b>Min</b>	<b>10.330</b>			
	<b>a) Machinery</b>					
	Tipper 10 t capacity	hour	0.172			
	Front end-loader 1 cum bucket capacity @ 45 cum per hour	hour	0.122			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 5.5 cum = a+b+c</b>					
	<b>Rate per cum = (a+b+c)/5.5</b>					
	ii <b>Loading of Earth, Sand, Moorum, Manure, Flyash by mechanical means including a lead upto 30 m.</b>					
	Placing tipper at loading point, loading with front end loader excluding time for haulage and return trip.					
	Unit = cum					
	Taking output = 5.5 cum					
	<b>Time required for</b>					
	i) Positioning of tipper at loading point	Min	1.000			
	ii) Loading by front end loader 1 cum bucket capacity @ 100 cum per hour	Min	3.300			
	iii) Waiting time, unforeseen contingencies, etc.	Min	2.000			
	<b>Total</b>	<b>Min</b>	<b>6.300</b>			
	<b>a) Machinery</b>					
	Tipper 10 t capacity	hour	0.105			
	Front end-loader 1 cum bucket capacity @ 100 cum per hour	hour	0.055			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 5.5 cum = a+b+c</b>					
	<b>Rate per cum = (a+b+c)/5.5</b>					
	iii <b>Unloading of Earth, Sand, Lime, Moorum, Aggregate, Stone Boulder, Brick Aggregate, Kankar, Building Rubbish, Manure, Crushed Slag, Flyash, Stone for Masonry Work by mechanical means (unloading by tipping).</b>					
	Unit = cum					
	Taking output = 5.5 cum					
	Placing tipper at unloading point excluding time for haulage and return trip					
	<b>Time required for</b>					
	i) Positioning of tipper at unloading point	Min	1.000			
	ii) Manoeuvring, reversing, dumping and turning for return	Min	2.000			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	iii) Waiting time, unforeseen contingencies, etc.	Min	2.000			
	<b>a) Machinery</b>	<b>Min</b>	<b>5.000</b>			
	Tipper 10 t capacity	hour	0.080			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 5.5 cum = a+b+c</b>					
	<b>Rate per cum = (a+b+c)/5.5</b>					
iv	<b>Loading and Unloading of Stone Boulder/Stone aggregates/Sand/Kanker/Moorum.</b>	cum				
	Placing tipper at loading point, loading with front end loader, dumping, turning for return trip, excluding time for haulage and return trip					
	<b>Unit = cum</b>					
	<b>Taking output = 5.5 cum</b>					
	<b>Time required for</b>					
	i) Positioning of tipper at loading point	Min	1.000			
	ii) Loading by front end loader 1 cum bucket capacity @ 25 cum per hour	Min	13.000			
	iii) Maneuvering, reversing, dumping and turning for return	Min	2.000			
	iv) Waiting time, unforeseen contingencies etc	Min	4.000			
	Total	Min	20.000			
	<b>a) Machinery</b>					
	Tipper 5.5 tonnes capacity	hour	0.330			
	Front end-loader 1 cum bucket capacity @ 25 cum/hour	hour	0.330			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 5.5 cum = a+b+c</b>					
	<b>Rate per cum = (a+b+c)/ 5.5</b>					
	<b>Note :</b> Unloading will be by tipping.					
v	<b>Loading and Unloading of Boulders by Manual Means</b>					
	<b>Unit = cum</b>					
	<b>Taking output = 5.5 cum</b>					
	<b>a) Labour</b>					
	Mate	day	0.110			
	Mazdoor for loading and unloading	day	0.750			
	<b>b) Machinery</b>					
	Tipper 5.5 tonne capacity	hour	0.750			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 5.5 cum = a+b+c+d</b>					
	<b>Rate per cum = (a+b+c+d)/5.5</b>					
	<b>Note :</b> Unloading will be by tipping.					
3	<b>Loading, Unloading and Stacking of Bricks by Manual Means including hire charges of Truck 10t for waiting period.</b>					
i	<b>Loading of Bricks by manual means including a lead upto 30 m</b>					
	Unit = 1000 Nos.					
	Taking output = 2000 Nos.					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.260			
	<b>b) Machinery</b>					
	Truck 10t	hour	0.330			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 2000 Nos. = a+b+c+d</b>					
	<b>Rate for 1000 bricks = (a+b+c+d)/2</b>					
ii	<b>Unloading and Stacking of Bricks by manual means including a lead upto 30 m</b>					
	Unit = 1000 Nos.					
	Taking output = 2000 Nos.					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.260			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>b) Machinery</b>					
	Truck 10t	hour	0.330			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 2000 Nos. = a+b+c+d					
	<b>Rate for 1000 bricks = (a+b+c+d)/2</b>					
4	<b>Loading, Unloading and Stacking of Cement by Manual Means including hire charges of Truck 10t for waiting period.</b>					
	<b>i Loading of Cement by manual means including a lead upto 30 m</b>					
	Unit = t					
	Taking output = 10 t					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.560			
	<b>b) Machinery</b>					
	Truck 10t	hour	1.000			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 10 t = a+b+c+d					
	<b>Rate per tonnes = (a+b+c+d)/10</b>					
	<b>ii Unloading, stacking of Cement by manual means including a lead upto 30 m</b>					
	Unit = t					
	Taking output = 10 t					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.560			
	<b>b) Machinery</b>					
	Truck 10t	hour	1.000			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 10 t = a+b+c+d					
	<b>Rate per tonnes = (a+b+c+d)/10</b>					
	<b>iii Loading &amp; unloading of Cement including stacking by manual means including a lead upto 30 m.</b>					
	Unit = t					
	Taking output = 10 t					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	2.080			
	<b>b) Machinery</b>					
	Truck 10t	hour	2.000			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 10 t = a+b+c+d					
	<b>Rate per tonnes = (a+b+c+d)/10</b>					
5	<b>Loading, Unloading and Sticking of Structural Steel and Steel Bars by manual means including hire charges of Truck 10t for waiting period.</b>					
	<b>i Loading of Structural Steel, Steel Bars by manual means including a lead upto 30 m</b>					
	Unit = t					
	Taking output = 10 t					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.870			
	<b>b) Machinery</b>					
	Truck 10t	hour	1.000			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 10 t = a+b+c+d					
	<b>Rate per tonnes = (a+b+c+d)/10</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	ii <b>Unloading of Structural Steel, Steel Bars by manual means including a lead upto 30 m</b>					
	Unit = t					
	Taking output = 10 t					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.870			
	<b>b) Machinery</b>					
	Truck 10t	hour	1.000			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	Cost for 10 t = a+b+c+d					
	<b>Rate per tonne = (a+b+c+d)/10</b>					
	18.00%					
	iii <b>Loading, unloading and Stacking of Structural Steel, Steel Bars by manual means including a lead upto 30 m</b>					
	Unit = t					
	Taking output = 10 t					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	2.080			
	<b>b) Machinery</b>					
	Truck 10t	hour	2.000			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	Cost for 10 t = a+b+c+d					
	<b>Rate per tonnes = (a+b+c+d)/10</b>					
	18.00%					
6	<b>Loading and Unloading of Bitumen Drums by Manual Means including hirecharges of truck 10t for waiting period</b>					
	i <b>Loading of Bitumen Drums by manual means including a lead upto 30 m</b>					
	Unit = t					
	Taking output = 10 t					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.660			
	<b>b) Machinery</b>					
	Truck 10t	hour	1.250			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	Cost for 10 t = a+b+c+d					
	<b>Rate per tonnes = (a+b+c+d)/10</b>					
	18.00%					
	ii <b>Unloading of Bitumen Drums by Manual Means including a lead upto 30 m</b>					
	Unit = t					
	Taking output = 10 t					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.250			
	<b>b) Machinery</b>					
	Truck 10t	hour	1.250			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	Cost for 10 t = a+b+c+d					
	<b>Rate per tonnes = (a+b+c+d)/10</b>					
	18.00%					
	<b>Note :</b> The weight is inclusive of the self weight of drum					
7	<b>Loading and Unloading of Timber by Manual Means including hirecharges of truck 10t for waiting period</b>					
	(i) <b>Loading of Timber by manual means including a lead upto 30 m</b>					
	Unit = t					
	Taking output = 5 t					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.040			



S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>b) Machinery</b>					
	Truck 10t	hour	1.000			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 5 t = a+b+c+d					
	<b>Rate per t = (a+b+c+d)/5</b>					
ii	<b>Unloading of Timber by manual means including a lead upto 30 m</b>					
	Unit = t					
	Taking output = 5 t					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.040			
	<b>b) Machinery</b>					
	Truck 10t	hour	1.000			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 5 t = a+b+c+d					
	<b>Rate per t = (a+b+c+d)/5</b>					
	<b>Note</b> : Density of wood has been assumed as 900 kg per cum. If the density is less the output may be reduced proportionately.					
8	<b>Loading and Unloading of C.C. Blocks, Kerb, etc. including hirecharges of truck 10t for waiting period</b>					
i	<b>Loading with care C.C. Blocks, km Stone, 200 m Stone, Boundary Pillar, Kerb, Channel, Bond Stone, etc. by manual means including a lead upto 30 m</b>					
	Unit = cum					
	Taking output = 5.5 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	2.080			
	<b>b) Machinery</b>					
	Truck 10t	hour	1.500			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 5.5 cum = a+b+c+d					
	<b>Rate per cum = (a+b+c+d)/5.5</b>					
ii	<b>Unloading with care C.C. Blocks, km Stone, 200 m Stone, Boundary Pillar, Kerb, Channel, Bond Stone, etc. by manual means including a lead upto 30 m</b>					
	Unit = cum					
	Taking output = 5.5 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	2.080			
	<b>b) Machinery</b>					
	Truck 10t	hour	1.500			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 5.5 cum = a+b+c+d					
	<b>Rate per cum = (a+b+c+d)/5.5</b>					
9	<b>Loading and Unloading of RCC Hume Pipes including hirecharges of truck 10 t for waiting period and Crane 3t capacity including all labour charges.</b>					
i	<b>Loading of RCC Hume pipes by mechanical means including a lead upto 30 m</b>					
A	<b>1000 / 1200 mm dia RCC Hume pipe</b>					
	Unit = per pipe					
	Taking output = 9 pipes					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.520			
	<b>b) Machinery</b>					
	Truck 10t	hour	0.330			
	Crane (3 T)	hour	0.330			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 9 pipes = a+b+c+d					
	<b>Rate per pipe = (a+b+c+d)/9</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>B 750 mm dia RCC Hume pipe</b>					
	Unit = per pipe					
	Taking output = 15 pipes					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.520			
	<b>b) Machinery</b>					
	Truck 10t	hour	0.330			
	Crane	hour	0.330			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	Cost for 15 pipes = a+b+c+d					
	<b>Rate per pipe = (a+b+c+d)/15</b>					
	<b>C 600/450 mm dia RCC Hume pipe</b>					
	Unit = per pipe					
	Taking output = 21 pipes					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.520			
	<b>b) Machinery</b>					
	Truck 10t	hour	0.330			
	Crane	hour	0.330			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	Cost for 21 pipes = a+b+c+d					
	<b>Rate per pipe = (a+b+c+d)/21</b>					
	ii <b>Unloading of RCC Hume pipe by manual means including a lead upto 30 m</b>					
	<b>A 1000/1200 mm dia RCC Hume pipes</b>					
	Unit = per pipe					
	Taking output = 5 pipes					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.040			
	<b>b) Machinery</b>					
	Truck 10t	hour	2.000			
	<b>c) Material</b>					
	Wooden sleepers 250mm x 250mm x125mm hire charges 3 nos sleeper	hour	2.000			
	Crow bars 2 nos not less than 40 mm dia (hire-charges)	hour	2.000			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	Cost for 5 pipes = a+b+c+d+e					
	<b>Rate per pipe = (a+b+c+d+e)/5</b>					
	<b>B 750 mm dia RCC Hume pipe</b>					
	Unit = per pipe					
	Taking output = 6 pipes					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.040			
	<b>b) Machinery</b>					
	Truck 10t	hour	2.000			
	<b>c) Material</b>					
	Wooden sleepers 250mm x 250mm x125mm hire charges 3 nos sleeper	hour	2.000			
	Crow bars 2 nos not less than 40 mm dia (hire-charges)	hour	2.000			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	Cost for 6 pipes = a+b+c+d+e					
	<b>Rate per pipe = (a+b+c+d+e)/6</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
C	<b>600/450 mm dia RCC Hume pipe</b>					
	Unit = per pipe					
	Taking output = 8 pipes					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.040			
	<b>b) Machinery</b>					
	Truck 10t	hour	2.000			
	<b>c) Material</b>					
	Wooden sleepers 250mm x 250mm x125mm hire charges 3 nos sleeper	hour	2.000			
	Crow bars 2 nos not less than 40 mm dia (hire-charges)	hour	2.000			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	Cost for 8 pipes = a+b+c+d+e					
	<b>Rate per pipe = (a+b+c+d+e)/8</b>					
iii	Unloading of RCC Hume pipes by mechanical means including a lead upto 30 m					
A	<b>1000/1200 mm dia RCC Hume pipe</b>					
	Unit = per pipe					
	Taking output = 9 pipes					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.520			
	<b>b) Machinery</b>					
	Truck 10t	hour	0.200			
	Crane	hour	0.200			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	Cost for 9 pipes = a+b+c+d					
	<b>Rate per pipe = (a+b+c+d+e)/9</b>					
B	<b>750 mm dia RCC Hume pipe</b>					
	Unit = per pipe					
	Taking output = 15 pipes					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.520			
	<b>b) Machinery</b>					
	Truck 10t	hour	0.200			
	Crane	hour	0.200			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	Cost for 15 pipes = a+b+c+d					
	<b>Rate per pipe = (a+b+c+d+e)/15</b>					
C	<b>600/450 mm dia RCC Hume pipe</b>					
	Unit = per pipe					
	Taking output = 21 pipes					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.520			
	<b>b) Machinery</b>					
	Truck 10t	hour	0.200			
	Crane	hour	0.200			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	Cost for 21 pipes = a+b+c+d					
	<b>Rate per pipe = (a+b+c+d+e)/21</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
10	<b>Conveyance of Materials</b>					
	Haulage of materials by tipper 10t capacity excluding cost of Loading, Unloading & Stacking, but including hirecharges of Machinery.					
	Haulage of materials by tipper excluding cost of loading, unloading and stacking.					
	Unit = t.km					
	Taking output 10 t load and lead 10 km = 100 t.km <b>(5.5 cum)</b>					
i	<b>Surfaced Road</b>					
	Speed with load: 25 km per hour					
	Speed while returning empty: 35 km per hour					
	<b>a) Machinery</b>					
	<b>Tipper 10 t capacity</b>					
	Haulage with load	hour	0.400			
	Empty return trip	hour	0.290			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Cost for 100 t.km = a+b+c</b>					
	<b>Rate per t.km = (a+b+c)/100</b>					
	<b>Note</b> : In case of carriage of Hume pipes, output of Truck be taken as 8 t and the rate for t is to be divided by number of pipes of different diameters as indicated in item 9 to get the rate per pipe.					
ii	<b>Unsurfaced Gravel Road</b>					
	Speed with load: 20 km/hour					
	Speed for empty return trip: 30 km/hour					
	<b>a) Machinery</b>					
	<b>Tipper 10 t capacity</b>					
	Haulage with load	hour	0.500			
	Empty return trip	hour	0.330			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Cost for 100 t.km = a+b+c</b>					
	<b>Rate per t.km = (a+b+c)/100</b>					
	<b>Note</b> : In case of carriage of Hume pipes, output of Truck be taken as 8 t and the rate per t is to be divided by number of pipes of different diameters as indicated in item 9 to get the rate per pipe.					
iii	<b>Katcha Track and Track in River Bed/Nallah Bed and Choe Bed</b>					
	Speed with load: 10 km per hour					
	Speed while returning empty: 15 km per hour					
	<b>a) Machinery</b>					
	<b>Tipper 10 t capacity</b>					
	Haulage with load	hour	1.000			
	Empty return trip	hour	0.670			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Cost for 100 t.km = a+b+c</b>					
	<b>Rate per t.km = (a+b+c)/100</b>					
	<b>Note</b> : In case of carriage of Hume pipes, output of Truck be taken as 8 t and the cost for 8 t is to be divided by number of pipes of different diameters as indicated in item 9 to get the rate per pipe.					
11	<b>Supply of Quarried stone and hand breaking</b>					
i	<b>Supply of quarried stone and hand breaking into coarse aggregate to Grading 1 (90 mm to 45 mm) as per Table 400.8 of Technical Specifications of MORD / 400-7 of MORTH.</b>					
	Unit = cum					
	Taking output = 1 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.248			
	<b>b) Material</b>					
	Supply of quarried stone 150-200 mm size	cum	1.100			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = a+b+c+d</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>i A Hand Broken Stone aggregate 75 mm nominal size</b>					
	Supply of quarried stone and hand breaking into coarse aggregate 75 mm nominal size (106-63 mm) as per Table 500-17MORD & stacking as directed.					
	Unit = cum					
	Taking output = 1 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.248			
	<b>b) Material</b>					
	Supply of quarried stone 150-200 mm size	cum	1.100			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = a+b+c+d</b>					
	<b>ii Supply of quarried stone and hand breaking into coarse aggregate to Grading 2 (63 mm to 45 mm) as per Table 400.8 of Technical Specifications of MORD / 400-7 of MORTH.</b>					
	Unit = cum					
	Taking output = 1 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.560			
	<b>b) Material</b>					
	Supply of quarried stone 150-200 mm size	cum	1.100			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = a+b+c+d</b>					
	<b>ii A Hand Broken Stone aggregate 63 mm nominal size</b>					
	Supply of quarried stone and hand breaking into coarse aggregate to 63 mm to nominal size (passing 80 mm and retained on 50 mm sieve) & stacking as directed.					
	Unit = cum					
	Taking output = 1 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.560			
	<b>b) Material</b>					
	Supply of quarried stone 150-200 mm size	cum	1.100			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = a+b+c+d</b>					
	<b>iii Supply of quarried stone and hand breaking into coarse aggregate to Grading 3 (53 mm to 22.4 mm) as per Table 400-8 MORTH /400.7 MORD of Technical Specifications.</b>					
	Unit = cum					
	Taking output = 1 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.872			
	<b>b) Material</b>					
	Supply of quarried stone 150-200 mm size	cum	1.100			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = a+b+c+d</b>					
	<b>iii A Hand Broken Stone aggregate 40 mm nominal size</b>					
	Supply of quarried stone and hand breaking into coarse aggregate to 40 mm nominal size (passing 63 mm retained 20mm sieve) & stacking as directed.					
	Unit = cum					
	Taking output = 1 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.872			
	<b>b) Material</b>					
	Supply of quarried stone 150-200 mm size	cum	1.100			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = a+b+c+d</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
12	<b>Crushing of Stone Aggregates 100 per cent passing through 53 mm sieve as per Table 500.6 of Technical Specifications of MORD / 500-7 of MORTH, and 45, 40, 37.5 mm, including hirecharges of integrated stone crusher of 200 t/h including belt conveyor and vibrating screens, tipper 5.5 cum (10t) capacity &amp; Frontend Loader and all labour charges complete.</b>					
	Crushing of stone boulders of 150 mm size in an integrated stone crushing unit of 200 t/h capacity comprising of primary and secondary crushing units, belt conveyor and vibrating screens to obtain stone aggregates 100 per cent passing through 53 mm sieve as per Table 500.6 of Technical Specifications of MORD / 500-7 of MORTH including the cost of stone.					
	Unit = cum					
	Taking output = 750 cum at crusher location					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	2.760			
	Mazdoor (Unskilled)	day	17.000			
	<b>b) Material</b>					
	Stone Boulder of size 150 mm and below	cum	800.000			
	<b>c) Machinery</b>					
	Integrated stone crusher of 200 t/h including belt conveyor and vibrating screens	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	20.000			
	Tipper 5.5 cum capacity	hour	20.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Total (a+b+c+d+e)</b>					
	<b>Cost for 750 cum = (a+b+c+d+e) x 0.85</b>					
	<b>Rate per cum = [(a+b+c+d+e) x 0.85]/ 750</b>					
	<b>Note : 1)</b> 800 cum of stone boulders are needed to get 750 cum of stone aggregates.					
	<b>2)</b> 85 per cent of above cost will be attributed to the production of 750 cum of stone aggregates of 40 mm size and balance 15 per cent will be for smaller size aggregates and stone dust which comes out as a by-product.					
	<b>3)</b> The integrated stone crusher includes primary and secondary crushing units.					
13	<b>Crushing of Stone Aggregates 100 per cent passing through 22.4 mm sieve as per Table 500.6 of Technical Specifications (MORD) &amp; 20mm, 19mm, including hirecharges of integrated stone crusher of 200 t/h including belt conveyor and vibrating screens, tipper 5.5 cum (10t) capacity &amp; Frontend Loader and all labour charges complete.</b>					
	Crushing of stone boulders of 150 mm size in an integrated stone crushing unit of 200 t/h capacity comprising of primary and secondary crushing units, belt conveyor and vibrating screens to obtain stone aggregates 100 per cent passing through 22.4 mm sieve as per Table 500.6 of Technical Specifications & 20 mm and 19 mm including the cost of stone.					
	Unit = cum					
	Taking output = 670 cum at crusher location					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	2.760			
	Mazdoor (Unskilled)	day	17.000			
	<b>b) Material</b>					
	Stone Boulder of size 150 mm and below	cum	800.000			
	<b>c) Machinery</b>					
	Integrated stone crusher of 200 t/h including belt conveyor and vibrating screens	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	20.000			
	Tipper 5.5 cum capacity	hour	20.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Total (a+b+c+d+e)</b>					
	<b>Cost for 670 cum = (a+b+c+d+e) x 0.90</b>					
	<b>Rate per cum = [(a+b+c+d+e) x 0.90]/ 670</b>					
	<b>Note : 1)</b> 800 cum of stone boulders are needed to get 670 cum of stone aggregates.					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	2) 90 per cent of above cost will be attributed to the production of 670 cum of stone aggregate and balance 10 per cent will be for smaller size aggregates and stone dust which comes out as a by-product.					
	3) The integrated stone crusher includes primary and secondary crushing units.					
14	<b>Crushing of Stone Aggregates Nominal Size 13.2 mm as per Table 500.9 of Technical Specifications (MORD) and Table 500-21 MORTH and 14 mm, including hirecharges of integrated stone crusher of 200 t/h including belt conveyor and vibrating screens, tipper 5.5 cum (10t) capacity &amp; Frontend Loader and all labour charges complete.</b>					
	Crushing of stone boulders of 150 mm size in an integrated stone crushing unit of 200 t/h capacity comprising of primary and secondary crushing units, belt conveyor and vibrating screens to obtain stone aggregates of 13.2 mm nominal size as per Table 500.9 of Technical Specifications & 14 mm including the cost of stone.					
	Unit = cum					
	Taking output = 600 cum at crusher location					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	2.760			
	Mazdoor (Unskilled)	day	17.000			
	<b>b) Material</b>					
	Stone Boulder of size 150 mm and below	cum	800.000			
	<b>c) Machinery</b>					
	Integrated stone crusher of 200 t/h including belt conveyor and vibrating screens	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	20.000			
	Tipper 5.5 cum capacity	hour	20.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Total (a+b+c+d+e)</b>					
	Cost for 600 cum = (a+b+c+d+e) x 0.95					
	<b>Rate per cum = [(a+b+c+d+e) x 0.95]/ 600</b>					
	<b>Note : 1) 800 cum of stone boulders are needed to get 600 cum of stone chips of size 13.2 mm and 125 cum stone dust.</b>					
	2) 95 per cent of above cost will be attributed to the production of 600 cum of stone chips of 13.2 mm size and balance 5 per cent to the production of stone dust which comes out as a by-product.					
	3) The analysis for crushing of stone chips of size 11.2 mm will be same as for 13.2 mm					
A	<b>Crushing of Stone Aggregates Nominal Size 11.2 mm as per Table 500.9 of Technical Specifications (MORD) and Table 500-21 MORTH.</b>					
	<b>Same analysis as in 13.2 mm</b>					
	<b>Rate per cum</b>					
15	<b>Crushing of Stone Aggregates 9.5 and 10 mm Nominal Size as per Table 500.9 of Technical Specifications (MORD) and Table 500-21 MORTH, including hirecharges of integrated stone crusher of 200 t/h including belt conveyor and vibrating screens, tipper 5.5 cum (10t) capacity &amp; Frontend Loader and all labour charges complete.</b>					
	Crushing of stone boulders of 150 mm size in an integrated stone crushing unit of 200 t/h capacity comprising of primary and secondary crushing units, belt conveyor and vibrating screens to obtain stone aggregates of 9.5 mm nominal size as per Table 500.9 of Technical Specifications and 10 mm including the cost of stone.					
	Unit = cum					
	Taking output = 600 cum at crusher location					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	2.760			
	Mazdoor (Unskilled)	day	17.000			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>b) Material</b>					
	Stone Boulder of size 150 mm and below	cum	800.000			
	<b>c) Machinery</b>					
	Integrated stone crusher of 200 t/h including belt conveyor and vibrating screens	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	20.000			
	Tipper 5.5 cum capacity	hour	20.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Total (a+b+c+d+e)</b>					
	Cost for 600 cum = (a+b+c+d+e) x 0.95					
	<b>Rate per cum = [(a+b+c+d+e) x 0.95]/ 600</b>					
	<b>Note :- 1)</b> 800 cum of stone boulders are needed to get 600 cum of stone chips of size 9.5 mm and 125 cum stone dust.					
	<b>2)</b> 95 per cent of above cost will be attributed to the production of 600 cum of stone chips of 9.5 mm size and balance 5 per cent to the production of stone dust which comes out as a by-product.					
	<b>3)</b> The integrated stone crusher includes primary and secondary crushing units.					
	<b>4)</b> Cost of crushing of stone chips of size 6.7 mm will be 10 per cent extra over that of 9.5 mm size.					
A	<b>Crushing of Stone Aggregates 6.7, 6.3, 6 and 5 mm Nominal Size as per Table 500.9 of Technical Specifications (MORD) and Table 500-21 MORTH, including hirecharges of integrated stone crusher of 200 t/h including belt conveyor and vibrating screens, tipper 5.5 cum (10t) capacity &amp; Frontend Loader and all labour charges complete.</b>					
	Crushing of stone boulders of 150 mm size in an integrated stone crushing unit of 200 t/h capacity comprising of primary and secondary crushing units, belt conveyor and vibrating screens to obtain stone aggregates of 6.3 mm nominal size as per Table 500.9 of Technical Specifications including the cost of stone.					
	Unit = cum					
	<b>a) Rate per cum for Crushing of Stone Aggregates 9.5 mm as in S.No. 15</b>					
	<b>b) Add : 10% extra over that of 9.5 mm size</b>					
	<b>c) Total (a+b)</b>					
	<b>d) Overheads &amp; Contractors Profit on (c)</b>					
	<b>Grand Total (c+d)</b>					

#### General Note

1. When materials are used for a finished item of work, overheads and Contractors profit need not be included in cost of material data. Basic rates only to be carried out as material cost.

2. Rates are for net quantities after deduction of voids.

#### Percentage reduction in volume of aggregates

As per Table 500 - 28 MORTH & Table 500 - 18 MORD

Standard Size of Aggregates	Percentage reduction in volume computed by stack measurements to arrive at the volume to be paid for
i. 75 mm and 63 mm	12.5
ii. 45 or 40 mm, 37.5 mm and upto 26.5 mm	10
iii. 25 mm to 13.2 mm, 11.2 mm and 6.3 or 6.7 mm	5
iv. Fine aggregate (sand)	5
v. Rough Stone for apron & revetment (as per APSS)	40
vi. Rough Stone for Soling (Proposed as in v)	40

3. Part of km beyond 1 km will be payable for the full km.

4. The provision towards Mate (1 Mate provided for 25 labour) is included in the provision towards unskilled Mazdoor in data.

5. The rate analysis of Loading & unloading of various items includes stacking.



# Andhra Pradesh Standard Data

## I. Roads and Bridges

### Chapter -2

#### SITE CLEARANCE

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
1	<b>Clearing Grass and Removal of Rubbish</b>					
	Clearing grass and removal of rubbish up to a distance of 30 m outside the periphery of the area as per Technical Specification Clause 201 MORD					
	<b>By Manual Means</b>					
	Unit = 10 sqm					
	Taking output = 1 hectare					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	41.600			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per hectare = a+b+c</b>					
	<b>Rate per 10 Sqm = (a+b+c)/1000</b>					
A	<b>Clearing Grass and Removal of Rubbish</b>					
	Clearing grass and removal of rubbish up to a distance of 50 m outside the periphery of the area as per Technical Specification Clause 201 MORTH.					
	<b>By Manual Means</b>					
	Unit = 10 sqm					
	Taking output = 1 hectare					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	52.000			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per hectare = a+b+c</b>					
	<b>Rate per 10 Sqm = (a+b+c)/1000</b>					
2	<b>Clearing and Grubbing Road Land</b>					
	Clearing and grubbing road land including uprooting wild vegetation, grass, bushes, shrubs, saplings and trees of girth upto 300 mm, removal of stumps of such trees cut earlier and disposal of unserviceable materials and stacking of serviceable material to be used or auctioned, upto a lead of 1000 m including removal and disposal of top organic soil not exceeding 150 mm in thickness as per Technical Specification Clause 201 MORD / MORTH.					
	Unit = 10 sqm					
	Taking output = 1 hectare					
I	<b>By Manual Means</b>					
A	<b>In area of non-thorny jungle (light jungle)</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	156.000			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	1.000			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per hectare = a+b+c+d</b>					
	<b>Rate per 10 Sqm = (a+b+c+d)/1000</b>					
B	<b>In area of thorny jungle</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	208.000			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	2.000			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per hectare = a+b+c+d</b>					
	<b>Rate per 10 Sqm = (a+b+c+d)/1000</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
II	<b>By Mechanical Means</b>					
A	<b>In area of non-thorny jungle (light jungle)</b>					
	<b>a) Labour</b>					
	Mate	Day	-			
	Mazdoor (Unskilled)	Day	4.160			
	<b>b) Machinery</b>					
	Dozer D 50 with attachment or suitable machinery for removal of trees & stumps	hour	10.00			
	Tractor with trolley 3t	hour	1.00			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate per hectare = a+b+c+d</b>					
	<b>Rate per 10 Sqm = (a+b+c+d)/1000</b>					
B	<b>In area of thorny jungle</b>					
	<b>a) labour</b>					
	Mate	day				
	Mazdoor (Unskilled)	day	6.240			
	<b>b) Machinery</b>					
	Dozer D 50 with attachment for removal of trees & stumps	hour	12.00			
	Tractor with trolley 3t	hour	1.50			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate per hectare = a+b+c+d</b>					
	<b>Rate per 10 Sqm = (a+b+c+d)/1000</b>					
	<b>Note :</b> The top soil removed during clearing and grubbing of site, if suitable for re-use shall be transported, conserved and stacked as directed by the Engineer and shall be incidental to the work.					
3	<b>Cutting of Trees including Cutting of Trunks, Branches and Removal of Stumps</b>					
	Cutting of trees, including cutting of trunks, branches and removal of stumps & roots, refilling, compaction of backfilling and stacking of serviceable material by manual means with all lifts as per Technical Specification Clause 201MORD / MORTH					
A	<b>Lead upto 100 m</b>					
	Unit = each					
i	<b>Girth above 300 mm to 600 mm</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.624			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	0.070			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate for each tree = a+b+c+d</b>					
ii	<b>Girth above 600 mm to 900 mm</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.936			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	0.210			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate for each tree = a+b+c+d</b>					
iii	<b>Girth above 900 mm to 1800 mm</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	2.080			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	0.280			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate for each tree = a+b+c+d</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
iv	<b>Girth above 1800 mm to 2700 mm</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	4.160			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	0.420			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate for each tree = a+b+c+d</b>					
v	<b>Girth above 2700 mm to 4500 mm</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	8.320			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	1.000			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate for each tree = a+b+c+d</b>					
vi	<b>Girth above 4500 mm</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	26.000			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	2.000			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate for each tree = a+b+c+d</b>					
B	<b>Lead upto 1000 m</b>					
	Unit = each					
i	<b>Girth above 300 mm to 600 mm</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.620			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	0.100			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate for each tree = a+b+c+d</b>					
ii	<b>Girth above 600 mm to 900 mm</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.936			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	0.300			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate for each tree = a+b+c+d</b>					
iii	<b>Girth above 900 mm to 1800 mm</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	2.080			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	0.400			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate for each tree = a+b+c+d</b>					
iv	<b>Girth above 1800 mm to 2700 mm</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	4.160			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	0.600			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate for each tree = a+b+c+d</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
v	<b>Girth above 2700 mm to 4500 mm</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	8.320			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	1.200			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate for each tree = a+b+c+d</b>					
vi	<b>Girth above 4500 mm</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	26.000			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	2.500			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate for each tree = a+b+c+d</b>					
4	<b>Uprooting and Removing Stumps &amp; Roots</b>					
	Uprooting and Removing Stumps & roots, compaction of backfilling and stacking of servicable material by manual means as per Technical Specification Clause 201.					
A	<b>Lead upto 100 m</b>					
	Unit = each					
i	<b>Girth above 300 mm to 600 mm</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.416			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	0.018			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate for each stump with roots = a+b+c+d</b>					
ii	<b>Girth above 600 mm to 900 mm</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.624			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	0.050			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate for each stump with roots = a+b+c+d</b>					
iii	<b>Girth above 900 mm to 1800 mm</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.383			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	0.070			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate for each stump with roots = a+b+c+d</b>					
iv	<b>Girth above 1800 mm to 2700 mm</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	2.770			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	0.110			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate for each stump with roots = a+b+c+d</b>					
v	<b>Girth above 2700 mm to 4500 mm</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	5.540			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	0.250			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate for each stump with roots = a+b+c+d</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
vi	<b>Girth above 4500 mm</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	15.600			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	0.750			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate for each stump with roots = a+b+c+d</b>					
B	<b>Lead upto 1000 m</b>					
	Unit = each					
i	<b>Girth above 300 mm to 600 mm</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.416			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	0.025			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate for each stump with roots = a+b+c+d</b>					
ii	<b>Girth above 600 mm to 900 mm</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.624			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	0.075			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate for each stump with roots = a+b+c+d</b>					
iii	<b>Girth above 900 mm to 1800 mm</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.383			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	0.100			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate for each stump with roots = a+b+c+d</b>					
iv	<b>Girth above 1800 mm to 2700 mm</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	2.770			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	0.150			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate for each stump with roots = a+b+c+d</b>					
v	<b>Girth above 2700 mm to 4500 mm</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	5.540			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	0.300			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate for each stump with roots = a+b+c+d</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
vi	<b>Girth above 4500 mm</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	15.600			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	1.000			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate for each stump with roots = a+b+c+d</b>					
5	<b>Dismantling of Structures</b>					
	Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts and lead of 1000 m as per Technical Specification Clause 202 MORD / MORTH					
	Unit = cum					
	Taking output = 1.25 cum					
I	<b>By Manual Means</b>					
A	<b>Lime Concrete &amp; CC upto M10</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.040			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	0.27			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 1.25 cum = a+b+c+d</b>					
	<b>Rate per cum = (a+b+c+d)/1.25</b>					
B	<b>Cement Concrete M15 &amp; M20</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.300			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	0.27			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 1.25 cum = a+b+c+d</b>					
	<b>Rate per cum = (a+b+c+d)/1.25</b>					
C	<b>Reinforced Cement Concrete and prestressed Concrete</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Blacksmith	day	0.400			
	Mazdoor (Unskilled)	day	3.500			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	0.270			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 1.25 cum = a+b+c+d</b>					
	<b>Rate per cum = (a+b+c+d)/1.25</b>					
II	<b>By Mechanical Means</b>					
A	<b>Cement Concrete</b>					
	<b>a) labour</b>					
	Mate	day				
	Mazdoor (Unskilled)	day	0.520			
	<b>b) Machinery</b>					
	Air compressor 210 / 250 cfm with 2 leads of pneumatic breaker @1.5 cum per hour	hour	0.83			
	Tractor with trolley 3t	hour	0.27			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 1.25 cum = a+b+c+d</b>					
	<b>Rate per cum = (a+b+c+d)/1.25</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>B Reinforced Cement Concrete and prestressed Concrete</b>					
	<b>a) labour</b>					
	Mate	day				
	Mazdoor (Unskilled)	day	0.960			
	Blacksmith	day	0.25			
	<b>b) Machinery</b>					
	Air compressor 170-210 / 250 cfm working with 2 Jack Hammers simultaneously @1.00 cum per hour	hour	1.25			
	Tractor with trolley 3t	hour	0.27			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 1.25 cum = a+b+c+d					
	<b>Rate per cum = (a+b+c+d)/1.25</b>					
6	<b>Dismantling Brick/Tile Work</b>					
	Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of brick masonry, including disposal of unserviceable material and stacking the serviceable material with all lifts and lead of 1000 m as per Technical Specification Clause 202 MORD / MORTH					
	Unit = cum					
	Taking output = 1.25 cum					
	<b>A Lime mortar</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.520			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	0.270			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 1.25 cum = a+b+c+d					
	<b>Rate per cum = (a+b+c+d)/1.25</b>					
	<b>B Cement mortar</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.780			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	0.270			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 1.25 cum = a+b+c+d					
	<b>Rate per cum = (a+b+c+d)/1.25</b>					
	<b>C Mud Mortar</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.416			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	0.270			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 1.25 cum = a+b+c+d					
	<b>Rate per cum = (a+b+c+d)/1.25</b>					
	<b>D Dry Brick Pitching or Brick Soling</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.364			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	0.270			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 1.25 cum = a+b+c+d					
	<b>Rate per cum = (a+b+c+d)/1.25</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
7	<b>Dismantling Stone Masonry as per Technical Specification Clause 202.</b>					
	Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of stone masonry, including disposal of unserviceable material and stacking the serviceable material with all lifts and lead of 1000 m as per Technical Specification Clause 202 MORD / MORTH					
	Unit = cum					
	Taking output = 1.25 cum					
A	<b>Rubble Stone Masonry in Lime Mortar</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.620			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	0.270			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 1.25 cum = a+b+c+d					
	<b>Rate per cum = (a+b+c+d)/1.25</b>					
B	<b>Rubble Stone Masonry in Cement Mortar</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.780			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	0.270			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 1.25 cum = a+b+c+d					
	<b>Rate per cum = (a+b+c+d)/1.25</b>					
C	<b>Rubble Stone Masonry in Mud Mortar</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.520			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	0.270			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 1.25 cum = a+b+c+d					
	<b>Rate per cum = (a+b+c+d)/1.25</b>					
D	<b>Dry Rubble Masonry</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.468			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	0.270			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 1.25 cum = a+b+c+d					
	<b>Rate per cum = (a+b+c+d)/1.25</b>					
E	<b>Dismantling Stone Pitching / Dry Stone Spalls</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.416			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	0.270			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 1.25 cum = a+b+c+d					
	<b>Rate per cum = (a+b+c+d)/1.25</b>					
F	<b>Dismantling boulders laid in wire crates including opening of crates and stacking dismantled materials</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.520			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	0.270			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 1.25 cum = a+b+c+d					
	<b>Rate per cum = (a+b+c+d)/1.25</b>					



S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
8	<b>Dismantling Wood Work Wrought and Planed Fixed in Frames of Trusses upto a height of 5 m above Plinth Level as per Technical Specification Clause 202 MORD / MORTH including stacking of dismantled material with all lifts and lead upto 1000 m.</b>					
	Unit = cum					
	Taking output = 1.25 cum					
	<b>a) labour</b>					
	Mate	day	-			
	Carpenter 1st Class	day	0.500			
	Mazdoor (Unskilled)	day	1.060			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	0.270			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 1.25 cum = a+b+c+d					
	<b>Rate per cum = (a+b+c+d)/1.25</b>					
9	<b>2.9 Dismantling Steel Work in all Types of Sections upto a height of 5 m above Plinth Level excluding Cutting of rivet as per Technical Specification Clause 202 MORD / MORTH including stacking of dismantled material with all lifts and lead upto 1000 m.</b>					
	Unit = t					
	Taking output = 1 t					
	<b>A Including dismembering</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Blacksmith	day	1.000			
	Mazdoor (Unskilled)	day	2.640			
	Add 2.5 per cent of cost of labour for gas cutting, ropes, pulleys, etc.		<b>2.50%</b>			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	0.170			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate per t = a+b+c+d</b>					
	<b>B Excluding dismembering</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	2.100			
	Blacksmith	day	0.500			
	Add 2.5 per cent of cost of labour for gas cutting, ropes, pulleys, etc.		<b>2.50%</b>			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	0.170			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate per t = a+b+c+d</b>					
	<b>C Extra over Items (A) and (B) for cutting rivets</b>					
	Unit = each					
	Taking output = 10 rivets					
	<b>a) labour</b>					
	Mate	day				
	Blacksmith	day	0.013			
	Mazdoor (Unskilled)	day	0.014			
	<b>b&amp;c) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 10 rivets = a+b+c					
	<b>Rate for each rivet = (a+b+c) /10</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
10	<b>Scraping of bricks dismantled from brick work including stacking as per Technical Specification Clause 202 MORD / MORTH.</b>					
	Unit = Nos.					
	Taking output = 1000 Nos.					
	<b>A In Lime/ Cement Mortar</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	3.640			
	<b>b&amp;c) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 1000 Nos. = a+b+c</b>					
	<b>Rate per each = (a+b+c)/1000</b>					
	<b>B Mud Mortar</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.300			
	<b>b&amp;c) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 1000 Nos. = a+b+c</b>					
	<b>Rate per each = (a+b+c)/1000</b>					
11	<b>Scraping of Stone from Dismantled Stone Masonry as per Technical Specification Clause 202 MORD / MORTH</b>					
	Unit = cum					
	Taking output = 1 cum					
	<b>A In Cement or Lime Mortar</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.460			
	<b>b&amp;c) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate per cum = a+b+c</b>					
	<b>B Mud Mortar</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.310			
	<b>b&amp;c) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate per cum = a+b+c</b>					
12	<b>Scraping Plaster in Lime or Cement Mortar from Brick / Stone Masonry as per Technical Specification Clause 202 MORD / MORTH, including transportation of unserviceable Material with all lifts upto a lead of 1000 M</b>					
	Unit = sqm					
	Taking output = 100 sqm					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	4.160			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	0.320			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 100 sqm = a+b+c+d</b>					
	<b>Rate per sqm = (a+b+c+d)/100</b>					
13	<b>Removing all types of Hume pipes and stacking within a lead of 1000 m including Earthwork and Dismantling of Masonry Works as per Technical Specification Clause 202 MORD / MORTH.</b>					
	Unit = m					
	Taking output = 1m					
	<b>A Upto 600 mm dia Hume pipe</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.540			
	<b>b&amp;c) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate per m = a+b+c</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>B Above 600 mm to 900 mm dia Hume pipe</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.730			
	<b>b&amp;c) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate per m = a+b+c</b>					
	<b>C Above 900 mm dia Hume pipe</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.250			
	<b>b&amp;c) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate per m = a+b+c</b>					
	<b>Note : 1.</b> The excavation of earth, dismantling of stone masonry work in head walls and protection works is not included which is to be measured and paid separately.					
	<b>2.</b> Credit for retrieved stone from masonry work may be taken as per actual availability.					
14	<b>Dismantling of flexible pavements</b>					
	<b>Dismantling of flexible pavements and disposal of dismantled materials upto a lead of 1000 m, stacking serviceable and unserviceable materials separately as per Technical Specification Clause 202 MORD / MORTH</b>					
	Unit = cum					
	Taking output = 1 cum					
	<b>I By Manual Means</b>					
	<b>A Bituminous Courses</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.560			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	0.380			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate per cum = a+b+c+d</b>					
	<b>B Granular Courses</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.040			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	0.330			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate per cum = a+b+c+d</b>					
	<b>II By Mechanical Means</b>					
	<b>Bituminous Courses</b>					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.310			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	0.380			
	Tractor with ripper @ 60 cum per hour	hour	0.017			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate per cum = a+b+c+d</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
15	<b>Dismantling of Cement Concrete Pavements as per Technical Specification Clause 202 MORD / MORTH.</b>					
	Dismantling of cement concrete pavements by mechanical means using pneumatic tools breaking to pieces not exceeding 0.02 cum in volume and stock piling at designated locations and disposal of dismantled materials upto a lead of 1000 m, stacking serviceable and unserviceable materials separately.					
	Unit = cum					
	Taking output = 1 cum					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Semi-skilled)	day	0.500			
	Mazdoor (Unskilled)	day	0.530			
	<b>b) Machinery</b>					
	Air compressor 210 / 250 cfm with two leads for pneumatic cutters / hammers @ 1 cum per hour	hour	1.000			
	Tractor with trolley 3t	hour	0.400			
	Joint Cutting Machine with 2-3 blades	hour	1.000			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate per cum = a+b+c+d</b>					
	<b>Note :</b> The above analysis is for removal of complete pavement. In case full depth repair work is required to be done after dismantling, provision of a concrete saw cutter may be added for 0.25h.					
16	<b>Dismantling Guard Rails</b>					
	Dismantling guard rails by manual means and disposal of dismantled material with all lifts and upto a lead of 1000 m, stacking serviceable materials and unserviceable materials separately as per Technical Specification Clause 202 MORD / MORTH.					
	Unit = running m					
	Taking Output = 1 m					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.156			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	0.050			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate per m = a+b+c+d</b>					
17	<b>Dismantling Kerb Stones</b>					
	Dismantling kerb stones by manual means and disposal of dismantled material with all lifts and upto a lead of 1000 m as per Technical Specification Clause 202 MORD / MORTH.					
	Unit = running m					
	Taking output = 10 m					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.156			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	0.200			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost of 10 m = a+b+c+d</b>					
	<b>Rate per m = (a+b+c+d)/10</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
18	<b>Dismantling Kerb Stone Channels</b>					
	Dismantling kerb stone channels by manual means and disposal of dismantled material with all lifts and upto a lead of 1000 m as per Technical Specification Clause 202 MORD / MORTH.					
	Unit = running m					
	Taking output = 10 m					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.240			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	0.300			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost of 10 m = a+b+c+d</b>					
	<b>Rate per m = (a+b+c+d)/10</b>					
19	<b>Dismantling Kilometre Stones</b>					
	Dismantling of kilometre stones including cutting of earth, foundation and disposal of dismantled material with all lifts and lead upto 1000 m and backfilling of pit as per Technical Specification Clause 202 MORD / MORTH.					
	Unit = each					
	Taking output = 1 km stone					
	<b>A 5th km Stone</b>					
	Quantity of cement concrete = 0.392 cum					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.780			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	0.150			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate for one 5th km stone = a+b+c+d</b>					
	<b>B Ordinary km Stones</b>					
	Quantity of cement concrete = 0.269 cum					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.520			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	0.075			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate for one ordinary km stone = a+b+c+d</b>					
	<b>C 200 m Stones (Hecta Metre Stones)</b>					
	Quantity of cement concrete = 0.048 cum					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.104			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	0.020			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate for one 200 m stone = a+b+c+d</b>					
	<b>Note : Rate for boundary pillar will be same as that of 200 m stone</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
20	<b>Dismantling of Fencing</b>					
	Dismantling of barbed wire fencing / wire mesh fencing including posts, foundation concrete, backfilling of pit by manual means including disposal of dismantled material with all lifts and upto a lead of 1000 m, stacking serviceable material and unserviceable material separately as per Technical Specification Clause 202 MORD / MORTH.					
	Unit = running m					
	Taking output = 30 m					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	3.150			
	Blacksmith	day	0.750			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	0.150			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	Cost of 30 m = a+b+c+d					
	<b>Rate per m = (a+b+c+d)/30</b>					
21	<b>Dismantling of CI Water Pipe Line</b>					
	Dismantling of CI water pipe line 600 mm dia including disposal with all lifts and lead upto 1000 m and stacking of serviceable material and unserviceable material separately under supervision of concerned department as per Technical Specification Clause 202 MORD / MORTH.					
	Unit = running m					
	Taking output = 10 m					
	<b>a) labour</b>					
	Mate	day				
	Mazdoor (Unskilled)	day	2.090			
	Plumber	day	0.250			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	0.250			
	Crane upto 8 t capacity	hour	0.500			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	Cost for 10 m = a+b+c+d					
	<b>Rate per m = (a+b+c+d)/10</b>					
	<b>Note</b> : The rate analysis does not include any excavation in earth or dismantling of masonry works which are to be measured and paid separately.					
22	<b>Removal of Cement Concrete Pipe of Sewer Gutter</b>					
	Removal of cement concrete pipe of sewer gutter 1500 mm dia under the supervision of concerned department including disposal with all lifts and upto a lead of 1000 m and stacking of serviceable and unserviceable material separately but excluding earth excavation and dismantling of masonry works as per Technical Specification Clause 202 MORD / MORTH.					
	Unit = running m					
	Taking output = 10 m					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	2.600			
	<b>b) Machinery</b>					
	Crane upto 8 t capacity	hour	0.300			
	Truck flat body 10 t	hour	1.000			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	Cost for 10 m = a+b+c+d					
	<b>Rate per m = (a+b+c+d)/10</b>					
	<b>Note</b> : The rate analysis does not include any excavation in earth or dismantling of masonry works which are to be measured and paid separately.					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
23	<b>Removal of Telephone/Electric Poles and Lines</b>					
	Removal of telephone/electric poles with wires including excavation and dismantling of foundation concrete and lines under the supervision of concerned department, disposal with all lifts and upto a lead of 1000 m and stacking the serviceable and unserviceable material separately as per Technical Specification Clause 202 MORD / MORTH.					
	Unit = each					
	Taking output = 30 Nos.					
	<b>a) labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	10.480			
	Electrician / Lineman	day	2.000			
	<b>b) Machinery</b>					
	Tractor with trolley 3t	hour	1.500			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 30 poles = a+b+c+d</b>					
	<b>Rate per pole = (a+b+c+d)/30</b>					

**General Note :** The provision towards Mate is included in the provision towards unskilled Mazdoor.

# Andhra Pradesh Standard Data

## I. Roads and Bridges

### Chapter - 3

#### EARTHWORK, EROSION CONTROL AND DRAINAGE

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
1	<b>Preparation of Foundation for Embankment</b>					
	<b>Scarifying Existing Granular Surface to a Depth of 50 mm by Manual Means</b>					
	i Scarifying existing granular surface to a depth of 50 mm and disposal of scarified material with a lift upto 3 m and leads upto 1000 m as per Technical Specification Clause 301.4. MORD					
	Unit = sqm					
	Taking output = 100 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	4.160			
	<b>b) Machinery</b>					
	Tractor with trolley	hour	1.500			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	Cost for 100 sqm = a+b+c+d					
	<b>Rate per sqm = (a+b+c+d)/100</b>					
	<b>Note :</b> In case material is to be reused at site, transportation cost catered above (Sub-item b) for disposal shall be deleted.					
	ii Scarifying existing granular surface to a depth of 50 mm and disposal of scarified material with all lifts and leads upto 1000 m as per Technical Specification Clause 305.4.3 MORTH					
	Unit = sqm					
	Taking output = 100 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	5.200			
	<b>b) Machinery</b>					
	Tractor with trolley	hour	1.670			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	Cost for 100 sqm = a+b+c+d					
	<b>Rate per sqm = (a+b+c+d)/100</b>					
	<b>Note :</b> In case material is to be reused at site, transportation cost catered above (Sub-item b) for disposal shall be deleted.					
2	<b>Preparation of Foundation for Embankment</b>					
	i <b>Scarifying Existing Bituminous Surface to a Depth of 150 mm by Mechanical Means</b>					
	Scarifying the existing bituminous road surface to a depth of 150 mm and disposal of scarified material with a lift upto 3 m and lead upto 1000 m as per Technical Specification Clause 301.4. MORD					
	Unit = sqm					
	Taking output = 100 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.260			
	<b>b) Machinery</b>					
	Tractor with ripper attachment @ 60 cum per hour	hour	0.250			
	Front end loader 1 cum bucket capacity @ 50 cum per hour	hour	0.300			
	Tipper 5.5 cum capacity, 4 trips per hour	hour	0.680			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	Cost for 100 sqm = a+b+c+d					
	<b>Rate per sqm = (a+b+c+d)/100</b>					



S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
ii	<b>Scarifying Existing Bituminous Surface to a Depth of 50 mm by Mechanical Means</b>					
	Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material with all lifts and lead upto 1000 m as per Technical Specification Clause 305.4.3 MORTH					
	Unit = sqm					
	Taking output = 100 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.260			
	<b>b) Machinery</b>					
	Tractor with ripper attachment @ 60 cum per hour	hour	0.080			
	Front end loader 1 cum bucket capacity @ 50 cum per hour	hour	0.200			
	Tipper 5.5 cum capacity, 4 trips per hour	hour	0.230			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Cost for 100 sqm = a+b+c+d</b>					
	<b>Rate per sqm = (a+b+c+d)/100</b>					
3	<b>Construction of Embankment with Material Obtained from Roadway Cutting</b>					
	Construction of embankment with approved materials deposited at site from roadway cutting and excavation from drain ( <b>not exceeding 0.6 m depth</b> ) and foundation of other structures graded and compacted to meet requirement of Tables 300.1 and 300.2 as per Technical Specification Clause 301.5 MORD / 305 MORTH					
	Unit = cum					
	Taking output = 100 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.520			
	<b>b) Machinery</b>					
	Dozer D-50 for spreading @ 200 cum per hour	hour	0.500			
	Motor grader for grading @ 200 cum per hour	hour	0.500			
	Water tanker 6 kl capacity	hour	2.000			
	Three wheel 80-100 kN Static Roller ( <b>or</b> )	hour	1.250			
	Vibratory Roller 80 - 100 kN @ 100 cum per hour	hour	1.000			
	<b>c) Material</b>					
	Water	kl	12.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Cost for 100 cum = a+b+c+d+e (3 Wheel Roller)</b>					
	<b>Rate per cum = (a+b+c+d+e)/100</b>					
	<b>Cost for 100 cum = a+b+c+d+e (Vibratory Roller)</b>					
	<b>Rate per cum = (a+b+c+d+e)/100</b>					
	<b>Note :</b> In case the earth cutting is done by dozer and pushed for filling in the embankment, the input of dozer in the cost of embankment shall be deleted as the same is already provided in the cost of excavation. However, if the earth is dumped by tippers from roadway cutting, the input of dozer for spreading is required to be provided.					
4	<b>Construction of Embankment with Material Obtained from Borrow Pits</b>					
i	Construction of embankment with approved material obtained from borrow pits with all lifts, transporting to site, spreading, grading to required slope and compacting to meet requirement of Tables 300.1 and 300.2 with a lead upto 1000 m as per Technical Specification Clause 301.5 MORD / 305 MORTH					
	Unit = cum					
	Taking output = 100 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.040			
	<b>b) Machinery</b>					
	Hydraulic Excavator 0.9 cum bucket capacity @ 60 cum per hour	hour	1.670			
	Tipper 5.5 cum with 10 t capacity	hour	4.500			
	Dozer D-50 for spreading @ 200 cum per hour	hour	0.500			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	Motor grader for grading @ 200 cum per hour	hour	0.500			
	Water tanker 6 kl capacity	hour	2.000			
	Three wheel 80-100 kN Static Roller @ 80 cum per hour	hour	1.250			
	<b>or</b>					
	Vibratory Roller 80 - 100 kN @ 100 cum per hour	hour	1.000			
	<b>c) Material</b>					
	Water	kl	12.000			
	Compensation for earth taken from private land	cum	100.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	Cost for 100 cum = a+b+c+d+e (3 Wheel Roller)					
	Rate per cum = (a+b+c+d+e)/100					
	Cost for 100 cum = a+b+c+d+e (Vibratory Roller)					
	Rate per cum = (a+b+c+d+e)/100					
	<b>Note : 1.</b> Compensation for earth will vary from place to place and will have to be assessed realistically as per particular ground situation. In case earth is available from Govt. land, compensation for earth will not be required. The position is required to be clearly stated in the cost estimate.					
	<b>2.</b> Loading & Unloading shall not be allowed since excavation proposed with hydraulic excavator and unloading by tipping.					
ii	Forming embankment with borrowed useful earth from outside road boundary by mechanical means with all leads and lifts including pre-watering of soil at borrow area, removal of top soil, excavation of soils at borrowed area, conveyance of soil, depositing the soils on the embankment, spreading soils, breaking clods, sectioning and consolidation with Vibratory Road Roller @ OMC to meet requirement of table 300-2 of MoRT&H, including all hire and operational charges of T&P and seigniorage charges, complete for finished item of work as per MoRT&H specification 305 (4th revision) - with a lead beyond 1000m. (Payment will be made based on level for finished item of work).					
	Unit = cum					
	Taking output = 10 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.104			
	<b>b) Machinery</b>					
	Hydraulic Excavator 0.9 cum bucket capacity @ 60 cum/ hour	hour	0.167			
	Tipper 5.5 cum with 10 t capacity (L = Actual Lead)	t.km	16 x L			
	Dozer D-50 for spreading @ 200 cum per hour	hour	0.050			
	Motor grader for grading @ 100 cum per hour	hour	0.100			
	Water tanker 6 kl capacity	hour	0.400			
	Vibratory Roller 80 - 100 kN @ 100 cum per hour	hour	0.100			
	<b>c) Material</b>					
	Water	kl	0.240			
	Compensation for earth taken from private land	cum	10.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	Cost for 10 cum = a+b+c+d+e					
	Rate per cum = (a+b+c+d+e)/10					
	<b>Note :</b> Compensation for earth will vary from place to place and will have to be assessed realistically as per particular ground situation. In case earth is available from Govt. land, compensation for earth will not be required. The position is required to be clearly stated in the cost estimate.					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks	
1	2	3	4	5	6	7	
	iii	<b>Forming embankment with Side earth by mechanical means including pre-watering of soil, removal of top soil, excavation of soils, depositing the soils on the embankment, spreading soils, breaking clods, sectioning and consolidation with Vibratory Road Roller @ OMC to meet requirement of table 300-2 of MoRT&amp;H, including all hire and operational charges of T&amp;P and seigniorage charges, complete for finished item of work as per MoRT&amp;H specification 305 (4th revision) (Payment will be made based on level for finished item of work).</b>					
		Unit = cum					
		Taking output = 100 cum					
		<b>a) Labour</b>					
		Mate	day	-			
		Mazdoor (Unskilled)	day	0.520			
		<b>b) Machinery</b>					
		<b>Hydraulic Excavator 0.9 cum bucket capacity @ 60 cum per hour</b>					
		Motor grader for grading @ 200 cum per hour	hour	1.00			
		Water tanker 6 kl capacity	hour	4.00			
		Vibratory Roller 80 - 100 kN	hour	1.00			
		<b>C) Water</b>	kl	24.000			
		<b>d) Seigniorage Charge</b>	cum	100.000			
		<b>Total</b>					
		<b>e) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
		<b>Cost for 100 cum = a+b+c+d+e</b>					
		<b>Rate per cum = (a+b+c+d+e)/100</b>					
		<b>Rate per cum</b>					
5	i	<b>a) Excavation in Cutting in Soil by manual means with lead upto 50 m</b>					
		Excavation for roadway in soil using manual means for carrying of cut earth to embankment site <b>with initial lift of 3 mts</b> and lead upto 50 m as per Technical Specification Clause 302.3 MORD					
		Unit = cum					
		Taking output = 120 cum					
		<b>a) Labour</b>					
		Mate	day	-			
		Mazdoor (Unskilled)	day	46.800			
		<b>b&amp;c) Overheads &amp; Contractors Profit</b>					
		<b>Cost of 120 cum = a+b+c</b>					
		<b>Rate per cum = (a+b+c)/120</b>					
		<b>b) Excavation in Cutting in Soil by manual means with lead beyond 50 m &amp; upto 1000 m</b>					
		Excavation for roadway in soil using manual means for carrying of cut earth to embankment site <b>with initial lift of 3 mts</b> and lead <b>beyond 50 m &amp; upto 1000 m</b> as per Technical Specification Clause 301 MORTH					
		Unit = cum					
		Taking output = 120 cum					
		<b>a) Labour</b>					
		Mate	day	-			
		Mazdoor (Unskilled)	day	46.800			
		<b>b) Machinery</b>					
		Truck 5.5 cum capacity	hour	10.000			
		<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
		<b>Cost of 120 cum = a+b+c+d</b>					
		<b>Rate per cum = (a+b+c+d)/120</b>					
		<b>Note</b> : In case there is a situation where the cross-section is of cut and fill and cut earth is required to be used in embankment in the immediate vicinity, the item of carriage in the truck shall be omitted.					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	ii	<b>Excavation in Soil with Dozer with lead upto 100m</b>				
		Excavation for roadway in soil by mechanical means including cutting and pushing the earth to site of embankment upto a distance of 100 m, including trimming bottom and side slopes in accordance with requirements of lines, grades and cross-sections as per Technical Specification Clause 302.3 MORD / 301 MORTH.				
		Unit = cum				
		Taking output = 180 cum				
		<b>a) Labour</b>				
		Mate	day	-		
		Mazdoor (Unskilled)	day	2.080		
		<b>b) Machinery</b>				
		Dozer D-50 @ 50 cum per hour (cutting with pushing)	hour	3.600		
		<b>c&amp;d) Overheads &amp; Contractors Profit</b>				
		<b>18.00%</b>				
		Cost for 180 cum = a+b+c+d				
		Rate per cum = (a+b+c+d)/180				
	iii	<b>Excavation in Soil using Hydraulic Excavator and Tippers with disposal upto 1000 m</b>				
		Excavation for roadwork in soil with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross-sections, and transporting to the embankment location <b>with all lifts</b> and lead upto 1000 m as per Technical Specification Clause 302.3 MORD / 301 MORTH				
		Unit = cum				
		Taking output = 360 cum				
		<b>a) Labour</b>				
		Mate	day	-		
		Mazdoor (Unskilled)	day	2.080		
		<b>b) Machinery</b>				
		Hydraulic excavator 0.9 cum bucket capacity @ 100 cum/ hour	hour	3.60		
		Tipper 5.5 cum capacity, 4 trips per hour	hour	15.00		
		<b>c&amp;d) Overheads &amp; Contractors Profit</b>				
		<b>18.00%</b>				
		Cost for 360 cum = a+b+c+d				
		Rate per cum = (a+b+c+d)/360				
6	3.6	<b>Excavation in Marshy Soil</b>				
	302	Excavation for roadway in marshy soil with hydraulic excavator 0.9 cum bucket capacity including cutting and loading in tippers and disposal <b>with all lifts</b> and lead upto 1000 m, trimming of bottom and side slopes in accordance with requirements of lines, grades and cross- sections as per Technical Specification Clause 302.3.6 MORD / 301 MORTH				
		Unit = cum				
		Taking output = 300 cum				
		<b>a) Labour</b>				
		Mate	day	-		
		Mazdoor (Unskilled)	day	2.080		
		<b>b) Machinery</b>				
		Hydraulic excavator 0.90 cum bucket capacity @ 50 cum per hour	hour	6.00		
		Tipper 5.5 cum capacity, 4 trips per hour.	hour	12.50		
		<b>c&amp;d) Overheads &amp; Contractors Profit</b>				
		<b>18.00%</b>				
		Cost for 300 cum = a+b+c+d				
		Rate per cum = (a+b+c+d)/300				

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
7	<b>Removal of Unsuitable / Unserviceable Soil with Disposal upto 1000 m</b>					
	Removal of unsuitable / Unserviceable soil including excavation, loading and disposal upto 1000 m lead but excluding compaction ground supporting embankment subgrade replacement by suitable soil, which shall be paid separately as per Clause 303.5.2 as per Technical Specification Clause 302.3.11 MORD / 301 MORTH					
	Unit = cum					
	Taking output = 360 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	2.080			
	<b>b) Machinery</b>					
	Excavator 0.90 cum bucket capacity @ 100 cum per hour	hour	3.60			
	Tipper 5.5 cum capacity, 4 trips per hour	hour	15.00			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			18.00%		
	Cost for 360 cum = a+b+c+d					
	<b>Rate per cum = (a+b+c+d)/360</b>					
	<b>Note :</b> This item does not include replacement of unsuitable soil by suitable soil. Replacement, where required, is to be provided and paid separately under Clause 303.5.2.					
8	<b>i) Excavation in ordinary Rock by manual means</b>					
	<b>a) Excavation in ordinary rock using manual means including loading in a truck and carrying of excavated material to embankment site with initial lift of 3 mts and lead upto 50 m as per Technical Specification Clause 302.3.5 MORD / 301 MORTH</b>					
	Unit = cum					
	Taking output = 120 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	72.800			
	<b>b&amp;c) Overheads &amp; Contractors Profit</b>			18.00%		
	Cost for 120 cum = a+b+c					
	<b>Rate per cum = (a+b+c)/120</b>					
	<b>b) Excavation in ordinary rock using manual means including loading in a truck and carrying of excavated material to embankment site with initial lift of 3 mts and lead beyond 50 m &amp; upto 1000 m as per Technical Specification Clause 301 MORTH</b>					
	Unit = cum					
	Taking output = 120 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	72.800			
	<b>b) Machinery</b>					
	Truck 5.5 cum capacity	hour	10.000			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			18.00%		
	Cost for 120 cum = a+b+c+d					
	<b>Rate per cum = (a+b+c+d)/120</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
c	<b>Earthwork excavation for road way in soil by mechanical means including cutting and pushing the earth to side of embankment upto a lead of 100 metres including trimming bottom and side slopes in accordance with requirements of lines, grades and cross sections etc., complete for finished item of work for trench cutting as per MOR&amp;H specification No.301 and as directed by the Engineer-in-Charge</b>					
	<b>Unit = 1 cum</b>					
	Taking output = 180 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	2.080			
	<b>b) Machinery</b>					
	<b>Hydraulic Excavator 0.9 cum bucket capacity @ 60 cum per hour</b>	hour	3.000			
	<b>c) Seigniorage Charges</b>	cum	180.000			
	<b>d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 180 cum = a+b+c+d</b>					
	<b>Rate per cum a+b+c+d / 180</b>					
ii	<b>Excavation in Ordinary Rock with Dozer with lead upto 100m</b>					
	Excavation for roadway in ordinary rock by deploying a dozer D-50 including cutting and pushing the cut earth to site of embankment upto a distance of 100 m (average lead 50 m), trimming bottom and side slopes in accordance with the requirements of lines, grades and cross-sections <b>with lift upto 3 m as per Technical Specification Clause 301 MORTH / 302 MORD.</b>					
	<b>Unit = cum</b>					
	Taking output = 108 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	3.120			
	<b>b) Machinery</b>					
	<b>Dozer D-50 @ 50% of 100 cum per hour</b>	hour	2.160			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 108 cum = a+b+c+d</b>					
	<b>Rate per cum = (a+b+c+d)/108</b>					
iii	<b>Excavation in Ordinary Rock using Hydraulic Excavator and Tippers with disposal lead beyond 100 m &amp; upto 1000 m</b>					
	Excavation for roadway in ordinary rock with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading in tippers, transporting to embankment site <b>with all lifts</b> and lead <b>beyond 100 m &amp; upto 1000 m</b> , trimming bottom and side slopes in accordance with requirements of lines, grades and cross-sections as per Technical Specification Clause 302.3.5 MORD / 301 MORTH					
	<b>Unit = cum</b>					
	Taking output = 240 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	2.080			
	<b>b) Machinery</b>					
	<b>Hydraulic Excavator 0.90 cum bucket capacity @ 40 cum / hour</b>	hour	6.00			
	<b>Tipper 5.5 cum capacity, 4 trips per hour.</b>	hour	11.00			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 240 cum = a+b+c+d</b>					
	<b>Rate per cum = (a+b+c+d)/240</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	iv	<b>Earthwork excavation for road way in soil by mechanical means including cutting and loading in tippers trimming bottom and side slopes in accordance with requirements of lines, grades and cross sections and transporting to the embankment location or disposal of unserviceable soil with all leads and lifts etc., complete for finished item of work for trench cutting as per MORT&amp;H specification No.301 and as directed by the Engineer-in-Charge</b>				
		<b>Unit = 1 cum</b>				
		Taking output = 360 cum				
		<b>a) Labour</b>				
		Mate	day	-		
		Mazdoor (Unskilled)	day	2.080		
		<b>b) Machinery</b>				
		<b>Hydraulic Excavator 0.9 cum bucket capacity @ 60 cum per hour</b>	hour	6.0000		
		Tipper 5.5 cum capacity, 4 trips per hour	hour	16.00		
			cum			
		<b>c) Seigniorage Charges</b>				
		<b>d) Overheads &amp; Contractors Profit</b>				
				<b>18.00%</b>		
		<b>Cost for 360 cum = a+b+c+d</b>				
		<b>Rate per cum a+b+c+d / 360 (OR)</b>				
9	i	<b>Excavation in Hard Rock (requiring blasting) with disposal upto 1000 m</b>				
		Excavation for roadway in hard rock (requiring blasting) by drilling, blasting and breaking, trimming of bottom and side slopes in accordance with requirements of lines, grades and cross-sections, loading and disposal of cut rock <b>with all lifts</b> and leads upto 1000 m as per Technical Specification Clause 302.3.5 MORD / 301 MORTH				
		Unit = cum				
		Taking output = 180 cum				
		<b>a) Labour</b>				
		Mate	day	-		
		Mazdoor (Unskilled)	day	3.220		
		Driller	day	2.00		
		Blaster	day	0.25		
		<b>b) Machinery</b>				
		Dozer D-50 @ 30 cum per hour	hour	6.00		
		Air compressor, 210 cfm with 2 jack hammers	hour	6.00		
		Front end loader 1 cum bucket capacity @ 30 cum / hour	hour	6.00		
		Tipper 5.5 cum capacity, 2 trips per hour	hour	16.00		
		<b>c) Materials</b>				
		Gelatine 80 per cent	kg	70.00		
		Electric Detonators @ 1 detonator for 2 gelatine sticks of 285 gm each	each	252.00		
		Credit for excavated rock found suitable for use @ 50 per cent quantity blasted	cum	90.00		
		<b>d&amp;e) Overheads &amp; Contractors Profit</b>				
				<b>18.00%</b>		
		<b>Cost for 180 cum = a+b+c+d+e</b>				
		<b>Rate per cum = (a+b+c+d+e)/180</b>				
		<b>Note : 1.</b> The quality and availability of rock shall be checked before affording credit.				
		<b>2.</b> In case some rock is issued to the contractor at site, the item of carriage shall be reduced/restricted to that extent.				
		<b>3.</b> Credit for useful material received as per site conditions shall be taken into account. This has been assumed to be 50 per cent for the purpose of analysis.				

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
ii	<b>Excavation in Hard Rock (blasting prohibited)</b>					
	Excavation for roadway in hard rock (blasting prohibited) with rock breakers including breaking rock, loading in tippers and disposal <b>with initial lift of 3 mts</b> and lead upto 1000 metres, trimming bottom and side slopes in accordance with requirements of lines, grades and cross- sections as per Technical Specification Clause 302.3.5 MORD / 301 MORTH					
	<b>(A) Manual Means</b>					
	Unit = cum					
	Taking output = 16 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	17.640			
	Chiseller (Hammer Man)	day	24.00			
	Blacksmith	day	1.00			
	<b>b) Machinery</b>					
	Tipper 5.5 cum capacity, 1 trip per hour	hour	2.90			
	Credit for excavated rock found suitable for use @ 50 per cent of excavated quantity	cum	8.00			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Cost for 16 cum = a+b+c+d</b>					
	<b>Rate per cum = (a+b+c+d)/16</b>					
	<b>Note : 1.</b> Credit is considered for 50 per cent of quantity of work.					
	<b>2.</b> Loading for disposal will be done manually, being small quantity.					
	<b>3.</b> In case some rock is issued to contractor at site, the item of carriage shall be omitted to the extent of quantity issued to the Contractor.					
	<b>(B) Mechanical Means (with all lifts)</b>					
	Unit = cum					
	Taking output = 36 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	10.400			
	<b>b) Machinery</b>					
	Hydraulic excavator 0.9 cum with rock breaker attachment @ 6 cum per hour	hour	6.000			
	Tipper 5.5 cum capacity tipper, 1 trip per hour	hour	6.50			
	Credit for excavated rock found suitable for use @ 50 per cent of excavated quantity	cum	18.00			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Cost for 36 cum = a+b+c+d</b>					
	<b>Rate per cum = (a+b+c+d)/36</b>					
	<b>Note : 1.</b> The quality and availability of rock shall be checked before affording credit.					
	<b>2.</b> In case some rock is issued to the contractor at site, the item of carriage shall be restricted/reduced to that extent.					
	<b>3.</b> Being small quantity, manual loading will be economical in this case and has been provided accordingly.					
iii	<b>Excavation in Hard Rock (controlled blasting) with disposal upto 1000 m</b>					
	Excavation for roadway in hard rock with controlled blasting by drilling, blasting and breaking, trimming of bottom and side slopes in accordance with requirements of lines, grades and cross-sections, loading and disposal of cut rock <b>with all lifts</b> and leads upto 1000 m as per Technical Specification Clause 302.3.5 MORD / 301 MORTH					
	Unit = cum					
	Taking output = 180 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	3.220			
	Driller	day	2.00			
	Blaster	day	0.50			



S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>b) Machinery</b>					
	Dozer D-50 @ 30 cum per hour	hour	6.00			
	Air compressor, 210 cfm with 2 jack hammers	hour	6.00			
	Front end loader 1 cum bucket capacity	hour	6.00			
	Tipper 5.5 cum capacity, 4 trips per hour	hour	8.20			
	<b>c) Materials</b>					
	Gelatine 80 per cent	kg	70.00			
	Electric detonators @ 1 detonator for 2 gelatine stick of 285 gm each	each	1008.00			
	Credit for excavated rock found suitable for use @ 50 per cent quantity blasted	cum	90.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 180 cum =a+b+c+d+e					
	<b>Rate per cum = (a+b+c+d+e)/180</b>					
	<b>Note : 1.</b> Credit is considered for 50 per cent of quantity of blasted rock, if found suitable for construction.					
	<b>2.</b> In case some rock is issued to the Contractor at site, the item of carriage shall be reduced to that extent.					
10	<b>a</b>					
	<b>Extra for every additional lift of 1.5 m or part thereof over initial lift of 3 m in all kinds of soils &amp; rock, when executed manually</b>					
	<b>For every additional lift of 1.5 m</b>					
	<b>Unit 40 cum</b>					
	<b>Labour</b>					
	Mazdoor (Unskilled)	day	1.00			
	<b>Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 40 cum</b>					
	<b>Rate per 1 cum</b>					
	<b>b</b>					
	<b>Extra for every additional lead of 50 m or part thereof over initial lead of 50 m in all kinds of soils &amp; rock, when executed manually</b>					
	<b>For every additional lead of 50 m</b>					
	<b>Unit 7 cum</b>					
	<b>Labour</b>					
	Mazdoor (Unskilled)	day	1.00			
	<b>Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 7 cum</b>					
	<b>Rate per 1 cum</b>					
	Note : Head Leads limited to 150 m. Beyond 150 m only conveyance by machinery					
11	<b>Stripping, Storing and Relaying Top Soil from Right-of-Way (R.O.W)</b>					
	Stripping, storing and preservation of top soil by keeping it damp in stock piles and keep wet till it is used by road side at 15 m internal and re-application on embankment slopes, cut slopes and other areas in localities where the available embankment material is not conducive to plant growth as per Technical Specification Clause 302.3.2 MORD / 305 MORTH					
	Unit = cum					
	Taking output = 10 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	5.200			
	<b>b) Machinery</b>					
	Dozer D-50 @ 100 cum per hour	hour	0.100			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 10 cum = (a+b+c+d)					
	<b>Rate per cum = (a+b+c+d)/10</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
12	<b>Stripping, Storing and Relaying Top Soil from Borrow Areas in Agricultural Fields</b>					
	Stripping of top soil from borrow areas located in agriculture fields, storing at a suitable place, spreading and relaying after taking the borrow earth to maintain fertility of the agricultural field, finishing it to the required levels to the satisfaction of the farmer/land owner as per Technical Specification Clause 302.3.2 MORD / 305 MORTH					
	Unit = cum					
	Taking output = 300 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	2.080			
	<b>b) Machinery</b>					
	Dozer D-50 with 100 cum per hour output (Initially stacking and relaying)	hour	6.000			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	Cost for 300 cum = a+b+c+d					
	<b>Rate per cum = (a+b+c+d)/300</b>					
13	<b>Turfing with Sods</b>					
	Furnishing and laying of the live sods of perennial turf forming grass on embankment slope, verges or other locations shown on the drawing or as directed by the Engineer including preparation of ground, fetching of sods and watering as per Technical Specification Clause 309 MORD / 307 MORTH.					
	Unit = sqm					
	Talking output = 100 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	3.120			
	<b>b) Machinery</b>					
	Water tanker including watering for 3 months	hour	2.00			
	Tractor with Trolley	hour	1.00			
	<b>c) Material</b>					
	Farmyard manure @ 0.18 cum per 100 sqm at site of work	cum	0.18			
	Water	kl	12.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost for 100 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/100</b>					
14	<b>Seeding and Mulching</b>					
	Preparation of seed bed on previously laid top soil, furnishing and placing of seeds, fertilizer, mulching material, applying bituminous emulsion @ 0.23 litre per sqm and laying and fixing jute netting, including watering for 3 months all as per Technical Specification Clause 310 MORD / 308 MORTH.					
	Unit = sqm					
	Taking output = 240 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	10.400			
	<b>b) Machinery</b>					
	Water tanker 6 kl capacity including watering for 3 months	hour	14.00			
	Tractor with Trolley	hour	2.40			
	<b>c) Material</b>					
	Seeds	kg	3.60			
	Sludge/Farmyard manure @ 0.18 cum per 100 sqm	cum	0.43			
	Bitumen Emulsion	litere	55.20			
	Jute netting, open weave, 25 mm square opening	sqm	264.00			
	Water for 3 months	kl	84.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost for 240 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/240</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
15	<b>Construction of Subgrade and Earthen Shoulders</b>					
	Construction of subgrade and earthen shoulders with approved material obtained from borrow pits <b>with all lifts</b> and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as per Technical Specification Clause 303 MORD / 305 MORTH, by using machinery.					
	Unit = cum					
	Taking output = 100 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.040			
	<b>b) Machinery</b>					
	Hydraulic excavator 0.9 cum bucket capacity @ 100 cum/hour	hour	1.00			
	Tipper 5.5 cum capacity, 4 trips per hour	hour	4.50			
	Add rate for loading as per item 1.1 (ii)	cum	100.00			
	Add rate for unloading as per item 1.1 (iv)	cum	100.00			
	Dozer D-50 for spreading @ 200 cum per hour	hour	0.50			
	Motor grader for grading @ 200 cum per hour	hour	0.50			
	Water tanker with 6 kl capacity	hour	2.00			
	Three wheel 80-100 kN Static Roller @ 70 cum per hour	hour	1.43			
	<b>OR</b>					
	Vibratory road roller 8-10 tonnes @ 80 cum per hour	hour	1.25			
	<b>c) Material</b>					
	Water	kl	12.000			
	Compensation for earth taken from private land	cum	100.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 100 cum = a+b+c+d+e (3 Wheel Roller)					
	Rate per cum = (a+b+c+d+e)/100					
	Cost for 100 cum = a+b+c+d+e (Vibratory Roller)					
	Rate per cum = (a+b+c+d+e)/100					
16	<b>Compacting Original Ground</b>					
	<b>i) Compacting original ground supporting embankment</b>					
	Loosening, Leveling and Compacting original ground supporting embankment to facilitate placement of first layer of embankment, scarified to a depth of 150 mm, mixed with water at OMC and then compacted by rolling so as to achieve minimum dry density as given in Tables 300.1 and 300.2 for embankment construction as per Technical Specification Clause 301.4.1 MORD / 305 MORTH.					
	Unit = cum					
	Taking output = 600 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	2.080			
	<b>b) Machinery</b>					
	Tractor with ripper attachment	hour	6.000			
	Three wheel 80-100 kN Static Roller	hour	7.500			
	<b>OR</b>					
	Vibratory road roller 8-10 tonnes @ 80 cum per hour	hour	7.500			
	Water tanker 6 kl capacity	hour	4.000			
	<b>c) Material</b>					
	Water	kl	24.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 600 cum = a+b+c+d+e (3 Wheel Roller)					
	Rate per cum = (a+b+c+d+e)/600					
	Cost for 600 cum = a+b+c+d+e (Vibratory Roller)					
	Rate per cum = (a+b+c+d+e)/600					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
ii	<b>Compacting original ground supporting subgrade</b>					
	Loosening of the ground upto a level of 300 mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Tables 300.1 and 300.2 for subgrade construction as per Technical Specification Clause 303.5.2 MORD / 305 MORTH.					
	Unit = cum					
	Taking output = 600 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	3.120			
	<b>b) Machinery</b>					
	Tractor with ripper attachment	hour	9.000			
	Motor grader for grading	hour	6.000			
	Water tanker 6 kl capacity	hour	4.000			
	Three wheel 80-100 kN Static Roller @70 cum per hour	hour	8.600			
	<b>OR</b>					
	Vibratory road roller 8-10 tonnes @ 80 cum per hour	hour	7.500			
	<b>c) Material</b>					
	Water	kl	24.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost for 600 cum = a+b+c+d+e (3 Wheel Roller)					
	Rate per cum = (a+b+c+d+e)/600					
	Cost for 600 cum = a+b+c+d+e (Vibratory Roller)					
	Rate per cum = (a+b+c+d+e)/600					
17	<b>Repairs of damages caused by rain/spillage of water</b>					
	Preparation and surface treatment of formation by removing mud and slurry, watering to the extent needed to maintain the desired moisture content, trimming to the required line, grade, profile and rolling with three wheel 80-100 kN static roller, complete as per Technical Specification Clause 301.5.5.1 MORD					
	Unit = sqm					
	Taking output = 3500 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	6.280			
	Mazdoor skilled	day	1.00			
	<b>b) Machinery</b>					
	Three wheel static roller 80-100 kN	hour	3.00			
	Water tanker 6 kl, one trip per hour	hour	2.00			
	<b>c) Material</b>					
	Water	kl	12.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost for 3500 sqm = a+b+c+d+e					
	Rate per sqm = (a+b+c+d+e)/3500					
18	<b>Presplitting Rock Excavation Slopes</b>					
	Carrying out excavation in hard rock to achieve a specified slope of the rock face by controlled use of explosives and blasting accessories in properly aligned and spaced drill holes, collection of the excavated rock by a D-50 dozer, loading in tipper by a front end loader and disposing of the material <b>with all lifts</b> and lead upto 1000 m as per Technical Specification Clause 304.3 MORD / 303 MORTH					
	Unit = sqm					
	Taking output = 400 sqm (120 cum considering 300 mm average depth of excavation over the existing rock face)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	15.600			
	<b>b) Machinery</b>					
	Air compressor 250/210 cfm with 2 leads @ 20 cum per hour	hour	6.00			
	Dozer D-50	hour	6.00			
	Front end loader 1 cum bucket capacity	hour	6.00			
	Tipper 5.5 cum capacity 2 trip per hour	hour	11.00			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>c) Material</b>					
	Gelatine 80 per cent	kg	42.00			
	Electric detonators @ 1 detonator for 2 gelatine sticks of 285 gm each	each	672.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 400 sqm = a+b+c+d+e					
	Rate per sqm = (a+b+c+d+e)/400					
	<b>Note</b> : In case blasted rock is issued to the Contractor against payment for construction work, the cost of carriage shall be reduced to that extent.					
19	<b>Construction of Embankment with Flyash/Pond ash available from Coal or Lignite Burning Thermal Plants as Waste Material</b>					
	Construction of embankment with flyash conforming to Table 1 of IRC:SP:58 obtained from coal or lignite burning thermal power stations as waste material, spread and compacted in layer of 200 mm thickness each at OMC, all as specified in IRC:SP:58 and as per approved plans with lead upto 1000 m as per Technical Specification Clause 306 MORD					
	Unit = cum					
	Taking output = 360 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	4.160			
	<b>b) Machinery</b>					
	Hydraulic excavator 0.9 cum bucket capacity @ 60 cum/ hour	hour	6.00			
	Tipper 5.5 cum capacity, flyash 360 x 1.2 = 432 t	hour	16.00			
	Loading as per item 1.1 (ii)	cum	360.00			
	Unloading as per item 1.1 (iv)	cum	360.00			
	Dozer D-50 for spreading @ 200 cum per hour	hour	1.80			
	Motor grader for grading @ 100/200 cum per hour	hour	1.80			
	Water tanker 6 kl capacity	hour	9.00			
	Three wheel 80-100 kN Static Roller	hour	4.50			
	<b>OR</b>					
	Vibratory road roller 8-10 tonnes @ 100 cum per hour	hour	3.60			
	<b>c) Material</b>					
	Water	kl	54.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 360 cum = a+b+c+d+e (Vibratory Roller)					
	Rate per cum = (a+b+c+d+e)/360					
	Cost for 360 cum = a+b+c+d+e (Smooth Roller)					
	Rate per cum = (a+b+c+d+e)/360					
	<b>Note</b> : 1. As flyash is available free of cost as waste material from Thermal Plants, cost of material has not been added.					
	2. If transportation of Flyash beyond 1000 m, conveyance may be allowed as per Chapter 1.					
	3. The earthcover on sides and intermediate layers of earth sandwiching the flyash have not been included in this analysis. The same are required to be provided as per approved design and priced separately as embankment construction.					
20	<b>i Surface Drains in Soil</b>					
	Construction of unlined surface drains of average cross-sectional area 0.40 sqm in soil to specified lines, grades, levels and dimensions. Excavated material to be used in embankment with a lift upto 3m and lead of 50 m (average lead 25 m) as per Technical Specification Clause 307 MORD / 309 MORTH					
	Unit = m					
	Taking output = 10 m					
	<b>(A) Manual Means</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	2.080			
	<b>b&amp;c) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 10 m = a+b+c					
	Rate per m = (a+b+c)/10					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>Note</b> : Where lining of drain is provided, quantity shall be worked out based on approved design and drawing and priced on rate of cement concrete of approved grade or stone/brick masonry as the case may be.					
	<b>(B) Mechanical Means</b>					
	<b>a) Labour</b>					
	Mate	day				
	Mazdoor (Unskilled)	day	0.260			
	<b>b) Machinery</b>					
	Hydraulic excavator 0.9 cum bucket capacity @ 100 cum/hour	hour	0.040			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	Cost for 10 m = a+b+c+d					
	<b>Rate per m = (a+b+c+d)/10</b>					
ii	<b>Surface Drains in Ordinary Rock</b>					
	Construction of unlined surface drain of average cross-sectional area 0.4 sqm in ordinary rock to specified lines, grades, levels and dimensions as per approved design and Technical Specification Clause 307MORD / 309 MORTH. Excavated material to be used in embankment at site.					
	Unit = m					
	Taking output = 10 m					
	<b>(A) Manual Means</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	3.120			
	<b>b&amp;c) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	Cost for 10 m = a+b+c					
	<b>Rate per m = (a+b+c)/10</b>					
	<b>(B) Mechanical Means</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.520			
	<b>b) Machinery</b>					
	Hydraulic excavator 0.9 cum bucket capacity @ 40 cum /hour	hour	0.100			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	Cost for 10 m = a+b+c+d					
	<b>Rate per m = (a+b+c+d)/10</b>					
	<b>(iii) Surface Drains in Hard Rock</b>					
	Rate per m may be worked out based on quantity of hard rock as per design.					
	For rate of hard rock cutting, refer relevant item in this					
21	<b>Chute Drains</b>					
A	<b>Providing chute drains across embankment slopes in approaches of bridges and on horizontal curves as per drawings as per Specification 307 MORD.</b>					
	Unit = 1 m					
	<b>(a)</b> Earthwork in excavation for foundations of structures as per drawings and technical specifications Clause 307 including setting out construction of shoring and bracing deleterious matter, dressings of sides and bottom and backfilling with approved material (By manual means).					
	Rate as per item No.1 of Chapter 11.	cum				
	<b>(b)</b> Providing and laying plain cement concrete M15 grade.					
	Rate as per item No.5 of Chapter 12.	cum				
	<b>(c)</b> Brick Masonry in cement mortar 1:5.					
	Rate as per item No. 1 (III) of Chapter 12.	cum				
	<b>(d)</b> Plastering with cement mortar 1:4.					
	Rate as per item No. 3 (A) of Chapter 12.	sqm				
	<b>(e)</b> Providing P.C.C. M.20 coping on the top of chute walls.					
	As per item No. 13 of Chapter 12.	m				
	<b>Rate per m = a+b+c+d+e</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
B	<b>Providing chute drains across embankment slopes in approaches of bridges and on horizontal curves as per drawings as per Specification 307 MORD.</b>					
	Unit = 1 m					
	(a) Earthwork in excavation for foundations of structures as per drawings and technical specifications Clause 307 including setting out construction of shoring and bracing deleterious matter, dressings of sides and bottom and backfilling with approved material (By manual means).					
	Rate as per item No. 1 of Chapter 11.	cum				
	(b) Providing and laying plain cement concrete M15 grade.					
	Rate as per item No.5 of Chapter 12.	cum				
	(c) Coursed rubble stone masonry (2nd Sort) in cement mortar 1:4					
	Rate as per item No. 4 (II) (ii) of Chapter 12.	cum				
	(d) Plastering with cement mortar 1:4.					
	Rate as per item No. 3 (A) of Chapter 12.	sqm				
	(e) Providing P.C.C. M.20 coping on the top of chute walls.					
	As per item No. 13 of Chapter 12.	m				
	<b>Rate per m = a+b+c+d+e</b>					
	<b>Note :</b> Quantities are to be taken as per the designs and drawings.					
22	<b>Sub – Surface drains with Perforated Pipe</b>					
	Construction of subsurface drain with perforated pipe of 100 mm internal diameter of metal / asbestos cement / cement concrete / PVC, closely jointed, perforations ranging from 3 mm to 6 mm depending upon size of material surrounding the pipe, with 150 mm bedding below the pipe and 300 mm cushion above the pipe, cross section of excavation 450 x 550 mm. Excavated material to be utilized in roadway at site as per Specification 309 MORTH					
	Unit = m					
	Taking output = 10 m					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor for excavation and back filling	day	2.040			
	<b>c) Material</b>					
	Perforated pipe of cement concrete, internal dia 100mm	m	10.000			
	Crushed stone as per table 300-3	cum	2.400			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Cost for 10 m = a+b+c+d+e</b>					
	<b>Rate per m = (a+b+c+d+e) /10</b>					
	<b>Note :</b> Type of pipe may be modified depending upon provision in design.					
23	<b>Aggregate Sub-Surface Drains</b>					
	Construction of aggregate sub surface drain 300 mm x 450 mm with aggregates conforming to table 300-4, excavated material to be utilised in roadway as per Specification 309 MORTH					
	<b>Unit = metre</b>					
	<b>Taking output = 10 metres</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor for excavation and back filling with aggregates	day	1.520			
	<b>b) Material</b>					
	Crushed stone as per table 300-3 MORTH	cum	1.350			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Cost for 10 metres = a+b+c+d</b>					
	<b>Rate per metre = (a+b+c+d)/10</b>					
	<b>Note :</b> Provide suitable grading as per table 300-3 MORTH, keeping classification of soils met.					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
24	<b>Underground Drain at Edge of Pavement</b>					
	Construction of an underground drain 1 m x 1 m (inside dimensions) lined with RCC-20 cm thick and covered with RCC slab 10 cm in thickness on urban roads as per Specification 309 MORTH.					
	<b>Unit = Running metre</b>					
	<b>Taking output = one metre</b>					
	a) Earthwork in soil	cum	1.500			
	b) RCC work M-20	cum	0.495			
	<b>Rate per metre = (a+b)</b>					
	Rates for these items may be taken from chapters on earth work and substructures respectively.					
25	<b>Preparation and Surface Treatment of Formation.</b>					
	Preparation and surface treatment of formation by removing mud and slurry, watering to the extent needed to maintain the desired moisture content, trimming to the required line, grade, profile and rolling with 8-10 tonne smooth wheeled roller, complete as per clause 310 MORTH					
	<b>Unit = sqm</b>					
	<b>Taking output = 3500sqm</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor	day	6.280			
	Mazdoor skilled	day	1.000			
	<b>b) Machinery</b>					
	Smooth 3 wheeled steel roller 8-10 tonnes	hour	3.000			
	Water tanker 6 KL, one trip per hour	hour	3.000			
	<b>c) Material</b>					
	Cost of water	KL	18.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Cost for 3500 sqm = a+b+c+d+e</b>					
	<b>Rate per sqm = (a+b+c+d+e)/3500</b>					
24	<b>Construction of Rock fill Embankment</b>					
	Construction of rock fill embankment with broken hard rock fragments of size not exceeding 300 mm laid in layers not exceeding 500 mm thick including filling of surface voids with stone spalls, blinding top layer with granular material, rolled with vibratory road roller, all complete as per clause 313 MORTH.					
	Unit = cum					
	Taking output = 100 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor for excavation and back filling	day	1.540			
	<b>b) Machinery</b>					
	Dozer 80 HP for spreading @ 200 cum per hour	Hour	0.50			
	Vibratory road roller 8-10 tonnes @ 100 cum per hour	Hour	1.00			
	Water tanker 6 kl, one trip per hour	Hour	2.00			
	<b>c) Material</b>					
	Cost of Water	Kl	12.00			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Cost for 100 cum = a+b+c+d</b>					
	<b>Rate per cum = (a+b+c+d) / 100</b>					
	<b>Note :</b> It is assumed that rock is available at site from roadway cutting. In case, portion of the rock requires breaking to acceptable size of 300 mm, breaking charges will have to be added.					
	<b>General Note :</b> The provisions towards Mate is included in the provision towards unskilled Mazdoor.					



S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
27	<p><b>Work in Urban Roads</b></p> <p>The cost of earth work in urban roads inhabited area will be comparatively higher due to following reasons:</p> <p>a) There is mixed traffic on urban roads like slow moving hand and animal driven carts, rickshaws, cycles, two/ three wheeler apart from the usual vehicular traffic resulting into traffic jams. This causes loss of working time which may be in the range of 10 -15 per cent</p> <p>b) There is considerable disruption of traffic adversely affecting the efficiency of the working parties including machines due to congestion caused by pedestrian traffic, local road side vendors, parking of vehicles by the road side, encroachments by the shopkeepers and local shops who make use of the berms of the road in front of these shops and unauthorised conversion of road berms into mini local market The output of manpower and machines is substantially reduced due to factors mentioned above.</p> <p>c) Cost of living in urban areas is comparatively more resulting into higher wages.</p> <p>d) At times, work is executed during night time due to heavy traffic during day time. This involves extra expenditure by way of making arrangement for lighting and special transport for working parties due to odd hour</p> <p>In the light of above, the authorities engaged in preparing the cost estimates may exercise their judgment and cater for the additional cost to the extent of 2 to 3 per cent, keeping in view the severity of factors mentioned above. Supporting details for the extra cost based on the actual conditions in specific cases will have to give in justification.</p>					

**Andhra Pradesh Standard Data**

**I. Roads and Bridges**

**Chapter - 4**

**GRANULAR SUB-BASES, BASES (NON-BITUMINOUS) AND SHOULDERS**

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
1	<b>Granular Sub-base with Well Graded Material / Close Graded Material (Table 400.1)</b>					
	<b>A By Mix in Place Method</b>					
	Construction of granular sub-base by providing well graded material / Close graded material, spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller <b>80-100 kN / Vibratory Roller</b> to achieve the desired density, complete as per Technical Specification Clause 401 MORD / MORTH.					
	<b>i For Grading I Material</b> (CBR Value minimum 30)					
	Unit = cum					
	Taking output = 300 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	2.48			
	Mazdoor (Unskilled)	day	10.00			
	<b>b) Machinery</b>					
	Motor Grader 110 HP @ 50 cum per hour	hour	6.00			
	Three wheel 80-100 kN static roller @ 10 cum per hour	hour	30.00			
	<b>OR</b>					
	vibratory roller 80-100 kN	hour	6.00			
	Tractor with Rotavator 25 cum per hour	hour	12.00			
	Water tanker 6 kl capacity	hour	3.00			
	<b>c) Material</b>					
	Well graded / Close Graded granular sub-base material as per Table 400.1					
	53 mm to 9.5 mm @ 50 per cent	cum	192.00			
	9.5 mm to 2.36 mm @ 20 per cent	cum	77.00			
	2.36 mm below @ 30 per cent	cum	115.00			
	Water	kl	18.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>				<b>18.00%</b>	
	<b>Cost for 300cum = a+b+c+d+e (3 Wheel Roller)</b>					
	<b>Rate per cum = (a+b+c+d+e)/300</b>					
	<b>Cost for 300 cum = a+b+c+d+e (Vibratory Roller)</b>					
	<b>Rate per cum = (a+b+c+d+e)/300</b>					
	<b>ii For Grading II Material</b> (CBR Value minimum 25)					
	Unit = cum					
	Taking output = 300 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	2.48			
	Mazdoor (Unskilled)	day	10.00			
	<b>b) Machinery</b>					
	Motor Grader 110 HP @ 50 cum per hour	hour	6.00			
	Three wheel 80-100 kN static roller @ 10 cum per hour	hour	30.00			
	<b>OR</b>					
	vibratory roller 80-100 kN	hour	6.00			
	Tractor with Rotavator 25 cum per hour	hour	12.00			
	Water tanker 6 kl capacity	hour	3.00			
	<b>c) Material</b>					
	Well graded/ Close Graded granular sub-base material as per Table 400.1					
	26.5 mm to 9.5 mm @ 35 per cent	cum	134.00			
	9.5 mm to 2.36 mm @ 25 per cent	cum	96.00			
	2.36 mm below @ 40 per cent	cum	153.00			
	Water	kl	18.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>				<b>18.00%</b>	
	<b>Cost for 300cum = a+b+c+d+e (3 Wheel Roller)</b>					
	<b>Rate per cum = (a+b+c+d+e)/300</b>					
	<b>Cost for 300 cum = a+b+c+d+e (Vibratory Roller)</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	Rate per cum = (a+b+c+d+e)/300					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
iii	<b>For Grading III Material</b> (CBR Value minimum 20)					
	Unit = cum					
	Taking output = 300 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	2.40			
	Mazdoor (Unskilled)	day	8.00			
	<b>b) Machinery</b>					
	Motor Grader 110 HP @ 50 cum per hour	hour	6.00			
	Three wheel 80-100 kN static roller @ 10 cum per hour	hour	30.00			
	<b>OR</b>					
	vibratory roller 80-100 kN	hour	6.00			
	Tractor with Rotavator 25 cum per hour	hour	12.00			
	Water tanker 6 kl capacity	hour	3.00			
	<b>c) Material</b>					
	Well graded/ Close Graded granular sub-base material as per Table 400.1					
	9.5 mm to 4.75 mm @ 66 per cent	cum	255.00			
	2.36 mm below @ 34 per cent	cum	129.00			
	<b>Or</b>					
	9.5 mm to 4.75 mm @ 35 per cent	cum	134.40			
	4.75 mm to 2.36 mm @ 12.5 per cent	cum	48.00			
	2.36 mm below @ 52.5 per cent	cum	201.60			
	Water	kl	18.00			
	<b>Total</b>					
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
			<b>18.00%</b>			
	Cost for 300cum = a+b+c+d+e (3 Wheel Roller)					
	Rate per cum = (a+b+c+d+e)/300					
	Cost for 300 cum = a+b+c+d+e (Vibratory Roller)					
	Rate per cum = (a+b+c+d+e)/300					
B	<b>Plant Mix Method</b>					
	(i) Construction of granular sub-base by providing well graded / Close Graded material, mixing in a mechanical mix plant at OMC, carriage of mixed material to work site upto lead of 1000 m spreading in uniform layers with motor grader on prepared surface and compacting with smooth wheel roller <b>80-100 kN</b> to achieve the desired density, complete as per Technical Specification Clause 401					
i	<b>For Grading I Material</b> (CBR Value minimum 30)					
	Unit = cum					
	Taking output = 225 cum (450 t)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	2.40			
	Mazdoor (Unskilled)	day	8.00			
	<b>b) Machinery</b>					
	Wet mix plant @ 60 /75 t capacity per hour	hour	7.50			
	Water tanker 6 kl capacity 5 km lead with one trip per hour	hour	4.00			
	Front end loader 0.9 cum / 1 cum bucket capacity 37.5 cum per hour	hour	6.00			
	Tipper 5.5 cum @ 3 trips per hour	hour	13.60			
	Motor grader 110 HP @ 50 cum per hour	hour	4.50			
	Three wheel 80-100 kN static roller 10 cum per hour	hour	22.50			
	<b>OR</b>					
	vibratory roller 80-100 kN	hour	6.00			
	<b>c) Material</b>					
	Well graded/ Close Graded granular sub-base material as per Table 400.1					
	53 mm to 9.5 mm @ 50 per cent	cum	144.00			
	9.5 mm to 2.36 mm @ 20 per cent	cum	57.00			
	2.36 mm below @ 30 per cent	cum	86.40			
	Water	kl	24.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
			<b>18.00%</b>			
	Cost for 225 cum = a+b+c+d+e (3 Wheel Roller)					
	Rate per cum = (a+b+c+d+e)/225					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	Cost for 225 cum = a+b+c+d+e (Vibratory Roller)					
	<b>Rate per cum = (a+b+c+d+e)/225</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
ii	<b>For Grading II Material</b> (CBR Value minimum 25)					
	Unit = cum					
	Taking output = 225 cum (450 t)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	2.40			
	Mazdoor (Unskilled)	day	8.00			
	<b>b) Machinery</b>					
	Wet mix plant @ 75 t capacity per hour	hour	7.50			
	Water tanker 6 kl capacity 5 km lead with one trip per hour	hour	4.00			
	Front end loader 0.9 cum bucket capacity 37.5 cum per hour	hour	6.00			
	Tipper 5.5 cum, 3 trips per hour	hour	13.60			
	Motor grader 110 HP @ 50 cum per hour	hour	4.50			
	Three wheel 80-100 kN static roller 10 cum output	hour	22.50			
	<b>OR</b>					
	vibratory roller 80-100 kN	hour	6.00			
	<b>c) Material</b>					
	Well graded / Close Graded granular sub-base material as per Table 400.1					
	26.5 mm to 9.5 mm @ 35 per cent	cum	100.80			
	9.5 mm to 2.36 mm @ 25 per cent	cum	72.00			
	2.36 mm below @ 40 per cent	cum	115.20			
	Water	kl	24.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost for 225 cum = a+b+c+d+e (3 Wheel Roller)					
	Rate per cum = (a+b+c+d+e)/225					
	Cost for 225 cum = a+b+c+d+e (Vibratory Roller)					
	Rate per cum = (a+b+c+d+e)/225					
iii	<b>For Grading III Material</b> (CBR Value minimum 20)					
	Unit = cum					
	Taking output = 225 cum (450 t)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	2.40			
	Mazdoor (Unskilled)	day	8.00			
	<b>b) Machinery</b>					
	Wet mix plant @ 60 t capacity per hour	hour	7.50			
	Water tanker 6 kl capacity 5 km lead with one trip per hour	hour	4.00			
	Front end loader 0.9 cum bucket capacity 37.5 cum per hour	hour	6.00			
	Tipper 5.5 cum, 3 trips per hour	hour	13.60			
	Motor grader 110 HP @ 50 cum per hour	hour	4.50			
	Three wheel 80-100 kN static roller 10 cum output	hour	22.50			
	<b>OR</b>					
	vibratory roller 80-100 kN	hour	6.00			
	<b>c) Material</b>					
	Well graded / Close Graded granular sub-base material as per Table 400.1					
	9.5 mm to 4.75 mm @ 35 per cent	cum	100.80			
	4.75 mm to 2.36 mm @ 12.5 per cent	cum	36.00			
	2.36 mm below @ 52.5 per cent	cum	151.20			
	Water	kl	24.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost for 225 cum = a+b+c+d+e (3 Wheel Roller)					
	Rate per cum = (a+b+c+d+e)/225					
	Cost for 225 cum = a+b+c+d+e (Vibratory Roller)					
	Rate per cum = (a+b+c+d+e)/225					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
2	<b>A Granular Sub-Base with Coarse Graded Material (Table:- 400- 2)</b>					
	Construction of granular sub-base by providing coarse graded material, spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with vibratory roller to achieve the desired density, complete as per clause 401 MORTH.					
	<b>Unit = cum</b>					
	<b>Taking output = 300 cum</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor skilled	day	2.40			
	Mazdoor	day	8.00			
	<b>b) Machinery</b>					
	Mortar Grader 110 HP @ 50 cum per hour	hour	6.00			
	Vibratory roller 8 -10 tonne	hour	6.00			
	Water tanker 6 KL capacity	hour	3.00			
	<b>c) Material</b>					
	For coarse graded Granular sub-base Materials per table 400-2					
	<b>For grading-I Material (CBR Value minimum 30)</b>					
	53 mm to 26.5 mm @ 35 per cent	cum	134.40			
	26.5 mm to 4.75 mm @ 45 per cent	cum	172.80			
	2.36 mm below @ 20 per cent (Coarse Sand)	cum	76.80			
	Cost of water	KL	18.00			
	<b>OR</b>					
	<b>For Grading-II Material (CBR Value minimum 25)</b>					
	26.5 mm to 4.75 mm @ 75 per cent	cum	288.00			
	2.36 mm below @ 25 per cent (Dust)	cum	96.00			
	Cost of water	KL	18.00			
	<b>OR</b>					
	<b>For Grading-III Material (CBR Value minimum 20)</b>					
	9.5 mm to 4.75 mm @ 66 per cent	cum	255.00			
	2.36 mm below @ 34 per cent (Dust)	cum	129.00			
	Cost of water	KL	18.00			
	<b>(i) Rate per cum for grading-I Material</b>					
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>				18.00%	
	Cost for 300 cum = a+b+c+d+e					
	<b>Rate per cum = (a+b+c+d+e)/300</b>					
	<b>(ii) Rate per cum for grading-II Material</b>					
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>				18.00%	
	Cost for 300 cum = a+b+c+d+e					
	<b>Rate per cum = (a+b+c+d+e)/300</b>					
	<b>(iii) Rate per cum for grading-III Material</b>					
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>				18.00%	
	Cost for 300 cum = a+b+c+d+e					
	<b>Rate per cum = (a+b+c+d+e)/300</b>					
	<b>Note</b> : Any one of the grading for material may be adopted as per design					
	<b>B (i) Gravel / Soil - Aggregate Base (Table 400.2) Grading A</b>					
	<b>a)</b> Construction of gravel / soil - aggregate base by providing well graded material, spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with three wheel 80-100 kN static roller / <b>Vibratory Roller 80-100 kN</b> to achieve the desired density, complete as per Technical Specifications Clause 402 MORD.					
	<b>Unit = cum</b>					
	<b>Taking output = 300 cum</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	2.40			
	Mazdoor (Unskilled)	day	8.00			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>b) Machinery</b>					
	Motor grader 110 HP @ 50 cum per hour	hour	6.00			
	Three wheel 80-100 kN static roller @ 10 cum per hour	hour	30.00			
	<b>OR</b>					
	Vibratory Roller 80-100 kN	hour	6.00			
	Water tanker 6 kl capacity	hour	5.00			
	Tractor with Rotavator 25 cum per hour	hour	12.00			
	<b>c) Material</b>					
	For well graded granular sub-base materials as per Table 400.2					
	<b>For Grading A Material</b>					
	53 mm to 26.5 mm @ 35 per cent	cum	134.40			
	26.5 mm to 4.75 mm @ 45 per cent	cum	172.80			
	2.36 mm below @ 20 per cent	cum	76.80			
	Water	kl	30.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	Cost for 300 cum = a+b+c+d+e (3 Wheel Roller)					
	Rate per cum = (a+b+c+d+e)/300					
	Cost for 300 cum = a+b+c+d+e (Vibratory Roller)					
	Rate per cum = (a+b+c+d+e)/300					
ii	<b>Gravel / Soil - Aggregate Base (Table 400.2) Grading B</b>					
	<b>a) Construction of granular sub-base by providing well graded material, spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with three wheel 80-100 kN static roller / Vibratory Roller 80-100 kN capacity to achieve the desired density, complete as per Technical Specification Clause 402</b>					
	Unit = cum					
	Taking output = 300 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	2.40			
	Mazdoor (Unskilled)	day	8.00			
	<b>b) Machinery</b>					
	Motor grader 110 HP @ 50 cum per hour	hour	6.00			
	Three wheel 80-100 kN static roller @ 10 cum per hour	hour	30.00			
	<b>OR</b>					
	Vibratory Roller 80-100 kN	hour	6.00			
	Water tanker 6 kl capacity	hour	5.00			
	Tractor with Rotavator 25 cum per hour	hour	12.00			
	<b>c) Material</b>					
	For well graded granular sub-base materials as per Table 400.2					
	<b>For Grading B Material</b>					
	26.5 mm to 4.75 mm @ 75 per cent	cum	288.00			
	2.36 mm below @ 25 per cent	cum	96.00			
	Water	kl	30.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	Cost for 300 cum = a+b+c+d+e (3 Wheel Roller)					
	Rate per cum = (a+b+c+d+e)/300					
	Cost for 300 cum = a+b+c+d+e (Vibratory Roller)					
	Rate per cum = (a+b+c+d+e)/300					



S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	iii <b>Gravel / Soil - Aggregate Base (Table 400.2) Grading C</b>					
	a) Construction of granular sub-base by providing well graded material, spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with three wheel 80-100 kN static roller / <b>Vibratory Roller 80-100 kN</b> capacity to achieve the desired density, complete as per Technical Specification Clause 402 MORD					
	Unit = cum					
	Taking output = 300 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	2.40			
	Mazdoor (Unskilled)	day	8.00			
	<b>b) Machinery</b>					
	Motor grader 110 HP @ 50 cum per hour	hour	6.00			
	Three wheel 80-100 kN static roller @ 10 cum per hour	hour	30.00			
	<b>OR</b>					
	Vibratory Roller 80-100 kN	hour	6.00			
	Water tanker 6 kl capacity	hour	5.00			
	Tractor with Rotavator 25 cum per hour	hour	12.00			
	<b>c) Material</b>					
	For well graded granular sub-base materials as per Table 400.2					
	<b>For Grading C Material</b>					
	9.5 mm to 4.75 mm @ 66 per cent	cum	255.00			
	2.36 mm below @ 34 per cent	cum	129.00			
	Water	kl	30.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	Cost for 300 cum = a+b+c+d+e (3 Wheel Roller)					
	Rate per cum = (a+b+c+d+e)/300					
	Cost for 300 cum = a+b+c+d+e (Vibratory Roller)					
	Rate per cum = (a+b+c+d+e)/300					
	<b>C Gravel/Soil-Aggregate Surface Course (Table 400.3)</b>					
	i Construction of granular surface course by providing well graded material, spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with three wheel 80-100 kN static roller / <b>Vibratory Roller 80-100 kN</b> capacity to achieve the desired density, complete as per Technical Specification Clause 402 MORD					
	Unit = cum					
	Taking output = 300 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	2.40			
	Mazdoor (Unskilled)	day	8.00			
	<b>b) Machinery</b>					
	Motor grader 110 HP @ 50 cum per hour	hour	6.00			
	Three wheel 80-100 kN static roller @ 10 cum per hour	hour	30.00			
	<b>OR</b>					
	Vibratory Roller 80-100 kN	hour	6.00			
	Water tanker 6 kl capacity	hour	5.00			
	Tractor with Rotavator 25 cum per hour	hour	12.00			
	<b>c) Material</b>					
	For well graded granular sub-base materials as per Table 400.3					
	4.75 to 2.36 mm 40 per cent	cum	153.60			
	2.36 mm below @ 60 per cent	cum	210.40			
	Water	kl	30.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	Cost for 300 cum = a+b+c+d+e (3 Wheel Roller)					
	Rate per cum = (a+b+c+d+e)/300					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	Cost for 300 cum = a+b+c+d+e (Vibratory Roller)					
	Rate per cum = (a+b+c+d+e)/300					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks	
1	2	3	4	5	6	7	
3	<b>A</b>	<b>Lime Stabilisation for Improving Subgrade</b>					
		Laying and spreading available soil in the subgrade on a prepared surface, pulverising, mixing the spread soil in place with rotavator with 2 per cent slaked lime having minimum 70 per cent of contents of CaO, grading with motor grader and compacting with the smooth wheel road roller at <b>80-100 kN</b> OMC to the desired density to form a layer of improved Sub-grade as per Technical Specification Clause 403 MORD.					
		<b>(A) By Manual Means</b>					
		Unit = cum					
		Taking output = 150 cum (263 t)					
		<b>a) Labour</b>					
		Mate	day	-			
		Mazdoor (Skilled)	day	2.44			
		Mazdoor (Unskilled)	day	35.00			
		<b>b) Machinery</b>					
		Three wheel 80-100 kN Static roller @ 70 cum/hour	hour	2.15			
		Water tanker 6 kl capacity	hour	3.00			
		<b>c) Material</b>					
		Lime	t	5.26			
		Water	kl	18.00			
		<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
		<b>Cost for 150 cum = a+b+c+d+e</b>					
		<b>Rate per cum = (a+b+c+d+e)/150</b>					
		<b>(B) By Mechanical Means</b>					
		Unit = cum					
		Taking output = 300 cum (525 t)					
		<b>a) Labour</b>					
		Mate	day	-			
		Mazdoor (Skilled)	day	1.36			
		Mazdoor (Unskilled)	day	8.00			
		<b>b) Machinery</b>					
		Tractor with ripper and rotavator attachments @ 60 cum per hour for ripping and 25 cum per hour for mixing	hour	12.00			
		Motor grader 110 HP @ 50 cum per hour	hour	6.00			
		Three wheel 80-100 kN Static roller @ 70 cum/hour	hour	4.30			
		Water tanker 6 kl capacity	hour	5.00			
		<b>c) Material</b>					
		Lime	t	10.50			
		Water	kl	30.00			
		<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
		<b>Cost for 300 cum = a+b+c+d+e</b>					
		<b>Rate per cum = (a+b+c+d+e)/300</b>					
		<b>Note</b> : The exact quantity of lime shall be as per design.					
	<b>B</b>	<b>Lime Stabilisation for Improving Sub-grade</b>					
		Laying and spreading available soil in the sub-grade on a prepared surface, pulverising, mixing the spread soil in place with rotavator with 3 per cent slaked lime having minimum content of 70 per cent of <b>weight by quick lime (CaO)</b> , grading with motor grader and compacting with the Vibratory road roller at OMC to the desired density to form a layer of improved sub grade as per Technical Specification 402 MORTH					
		Unit = cum					
		Taking output = 300 cum (525 tonne)					
		<b>i. By Mechanical Means</b>					
		<b>a) Labour</b>					
		Mate	day	-			
		Skilled mazdoor for alignment and geometrics	day	1.36			
		Mazdoor for spraying lime	day	8.00			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>b) Machinery</b>					
	Tractor with ripper and rotavator attachments @ 60 cum per hour for ripping and 25 cum per hour for mixing	hour	12.00			
	Motor Grader 110 HP @ 50 cum per hour	hour	6.00			
	Vibratory roller 8 - 10 tonne capacity	hour	3.90			
	Water tanker 6 KL capacity	hour	12.00			
	<b>c) Material</b>					
	Lime at site	tonne	15.75			
	Cost of water	KL	72.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 300 cum= a+b+c+d+e					
	<b>Rate per cum = (a+b+c+d+e)/300</b>					
	<b>Note :</b> Though vibratory roller is required only for 3 hours as per norms, but the same has to be available at site for 6 hours as other machines for spreading and mixing will take 6 hours. The usage rates of roller have been multiplied with a factor of 0.65.					
	<b>ii. By Manual Means</b>					
	<b>Unit = cum</b>					
	<b>Taking output = 150 cum (263 tonnes)</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor skilled	day	2.44			
	Mazdoor	day	35.00			
	<b>b) Machinery</b>					
	Vibratory roller 8 - 10 tonne @ 60 cum per hour	hour	2.50			
	Water tanker 6 KL capacity	hour	6.00			
	<b>c) Material</b>					
	Lime at site	tonne	8.00			
	Cost of water	KL	36.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 150 cum= a+b+c+d+e					
	<b>Rate per cum = (a+b+c+d+e)/150</b>					
<b>4</b>	<b>Lime Treated Soil for Sub-Base</b>					
<b>A</b>	Providing, laying and spreading soil on a prepared sub-grade, pulverising, mixing the spread soil in place with rotavator with 4 per cent slaked lime with minimum content of 70 per cent of CaO, grading with motor grader and compacting with the road roller at OMC to achieve atleast 98 per cent of the max dry density to form a layer of sub-base as per Technical Specification Clause 403 MORD.					
	Unit = cum					
	Taking output = 300 cum (525 t)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	2.48			
	Mazdoor (Unskilled)	day	10.00			
	<b>b) Machinery</b>					
	Hydraulic Excavator 0.90 cum bucket capacity	hour	5.00			
	Tipper 5.5 cum 4 trips per hour	hour	14.00			
	Motor grader 110 HP @ 50 cum per hour	hour	6.00			
	Three wheel 80-100 kN Static roller @ 70 cum /hour	hour	4.30			
	Tractor with rotavator and blade @ 25 cum per hour	hour	12.00			
	Water tanker 6 kl capacity	hour	5.00			
	<b>c) Material</b>					
	Lime	t	21.00			
	Water	kl	30.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 300 cum = a+b+c+d+e					
	<b>Rate per cum = (a+b+c+d+e)/300</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>Note</b> :The exact quantity of lime shall be as per design.					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
B	Providing, laying and spreading soil on a prepared sub grade, pulverising, mixing the spread soil in place with rotavator with 3 per cent slaked lime with minimum content of 70 per cent of CaO, grading with motor grader and compacting with the road roller at OMC to achieve at least 98 per cent of the max dry density to form a layer of sub base as per Technical Specification 402 MORTH.					
	Unit = cum					
	Taking output = 300 cum (525 tonnes)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor skilled	day	2.480			
	Mazdoor	day	10.000			
	<b>b) Machinery</b>					
	Excavator 0.90 cum bucket capacity	hour	6.000			
	Tipper for carriage of soil	t.km	-			
	Tipper 5.5 cum 4 trips per hour	hour	14.00			
	Motor Grader 110 HP @ 50 cum per hour	hour	6.000			
	Vibratory roller 8 - 10 tonne	hour	6.000			
	Tractor with Rotavator and blade @ 25 cum per hour	hour	12.000			
	Water tanker 6 KL capacity	hour	12.000			
	<b>c) Material</b>					
	Lime at site	tonne	15.750			
	Cost of water	KL	72.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost for 300 cum = a+b+c+d+e					
	<b>Rate per cum = (a+b+c+d+e)/300</b>					
5	Soling with 150 mm cubes hard stone including 25% of Metal of 40 to 80 mm. size for packing and 20% Gravel for filling interstices and compacting with 80 - 100 kN Power Roller including hire charges of Power Roller, watering etc. complete.					
	Unit = cum					
	Taking output = 1 cum					
	<b>a) Labour</b>					
	Men Mazdoor for conveyance & packing	day	1.100			
	Women Mazdoor	day	0.700			
	<b>b) Machinery</b>					
	Consolidating soling with static Power Roller 80-100kN	cum	0.100			
	Water Tanker 6KI capacity	hour	0.016			
	<b>c) Material</b>					
	Hard stone 150 mm size (Granite) (Soling Stone)	cum	1.100			
	40 mm - 80 mm size metal (Hand broken)	cum	0.270			
	Gravel	cum	0.220			
	Water	kl	0.1			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = (a+b+c+d+e)</b>					
6	<b>A Cement Treated Soil Sub-Base/Base</b>					
	Providing, laying and spreading soil on a prepared sub-grade, pulverising, adding the designed quantity of cement to the spread soil, mixing in place with rotavator, grading with the motor grader and compacting with the <b>smooth wheel</b> road roller / <b>Vibratory Roller 80-100 kN</b> at OMC to achieve the desired unconfined compressive strength and to form a layer of sub-base/base as per Technical Specification Clause 404 MORD.					
	Unit = cum					
	Taking output = 300 cum (525 t)					
	<b>For 4 per cent quantity of cement by weight of soil</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	2.48			
	Mazdoor (Unskilled)	day	10.00			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>b) Machinery</b>					
	Hydraulic Excavator 0.90 cum bucket capacity	hour	5.00			
	Tipper 5.5 cum	hour	14.00			
	Motor grader 110 HP @ 50 cum per hour	hour	6.00			
	Three wheel 80-100 kN static roller @ 70 cum per hour	hour	4.30			
	<b>OR</b>					
	vibratory roller 80-100 kN @ 60 cum per hour		6.00			
	Tractor with rotavator and blade @ 25 cum per hour	hour	12.00			
	Water tanker 6 kl capacity	hour	5.00			
	<b>c) Material</b>					
	Cement at site @ 4% (of 525 t)	t	21.00			
	Water	kl	30.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 300 cum = a+b+c+d+e (3 Wheel Roller)					
	Rate per cum = (a+b+c+d+e)/300					
	Cost for 300 cum = a+b+c+d+e (Vibratory Roller)					
	Rate per cum = (a+b+c+d+e)/300					
	<b>Note</b> : The exact quantity of cement shall be as per design.					
<b>B</b>	<b>Cement Treated Crushed Rock or combination as per clause 403.2 and table 400.4 in Sub base/ Base</b>					
	Providing, laying and spreading Material on a prepared sub grade, adding the designed quantity of cement to the spread Material, mixing in place with rotavator, grading with the motor grader and compacting with the road roller at OMC to achieve the desired unconfined compressive strength and to form a layer of sub-base/base as per Technical Specification 403					
	Unit = cum					
	Taking output = 300 cum (600 tonnes)					
	<b>Quantity of cement assumed as 4 per cent of quantity of crushed rock by weight.</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor skilled	day	2.48			
	Mazdoor	day	10.00			
	<b>b) Machinery</b>					
	Motor Grader 110 HP @ 50 cum per hour	hour	6.00			
	Vibratory roller 8 - 10 tonne	hour	6.00			
	Tractor with Rotavator and blade @ 25 cum per	hour	12.00			
	Water tanker 6 KL capacity	hour	10.00			
	<b>c) Material</b>					
	Cement at site @ 4 per cent by weight of crushed aggregate (600 tonne)	tonne	24.00			
	<b>Grading of material for sub-base course</b>					
	37.5 mm to 9.5 mm @ 55 per cent	cum	211.20			
	9.5 mm to 4.75 mm @ 20 per cent	cum	76.80			
	4.75 mm to 75 micron @ 25 per cent	cum	96.00			
	Cost of water	KL	60.00			
	<b>or</b>					
	<b>Grading of material for Base course</b>					
	37.5 mm to 9.5 mm @ 32.5 per cent	cum	124.80			
	9.5 mm to 4.75 mm @ 5 per cent	cum	19.20			
	4.75 mm to 75 micron @ 62.5 per cent	cum	240.00			
	Cost of water	KL	60.00			
	<b>(i) For Sub-Base course</b>					
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 300 cum = a+b+c+d+e					
	Rate per cum = (a+b+c+d+e)/300					
	<b>(ii) For Base course</b>					
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 300 cum = a+b+c+d+e					
	Rate per cum = (a+b+c+d+e)/300					
	<b>Note</b> : Quantities of aggregates provided under 'c' above are uncompacted quantities.					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
7	<b>Making 50 mm x 50 mm Furrows</b>					
	Making 50 mm x 50 mm furrows, 25mm/ 50mm deep, 450 to the center line of the road and at one metre interval in the existing thin bituminous wearing coarse including sweeping and disposal of excavated material within 1000 metres lead as per Technical Specification 404.3.1 MORTH.					
	Unit = sqm					
	Taking output = 30 m x 7 m = 210 sqm					
	<b>(i) 25mm deep furrow cutting</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor	day	2.08			
	<b>b) Machinery</b>					
	Tractor-trolley	hour	0.20			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	Cost for 210 sqm= a+b+c+d					
	<b>Rate per sqm =(a+b+c+d)/210</b>					
	<b>(ii) 50mm deep furrow cutting</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor	day	4.16			
	<b>b) Machinery</b>					
	Tractor-trolley	hour	0.40			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	Cost for 210 sqm= a+b+c+d					
	<b>Rate per sqm =(a+b+c+d)/210</b>					
8	<b>Inverted Choke</b>					
	Construction of inverted choke by providing, laying, spreading and compacting screening B type/ coarse sand of specified grade in uniform layer on a prepared surface with motor grader and compacting with power roller etc as per Technical Specification 404.3.2 MORTH.					
	Unit = cum					
	Taking output = 600 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor skilled	day	2.92			
	Mazdoor	day	21.00			
	<b>b) Machinery</b>					
	Motor Grader 110 HP	hour	6.00			
	Vibratory roller 8-10 tonnes @ 60 cum per hour	hour	6.00			
	Water tanker 6 KL capacity	hour	18.00			
	<b>c) Material</b>					
	Screening type 'B' or coarse sand	cum	720.00			
	Cost of water	KL	108.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	Cost for 600 cum = a+b+c+d+e					
	<b>Rate per cum = ( a+b+c+d+e)/600</b>					
9	<b>Water Bound Macadam Sub-base/base</b>					
	<b>A With stone screening / binding materials</b>					
	<b>I WBM Grading 1</b>					
	(i) Providing, laying, spreading and compacting stone aggregates of specific sizes to water bound macadam specification including spreading in uniform thickness, hand packing, rolling with three wheel 80 -100 kN static roller in stages to proper grade and camber, applying and brooming, <b>stone screening</b> /binding materials to fill-up the interstices of coarse aggregate, watering and compacting to the required density Grading 1 as per Technical Specification Clause 404 MORTH & 405 MORD. <b>For compacted thickness of 100 mm.</b>					
	<b>By Manual Means (Common for rural &amp; urban works)</b>					
	Unit = cum					
	Taking output = 360 cum					
	<b>a) Labour</b>					
	Mate	day	-			



S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	Mazdoor (Skilled)	day	12.08			
	Mazdoor (Unskilled)	day	250.00			
	<b>b) Machinery</b>					
	Three wheel 80-100 kN static roller @ 10 cum per hour for Rural Area works	hour	36.00			
	(OR)					
	Three wheel 80-100 kN static roller @ 30 cum per hour for R&B & Urban Works	hour	12.00			
	(OR)					
	Vibratory roller 8-10 tonnes @ 60 cum per hour	hour	6.00			
	Water tanker 6 kl capacity	hour	24.00			
	<b>c) Material (Refer Tables 400.7, 8, 9 and 10)</b>					
	<b>Aggregate</b>					
	<b>Grading 1</b> 90 mm to 45 mm @ 1.21 cum per 10 sqm for compacted thickness of 100 mm	cum	435.60			
	<b>Stone Screenings</b>					
	<b>Type A</b> 13.2 mm for <b>Grading-1</b> @ 0.27 cum per 10sqm	cum	97.20			
	<b>Binding Material</b>					
	Binding Material @ 0.08 cum per 10 sqm for <b>grading 1</b> material	cum	28.80			
	Water	kl	144.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost for 360 cum = a+b+c+d+e (3 Wheel Roller)					
	Rate per cum = (a+b+c+d+e)/360					
	Cost for 360 cum = a+b+c+d+e (Vibratory Roller)					
	Rate per cum = (a+b+c+d+e)/360					
	<b>By Mechanical Means</b>					
	Unit = cum					
	Taking output = 360 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	2.68			
	Mazdoor (Unskilled)	day	15.00			
	<b>b) Machinery</b>					
	Motor grader 110 HP @ 50 cum per hour for spreading	hour	7.20			
	Three wheel 80-100 kN static roller @ 10 cum per hour for Rural Area works	hour	36.00			
	(OR)					
	Three wheel 80-100 kN static roller @ 30 cum per hour for R&B & Urban Works	hour	12.00			
	(OR)					
	Vibratory roller 8-10 tonnes @ 60 cum per hour	hour	6.00			
	Water tanker 6 kl capacity	hour	24.00			
	<b>c) Material (Refer Tables 400.7, 8, 9 and 10)</b>					
	<b>Aggregate</b>					
	<b>Grading 1</b> 90 mm to 45 mm @ 1.21 cum per 10 sqm for compacted thickness of 100 mm	cum	435.60			
	<b>Stone Screening</b>					
	<b>Type A</b> 13.2 mm for <b>Grading-1</b> @ 0.27 cum per 10sqm	cum	97.20			
	<b>Binding Material</b>					
	Binding Material @ 0.08 cum per 10 sqm for <b>Grading 2</b> material	cum	28.80			
	Water	kl	144.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost for 360 cum = a+b+c+d+e (3 Wheel Roller)					
	Rate per cum = (a+b+c+d+e)/360					
	Cost for 360 cum = a+b+c+d+e (Vibratory Roller)					
	Rate per cum = (a+b+c+d+e)/360					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
II	<b>WBM Grading 2</b>					
(i)	Providing, laying, spreading and compacting stone aggregates of specific sizes to water bound macadam specification including spreading in uniform thickness, hand packing, rolling with smooth wheel roller 80-100 kN in stages to proper grade and camber, applying and brooming, stone screening/binding materials to fill-up the interstices of coarse aggregate, watering and compacting to the required density grading 2 as per Technical Specification Clause 405 MORD / 404 MORTH. <b>For compacted thickness of 75 mm.</b>					
	<b>By Manual Means</b>					
	Unit = cum					
	Taking output = 360 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	12.08			
	Mazdoor (Unskilled)	day	250.00			
	<b>b) Machinery</b>					
	Three wheel 80-100 kN static roller @ 10 cum per hour for Rural Area works	hour	36.00			
	<b>(OR)</b>					
	Three wheel 80-100 kN static roller @ 30 cum per hour for R&B & Urban Works	hour	12.00			
	<b>(OR)</b>					
	Vibratory roller 8-10 tonnes @ 60 cum per hour	hour	6.00			
	Water tanker 6 kl capacity	hour	24.00			
	<b>c) Material (Refer Tables 400.7, 8, 9 and 10 MORD/ 400.6, 7, 8 &amp; 9 MORTH)</b>					
	<b>Aggregate</b>					
	<b>Grading 2</b> 63 mm to 45 mm @ 0.91 cum per 10 sqm for compacted thickness of 75 mm	cum	435.60			
	<b>Stone Screening</b>					
	<b>Type B</b> 11.2 mm for <b>Grading 2</b> @ 0.18 / 0.20 cum/10sqm	cum	86.40			
	<b>(OR)</b>					
	<b>Type B</b> 13.2 mm for <b>Grading 2</b> @ 0.12 cum per 10sqm	cum	57.60			
	<b>Binding Material</b>					
	Binding Material @ 0.06 cum per 10 sqm for <b>Grading 2</b> material	cum	28.80			
	Water	kl	144.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Using 11.2 mm for Grading 2 :</b>					
	Cost for 360 cum = a+b+c+d+e (3 Wheel Roller)					
	<b>Rate per cum = (a+b+c+d+e)/360</b>					
	Cost for 360 cum = a+b+c+d+e (Vibratory Roller)					
	<b>Rate per cum = (a+b+c+d+e)/360</b>					
	<b>Using 13.2 mm for Grading 2</b>					
	Cost for 360 cum = a+b+c+d+e (3 Wheel Roller)					
	<b>Rate per cum = (a+b+c+d+e)/360</b>					
	Cost for 360 cum = a+b+c+d+e (Vibratory Roller)					
	<b>Rate per cum = (a+b+c+d+e)/360</b>					
	<b>By Mechanical Means</b>					
	Unit = cum					
	Taking output = 360 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	2.68			
	Mazdoor (Unskilled)	day	15.00			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>b) Machinery</b>					
	Motor grader 110 HP @ 50 cum per hour for spreading	hour	7.20			
	Three wheel 80-100 kN static roller @ 10 cum per hour for Rural Area works	hour	36.00			
	<b>(OR)</b>					
	Three wheel 80-100 kN static roller @ 30 cum per hour for R&B & Urban Works	hour	12.00			
	<b>(OR)</b>					
	Vibratory roller 8-10 tonnes @ 60 cum per hour	hour	6.00			
	Water tanker 6 kl capacity	hour	24.00			
	<b>c) Material (Refer Tables 400.7, 8, 9 &amp; 10 MORD/ 400.6, 7, 8 &amp; 9 MORTH)</b>					
	<b>Aggregate</b>					
	<b>Grading 2</b> 63 mm to 45 mm @ 0.91 cum per 10 sqm for compacted thickness of 75 mm	cum	435.60			
	<b>Stone Screening</b>					
	<b>Type B</b> 11.2 mm for <b>Grading 2</b> @ 0.20 cum per 10sqm	cum	86.40			
	<b>(OR)</b>					
	<b>Type B</b> 13.2 mm for <b>Grading 2</b> @ 0.12 cum per 10sqm	cum	57.60			
	<b>Binding Material</b>					
	Binding Material @ 0.06 cum per 10 sqm for <b>Grading 2</b> material	cum	28.80			
	Water	kl	144.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Using 11.2 mm for Grading 2 :</b>					
	Cost for 360 cum = a+b+c+d+e (3 Wheel Roller)					
	Rate per cum = (a+b+c+d+e)/360					
	Cost for 360 cum = a+b+c+d+e (Vibratory Roller)					
	Rate per cum = (a+b+c+d+e)/360					
	<b>Using 13.2 mm for Grading 2</b>					
	Cost for 360 cum = a+b+c+d+e (3 Wheel Roller)					
	Rate per cum = (a+b+c+d+e)/360					
	Cost for 360 cum = a+b+c+d+e (Vibratory Roller)					
	Rate per cum = (a+b+c+d+e)/360					
	<b>Note :</b> Type A Screening can be used in Grading 2					
III	<b>WBM Grading 3</b>					
	(i) Providing, laying, spreading and compacting stone aggregates of specific sizes to water bound macadam specification including spreading in uniform thickness, hand packing, rolling with smooth wheel roller 80-100 kN in stages to proper grade and camber, applying and brooming, stone screening to fill-up the interstices of coarse aggregate, watering and compacting to the required density Grading 3 as per Technical Specification Clause 405 MORD/ 404 MORTH. <b>For compacted thickness of 75 mm.</b>					
	<b>By Manual Means</b>					
	Unit = cum					
	Taking output = 360 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	12.08			
	Mazdoor (Unskilled)	day	250.00			
	<b>b) Machinery</b>					
	Three wheel 80-100 kN static roller @ 10 cum per hour for Rural Area works	hour	36.00			
	<b>(OR)</b>					
	Three wheel 80-100 kN static roller @ 30 cum per hour for R&B & Urban Works	hour	12.00			
	<b>(OR)</b>					
	Vibratory roller 8-10 tonnes @ 60 cum per hour	hour	6.00			
	Water tanker 6 kl capacity	hour	24.00			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>c) Material (Refer Tables 400.7, 8, 9 &amp; 10 MORD/400.6, 7, 8 &amp; 9 MORTH)</b>					
	<b>Aggregate</b>					
	<b>Grading 3</b> 53 mm to 22.4 mm @ 0.91 cum per 10 sqm for compacted thickness of 75 mm	cum	435.60			
	<b>Stone Screening</b>					
	<b>Type B</b> 11.2 mm for <b>Grading 3</b> @ 0.18 cum per 10sqm	cum	86.40			
	<b>Binding Material</b>					
	Binding Material @ 0.06 cum per 10 sqm for <b>Grading 2</b> material	cum	28.80			
	Water	kl	144.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost for 360 cum = a+b+c+d+e (3 Wheel Roller)					
	Rate per cum = (a+b+c+d+e)/360					
	Cost for 360 cum = a+b+c+d+e (Vibratory Roller)					
	Rate per cum = (a+b+c+d+e)/360					
	<b>Note : When BT is taken up, simultaneously, avoid Binding material</b>					
	<b>By Mechanical Means</b>					
	Unit = cum					
	Taking output = 360 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	2.68			
	Mazdoor (Unskilled)	day	15.00			
	<b>b) Machinery</b>					
	Motor grader 110 HP @ 50 cum per hour for spreading	hour	7.20			
	Three wheel 80-100 kN static roller @ 10 cum per hour for Rural Area works	hour	36.00			
	<b>(OR)</b>					
	Three wheel 80-100 kN static roller @ 30 cum per hour for R&B & Urban Works	hour	12.00			
	<b>(OR)</b>					
	Vibratory roller 8-10 tonnes @ 60 cum per hour	hour	6.00			
	Water tanker 6 kl capacity	hour	24.00			
	<b>c) Material (Refer Tables 400.7, 8, 9 &amp; 10 MORD/400.6, 7, 8 &amp; 9 MORTH)</b>					
	<b>Aggregate</b>					
	<b>Grading 3</b> 53 mm to 22.4 mm @ 0.91 cum per 10 sqm for compacted thickness of 75 mm	cum	435.60			
	<b>Stone Screening</b>					
	<b>Type B</b> 11.2 mm for <b>Grading 3</b> @ 0.18 cum per 10sqm	cum	86.40			
	<b>Binding Material</b>					
	Binding Material @ 0.06 cum per 10 sqm for <b>Grading 2</b> material	cum	28.80			
	Water	kl	144.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost for 360 cum = a+b+c+d+e (3 Wheel Roller)					
	Rate per cum = (a+b+c+d+e)/360					
	Cost for 360 cum = a+b+c+d+e (Vibratory Roller)					
	Rate per cum = (a+b+c+d+e)/360					
	<b>Note : When BT is taken up, simultaneously, avoid Binding material</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
9	<b>B Water Bound Macadam with Crushable Screenings such as Gravel or Morrum</b>					
	<b>I WBM Grading 1 (Using Graded Metal)</b>					
	(i) Providing, laying, spreading and compacting stone aggregates of specific sizes to water bound macadam specification including spreading in uniform thickness, hand packing, rolling with three wheel 80-100 kN static roller / <b>Vibratory Roller 80-100 kN</b> in stages to proper grade and camber, applying and brooming, crushable screening to fill-up the interstices of coarse aggregate, watering and compacting to the required density Grading 1 as per Technical Specification Clause 405 MORD / 404 MORTH.					
	<b>(A) By Manual Means</b>					
	Unit = cum					
	Taking output = 360 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	12.08			
	Mazdoor (Unskilled)	day	250.00			
	<b>b) Machinery</b>					
	Three wheel 80-100 kN static roller @ 10 cum per hour for Rural Area works	hour	36.00			
	<b>(OR)</b>					
	Three wheel 80-100 kN static roller @ 30 cum per hour for R&B & Urban Works	hour	12.00			
	<b>(OR)</b>					
	vibratory roller 80-100 kN @ 60 cum per hour	hour	6.00			
	Water tanker 6 kl capacity	hour	24.00			
	<b>c) Material (Refer Tables 400.7, 8, 9 &amp; 10 MORD/ 400.6, 7, 8 &amp; 9 MORTH)</b>					
	<b>Aggregate</b>					
	<b>Grading 1</b> 90 mm to 45 mm @ 1.21 cum per 10 sqm for compacted thickness of 100 mm	cum	435.60			
	Crushable type such as moorum or Gravel for <b>grading 1</b> @ 0.30 cum per 10 sqm	cum	108.00			
	<b>Binding Material</b>					
	Binding Material @ 0.06 cum per 10 sqm for <b>Grading 1</b> material (for R&B & Urban Works Only)	cum	28.80			
	Water	kl	144.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost for 360 cum = a+b+c+d+e (3 Wheel Roller)					
	Rate per cum = (a+b+c+d+e)/360					
	Cost for 360 cum = a+b+c+d+e (Vibratory Roller)					
	Rate per cum = (a+b+c+d+e)/360					
	<b>(B) By Mechanical Means</b>					
	Unit = cum					
	Taking output = 360 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	2.68			
	Mazdoor (Unskilled)	day	15.00			
	<b>b) Machinery</b>					
	Motor grader 110 HP @ 50 cum per hour for spreading	hour	7.20			
	Three wheel 80-100 kN static roller @ 10 cum per hour for Rural Area works	hour	36.00			
	<b>(OR)</b>					
	Three wheel 80-100 kN static roller @ 30 cum per hour for R&B & Urban Works	hour	12.00			
	<b>(OR)</b>					
	vibratory roller 80-100 kN @ 60 cum per hour	hour	6.00			
	Water tanker 6 kl capacity	hour	24.00			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>c) Material (Refer Tables 400.7, 8, 9 &amp; 10 MORD/ 400.6, 7, 8 &amp; 9 MORTH)</b>					
	<b>Aggregate</b>					
	<b>Grading 1</b> 90 mm to 45 mm @ 1.21 cum per 10 sqm for compacted thickness of 100 mm	cum	435.60			
	Crushable type such as Moorum or gravel for <b>Grading 1</b> @ 0.30 cum per 10 sqm	cum	108.00			
	<b>Binding Material</b>					
	Binding Material @ 0.06 cum per 10 sqm for <b>Grading 1</b> material (for R&B & Urban Works Only)	cum	28.80			
	Water	kl	144.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 360 cum = a+b+c+d+e (3 Wheel Roller)					
	Rate per cum = (a+b+c+d+e)/360					
	Cost for 360 cum = a+b+c+d+e (Vibratory Roller)					
	Rate per cum = (a+b+c+d+e)/360					
(ii)	<b>WBM Grading 1 (Using Single Grade Metal)</b>					
	Providing, laying, spreading and compacting stone aggregates of <b>75 mm single Grade</b> to water bound macadam specification including spreading in uniform thickness, hand packing, rolling with three wheel 80-100 kN static roller / <b>Vibratory Roller 80-100 kN</b> in stages to proper grade and camber, applying and brooming, crushable screening to fill-up the interstices of coarse aggregate, watering and compacting to the required density Grading 1 as per Technical Specification Clause 405 MORD.					
	<b>(A) By Manual Means</b>					
	Unit = cum					
	Taking output = 360 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	12.08			
	Mazdoor (Unskilled)	day	250.00			
	<b>b) Machinery</b>					
	Three wheel 80-100 kN static roller @ 10 cum per hour	hour	36.00			
	<b>(or)</b>					
	vibratory roller 80-100 kN @ 60 cum per hour	hour	6.00			
	Water tanker 6 kl capacity	hour	24.00			
	<b>Material (Refer Tables 400.7, 8, 9 and 10 MORD)</b>					
	<b>Aggregate</b>					
	<b>Grading 1 Hand broken stone aggregate 75 mm nominal size</b> @ 1.21 cum per 10 sqm for compacted thickness of 100 mm	cum	435.60			
	Crushable type such as moorum or Gravel for <b>grading 1</b> @ 0.30 cum per 10 sqm	cum	108.00			
	Water	kl	144.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 360 cum = a+b+c+d+e (3 Wheel Roller)					
	Rate per cum = (a+b+c+d+e)/360					
	Cost for 360 cum = a+b+c+d+e (Vibratory Roller)					
	Rate per cum = (a+b+c+d+e)/360					
	<b>(B) By Mechanical Means</b>					
	Unit = cum					
	Taking output = 360 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	2.68			
	Mazdoor (Unskilled)	day	15.00			
	<b>b) Machinery</b>					
	Motor grader 110 HP @ 50 cum per hour for spreading	hour	7.20			
	Three wheel 80-100 kN static roller @ 10 cum per hour	hour	36.00			
	<b>(or)</b>					
	vibratory roller 80-100 kN @ 60 cum per hour	hour	6.00			
	Water tanker 6 kl capacity	hour	24.00			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>Material (Refer Tables 400.7, 8, 9 and 10 MORD)</b>					
	<b>Aggregate</b>					
	<b>Grading 1 Hand broken stone aggregate 75 mm nominal size @ 1.21cum per 10 sqm for compacted thickness of 100 mm</b>	cum	435.60			
	Crushable type such as Moorum or gravel for <b>Grading 1 @ 0.30 cum per 10 sqm</b>	cum	108.00			
	Water	kl	144.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 360 cum = a+b+c+d+e (3 Wheel Roller)					
	Rate per cum = (a+b+c+d+e)/360					
	Cost for 360 cum = a+b+c+d+e (Vibratory Roller)					
	Rate per cum = (a+b+c+d+e)/360					
ii	<b>WBM Grading 2 (using Graded Metal)</b>					
(i)	Providing, laying, spreading and compacting stone aggregates of specific sizes to water bound macadam specification including spreading in uniform thickness, hand packing, rolling with three wheel 80-100 kN static roller/ <b>Vibratory Roller 80-100 kN</b> in stages to proper grade and camber, applying and brooming, crushable screening to fill-up the interstices of coarse aggregate, watering and compacting to the required density Grading 2 as per Technical Specification Clause 405 MORD / 404 MORTH.					
	<b>(A) By Manual Means</b>					
	Unit = cum					
	Taking output = 360 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	12.08			
	Mazdoor (Unskilled)	day	250.00			
	<b>b) Machinery</b>					
	Three wheel 80-100 kN static roller @ 10 cum per hour for Rural Area works	hour	36.00			
	<b>(OR)</b>					
	Three wheel 80-100 kN static roller @ 30 cum per hour for R&B & Urban Works	hour	12.00			
	<b>(OR)</b>					
	vibratory roller 80-100 kN @ 60 cum per hour	hour	6.00			
	Water tanker 6 kl capacity	hour	24.00			
	<b>c) Material (Refer Tables 400.7, 8, 9 &amp; 10 MORD/ 400.6, 7, 8 &amp; 9 MORTH)</b>					
	<b>Aggregate</b>					
	<b>Grading 2 63 mm to 45 mm @ 0.91 cum per 10 sqm for compacted thickness of 75 mm</b>	cum	435.60			
	Crushable type such as Moorum or gravel for <b>Grading 2 @ 0.22 cum per 10 sqm</b>	cum	105.59			
	<b>Binding Material</b>					
	Binding Material @ 0.06 cum per 10 sqm for <b>Grading 2 material (for R&amp;B &amp; Urban Works Only)</b>	cum	28.80			
	Water	kl	144.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 360 cum = a+b+c+d+e (3 Wheel Roller)					
	Rate per cum = (a+b+c+d+e)/360					
	Cost for 360 cum = a+b+c+d+e (Vibratory Roller)					
	Rate per cum = (a+b+c+d+e)/360					
	<b>(B) By Mechanical Means</b>					
	Unit = cum					
	Taking output = 360 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	2.68			
	Mazdoor (Unskilled)	day	15.00			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>b) Machinery</b>					
	Motor grader 110 HP @ 50 cum per hour for spreading	hour	7.20			
	Three wheel 80-100 kN static roller @ 10 cum per hour for Rural Area works	hour	36.00			
	<b>(OR)</b>					
	Three wheel 80-100 kN static roller @ 30 cum per hour for R&B & Urban Works	hour	12.00			
	<b>(OR)</b>					
	vibratory roller 80-100 kN @ 60 cum per hour	hour	6.00			
	Water tanker 6 kl capacity	hour	24.00			
	<b>c) Material (Refer Tables 400.7, 8, 9 &amp; 10 MORD/400.6, 7, 8 &amp; 9 MORTH)</b>					
	<b>Aggregate</b>					
	<b>Grading 2</b> 63 mm to 45 mm @ 0.91 cum per 10 sqm for compacted thickness of 75 mm	cum	435.60			
	Crushable type such as Moorum or gravel for <b>Grading 2</b> @ 0.22 cum per 10 sqm	cum	105.59			
	<b>Binding Material</b>					
	Binding Material @ 0.06 cum per 10 sqm for <b>Grading 2</b> material (for R&B & Urban Works Only)	cum	28.80			
	Water	kl	144.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost for 360 cum = a+b+c+d+e (3 Wheel Roller)					
	Rate per cum = (a+b+c+d+e)/360					
	Cost for 360 cum = a+b+c+d+e (Vibratory Roller)					
	Rate per cum = (a+b+c+d+e)/360					
(ii)	<b>WBM Grading 2 (using single grade metal)</b>					
	Providing, laying, spreading and compacting stone aggregates of <b>63 mm nominal single size</b> to water bound macadam specification including spreading in uniform thickness, hand packing, rolling with three wheel 80-100 kN static roller/ <b>Vibratory Roller 80-100 kN</b> in stages to proper grade and camber, applying and brooming, crushable screening to fill-up the interstices of coarse aggregate, watering and compacting to the required density Grading 2 as per Technical Specification Clause 405 MORD.					
	<b>(A) By Manual Means</b>					
	Unit = cum					
	Taking output = 360 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	12.08			
	Mazdoor (Unskilled)	day	250.00			
	<b>b) Machinery</b>					
	Three wheel 80-100 kN static roller @ 10 cum per hour for Rural Area works	hour	36.00			
	<b>(OR)</b>					
	Three wheel 80-100 kN static roller @ 30 cum per hour for R&B & Urban Works	hour	12.00			
	<b>(OR)</b>					
	vibratory roller 80-100 kN @ 60 cum per hour	hour	6.00			
	Water tanker 6 kl capacity	hour	24.00			
	<b>c) Material (Refer Tables 400.7, 8, 9 and 10)</b>					
	<b>Aggregate</b>					
	<b>Grading 2</b> Hand broken stone aggregate 63 mm nominal size (passing 80 mm & retained on 50 mm sieve) @ 0.91 cum per 10 sqm for compacted thickness of 75 mm	cum	435.60			
	Crushable type such as Moorum or gravel for <b>Grading 2</b> @ 0.22 cum per 10 sqm	cum	105.59			
	Water	kl	144.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost for 360 cum = a+b+c+d+e (3 Wheel Roller)					
	Rate per cum = (a+b+c+d+e)/360					
	Cost for 360 cum = a+b+c+d+e (Vibratory Roller)					
	Rate per cum = (a+b+c+d+e)/360					



S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>(B) By Mechanical Means</b>					
	Unit = cum					
	Taking output = 360 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	2.68			
	Mazdoor (Unskilled)	day	15.00			
	<b>b) Machinery</b>					
	Motor grader 110 HP @ 50 cum per hour for spreading	hour	7.20			
	Three wheel 80-100 kN static roller @ 10 cum per hour for Rural Area works	hour	36.00			
	<b>(OR)</b>					
	Three wheel 80-100 kN static roller @ 30 cum per hour for R&B & Urban Works	hour	12.00			
	<b>(OR)</b>					
	vibratory roller 80-100 kN @ 60 cum per hour	hour	6.00			
	Water tanker 6 kl capacity	hour	24.00			
	<b>c) Material (Refer Tables 400.7, 8, 9 and 10)</b>					
	<b>Aggregate</b>					
	<b>Grading 2 Hand broken stone aggregate 63 mm nominal size (passing 80 mm &amp; retained on 50 mm sieve) @ 0.91 cum per 10 sqm for compacted thickness of 75 mm</b>	cum	435.60			
	Crushable type such as Moorum or gravel for <b>Grading 2</b> @ 0.22 cum per 10 sqm	cum	105.59			
	Water	kl	144.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 360 cum = a+b+c+d+e (3 Wheel Roller)					
	Rate per cum = (a+b+c+d+e)/360					
	Cost for 360 cum = a+b+c+d+e (Vibratory Roller)					
	Rate per cum = (a+b+c+d+e)/360					
III	<b>WBM Grading 3 (using Graded Metal)</b>					
(i)	Providing, laying, spreading and compacting stone aggregates of specific sizes to water bound macadam specification including spreading in uniform thickness, hand packing, rolling with three wheel 80-100 kN static roller/ <b>Vibratory Roller 80-100 kN</b> in stages to proper grade and camber, applying and brooming, crushable screening to fill-up the interstices of coarse aggregate, watering and compacting to the required density Grading 3 as per Technical Specification Clause 405 MORD / 404 MORTH.					
	<b>(A) By Manual Means</b>					
	Unit = cum					
	Taking output = 360 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	12.08			
	Mazdoor (Unskilled)	day	250.00			
	<b>b) Machinery</b>					
	Three wheel 80-100 kN static roller @ 10 cum per hour for Rural Area works	hour	36.00			
	<b>(OR)</b>					
	Three wheel 80-100 kN static roller @ 30 cum per hour for R&B & Urban Works	hour	12.00			
	<b>(OR)</b>					
	vibratory roller 80-100 kN @ 60 cum per hour	hour	6.00			
	Water tanker 6 kl capacity	hour	24.00			
	<b>c) Material (Refer Tables 400.7, 8, 9 &amp; 10 MORD/ 400.6, 7, 8 &amp; 9 MORTH)</b>					
	<b>Aggregate</b>					
	<b>Grading 3 53 mm to 22.4 mm @ 0.91 cum per 10 sqm for compacted thickness of 75 mm</b>	cum	435.60			
	Crushable type such as Moorum or gravel for <b>Grading 3</b> @ 0.22 cum per 10 sqm	cum	105.59			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>Binding Material</b>					
	Binding Material @ 0.06 cum per 10 sqm for <b>Grading 2</b> material (for R&B & Urban Works Only)	cum	28.80			
	Water	kl	144.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 360 cum = a+b+c+d+e (3 Wheel Roller)					
	Rate per cum = (a+b+c+d+e)/360					
	Cost for 360 cum = a+b+c+d+e (Vibratory Roller)					
	Rate per cum = (a+b+c+d+e)/360					
	<b>(B) By Mechanical Means</b>					
	Unit = cum					
	Taking output = 360 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	2.68			
	Mazdoor (Unskilled)	day	15.00			
	<b>b) Machinery</b>					
	Motor grader 110 HP @ 50 cum per hour for spreading	hour	7.20			
	Three wheel 80-100 kN static roller @ 10 cum per hour for Rural Area works	hour	36.00			
	(OR)					
	Three wheel 80-100 kN static roller @ 30 cum per hour for R&B & Urban Works	hour	12.00			
	(OR)					
	vibratory roller 80-100 kN @ 60 cum per hour	hour	6.00			
	Water tanker 6 kl capacity	hour	24.00			
	<b>c) Material (Refer Tables 400.7, 8, 9 &amp; 10 MORD/400.6, 7, 8 &amp; 9 MORTH)</b>					
	<b>Aggregate</b>					
	<b>Grading 3</b> 53 mm to 22.4 mm @ 0.91 cum per 10 sqm for compacted thickness of 75 mm	cum	435.60			
	Crushable type such as Moorum or gravel for <b>Grading 3</b> @ 0.22 cum per 10 sqm	cum	105.59			
	<b>Binding Material</b>					
	Binding Material @ 0.06 cum per 10 sqm for <b>Grading 2</b> material (for R&B & Urban Works Only)	cum	28.80			
	Water	kl	144.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 360 cum = a+b+c+d+e (3 Wheel Roller)					
	Rate per cum = (a+b+c+d+e)/360					
	Cost for 360 cum = a+b+c+d+e (Vibratory Roller)					
	Rate per cum = (a+b+c+d+e)/360					
	<b>Note</b> : Whenever BT is taken up simultaneously binding material can be deleted					
(ii)	<b>WBM Grading 3 (using Single Grade Metal)</b>					
	Providing, laying, spreading and compacting stone aggregates of <b>40 mm Single nominal size</b> to water bound macadam specification including spreading in uniform thickness, hand packing, rolling with three wheel 80-100 kN static roller/ <b>Vibratory Roller 80-100 kN</b> in stages to proper grade and camber, applying and brooming, crushable screening to fill-up the interstices of coarse aggregate, watering and compacting to the required density Grading 3 as per Technical Specification Clause 405 MORD.					
	<b>(A) By Manual Means</b>					
	Unit = cum					
	Taking output = 360 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	12.08			
	Mazdoor (Unskilled)	day	250.00			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>b) Machinery</b>					
	Three wheel 80-100 kN static roller @ 10 cum/ hour	hour	36.00			
	<b>or</b>					
	vibratory roller 80-100 kN @ 60 cum per hour	hour	6.00			
	Water tanker 6 kl capacity	hour	24.00			
	<b>c) Material (Refer Tables 400.7, 8, 9 and 10)</b>					
	<b>Aggregate</b>					
	<b>Grading 3 Hand broken stone aggregate 40 mm nominal size @ 0.91 cum per 10 sqm for compacted thickness of 75 mm</b>	cum	435.60			
	Crushable type such as Moorum or gravel for <b>Grading 3 @ 0.22 cum per 10 sqm</b>	cum	105.59			
	Water	kl	144.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 360 cum = a+b+c+d+e (3 Wheel Roller)					
	Rate per cum = (a+b+c+d+e)/360					
	Cost for 360 cum = a+b+c+d+e (Vibratory Roller)					
	Rate per cum = (a+b+c+d+e)/360					
	<b>(B) By Mechanical Means</b>					
	Unit = cum					
	Taking output = 360 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	2.68			
	Mazdoor (Unskilled)	day	15.00			
	<b>b) Machinery</b>					
	Motor grader 110 HP @ 50 cum per hour for spreading	hour	7.20			
	Three wheel 80-100 kN @ Static roller	hour	36.00			
	<b>or</b>					
	vibratory roller 80-100 kN @ 60 cum per hour	hour	6.00			
	Water tanker 6 kl capacity	hour	24.00			
	<b>c) Material (Refer Tables 400.7, 8, 9 and 10)</b>					
	<b>Aggregate</b>					
	<b>Grading 3 Hand broken stone aggregate 40 mm nominal size @ 0.91 cum per 10 sqm for compacted thickness of 75 mm</b>	cum	435.60			
	Crushable type such as Moorum or gravel for <b>Grading 3 @ 0.22 cum per 10 sqm</b>	cum	105.59			
	Water	kl	144.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 360 cum = a+b+c+d+e (3 Wheel Roller)					
	Rate per cum = (a+b+c+d+e)/360					
	Cost for 360 cum = a+b+c+d+e (Vibratory Roller)					
	Rate per cum = (a+b+c+d+e)/360					
10	<b>Wet Mix Macadam</b>					
	Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the material with water at OMC in mechanical mixer (Pug Mill), carriage of mixed material by tipper to site, laying in uniform layers in sub-base/base course on a well prepared sub-base and compacting with smooth wheel roller of 80 to 100kN / <b>Vibratory Roller 80-100 kN</b> weight to achieve the desired density including lighting, barricading and maintenance of diversion, etc as per Tables 400.11 & 400.12 and Technical Specification Clause 406 MORD / MORTH.					
	<b>By Mechanical Means with 1 km lead</b>					
A	<b>Rural Works</b>					
	Unit = cum					
	Taking output = 100 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Dresser (Skilled) for alignment	day	8.00			
	Mazdoor (Skilled)	day	2.40			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>b) Machinery</b>					
	Front end loader 1 cum capacity	hour	4.00			
	Wet mix plant (Pug Mill)	hour	4.00			
	Tipper/Dumper (10-t) capacity / 5-6 t capacity	hour	5.00			
	Motor Grader @ 50 cum per hour	hour	2.00			
	Water tanker 6 kl capacity	hour	1.33			
	Three wheel 80-100 kN static roller @ 16cum per hour <b>(or)</b>	hour	6.25			
	vibratory roller 80-100 kN @ 60 cum per hour	hour	1.67			
	<b>c) Material</b>					
	Coarse aggregate 45 mm to 22.4 mm @ 30 per cent	cum	39.90			
	Aggregates 22.4 mm to 2.36 mm @ 40 per cent	cum	53.20			
	Fine aggregate / Crushed sand 2.36 mm to 75 micron @ 30 per cent	cum	39.90			
	Fine aggregate 10 mm	cum				
	Coarse Sand	cum				
	Borrow area sand	cum				
	Water	kl	8.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 100 cum = a+b+c+d+e (3 Wheel Roller)					
	Rate per cum = (a+b+c+d+e)/100					
	Cost for 100 cum = a+b+c+d+e (Vibratory Roller)					
	Rate per cum = (a+b+c+d+e)/100					
<b>B</b>	<b>R&amp;B and Urban Area Works :</b>					
	<b>Unit = cum</b>					
	<b>Taking output = 225 cum (495 tonnes)</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor skilled	day	2.48			
	Mazdoor	day	10.00			
	<b>b) Machinery</b>					
	Wet mix plant of 75 tonne hourly capacity	hour	9.00			
	Electric generator 125 KVA	hour	6.00			
	Front end loader 1 cum capacity	hour	6.00			
	Paver finisher	hour	6.00			
	Vibratory roller 8 - 10 tonne	hour	3.90			
	or					
	Smooth 3 wheeled steel roller @ 8-10 tonnes.	hour	22.50			
	Water tanker 6 KL capacity	hour	3.00			
	Tipper 10t	t.km	495 x L			
	<b>c) Material ( Table 400-11)</b>					
	45 mm to 22.4 mm@ 30 per cent	cum	89.10			
	22.4 mm to 2.36 mm @ 40 per cent	cum	118.80			
	2.36 mm to 75 micron@ 30 per cent	cum	89.10			
	Cost of water	KL	18.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 225 cum = a+b+c+d+e (Vibratory Roller)					
	Rate per cum = (a+b+c+d+e)/225					
	Cost for 225 cum = a+b+c+d+e (Smooth Roller)					
	Rate per cum = (a+b+c+d+e)/225					
	<b>Note : 1.</b> Though vibratory roller is required only for 3 hours as per norms, the same is required to be available at site for 6 hours to match with other machines. The usage rates of vibratory roller may be multiplied with a factor of 0.65					
	<b>2.</b> As three wheeled smooth steel rollers are commonly in use, the same has been provided as an alternative which can be used if the thickness of individual layer does not exceed 100 mm.					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
11	Granular sub-base/base/surface course with local materials (Table 400.13) by mix in place method normal Construction of granular sub-base by providing local material spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at once and compacting with smooth wheel roller to achieve the desired density complete as per Clause 401.4 as per Technical Specification Clause 408 MORD.					
	<b>i Using naturally occurring gravel</b>					
	Unit = cum					
	Taking output = 300 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	2.48			
	Mazdoor (Unskilled)	day	10.00			
	<b>b) Machinery</b>					
	Motor grader 110 HP 50 cum per hour	hour	6.00			
	Three wheel 80-100 kN static roller @10 cum per hour	hour	30.00			
	Tractor with rotavator 25 cum per hour	hour	12.00			
	Water tanker 6 kl capacity	hour	5.00			
	<b>c) Material</b>					
	Naturally occurring gravel (Local materials as per Table 400.13)	cum	384.00			
	Water	kl	30.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
			<b>18.00%</b>			
	<b>Cost for 300 cum = a+b+c+d+e</b>					
	<b>Rate per cum = a+b+c+d+e/300</b>					
	<b>ii Using Gravel mix soil using Soil Gravel Mixture / quarry waste</b>					
	Unit = cum					
	Taking output = 300 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	2.40			
	Mazdoor (Unskilled)	day	8.00			
	<b>b) Machinery</b>					
	Motor grader 110 HP 50 cum per hour	hour	6.00			
	Three wheel 80-100 kN static roller @10 cum per hour	hour	30.00			
	Water tanker 6 kl capacity	hour	5.00			
	Tractor with Rotavator 25 cum per hour	hour	12.00			
	<b>c) Material</b>					
	Soil gravel mixture/quarry waste (Local material as per Table400.13) (Gravel)	cum	384.00			
	Water	kl	30.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
			<b>18.00%</b>			
	<b>Cost for 300 cum = a+b+c+d+e</b>					
	<b>Rate per cum = (a+b+c+d+e)/300</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
12	<b>Construction of Water Bound Macadam using locally available material (Table 400.13)</b>					
	Providing, laying spreading and compacting local material in block or large discrete particles, such as kankar, Literate, Dhandla etc. as per Table 400.13 to water bound macadam specification including spreading in uniform thickness, hand packing, rolling with three wheel 80-100 kN static roller in stages to proper grade and camber, applying and brooming requisite type of screening /binding materials to fill-up the interstices of laid material watering and compacting to the required density as per Clause 405.3 and Technical Specification Clause 408 MORD.					
	<b>A By Mechanical Means</b>					
	Unit = cum					
	Taking output = 360 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	2.68			
	Mazdoor (Unskilled)	day	15.00			
	<b>b) Machinery</b>					
	Motor grader 110 H.P @ 50 cum/hr for spreading	hour	7.20			
	Three wheel 80-100 kN @ static roller 8 cum per hour	hour	36.00			
	Water tanker 6 kl capacity	hour	24.00			
	<b>c) Material</b>					
	Low Grade Aggregate such as Kankar, Literate, Dhandla and naturally occurring gravels, quarry waste as per Table 400.13 @ 1.21 cum per 10 sqm compacted thickness 100 mm	cum	435.60			
	Water	kl	144.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Cost for 360 cum = a+b+c+d+e</b>					
	<b>Rate per cum = (a+b+c+d+e)/360</b>					
	<b>18.00%</b>					
	<b>B By Manual Means</b>					
	Unit = cum					
	Taking output = 360 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	12.08			
	Mazdoor (Unskilled)	day	250.00			
	<b>b) Machinery</b>					
	Three wheel 80-100 kN static roller @ 8 cum per hour	hour	36.00			
	Water tanker 6 kl capacity	hour	24.00			
	<b>c) Material</b>					
	Low Grade Aggregate such as Kankar, Literate, Dhandla and naturally occurring gravels, quarry waste as per Table 400.13 @ 1.21 cum per 10 sqm compacted thickness 100 mm	cum	435.60			
	Water	kl	144.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Cost for 360 cum = a+b+c+d+e (3 Wheel Roller)</b>					
	<b>Rate per cum = (a+b+c+d+e)/360</b>					
	<b>18.00%</b>					
13	<b>Lime-Flyash Stabilised Soil Sub-base</b>					
	Construction of sub-base using lime-flyash admixture with granular soil, free from organic matter/deleterious material or clayey silts and low plasticity clays having PI between 5 and 20 and liquid limit less than 25 and commercial dry lime, slaked at site or pre-slaked with CaO content not less than 50 per cent, flyash to conform to gradation as per Clause 4.3 of IRC:SP:20, lime+flyash content ranging between 10 to 30 per cent, the minimum un-confined compressive strength and CBR value after 28-days curing and 4-days soaking to be 0.75 MPa and 25 per cent respectively, all as specified in IRC:88 including a lead upto 1000 m as per Technical Specification Clause 409 MORD.					
	Unit = cum					
	Taking output = 480 cum (720 t, density 1.50 t/cum)					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>Assumptions made</b>					
	Total mass taken for analysis = 720 t					
	Lime+Flyash admixture					
	@ 20% = 0.2 x 720=144 t					
	Soil = 720-144 = 576 t					
	(578/1.6 = 360 cum)					
	Lime + Flyash = 144 t					
	Ratio Lime 4 : Flyash 16					
	Lime = 29 t					
	Flyash = 115 t					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	1.24			
	Mazdoor (Unskilled)	day	6.00			
	<b>b) Machinery</b>					
	Hydraulic Excavator 0.90 cum bucket capacity @ 60 cum per hour for 360 cum soil	hour	6.00			
	Tipper 10 t capacity for carriage of soil 578 t	hour	16.00			
	Tipper 10 t capacity for carriage of 115 t flyash	hour	5.50			
	Tipper 10 t capacity for carriage of 29 t of lime from store to work site	hour	3.80			
	Loading as per item 1.1 (ii)	cum	480.00			
	Unloading as per item 1.1 (iv)	cum	480.00			
	Add 10 per cent of cost of carriage to cover cost of loading and unloading		-			
	Tractor with disc harrows for pulverisation	hour	6.00			
	Motor Grader 110 HP @ 75 per cent 200 cum per hour for mixing in-place and grading	hour	3.20			
	Three wheel 80-100 kN static roller <b>(or)</b>	hour	12.00			
	vibratory roller 80-100 kN @ 60 cum per hour	hour	6.00			
	Water tanker 6 kl capacity	hour	12.00			
	<b>c) Material</b>					
	Lime (Slaked)	t	29.00			
	Compensation for earth taken from private source	cum	360.00			
	Water	kl	72.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 480 cum = a+b+c+d+e (3 Wheel Roller)					
	Rate per cum = (a+b+c+d+e)/480					
	Cost for 480 cum = a+b+c+d+e (Vibratory Roller)					
	Rate per cum = (a+b+c+d+e)/480					
	<b>Note : 1.</b> Compensation for earth will vary from place to place and will have to be assessed realistically as per particular ground situation. In case earth is available from Govt. land, compensation for earth will not be required. The position is required to be clearly stated in the cost estimate.					
	<b>2.</b> Cost of flyash has not been considered as same will be available free of cost. Only carriage of flyash has been provided.					
	<b>3.</b> Lime + Flyash has been taken as 20 per cent of total mass and ratio of lime and flyash as 1:4 for estimating purposes. Total quantities will be as per approved design.					
14	<b>Construction of Sub-base/Course Using Crushed Slag as per Table 400.19</b>					
	Construction of Sub-base by providing crushed slag spreading in uniform layer with motor grader on prepared surface mixing by mix-in-place method with Rotavator @ OMC, and compacting with three wheel 80-100 kN static roller to achieve the desired density complete as per Technical Specifications Clause 402.4 and 410.3.2 MORD					
	Unit = cum					
	Taking output = 300 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	2.48			
	Mazdoor (Unskilled)	day	10.00			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>b) Machinery</b>					
	Motor Grader 110 HP @ 50 cum per hour	hour	6.00			
	Three wheel 80-100 kN static roller @ 10 cum /hour	hour	30.00			
	Tractor with Rotavator 25 cum per hour	hour	12.00			
	Water tanker 6 kl capacity	hour	5.00			
	<b>c) Material</b>					
	Crushed slag as per Clause 410.4.2 (i)					
	As per Item No.4.2 of Chapter 4	cum	384.00			
	Water	kl	30.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 300 cum = a+b+c+d+e					
	<b>Rate per cum = (a+b+c+d+e)/300</b>					
15	<b>Water Bound Macadam using crushed slag</b>					
	Providing, laying, spreading and compacting crushed slag to water Bound Macadam specification including spreading in uniform thickness, hand packing rolling with smooth wheel roller 80-100 kN in stages to proper grade and camber, applying and brooming requisite type of screening/binding materials to fill up the interstees of crushed slag watering and compacting to the required density as per Clause 405.3 and Technical Specification Clause 410.3.2 MORD					
	Unit = cum					
	Taking output = 360 cum					
	<b>Manual Means</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	12.08			
	Mazdoor (Unskilled)	day	250.00			
	<b>b) Machinery</b>					
	Three wheel 80-100 kN static roller @ 10 cum/ hour	hour	36.00			
	Water tanker 6 kl capacity	hour	24.00			
	<b>c) Material</b>					
	As per Item No.4.7 (1)(A)© of Chapter 4					
	Crushed slag as per Clause 410.4.2 (ii)	cum	435.60			
	Crushable screening (Murrum / Gravel)	cum	108.00			
	Water	kl	144.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 360 cum = a+b+c+d+e					
	<b>Rate per cum = (a+b+c+d+e)/360</b>					
16	<b>Cement Bound Granular Material sub-base/base</b>					
	Providing laying and spreading granulated blast furnace slag on a prepared sub-grade pulverising adding the designed quantity of cement to the spread granulated blast furnace slag mixing in place with rotavator grading with the mortar grader and compacting with smooth wheel roller 80-100 kN at OMC to achieve the desired unconfined compressive strength and to form a layer of sub-base/base as per Technical Specification Clauses 404.3 and 410.4.2 MORD					
	Unit = cum					
	Taking output = 300 cum (525 t)					
	For 4 per cent quantity of cement by wt of granulated blast furnace slag					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	2.48			
	Mazdoor (Unskilled)	day	10.00			
	<b>b) Machinery</b>					
	5.50 cum Tipper for carriage of GBFS add 10 per cent of cost of carriage of cover cost of loading and unloading	hour	15.00			
	Motor grader 110 HP @ 50 cum per hour	hour	6.00			
	Three wheel 80-100 kN static roller @70 cum /hour	hour	4.30			
	Tractor with rotavator and blade @ 25 cum per hour	hour	12.00			



S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	Water tanker 6 kl capacity	hour	7.00			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>c) Material</b>					
	Cement (4%)	t	21.00			
	Water	kl	42.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 300 cum = a+b+c+d+e					
	<b>Rate per cum = (a+b+c+d+e)/300</b>					
	<b>Note : 1.</b> The exact quantity of cement shall be as per design					
	<b>2.</b> Granulated ballast slag will be available free of cost					
17	<b>Crusher Run Macadam Base</b>					
	Providing crushed run stone aggregate grading conforming to table 400.20 depositing on a prepared surface by hauling vehicles, spreading and mixing with a motor grader, watering and compacting with a three wheel 80-100 kN static roller as per Technical Specification Clause 411MORD/ 410 MORTH to form a layer of sub-base/base					
	<b>A By mix-in-place method</b>					
	<b>ii With 53 mm maximum size of aggregates</b>					
	Unit = cum					
	Taking output = 360 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	2.48			
	Mazdoor (Unskilled)	day	10.00			
	<b>b) Machinery</b>					
	Tractor attached with rotavator @ 25 cum / 30 cum per hour	hour	12.00			
	Motor-Grader 110 H.P	hour	6.00			
	Three wheel 80-100 kN static roller @ 10 cum /hour	hour	36.00			
	<b>OR</b>					
	vibratory roller 80-100 kN @ 60 cum per hour	hour	6.00			
	Water tanker 6 kl capacity	hour	6.00			
	<b>c) Material</b>					
	Aggregate at site					
	<b>For 53 mm maximum size</b>					
	63 mm to 45 mm @ 33 per cent	cum	157.46			
	22.5 mm to 5.6 mm @ 32 per cent	cum	151.06			
	Below 5.6 mm @ 35 per cent	cum	116.68			
	Water	kl	36.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 360 cum = a+b+c+d+e (3 Wheel Roller)					
	<b>Rate per cum = (a+b+c+d+e)/360</b>					
	Cost for 360 cum = a+b+c+d+e (Vibratory Roller)					
	<b>Rate per cum = (a+b+c+d+e)/360</b>					
	<b>ii With 37.5 mm maximum size of aggregates (MORDonly)</b>					
	Unit = cum					
	Taking output = 360 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	2.48			
	Mazdoor (Unskilled)	day	10.00			
	<b>b) Machinery</b>					
	Tractor attached with rotavator @ 25 cum / 30 cum per hour	hour	12.00			
	Motor-Grader 110 H.P	hour	6.00			
	Three wheel 80-100 kN static roller @ 10 cum / hour	hour	36.00			
	Water tanker 6 kl capacity	hour	6.00			
	<b>c) Material</b>					
	Aggregate at site					
	<b>For 37.5 mm maximum size</b>					
	45 mm to 22.5 mm @ 5 per cent	cum	24.12			
	22.4 mm to 5.6 mm @ 50 per cent	cum	237.60			
	Below 5.6 mm @ 45 per cent	cum	213.48			
	Water	kl	36.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 360 cum = a+b+c+d+e					
	<b>Rate per cum = (a+b+c+d+e)/360</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	Or					
iii	<b>For 45 mm maximum size of aggregate (MORTH only)</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	2.48			
	Mazdoor (Unskilled)	day	10.00			
	<b>b) Machinery</b>					
	Tractor attached with rotavator @ 30 cum per hour	hour	12.00			
	Motor-Grader 110 H.P	hour	6.00			
	vibratory roller 80-100 kN @ 60 cum per hour	hour	6.00			
	Water tanker 6 kl capacity	hour	6.00			
	<b>c) Material</b>					
	Aggregate at site					
	45 mm to 22.5 mm @ 5 per cent	cum	24.12			
	22.4 mm to 5.6 mm @ 50 per cent	cum	237.60			
	Below 5.6 mm @ 45 per cent	cum	213.48			
	Cost of water	KL	36.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost for 360 cum = a+b+c+d+e					
	Rate per cum = (a+b+c+d+e)/360					
	Or					
B	<b>By mixing plant method</b>					
i	<b>With 53 mm maximum size of aggregates</b>					
	Unit = cum					
	Taking output = 225 cum (450 t)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	1.28			
	Mazdoor (Unskilled)	day	6.00			
	<b>b) Machinery</b>					
	Wet mix plant @ 75 t per hour	hour	6.00			
	Electric generator set, 125 KVA	hour	6.00			
	Front end loader 1 cum bucket capacity	hour	6.00			
	Motor grader 110 HP	hour	6.00			
	Three wheel roller 80-100 kN @ 8 cum /10 cum /hour	hour	22.50			
	<b>OR</b>					
	vibratory roller 80-100 kN @ 60 cum per hour	hour	6.00			
	Water tanker	hour	3.00			
	Tipper	hour	10.00			
	Add 10 per cent of cost of carriage to cover cost of loading and unloading		-			
	<b>c) Material</b>					
	Aggregate at site					
	<b>For 53 mm maximum size</b>					
	63 mm to 45 mm @ 33 per cent	cum	98.40			
	22.4 mm to 5.6 mm @ 32 per cent	cum	94.41			
	Below 5.6 mm @ 35 per cent	cum	104.18			
	Water	kl	18.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost for 225 cum = a+b+c+d+e (3 Wheel Roller)					
	Rate per cum = (a+b+c+d+e)/225					
	Cost for 225 cum = a+b+c+d+e (Vibratory Roller)					
	Rate per cum = (a+b+c+d+e)/225					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
ii	<b>With 37.5 mm maximum size of aggregates (MORD only)</b>					
	Unit = cum					
	Taking output = 225 cum (450 t)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	1.28			
	Mazdoor (Unskilled)	day	6.00			
	<b>b) Machinery</b>					
	Wet mix plant @ 75 t per hour	hour	6.00			
	Electric generator set, 125 KVA	hour	6.00			
	Front end loader 1 cum bucket capacity	hour	6.00			
	Mortar grader 110 HP	hour	6.00			
	Three wheel roller 80-100 kN @ 8 cum / 10 cum/ hour	hour	22.50			
	Water tanker	hour	3.00			
	Tipper	hour	10.00			
	<b>c) Material</b>					
	Aggregate at site					
	<b>For 37.5 mm maximum size</b>					
	45 mm to 22.5 mm @ 5 per cent	cum	15.06			
	22.4 mm to 5.6 mm @ 50 per cent	cum	148.50			
	Below 5.6 mm @ 45 per cent	cum	133.00			
	Water	kl	18.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost for 225 cum = a+b+c+d+e					
	<b>Rate per cum = (a+b+c+d+e)/225</b>					
iii	<b>For 45 mm maximum size of aggregate (MORTH only)</b>					
	Unit = cum					
	Taking output = 225 cum (450 t)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	1.28			
	Mazdoor (Unskilled)	day	6.00			
	<b>b) Machinery</b>					
	Wet mix plant @ 75 t per hour	hour	6.00			
	Electric generator set, 125 KVA	hour	6.00			
	Front end loader 1 cum bucket capacity	hour	6.00			
	Motor grader 110 HP	hour	6.00			
	Three wheel roller 80-100 kN @ 10 cum/ hour	hour	22.50			
	<b>OR</b>					
	vibratory roller 80-100 kN @ 60 cum per hour	hour	6.00			
	Water tanker	hour	3.00			
	Tipper	t.km	-			
	Tipper	hour	10.00			
	Add 10 per cent of cost of carriage to cover cost of loading and unloading					
	<b>c) Material</b>					
	Aggregate at site					
	45 mm to 22.5 mm @ 5 per cent	cum	15.06			
	22.4 mm to 5.6 mm @ 50 per cent	cum	148.50			
	Below 5.6 mm @ 45 per cent	cum	133.43			
	Cost of water	KL	18.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost for 225 cum = a+b+c+d+e (3 Wheel Roller)					
	<b>Rate per cum = (a+b+c+d+e)/225</b>					
	Cost for 225 cum = a+b+c+d+e (Vibratory Roller)					
	<b>Rate per cum = (a+b+c+d+e)/225</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
18	<b>Brick Soling</b>					
	Laying brick soling layer on prepared sub-grade with brick on end edging according to lines, graded and cross-section shown on the drawing filling joints with sand and earth, spreading 25 mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100 kN as per Technical Specification Clause 412 MORD					
	Unit = sqm					
	Taking output = 150 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	10.52			
	Mason 1st Class	day	3.00			
	<b>b) Machinery</b>					
	Three wheel 80-100 kN static roller	hour	1.00			
	Water tanker	hour	1.00			
	<b>c) Material</b>					
	Brick 1st Class	No.	8160.00			
	Brick 1st Class on edging	No.	1100.00			
	Fine Sand	cum	5.66			
	Water	kl	6.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost for 150 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/150</b>					
19	<b>Stone Set Pavement</b>					
	Providing and laying stone set pavement on prepared surface with sub-base 100 mm thick compacted Granular Sub-base as per Clause 401.4 and base 75 mm thick compacted water bound macadam grading 2 as per Clause 405.3. The 150 mm thick hammer desired stones are laid in the herring one or stretched bond pattern. The stones are compacted into the bedding sand of 40 mm over the WBM base bounded by edge stone using suitable compacting device. The gaps are filled with fine sand stone dust as per Technical Specification Clause 413.4 MORD.					
	Unit = sqm					
	Taking output = 360 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	53.16			
	Mason 2nd class for laying set stone and edge stone		13.00			
	<b>b) Machinery</b>					
	Three wheel 80-100 kN static roller	hour	2.00			
	Water tanker 6 kl capacity	hour	1.00			
	<b>c) Material</b>					
	(1) Collection of fine sand 3.4x0.285x0.150x1.20 = 0.174	cum	0.174			
	(2) Coarse sand 96x3.35x0.04x1.20 = 15.437 cum	cum	15.437			
	(3) Collection of stone set stone 300 mmx200 mmx150 mm ; 17x304 = 5168 nos.	Nos	5,168.00			
	(4) Collection of edge stone 450 mmx200 mmx350 mm ; 2x232 = 464 nos.	Nos	464.00			
	(5) Water	kl	6.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost of 360 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/360</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
20	<b>Crushed Cement Concrete Sub-base / Base</b>					
	Breaking and crushing of material obtained by breaking damaged cement concrete slabs to size range not exceeding 75 mm as specified in table 400.7 transporting the aggregates obtained from breaking of cement concrete slabs at a lead of L km., laying and compacting the same as sub base/ base course, constructed as WBM to clause 404 except the use of screening or binding Material (405 MORTH).					
	<b>Unit = cum</b>					
	<b>Taking output =360 cum</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor skilled	day	6.16			
	Mazdoor for crushing broken cement concrete pavement / slabs into aggregate	day	102.00			
	<b>b) Machinery</b>					
	Motor Grader,110 HP @ 50 cum/hr.	hour	6.00			
	Vibratory roller 8 - 10 tonne@ 60 cum per hour	hour	6.00			
	or					
	Smooth 3 wheeled steel roller @ 30cum/hr.	hour	12.00			
	Front end loader 1 cum bucket capacity	hour	6.00			
	Tipper 10 tonne capacity	t.km	720 x L			
	Loading Charges	cum				
	Unloading Charges	cum				
	Water tanker 6 KL capacity with 5 km lead @ 1 trip per hour	hour	12.00			
	<b>c) Material</b>					
	Material available from dismantled concrete slab after crushing / breaking and only carriage is required to be provided					
	Cost of water	KL	72.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost for 360 cum = a+b+c+d+e (Vibratory Roller)					
	<b>Rate per cum = (a+b+c+d+e)/360</b>					
	Cost for 360 cum = a+b+c+d+e (Smooth Roller)					
	<b>Rate per cum = (a+b+c+d+e)/360</b>					
	<b>Note : 1.</b> It is assumed that dismantling of concrete slab/pavement has been considered separately. Hence same is not added in this analysis. Only labour for crushing the dismantled slab into aggregate has been added. Carriage from stock pile to work site has been provided with a lead of L km. Loading & unloading charges for actual quantity to be allowed.					
	<b>2.</b> In case of breaking of slabs is done locally without involvement of transportation, the provision of tipper, front end loader and loading/unloading charges may be deleted.					
	<b>3.</b> As three wheeled smooth steel rollers are commonly in use, the same has been provided as an alternative.					
21	<b>Penetration Coat Over Top Layer of Crushed Cement Concrete Base</b>					
	Spraying of bitumen over cleaned dry surface of crushed cement concrete base at the rate of 25 kg per 10 sqm by a bitumen pressure distributor, spreading of key aggregates at the rate of 0.13 cum per 10 sqm by a mechanical grittier and rolling the surface as per clause 506.3.8 MORTH					
	<b>Unit = sqm</b>					
	<b>Taking output = 7500 sqm</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor skilled	day	2.56			
	Mazdoor (Unskilled)	day	12.00			
	<b>b) Machinery</b>					
	Mechanical broom hydraulic @ 1250 sqm per hour	hour	6.00			
	Hydraulic self propelled chips spreader	hour	6.00			
	Front end loader 1 cum bucket capacity	hour	6.00			
	Tipper 10 tonne capacity	hour	6.00			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	Vibratory roller 8 -10 tonnes @ 30 cum per hour	hour	3.9			
	Bitumen pressure distributor @ 1750 sqm per hour	hour	4.28			
	<b>c) Material</b>					
	Crushed stone aggregate 11.2 mm size	cum	97.50			
	Bitumen (60-70 grade)	tonne	0.25			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost for 7500 sqm = a+b+c+d+e					
	Rate per sqm = (a+b+c+d+e)/7500					
	<b>Note</b> : Though vibratory roller is required only for 3 hours as per norms, the same is required to be available at site for 6 hours to match with other machines. The usage rates of vibratory roller may be multiplied with a factor of 0.65.					
22	<b>Construction of Median and Island with Soil Taken from Roadway Cutting</b>					
	Construction of Median and Island above road level with approved material deposited at site from roadway cutting and excavation for drain and foundation of other structures, spread, graded and compacted as per clause 407 MORTH					
	<b>Unit = cum</b>					
	<b>Taking output =21 cum</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor	day	6.24			
	<b>b) Machinery</b>					
	Water tanker 6 KL with 5 km lead and 1 trip per hour	hour	1.00			
	Plate compactor @ 3.5 cum per hour	hour	6.00			
	<b>c) Material</b>					
	Cost of water	KL	6.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost for 21 cum = a+b+c+d+e					
	Rate per cum = (a+b+c+d+e)/21					
	<b>Note</b> : This analysis provides for median and island with earthen top. In case the surface is required to be turfed or planted with shrubs, the same is required to be provided separately as per analysis given in the chapter on horticulture. In case granular fill is required to be paved, quantities of paving are required to be calculated as per approved design and paid separately.					
23	<b>Construction of Median and Island with Soil Taken from Borrow Areas</b>					
	Construction of median and Island above road level with approved material brought from borrow pits, spread, sloped and compacted as per clause 407 MORTH					
	<b>Unit = cum</b>					
	<b>Taking output = 21 cum</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor	day	4.16			
	<b>b) Machinery</b>					
	Water tanker with 5 km lead	hour	1.00			
	Plate Compactor @ 3.5 cum per hour	hour	6.00			
	Hydraulic Excavator 1.0 cum bucket capacity @60 cum per hour	hour	0.50			
	Tipper 10 tonne capacity	t.km	52.5 x L			
	Loading Charges	cum	-			
	Unloading Charges	cum	-			
	<b>c) Material</b>					
	Cost of water	KL	6.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost for 21 cum = a+b+c+d+e					
	Rate per cum = (a+b+c+d+e)/ 21					
	<b>Note</b> : This analysis provides for median and island with earthen top. In case the surface is required to be turfed or planted with shrubs, the same is required to be provided separately as per analysis given in the chapter on horticulture. In case surface finish is of hard type, the same may be provided separately as per approved design.					
	<b>Loading &amp; unloading charges for actual quantity to be allowed.</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
24	<b>Construction of Shoulders</b>					
	<b>A. Earthen Shoulders</b>					
	The rate as applicable for sub-grade construction may be adopted.					
	<b>B. Hard Shoulders</b>					
	Rate as applicable for sub-base and or base may be adopted as per approved design.					
	<b>C. Paved shoulders</b>					
	The rate may be adopted as applicable for different layers of pavement depending upon approved design of paved shoulders.					
25	<b>Footpaths and Separators</b>					
	Construction of footpath/separator by providing a 150 mm compacted granular sub base as per clause 401 and 25 mm thick cement concrete grade M15, over laid with pre-cast concrete tiles in cement mortar 1:3 including provision of all drainage arrangements but excluding kerb channel (MORTH)					
	<b>Unit = sqm</b>					
	<b>Taking output = 300 sqm</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mason	day	4.00			
	Mazdoor (Unskilled)	day	31.36			
	<b>b) Machinery</b>					
	Vibratory road roller 8 -10 tonnes @60 cum per hour	hour	0.75			
	Water tanker 6 KL capacity @ 1 trip per hour	hour	2.00			
	Concrete mixer 0.4/0.28 cum per hour	hour	6.00			
	<b>c) Material</b>					
	<b>i) For Granular sub base material</b>					
	53 mm to 26.5 mm @ 35 per cent	cum	20.79			
	26.5 mm to 4.75 mm @ 45 per cent	cum	26.73			
	2.36 mm below @ 20 per cent	cum	11.88			
	<b>ii) For cement concrete grade M 15, 7.5 cum</b>					
	Aggregate 12 mm crushed @ 0.9 cum of concrete	cum	6.75			
	Sand @ 0.45 cum/cum of concrete	cum	3.38			
	Cement	tonne	1.88			
	<b>iii) For cement plaster 1:3</b>					
	Sand	cum	3.84			
	Cement	tonne	1.83			
	<b>iv) Pre-cast cement concrete tiles</b>					
	Tiles size 300 x 300 mm and 25 mm thick	each	3300.00			
	<b>v) RCC pipes</b>					
	Pipes 200 mm dia,2.5 m long for drainage	metre	22.50			
	<b>vi) Cost of water</b>	KL	12.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 300 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/300</b>					

**General Note :** The provisions towards Mate is included in the provision towards unskilled Mazdoor.



# LABOUR RATES

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
1	2	3		4	5.00
			<b>(A) Skilled Workmen</b>		
			<b>First Class</b>		
1	1a		Mason and stone Cutter	Day	156.00
2	b		Brick Layer	Day	156.00
3	c		Carpenter	Day	156.00
4	d		Painter	Day	156.00
5	e		Plumber	Day	156.00
6	f		Welder	Day	156.00
7	g		Fitter	Day	156.00
8	h		Electrician	Day	156.00
9	l		Cook	Day	156.00
10	2		Mechanic	Day	156.00
11	3		Rigger	Day	156.00
12	4		Rigger Syrang	Day	156.00
13	5		Well Sinker	Day	156.00
14	6		Blaster	Day	156.00
15	7		Tipper and Heavy Vehicle Driver above 12 T	Day	165.00
16			Tanker and Medium Vehicle Driver (7.5 T to 12 T)	Day	144.00
17			Tanker and Light Vehicle Driver up to 7.5 T	Day	130.00
18			Wagon Drill Operator upto 7.5 T	Day	165.00
19	8		Lorry and Heavy Vehicle Driver above 12 T	Day	165.00
20			Road Roller Driver (7.5 T to 12 T)	Day	144.00
21			Road Roller Driver up to 7.5 T	Day	130.00
22	9		Tractor Driver above 12 T	Day	165.00
23			Tractor Driver (7.5 T to 12 T)	Day	144.00
24			Tractor Driver upto 7.5 T	Day	130.00
			<b>Operator</b>		
25	10		Pan Mixer	Day	156.00
26			Concrete mixer	Day	156.00
27			Vibrator	Day	156.00
28			Compressor	Day	156.00
29			Jack Hammer	Day	156.00
30			Driller	Day	156.00
31			Boring Maistry	Day	156.00
32	11		Pump Operator	Day	156.00
33	12		Turner Grade-I	Day	156.00
34	13		Wireless Operator	Day	165.00
35	14		Assistant Wireless Operator	Day	137.00
36	15		Jeep Driver	Day	130.00
37	16		Work inspector with I.T.I qualification	Day	151.00
38	17		Work Inspector with LCE,LME,L.E.E Qualification	Day	165.00
39	18		Work Inspector with B.E ( Civil, Mechanical and Electrical qualification)	Day	250.00
40	19		Work Inspector with Non-technical qualification SSLC/SSC/HSC	Day	137.00
41	20		Mason Spl. Grade for Mossaic and Polished shahabad stone floor	Day	165.00
42	21		Computer Operator	Day	137.00
			<b>(B) SEMI-SKILLED WORKMEN</b>		
			<b>SECOND CLASS</b>	Day	
43	1:00 AM		Mason	Day	137.00
44	b		Brick Layer and Stone Cutter	Day	137.00
45	c		Carpenter	Day	137.00
46	d		Painter	Day	137.00
47	e		Plumber	Day	137.00

Sl. No.	S.S. No.	Item Description	Unit (per)	S S RATE FOR 2005-06
48	f	Blacksmith	Day	137.00
49	g	Welder	Day	137.00
50	h	Fitter	Day	137.00
51	l	Electrician	Day	137.00
52	2	Caulker	Day	137.00
53	3	Barbender	Day	137.00
54	4	Tinker	Day	137.00
55	5	Sawyer	Day	137.00
56	6	Brick-Moulder	Day	137.00
57	7	Pot-tile turner	Day	137.00
58	8	Pan -tile turner	Day	137.00
59	9	Brick and Lime Kiln man /Glazzer	Day	137.00
60	10	Telephone Operator	Day	137.00
61	11	Hand Driller	Day	137.00
62	12	Quarry man	Day	137.00
63	13	Hammer man	Day	137.00
64	14	Thatcher	Day	137.00
65	15	Fireman	Day	137.00
66	16	Cleaner/Helper	Day	137.00
67	17	Stone Packer	Day	137.00
68	18	Jawali	Day	137.00
69	19	Ex-Service man/Goorkha watchman	Day	106.00
70	20	Ratton worker	Day	137.00
71	21	Mate	Day	137.00
<b>(C) UNSKILLED WORKMEN</b>				
72	1	Head mazdoor(Mukaddar)	Day	106.00
73	2	Man mazdoor	Day	106.00
74	3	Watch man	Day	106.00
75	4	Picottah man	Day	deleted
76	5	Woman Mazdoor	Day	106.00
77	6(a)	Casual labour on loading & Un-loading operations	Day	
78	6(b)	Helpers/Cleaners/Sweepers/Scavangers/ Choukidaars / Security Guards / Office Boys	Day	
<b>(D) OTHER CONVEYANCE ITEMS</b>				
80	1	Single bullock with driver and cart	Day	151.00
81	2	Bullock pair with driver	Day	151.00
82	3	Bullock pair with driver and cart	Day	165.00
83	4	Bullock pair with driver and cart with Pneumatic tyres	Day	208.00
84	5	Bullock pair with driver and kapila	Day	deleted
85	6	Nava with crew	Day	144.00
86	7	Punt thundal	Day	116.00
87	8	Punt lascar	Day	116.00
88	9	Punt boy lascar	Day	deleted

## COMMON MATERIALS AND WORK ITEMS

Sl. No	S.S. Item No.	Description	Unit	SS Rate for 2005-06
1	2	3	4	5.00
<b>(A) STONE AND ROAD MATERIALS</b>				
<b>ROUGH STONE QUARRIED INCLUDING WEDGING, BREAKING,BURNING, SPLITTING AND STACKING</b>				
89	22.a	For R.R Masonary Work (other than Granite, Dolomite and Trap	1 cum	94.00
90	b.l	For SS Revetment work 225 mm	1 cum	50.00

Sl. No.	S.S. No.	Item Description	Unit (per)	S S RATE FOR 2005-06
91	b.ii	For SS Revetment work 300 mm	1 cum	66.50
92	b.iii	For SS Revetment work 450 mm	1 cum	80.00
93	c	Jeddy Stone above 450 mm to 600 mm	1 cum	110.00
94	d I.	Laterite for revetment 225 mm	1 cum	68.50
95	d II.	Laterite for revetment 300 mm	1 cum	80.00
96	d.iii	Granite for SS revetment 225 mm	1 cum	82.00
97	d.iv	Granite for SS revetment 300 mm	1 cum	95.00
		<b>Note:-</b> Only when other granite is not available		
98	E	Laterite for masonry	1 cum	80.00
99	F	Cyclopean stones above 0.2 cum	1 cum	148.00
100	G	For R.R.Masonry works ( granite, dolomite and trap variety	1 cum	109.00
101		<b>NOTE:-</b> For items 22(a) to 22© ,22d(iii),22d(iv) and 22(g) add extra Rs /cum, wherever quarrying is done by blasting	1 cum	52.50
		<b>COURSED RUBBLE STONE QUARRYING WEDGING, BREAKING, BURNING AND SPLITTING INCLUDING STACKING FOR SS FIRST SORT WORKS</b>		
102	23.a	Granite, dolomite and trap	1 cum	157.00
103	B	For other varieties	1 cum	108.00
104	27	Granite stone slabs for culverts, lintels and copings (3 faces dressed coarsed rubble masonry)	1 cum	998.00
105		<b>NOTE:-</b> For items 23(a), 23(b) and 27 add extra Rs. Per Cum, wherever quarrying is done by blasting	1 cum	54.00
106	28	Bond stones ( 600 x 200 x 200 mm )	each	16.00
107	b	Chainage stones and Centre line stones (750x150x150xmm)	each	21.00
	29 a	Kilometers stones ( 1100 x 370 x 250 mm)	each	deleted
	b	5th Kilometers stones ( 1520 x 520 x 250 mm)	each	deleted
	30 a	Hectometers stones ( 900 x 200 x 200 mm)	each	deleted
108	31	Demarcation Stones ( 900 x 150 x 150 mm)	each	33.00
109	32 a	Guard Stones ( 1200 x 200 x 200 mm )	each	52.00
110	b	Guide Stones ( 800 x 150 x150 mm )	each	33.00
111	c	Carving letters and figures in stone up to 100 mm size	each	3.20
112	d	Carving letters and figures in stone above 100 mm size	each	4.20
		<b>HARD BROKEN STONE OF GRANITE, TRAP AND DOLERITE FREE FROM DUST OBTAINED BY QUARRYING, WEDGING, BREAKING, BURNING AND SPLITTING INCLUDING STACKING.</b>		
113	33.a	- do - 6mm size (SS 5)	1 cum	249.00
114	b	- do - 10mm size (SS 5)	1 cum	329.00
115	c	- do - 12mm size (SS 5)	1 cum	395.00
116	d	- do - 20mm size (SS 5)	1 cum	494.00
117	e	- do - 25mm size (SS 5)	1 cum	494.00
118	f	- do - 40mm size (SS 5)	1 cum	282.00
119	g	- do - 50mm size (SS 5)	1 cum	196.00
120	h	- do - 60mm size (SS 5)	1 cum	196.00
121	i	- do - 65mm size (SS 5)	1 cum	194.00
122	j	- do - 75mm size (SS 5)	1 cum	131.00
123	k	- do - 75 to 100mm size (SS 5)	1 cum	117.00
124		<b>NOTE:-</b> (1) Add extra Rs.55.50/- per cum for items 33 (a) to 33 (k) if the metal is obtained by blasting		55.50
125		(2) Add 25% extra per cum if the metal is obtained by machine crushing excluding cost of blasting.		0.25
126		(3) Deduct Rs.5.50 per cum if the metal or rubble is obtained from surface stone and boulders.		5.50
127		(4) Add Rs.11.50/- per cum for selection of		11.50 5.50

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
		stones and boulders from excavated spoil dumps for items 33 a to 33 k, when this addition of Rs. <b>11.50</b> per Cum is allowed deduction of Rs. <b>5.50</b> per Cum mentioned under Note (3) above should invariably be made.		
		<b>SOFT BROKEN STONE SCREENED AND FREE FROM DUST INCLUDING STACKING</b>		
128	33.l	- do - 40 mm size ( SS 5 )	1 Cum	63.00
129	33.m	- do - 50 mm size ( SS 5 )	1 Cum	56.50
130	33.n	- do - 60 mm size ( SS 5 )	1 Cum	44.50
131	33.o	- do - 65 mm size ( SS 5 )	1 Cum	39.50
132	33.p	- do - 75 mm size ( SS 5 )	1 Cum	37.50
		<b>HARD BROKEN STONE OF GRANITE TRAP DOLERITE AND DOLAMITE FREE FROM DUST OBTAINED BY QUARRYING WEDGING, BREAKING, BURNING AND SPLITTING INCLUDING STACKING (QUARTZITE AND BASALT WITH AGGREGATE IMPACT OF LESS THAN 20)</b>		
133	33a	-do- 5 mm to 7 mm size ( IRC and MORTH)	1 cum	249.00
134	b	-do- 9.5 mm to 11.2 mm size ( IRC and MORTH)	1 cum	329.00
135	c	-do- 12mm to 14 mm size ( IRC and MORTH )	1 cum	394.00
136	d	-do- 19 mm to 22 mm size ( IRC and MORTH )	1 cum	492.00
137	e	-do- 25 mm to 27 mm size ( IRC and MORTH )	1 cum	492.00
138	f	-do- 40 mm to 45 mm size ( IRC and MORTH )	1 cum	282.00
139	g	-do- 50 mm to 55 mm size ( IRC and MORTH )	1 cum	196.00
140	h	-do- 60 mm to 63 mm size ( IRC and MORTH )	1 cum	196.00
141	i	-do- 65 mm size ( IRC and MORTH )	1 cum	196.00
142	j	-do- 75 mm size ( IRC and MORTH )	1 cum	131.00
143	1	<b>NOTE:-</b> Add extra Rs. <b>55.50</b> per cum for items 33 (a) to 33 (j) if the metal is obtained by blasting	1 cum	55.50
144		Add <b>25%</b> extra per cum if the metal is obtained by machine crushing excluding cost of blasting.	1 cum	25%
145	3	Deduct Rs. <b>5.50</b> per cum if the metal or rubble is obtained from surface stones and boulders	1 cum	5.50
146	4	Add Rs. <b>11.50</b> per cum for selection of stones and boulders from excavated soil dumps for items 33 (a) to 33 (k), when this addition of Rs. <b>11.50</b> per cum allowed deduction of Rs. <b>5.50</b> per cum mentioned under note (3) above should invariably be made	1 cum	11.50
		<b>HARD BROKEN STONE OTHER THAN GRANITE SUCH AS QUARTZ, QUARTZ-NAPA AND BASALT SCREENED AND FREE FROM DUST INCLUDING STACKING</b>		
147	33.q	- do - 10 mm size (SS 5)	1 Cum	196.00
148		-do- 9.5 mm to 11.2 mm size ( IRC and MORTH )	1 Cum	196.00
149	r	- do - 12 mm size (SS 5)	1 Cum	184.00
150		-do- 12mm to 14 mm size ( IRC and MORTH )	1 Cum	184.00
151	s	- do - 20 mm size (SS 5)	1 Cum	149.00
152		-do- 19 mm to 22 mm size ( IRC and MORTH )	1 Cum	149.00
153	t	- do - 25 mm size (SS 5)	1 Cum	147.00
154	u	- do - 40 mm size (SS 5)	1 Cum	86.50
155		-do- 40 mm to 45 mm size ( IRC and MORTH )	1 Cum	86.50
156	v	- do - 50 mm size (SS 5)	1 Cum	76.50
157		-do- 50 mm to 55 mm size ( IRC and MORTH )	1 Cum	76.50
158	33.w	- do - 65 mm size (SS 5)	1 Cum	72.50
159		-do- 60 mm to 65 mm size ( IRC and MORTH )	1 Cum	72.50
160	x	- do - 75 mm size (SS 5)	1 Cum	60.00
161		- do - 75 mm size ( IRC &MORTH)	1 Cum	60.00
162	y	- do - 75 to 100 mm size (SS 5)	1 Cum	47.50

Sl. No.	S.S. No.	Item Description	Unit (per)	S S RATE FOR 2005-06
163		- do - 75 to 100 mm ( IRC& MORTH)	1 Cum	47.50
		<b>OTHER ITEMS INCLUDING STACKING</b>		
164	33.z1	Laterite 40 to 75 mm ( ring)	1 Cum	54.50
165	z2	kankar, hard broken kankar 40 to 75 mm ( ring )	1 Cum	42.50
166	z3	Soling stone of 150 mm size of granite, trap and Dolomite varieties.	1 Cum	54.50
167		<b>NOTE:-</b> (1) Add extra for items to 33(z3) Rs <b>55.50</b> Per cum, wherever quaring is done by blasting. (2) Wherever controlled blasting is resorted to the Chief Engineer concerned shall approve the observed data in support of SS item No. 22 a to 22 c , 22g, 23	1 Cum	55.50
168	z4	Soling stone of 150 mm size other than granite variety	1 Cum	38.50
169	z5	Soling Stone laterite, Kankar 150mm, surface stone	1 Cum	22.50
170	z6	Field picked metal unbroken 20 mm size	1 Cum	33.00
171	z7	- do - 25 mm size	1 Cum	25.00
172	z8	- do - 40 mm size	1 Cum	27.50
173	z9	- do - 50 mm size	1 Cum	25.00
174	z10	- do - 60 mm size	1 Cum	19.50
175	z11	- do - 80 mm size	1 Cum	15.00
176		<b>NOTE:-</b> Add Rs. <b>11.50</b> per cum for selection of stone and boulders from excavated spoil dumps for items 33 (q) to 33 z , when this addition of Rs. <b>11.50</b> per cum is allowed deduction ofRs. <b>5.50</b> per cum should invariably be made towards the metal or rubble if it is obtained from surface stone and boulders.		11.50 5.50
177	34	Gravel including stacking	1 Cum	40.00
178	35 a	Quarry rubbish	1 Cum	16.00
	b	HBG Stone Chips 2.36mm and below	1 Cum	60.00
179	36.a	Sand for mortar, ceiling coat including washing screening etc.,	1 Cum	72.00
180	b	Sand for filling and blindage	1 Cum	28.50
181	37	Clay for puddle and masonry Items 38 (a) to 39 (h) As per local prevailing rates based on competitive quotations.	1 Cum	19.00
		<b>(C) LIME AND CEMENT</b>		
182	40 to 41(c )			As per local competitive rates
183	42	Cement excluding cost of empty cement bags	Metric Tonne	2600.00
184	42.a	Labour for mixing cement mortar	1 Cum	19.50
185	b	Mixing of cement mortar by machine	1 Cum	33.00
186	c	Grinding lime mortar or Surkhi mortar	1 Cum	58.00
187	d	Shell lime slaked and screened	1 Cum	578.00
188	e	White cement	1 Kg.	13.00
		<b>(D) MORTARS</b>		
189	43 to 45	Items 43 to 45		<b>Rates have to be based on state</b>
		<b>(E) METAL AND IRON WORKS</b>		
190		Mild steel rods 6mm dia.	One Metric Tonne	29500.00
191		Mild steel flats	One Metric Tonne	29500.00
192		Mild Steel, Structural Steel, I.e., Angles, Channels and I sections.	One Metric Tonne	30000.00
193		High Yield Strength Deformed Bars	One Metric Tonne	29500.00
		<b>III RATES OF WORKS</b>		
		<b>(A) CLEARING SITE</b>		
195	1.a	Clearing heavy Jungle	1 Sqm	1.10

Sl. No.	S.S. No.	Item Description	Unit (per)	S S RATE FOR 2005-06
196	b	Clearing light Jungle	1 Sqm	1.10
197	c	Clearing Scrub Jungle	1 Sqm	1.10
198	d	Clearing Juliflora (Prosafis) jungle including up-rooting and removing of Juliflora stumps.	1 Sqm	2.10
199	2.a.i	Cutting and removing Palmyrah trees including stacking of girth 30 to 100 cm.	Each	19.00
200	ii	- do - 100 to 200 cm.	Each	33.00
201	2.b.i	Uprooting and removing Palmyrah stumps including stacking of girth 30 to 100 cm.	Each	23.50
202	ii	- do - 100 to 200 cm.	Each	36.00
203	2.c.i	Cutting and removing date trees including stacking of girth 30 to 100 cm	Each	14.00
204	ii	- do - 100 to 200 cm	Each	20.00
205	d.i	Uprooting and removing stumps of date trees including stacking of girth 30 to 100 cm.	Each	14.00
206	ii	- do - 100 to 200 cm	Each	19.00
207	e i	Cutting and removing other kindof trees including stacking of girth 30 to 100 cm	Each	19.00
208	ii	- do - 100 to 200 cm	Each	29.50
209	iii	- do - above 200 cm	Each	50.00
210	f.i	Uprooting and removing stumps of other kind of trees including stacking of girth 30 to 100 cm.	Each	14.00
211	ii	- do - 100 to 200 cm	Each	20.00
212	iii	- do - above 200 cm	Each	27.50
213	3.a	Uprooting and clearing prickly pear jungle	1 Sq.m	1.10
214	b	- do - under 2.5 meters height including burning and burrying as directed.	1 Sq.m	1.60
215	c	- do - over 2.5 meters height including burning and burrying with an initial lead of conveyance	1 Sq.m	2.10
216	4.a	Removing of natchu, goobi, thooti etc., from drains, channels including clearance if not more than 1 metre depth of water with an initial lead of 10 metres and lift of 2 metres.	1 Sq.m	1.10
217	b.i	Clearing alchi, tilla	1 Sq.m	2.10
218	b.ii	Removal of Jammu	1 Sq.m	1.10
219	c.i	Removal of imponea, cornea	1 Sq.m	2.10
220	c.ii	Removal of water hyacinth upto 30 cm thick.	1 Sq.m	2.10
221	c.iii	- do - more than 30 cm thick	1 Sq.m	3.10
222	d	Removal of natchu, goobi, thooti etc., for every extra lead or lift over the initial lead or lift.	1 Sq.m	0.60
		<b>(B) DISMANTLING</b>		
	5	<b>DISMANTLING, CLEARING AWAY AND CAREFULLY STACKING MATERIALS USEFUL FOR REUSE.</b>		
223	n.(i)	Dry rough stone revetment for aprons and stacking within 40 metres	1 cum	24.50
		<b>(C) QUARRYING AND BLASTING</b>		
224	6	Blasting and removing hard granite measured in solid	1 cum	covered under e
	7	<b>Drilling holes in hard granite or sheet rock</b>		
	a)	<b>Manually ( Hand)</b>		
225	i)	20 mm dia meter	1 RM	65.00
226	ii)	25 mm dia meter	1 RM	70.00
227	iii)	36 mm dia meter	1 RM	79.50
	b)	<b>Pneumatic Compressor</b>		
228	i)	20 mm dia meter	1 RM	70.50
229	ii)	25 mm dia meter	1 RM	77.50
230	iii)	36 mm dia meter	1 RM	85.00
	8	<b>Grouting the holes with neat cement slurry excluding cost of steel</b>		
231	i)	20 mm dia meter	1 RM	42.00
232	ii)	25 mm dia meter	1 RM	54.00
233	iii)	36 mm dia meter	1 RM	65.50
		<b>(D) EARTH WORK</b>		
234		<b>NOTE:-</b> 1. Standard Specification No.20-A requires breaking clods,ramming and sectioning of		

Sl. No.	S.S. No.	Item Description	Unit (per)	S S RATE FOR 2005-06
		spoil bank etc.,		
235		2. Standard Specification No.20-B does not require that three items of work detailed above, but does require neat banking in accordance with the standard specification.		
236		3. A separate rate for these three items of work will not be necessary where the earth work is executed under the standard specification No. 20-A.		
236a		<b>Allowances for Excavation and Forming Embankment:</b>		
		(i) Top soil removal - upto 5%		
		(ii) Consolidation allowance to Proctor's Density -10%		
		(iii) Shrinkage Allowance - 2 to 2.5%		
		(iv) Wastage- 1%		
		(v) Allowance for removal of boulders - Nil		
236b		<b>Conveyance by Lorries not applicable to head leads</b>		
		(vi) Clay 25%		
		loamy, Red Earth, Gravel, Homogeneous soils-18%		
		(vii) Allowance for compaction and Shrinkage- 12 to 12.5%		
		<b>EARTH WORK EXCAVATION AND DEPOSITING ON BANK WITH AN INITIAL LEAD OF 10 METRES AND AN INITIAL LIFT OF 2 METRES IN CASE OF HEAD LEAD ONLY.</b>		
237	8.a	Sand or loose soils wet sand not under water, silt in canals, channels and drains SS 20-A.	1 cum	19.00
238	b	- do - 20-B	1 cum	20.00
239	9.a	Loamy and Clayey soils like black cotton soils, red earth and ordinary gravel SS 20-A.	1 cum	31.50
240	b	- do - 20-B	1 cum	28.50
241	10.b	Slushy soil and silt clearance upto 0.60 metres depth SS 20-B	1 cum	31.50
242	11.b	Clayey Soil in wet and slushy condition SS 20-B	1 cum	32.50
243	12.a	Hard Gravelly Soils SS 20-A	1 cum	32.50
244	b	- do - SS 20-B	1 cum	30.50
245	13.a	Mixture of gravel and soft disintegrated rock like shales ordinary gravel, stoney earth and earth mixed with fair sized boulders SS 20-A	1 cum	34.50
246	b	- do - 20-B	1 cum	31.50
247	14	Soft disintegrated rock ( removable by pick axes and crow bars)	1 cum	36.50
248	15	Stone matrix	1 cum	38.00
249	16	Hard disintegrated rock or soft rock or conglomerate rock etc., removable by pick axes and crow bars	1 cum	49.50
250	17	Hard disintegrated rock or soft rock or conglomerate rock and Hard lime kankar requiring partial blasting.	1 cum	66.00
251	18.a.i	Fissured and fractured rock and boulders upto 3 cum in size requiring blasting including stacking	1 cum	114.00
252	a.ii	- do - Stacking is not done	1 cum	106.00
253	18.b.i	Excavation of Nandyal Slabs more than 3 cum in size requiring blasting including stacking	1 cum	137.00
254	b.ii	- do - Stacking is not done	1 cum	132.00
255	19.a.i	Hard rock and boulders more than 3 cum in size requiring blasting including stacking	1 cum	240.00
256	a.ii	- do - Stacking is not done	1 cum	229.00
257	19.b	Benching, chiselling, wedging and boring in rock in foundation grade levelling.	1 cum	342.00
		<b>FOR ALL SOILS, SOFT DISINTEGRATED ROCK AND STONE MATRIX (ITEM N0s 8-b to 15 ABOVE )</b>		
258	20.a.i	Extra for every additional 10 metres lead or part there of over the initial lead for the first 3 extra leads	1 cum	1.30
259	ii	-do- from 4 th extra lead to 6 th extra lead	1 cum	2.10
260	iii	-do- from 7 th extra lead to 9 th extra lead	1 cum	3.10
		<b>FOR HARD DISINTEGRATED ROCK (ITEM 16 TO 17 ABOVE )</b>		

Sl. No.	S.S. No.	Item Description	Unit (per)	S S RATE FOR 2005-06
261	20bi	(Extra for every additional 10 metres lead or part there of) over the initial lead for the first 3 extra leads	1 cum	2.10
262	ii	Extra for every additional 10 mtrs. Lead or part there of from 4 th extra lead to 6 th extra lead	1 cum	3.30
263	iii	-do- from 7 th extra lead to 9 th extra lead	1 cum	4.60
		<b>FOR FISSURED AND FRACTURED HARD ROCK AND BOULDERS ETC., (ITEM 18 &amp; 19 a ABOVE)</b>		
264	20.c.i	(Extra for every additional 10 metres lead or part there of) over the initial lead for the first 3 extra leads	1 cum	3.40
265	ii	Extra for every additional 10 mtrs. Lead or part there of from 4 th extra lead to 6 th extra lead	1 cum	5.60
266	iii	-do- from 7 th extra lead to 9 th extra lead	1 cum	6.20
		<b>FOR ALL SOILS, SOFT DISINTEGRATED ROCK AND STONE MATRIX (ITEM N0s 8-b to 15 ABOVE )</b>		
267	21.a.i	Extra for every additional 1 metre lift or part there of over the initial lift for the first 3 extra lifts	1 cum	1.30
268	ii	Extra for every additional 1 mtrs. lift or part there of from 4 th extra lift to 6 th extra lift	1 cum	2.10
269	iii	-do- from 7 th extra lift and above	1 cum	3.20
		<b>FOR HARD DISINTEGRATED ROCK (ITEM 16 &amp; 17 ABOVE )</b>		
270	21.b. i	Extra for every additional 1 metres Lift or part there of over the initial lift for first 3 extra lifts	1 cum	2.10
271	ii	Extra for every additional 1 mtrs. lift or part there of from 4 th extra lift to 6 th extra lift	1 cum	3.10
272	21.b.iii	-do- from 7 th extra lift and above	1 cum	4.60
		<b>FOR FISSURED AND FRACTURED, HARD ROCK AND BOULDERS ETC.,(ITEM 18 TO 19 a ABOVE ).</b>		
273	21.c.i	Extra for every additional lift of 1 metre or part there of over the initial lift for the first 3 extra lifts	1 cum	4.10
274	ii	Extra for every additional lift of 1metre or part there of over from 4th extra lift to 6 th extra lift	1 cum	5.10
275	iii	-do- from 7 th extra lift and above	1 cum	6.60
276		Note: The lift charges mentioned in SS item Nos 21a,21 b, and 21c under (D) Earth work are applicable to delifts also.		
277	22.a	Add to relevant SS 20-A rates for new tank bunds, closing breaches, road formation and embankments for extra watering and consolidation by stone roller upto 1 tonne.	1 cum	2.10
278	b	- do - with stone roller 2 tonnes or cattle treading	1 cum	3.40
	b(l)	Add to relevant SS 20-A rates for new tank bunds, closing breaches, road formation and embankments for extra watering and consolidation by pneumatic tampers at 90% proctor's density.	1 cum	3.90
279	c	Add to relevant SS 20-A rates for new tank bunds,closing breaches, road formation and embankments for extra watering and consolidation of proctor's density with 8 to 10 tonne power roller including watering and conveyance of water for initial lead of 1/2 kilometer.	1 cum	20.50
280		Note: The element of Hire charges is Rs 51.76 per 10 cum corresponding to the hire charges of 8 to 10 Tonne power roller fixed at Rs. 2200/- per day of 8 hours. The rate shall be increased when the element of hire charges increases for item No. 22 c above,if the roller is lent to the contractor at a rate of Rs 275/- per hour(i.e., Rs 2200/- per day of 8 hours may be effected).	1 cum	
281	22.d	Extra for every additional 1/2 km lead for water over the initial lead of 1/2 Km for consolidation of banks .	1 cum	2.20
282	23.a	Benching old embankment slopes 0.45 x 0.45 metres.	1 RM	1.30
283	23.b	Puddle wall work	1 cum	33.50
284	24	Turfing slopes including watering for 3 months with initial lead for conveyance of water and grass for 1 hectometre.	1 Sq.m	13.50
285	25	Refilling with the excavated sand complying with the standard specifications for filling foundations	1 cum	10.50
286	26.a	Refilling with the excavated soils ( other than sand) complying with the standard specifications for filling foundations.	1 cum	7.10
287	b	Trimming of slopes of embankments and depositing the soils on the top of the bank.	1 cum	<b>50% of earth w of similar classi</b>
288	c	Ploughing	1 Sq.m	<b>0.30</b>



Sl. No.	S.S. No.	Item Description	Unit (per)	S S RATE FOR 2005-06
<b>(E) CONCRETE AND (G) STONE MASONRY</b>				
289		SSI NOS 31a to 39 and SSI Nos. 60 to 87		Rates have to be based on standard
290		Note:		
291		1. Add for vibrating concrete	1 cum	32.00
292		2. Add for machine mixing of concrete.	1 cum	31.50
293		3. Add where the power is available for operating the mixer, the rate is,	1 cum	21.00
294	a 1	White washing and colour banding for guard and guide stones including cost of materials	each	4.10
295	b 1	Screening sand and gravel	1 cum	4.10
296	b 2	Screening chips and metal	1 cum	8.70
297	c 1	Removing and refixing Hectometre or Demarcation stones	each	5.10
<b>CENTERING CHARGES</b>				
298	L 1	Centering charges for culvert slabs and other structures of 3 mts. span and above	1 cum	699.00
299	L 2	Centering charges for bed blocks and culvert slabs and other structures of less than 3 mts. span.	1 cum	572.00
<b>CENTERING CHARGES FOR MINOR AND MAJOR BRIDGE WORKS</b>				
300	L3	For mass concrete piers, abutments and steining well curbes, well caps etc.,	1 cum	507.00
301	L 4	For RCC piers, abutments, wing wall, steining, well curbs, well caps etc.,	1 cum	634.00
302	<b>NOTE:-</b> The rates under L3 and L 4 are applicable to Roads and Buildings and Irrigation structures up to 2 metres width			
303	L 5	For RCC deck slabs	1 cum	1206.00
304	L 6	For RCC beams	1 cum	1524.00
305	L 7	For RCC hand rails	1 cum	1627.00
306	L 8	For CC pavements, wearing coats, approach, slabs, guide stone, J. M. stone etc.,	1 cum	121.00
	n	Laying and fixing RCC Hume pipes in position including lifting, aligning etc., complete with (fixing ) collars for the following diametres of pipes but excluding cost of materials ( NP2 Class )		
307	n 1	250 mm diameter	1 Rm	12.00
308	n 2	300 mm diameter	1 Rm	16.00
309	n 3	450 mm diameter	1 Rm	22.00
310	n 4	600 mm diameter	1 Rm	35.00
311	n 5	750 mm diameter	1 Rm	44.00
312	n 6	800 mm diameter	1 Rm	52.00
313	n 7	1000 mm diameter	1 Rm	58.00
314	n 8	1220 mm diameter	1 Rm	74.00
315	<b>Note:-</b> For NP3 class 50% extra over the rates of NP2. Class may be allowed.			
<b>(S) ROAD WORK ITEMS</b>				
		<b>PICKING OLD METALLED SURFACE TO DEPTH OF 40 TO 100 mm SPREADING OLD METAL AND NEW METAL SECTIONING INCLUDING EDGE BUNDS AND SUBGRADE ROLLING, SPREADING METAL INCLUDING BLINDAGE OF GRAVEL WATERING WITH AN INITIAL LEAD OF 2 HECTOMETERS AND HAND ROLLER ( 1.5 TO 2 TONNES) ROLLING ETC., INCLUDING BARRICADING, DIVERSION OF TRAFFIC AND WETTING THE NEW CONSOLIDATION FOR A FORTNIGHT COMPLETE.</b>		
		<b>( For a compact thickness )</b>		
	<b>1 ( i )</b>	<b>HARD METAL</b>		
316	a	40 mm thickness	10 sqm	39.00
317	b	50 mm thickness	10 sqm	41.00
318	c	75 mm thickness	10 sqm	46.00
319	d	100 mm thickness	10 sqm	49.00
	<b>1 ( ii )</b>	<b>( For compact thickness of soft metal )</b>		
320	a	50 mm thickness	10 sqm	31.00
321	b	75 mm thickness	10 sqm	35.00

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
322	c	100 mm thickness	10 sqm	39.00
323	2	Picking 5 to 100 mm old metalled surface and sectioning	10 sqm	14.00
324	3	Picking gravelled surface 25 mm deep and levelling and sectioning	10 sqm	4.10
325	4	Picking the existing B.T. surface and removal of chips	10 sqm	14.50
326	5	<b>Picking old metalled surface to a depth of 40 to 100 mm and spreading metal including watering with an initial lead of 2 Hectometres and rolling with power rollers watering and spreading gravel for blindage and power roller rolling including hire chages of power roller( 8 to 10 t of) barricading and diversion of traffic and wetting the new consolidation for a fortnight(for compacted thickness of )</b>		
		<b>HARD METAL</b>		
327	5 (a)	40 mm thick ness	10 sqm	100.00
328	(b)	50 mm thick ness	10 sqm	114.00
329	(c )	75 mm thick ness	10 sqm	127.00
330	(d )	100 mm thick ness	10 sqm	134.00
331	(e)	150 mm thick excluding hire charges	10 sqm	240.00
		<b>Spreading gravel watering with an initial lead of 2 hectometres and power roller ( 8 to 10 T ) rolling excluding hire charges of power roller and barricading etc., ( for a compact thickness of )</b>		
332	6a	50 mm thickness	10 sqm	18.50
333	b	75 mm thickness	10 sqm	24.50
334	c	100 mm thickness	10 sqm	39.50
335	d	150 mm thickness	10 sqm	44.50
336	7a	<b>Blinding the road surface 6 mm thick with gravel or sand available at site after remaining loose stones including watering.</b>	10 sqm	1.10
337	b	-do- without watering	10 sqm	1.00
338	8a	<b>Blinding the road surface 6 mm thick with gravel or sand dug from road site including watering.</b>	10 sqm	2.10
339	b	-do- without watering	10 sqm	1.60
340		<b>Spreading gravel sand including watering and roller rolling ( for compacted thickness of )</b>		
341	9a	-do- 6mm to 20 mm thick	1 cum	28.50
342	b	-do- from 20 to 25 mm thick	1 cum	24.50
343	c	-do- from 25 to 40 mm thick	1 cum	23.50
344	d	-do- from 40 to 50 mm thick	1 cum	21.50
345	10	Picking 50 to 100 mm Old metalled surface, spreading metal and blindage watering tamping for patch repairs ( labour only )	10 sqm	19.50
346	11	Picking old metalled surface 50 to 100 mm deep spreading gravel watering and tamping ( labour only )	10 sqm	10.00
347	12	Levelling ruts and tamping gravelled roads	10 sqm	2.40
348	13	Levelling ruts and tamping metalled roads	10 sqm	4.20
349	14	Spreading gravel or sand including watering and rolling with hand roller irrespective of thickness in layer	10 cum	173.00
350	15	Carrying for water for WBM consolidation metal and blindage of 40 to 150 mm thickness for every one hectometre beyond initial lead of 2 hectometres	10 sqm	2.40
351		Gelatin(For MORTH data,for works of state & national high ways only)	Per Kg	36.00
352		Electric Detonators(For MORTH data,for works of state & national high ways only)	each	1.00
353		Hot applied thermoplastic compound(For MORTH data,for works of state & national high ways only)	Per Litre	150.00
354		Reflectionising glass beads of 2 mm thick(For MORTH data,for works of state & national high ways only)	Per Kg	50.00
355		Road marking paint conforming to IS 164(For MORTH data,for works of state & national high ways only)	Per Kg	125.00
		<b>BAILING OUT WATER CHARGES FOR CD &amp; CM WORKS (WHEREVER REQUIRED)</b>		
356	l 14	For earth work excavation for foundations below low water level	1 cum	85.00
357	l 15	For cement concrete for foundation below low water level	1cum	85.00
358	n	Labour charges for laying filters with coarse aggregate.	1 cum	34.00
359	o	Labour charges for laying filter with sand.	1 cum	16.00

Sl. No.	S.S. No.	Item	Description	Unit (per)	SS RATE FOR 2005-06
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**BUILDING ITEMS**

S. No	Details	Unit	SS RATE FOR 2005-06
1	2	3	4.00
	<b>IV . RATES OF MATERIALS</b>		
	<b>(A) BRICKS &amp; TILE PRODUCTS</b>		
1	Bricks second class or ground moulded (Non-Modular or traditional size) 23 x 11 x 7 cm	1000 Nos	1350.00
2	- do- modular size 19 x 9 x 9 cm	1000 Nos	1404.00
3	Bricks country (Non-modular traditional size) 22 x 11 x 5 cm	1000 Nos	972.00
	<b>Flyash lime solid blocks with compressive strength of 100 kg/sq.cm</b>		
4	290 x 225 x 140 mm	Each	8.30
5	290 x 200 x 140 mm	Each	7.10
6	290 x 122 x 140 mm	Each	4.80
7	290 x 100 x 140 mm	Each	4.00
8	225 x 100 x 60 mm	Each	1.70
9	145 x 225 x 140 mm	Each	4.80
10	145 x 200 x 140 mm	Each	3.60
	<b>Flyash lime solid blocks with compressive strength of 50 kg/sq.cm</b>		
11	290 x 225 x 140 mm	Each	7.10
12	290 x 200 x 140 mm	Each	5.90
13	290 x 122 x 140 mm	Each	3.60
14	290 x 100 x 140 mm	Each	3.00
15	225 x 100 x 60 mm	Each	1.30
16	145 x 225 x 140 mm	Each	3.60
17	145 x 200 x 140 mm	Each	3.20
18	Cynder	1 Cum	248.40
	<b>Supply of 'AEROCON' HQ building Blocks &amp; 'COMFORTILE-Thermal Roof Tile' ('Ex-factory price) including all taxes.</b>		
	<b>A. AEROCON – HQ BUILDING BLOCKS</b>		
19	600 x 200 x 75 mm	Each	24.80
20	600 x 200 x 100 mm	Each	33.50
21	600 x 200 x 125 mm	Each	40.00
22	600 x 200 x 150 mm	Each	46.40
23	600 x 200 x 200 mm	Each	62.60
24	600 x 200 x 230 mm	Each	72.40
	<b>B. COMFORTILE -Thermal Roof Tile</b>		
25	300 x 200 x 50 mm	Each	9.70
	<b>Supply &amp; fixing of AEROCON PANELS</b>		
26	Supply & fixing of 50mm thick Aerocon sandwich Panels having Tongue and Groove joint for partitions and walls using G.I. Flooring & Ceiling channels, hardware, Labour, transportation, wastages, etc.,as a complete item of work excluding finishings, fittings & fixtures.	Sqm.	918.00
27	Supply & fixing of 75mm thick Aerocon sandwich Panels having Tongue & groove joint for partitions And walls using G.I. Flooring & Ceiling channels, hardware, Labour, transportation, wastages, etc.,As a complete item of work Excluding finishings, fittings & fixtures	Sqm.	1026.00
	<b>AEROCON PANELS</b>		
28	50mm thick x 600mm standard width x 2400mm, 2700mm & 3000mm lengths	Sqm.	648.00
29	75mm thick x 600mm standard width x 2400mm, 2700mm & 3000mm lengths	Sqm.	864.00
	<b>CUDDAPAH/SHAHABAD STONES</b>		
30	Cuddapah/Shahabad slab 40 mm thick and size not less than 0.457 M x 0.457 M	1 Sqm	90.70
31	Cuddapah/Shahabad slab 50 mm thick and size not less than 0.457 M x 0.457 M	1 Sqm	101.50
	<b>Shahabad Stone slab of Tandur 25.4 mm thick</b>		
32	White	10 Sqm	680.40

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
	33	Blue	10 Sqm	734.40
		<b>Shahabad Stone slab of Tandur 50.8 mm thick</b>		
	34	White	10 Sqm	777.60
	35	Blue	10 Sqm	885.60
		<b>Polished Shabad stone slab 25.4mm thick (0.457 x 0.457M)</b>		
	36	White	10 Sqm	1323.00
	37	Blue	10 Sqm	1674.00
	38	Polished black cuddapah slabs 25.4 mm thick (0.457x 0.457M)	10 Sqm	1247.40
	39	Polished Bethamcherla white stone 25.4 mm thick (0.254M x0.254M)	10 Sqm	3267.00
	40	Polished Bethamcherla colored stone 25.4 mm thick (0.254M x0.254M)	10 Sqm	3483.00
	41	High Polished Granite 18 to 20 mm thick up to 8'-00 (2.43 M) other than black	1Sqm	1587.60
	42	High Polished Granite 16 to 18 mm thick up to 8'-00 (2.43 M) other than black	1Sqm	1458.00
	43	High Polished Granite 18 to 20 mm thick up to 8'-00 (2.43 M) black	1Sqm	1360.80
	44	High Polished Granite 16 to 18 mm thick up to 8'-00 (2.43 M) black	1Sqm	1231.20
	45	Rounding the edges of cuddapah Slabs and Shahabad stone slabs & Marble slabs including polishing the same.	1 Rm	27.00
	46	Rounding the edges of Granite slabs including polishing the same.	1 Rm	81.00
	47	Flat nosing to Cuddapah slabs and Shahabad stone slabs 40mm thick	1 Rm	3.90
	48	Flat nosing to Cuddapah slabs and Shahabad stone slabs 50mm thick	1 Rm	4.50
	49	Flat nosing to Cuddapah slabs and Shahabad stone slabs 60mm thick	1 Rm	5.70
	50	Flat nosing to Cuddapah slabs and Shahabad stone slabs 75mm thick	1 Rm	6.50
		<b>FLOORING SLABS/ TILES</b>		
	51	Dongari Adanga marble slab polished 18 mm to 20 mm (average ) thick (size 0.457 M x 0.457 M)/ (0.6M x 0.6M)	1 sqm	486.00
	52	Dongari Adanga marble slab polished 16 mm to 20 mm (average ) thick (size 0.457 M x 0.457 M)/ (0.6M x 0.6M)	1 sqm	432.00
	53	Dongari Adanga marble slab polished 18 mm to 20 mm (average ) thick 0.305 M x 0.305 M	1 sqm	405.00
	54	Dongari Adanga marble slab polished 16 mm to 20 mm (average ) thick 0.305 M x 0.305 M	1 sqm	351.00
	55	Dongari Adanga marble slab polished 18 mm to 20 mm (average ) thick ( 0.610 M width of any length).	1 sqm	648.00
	56	Dongari Adanga marble slab polished 16 mm to 20 mm (average ) thick ( 0.610 M width of any length)	1 sqm	594.00
	57	Marble Tiles polished 8 mm thick	1 sqm	280.80
	58	Cutting marble slabs upto 50 mm thick by mechanical device.	1 RM	5.40
	59	Granite stone tiles 8 mm thick ( mirror polished of all shades)	1 sqm	604.80
	60	Ceramic tiles 7.3mm thick 1st quality of all shades ( as per manufacture specification)	1 sqm	324.00
	61	Chequered Terrazo tiles of 22 mm thick ( Medium shade) 0.254 M x 0.406 M	1 sqm	189.00
	62	Chequered Terrazo tiles of 22 mm thick (Dark shade) 0.254 M x 0.406 M	1 sqm	172.80
	63	Chequered Terrazo tiles of 30 mm thick ( Light shade) 0.305 M x 0.305 M	1 sqm	172.80
	64	Chequered Terrazo tiles of 30 mm thick (Dark shade) 0.305 M x 0.305 M	1 sqm	183.60
	65	Chequered Terrazo tiles of 30 mm thick ( medium shade) 0.305 M x 0.305 M	1 sqm	162.00
	66	Decorated white background glazed tiles 200 mm x 152 mm	1 sqm	397.40
	67	Decorated coloured background glazed tiles 200 mm x 300 mm	1 sqm	443.90
	68	Fantasy Glazed Tiles size 200mm x152 mm	1 sqm	420.10
	69	White glazed Tiles of any size 1st quality	1 sqm	243.00
	70	Glazed coloured Tiles of any size 1st Quality	1 sqm	287.30
	71	Precast Terrazo Tiles 20 mm thick ( Medium shade)	1 sqm	205.20
	72	Precast Terazo Tiles 20 mm thick (dark shade)	1 Sqm	199.80
	73	Supply & Fixing precast Terrazo Tiles Marbleite in white & colour vains 20 mm thcik	1 Sqm	216.00
	74	a) Fixing charges only	1 Sqm	17.80
	75	b) Polishing charges only	1 Sqm	23.80

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
	76	c) Wax polishing charges only.	1 Sqm	14.60
	77	Supply & Fixing precast Terrazo Tiles Marbleite in white tiles 20 mm thick	1 Sqm	167.40
	78	a) Fixing charges only	1 Sqm	17.80
	79	b) Polishing charges only	1 Sqm	23.80
	80	c) Wax polishing charges only.	1 Sqm	14.60
	81	Supply & fixing Terrazo tiles 20 mm thick grey tiles	1 Sqm	97.20
	82	a) Fixing charges only	1 Sqm	17.80
	83	b) Polishing charges only	1 Sqm	23.80
	84	c) Wax polishing charges only.	1 Sqm	14.60
		<b>Supply &amp; fixing of Crazy Marble flooring</b>		
	85	Marble powder	1 Kg	2.10
	86	Marble chips	1 Sqm	351.00
	87	Mosaic chips	1 Sqm	1984.00
	88	Grinding, Polishing, electricity charges	1 Sqm	69.70
	89	Vitrified polished floor tiles 800x 800x10 mm thickness premium type 1st quality	1 Sqm	1220.40
	90	Vitrified polished floor tiles 600x 600x 8mm thickness premium colour 1st quality.	1 Sqm	864.00
	91	Vitrified polished floor tiles 600x 600x 8mm thickness normal colour 1st quality.	1 Sqm	756.00
	92	Vitrified polished floor tiles 400x 400x 7mm thickness normal colour 1st quality.	1 Sqm	702.00
	93	Providing Bisazza glass Tiles Group 1 series or equivalent quality 20 x 20x4 mm thick to be applied on sponge finish using laucratic 290 thin set polymer based adhesive.	1 Sqm	1395.40
	94	Supplying <b>ART CERAMIC OR EQUIVALENT (GT-C2331,GT-C2341,GT-C2332, GT-C2342, GT-C2333, GT-C2343)</b> tiles of 450mmx450mmx3mm and Fixing with solvent for flooring ideal FOR Shops,Restaurants,,Food Plazas, Interior of Shops, Showrooms, VIP lounges, departmental stores etc., inclusive of cost and conveyance of materials and cost of labour inclusive of all taxes at site and rate for finished item.	1 Sqm	1110.00
	95	Labour charges only	1 Sqm	32.50
	96	Supplying <b>DEEP EMBOSSED OR EQUIVALENT (GE-T0051, GE-T0053, GE-T0054, GE-T0055)</b> tiles of 450mmx450mmx3mm and Fixing with solvent for flooring ideal for Corridors, Stairs, Ramps, Hospitals, Entrance Doors, Shops, departmental stores, Railway coaches, Bus coaches etc., inclusive of cost and conveyance of materials and cost of labour inclusive of all taxes at site and rate for finished item.	1 Sqm	1110.00
	97	Labour charges only	1 Sqm	32.50
	98	Supplying <b>METAL OR EQUIVALENT (GT-M0001, GT-M0002, GT-M0015, GT-M0013,GT-M001, GT-M0016)</b> tiles of 450mmx450mmx3mm and Fixing with solvent for flooring ideal for place of Entertainment, House hold Electrical applianceshops,Computer rooms, Conference halls etc., inclusive of cost and conveyance of materials and cost of labour inclusive of all taxes at site and rate for finished item.	1 Sqm	786.00
	99	Labour charges only	1 Sqm	32.50
	100	Supplying <b>TERRAZO OR EQUIVALENT (GT-T9221, GT-T9222, GT-T9223, GT-T9224, GT-T9225)</b> tiles of 450mmx450mmx3mm and Fixing with solvent for flooring ideal for Commercial Establishments, Restaurants, Lobbies, showrooms, Departmental stores etc., inclusive of cost and conveyance of materials and cost of labour inclusive of all taxes at site and rate for finished item.	1 Sqm	786.00
	101	Labour charges only	1 Sqm	32.50
	102	Supplying <b>NOBLE OR EQUIVALENT (GT-N2101, GT-N2102, GT-N2103, GT-N2104, GT-N2105)</b> tiles of 450mmx450mmx3mm and Fixing with solvent for flooring ideal for Exhibition halls, Lounges, Hotels, Restaurant, Departmental stores etc., inclusive of cost and conveyance of materials and cost of labour inclusive of all taxes at site and rate for finished item.	1 Sqm	786.00
	103	Labour charges only	1 Sqm	32.50
	104	Supplying <b>MARBLE OR EQUIVALENT (GT-M9201, GT-M9202)</b> tiles of 450mmx450mmx3mm and Fixing with solvent for flooring ideal for Commercial establishments, lounges, Hotels, Restaurants, Departmental stores, Lobbies etc., inclusive of cost and conveyance of materials and cost of labour inclusive of all taxes at site and rate for finished item.	1 Sqm	786.00
	105	Labour charges only	1 Sqm	32.50

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
106		Supplying <b>ABSTRACT OR EQUIVALENT (GT-A-9308, GTA-9309, GTA9301, GTA9302, GTA9304, GTA8305, GTA-9305, GTA8309)</b> tiles of 450mmx450mmx3mm and Fixing with solvent for flooring ideal for Office corridors,, Hospitals, shops, Departmental stores etc., inclusive of cost and conveyance of materials and cost of labour inclusive of all taxes at site and rate for finished item.	1 Sqm	786.00
107		Labour charges only	1 Sqm	32.50
108		Supplying <b>OA OR EQUIVALENT (GO-A9701)</b> tiles of 450mmx450mmx3mm and Fixing with solvent for flooring ideal for Office, Computer rooms, Banks, Public facilities, Research centres etc., inclusive of cost and conveyance of materials and cost of labour inclusive of all taxes at site and rate for finished item.	1 Sqm	786.00
109		Labour charges only	1 Sqm	32.50
110		Supplying <b>CARPET OR EQUIVALENT (GT-E9701, GT-E9702, GT-E9703, GT-E9711,GT-E9707, GT-E9708, GT-E9709, GT-E9710, GT-E9712, GT-E9713)</b> tiles of 450mmx450mmx3mm and Fixing with solvent for flooring ideal for Office, Lobbies, Showrooms, Various Sles facilities and VIP lounges etc., inclusive of cost and conveyance of materials and cost of labour inclusive of all taxes at site and rate for finished item.	1 Sqm	786.00
111		Labour charges only	1 Sqm	32.50
112		Supplying <b>SOLID OR EQUIVALENT (GT-S9901, GT-S9906)</b> tiles of 450mmx450mmx3mm and Fixing with solvent for flooring ideal for Lounges,Sales outlets, VIP rooms etc., inclusive of cost and conveyance of materials and cost of labour inclusive of all taxes at site and rate for finished item.	1 Sqm	786.00
113		Labour charges only	1 Sqm	32.50
114		Supplying <b>CODI WOOD OR EQUIVALENT (CW 9925-CHERRY, CW 9942 -OAK, CW 9952-BIRCH, CW 9922- CHERRY)</b> tiles of 450mmx450mmx3mm and Fixing with solvent for flooring ideal for Lounges, Hotels, Exhibition,Departmental stores, VIP rooms etc., inclusive of cost and conveyance of materials and cost of labour inclusive of all taxes at site and rate for finished item.	1 Sqm	786.00
115		Labour charges only	1 Sqm	32.50
116		Supplying <b>WOOD CLASSIC OR EQUIVALENT (GWTC-9833, GWTC-9831, GTWC-9832, GTWC-9834, GTWC-9835, GTWC-9836, GTWC-9837)</b> tiles of 450mmx450mmx3mm and Fixing with solvent for flooring ideal for Cafeterias, Restaurant, Clubs, Various shops, Stair case etc., inclusive of cost and conveyance of materials and cost of labour inclusive of all taxes at site and rate for finished item.	1 Sqm	1110.00
117		Labour charges only	1 Sqm	32.50
118		Supplying <b>WOOD ANTIQUE OR EQUIVALENT (GWTA-8452-OAK, GTWA-9403-OAK, GTWA-9417-OAK, GTWA-9410CHERRY, GTWA-9402-MAPLE, GTWA-9411-ALDER, GTWA-0403-CHERRY, GTWA-9416-OAK, GTWA-0405 &amp;0404 WALNUT)</b> tiles of 450mmx450mmx3mm and Fixing with solvent for flooring ideal for Offices, Conference rooms, Living rooms, Kitchens, Sales outlets, Departmental stores,Dance floors etc., inclusive of cost and conveyance of materials and cost of labour inclusive of all taxes at site and rate for finished item.	1 Sqm	786.00
119		Labour charges only	1 Sqm	32.50
120		Supplying <b>DELUXE TILE OR EQUIVALENT (NGX1117, NGX-1101, NGX-1104, NGX-1102, NGX-1109, NGX-1107, NGX-1108, NGX-1105, NGX-1110, NGX-81933, NGX-1106, NGX-1197, NGX-81899, NGX-81918, NGX-1118, NGX-81945)</b> tiles of 450mmx450mmx3mm and Fixing with solvent for flooring ideal for low, medium and high traffic areas etc., inclusive of cost and conveyance of materials and cost of labour inclusive of all taxes at site and rate for finished item.	1 Sqm	463.00
121		Labour charges only	1 Sqm	32.50
		<b>(C) TIMBER AND ROOFING MATERIALS</b>		
		<b>TEAK WOOD</b>		
122		Teak wood scantlings below 2 meters First class	1 cum	56160.00
123		Teak wood scantlings below 2 meters Second class	1 cum	45360.00
124		Teak wood scantlings above 2 meters First class	1 cum	58320.00
125		Teak wood scantlings above 2 meters Second class	1 cum	47520.00
126		Teak wood planks of all sizes First Class	1 cum	61560.00
127		Teak wood Planks of all sizes second class.	1 cum	50760.00

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
	128	Burma Teak Wood Scantlings below 2 meters	1 cum	66960.00
	129	Burma Teak wod Scantings above 2 meters	1 cum	69411.60
	130	Burma Teak wood planks 0.150 M to 1 m	1 cum	83916.00
	131	Assam Teak Wood frames	1 cum	24786.00
	132	Assam Teak Wood Planks	1 cum	30240.00
	133	Sal Wood Frames	1 cum	24786.00
	134	Sal Wood Planks	1 cum	30240.00
	135	Corrugalated Galvanized iron sheets (1 mm thickness)	1 Sqm	198.70
	136	Plain Galvanized Iron sheets	1 Sqm	130.70
	137	Country Nails	1 Kg	22.70
	138	Wire Nails	1 Kg	22.70
	139	Labour charges for petty Iron work for truss straps etc., wrought & plut up (lahour only)	1 Kg	6.50
	140	labour for fabrication of reinforcement including bending and placing at site in position including cost of binding wire	1 Kg	4.30
		Galvanized Steel Barbed wire		
	141	I.O.A. 12 Gauge	1 Kg	23.80
	142	I.O.A. 14 Gauge	1 Kg	22.70
	143	Supply & fixing of Rolling shutter made of 80 x 1.25 mm machine rolled laths (rate includes top cover bearings, and locking arrangements etc. )	1 Sqm	1296.00
	144	Supplying & fixing collapsable steel shutters with verticle, double channel of 20 x10x2 mm of 100 mm center Bracers with flat iron 40x40x6 mm with 38 mm dia steel plully with all fixtures and furniture as per special spn. 1105	1 Sqm	1080.00
		<b>(D) DOOR FITTINGS</b>		
		<b>1) TOWR BOLTS AS PER IS 204</b>		
		<b>BRASS</b>		
	145	100 mm Long	Each	42.10
	146	150 mm Long	Each	62.60
	147	200 mm Long	Each	84.20
	148	250 mm Long	Each	104.80
	149	300 mm Long	Each	128.50
		<b>ALLUMINIUM</b>		
	150	75 MM Long	Each	29.20
	151	100 mm Long	Each	34.60
	152	150 mm Long	Each	42.10
	153	200 mm Long	Each	52.90
	154	250 mm Long	Each	62.60
	155	300 mm Long	Each	73.40
		<b>MILD STEEL (POWDER COATED)</b>		
	156	100 mm Long	Each	10.80
	157	150 mm Long	Each	16.20
	158	200 mm Long	Each	22.70
	159	250 mm Long	Each	31.30
	160	300 mm Long	Each	38.90
		<b>2) BUTT HINGES AS PER IS : 205</b>		
		<b>BRASS</b>		
	161	75 MM Long	Each	18.40
	162	100 mm Long	Each	58.30
	163	125 mm Long	Each	70.20
	164	150 mm Long	Each	92.90
		<b>ALLUMINIUM</b>		
	165	75 MM Long	Each	41.00
	166	100 mm Long	Each	49.70
	167	125 mm Long	Each	58.30
	168	150 mm Long	Each	58.30
		<b>MILD STEEL (POWDER COATED)</b>		
	169	75 mm Long	Each	5.40

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
	170	100 mm Long	Each	9.70
	171	125 mm Long	Each	14.00
	172	150 mm Long	Each	19.40
		<b>3) DOOR HANDLES AS PER IS:208</b>		
		<b>ALLUMINIUM</b>		
	173	75 mm Long	Each	27.00
	174	100 mm Long	Each	31.30
	175	125 mm Long	Each	46.40
	176	150 mm Long	Each	51.80
		<b>MILD STEEL (POWDER COATED)</b>		
	177	125 mm Long	Each	14.00
	178	150 mm Long	Each	20.50
		<b>ALDROPS AS PER IS:2681</b>		
		<b>BRASS</b>		
	179	300 mm long	Each	379.10
		<b>ALLUMINIUM</b>		
	180	200 mm long	Each	122.00
	181	250 mm long	Each	145.80
	182	300 mm long	Each	157.70
		<b>MILD STEEL (POWDER COATED)</b>		
	183	200 mm long	Each	48.60
	184	250 mm long	Each	63.70
	185	300 mm long	Each	75.60
		<b>5) FLAT LATCHES</b>		
		<b>BRASS</b>		
	186	Door Stoppers	Each	75.60
	187	Windows Stay	Each	86.40
		<b>ALLUMINIUM</b>		
	188	200 mm long	Each	58.30
	189	250 mm long	Each	67.00
	190	300 mm long	Each	70.20
		<b>MILD STEEL (POWDER COATED)</b>		
	191	250 mm long	Each	23.80
	192	300 mm long	Each	30.20
	193	Door Stoppers	Each	20.50
	194	Supply & fixing droppery rods (25.4 mm) 1" x 21 G Powder coated with PVC rings	Rft	16.20
	195	Supply & fixing droppery bracket - brass powder coated	pair	189.00
	196	Brass Aldrop heavy duty 350 mm	Each	729.00
	197	Brass Aldrop heavy duty 450 mm	Each	1037.90
	198	Alluminium Aldrop 350 mm ISI marked IS 204	Each	198.70
	199	Alluminium Aldrop 450 mm ISI marked IS 204	Each	251.60
	200	Delux window stay alluminium	Each	54.00
	201	Heavy duty alluminium Door stopper	Each	22.70
	202	Brass fancy handles 150 mm	Each	128.50
	203	Brass fancy handles 200 mm	Each	175.00
	204	Brass fancy handles 250 mm	Each	315.40
	205	Brass fancy handles 300 mm	Each	402.80
	206	Brass fancy handles 450 mm	Each	629.60
	207	Door closer automatic hyper brand IS 3564	Each	527.00
	208	Double action brass plate floor spring Hyper brand IS 6315	Each	727.90
	209	Floor spring 1st Quality for Aluminium door	Each	1283.00
	210	Heavy duty mortice lock 6/7 levers with PC or CP handles complete set	Each	326.20
	211	Heavy duty mortice lock 6/7 levers with brass heavy handles	Each	1137.20
	212	Brass latch heavy 300 mm	Each	238.70
	213	Brass latch heavy 350 mm	Each	274.30



Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
	214	Brass latch heavy 450 mm	Each	361.80
	215	Friction stay hinges for windows	Each	48.60
	216	Keyless lockset for toilet with CP or PC handles (complete set)	Each	140.40
	217	Keyless lock set for toilet with brass handles	Each	373.70
		<b>(E) MISCELLANEOUS ITEMS</b>		
	218	Alluminium sheet 24 Gauge	1 Sqm	180.40
		<b>Alluminium strips</b>		
	219	Alluminium Strip 40 mm wide and 2 mm thick	1 Kg.	125.30
	220	Alluminium plain strip edging 38x12x3 mm	Metre	40.00
	221	Alluminium plain strip edging 57x12x3 mm	Metre	57.20
	222	Alluminium strips 10 mm	1 Kg.	113.40
	223	Alluminium Strips 25 mm	1 Kg.	113.40
	224	Alluminium Stips 38 mm wide and 1.6 mm thick.	1 Kg.	113.40
	225	7.5mm thick Alluminium Grill (as approved by the department) 3.58 Kg/Sq.m.	1 Sqm	664.20
	226	Supply & fixing MS/CI grills of any design	1 Kg.	32.40
	227	Mastic pad 2'0 " x 4'0" (0.60M x 1.2M) of 1" (25.4 mm ) thick	1 Sqm	530.30
	228	Mastic pad 2'0 " x 4'0" (0.60M x 1.2M) of 1/2" (12.7 mm ) thick	1 Sqm	303.50
	229	Expanded metal Jally 3/4" (19.05 mm ) size	1 Sqm	82.10
	230	GI (M.S) fly proof wire mesh 16 x 20 guage	1 Sqm	111.20
	231	SS fly proof mesh	1 Sqm	270.00
	232	Chain link mesh 8 guage 2" x2" (50.8 mm x 50.8 mm)	1 Sqm	128.50
	233	Chain link mesh 8 guage 3" x 3" (76.2 mm x 76.2 mm)	1 Sqm	87.50
	234	Chain link mesh 8 guage 4"x4" (101.6 mm x 101.6 mm)	1 Sqm	74.50
	235	Rabbit wire mesh (chicken mesh)	1 Sqm	8.60
	236	Providing Tarfelting roof repairs duly applying one coat of appropriate grade of bitumen in hot condition @ 1.2 Kg/1Sqm of roof area, fixing tarfelt (Manufactures to IS 1322/1972 specification), applying second coat of appropriate grade of hot bitumen at 1.20 Kg/1Sqm of roof area and spreading course aggregate (sand ) at 0.063 cum per 1 Sqm of roof area finished item including all taxes.	1 Sqm	113.40
	237	ROOFSHIELD-1500 OR EQUIVALENT (1.50 mm thickness, 2.25Kg per Sq.Mt and 20 X1 Mtr. roll with a center core of 90 micron thickness HMHDPE film) Water Proofing Membrane.A) apply one coat of Butiminous Emulsion, first coat of bituminous grade 85/25, fix "ROOFSHIELD-1500 OR EQUIVALENT" water proofing membrane, apply second coat of Bitumen grade 90/15 after sealing all the joints and abutments with a Gas torch and apply one coat of BITUMINOUS ALUMINIUM PAINT for heat resistance for finished item including all taxes	1 Sqm.	175.00
	238	Supply, laying & fixing of 60mm thick cement Mosaic reflective concrete pavers from "Super decorative floorings" make of grade M-40 and above including labour charges, loading & unloading, laying to desired lines and levels complete. However cement, sand, water, electricity etc shall be provided by you free of cost at site.	1 Sqm.	581.00
	239	Supply, laying & fixing of 30mm thick cement Mosaic reflective concrete pavers from "Super decorative floorings" make of grade M-40 and above including labour charges, loading & unloading, laying to desired lines and levels complete. However cement, sand, water, electricity etc shall be provided by you free of cost at site.	1 Sqm.	522.70
		<b>WATER PROOFING &amp; CONSTRUCTION CHEMICALS AND EPOXIES</b>		
		<b>Any company make As per I.SI. Standards, First Quality Rate (exfactory) including all taxes</b>		
		<b>A) Concrete Admixtures and Plasticisers</b>		
		<b>Conflow SNP1 or Equivalent</b>		
	240	Pack size 1 litre	1 litre	38.60
		<b>Conflow SNP20 or Equivalent</b>		
	241	Pack size 1 litre	1 litre	48.60
		<b>Conflow SNPA or Equivalent</b>		
	242	Pack size 1 litre	1 litre	63.40
		<b>B) Super Plasticisers</b>		
		<b>Conflow SNS I OR EQUIVALENT.</b>		
	243	Pack size 1 Ltr	Ltr	48.60

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
		<b>Conflow SNS 2 OR EQUIVALENT.</b>		
	244	Pack size 1 Ltr	Ltr	48.60
		<b>Accelerating Plasticisers</b>		
		<b>Conflow SNA OR EQUIVALENT.</b>		
	245	Pack size 1 Ltr	Ltr	60.50
		<b>Retarding Plasticisers</b>		
		<b>Conflow SNR OR EQUIVALENT.</b>		
	246	Pack size 1 Ltr	Ltr	38.60
		<b>Air Entraining Agents</b>		
		<b>Conflow SNE OR EQUIVALENT.</b>		
	247	Pack size 1 Ltr	Ltr	38.60
		<b>Retarding super Plasticisers</b>		
		<b>Conflow SNS3 SPL OR EQUIVALENT</b>		
	248	Pack size 1 Ltr	Ltr	48.60
		<b>Conflow SNS3 OR EQUIVALENT</b>		
	249	Pack size 1 Ltr	Ltr	63.40
		<b>Mortar Plasticisers</b>		
		<b>Morflow SN1 OR EQUIVALENT</b>		
	250	Pack size 1 Ltr	Ltr	18.40
		<b>Integral Water Proofing compounds</b>		
		<b>Conflow SNW1 OR EQUIVALENT</b>		
	251	Pack size 1 Ltr	Ltr	56.00
		<b>Conflow SNW2 OR EQUIVALENT</b>		
	252	Pack size 25 Kg	Kg	8.30
	253	Pack size 750 Gms	Pack	10.20
		<b>Block Admixtures</b>		
		<b>Conflow SNB OR EQUIVALENT</b>		
	254	Pack size 1 Ltr	Ltr	19.30
		<b>Sprayed Concrete Accelerators</b>		
		<b>Shotset SN1 OR EQUIVALENT</b>		
	255	pack size 250 Kg.	Kg	19.30
		<b>B) Concrete surface Treatments curing compounds</b>		
		<b>CURAID SN1 OR EQUIVALENT</b>		
	256	Pack size 1 Ltr	Ltr	48.60
		<b>CURAID SN2 OR EQUIVALENT</b>		
	257	Pack size 1 Ltr	Ltr	50.50
		<b>Formwork &amp; Mould Treatment</b>		
		<b>Shutterol SNU OR EQUIVALENT</b>		
	258	Pack size 1 Ltr	Ltr	48.70
		<b>Cleaning Agents</b>		
		<b>Uniklen SN1 OR EQUIVALENT</b>		
	259	Pack size 1 Ltr	Ltr	20.20
		<b>Uniklen SN2 OR EQUIVALENT</b>		
	260	Pack size 1 Ltr	Ltr	45.00
		<b>Uniklen SN3 OR EQUIVALENT</b>		
	261	Pack size 1 Ltr	Ltr	107.50
		<b>C)Free flow - Non shrink Grouts</b>		
		<b>Pre – Packed Cementitious Grouts</b>		
		<b>Expacrete SN 50 OR EQUIVALENT</b>		
	262	Pack size 25 Kg	Kg	8.30
		<b>Expacrete SN 70 OR EQUIVALENT</b>		
	263	Pack size 25 Kg	Kg	10.20
		<b>Expacrete SN 90 OR EQUIVALENT</b>		
	264	Pack size 25 Kg	Kg	15.70
		<b>Expacem SN 2 OR EQUIVALENT</b>		
	265	Pack size 250 gm	pack	23.80

Sl. No.	S.S. No.	Item Description	Unit (per)	S S RATE FOR 2005-06
		<b>Epoxy Resin Grouts</b>		
		<b>Expacrete SNE 1 OR EQUIVALENT</b>		
	266	Pack size 1 Kg	Kg	510.30
		<b>Expacrete SNE 3 OR EQUIVALENT</b>		
	267	Pack size 15 Kg	pack	1944.00
		<b>Polyster Resin Grouts</b>		
		<b>Anchrset SN1 OR EQUIVALENT</b>		
	268	Pack size 1 Kg	pack	121.50
		<b>Anchrset SN2 OR EQUIVALENT</b>		
	269	Pack size 10 Kg	pack	1142.10
		<b>D) Industrial Flooring systems</b>		
		<b>Floor Hardeners</b>		
		<b>Flortop SNC OR EQUIVALENT</b>		
	270	pack size 25 Kg	Kg	19.30
		<b>Floor top SNS OR EQUIVALENT</b>		
	271	Pack size 25 Kg.	Kg	11.90
		<b>Expoxy Floor coating &amp; protective coatings</b>		
		<b>Procoat SNF or Equivalent</b>		
	272	Pack size 1 Kg	Pack	403.40
		<b>Procoat SNS or Equivalent</b>		
	273	Pack size 1 Kg	Pack	335.30
		<b>Essenputty SNE or Equivalent</b>		
	274	pack size 1 Kg	Pack	204.10
		<b>Procoat SNZ or Equivalent</b>		
	275	Pack size 1 Ltr	Pack	486.00
		<b>Procoat SNL or Equivalent</b>		
	276	Pack size 2.5 Kg.	Pack	704.70
		<b>Epoxy Self Levelling (Flooring system)</b>		
		<b>Flortop SNSL or Equivalent</b>		
	277	Pack size 14 Kg	Pack	2818.80
		<b>Flortop SNSL (SPL) or Equivalent</b>		
	278	Pack size 14 Kg	Pack	2148.10
		<b>Heavy Duty Epoxy Base (Flooring system)</b>		
		<b>Flortop SNM or Equivalent</b>		
	279	Pack size 16 Kg	Pack	1142.10
		<b>Flortop SNFM or Equivalent</b>		
	280	Pack size 16 Kg	Pack	874.80
		<b>Epoxy resin primer</b>		
		<b>Florcoat SNP or Equivalent</b>		
	281	Pack size 1 Kg	Pack	486.00
		<b>Procoat SNC or Equivalent</b>		
	282	pack size 3 Kg	Pack	806.80
		<b>Procoat SNP or Equivalent</b>		
	283	pack size 1 Kg	Pack	470.90
		<b>Procoat SNP2 or Equivalent</b>		
	284	pack size 3 Kg	Pack	845.60
		<b>E) Repair Products</b>		
		<b>Reprecrete SNC or Equivalent</b>		
	285	Pack size 25 Kg	Kg	11.90
		<b>Reprecrete SNE1 or Equivalent</b>		
	286	Pack size 16 kg	Pack	1341.40
		<b>Reprecrete SNW Primer or Equivalent</b>		
	287	Pack size 1 Kg	Pack	670.70
		<b>Reprecrete SNW Mortor or Equivalent</b>		
	288	Pack size 1 Kg	Pack	189.50
		<b>Uniplug SN or Equivalent</b>		

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
	289	pack size 5 Kg	Kg	25.70
		<b>F) Water Proffing Systems</b>		
		<b>Aquacoat SNF or Equivalent</b>		
	290	Pack size 15+5 Kg	Pack	1477.40
		<b>Water Repellants</b>		
		<b>Aquarepel SN1 or Equivalent</b>		
	291	Pack size 1 Ltr	Ltr	45.90
		<b>G) Adhesive Tile Adhesives</b>		
		<b>Tilegrip SNU or Equivalent</b>		
	292	Pack size 15 Kg	Kg	15.70
		<b>Bonding Adhesives</b>		
		<b>Conbond SNA or Equivalent</b>		
	293	Pack size 1 Ltr	Ltr	204.10
		<b>Conbond SNE or Equivalent</b>		
	294	Pack size 1 Kg	Pack	558.90
		<b>Note:</b> Literature for usage / application of above construction /water proofing materials, epoxies etc, will be obtained from manufacturers.		
		<b>BITUMINOUS HOT SEALING COMPOUND</b>		
	295	Grade 'A' I.S.I excluding 16 % Tax	1 Kg	17.30
	296	Bitumen solution primer of aproved quality excluding 16 % tax	1 Kg	28.10
	297	Tar Felt Type - 2 Grade - 1	1 sqm	50.80
		<b>GLASS</b>		
	298	Plain Glass 4 mm thick	1 sqm	189.00
	299	Plain Glass 5 mm thick	1 sqm	259.20
	300	Tinted Glass 4 mm thick	1 sqm	356.40
	301	Tinted Glass 5 mm thick	1 sqm	475.20
	302	Pin headed Glass 4 mm thick	1 sqm	172.80
	303	Ground Glass 4 mm thick	1 sqm	248.40
	304	Ground Glass 5 mm thick	1 sqm	324.00
		<b>JALI (CEMENT CONCRETE)</b>		
	305	25 mm thick	1 sqm	91.80
	306	40 mm thick	1 sqm	118.80
	307	50 mm thick	1 sqm	162.00
		<b>BRUSHES</b>		
	308	Wire Brush	Each	21.60
	309	Soft Brush	Each	97.20
		<b>DISTEMPERS</b>		
	310	Dry Powder Distemper	1 Kg	21.60
	311	Oil Bound Washable Distemper	1 Kg	54.00
		<b>POLISH</b>		
	312	French Spirit Polish	1 Ltr	97.20
	313	Wax Polish (Ready made)	1 Kg	194.40
	314	Putty for steel work	1 Kg	14.00
	315	Putty for wood work	1 Kg	30.20
	316	Malamine Polish including cost & labour charges	1Sqm	297.00
		<b>PAINTS (CONFORMING TO I.S.I)</b>		
	317	Alluminium paint 1st Grade	1 Ltr	194.40
	318	Anti Corrosive bitumen paint (Black ) grade1	1 Ltr	297.00
	319	Red Oxide Primer Paint Grade -1	1 Ltr	70.20
	320	Red Oxide Primer Paint Grade – II	1 Ltr	54.00
	321	Synthetic Enamel paints in all shades Grade - I	1 Ltr	135.00
	322	Synthetic Enamel paints in all shades Grade - II	1 Ltr	97.20
	323	Plastic Emulsion Paint Grade – I	1 Ltr	216.00
	324	Water proof Cement paint of Superior Quality	1 Kg	29.20
	325	White Lead	1 Kg	56.20
	326	Marble Powder	1 Kg	14.00

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
	327	Cement primer Grade –I	1 Kg	70.20
	328	Cement primer Grade –II	1 Kg	54.00
	329	Impervios Water Proofing compound	1 Kg	18.40
	330	Fevicol/Wood adhesive compound	1 Kg	118.80
	331	Wood Primer	1 Ltr	97.20
	332	Oil bound Distemper Primer.	1 Ltr	54.00
	333	Supplying and finishing (Altek or equivalent brand) to interior faces of new walls and ceiling of approved colour as per manufacturers specification including cost and conveyance of materials to site and labour charges such as preparing the wall, applying primary coat etc, complete for finished item of work.	1 Sqm	70.20
	334	Altek paint	25 Kg	313.20
	335	Trump	1 Ltr	129.60
	336	Snowcem or equivalent quality	25 Kg	864.00
	337	Surya Cem or equivalent quality	25 Kg	162.00
	338	a).Unitek Fine Grade or equivalent brand	25kg	259.20
		b).Supply and finishing of Unitek fine Grade or equivalent brand t with superfine grade to interior faces of new walls and ceiling of approved colour as per manufacturers specification including cost and conveyance of materials to site and labour charges such as preparing the wall, applying the primary coat etc., complete for finished item of work	1 sqm	99.40
	339	Unitek Superfine Grade or equivalent brand	25kg	280.80
	340	Supply and finishing of Unitek Superfine Grade or equivalent brand to interior faces of new walls and ceiling of approved colour as per manufacturers specification including cost and conveyance of materials to site and labour charges such as preparing the wall, applying the primary coat etc., complete for finished item of work	1sqm.	70.20
	341	Unitek Granito Grade or equivalent brand	1kg	1296.00
	342	Unitek Granito Grade or equivalent brand	5kg	6318.00
	343	Unitek Granito Grade or equivalent brand	20kg	25110.00
	344	Supply and finishing of Unitek Granito Grade or equivalent brand to interior faces of new walls and ceiling of approved colour as per manufacturers specification including cost and conveyance of materials to site and labour charges such as preparing the wall, applying the primary coat etc., complete for finished item of work	1sqm.	1274.40
		a).Unitek Superfine (Water resistant )Grade or equivalent brand	25kg	810.00
	345	b).Supply and finishing of Unitek Superfine(Water resistant)Grade or equivalent brand to interior and exterior faces of new walls and ceiling of approved colour as per manufacturers specifications including cost and conveyance of materials to site and labour charges such as preparing the wall,applying the primary coat etc.,complete for finished item of work.	1 sqm.	135.00
	346	Unitek Orient Grade or equivalent brand	25kg	1058.40
	347	Supply and finishing of Unitek Orient Grade or equivalent brand to interior and exterior faces of new walls and ceiling of approved colour as per manufacturers specification including cost and conveyance of materials to site and labour charges such as preparing the wall, applying the primary coat etc., complete for finished item of work	1sqm.	194.40
	348	Unitek Antico Grade or equivalent brand	25kg	1123.20
	349	Supply and finishing of Unitek Antico Grade or equivalent brand to interior and exterior faces of new walls and ceiling of approved colour as per manufacturers specification including cost and conveyance of materials to site and labour charges such as preparing the wall, applying the primary coat etc., complete for finished item of work	1Sqm.	178.20
	350	Supply & Application of Two Coats of Alltek Super Fine, One Coat of Alltek Water Based Cement Primer & Two Coats of Alltek Flora (Plastic Emulsion Paint)	1 Sqm.	97.00

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
	351	Supply & Application of Two Coats of Alltek Super Fine, One Coat of Alltek Water Based Cement Primer & Two Coats of Delight (Acrylic Washable Distemper)	1 Sqm.	81.00
	352	Supply & Application One Coat of Alltek Water Based Cement Primer & Two Coats of Alltek Harmony (Acrylic Emulsion Paint Extr. Grade).	1 Sqm.	86.00
	353	Supply & Application of One Coat of Alltek Water Based Cement Primer & Two Coats of Alltek Alltime (100% Pure Acrylic Emulsion Paint)	1 Sqm.	118.00
		<b>ANTI TERMITE TREATMENT TO OLD &amp; EXISTING BUILDINGS</b>		
	354	Providing post construction anti termite treatment to drilling 1/2 inch dia., holes in 12mm depth at the edges of wall floor junction every foot apart and pouring anti termite chemical (Chloriphosphos 20% E.C / Lindine - 20 % E.C. ) with a hand operator pressure pump until refusal or to a maximum of one litre per hole. Holes will sealed with cement motor after treatment and providing spraying and injenction termiticides fro treating and applying doors, windows, frames, removing , crusting treating with preventive chemicals ( the plinth area of the building each floor shall be taken for purpose of payment) finished item including all costs, conveyances and all taxes.	1 Sqm.	118.00
	355	Providing pre construction anti termite treatment for new buildings:Providing, applying and Injecting for pre construction anti termite treatment to wall tenches bottom excavation, foundations, vertical walls, top surface of plinth filling wall and floor junctions, joints, conduits and external perimeter of the building (Chloriphosphos 20% E.C / Lindine - 20 % E.C. ) with a hand operator pressure pump at applicable areas as per site condition in various stages as per IS: 6313, the plinth area of the building each floor shall be taken for purpose of payment and finished item including all costs, conveyances and all taxes.	1 Sqm.	133.00
	356	Vinycide, Matt finish plastic emulsion Artilin Anti Insect paint OR EQUIVALENT for interior walls and ceilings, which will be applied on cement plastered surface, brick, old matt finish paints adhering to the substrate, wood etc., washable finished item .	1 Sqm.	226.00
	357	Kremasoie INS, Semi gloss finish Artilin Anti Insect paint OR EQUIVALENT for interior and exterior surfaces, which will be applied on cement plastered surface, brick, old matt finish paints adhering to the substrate, wood, wood products, plasttic products, tiles, glass textile covering etc., washable finished item .	1 Sqm.	262.00
	358	Kremacryl, Matt finish Artilin Anti Insect paint OR EQUIVALENT for interior and exterior, which will be applied on cement plastered surface, brick, old matt finish paints adhering to the substrate, wood etc., washable finished item .	1 Sqm.	287.00
	359	Vernis 107, Semi gloss finish transparent Artilin Anti Insect Varnish OR EQUIVALENT for wood work, works against wood borers and termites also for interiors only, which will be applied on wooden surfaces, steel surfaces and tiles, washable finished item .	1 Sqm.	262.00
	360	Kermasoie Fongicide, Semi gloss finish Artilin Anti Fungus paint OR EQUIVALENT for inneriors and exteriors which will be applied on cement plastered surface, brick, old Matt finish paints adhering to the substrate,wood and wood products, plaster products, tiles and glass textile covering etc., washable finished item .	1 Sqm.	237.00
	361	Kermasoie INS& Fong, Semi gloss finish acrylic Artilin Anti Insect and Anti Fungus paint OR EQUIVALENT for inneriors and exteriors which will be applied on cement plastered surface, brick, old Matt finish paints adhering to the substrate,wood and wood products, plaster products, tiles and glass textile covering etc., washable finished item .	1 Sqm.	292.00
	362	Bactesoie, Semi gloss finish Artilin bactericidal and fungicidal paint OR EQUIVALENT for inneriors only which will be applied on cement plastered surface, brick, old Matt finish paints adhering to the substrate,wood and wood products, plaster products, tiles and glass textile covering etc., washable finished item .	1 Sqm.	320.00
		<b>Prelaminated particle Board</b>		
		<b>(One side choice colour and other side balancing white lamination)</b>		
		<b>A EXTERIOR (GRADE-I)</b>		
	363	9 mm thick	1 Sqm	567.00
	364	12 mm thick	1 Sqm	626.40
	365	18 mm thick	1 Sqm	756.00
	366	25 mm thick	1 Sqm	816.50
		<b>B. REGULAR (GRADE -II)</b>		
	367	9 mm thick	1 Sqm	489.20

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
	368	12 mm thick	1 Sqm	542.20
	369	18 mm thick	1 Sqm	614.50
	370	25 mm thick	1 Sqm	722.50
		<b>Prelaminated particle Board</b>		
		<b>(Both sides choice colour of same shade)</b>		
		<b>C. EXTERIOR (GRADE -I)</b>		
	371	9 mm thick	1 Sqm	659.90
	372	12 mm thick	1 Sqm	723.60
	373	18 mm thick	1 Sqm	877.00
	374	25 mm thick	1 Sqm	950.40
		<b>D. REGULAR (GRADE - II)</b>		
	375	9 mm thick	1 Sqm	565.90
	376	12 mm thick	1 Sqm	618.80
	377	18 mm thick	1 Sqm	705.20
	378	25 mm thick	1 Sqm	803.50
		<b>Particle Board (Exterior Grade ) (Bhutan or Equivalent)</b>		
		<b>A. Plain Particle Board</b>		
	379	8 mm thick	1 Sqm	208.40
	380	12 mm thick	1 Sqm	232.20
	381	18 mm thick	1 Sqm	303.50
	382	21.4 mm thick	1 Sqm	356.40
	383	25 mm thick	1 Sqm	403.90
	384	35 mm thick	1 Sqm	659.90
		<b>Melamine Faced prelaminated</b>		
		<b>B. Particle Board (Single Deco)</b>		
	385	8 mm thick	1 Sqm	432.00
	386	12 mm thick	1 Sqm	489.20
	387	18 mm thick	1 Sqm	567.00
	388	25 mm thick	1 Sqm	642.60
	389	35 mm thick	1 Sqm	1069.20
		<b>Melamine Faced prelaminated</b>		
		<b>C. Particle Board (Twin Deco)</b>		
	390	8 mm thick	1 Sqm	496.80
	391	12 mm thick	1 Sqm	567.00
	392	18 mm thick	1 Sqm	656.60
	393	25 mm thick	1 Sqm	726.80
	394	35 mm thick	1 Sqm	1366.20
		<b>Particle Board (Interior Grade)(Bhutan or Equivalent)</b>		
		<b>A. Plain Particle Board</b>		
	395	6 mm thick	1 Sqm	166.30
	396	8 mm thick	1 Sqm	178.20
	397	10 mm thick	1 Sqm	196.60
	398	12 mm thick	1 Sqm	208.40
	399	18 mm thick	1 Sqm	256.00
	400	21.4 mm thick	1 Sqm	303.50
	401	25 mm thick	1 Sqm	320.80
	402	35 mm thick	1 Sqm	558.40
		<b>Melamine Faced Prelaminated</b>		
		<b>B. Particle Board (Singel Deco)</b>		
	403	8 mm thick	1 Sqm	380.20
	404	10 mm thick	1 Sqm	402.80
	405	12 mm thick	1 Sqm	425.50
	406	18 mm thick	1 Sqm	489.20
	407	25 mm thick	1 Sqm	553.00
		<b>Melamine Faced prelaminated</b>		
		<b>C. Particle Board (Twin Deco)</b>		

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
	408	8 mm thick	1 Sqm	434.20
	409	10 mm thick	1 Sqm	475.20
	410	12 mm thick	1 Sqm	492.50
	411	18 mm thick	1 Sqm	563.80
	412	25 mm thick	1 Sqm	619.90
		<b>NATURAL COLOUR INSULATING BOARD</b>		
	413	12 mm thick	1 Sqm	160.90
	414	18 mm thick	1 Sqm	237.60
	415	25 mm thick	1 Sqm	302.40
		<b>WHITE FACE INSULATING BOARD</b>		
	416	12 mm thick	1 Sqm	196.60
	417	18 mm thick	1 Sqm	279.70
	418	25 mm thick	1 Sqm	249.50
	419	Extra for venerated particle Board with commercial venerring on both sides.	1 Sqm	95.00
	420	Venering on both sides with one side teak venerated and other side commercial venerated	1 Sqm	202.00
	421	Teak venering on both sides	1Sqm	315.40
	422	Particle Board 12 mm thick (Three Layer)	1 Sqm	249.50
		<b>PANELS</b>		
		<b>Plain particle Board (PPB) (Interior Grade)</b>		
	423	9 mm thick	1 Sqm	205.20
	424	12 mm thick	1Sqm	227.90
	425	15 mm thick	1 Sqm	258.10
	426	18 mm thick	1Sqm	285.10
	427	21.4 mm thick	1 Sqm	324.00
	428	25 mm thick	1Sqm	343.40
		<b>Plain particle Board (PPB) (Exterior Grade)</b>		
	429	9 mm thick	1 Sqm	273.20
	430	12 mm thick	1Sqm	295.90
	431	15 mm thick	1 Sqm	353.20
	432	18 mm thick	1Sqm	385.60
	433	21.4 mm thick	1 Sqm	446.00
	434	25 mm thick	1Sqm	482.80
		<b>Prelaminated particle Board (OSL) (Interior Grade)</b>		
	435	9 mm thick	1 Sqm	419.00
	436	12 mm thick	1Sqm	451.40
	437	15 mm thick	1 Sqm	497.90
	438	18 mm thick	1Sqm	529.20
	439	21.4 mm thick	1 Sqm	568.10
	440	25 mm thick	1Sqm	594.00
		<b>Prelaminated particle Board (OSL) (Exterior Grade)</b>		
	441	9 mm thick	1 Sqm	470.90
	442	12 mm thick	1Sqm	529.20
	443	15 mm thick	1 Sqm	565.90
	444	18 mm thick	1Sqm	600.50
	445	21.4 mm thick	1 Sqm	661.00
	446	25 mm thick	1Sqm	698.80
		<b>Prelaminated particle Board (BSL) (Interior Grade)</b>		
	447	9 mm thick	1 Sqm	475.20
	448	12 mm thick	1Sqm	516.20
	449	15 mm thick	1 Sqm	548.60
	450	18 mm thick	1Sqm	587.50
	451	21.4 mm thick	1 Sqm	661.00
	452	25 mm thick	1Sqm	737.60
		<b>Prelaminated particle Board (BSL) (Exterior Grade)</b>		
	453	9 mm thick	1 Sqm	527.00



Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
	454	12 mm thick	1Sqm	590.80
	455	15 mm thick	1 Sqm	643.70
	456	18 mm thick	1Sqm	709.60
	457	21.4 mm thick	1 Sqm	740.90
	458	25 mm thick	1Sqm	771.10
		<b>LAMINATED SHEETS (EQUIVALENT TO DECOLAM)</b>		
		<b>Glossy Finish</b>		
	459	1.00 mm thick	1 Sqm	256.00
	460	1.50 mm thick	1Sqm	368.30
	461	1.80 mm thick	1Sqm	403.90
		<b>Mat Finish</b>		
	462	1.00 mm thick	1 Sqm	273.20
	463	1.50 mm thick	1 Sqm	380.20
	464	1.80 mm thick	1Sqm	410.40
		<b>MEDIUM FIBRE BOARD INTERIOR GRADE (EQUIVALENT TO NUWUD)</b>		
	465	6 mm thick	1 Sqm	261.40
	466	8 mm thick	1Sqm	297.00
	467	12 mm thick	1 Sqm	398.50
	468	15 mm thick	1Sqm	505.40
	469	18 mm thick	1 Sqm	564.80
	470	25 mm thick	1Sqm	802.40
	471	30 mm thick	1 Sqm	968.80
	472	35 mm thick	1Sqm	1057.30
		<b>MEDIUM FIBRE BOARD EXTRIOR GRADE (EQUIVALENT TO NUWUD)</b>		
	473	6 MM Thick	1 Sqm.	357.50
	474	8 MM Thick	1 Sqm.	415.80
	475	12 MM Thick	1 Sqm.	549.70
	476	15 MM Thick	1 Sqm.	691.20
	477	18 MM Thick	1 Sqm.	773.30
	478	25 MM Thick	1 Sqm.	1031.80
	479	30 MM Thick	1 Sqm.	1284.70
	480	35 MM Thick	1 Sqm.	1517.40
		<b>GLOSSY FINISH</b>		
	481	1 mm thick	1 Sqm.	230.00
		<b>MATT FINISH</b>		
	482	1 mm thick	1 Sqm.	245.00
		<b>PARTICLE BOARD CEILINGS</b>		
	483	Gypsum Board 0.595 M x 0.595 M 12.5 mm thick of IS 2095 -1992'	1 Sqm	190.10
	484	False ceiling with 12.5 mm Gypsum Board IS 2095 -1982 using Gyp steel section including installation and complete finish excluding painting.	1 Sqm	577.80
	485	Supply & fixing GVP board 0.595 x 0.595M 12.5mm thick tile using fine line grid system including installation and complete finished excluding painting	1 Sqm	640.40
		<b>Gypboard wall lining :</b>		
	486	Supply & fixing of Gypboard wall lining using 9.5/12.5 mm thick Gyp - board (cnforming to IS 2095-1982), fixing to Gypsteel GI channels of perimeter channel (20mm x30mm x27mm x0.55mm thick) and ceiling channels of (51.5 mm x 26mm x26mmx10.5mmx0.55mm thick) and fixing and finishing using joint compound and paper tapecomplete finish as per specification without painting.	1 Sqm	591.80
		<b>Gypboard plain false ceiling:</b>		
	487	Supply and fixing of Gypboard plain false ceiling using 12.5 mm thick Gypboard conforming to IS 2095 -1982, fixing to Gypsteel GI channels frame work using perimeter channel (20mm x30mmx27mmx0.55mm) Intermediate channels (45mm x15mmx15mmx0.9mm) and ceiling channels (51.5 mm x26mm x10.5mm x 0.55 mm thick) jointing and finishing using joint compound and paper tape complete finish as per specification without painting	1 Sqm	651.20
		<b>Gypboard (fine line) Grid suspended ceiling</b>		

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
		<b>Supply and fixing of Gypboard (conforming to IS 2095-1982 ) FALSE CEILING WITH FINE LINE EXPOSED Grid suspended ceiling system using pre-coated galvanized steel main "T" section (24x38x0.35 mm thick x 3600 mm) Cross "T" (24x38x0.35mm x 600mm)and wall angle of (24x24x0.8 mm thick x 3050 mm) to form Grid size 600x 600 mm using MS Rods, "J" Bolts and anchor fasteners etc as per specification &amp; as directed by dept, officers.</b>		
	488	Using Plain Gypsum Board 9.5 mm laid on to the Grid	1 sqm	534.60
	489	Using Plain Gypsum board 12.5 mm laid on to the Grid.	1 Sqm	577.80
		<b>Gypboard metal stud partition single layer:-</b>		
	490	Supply &fixing 75mm thick metal stud partition using 12.5 mm thick Gypboard conforming to IS 2095-1982 screw fixed to either side to 48 mm studs of 0.55 mm thick with the 50 mm floor and ceiling channel 0.55 mm and the joints duly finished with joint compound, paper tape and two coats Dry wall top coat as per specification.	1 Sqm	972.00
	491	Providing false ceiling with 15 mm thick Arm strong mineral fiber Board fine finished of size 600x 600mm fixed over Aluminum frame using "T" Angles 38.1x25.4 mm (1 1/2" x1") size heavy duty weight suspended from roof using 6mm dia MS Rod hooking over roof replacement and outer attached to the "J" Bolts fixed to the "T" angles including Cost & conveyance of all materials and labour charges such as cutting , fixing of standing of frame work exposing roof making complete for finished item of work	1 Sqm	702.00
	492	Providing wooden paneling 12 mm thick Novapan one side laminated sheet fixed on wooden frame of BT wood size 50.8 mm x 25.4 mm (2"x1") at distance of 609.6mm (2'-0") intervals of both ways providing 3/4" x 1/2" (19.05 mm x 12.7 mm ) size BT wood ornamental cover beeding and necessary screws, fevical glue complete for finished item of work.	1 Sqm	1312.20
	493	Supply , manufacturing , installing of library Rack of 19 mm thick ISI marked commercial ply All round boxing verticals, Horizontal for depth of 609.6mm (2'-0) and shelves with 3.5 mm thick teak veneer covered with on exposed surface externally and internally and each panels with 6mm thick ISI commercial ply with 3.5 mm thick teak veneer for glazed shutters teak wood size 55 mm x 28mm with 5 mm thick glass fixed with ornamental beeding and other ornamental beading is covered as per drawing including brass hinges, ornamental handles, ball catchters, buffers, locking system etc, and all the commercial ply exposed edges are to be covered with 6 mm thick teak wood lipping. All the teak veneer and teak wood and ornametnal beading is to coated with polishing and a coat of melamine finish etc, complete for finished item of work.	1 Sqm	5616.00
	494	Thermocole 12 mm thick	1 Sqm	20.50
	495	Thermocole 19 mm thick	1 Sqm	35.60
		<b>Supply &amp;fixing thermocole false ceiling 2' x 2' (609.6 mm x 609.6 mm ) size with all necessary fittings for finished item of work.</b>		
	496	25 mm thick	1 Sqm	362.90
	497	19 mm thick	1 Sqm	339.10
	498	Plaster of paris 12 mm thick	1 Sqm	356.40
	499	Plaster of Paris 10 mm thick	1 Sqm	297.00
	500	Supply & fixing Plaster of paris false ceiling with all necessary fittings for finished item of work.	1 Sqm	387.70
		<b>PLYWOOD ITEMS</b>		
	501	Plywood 3 ply with teak ply on one face and commercial ply on another face 4mm thick	1 Sqm	374.80
	502	Plywood 5 ply with commercial ply on both faces 6 mm thick	1 Sqm	332.60
	503	Plywood 5 ply with commercial ply on both faces 8 mm thick	1 Sqm	339.10
	504	Plywood 5 ply with Teak ply on both faces 9 mm thick	1 Sqm	814.30
	505	Plywood 5 ply with teak ply on one face and comercial ply on another face 6 mm thick	1 Sqm	487.10
	506	Plywood 5 ply with teak ply on one face and comercial ply on another face 9 mm thick	1 Sqm	624.20
	507	Plywood 9 ply with commercial ply on both faces 12 mm thick.	1 Sqm	386.60
	508	Plywood 9 ply with commercial ply on both faces 15 mm thick.	1 Sqm	558.40
	509	Plywood 9 ply with commercial ply on both faces 19 mm thick.	1 Sqm	641.50
	510	Plywood 9 ply with teak ply on both faces 12 mm thick	1 Sqm	950.40

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
	511	Plywood 9 ply with teak ply on one face and commercial ply on another face 13 mm thick	1 Sqm	796.00
		<b>Flush Door Shutters ( Kuty or Equivalent ) Conforming to IS 2201</b>		
		<b>(Providing Solid core Flush Doors veneer facing).</b>		
		<b>Both Sides Teak</b>		
	512	40/38 mm thick	1 Sqm	1303.00
	513	35mm thick	1 sqm	1272.20
	514	30 mm thick	1 sqm	1213.90
		<b>One Side teak wood and other side commercial</b>		
	515	40/38 mm thick	1 sqm	1172.90
	516	35 mm thick	1 sqm	1123.70
	517	30 mm thick	1 sqm	1075.70
		<b>One Side teak wood and other side Kuty Coat</b>		
	518	40/38 mm thick	1 sqm	1386.70
	519	35 mm thick	1 sqm	1332.50
	520	30 mm thick	1 sqm	1279.30
		<b>Both Side Commercial</b>		
	521	40/38 mm thick	1 sqm	995.80
	522	35 mm thick	1 sqm	948.20
	523	30 mm thick	1 sqm	899.10
		<b>Both Sides Kuty Coat</b>		
	524	40/38 mm thick	1 sqm	1236.60
	525	35 mm thick	1 sqm	1183.70
	526	30 mm thick	1 sqm	1129.70
		<b>Providing Internal Lipping by Teak Wood Single Leaf</b>		
	527	All edges 30 mm thick & below	1 sqm	317.50
	528	35 mm thick	1 sqm	359.60
	529	38/40 mm thick	1 sqm	395.30
		<b>Providing Internal Lipping by Teak Wood Double Leaf</b>		
	530	All edges 30 mm thick & below	1 sqm	485.50
	531	35 mm thick	1 sqm	509.50
	532	38/40 mm thick	1 sqm	671.20
		<b>Providing External Lipping by Teak Wood Single Leaf</b>		
	533	All edges 30 mm thick & below	1 sqm	221.40
	534	35 mm thick	1 sqm	245.70
	535	38/40 mm thick	1 sqm	245.70
	536	Bottom edges only	1 sqm	23.80
		<b>Providing External Lipping by Teak Wood Double Leaf</b>		
	537	All edges 30 mm thick & below	1 sqm	263.50
	538	35 mm thick	1 sqm	293.80
	539	38/40 mm thick	1 sqm	293.80
	540	Bottom edges only	1 sqm	23.80
		<b>Providing External Lipping by Hard Wood Single Leaf</b>		
	541	All edges 30 mm thick & below	1 sqm	83.90
	542	35 mm thick	1 sqm	95.90
	543	38/40 mm thick	1 sqm	95.90
	544	Bottom edges only	1 sqm	19.20
		<b>Providing External Lipping by Hard Wood Double Leaf</b>		
	545	All edges 30 mm thick & below	1 sqm	108.00
	546	35 mm thick	1 sqm	119.90
	547	38/40 mm thick	1 sqm	119.90
	548	Bottom edges only	1 sqm	19.20
		<b>Designers Doors by Teak wood</b>		
	549	Torina	1 sqm	401.50
	550	Penta Torina	1 sqm	467.60
	551	Arch Torina	1 sqm	401.50

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
		<b>Designers Doors by Hard Wood</b>		
	552	Torina	1 sqm	179.80
	553	Penta Torina	1 sqm	239.80
	554	Arch Torina	1 sqm	179.80
	555	Tanjore Art	1 sqm	677.20
		<b>Kutty's New International Eleganza range Panel Doors OR EQUIVALENT with imported phenolic moulded fiber board panels</b>		
		<b>Kutty's Vishala Heavy Duty</b>		
	556	975 x 2035 x 30 mm thick	1 sqm	1775.50
	557	920 x 2065 x 30 mm thick	1 sqm	1775.50
	558	830 x 2065 x 30 mm thick	1 sqm	1775.50
	559	680 x 2065 x 30 mm thick	1 sqm	1775.50
	560	975 x 2035 x 35 mm thick	1 sqm	1831.70
	561	920 x 2065 x 35 mm thick	1 sqm	1831.70
	562	830 x 2065 x 35 mm thick	1 sqm	1831.70
	563	680 x 2065 x 35 mm thick	1 sqm	1831.70
	564	975 x 2035 x 38 mm thick	1 sqm	1882.40
	565	920 x 2065 x 38 mm thick	1 sqm	1882.40
	566	830 x 2065 x 38 mm thick	1 sqm	1882.40
	567	680 x 2065 x 38 mm thick	1 sqm	1882.40
		<b>Kutty's Vishala Light Duty</b>		
	568	975 x 2035 x 30 mm thick	1 sqm	1704.20
	569	920 x 2065 x 30 mm thick	1 sqm	1704.20
	570	830 x 2065 x 30 mm thick	1 sqm	1704.20
	571	680 x 2065 x 30 mm thick	1 sqm	1704.20
	572	975 x 2035 x 35 mm thick	1 sqm	1745.80
	573	920 x 2065 x 35 mm thick	1 sqm	1745.80
	574	830 x 2065 x 35 mm thick	1 sqm	1745.80
	575	680 x 2065 x 35 mm thick	1 sqm	1745.80
	576	975 x 2035 x 38 mm thick	1 sqm	1786.30
	577	920 x 2065 x 38 mm thick	1 sqm	1786.30
	578	830 x 2065 x 38 mm thick	1 sqm	1786.30
	579	680 x 2065 x 38 mm thick	1 sqm	1786.30
		<b>Kutty's Heera Heavy Duty</b>		
	580	920 x 2035 x 30 mm thick	1 sqm	1775.50
	581	815 x 2035 x 30 mm thick	1 sqm	1775.50
	582	660 x 2035 x 30 mm thick	1 sqm	1775.50
	583	920 x 2035 x 35 mm thick	1 sqm	1831.70
	584	815 x 2035 x 35 mm thick	1 sqm	1831.70
	585	660 x 2035 x 35 mm thick	1 sqm	1831.70
	586	920 x 2035 x 38 mm thick	1 sqm	1882.40
	587	815 x 2035 x 38 mm thick	1 sqm	1882.40
	588	660 x 2035 x 38 mm thick	1 sqm	1882.40
		<b>Kutty's Heera Light Duty</b>		
	589	920 x 2035 x 30 mm thick	1 sqm	1704.20
	590	815 x 2035 x 30 mm thick	1 sqm	1704.20
	591	660 x 2035 x 30 mm thick	1 sqm	1704.20
	592	920 x 2035 x 35 mm thick	1 sqm	1745.80
	593	815 x 2035 x 35 mm thick	1 sqm	1745.80
	594	660 x 2035 x 35 mm thick	1 sqm	1745.80
	595	920 x 2035 x 38 mm thick	1 sqm	1786.30
	596	815 x 2035 x 38 mm thick	1 sqm	1786.30
	597	660 x 2035 x 38 mm thick	1 sqm	1786.30
		<b>Kutty's Fantasy Heavy Duty</b>		
	598	815 x 2065 x 30 mm thick	1 sqm	1797.10
	599	660 x 2065 x 30 mm thick	1 sqm	1797.10

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
	600	815 x 2065 x 35 mm thick	1 sqm	1831.70
	601	660 x 2065 x 35 mm thick	1 sqm	1831.70
	602	815 x 2065 x 38 mm thick	1 sqm	1882.40
	603	660 x 2065 x 38 mm thick	1 sqm	1882.40
		<b>Kutty Fantasy Light duty</b>		
	604	815 x 2065 x 30 mm thick	1 sqm	1704.20
	605	660 x 2065 x 30 mm thick	1 sqm	1704.20
	606	815 x 2065 x 35 mm thick	1 sqm	1745.30
	607	660 x 2065 x 35 mm thick	1 sqm	1745.30
	608	815 x 2065 x 38 mm thick	1 sqm	1786.30
	609	660 x 2065 x 38 mm thick	1 sqm	1786.30
		<b>Kutty's Eleganza Heavy Duty</b>		
	610	815 x 2065 x 30 mm thick	1 sqm	1797.10
	611	660 x 2065 x 30 mm thick	1 sqm	1797.10
	612	815 x 2065 x 35 mm thick	1 sqm	1831.70
	613	660 x 2065 x 35 mm thick	1 sqm	1831.70
	614	815 x 2065 x 38 mm thick	1 sqm	1882.40
	615	660 x 2065 x 38 mm thick	1 sqm	1882.40
		<b>Kutty's Eleganza Light Duty</b>		
	616	815 x 2065 x 30 mm thick	1 sqm	1704.20
	617	660 x 2065 x 30 mm thick	1 sqm	1704.20
	618	815 x 2065 x 35 mm thick	1 sqm	1745.30
	619	660 x 2065 x 35 mm thick	1 sqm	1745.30
	620	815 x 2065 x 38 mm thick	1 sqm	1786.30
	621	660 x 2065 x 38 mm thick	1 sqm	1786.30
		<b>Kutty's Heleganza Golden Oak Heavy Duty</b>		
	622	850 x 2035 x 30 mm thick	1 sqm	1797.10
	623	850 x 2035 x 35 mm thick	1 sqm	1831.70
	624	850 x 2035 x 38 mm thick	1 sqm	1882.40
		<b>Kutty's Heleganza Golden Oak Light Duty</b>		
	625	850 x 2035 x 30 mm thick	1 sqm	1704.20
	626	850 x 2035 x 35 mm thick	1 sqm	1745.30
	627	850 x 2035 x 38 mm thick	1 sqm	1786.30
		<b>Providing external Lipping with teak wood.</b>		
	628	30/32 mm thick	1 sqm	221.40
	629	35/38 mm thick	1 sqm	245.70
		<b>Providing external Lipping with Hard wood.</b>		
	630	30/32 mm thick	1 sqm	95.60
	631	35/38 mm thick	1 sqm	119.90
	632	Ployurethene coating for extra water resistance for bath / toilet doors for each side.	1 sqm	89.60
		<b>DOOR FRAMES</b>		
	633	<b>ACCUCEL OR EQUIVALENT BATHROOM DOOR CHAUKHAT FRAME: Single Rebate size 60mmx 30mm</b>		
		The Door Chaukhat Frame (Single Rebate) shall be made of solid PVC foam profile with homogenous fine cellular structure having smooth outer integral skin having 60mm width and 30mm thickness and shall be fixed to wall as per instructions of engineer in charge using 100 x 8 sheet metal CSK screws. Door frame should be waterproof, termite proof, elegant and should have excellent screw holding strength to fix hinges and hold doors properly for a long life for finished item of work including all taxes.	1 Rm	245.00
	634	<b>ACCUCEL OR EQUIVALENT PANEL DOOR SHUTTER: 750mm(W) x2100mm(L) x28mm (T)</b>		

Sl. No.	S.S. No.	Item Description	Unit (per)	S S RATE FOR 2005-06
		The door shutter shall be made of solid PVC foam profile with homogenous fine cellular structure having smooth outer integral skin having 71mm width and 28mm thick as vertical and horizontal stiles, joints are made using solvent adhesive and GI 'C' sections (39mm x 19mm x 19mm x 0.6mm thick) or MS pipe (40mm x 20mm) stiffener frame insert and telescopic polymeric 'L' corners. The panel shall be filled with 3mm thick high-pressure compact laminate as per manufacturer's guidelines. Cover molding shall be provided for covering fixing screws and elegant look. Panel Door shutter should be waterproof, termite proof, elegant and should have excellent screw holding strength to fix hinges and hold doors properly for a long life. Normal hardware and fitting shall be fixed for finished item of work including all taxes.	1 sqm	2350.00
	635	<b>ACCUCEL OR EQUIVALENT OPENABLE WINDOW SHUTTER WITH DOUBLE REBATE CHAUKHAT FRAME (1600mm x 1600mm)</b>		
		The Window Chaukhat Frame (Double Rebate) shall be made of solid PVC foam profile with homogenous fine cellular structure having smooth outer integral skin having 100mm width and 30mm thickness. Made of two sections joined together with solvent adhesive and GI 'C' section (25mm x 19mm x 0.6mm thick) stiffener insert. Press fit type 'Tee' section 25mm width and 19mm thick is fixed in the frame after fixing it to wall as per instructions of engineer in charge using 100x8 sheet metal CSK screws. The Open able Window shutter should made of solid PVC foam profile with homogenous fine cellular structure having smooth outer integral skin having 71mm width x 28mm thick as vertical and horizontal stiles. Joints are made using solvent adhesive and GI 'C' sections (39mm x 19mm x 19mm x 0.6mm thick) stiffener frame insert and telescopic polymeric 'L' corners. The 4mm thick glass panel shall be fixed using PVC foam profile beading (12mm x 10mm) for finished item of work including all taxes.	1 Sqm.	4600.00
	636	<b>RAJSHRI OR EQUIVALENT SOLID DOOR FRAME</b>		
		Providing and fixing factory made polyvinyl chloride (PVC) Door Frame of the size 50 x 47mm with a wall thickness of 5mm, made out of extruded 5mm rigid PVC foam sheet, mitre cut at two corners and joined with 2nos. of 150mm long brackets of 15x15mm M.S. square tube. The two vertical door profiles are to be reinforced with 19x19mm M.S. Square tube of 19 gauge. The door frame shall be fixed to the wall using 65/100mm long M.S. Screws through the frame by using PVC fasteners. A minimum of 4nos. of screws to be provided for each vertical member & minimum 2nos. for horizontal member etc. complete as per manufacturers specification and direction of Engineer-in-Charge for finished item of work including all taxes.	1 Rm	253.00
	637	<b>RAJSHRI OR EQUIVALENT SOLID PANEL DOOR SHUTTER</b>		
		Providing and fixing 30mm thick Solid panel PVC door shutter consisting of frame made out of M.S. tubes of 19 gauge thickness and size of 19mm x 19mm for stiles, & 15mm x 15mm for top & bottom rails. M.S. frame shall have a coat of steel primers of approved make and manufacture. M.S. frame shall be covered with 5mm thick heat moulded PVC 'C' channel of size 30 x 50mm forming stiles, and 5mm thick, 75mm wide PVC sheets for top rail, lock rail & bottom rail on either side, and 10mm (5mm x 2) thick, 20mm wide cross PVC sheet as gap insert for top rail & bottom rail. Panelling of 5mm thick PVC sheet to be fitted in the M.S. frame welded / sealed to the stiles & rails with 30mm wide x 5mm thick PVC sheet beading on either side, and joined together with solvent cement adhesive etc. An additional 5mm thick PVC strip of 20mm width is to be stuck on the interior side of the 'C' Channel using PVC solvent adhesive. complete as per direction of Engineer-in-charge, manufacturer's specification & drawing for finished item of work including all taxes.	1 Sqm.	1743.00
		<b>DOOR FRAMES</b>		
	638	MS. Hollow door frames manufactured by cold roll formed process steel sheet 1.25mm thick bright CRCA conforming to IS 4351 - 1976 with Hinges tower Bolts etc.	1 Rm	167.40
		<b>Flush door shutters, solid bond wood block board type with teak ply on both faces.</b>		
	639	25 mm thick	1 sqm	902.90
	640	30 mm thick	1 sqm	933.10
	641	35 mm thick	1 sqm	1004.40
		<b>Flush door shutters, solid bond wood block board type with commercial ply on both faces.</b>		
	642	25 mm thick	1 sqm	459.00
	643	30 mm thick	1 sqm	517.30

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
	644	35 mm thick	1 sqm	567.00
	645	40 mm thick	1 sqm	675.00
		<b>Flush door shutters, solid bond wood block board type with teak venner on one face and commercia ply on another face (liping)</b>		
	646	20 mm thick	1 sqm	605.90
	647	25 mm thick	1 sqm	675.00
	648	30 mm thick	1 sqm	756.00
	649	35 mm thick	1 sqm	810.00
	650	40 mm thick	1 sqm	864.00
		<b>Plain cement bonded particle boards conforming to IS 14276 truly exterior grade (Bison panel or equivalent)</b>		
	651	6 mm thick	1 sqm	150.10
	652	8 mm thick	1 sqm	184.70
	653	10 mm thick	1 sqm	217.10
	654	12 mm thick	1 sqm	251.60
	655	16 mm thick	1 sqm	335.90
	656	20 mm thick	1 sqm	402.80
	657	25 mm thick	1 sqm	487.10
	658	30 mm thick	1 sqm	569.20
	659	40 mm thick	1 sqm	737.60
		<b>Prelaminated cement particle board truly exterior board one side laminated (Bison Lam or equivalent)</b>		
	660	6 mm thick	1 sqm	400.70
	661	8 mm thick	1 sqm	423.40
	662	10 mm thick	1 sqm	446.00
	663	12 mm thick	1 sqm	468.70
	664	16 mm thick	1 sqm	521.60
		<b>Prelaminated cement particle board truly exterior board both side laminated (Bison Lam or equivalent)</b>		
	665	6 mm thick	1 sqm	446.00
	666	8 mm thick	1 sqm	468.70
	667	10 mm thick	1 sqm	491.40
	668	12 mm thick	1 sqm	514.10
	669	16 mm thick	1 sqm	567.00
		<b>ECO-BOARD MULTI PURPOSE CEMENT BOARDS (HIGH PRESSURED STEAM CURED)</b>		
	670	4 mm thick	1 Sqm.	103.00
	671	6 mm thick	1 Sqm.	156.00
	672	8 mm thick	1 Sqm.	203.00
	673	10 mm thick	1 Sqm.	227.00
	674	12 mm thick	1 Sqm.	260.00
	675	14 mm thick	1 Sqm.	300.00
	676	16 mm thick	1 Sqm.	345.00
	677	18 mm thick	1 Sqm.	390.00
	678	20 mm thick	1 Sqm.	430.00
		<b>ECO-BOARD CLASSIC</b>		
	679	4 mm thick	1 Sqm.	175.00
	680	6 mm thick	1 Sqm.	260.00
		<b>ECO-BOARD PEARL</b>		
	681	4 mm of size 595mm X 595mm	1 Sqm.	216.00
		<b>MULTIPURPOSE CEMENT BOARDS FALSE CEILING WITH EXPOSED METAL E-GRID IS 14862 : 2000</b>		
	682	Using 6 mm thick E-board	1 Sqm	600.00
	683	Using 8 mm thick E-board	1 Sqm	660.00
	684	Using 4 mm thick E-board classic*	1 Sqm	620.00
	685	Using 6 mm thick E-board Classic*	1 Sqm	724.00
	686	Using 4 mm thick E-board Pearl	1 Sqm	672.00
		<b>WALL PANELLING</b>		

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
		Supply and fixing of E-board wall paneling (water, fire and Termite proof) with frame work made of GI stud profile of size 48 x 40 10 x 0.6 mm thick placed at every 610 mm C/C intervals fixed vertically in between floor and roof `U` track of size 50 x 30 x 0.6 mm thick duly fixed with self expansion screws and with 8 mm thick E-board / 6 mm thick E-board classic cladded around with self tapping self embedding screws fixed at every 300 mm (centres) leaving a 3 mm gap between two panels of width 2'-0". The Gap will be covered with a decorative beading.Surface will be given a smooth finish over a coat of primer.		
	687	With 8 mm E-board	1 Sqm.	797.00
	688	With 6 mm E-board Classic	1 Sqm.	860.00
		<b>DOUBLE SKIN PARTITION</b>		
	689	Supply and fixing double skin E-board partition with Frame work made of GI stud profile of size 48 x 40 x 10 x 0.6 mm thick placed at every 610 mm C/C intervals and 915 mm horizontal intervals duly fixed with self expansion screws, the E-board of 8 mm thick cladded around with self tapping self embedding screws fixed at every 300 mm (centres) leaving 3 mm gap between two panels of width 2'-0" (610 mm). The gap will be covered with decorative molding surface will be given a smooth finish over cement primer. The rate is inclusive of cost and conveyance of all materials and labour charges etc. complete.	1 Sqm.	1226.00
		<b>DOOR</b>		
	690	Supply and fixing of E-board door shutter with alround style "U" lipping size 15 x 18 x 15 mm made from 0.8 mm thick powder coated cold rolled steel profiles with 16 mm thick E-board with necessary screws fixed at 1'-0" interval 250 mm long aldrops 2 Nos. M.S. nickel coated 250 mm long 1 No. M.S. Tower bolts including cost and conveyance of all materials at site and applying 1 coat of primar, 2 coats of luppum and 2 coats of synthetic enamel paint as per approved design for finished item of work.	1 Sqm.	1050.00
		<b>DOOR WITH CRCA FRAME</b>		
	691	Providing and fixing frame made from 1.2 mm powder coated cold rolled steel profiles of overall section size of 60 mm x 45 mm with 21 mm rivet for shutter with necessary stiffners hinges and screws. E-board shutter with alround `U` lipping of size 15 X 18 X 15 mm made from 0.8 mm thick CRCA powder coated steel profile with 16 mm thick E-board with necessary screws fixed at every 1'-0" interval 250 mm long aldrops 2 Nos. MS Nickel coated 250 mm long 1 No. MS tower bolt including cost and conveyance. One coat of primer, 2 coats of luppum and 2 coats of synthetic enamel paint as per approved colour, labour charges etc.	1 Sqm.	1600.00
		<b>Cup Boards Shutters using Cement Bonded Particle Board (Bison Panel or Equivalent )</b>		
	692	Supply and fixing of cup board shutters and frames using 16mm thick Cement Bonded Particle Board (Bison Panel or Equivalent) duly painted both sides with one coat of primer and two coats of synthetic / enamel paint of approved shade and brand including fixing of hardware like M.S. powder coated Piano hinges of size 18mm x 18mm, brass ball catches, Aluminum tower bolts and handles , Godrej locks, Fevicol, screws and nails including cost and conveyance of all materials, labour charges, all incidental and operational charges etc., complete for finished item of work at site as per the directions of Engineer in Charge.	1 sqm	1269.00
		<b>False Ceiling using Cement Bonded Particle Board (Bison Panel or Equivalent )</b>		
	693	Supply and fixing of false ceiling with galvanized and pre painted steel T section of size 24mm x 38mm x 0.4mm for main T duty pre punched to accept cross T section of size 24mm x 30mm x 0.4mm duly punched at both ends for insertion into main T. The grid size will be 610mm x 610mm. The frame work (grid) is suspended to the roof by using G.I flat of 0.60mm or 14-gauge G.I wire with necessary fixers to the roof and frame work. 8mm thick Cement Bonded Particle Board lay on the grid. The cost inclusive of necessary hardware, labour, one coat of primer (Both side) and two coats of smooth finish on visible side.	1Sqm	626.40
		<b>WALL PANELING WITH CEMENT BONDED PARTICLE BOARD (BISON PANEL OR EQUIVALENT)</b>		



Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
	694	Supply and fixing bison panel wall paneling (water proof) with frame work made of GI stud section of size 48mm x 35mm x 0.55mm thick placed at every 610 mm C/C intervals vertically and at 1200mm internals horizontally fixed to the wall by means of self expansion screws and caps. 10 mm thick cement bonded particle board (Bison panel or Equivalent) is to be fixed to frame by means of self taping screws placed at every 300 mm intervals leaving 3mm gap between two panels. The cost inclusive of one coat of Altek primer and two coats of Altek smooth finish and cost & conveyance of all materials, labour charges etc. complete as per the direction of Engineer in charge.	1 Sqm	1004.40
		<b>DOUBLE SKIN PARTITION WITH CEMENT BONDED PARTICLE BOARD (BISON PANEL OR EQUIVALENT)</b>		
	695	Supply and fixing double skin partition made out of G.I. track section of size 50mmx 35mm x 0.55 mm for fixing to the roof and floor and stud section of size 48mm x 35mmx 0.55mm placed in track section vertically at 610mm intervals and at 1200mm intervals horizontally fixed to the wall by means of self expansion screws and caps to the wall and roof. 10mm thick Cement bonded particle board (BISON PANEL OR EQUIVALENT) is to be fixed both sides of frame work by using self taping screws fixed at every 300mm intervals to the frame work leaving 3 mm gap between two panels. The cost inclusive with one coat of Altek primer and two coats of Altek smooth finish and cost and conveyance of all materials to site, labour charges etc., complete as per the direction of Engineer in charge.	1 Sqm	1609.20
		<b>DOUBLE SHUTTER WITH CEMENT BONDED PARTICLE BOARD (BISON PANEL OR EQUIVALENT)</b>		
	696	Supply and fixing cement bonded particle board shutter with around "U" section of size 12mmx18mm x12mm made from 0.6 mm thick galvanized, color quoted cold rolled steel profiles 16 mm thick panel with necessary screws fixed at every 304.8 mm intervals. The cost inclusive of MS Nickel coated Aldrops of size 255 mm long 2 Nos., 200 mm long tower bolts 1 No., 125 mm handles 2 Nos. 300 mm long "T" hing cost and conveyance of all materials at site and applying 1 coat primer, 1 coat of luppum and 2 coats of synthetic enamel paint as per approved design for finished itme of work.	1 Sqm	1188.00
		<b>Doors Frames (Colour Coated Steel Sections) &amp; Shutter using Cement Bonded Particle Board (Bison Panel or Equivalent)</b>		
	697	Providing and fixing of door frame made from cold roll formed sections made of galvanized (Base steel as per IS277 with zinc of 120 Gms/sq.mtr) colour coated steel sections with total coated thickness of 1mm, primer coated with epoxy primer coat of 5-7 microns thick, finish paint with polyester paint of 12-16 microns. The Section for door frame is to be filled with polyurethane (P.U) form of 40kg/m3. Overall size of frame section should be of 50mm x 50mm. With necessary corner brackets, stiffeners, hinges, and screws. Cement Bonded particle board shutter (Bison Panel or Equivalent) "Single Leaf" with all round styles "U" section of size 12m x 18m x 12mm made from 0.6 mm thick galvanized, colour coated cold rolled steel profiles with 16mm thick Cement Bonded particle Board (Bison Panel or Equivalent) with necessary screws fixed at every 1'-0" (304.8mm) intervals. The cost inclusive of MS nickel coated Aldorp of size 250mm long 2nos. 200mm long tower bolt 1no., 125mm handles 2nos., cost and conveyance of all materials at site and applying one coat primer, one coat of luppum and two coats of synthetic enamel paint as per approved design for finished item of work	1 Sqm	1890.00
		<b>Box Type Cup Board using Cement Bonded Particle Board (Bison Panel or Equivalent) &amp; Shutter using Pre-Laminated Cement Bonded Particle Board (Bison Lam or Equivalent)</b>		
	698	Supply and fixing of box type cup board using 20mm thick Cement Bonded Particle Board (Bison Panel or Equivalent) for making frame of size 100mm x 35mm using two sandwiched 16mm boards, one plain board and one Pre-Laminated cement bonded particle board with plain 35mm wood lipping. The Shutters are made of 16m thick Pre-Laminated Cement Bonded Particle Board (Bison Lam or Equivalent) of approved shade inclusive of hardware like M.S. powder coated Piano hinges of size ¾" x ¾", Aluminum powder coated handles of size 4" (101.6mm), Aluminum tower bolt 4" (101.6mm) Godrej locks, screws, wood lipping and Fevicol etc., complete finish item of work.	1 Sqm	2700.00
		<b>Door Shutter with Cement Bonded Particle Board (Bison Lam or Equivalent)</b>		

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
	699	Supply and fixing of door shutter made out of PVC Hollow extruded section having dimensions of 47mm x 26mm with wall thickness of 1.5mm with necessary tapering to house Bison Lam thickness of 12mm. All the four corners are jointed with PVC 'L' brackets of size 4" x 8" (101.6 x 203.2mm) and the PVC lipping is filled with well-seasoned country wood to hold hinges. The hardware consists of 250mm long adrop – 2 Nos.250mm Handle- 1 No. (all are of Aluminum). The cost is inclusive of all incidental, labour transportation charges.	1 Sqm	1239.00
		<b>Double Skin Partition with Pre Laminated Cement Bonded Particle Board (Bison Lam or Equivalent)</b>		
	700	Supply and fixing double skin partition made out of G.I track section of size 50 mm x 35mm x 0.55mm for fixing to the roof and floor and stud section of size 48mm x 35mm x 0.55mm placed in track section vertically at 610mm intervals and at 1200mm internals horizontally. The frame is fixed by means of self expansion screws and caps to the wall / roof. 12mm thick Pre Laminated Cement bonded particle board (Bison Lam or equivalent) is to be fixed both sides of the frame work by using 2mm thick electro plated CR flat section leaving 3mm gap between two panels. The cost inclusive of cost and conveyance of all materials to sites, other materials incidentals and labour charges as per the direction of Engineer in charges.	1 Sqm	1639.00
		<b>Wall Paneling with Pre Laminated Cement Bonded Particle Board (Bison Lam or equivalent)</b>		
	701	Supply and fixing of wall paneling with frame work made of G.I stud section of size 48mm x 35mm x 0.55mm thick placed at every 610mm intervals vertically and at 1200mm internals horizontally fixed to the wall by means of self expansion screws and caps. 12mm thick pre laminated Cement bonded particle board (Bison Lam or equivalent) is to be fixed to frame by means of self-taping screws placed at every 300mm intervals leaving 3mm gap between two panels. The cost inclusive of Conveyance of materials, Labour charges etc., complete as per the direction of Engineer in charge.	1 Sqm	1320.00
		<b>Aluminum Partition with Pre Laminated Cement Bonded Particle Board (Bison Lam or Equivalent)</b>		
	702	Supply and fixing in position aluminum glazed partitions using 5.50 mm thick plain glass to full height using with pre laminated cement bonded particle board (Bison Lam or equivalent) of 10mm thick to a height of 0.91 metre at bottom panel and remaining height with glass and aluminum sections anodized to 12 to 15 microns and of sections of size 37mm x 62mm and 1.5mm thickness with one metre centre to centre duly fixed with clip beading on both sides including fixing the frame to pillars by M.S. flats, bolts and nuts including cost and conveyance of all materials etc., complete as directed during execution.	1 Sqm	2028.10
		<b>SINTEX OR EQUIVALENT DOOR (SINGLE PANEL)</b>		
	703	Supply and fixing Sintex or equivalent doors are made out of PVC section and panels. The overall dimension of the same is 33mm X 47mm with usual process variation and having a wall thickness of 1.5mm with a variation of $\pm 0.3$ mm. The infill is seamless hollow multi chambered PVC single panel having an effective dimension of 762mm X 20mm having a wall thickness of 1mm $\pm 0.3$ mm including all taxes complete, for finished item of work.	Sqm.	1755.00
	704	Supply and fixing PVC door frames made from extruded sections in overall dimensions of 40 X 48mm having a wall thickness of 1.5mm with usual process variation of $\pm 0.3$ mm, including all taxes complete, for finished item of work.	Sqm.	164.20
		<b>SINTEX OR EQUIVALENT OPENABLE WINDOW</b>		
	705	Supply and fixing of Sintex window shall be made out of extruded PVC section. The outer frame having overall dimensions of 40 X 48mm with a wall thickness of 1.5mm with usual process variation of $\pm 0.3$ mm. The shutter frame having with overall dimensions of 26 X 47mm with wall thickness of 1.2mm $\pm 0.3$ mm provided with 5mm glazing. The centre mullion having over all dimensions of 25 X 32.5mm $\pm 0.3$ mm, including all taxes complete, for finished item of work.	Sqm.	2615.80
		<b>SINTEX OR EQUIVALENT SLIDING 2 TRACK WINDOWS</b>		
	706	Supply and fixing of two track or three track sliding window the outer frame shall be 58 X 45mm with a wall thickness of 1.2mm $\pm 0.3$ mm. The sliding shutter frame is made of PVC section 57 X 32mm with overall dimensions of 1.5mm $\pm 0.3$ mm provided with 5mm glazing. Roller bearings and arrestor type handle cum lock shall be provided, including all taxes complete, for finished item of work.	Sqm.	2268.00
		<b>SINTEX OR EQUIVALENT FALSE CEILING</b>		

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
	707	Supply and fixing of PVC false ceiling on MS/GI made skeleton framework. The frame shall be 24 X 48mm MS tube section fixed along with the wall. The entire frame work shall be concealed with PVC section having overall dimensions of 6 X 250mm with a wall thickness of 1mm ± 0.3mm with tongue and groove system, provided with necessary arrangements for electrical connections, including all taxes complete, for finished item of work.	Sqm.	1161.00
		<b>SINTEX OR EQUIVALENT WALL PANELLING</b>		
	708	Supply and fixing of wall panelling on the framework of wooded rippers of 24 X 24mm of required size. The entire framework shall be panelled with PVC section having overall dimensions of 6 X 250mm with a wall thickness of 1mm ± 0.3mm. The panels are joined with tongue and groove system. Necessary cutouts for electrical connections to be provided at required places, including all taxes complete, for finished item of work.	Sqm.	1107.00
		<b>SINTEX OR EQUIVALENT PVC CABINETS</b>		
	709	Supply and fixing of PVC cupboards for kitchen and bedrooms shall be made out of multi chambered PVC sections having overall dimensions of 20 X 762mm with a wall thickness of 1.2mm ± 0.3mm. The cabinets shall be made as per the requirements of the room with groove system. The PVC section surface shall be plain and laminated finish to have good look, including all taxes complete, for finished item of work.	Sqm.	3202.20
		<b>SINTEX OR EQUIVALENT SMC SIGN BOARDS</b>		
		Supply of hot pressed compression moulded SMC sign plates for making road signs ass per the approved dimensions of National Highway Authority Of India, including all taxes complete, for finished item of work.		
	710	Circular sign plate Dia 400mm.	Each.	464.40
	711	Circular sign plate Dia 600mm.	Each.	1220.40
	712	Circular sing plate Dia 870mm	Each.	2445.10
	713	Triangular sign plate 600mm.	Each.	626.40
	714	Triangular sign plate 900mm.	Each.	1414.80
	715	Square sign plate 600mm.	Each.	1134.00
	716	Square sign plate 1000mm.	Each.	4212.00
		<b>SINTEX OR EQUIVALENT PVC PARTITION</b>		
	717	Supply and fixing of PVC Double Skin Partition. The entire framework shall be carried out by mild steel section having overall dimensions of 24 X 48mm with a wall thickness of 1.2mm. The entire framework shall be concealed with PVC section having overall dimensions of 6 X 250mm with a wall thickness of 1mm ± 0.3mm both sides. Glass provision/Door provision can be provided along the partition wherever required. Partitions can be made full or half as per requirement, including all taxes complete, for finished item of work.	Sqm.	2035.80
		<b>SINTEX OR EQUIVALENT WATER STORATGE TANKS</b>		
	718	Supply of Sintex or equivalent Polyethylene water storage tank double layer conforming to ISI 12701/96 mark with lid including all taxes.	Ltr.	5.94
		<b>PVC DOOR SHUTTER (Nandi or Equivalent)</b>		
	719	Supply and fixing of door shutters made of rigid PVC extruded hollow section(Nandi or equivalent) of 20mm X 200 mm with the wall thickness of 1.0mm +/- 0.1mm equally divided into 4 no's with tongue and groove locking arrangements.The shutter frame is made of 58 X 24 mm with the wall thickness of 1.5mm +/- 0.15mm section metri-cut and joined at 4 cornors with 125mm X 225mm plastic brackets.The shutter shall be horizontally reinforced with 2 no's of 8mm PVC rods. Teak wood battons shall be reinforced inside the door shutter during the fabrication of the door shutter at those points wherever the hardware is fixed on to the door shutter.	Sqmt.	1074.60
	720	Supply and fixing of door shutters made of rigid PVC extruded hollow section(Nandi or equivalent) of 20mm X 200 mm with the wall thickness of 1.0mm +/- 0.1mm equally divided into 4 no's with tongue and groove locking arrangements.The shutter frame is made of 30mm X 79mm with the wall thickness of 1.5mm +/-0.15mm section metri-cut and joined at 4 cornors with 125mm X 225mm plastic brackets.The shutter shall be horizontally reinforced with 2 no's of 8mm PVC rods.Teak wood battons shall be reinforced inside the door shutter during the fabrication of the door shutter at those points wherever the hardware is fixed onto the door shutter.	Sqmt.	1295.00
		<b>PVC DOOR FRAME (Nandi or Equivalent)</b>		

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
	721	Supply and fixing of door frame made of hollow extruded PVC section(Nandi or equivalent) having dimensions of 40 X 57mm with the wall thickness of 2mm +/- 0.2mm duly reinforced with seasoned wood plank at the hinges side. The door frame top 2 cornors shall be metri-cut/weilded.	1 RM	155.00
	722	Supply and fixing of door frame made of hollow extruded PVC section(Nandi or equivalent) having dimensions of 40 X 46 mm with the wall thickness of 2mm +/- 0.2mm duly reinforced with seasoned wood plank at the hinges side. The door frame top 2 cornors shall be metri cut/weilded	1 RM	135.00
		<b>PRE- PAINTED STEEL, WINDOWS, VENTILATORS &amp; DOOR FRAMES.</b>		
		<b>Supply and fixing of windows &amp; top Hung and fixed louvered ventilators made of pre - painted steel (base steel as per IS 513 of -0.6 mm thick 'D" quality, galvanized as per IS 277 with zinc of 120 GSM) primer coated with epoxy primer of 5-7 microns thick, finish painted with a polyester paint of 12-16 microns thick and back coated with 5-7 micros thick alkyd backer. Section for outer frame should be 46 x 52 mm section for shutter should be 46 x 46 mm section for mullion should be 46 x 70 mm, and section for beading should be 18 x 25 mm and section for louvered ventilation should be 33 x57mm Box section. The windows should be panelled with 5mm thick plain float glass &amp; 4 mm pinhead glass for ventilators with Ethy propylene Diamine monomer Gasket(EPDM). The sections are to be cut to length mitre joined with corner bracket centre mullions are to be fixed using mullilon cap. Handle made of high grade aluminium powder coated and nylon receiver. Gaskets made of Ethyl propylene Diamine monomer(EPDM). Corner brackets made of</b>		
		<b>CRCA with Zinc Phasphating. Mullion caps made of glass linked nylon. The above frames should be fixed to the concrete /masonry wall by means of self expanding screws. including 10 mm square guard bars with 6" pitch and all taxes, complete for finished item of work.</b>		
		<b>Windows</b>		
	723	Single shutter 2'0 x 4'0 (609.6 x 1219.2 mm ) Outer frame section size of 46 x 52 mm shutter frame section size of 46 x 46 mm	1 sqm	2929.00
	724	Double shutter 3'-0" x 4'-0" (914.4mm x 1219.2 mm) outer frame sections size of 46 x 52 mm shutter frame section size of 46 x 46 mm	1 Sqm	2929.00
	725	Double shutter 3'-0" x 4'-0" (914.4mm x 1219.2 mm) outer frame sections size of 46 x 52 mm shutter frame section size of 46 x 46 mm Mullion section size of 46 x 70 mm	1 Sqm	3103.90
	726	Double shutter 4'-0" x 4'-0" (1219.2x1219.2mm) outer frame section size of 46 x 52 mm shutter frame section size of 46 x 46 mm	1 Sqm	2929.00
	727	Double shutter 4'-0" x 4'-0" (1219.2x1219.2mm) outer frame section size of 46 x 52 mm shutter frame section size of 46 x 46 mm Mullion section size of 46 x 70 mm	1 Sqm	3103.90
	728	Double shutter 4'-6" x 4'-6" (1371.6x1371.6mm) outer frame section size of 46 x 52 mm shutter frame section size of 46 x 46 mm Mullion section size of 46 x 70 mm	1 Sqm	2767.00
	729	Centre fixed both side openable shutter 5'-0" x 4'-0" (1524x1219.2mm) outer frame section size of 46 x 52 mm shutter frame section size of 46 x 46 mm Mullion section size of 46 x 70 mm fixed beading section size of 18 x 25 mm	1 Sqm	2767.00
	730	Centre fixed both side openable shutter 6'-0" x 4'-0" (1828.8x1219.2mm) outer frame section size of 46 x 52 mm shutter frame section size of 46 x 46 mm Mullion section size of 46 x 70 mm fixed beading section size of 18 x 25 mm	1 Sqm	2767.00
	731	Centre fixed both side openable shutter 6'-0" x 4'-6" (1828.8x1371.6mm) outer frame section size of 46 x 52 mm shutter frame section size of 46 x 46 mm Mullion section size of 46 x 70 mm fixed beading section size of 18 x 25 mm	1 Sqm	2767.00
		<b>Ventilators :</b>		
	732	Top Hung 2'-0" x 2'-0" (609.6x609.6mm) outer frame section size of 46mm x 52 mm shutter frame section size of 46mm x 46 mm	1 Sqm	3208.70
	733	Top Hung 4'-0" x 2'-0" (1219.2x609.6mm) outer frame section size of 46 x 52 m shutter frame section size of 46 x 46 mm Mullion section size of 46 x 70 mm	1 Sqm	3208.70
	734	Top Hung 4'-0" x 3'-0" (1219.2x914.4mm) outer frame section size of 46 x 52m m shutter frame section size of 46 x 46 mm Mullion section size of 46 x 70 mm	1 Sqm	3208.70
	735	Fixed louvers 2'-0" x 2'-0" (609.6x609.6mm)(Box section) outer frame section size of 33 x 57 mm	1 Sqm	2196.70
	736	Fixed louvers 4'-0" x 2'-0" (1219.2x609.6mm)(Box section) outer frame section size of 33 x 57 mm Mullion section size of 33 x 57	1 Sqm	2196.70

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
	737	Fixed louvers 4'-0" x 3'-0"(1219.2x914.4mm)(Box section) outer frame section size of 33 x 57 mm Mullion section size of 33 x 57	1 Sqm	2196.70
		<b>NCL or Equivalent ECO 3000 SERIES WINDOWS (SUITABLE FOR RESIDENTIAL BUILDINGS WITH GRILL PROVISION)</b>		
		<b>Providing and Fixing of windows made of pre-painted steel (Base steel as per IS 513 of 0.6mm thick galvanized as per IS 277 with Zinc of 150 GSM). Primer coated with epoxy primer of 5-7 microns thick, finish painted with a polyester paint of 12-16 microns thick and back coated with 5-7 microns thick alkyd backer. Section for outer frame should be of 48x50mm, center mullion should be of 48x50mm, section for shutter should be of 47x20mm and Fixed glass beading section should be of 12x12mm. Outer frame and mullions to have rebate for Glazed shutter and a 20mm provision for Guard bars/Grills. The sections are to be cut to length metre joined with corner bracket. Centre mullion is to be fixed with mullion cap. Seccolor Handle, 8" stay made of Aluminium, 2 nos. of Stainless Steel heavy duty Pivot hinges shall be provided per shutter. The windows should be paneled with 5mm thick plain float glass. Rubber Gaskets are provided all around the glass. The above frames should be fixed to the concrete/masonry wall by means of</b>		
		<b>self expanding screws, Including 10mm Square guard bars with 6" (152.4mm) pitch and all Taxes, etc., complete for finished item of work.</b>		
	738	Single shutter Window 2'0"x4'0" (609.6mm x 1219.2mm). Outer frame section size of 48x50mm shutter frame section size of 47x20mm.	1 Sqm	2696.80
	739	Double shutter Window with vertical mullion 3'0" x 4'0" ( 914.4mm x 1219.2mm) outer frame section size of 48x50mm shutter frame section size of 47x20mm. Mullion section size of 48x50mm.	1 Sqm	2871.70
	740	Double shutter Window with vertical member 4'0" x 4'0" (1219.2mm x 1219.2mm) outer frame section size of 48x50mm shutter frame section size of 47x20mm and mullion section should be of 48x50mm.	1 Sqm	2871.70
	741	Centre fixed both side openable shutter window 5'0"x4'0" (1524mm x1219.2mm). Outer frame section size of 48x50mm. Shutter frame section size of 47x20mm. Mullion section size of 48x50mm. Fixed beading section size of 12x12mm.	1 Sqm	2533.70
	742	Centre fixed both side openable shutter window 6'0"x4'0" (1828.8mm x1219.2mm). Outer frame section size of 48x50mm. Shutter frame section size of 47x20mm. Mullion section size of 48x50mm. Fixed beading section size of 12x12mm.	1 Sqm	2533.70
		<b>NCL or Equivalent ECO 4000 SERIES WINDOWS (SUITABLE FOR RESIDENTIAL BUILDINGS WITH GRILL &amp; FLYMESH PROVISION)</b>		
		<b>Providing &amp; Fixing of windows made of pre-painted steel (Base Steel as per IS 513 of 0.6mm thick galvanized as per IS 277 with zinc of 150 GSM). Primer coated with epoxy primer of 5-7 microns thick, finish painted with a polyester paint of 12-16 microns thick and back coated with 5-7 microns thick alkyd backer. Section for outer frame should be of 72x50mm, center mullion should be of 72x50mm, Section for fixed glass beading section should be of 12x12mm and section for shutters should be of 47x20mm. Outer frame &amp; mullion sections to have rebate for glazed shutters, flymesh and a 20mm provision for guard bars/grills. Flymesh shutter section should be of 20x40mm. The sections are to be cut to length metre joined with corner bracket. Centre mullions are to be fixed with mullion cap. Telescopic Stay, 'D' type handle, 2 nos' of 3" Tower Bolt made of Aluminium. 2 Nos of heavy duty stainless steel pivot hinges shall be provided per Shutter. The windows should be paneled with 5mm thick plain float glass and S.S. Mesh for flymesh shutter(304 grade). Rubber Gaskets are provided all around the glass.</b>		
		<b>The above frames should be fixed to the concrete/masonry wall by means of self expanding screws. Including 10mm Square guard bars with 6" (152.4mm) pitch and all Taxes, complete for finished item of work</b>		
	743	Single shutter Window 2'0"x4'0" (609.6mm x 1219.2mm). Outer frame section size of 72x50mm shutter frame section size of 47x20mm.	1 Sqm	3580.20

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
	744	Double shutter Window with vertical mullion 3'0" x 4'0" ( 914.4mm x 1219.2mm) outer frame section size of 72x50mm shutter frame section size of 47x20mm. Mullion section size of 72x50mm.	1 Sqm	3755.20
	745	Double shutter Window with vertical member 4'0" x 4'0" (1219.2mm x 1219.2mm) outer frame section size of 72x50mm shutter frame section size of 47x20mm and mullion section should be of 72x50mm.	1 Sqm	3755.20
	746	Centre fixed both side openable shutter window 5'0"x4'0" (1524mm x1219.2mm). Outer frame section size of 72x50mm. Shutter frame section size of 47x20mm. Mullion section size of 72x50mm. Fixed beading section size of 12x12mm.	1 Sqm	3418.20
	747	Centre fixed both side openable shutter window 6'0"x4'0" (1828.8mm x1219.2mm). Outer frame section size of 72x50mm. Shutter frame section size of 47x20mm. Mullion section size of 72x50mm. Fixed beading section size of 12x12mm.	1 Sqm	3418.20
		<b>Flymesh Shutters</b>		
		<b>Supply &amp; fixing of Flymesh shtters of size 20 x 40 mm fly proof mesh with std. Spn (S.S.) flymesh inclding cost and conveyance of all materials, all taxes and labour charges etc. complete for finished item of work.</b>		
	748	Single shutter 2'-0" x 4'-0" (609.6x1219.2mm) shutter section size 20 x 40 mm	1 Sqm	673.90
	749	Double shutter 3'-0" x 4'-0" (914.4x1219.2mm) shutter section size 20 x 40 mm	1 Sqm	673.90
	750	Double shutter 4'-0" x 4'-0" (1219.2x1219.2mm) shutter section size 20 x 40 mm	1 Sqm	673.90
		<b>Supply &amp; fixing of Flymesh shutters of size 20 x 40 mm fly proof mesh with Netlon flymesh inclding cost and conveyance of all materials, all taxes and labour charges etc. complete for finished item of work.</b>		
	751	Single shutter 2'-0" x 4'-0" (609.6x1219.2mm) shutter section size 20 x 40 mm	1 Sqm	581.00
	752	Double shutter 3'-0" x 4'-0" (914.4x1219.2mm) shutter section size 20 x 40 mm	1 Sqm	581.00
	753	Double shutter 4'-0" x 4'-0" (1219.2x1219.2mm) shutter section size 20 x 40 mm	1 Sqm	581.00
		<b>Door frames</b>		
		<b>Supply &amp; fixing of Door frames made of all formed sections of 1.25mm thick CRCA section, size should be 50x60mm with 32mm rebate. The corner of the frame should be welded. The frame should be painted with one coat of primer and finished painted with pure polyester paint. The frame should be provided with approved quality butt hinges of 3 Nos. including all taxes complete for finished item of work.</b>		
	754	Single shutter 3'-0" x 7'-0" (914.4x2133.6mm) outer frame section size of 50 x 60 mm	1RM	146.90
	755	Double shutter 5'-0" x 7'-0" (1524x2133.6mm) outer frame section size of 50 x 60 mm	1 RM	146.90
		Supplying & fixing of Door frame made of roll formed section of 1.25 mm thick CRCA section, size should be 50 x 60 mm with 32 mm rebate. The corner of the frame should be welded. The frame should be painted with one coat of primer and finished painted with pure polyester paint. The frame should be provided with approved quality butt hinges of 3 Nos. including all taxes complete for finished item of work.		
	756	Single shutter 3'-0" x 7'-0" (914.4x2133.6mm) outer frame section size of 50 x 75 mm	1 RM	167.40
	757	Single shutter 5'-0" x 7'-0" (1524x2133.6mm) outer frame section size of 50 x 75 mm	1 RM	167.40
		<b>SPECIFICATION OF HARDWYN OR EQUIVALENT DOOR CLOSER ISI MARKED</b>		
	758	Providing and fixing IS:3564 marked Aluminium Die cast body tubular type universal hydraulic door closer, Hardwyn make (Classic Queen) with necessary accessories and screws etc complete	Each	453.60
	759	Providing and fixing IS:3564 marked Aluminium Extruded Section body tubular type universal hydraulic door closer with double speed adjustment, Hardwyn make (Mytel) with necessary accessories and screws etc complete	Each	604.80
	760	Providing and fixing IS:3564 marked Aluminium Extruded Section body tubular type universal hydraulic door closer with double speed adjustment, Hardwyn make (Eddy) with necessary accessories and screws etc complete	Each	712.80

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
	761	Providing and fixing IS:3564 marked Aluminium Extruded Section body tubular type universal hydraulic door closer with double speed adjustment, Hardwyn make (Gazel) with necessary accessories and screws etc complete	Each	745.20
		<b>SPECIFICATION OF HARDWYN OR EQUIVALENT FLOOR SPRING ISI MARKED</b>		
	762	Providing and fixing double action hydraulic floor spring of approved brand manufacture IS : 6315 marked, Hardwyn make (U-32) for doors including cost of cutting floors as required, embedding in floors and S.S cover plates with Aluminum Pivot and single piece M.S. Sheet outer box with slide plate etc. complete (Weight Capacity upto 130 Kgs)	Each	1803.60
	763	Providing and fixing double action hydraulic floor spring of approved brand manufacture IS : 6315 marked, Hardwyn make (U-32) for doors including cost of cutting floors as required, embedding in floors and Brass cover plates with Aluminum Pivot and single piece M.S. Sheet outer box with slide plate etc. complete (Weight Capacity upto 130 Kgs)	Each	1911.60
	764	Providing and fixing double action hydraulic floor spring of approved brand manufacture Hardwyn make (U-88) for doors including cost of cutting floors as required, embedding in floors and S.S cover plates with Aluminum Pivot and single piece M.S. Sheet outer box with slide plate etc. complete (Weight Capacity upto 80 Kgs)	Each	1350.00
	765	Providing and fixing double action hydraulic floor spring of approved brand manufacture Hardwyn make (U-88) for doors including cost of cutting floors as required, embedding in floors and Brass cover plates with Aluminum Pivot and single piece M.S. Sheet outer box with slide plate etc. complete (Weight Capacity upto 80 Kgs)	Each	1458.00
		<b>Curtain Glazing</b>		
		<b>Supply and fixing of curtain Glazing made of pre painted steel (base steel as per IS 513 of 0.6 mm thick D quality, galvanized as per IS 277 with Zinc of 120 GSM) Primer coated with epoxy primer of 5-7 microns thick, finish painted with a polyester paint of 12- 16 microns thick and back coated with 5-7 microns thick alkyad backer. Section for outer frame should be 46 x 52 mm , section for mullion should be 46 x 70 mm and section for beading should be 18 x 25 mm. The Glazing should be panelled with 5 mm thick plain float Glass with Ethyl Propylene diameine Monomer (EPDM) Gaskets. The sections are to be cut to length, mitre joined with corner bracket. Cnetre mullions are to be fixed suing mullion cap. Handle made of high grade alluminium powder coated and nylon receiver. Gaskets made of Ethyl propylence Diamine Monomer (EPDM) Corner brackets made of CRCA with zinc phosphating. Mullion caps made of Glass filled nylon. The above frames should be fixed to the concrete / masonry wall be means of self expanding screws. Including all taxes &amp; complete for finished item of work.</b>		
	766	Fixed Glazing 2'-0" x 2'-0" (609.6x609.6mm) grid outer frames section size of 46 x 52 mm	1 Sqm	2708.60
		<b>Mullion section size of 46 x 70mm</b>		
		<b>Beading section size of 18 x 25 mm</b>		
	767	Fixed Glazing 2'-0" x 3'-0" (609.6x914.4mm) grid outer frame section size of 46 x 52 mm	1 sqm	2708.60
		<b>Mullion section size of 46 x 70 mm</b>		
		<b>Beading section size of 18 x 25 mm</b>		
	768	Fixed Glazing 3'-0" x 3'-0" (914.4x914.4mm) grid outer frame section size of 46 x 52 mm	1 sqm	2313.40
		<b>Mullion section size of 46 x 70 mm</b>		
		<b>Beading section size of 18 x 25 mm</b>		
	769	Fixed Glazing 3'-0" x 4'-0" (914.4x1219.2mm) grid outer frame section size of 46 x 52 mm	1 sqm	2313.40
		<b>Mullion section size of 46 x 70 mm</b>		
		<b>Beading section size of 18 x 25 mm</b>		
		<b>ALLUMINIUM DOORS AND WINDOWS</b>		
	770	Supplying alluminium Door frames with rectangular box hollw section (including annodisation cost)	1 Kg	190.10
	771	Supplying alluminium annodised openable sliding window, Ventgilorator (including annodisation cost)	1 Kg	190.10

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
	772	A.C sheet Corrugated 6 mm thick	1 sqm	102.60
	773	A.C sheet plain 4 m thick	1 sqm	95.00
	774	A.C sheet plain 6 m thick	1 sqm	97.20
	775	Sun Control film to the glazed windows partition including labour charges.	1 sqm	259.20
	776	Alluminium Venetian blinds horizontal 25.4 mm wide with all accessories.	1 sqm	629.60
	777	Alluminium Venetian blinds Verticle 100 mm wide with all accessories.	1 sqm	1069.20
	778	S & F of marblex flooring with 2.0 mm thick in rolls.	1 sqm	351.00
	779	S&F Vinyl Flooring with tiles 1.5 mm thick in rolls	1 sqm	351.00
		<b>RATES OF WORKS</b>		
		<b>A. DISMANTLING</b>		
		<b>Dismantling clearing away and carefully stacking materials useful for reuse.</b>		
	780	Brick or stone masonry in clay upto 3 M height	1 Cum	54.00
	781	Brick or stone masonry in clay over 3 M height	1 Cum	64.80
	782	Brick or stone masonry in lime motar or brick masonry in cement mortar upto 3 M height	1 Cum	91.80
	783	Brick in lime mortar wall up to 3 M height	1 Cum	54.00
	784	Brick or stone masonry in lime motar or brick masonry in cement mortar over 3 M height	1 Cum	91.80
	785	Brick in lime mortar wall up to 3 M height	1 Cum	54.00
	786	Stone masonry in cement mortar upto 3 M height	1 Cum	129.60
	787	Stone masonry in cement mortar over 3 M height	1 Cum	156.60
	788	Terracing work in roofs or floors	10 Sqm	64.80
	789	Flat stones in roof or floors includng lifting	10 Sqm	54.00
	790	pan tiled or mangalore tiled roof without roof timbers.	10 Sqm	48.60
	791	Flat and pan tiles or Mangalore tiles over flat tiles without roof timbers	10 Sqm	54.00
	792	Old thatched roofing including tying materials into small bundles for reuse.	10 Sqm	16.20
	793	Wrought and framed timber in roofs or floors	1 Cum	81.00
	794	Doors and windows including removal of frame, hinges and fastening.	1 sqm	27.00
	795	Old lime mortor plaster	10 Sqm	16.20
	796	Old cement mortar plaster	10 Sqm	19.40
	797	Dry rough stone revetment for aprons and stacking within 40 M lead	1 Cum	25.90
	798	Revetment for aprons and stacking grouted within 40 lead	1 Cum	19.40
	799	Lime concrete	1 Cum	86.40
	800	Surki or cement concrete	1 Cum	135.00
	801	Cuddapah slabs or shahabad stone slabs fooring on sand bed	10 Sqm	27.00
	802	reinforced cement conrete	1 Cum	793.80
	803	Through scraping of old pllastered surface	10 Sqm	16.20
	804	Washing of platered surface with soap, soda and water (or with soda lime cumbly and water)	10 Sqm	5.40
	805	clean removal of lime plaster from walls and raking out joints 20mm deep or from terraced roof and raking out joints 100 mm deep	10 Sqm	17.30
	806	Clean removal of cement pllater from walls and raking out joint 200 mm deep	10 Sqm	18.40
		Bailing out water for earth work excavation /concrete for foundatin below water level.(For building items only)		
		a) other than sandy soil		
	807	0.0 M to 1.0 M	1 cum	69.10
	808	1.0 M to 2.0 M	1 cum	82.10
	809	2.0 M to 3.0 M	1 cum	96.10
		b) Sandy soil		
	810	0.0 M to 1.0 M	1 cum	110.20
	811	1.0 M to 2.0 M	1 cum	170.60
	812	2.0 M to 3.0 M	1 cum	206.30
		<b>(E) CONCRETE</b>		
	813	a) Supply and placing of the ready (design ) standard mix concrete M 20 grade from standard suppliers approved by the Department including cost and conveyance, pumping upto 5 floors and curing etc complete for finished item of work	1 Cum	2484.00



Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
	814	For each additional floor for M20 grade concrete	1 Cum	32.40
	815	a) Supply and placing of the ready (design ) standard mix concrete M 25 grade from standard suppliers approved by the Department including cost and conveyance, pumping upto 5 floors and curing etc complete for finished item of work	1 Cum	2548.80
	816	For each additional floor for M25 grade concrete	1 Cum	32.40
		<b>(F) labour charges for wrought and put up including fixing in position frames, shutters for doors, windows, ventilators etc.</b>		
	817	Fully panelled doors external or internal	1 Sqm	356.40
	818	Glazed and panelled doors	1 Sqm	343.40
	819	Framed and planked doors	1 Sqm	335.90
	820	Ledged, braced and planked doors	1 Sqm	288.40
	821	Windows glazed	1 Sqm	343.40
	822	Windows panelled	1 Sqm	452.50
	823	Windows ledged, braced and planked	1 Sqm	288.40
	824	Windows framed and planked	1 Sqm	274.30
	825	Ventilators glazed, fixed with double frame with wire netting.	1 Sqm	343.40
	826	Swing ventilators glazed	1 Sqm	370.40
	827	Weldmesh doors and windows	1 Sqm	288.40
	828	G.I or .AC sheet door & windows	1 Sqm	144.70
		<b>(G) MISCELLANEOUS ITEMS</b>		
	829	Preparing gabions with jungle wood	Each	2.60
	830	Planting plants	Each	1.90
	831	Pruning plants	Each	1.90
	832	Maintaining avenues including fencing, weeding, milching, watering etc per plant.	Each	4.50
	833	- do - When scattered in hot weather with extra conveyance from March to June	Each	5.20
	834	Hoisting or lowering of slab	1 cum	72.40
	835	Dressing faces of granite stone (double line dressing)	1 Sqm	119.90
	836	Dressing faces of other than granite stone(double line dressing)	1 Sqm	74.50
		<b>Expansion Joint fillers</b>		
		<b>SUPPLY OF HIGH PERFORMANCE EXPANSION</b>		
		<b>JOINT FILLER BOARD. CONFIRMING TO M.O.S.T</b>		
		<b>(FOR ROADS&amp;BUILDINGS)</b>		
		<b>"SILFLEX" CAPCELL HD-100</b>		
	837	A. 18MM THICK	1 Sqm	540.00
	838	B. 20MM THICK	1 Sqm	604.80
	839	C. 25MM THICK	1 Sqm	756.00
		<b>SUPPLY OF EXPANSION JOINT FILLER BOARD</b>		
		<b>FOR BUILDINGS, COLUMNS, BEAMS AND</b>		
		<b>SLABS</b>		
		<b>"ARMOUR BOARD" SILFILL</b>		
	840	A. 20MM THICK	1 Sqm	216.00
	841	B. 25MM THICK	1 Sqm	270.00
	842	C. 50MM THICK	1 Sqm	540.00
		<b>SUPPLY OF BACK UP TO COLD APPLIED</b>		
		<b>SEALANT IN CONSTRUCTION AND</b>		
		<b>LONGITUDINAL JOINT</b>		
		<b>"BACK UP ROAD" SILSEAL</b>		
	843	A. 10MM OD	1 RM	8.60
	844	B. 12MM OD	1 RM	10.40
	845	C. 15MM OD	1 RM	13.00
	846	D. 20MM OD	1 RM	17.30
	847	E. 25MM OD	1 RM	21.60
		<b>(H) SCAFFOLDING</b>		
	848	For superstructure in first floor over the rate of foundation and basement	1 cum	31.30

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
	849	For second floor over the rate of first floor superstructure	1 cum	37.80
	850	For third floor over the rate of 11nd floor superstructure	1 cum	50.80
	851	For each additional floor over third floor	1 cum	22.70
		<b>Scaffolding for plastering of walls and ceiling or painting of roof timber or walls, where height is more than 3 M</b>		
	852	1st and 2nd floor	10 Sqm	34.60
	853	2nd and 3rd floor	10 Sqm	69.10
	854	3rd and 4th floor	10 Sqm	103.70
	855	Extra for every additional floor over 4th floor	10 Sqm	24.80
		<b>Centering charges</b>		
	856	centering charges for all RCC roof slabs upto 150 mm depth and upto 3.66 M of floor height	10 Sqm	788.40
	857	Centering charges for all RCC roof slabs upto 150 mm depth & more than 3.66 M of floor height. Add for each additional metre height or part there of over the rate as in item above.	10 Sqm	216.00
	858	centering charges for all RCC roof slabs above 150 mm upto 300 mm depth and upto 3.66 M of floor height	10 Sqm	1170.70
	859	Centering charges for all RCC roof slabs above 150 mm and upto 300depth & more than 3.66 M of floor height. Add for each additional metre height or part there of over the rate as in item above.	10 Sqm	319.70
		<b>Centering charges for all R.C.C roof slabs projection upto 1.2 M only, at higher level without having such slab projections at lower levels.</b>		
	860	At 2nd floor level	10 Sqm	722.50
	861	At 3rd floor level	10 Sqm	754.90
	862	At 4th floor level	10 Sqm	788.40
	863	Centering charges for all RCC waffle slabs includng ribs etc.(plain area) upto 3.66 M of floor height	10 Sqm	1203.10
	864	Centering charges for all RCC waffle slabs including ribs etc. (plain area) & more than 3.66 M of floor height. Add for each additional metre height or part there of over the rate as in item above.	10 Sqm	328.30
	865	Centering charges for all R.C.C helical stair cases.	10 Sqm	1284.10
	866	Centering charges for RCM facia/ railing 50 to 75 mm thickness	1 Sqm	45.40
	867	Centering charges for sunshade 0.6 M width	1 RM	34.00
	868	Centering charges for sunshade 0.8 M width	1 RM	42.10
	869	Centering charges for sunshade 1.00 M width	1 RM	47.50
	870	Centering charges for T beams upto 3.66 M of floor height	1 cum	878.00
	871	Centering charges for T beams more than 3.66 M of floor height . Add for each additional metre height or part there of over the rate as in item above	1 cum	239.80
	872	Centering charges for Rectangular beam, L beams, upto 3.66 M of floor height	1 cum	744.10
	873	Centering charges for Rectangular beams & L beams more than 3.66 M of floor height . Add for each additional metre height or part there of over the rate as in item above	1 cum	203.00
	874	Centering charges for columns, pedestals	1 cum	744.10
	875	Centering charges for Templates, bed blocks and footings	1 cum	468.70
	876	Centering charges for arches upto 1.5 M span	1 cum	1013.00
	877	Centering charges for arches above 1.5 M span	1 cum	1081.10
	878	Centering charges for lintels and plinth beams ( less than 3.0 span)	1 cum	605.90
	879	Centering charges for slabs above 300 mm depth	1 cum	703.10
	880	Labour charges for 50 to 75 mm thick RCM Paradah walls	1 sqm	64.80
	881	Labour charges for fixing A.C sheets including cost of J.Bots bitumen washers etc. with or without ridges.	10 sqm	371.50
		<b>(j) LIFT CHARGES</b>		
		<b>For RCC items</b>		
	882	Between 1 st and 2 nd floor	1 cum	40.00
	883	Between 2nd and 3rd floor	1 cum	98.30
	884	Between 3rd and 4th floor	1 cum	183.60
	885	Between 4th and 5th floor	1 cum	288.40
	886	Between 5th and 6 th floor	1 cum	314.30
	887	between 6ht and 7 th floor	1 cum	393.10
	888	Between 7th and 8 th floor	1 cum	457.90

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
	889	Between 8th and 9 th floor	1 cum	510.80
	890	Between 9th and 10th floor	1 cum	589.70
		<b>LIFT CHARGES FOR BRICK MASONRY &amp; STONE MASONRY</b>		
	891	Between 1 st and 2 nd floor	1 cum	32.90
	892	Between 2nd and 3rd floor	1 cum	46.40
	893	Between 3rd and 4th floor	1 cum	59.40
	894	Add extra for every additional floor above 4th floor	1 cum	19.40
		Lift charges for impervious coat upto 26 mm thick plastering with impermo compound or shahabad stone flooring:		
	895	Between 1 st and 2nd floor	10 Sqm	16.20
	896	Between 2nd and 3rd floor	10 Sqm	29.50
	897	Between 3rd and 4th floor	10 Sqm	43.20
	898	Add extra for every additional floor above 4th floor	10 Sqm	15.10
		Lift charges for plastering		
	899	Between 1 st and 2 nd floor	10 Sqm	8.00
	900	Between 2nd and 3rd floor	10 Sqm	14.00
	901	Between 3rd and 4th floor	10 Sqm	20.50
	902	Add extra for every additional floor above 4th floor	10 Sqm	9.10
<p><b>Note:- SSR rates for Building Items are purely for guidance for the officers for preparation of estimates vide para 113 of APPWD code. Authority who prepares the estimate is however responsible for proper rates as envisaged in para 45 of APPWD code.</b></p>				

## SANITARY AND WATER SUPPLY ITEMS

S.No	Description of item	Unit	S S RATE FOR 2005-06
1	2	3	
1	Supplying, laying, jointing and testing 101.6 mm SWG pipes of ISI make conforming to ISI 651 & 4127 with airtight cement joints in CM 1.5 : 1 prop. including excavation of trenches and socket pits in any soil (except rock requiring blasting) upto 1524 mm (5'0") depth and refilling with watering and tamping.	1 RM	135.20
2	Supplying, laying, jointing and testing 101.6 mm SWG pipes of ISI make conforming to ISI 651 & 4127 with airtight cement joints in CM 1:5:1 prop. including excavation of trenches and socket pits in any soil (except rock requiring blasting) upto 914.4 mm (3'0") depth and refilling with watering and tamping.	1 RM	105.60
3	a) Supplying & fixing SWG bends 101.6 mm	Each	33.00
4	b) - do - labour charges only	Each	12.10
5	Supplying & fixing 152.4 mm x 101.6 mm SWG gully traps of ISI make conforming to ISI 651 & 4127 with C.I Grating & Constg. Brick masonry in CM 1 :6 prop. Intermediae chamber and fitted with 304.8 mm x 288.6mm (12"x9") C.I Frame and hinged cover	Each	254.10
6	Supply of SWG pipe of ISI make conforming to ISI 651 4" dia (101.6mm)	1 RM	46.00
7	Supply of SWG pipe of ISI make conforming to ISI 651 6" dia (152.4mm)	1 RM	62.20
8	Supply of SWG pipe of ISI make conforming to ISI 651 8" dia (203.2mm)	1 RM	156.80
9	Supply of SWG pipe of ISI make conforming to ISI 651 10" dia (254mm)	1 RM	229.90

Sl. No.	S.S. No.	Item Description	Unit (per)	S S RATE FOR 2005-06
10		Constructing 914.4 mm (3'0") dia brick in CM 1:6 prop. Masonry inspection chamber upto 1524 mm (5'0") depth including plastering with CM 1:3 prop. 12.7 mm (1/2")thick both inside and outside and fitted with 508 mm (20") dia light weight 20 kg CI frame and cover.	Each	2420.00
11		Constructing 914.4 mm (3'0")dia brick in CM 1:6 prop. Masonry inspection chamber upto 914.4 mm (3'0") depth including plastering with CM 1:3 prop. 12.7 mm (1/2")thick both inside and outside and fitted with 508 mm (20") dia light weight 20 kg CI frame and cover.	Each	1754.50
12		Extra for provision of medium weight 40 Kg in place of light weight cover.	Each	357.50
13		Constructing 914.4 mm x 457.2 mm (3'0"x1'6") brick in CM 1:6 prop. Masonry Inspection chamber upto 914.4 mm (3'0") and fitted with light weight 914.4 mm x 457.2 mm (3'0"x1'6") C.I frame and cover of 40 Kg.	Each	1870.00
14		Constructing 457.2 mm x 457.2 mm (1'6"x1'6") brick in CM 1:6 prop. Masonry. Inspection chamber upto 914.4 mm (3'0") and fitted with light weight 457.2 mm x 457.2 mm (1'6"x1'6") C.I frame and cover of 20 Kg.	Each	1127.50
15		a) Supplying & fixing 101.6 mm C.I Plug Bend	Each	165.00
16		b) - do - labour charges only	Each	33.00
17		a) Supplying & fixing 152.4mm dia CI plug bend 1st quality	Each	377.00
18		b) - do - labour charges only	Each	43.70
19		a) Supplying & fixing 101.6mm dia CI Plain bend 1st quality	Each	154.00
20		b) - do - labour charges only	Each	33.00
21		a)Making drainage connection in the existing inspection including all repairs	Each	66.00
22		b) - do - labour charges only	Each	38.50
23		a)Supplying , laying, jointing and testing 152.4 mm SWG pipes of ISI make conforming to ISI 651 &4127 with airtight cement joints in CM 1.5 : 1 prop. including excavation of trenches and socket pits in any soil (except rock requiring blasting) upto 151.2 cm depth and refilling with watering and tamping.	1 RM	176.00
24		b) - do - labour charges only	1 RM	38.50
25		a)Supplying , laying, jointing and testing 152.4 mm CC bed 1 : 2 : 4 Prop: using 19.05 mm gauge graded granite metal chips and cradling 101.6 mm SWG pipe line all round to have 76.2 mm thick cover over the sockets.	1 RM	44.00
26		b) - do - labour charges only	1 RM	5.50
27		a)Supplying , laying, jointing and testing 152.4 mm CC bed 1:2:4 Prop: using 19.05 mm gauge graded granite metal chips and cradling 152.4 mm SWG pipe line all round to have 76.2 mm thick cover over the sockets.	1 RM	77.00
28		b) - do - labour charges only	1 RM	27.50
29		Supplying & Laying 101.6 mm SWG channels with cement mortor joints with suitable brick masonry for fixing the channels in position	1 RM	46.10
30		b) - do - labour charges only	1 RM	19.00
31		a) Supplying & Laying 152.4 mm SWG channels with cement mortor joints with suitable brick masonry for fixing the channels in position	1 RM	86.10
32		b) - do - labour charges only	1 RM	26.60
33		a) Supplying & fixing 101.6 mm C.I Soil pipes with cement caulked joints and painted black	1 RM	258.50
34		b) - do - labour charges only	1 RM	74.80
35		a) Supplying and fixing 152.4 mm (6") CI soil pipe 1st quality with cement caulked joints and painted black ( single socket)	1 RM	467.50
36		b) - do - labour charges only	1 RM	74.80
37		a) Supplying and fixing 76.2 mm (3") CI soil pipe 1st quality with cement caulked joints and painted black ( single socket)	1 RM	154.00
38		b) - do - labour charges only	1 RM	74.30
39		a) Supplying and fixing 152.4 mm(6") CI soil pipe 1st quality with cement caulked joints and painted black ( Double socket)	1 RM	495.00
40		b) - do - labour charges only	1 RM	74.30

Sl. No.	S.S. No.	Item Description	Unit (per)	S S RATE FOR 2005-06
41		a) Supplying and fixing 76.2 mm(3") CI soil pipe 1st quality with cement caulked joints and painted black ( Double socket)	1 RM	176.00
42		b) - do - labour charges only	1 RM	74.30
43		a) Supplying & fixing 101.6 mm (4") CI soil single junction with plug	Each	220.00
44		b) - do - labour charges only	Each	22.00
45		a) Supplying & fixing 152.4 mm (6") CI soil single junction with plain	Each	377.00
46		b) - do - labour charges only	Each	43.70
47		a) Supplying & fixing 152.4 x 152.4 mm (6"x6") CI single junction plug /door 1st quality	Each	434.50
48		b) - do - labour charges only	Each	26.20
49		a) S& F 101.6 mm (4") CI soil double junction with plug	Each	237.60
50		b) - do - labour charges only	Each	33.00
51		a) S & F 101.6 x 76.2 mm CI soil offsets (calcutta make)	Each	148.50
52		b) - do - labour charges only	Each	16.50
53		a) Supplying & fixing 152.4 x 152.4 mm CI single offset 1st quality	Each	290.20
54		b) - do - labour charges only	Each	26.20
55		a) Supplying & fixing 203.2 x 76.2 mm CI soil offsets 1st quality	Each	246.20
56		b) - do - labour charges only	Each	26.20
57		a) Supplying & fixing 101.6 mm x 152.4 mm C.I soil offsets (Calcutta make)	Each	176.00
58		b) - do - labour charges only	Each	19.80
59		a) Supplying & fixing 88.9 mm A.C cowls	Each	38.50
60		b) - do - labour charges only	Each	6.60
61		a) Supplying & fixing A.C Cowl 63.5 mm dia	Each	27.50
62		b) - do - labour charges only	Each	5.50
63		a) supplying & fixing 101.6 mm x 63.5 mm CI inverted double junction (Calcutta/Nagpur make)	Each	330.00
64		b) - do - labour charges only	Each	28.60
65		a) S & F 76.2 mm CI Naharytrap (Calcutta/Nagpur make)	Each	170.50
66		b) - do - labour charges only	Each	26.40
67		Removing and refixing W.C s	Each	133.10
68		Removing and refixing wash hand basins of any size with fittings complete	Each	104.50
69		a) S & F 76.2 x 101.6 mm teak wood block complete	Each	14.30
70		b) - do - labour charges only	Each	4.40
71		a) S& F 76.2 mm C.I plug bends (Calcutta/Nagpur make)	Each	110.00
72		b) - do - labour charges only	Each	13.20
73		a) S & F 76.2 mm CI plain beds (Calcutta/Nagpur make)	Each	96.80
74		b) - do - labour charges only	Each	11.00
75		a) S&F 76.2 mm C.I single junction with Plug ( Calcutta / Nagapur make)	Each	148.50
76		b) - do - labour charges only	Each	18.70
77		a) S&F 76.2 mm C.I double junction with Plug ( Calcutta / Nagapur make)	Each	209.00
78		b) - do - labour charges only	Each	22.00
79		a) Supplying & fixing 76.2 mm x 76.2 mm CI offsets (Calcutta/Nagpur make)	Each	115.50
80		b) - do - labour charges only	Each	3.30
81		a) Supplying & fixing 76.2 mm x 152.4 mm CI offsets (Calcutta/Nagpur make)	Each	126.50
82		b) - do - labour charges only	Each	16.50
83		Supply & fixing 101.6 mm dia CI floor traps 1st quality	Each	205.70
84		a)Boxing of Nahany traps in RCC floors	Each	88.00
85		b) - do - labour charges only	Each	44.00
86		Boxing of W.C Trap in R.C.C floor in 1st floor Labour charges only	Each	176.00
87		Cutting holes in C.C; basement & repairs Labour charges only	Each	49.50
88		Cutting holes in stone masonry & basement and repairs Labour charges only	Each	33.00

Sl. No.	S.S. No.	Item Description	Unit (per)	S S RATE FOR 2005-06
	89	Cutting holes in Brick masonry & repairs Labour charges only	Each	22.00
	90	Cutting holes in RCC slab floor & repairs Labour charges only	Each	33.00
	91	a) S & F 584.2 mm long Indian pattern white glazed W.C and trap	Each	506.00
	92	b) - do - labour charges only	Each	121.00
	93	a) S& F 584.2 mm long Orissa pan of parry Neycer/H.S.W make with 'P' & 'S' trap	Each	849.20
	94	b) - do - labour charges only	Each	151.80
	95	a) S & F porcelanin foot rest for I.W.C.(Rectangular pair)	Pair	121.00
	96	b) - do - labour charges only	Pair	27.50
	97	a) S & F low down porcelain flushing tank Hindustan Sanitary wae/ parry/ Neycer with internal components	Each	1210.00
	98	b) - do - labour charges only	Each	220.00
	99	a)S & F European type Hindustan / Neycer or parry W.C best Indian make white glazed (P trap)	Each	605.00
	100	b) - do - labour charges only	Each	110.00
	101	a) S & F European type Hindustan / Neycer or parry W.C best Indian make white glazed with 'S' trap	Each	715.00
	102	b) - do - labour charges only	Each	110.00
	103	a) S& F best Indian make plastic seat and lid for European water closets & Buffers as per IS 2548-1963	Each	242.00
	104	b) - do - labour charges only	Each	33.00
		<b>Supply, Installation and commissioning approved make EWC(suit) CASCADE model P' or S' trap with porcelin cistern fixed on EWC with all internal parts of cistern vis. White seat cover of aproved make with rubber buffer and cap 15 mm angle stop cock 450 mm long PVC inter connection pipe wall flanges all of approved make etc. complete for finished item of work in all respects</b>		
	105	a) white	Each	4878.50
	106	b) Extra for colour	Each	1985.50
	107	c) Extra for spl. Colour	Each	3971.00
	108	a) Supplying & Fixing 12.7 mm PVC connection with brass union nut C.P coated	Each	55.00
	109	b) - do - labour charges only	Each	11.00
	110	a) S & F 12.7 mm NP stop cock Indian make 300 grams	Each	101.20
	111	b) - do - labour charges only	Each	13.20
	112	a) S & F concealed stop cock 12.7 mm (1/2")	Each	148.50
	113	b) - do - labour charges only	Each	15.20
	114	a) S & F angle stop cock 12.7 mm dia first quality	Each	105.60
	115	b) - do - labour charges only	Each	15.20
	116	a) S&F 12.7 mm N.P bib tap Indian make 300 grams	Each	101.20
	117	b) - do - labour charges only	Each	13.20
	118	a) S&F 12.7mm N.P bib tap Indian make 250 grams	Each	85.80
	119	b) - do - labour charges only	Each	11.00
	120	a)S & F 31.75 mm brass plumber Union best Indian first quality	Each	27.50
	121	b) - do - labour charges only	Each	5.50
	122	a) S & F 12.7 mm brass stop cock Indian make 400 grams	Each	88.00
	123	b) - do - labour charges only	Each	11.00
	124	a) S & F 12.7 mm brass stop cock Indian make 300 grams	Each	82.50
	125	b) - do - labour charges only	Each	11.00
	126	a) S & F 12.7 mm brass bib cock Indian make 400 grams	Each	96.80
	127	b) - do - labour charges only	Each	11.00
	128	a) S & F 12.7 mm brass bib cock Indian make 300 grams	Each	82.50
	129	b) - do - labour charges only	Each	12.10
	130	S & F CP long body bib cock fancy type delux 300 grams dia 12.7 mm	Each	171.60
	131	S & F 12.7mm dia high neck pillar cock Ist quality Indian make 400 grams	Each	274.60
	132	a) S & F 12.7 mm .M.P couplings	Each	19.80

Sl. No.	S.S. No.	Item Description	Unit (per)	S S RATE FOR 2005-06
	133	b) - do - labour charges only	Each	5.50
	134	a) S & F 19.05 mm M.P couplings	Each	22.00
	135	b) - do - labour charges only	Each	5.50
	136	a) S& F MP coupling 25.4 mm dia	Each	52.80
	137	a) S & F PVC Rubber adopter for LLC and bend	Each	11.00
	138	b) - do - labour charges only	Each	3.30
	139	a) S& F 31.75 mm Brass union nuts	Each	19.80
	140	b) - do - labour charges only	Each	3.30
	141	a) S& F 38.1 mm Brass union nuts	Each	20.90
	142	b) - do - labour charges only	Each	4.40
	143	S& F GI union 12.7 mm 1st Quality	Each	21.10
	144	S& F GI union 19.05 mm 1st Quality	Each	26.40
	145	S& F GI union 25.4 mm 1st Quality	Each	39.60
	146	S& F GI union 31.75 mm 1st Quality	Each	49.50
	147	S& F GI union 38.1 mm 1st Quality	Each	59.40
	148	S& F GI union 50.8 mm 1st Quality	Each	72.60
	149	S& F GI connector 25.4 mm dia	Each	44.00
	150	S& F 12.7 m GI 'T' A class 1st quality	Each	27.50
	151	S& F 31.75 mm dia GI bend 1st quality	Each	39.60
	152	S & F 31.75 mm dia GI 'T' 1st Quality	Each	38.70
	153	a) Supplying & Fixing solder joints upto 50.8 mm dia	Each	34.10
	154	b) - do - labour charges only	Each	11.00
	155	a) Supplying & Fixing solution joints upto 50.8 dia 1st quality.	Each	6.80
	156	b) - do - labour charges only	Each	1.30
	157	a)S & F 558.8 mm x 406.4 mm Indian make wash hand basins (HSW/Parry/Earthenware) with 12.70 mm double N.P 400 grams pillar taps wast plug chain complete with CI brackets including wooden block	Each	605.00
	158	b) - do - labour charges only	Each	154.00
	159	a) S& F pedestal (H.S.W / Parry/ Earthenware)	Each	594.00
	160	b) - do - labour charges only	Each	55.00
	161	a) S & F 31.75 mm C.P bottle trap (Heavy type)	Each	165.00
	162	b) - do - labour charges only	Each	22.00
	163	a) S & F 31.75 mm C.P TRAPS	Each	165.00
	164	b) - do - labour charges only	Each	22.00
	165	a) S & F 12.7 mm NP elbow action bib cock 600 gms	Each	253.00
	166	b) - do - labour charges only	Each	19.00
	167	a) S&F 12.7 m NP elbow action pillar cock 600 gms	Each	211.20
	168	b) - do - labour charges only	Each	16.50
	169	S&F 12.7 mm dia NP pillar cock 1st quality	Each	102.90
	170	S&F 12.7 mm dia NP push cock 1st quality	Each	110.00
	171	S&F 12.7 mm dia NP lift cock 1st quality	Each	88.00
	172	a)S & F 38.1 mm C.P waste coupling	Each	50.60
	173	b) - do - labour charges only	Each	13.20
	174	a) S & F 31.75 mm PVC bottle trap	Each	71.50
	175	b) - do - labour charges only	Each	11.00
	176	a) S& F 38.1 mm brass plumber union	Each	36.70
	177	b) - do - labour charges only	Each	5.50
	178	a) S & F white glazed flat back urinals with screws complete Indian make (TWYFORT)(Parry/Neycer)	Each	385.00
	179	b) - do - labour charges only	Each	60.50
	180	a)S & F 19.05 mm NP stop cock Indian make with ISI mark 400 grams	Each	143.00
	181	b) - do - labour charges only	Each	11.00
	182	Chiselling the stone masonry wall for fixing of wooden blocks including finishing as directed by the department	Each	16.50
	183	Chiselling the stone masonry wall and repairs as directed by the department.	1 Rm	77.00

Sl. No.	S.S. No.	Item Description	Unit (per)	S S RATE FOR 2005-06
	184	Chiselling the brick masonry wall and repairs as directed by the department.	1 Rm	16.50
	185	a) S & F NP telephonic shower spray set & valve mixer with rest and all fittings complete (ARK/ESSCO make)	Each	825.00
	186	b) - do - labour charges only	Each	198.00
	187	a) S & F NP shower spray fancy with NP Flexible pipe	Each	275.00
	188	b) - do - labour charges only	Each	66.00
	189	a) S & F NP cover for nahany trap	Each	17.60
	190	b) - do - labour charges only	Each	8.80
	191	a) Painting the flushing tank with white enamel paint	Each	60.50
	192	b) - do - labour charges only	Each	30.80
	193	S & F internal fittings for flush tank	Each	330.00
	194	Repairing and over hauling flushing tank	Each	44.00
	195	a) Supplying & Fixing NP chain rubber and plugh for baisn	Each	22.00
	196	b) - do - labour charges only	Each	3.30
	197	a) S & F 609.6 x 457.2 x 254 mm Indian make white glazed sink on cantilever brackets with 2 NP couplings, plug and chain complete	Each	2035.00
	198	b) - do - labour charges only	Each	165.00
	199	a) S & F 762.00 x 457.2 x 228.6 mm Indian make white glazed sink on cantilever brackets with 2 NP couplings, plug and chain complete	Each	2420.00
	200	b) - do - labour charges only	Each	165.00
	201	a) S & F 609.6 x 457.2 x 254 mm RCC terrazo finished sink (or constructed at site with 50.8mm thick) brass plug and chain including CI cantilever brackets	Each	330.00
	202	b) - do - labour charges only	Each	110.00
	203	a) S & F 25.4 mm dia & 609.6 mm long aluminium anodized towel rod with brackets and aluminium screws	Each	82.50
	204	b) - do - labour charges only	Each	22.00
	205	a) S & F 19.04 mm dia & 609.6 mm long aluminium anodized towel rod with brackets and aluminium screws	Each	71.50
	206	b) - do - labour charges only	Each	33.00
	207	a) S & F 609.6 mm long 127 mm wide plate glass shelf with superior quality aluminium railing complete with aluminium screws	Each	104.50
	208	b) - do - labour charges only	Each	27.50
	209	a) S & F 609.6 mm long 127 mm wide plate glass shelf only	Each	33.00
	210	b) - do - labour charges only	Each	5.50
	211	a) S & F NP soap dish heavy type with NP SCREWS	Each	132.00
	212	b) - do - labour charges only	Each	6.10
	213	a) S & F NP holder brackets with screws	Each	27.50
	214	b) - do - labour charges only	Each	6.60
	215	a) S & F liquid soap container NP metallic with NP brackets and screws.	Each	121.00
	216	b) - do - labour charges only	Each	11.00
	217	a) Constructing R.C.C over head tank with partition complete	1 Lt	3.90
	218	b) - do - labour charges only	1 Lt	0.90
	219	a) Constructing R.C.C over head tank with out partition complete	1 Lt	3.30
	220	b) - do - labour charges only	1 Lt	0.80
	221	a) S & F 25.4 mm copper ball cock ith PVC ball Indian make ISI mark	Each	209.00
	222	b) - do - labour charges only	Each	22.00
	223	a) S & F 19.05 mm copper ball cock ith PVC ball Indian make ISI mark	Each	170.50
	224	b) - do - labour charges only	Each	22.00
	225	a) S & F 12.7 mm copper ball cock ith PVC ball Indian make ISI mark	Each	110.00
	226	b) - do - labour charges only	Each	22.00
	227	a) S & F 25.4 mm GM peet valve Indian make heavy type	Each	231.00
	228	b) - do - labour charges only	Each	22.00
	229	a) S & F 19.05 mm GM peet valve Indian make heavy type	Each	178.20
	230	b) - do - labour charges only	Each	22.00
	231	a) S & F 12.7 mm GM peet valve Indian make heavy type	Each	137.50



Sl. No.	S.S. No.	Item Description	Unit (per)	S S RATE FOR 2005-06
	232	b) - do - labour charges only	Each	22.00
	233	a) S & F 31.75 mm GM peet valve Indian make heavy type 1st quality	Each	346.50
	234	a) S & F 38.1 mm GM peet valve Indian make heavy type 1st quality	Each	545.60
	235	b) - do - labour charges only	Each	33.00
	236	a) S & F 50.8 mm dia GM peet valve 1st quality	Each	704.00
	237	b) - do - labour charges only	Each	44.00
	238	a) S & F 63.5 mm dia GM peet valve 1st quality	Each	1328.80
	239	b) - do - labour charges only	Each	55.00
	240	a) S & F 76.2 mm dia GM peet valve 1st quality	Each	1948.10
	241	b) - do - labour charges only	Each	66.00
	242	a) S & F 12.7 mm GI pipe 'A' class ISI mark with GI fittings including the cost of pipe & its fittings & labour charges complete	1 RM	71.50
	243	b) - do - labour charges only	1 RM	19.80
	244	a) S & F 19.05 mm GI pipe 'A' class ISI mark with GI fittings including the cost of pipe & its fittings & labour charges complete	1 RM	77.00
	245	b) - do - labour charges only	1 RM	19.80
	246	a) S & F 25.4 mm GI pipe 'A' class ISI mark with GI fittings including the cost of pipe & its fittings & labour charges complete	1 RM	121.00
	247	b) - do - labour charges only	1 RM	19.80
	248	a) S & F 38.1 mm GI pipe 'A' class ISI mark with GI fittings including the cost of pipe & its fittings & labour charges complete	1 RM	165.00
	249	b) - do - labour charges only	1 RM	22.00
	250	a) S & F 50.8 mm GI pipe 'A' class ISI mark with GI fittings including the cost of pipe & its fittings & labour charges complete	1 RM	203.50
	251	b) - do - labour charges only	1 RM	33.00
	252	a) S & F 12.7 mm GI pipe 'B' class ISI mark with GI fittings including the cost of pipe & its fittings & labour charges complete	1 RM	88.00
	253	b) - do - labour charges only	1 RM	19.80
	254	a) S & F 19.05 mm GI pipe 'B' class ISI mark with GI fittings including the cost of pipe & its fittings & labour charges complete	1 RM	93.50
	255	b) - do - labour charges only	1 RM	19.80
	256	a) S & F 25.4 mm GI pipe 'B' class ISI mark with GI fittings including the cost of pipe & its fittings & labour charges complete	1 RM	137.50
	257	b) - do - labour charges only	1 RM	19.80
	258	a) S & F 38.1 mm GI pipe 'B' class ISI mark with GI fittings including the cost of pipe & its fittings & labour charges complete	1 RM	192.50
	259	b) - do - labour charges only	1 RM	22.00
	260	a) S & F 50.8 mm GI pipe 'B' class ISI mark with GI fittings including the cost of pipe & its fittings & labour charges complete	1 RM	247.50
	261	b) - do - labour charges only	1 RM	33.00
	262	a) S & F 31.75 mm GI pipe 'B' class ISI mark with GI fittings including the cost & conveyance of all labour charges complete	1 RM	154.00
	263	S & F 63.5 mm dia GI pipe 'B' class with GI fittings such as elbows tees couplings, nipples, plugs including excavation for trenches and refilling the trenches complete except for GI bends union and GI connectors with checknut and socket Tata or Zenith make.	1 RM	257.40
	264	a) S & F 12.7 mm holder bat clamps	Each	6.60
	265	b) - do - labour charges only	Each	3.30
	266	a) S & F 19.05 mm holder bat clamps	Each	11.00
	267	b) - do - labour charges only	Each	3.30
	268	a) S & F 25.4 mm holder bat clamps	Each	13.20
	269	b) - do - labour charges only	Each	3.30
	270	a) S & F 38.1 mm holder bat clamps	Each	16.50
	271	b) - do - labour charges only	Each	4.40
	272	a) Constructing Brick masonry chamber over the gully trap or peet valve and fitted with 304.8 x 228.6 m size CI frame and hinged cover.	Each	198.00
	273	b) - do - labour charges only	Each	49.50

Sl. No.	S.S. No.	Item Description	Unit (per)	S S RATE FOR 2005-06
274		a)Constructing Brick masonry supprt for G.I pipe with C.M 304.8 x 228.6 x228.6 mm size including plastering and finishing etc. complete.	Each	33.00
275		b) - do - labour charges only	Each	11.00
276		a) S & F 12.7 x 152.0 mm NP shower rose heavy	Each	82.50
277		b) - do - labour charges only	Each	9.90
278		a) S & F 12.7 x 137.0 mm NP shower rose heavy	Each	82.50
279		b) - do - labour charges only	Each	11.00
280		a) S & F 12.7 x 101.6 mm NP shower rose heavy	Each	71.50
281		b) - do - labour charges only	Each	11.00
282		a) S & F 12.7 x 88.9 CP fancy shower	Each	132.00
283		b) - do - labour charges only	Each	11.00
284		a) Supplying & fixing 12.7 mm GI drain pipe with plug for tanks (Mudvalve) including making a hole	Each	22.00
285		b) - do - labour charges only	Each	11.00
286		a) Supplying & fixing 19.05 mm GI drain pipe with plug for tanks (Mud valve) including making a hole	Each	33.00
287		b) - do - labour charges only	Each	11.00
288		a) Supplying & fixing 25.4 mm GI drain pipe with plug for tanks (Mud valve) including making a hole	Each	38.50
289		b) - do - labour charges only	Each	13.20
290		a) Taking branch water connection from the existing 25.4 mm GI pipe including cutting threading, etc, complete with fitting,	Each	77.00
291		b) - do - labour charges only	Each	22.00
292		a) Taking branch water connection from the existing 19.05 mm GI pipe including cutting threading, etc, complete with fitting,	Each	44.00
293		b) - do - labour charges only	Each	19.80
294		a) Taking branch water connection from the existing 12.7 mm GI pipe including cutting threading, etc, complete with fitting,	Each	33.00
295		b) - do - labour charges only	Each	16.50
296		Supplying & fixing leather washers for 12.7 mm bib tap and stop cock	Each	1.10
297		Supplying & fixing leather washers for 19.05 mm bib tap and stop cock	Each	2.20
298		Supplying & Fixing 12.7 mm fibre washers	Each	2.20
299		Supplying & Fixing 19.05 mm fibre washers	Each	2.80
300		a) Supplying & fixing 304.8 x 228.6 mm CI frame & cover over gully taps	Each	66.00
301		b) - do - labour charges only	Each	17.60
302		a) Supplying & fixing CI Nahany trap grating	Each	11.00
303		b) - do - labour charges only	Each	5.50
304		a) Supplying & fixing CI gully trap grating	Each	27.50
305		b) - do - labour charges only	Each	5.50
306		a) Supplying & fixing valves for brass ball cocks 25.4 mm dia	Each	11.00
307		b) - do - labour charges only	Each	4.40
308		a) Supplying & fixing 12.7 m valve for bib tap or stop cocks	Each	10.10
309		b) - do - labour charges only	Each	2.80
310		a) Supplying & fixing 19.05 m valve for bib tap or stop cocks	Each	16.50
311		b) - do - labour charges only	Each	3.30
312		Removing 12.7 mm GI pipe and refixing the same	Rm	28.60
313		Removing 19.05 mm GI pipe and refixing the same	Rm	33.00
314		Removing 25.4 mm GI pipe and refixing the same	Rm	48.40
315		Removing 38.1 mm GI pipe and refixing the same	Rm	60.50
316		Removing 50.8 mm GI pipe and refixing the same	Rm	71.50
317		Cleaning the W.C with acid and Vim powder	Each	16.50
318		Cleaning the Urinal with acid and Vim power	Each	16.50
319		Cleaning the wash basin with acid and Vim power	Each	16.50
320		Cleaning the E.W.C with acid and Vim power	Each	16.50

Sl. No.	S.S. No.	Item Description	Unit (per)	S S RATE FOR 2005-06
	321	a) Supplying & fixing 914.4 x 457.2 mm CI man hole frame and cover (light weight)	Each	462.00
	322	b) - do - labour charges only	Each	44.00
	323	a) Supplying & fixing CI steps for septic tank.	Each	27.50
	324	b) - do - labour charges only	Each	5.50
	325	a) Supplying & fixing 50.8 cm dia man hole frame & cover for 914.4 mm dia chambr (Light weight)	Each	357.50
	326	b) - do - labour charges only	Each	33.00
	327	a) Supplying & fixing 50.8 cm dia man hole frame & cover for 914.4 mm dia chambr (Medium weight)	Each	660.00
	328	b) - do - labour charges only	Each	71.50
	329	a) Supplying & fixing 101.6 x 101.6 mm SWG Tee	Each	49.50
	330	b) - do - labour charges only	Each	12.10
	331	a) S & F SWG pipe 101.6 mm of 1st Class with cement joints	1 RM	50.60
	332	b) - do - labour charges only	1 RM	5.50
	333	a) Supplying & Fixing SWG pipe 152.4 mm of 1st Class with cement joints	1 RM	66.00
	334	b) - do - labour charges only	1 RM	11.00
	335	Constg. 50.8 mm thick RCM baffle wall with 2.267 Kg steel & rabbit wire mesh in CM 1:3 with fine rendering in neat cement	1 Sqm	115.50
	336	a) Constg. 50.8 mm RCC partition wall	1 Sqm	132.00
	337	b) - do - labour charges only	1 Sqm	22.00
	338	a) S & F double layer of bamboo matting tarred on both sides.	10 Sqm	330.00
	339	b) - do - labour charges only	10 Sqm	55.00
	340	Removing of 101.6 mm or 76.2 mm CI pipe	1 RM	16.50
	341	a) Supplying & fixing 76.2 mm W.I clamps	Each	8.80
	342	b) - do - labour charges only	Each	3.30
	343	Extra depth of inspection chamber of 914.4 mm diameter excluding rock cutting.	1 Rm	660.00
	344	Extra depth of inspection chamber of 914.4 x 457.2mm diameter excluding rock cutting.	1 Rm	660.00
	345	a) Supplying & fixing NP coat hook	Each	22.00
	346	b) - do - labour charges only	Each	5.50
	347	Supplying & fixing small precast RCC water tanks including cover over the roof of building	1 Lit	3.30
	348	Labour charges for laying glazed tiles	1 Sqm	55.00
	349	a) Providing & Placing on Terrace (at all floor levels) polyethylene water storage tank with Double layer approved brand & manufacture with cover and suitable locking arrangement & making necessary holes for inlet & outlets and over flow pipes but without fittings & base support for tanks	1 Lit	4.50
	350	b) - do - labour charges only	1 Lit	0.30
	351	Supply of Plastic storage tank lid with hinges	Each	49.50
	352	Supply & Fixing 76.2 mm dia PVC elbow 1st quality	Each	28.60
	353	Supply & fixing 31.75 mm dia PVC flexible waste pipe of 914.4 mm length of 1st quality	Each	16.50
	354	Supply & Fixing 38.1 mm dia PVC solid waste pipe outlet	Each	55.00
	355	Supply & fixing Fancy PVC shelf including all fittings	Each	132.00
	356	a) Supplying and fixing TV shape mirror with plastic frame size 609.6 mm x 457.2 mm	Each	276.10
	357	b) - do - labour charges only	Each	57.00
	358	a) Supplying & fixing GI pipe plug of size 12.7 mm dia	Each	2.80
	359	b) - do - labour charges only	Each	0.60
	360	a) Supplying & fixing 19.06 mm dia GI plug	Each	3.30
	361	b) - do - labour charges only	Each	0.60
	362	a) Supplying and fixing 38.1 mm dia of GI plug	Each	12.10
	363	b) - do - labour charges only	Each	3.30
	364	a) Supplying & fixing 50.8 mm dia of GI PLUG	Each	27.50

Sl. No.	S.S. No.	Item Description	Unit (per)	S S RATE FOR 2005-06
	365	b) - do - labour charges only	Each	5.50
	366	a) Supplying & fixing 76.2 mm dia of GI PLUG	Each	38.50
	367	b) - do - labour charges only	Each	8.80
	368	a) Supplying & fixing 19.05 mm non return valve	Each	187.00
	369	b) - do - labour charges only	Each	27.50
	370	a) Supplying & fixing 25.4 mm dia non return valve	Each	249.70
	371	b) - do - labour charges only	Each	33.00
	372	a) Supplying & fixing 38.1 mm dia non return valve	Each	445.50
	373	b) - do - labour charges only	Each	55.00
	374	a) Supplying & fixing 50.8 mm dia non return valve	Each	638.00
	375	b) - do - labour charges only	Each	55.00
	376	a) Supplying & fixing C.P flange.	Each	8.80
	377	b) - do - labour charges only	Each	3.30
	378	a) Supplying & fixing stainless steel sink size 36" x 18" (914.4x457.2mm) 1 mm thick with accessories	Each	3520.00
	379	b) - do - labour charges only	Each	165.00
	380	a) Supplying & fixing stainless steel sink size 24" x 18" x 8" (609.6x457.2x203.2mm) 1 mm thick with accessories	Each	2915.00
	381	b) - do - labour charges only	Each	165.00
	382	a) Supplying & fixing stainless steel sink size 20" x 18" x 8" (508x457.2x203.2mm) 1 mm thick with accessories	Each	2640.00
	383	b) - do - labour charges only	Each	165.00
	384	Supplying & fixing 4" x 24" (101.6x609.6mm) white glazed porcelain channel fixed in brick masonry white cement pointing.	Each	250.80
	385	Supply & Fixing of steel surgical long elbow action handle 12.7 mm dia bib cock indian make heavy type including all materials	Each	506.00
	386	Supply & fixing 2 1/2" (63.5mm) dia Sluice valve ISI mark with 2 Nos. flanges, 8 nos, 3/4" dia nuts & bolts and all necessary washers and packing materials etc. complete	Each	2989.80
	387	Supply & fixing porcelain P' trap	Each	132.00
	388	Supplying & fixing oval shape basin white (520x410mm) parry or equivalent	Each	1298.00
	389	Supply & fixing RCC cover 22" dia with nominal reinforcement 3" thick and hooks for lifting	Each	440.00
	390	Supply & fixing cp spl. Grating with frame and cover of 1st quality	Each	31.40
	391	Supply & fixing towel rod (CP) of 24" long and 3/4" dia	Each	204.60
	392	Supply & fixing of LLC handle set 1st quality	Each	44.00
		<b>Supply &amp; fixing 4" dia CP thimble pipe</b>		
	393	a) 150 mm long	Each	220.00
	394	b) 220 mm long	Each	330.00
	395	c) 300 mm long	Each	440.00
	396	Supply & fixing CP long bend	Each	178.80
	397	Supply & fixing CP short bend	Each	89.10
		<b>Supply &amp; fixing of PVC low level system parryware, slimline with internal components &amp; short bend.</b>		
	398	a) 10 Ltrs capacity white	Each	605.00
	399	b) 10 ltrs capacity colour	Each	671.00
	400	c) 8 lts capacity tuffmate white & colour	Each	407.00
	401	Supplying & fixing bib cock with flange C.P Jaquar make queen series.	Each	752.00
		<b>Supply &amp; fixing bib cock cum health faucet with 1 m long flexible tube and wall hook of Jaquar make queen series</b>		
	402	a) Chrome plated	Each	2139.80
	403	b) Ivory gold	Each	3684.50
		<b>Supply &amp; fixing pillar cock Jaquar make Queen series</b>		
	404	a) Chrome plated	Each	783.20
	405	b) Ivory gold	Each	1371.70
		<b>Supply &amp; fixing Angular stop cock with wall flange Jaquar make Queen series</b>		

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
	406	a )	Chrome plated	Each	723.30
	407	b)	Ivory gold	Each	1338.70
			<b>Supply &amp; fixing Waste coupling jaquar make</b>		
	408	a )	Chrome plated	Each	134.60
	409	b)	Ivory gold	Each	147.60
			<b>Supply &amp; fixng of Bottle trap jaquar make</b>		
	410	a )	Chrome plated	Each	504.90
	411	b)	Ivory gold	Each	1027.40
			<b>Supply &amp; Fixing copper pipe 450 mm long with nuts &amp; washers Jaquar make</b>		
	412	a )	Chrome plated	Each	153.20
	413	b)	Ivory gold	Each	271.70
			<b>Supply and fixing wall mirror with provision for ove head shower and 115 mm long bend pipe with wall flange jaquar make queen series</b>		
	414	a )	Chrome plated	Each	2476.10
	415	b)	Ivory gold	Each	4596.40
			<b>Supply &amp; fixing overhead shower rose with revolving joint and 150 mm long swivel shower arm Jaquar make qureen sseries.</b>		
	416	a)	Chrome plated	Each	969.10
	417	b)	Ivory Gold	Each	1712.60
	418		Supply and Fixing Wall Mixer with Telephonic shower arrangement with crutch and flexible pipe Jaquar series Ivory gold colour for bath tub.	Each	4522.30
	419		Suply & fixing Bath tub overflow set complete with over flow cap, 450 mm Ball chain with rubber plug & union bend with brass nut jaquar make, Ivory gold colour.	Each	775.00
	420		Supply & fixing sink cock with regular swinging spout with wall flange chromeplated Jaquar make Queen series	Each	1084.50
			<b>Supply &amp; fixing soap dish jaquar make queen series:</b>		
	421	a)	Chrome plated	Each	624.50
	422	b)	Ivory Gold	Each	996.30
			<b>Supply &amp; fixng of toilet paper holder Jaquar make Queen series.</b>		
	423	a)	Chrome plated	Each	507.40
	424	b)	Ivory Gold	Each	803.40
			<b>Supply &amp; Fixing of Towel ring Jaquar make Queen series</b>		
	425	a)	Chrome plated	Each	523.20
	426	b)	Ivory Gold	Each	803.40
			<b>Supply &amp; Fixing of towel coat hok Jaquar make Queen series</b>		
	427	a)	Chrome plated	Each	355.60
	428	b)	Ivory Gold	Each	563.80
	429		Supply & Fixing of Towel rod 24 " Jaquar make Queen series Ivory gold colour	Each	2740.10
	430		Supply & Fixing of Tumbler holder Jaquar make Queen series, Ivory gtold colour	Each	877.50
	431		Supply & fixing of Glass shelf 22" Jaquar make Queen series, Ivory gold colour	Each	1680.90
			<b>"CZAR" OR EQUIVALENT BATH ROOM FITTINGS ACCESSORIES PRICES INCLUSION OF ALL THE TAXES</b>		
	432		Polo 3 flow hand shower-ts1000	Each	950.00
	433		Polo 3 flow overhead shower - ts 1001	Each	779.00
	434		Polo 4 flow hand shower - ts 1002	Each	1425.00
	435		Rain head shower 6"-ts 1003	Each	665.00
	436		Rain head shower 9"- ts 1004	Each	1425.00
	437		Rio hand 4 flow shower -ts 1005	Each	903.00
	438		Rio 4 flow overhead shower -ts 1006	Each	713.00
	439		Viva 4 flow hand shower -ts 1007	Each	1378.00
	440		Viva 4 flow overhead shower –ts1008	Each	1045.00

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
		441	Sliding tel shower rail -ts 1009	Each	665.00
		442	Flexi shower rail -ts 1010	Each	950.00
		443	Tel shower jet/w/1.5 mtr pipe & wall hook -s 2302 -cp	Each	570.00
		444	Tel shower jet/w/1.5 mtr pipe & wall hook -s 2302 -col/cp	Each	760.00
		445	Tel shower jet/w/1.5 mtr pipe & wall hook -s 2302 -col/gold	Each	894.00
		446	Tel shower jet/w/1.5 mtr pipe & wall hook -s 2302 -spl/gold	Each	994.00
		447	Tel shower jet/w/1.5 mtr pipe & wall hook -s 2302 -gold	Each	1169.00
		448	Health faucet -s 2307 -cp	Each	676.00
		449	Health faucet -s 2307 -col/cp	Each	901.00
		450	Health faucet -s 2307 -col/gold	Each	1061.00
		451	Health faucet -s 2307 -spl/gold	Each	1179.00
		452	Health faucet -s 2307 -gold	Each	1387.00
		453	Bottle trap h/ casted 40/32mm -s 2061-cp	Each	575.00
		454	Bottle trap h/ casted 40/32mm -s 2061-col/cp	Each	765.00
		455	Bottle trap h/ casted 40/32mm -s 2061-col/gold	Each	902.00
		456	Bottle trap h/ casted 40/32mm -s 2061-spl/gold	Each	1001.00
		457	Bottle trap h/ casted 40/32mm -s 2061-gold	Each	1179.00
		458	Bottle trap exclu 40/32mm -s 2602 cp	Each	405.00
		459	Waste coupling heavy - s2603 cp 32mm	Each	138.00
		460	Waste coupling heavy - s2604cp 40mm	Each	157.00
		461	Waste coupling heavy - s2603 col/cp 32mm	Each	183.00
		462	Waste coupling heavy - s2604 col/cp 40mm	Each	209.00
		463	Waste coupling heavy - s2603 spl/gold 32mm	Each	240.00
		464	Waste coupling heavy - s2604 spl/gold 40mm	Each	274.00
		465	Waste coupling heavy - s2603 gold 32mm	Each	282.00
		466	Waste coupling heavy - s2604 gold 40mm	Each	321.00
		467	Waste coupling 150 mm long - s2605 cp 40mm	Each	217.00
		468	Waste coupling 150 mm long - s2605 col/cp 40mm	Each	289.00
		469	Waste coupling 150 mm long - s2605 spl/gold 40mm	Each	377.00
		470	Waste coupling 150 mm long - s2605 gold 40mm	Each	445.00
		471	Bath tub over flow set-s2606 -cp	Each	426.00
		472	Bath tub over flow set-s2606 -col/cp	Each	567.00
		473	Bath tub over flow set-s2606 -col/gold	Each	668.00
		474	Bath tub over flow set-s2606 -spl/gold	Each	742.00
		475	Bath tub over flow set-s2606 -gold	Each	873.00
		476	Concealed flush valve 32mm -sy 163 cp	Each	1615.00
		477	Concealed flush valve 32mm -sy 163 col/cp	Each	2154.00
		478	Concealed flush valve 32mm -sy 163 col/gold	Each	2534.00
		479	Concealed flush valve 32mm -sy 163 spl/gold	Each	2815.00
		480	Concealed flush valve 32mm -sy 163 gold	Each	3312.00
		481	Urinal flush valve 15mm -sy 2404 cp	Each	1055.00
		482	Urinal flush valve 15mm -sy 2404 col/cp	Each	1406.00
		483	Urinal flush valve 15mm -sy 2404 col/gold	Each	1654.00
		484	Urinal flush valve 15mm -sy 2404 spl/gold	Each	1837.00
		485	Urinal flush valve 15mm -sy 2404 gold	Each	2162.00
		486	Single line flush valve 32 mm w/elbow bend & flange - sy 2405 cp	Each	1587.00
		487	Single line flush valve 32 mm w/elbow bend & flange - sy 2405 col/cp	Each	2116.00
		488	Single line flush valve 32 mm w/elbow bend & flange - sy 2405 col/gold	Each	2489.00
		489	Single line flush valve 32 mm w/elbow bend & flange - sy 2405 spl/gold	Each	2765.00
		490	Single line flush valve 32 mm w/elbow bend & flange - sy 2405 gold	Each	3253.00
		491	Single line flush valve 32 mm w/o elbow bend - sy 2406 cp	Each	1397.00
		492	Single line flush valve 32 mm w/elbow bend & flange - sy 2406 col/cp	Each	1862.00
		493	Single line flush valve 32 mm w/elbow bend & flange - sy 2406 col/gold	Each	2191.00

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
		494	Single line flush valve 32 mm w/elbow bend & flange - sy 2406 spl/gold	Each	2434.00
		495	Single line flush valve 32 mm w/elbow bend & flange - sy 2406 gold	Each	2863.00
		496	Flush cock half turn -25mm -s2407 cp	Each	713.00
		497	Flush cock half turn -25mm -s2407 col/cp	Each	950.00
		498	Flush cock half turn -25mm -s2407 col/gold	Each	1117.00
		499	Flush cock half turn -25mm -s2407 spl/gold	Each	1242.00
		500	Flush cock half turn -25mm -s2407 gold	Each	1461.00
		501	Flush cock lever type -25mm -s2408 cp	Each	806.00
		502	Flush cock lever type -25mm -s2408 col/cp	Each	1076.00
		503	Flush cock lever type -25mm -s2408 col/gold	Each	1266.00
		504	Flush cock lever type -25mm -s2408 spl/gold	Each	1407.00
		505	Flush cock lever type -25mm -s2408 gold	Each	1656.00
		506	Push cock 25mm -s2409 cp	Each	722.00
		507	Push cock 25mm -s2409 col/cp	Each	962.00
		508	Push cock 25mm -s2409 col/gold	Each	1132.00
		509	Push cock 25mm -s2409 spl/gold	Each	1258.00
		510	Push cock 25mm -s2409 gold	Each	1480.00
		511	Urinal push cook 15 mm - s 2410 cp	Each	229.00
		512	Urinal push cook 15 mm - s 2410 col/cp	Each	305.00
		513	Urinal push cook 15 mm - s 2410 col/gold	Each	359.00
		514	Urinal push cook 15 mm - s 2410 spl/goldcp	Each	399.00
		515	Urinal push cook 15 mm - s 2410 gold	Each	469.00
		516	Pillar cock deluxe s 2000 15mm	Each	309.00
		517	Pillar cock regular s 2001 15mm	Each	371.00
		518	Bib cock with flange s 2002 15mm	Each	301.00
		519	Bib cock long nose with flange s 2003 15mm	Each	407.00
		520	Bib cock long body straight with flange s 2004 15mm	Each	356.00
		521	Concealed stop cock sheet flange s 2007 15mm	Each	372.00
		522	Concealed sheet sliding s 2010 15mm	Each	405.00
		523	Concealed sheet sliding s 2006 20mm	Each	466.00
		524	Concealed casted sliding wall flange s 2009 15mm	Each	483.00
		525	Concealed casted sliding wall flange s 2013 20mm	Each	676.00
		526	Concealed casted s 2008 15mm	Each	475.00
		527	Concealed casted s 2012 20mm	Each	638.00
		528	Angle cock with wall flange s 2014 15mm	Each	290.00
		529	Angle cock with long thread with flange s 2015 15mm	Each	314.00
		530	Angle cock with 18" connection with flange s 2016 15mm	Each	368.00
		531	Swan neck (left/right) s 2018 15mm	Each	608.00
		532	Sink cock with casted swivel spout with flange s 2019 15mm	Each	590.00
		533	Bath cock with wall flange s 2020 15mm	Each	618.00
		534	Two way bib cock with flange s 2021 15mm	Each	475.00
		535	Two way angle cock with flange s 2022 15mm	Each	475.00
		536	Sink cock table mounted with casted swivel spout s 2023 15mm	Each	594.00
		537	Sink cock pipe spout "goose" s 2024 15mm	Each	594.00
		538	Central hole basin mixer s 2101 15mm	Each	1235.00
		539	Close hole basin mixer s 2102 15mm	Each	1235.00
		540	Three hole basin mixer without pop up waste system s 2103 15mm	Each	1435.00
		541	Three hole basin with pop up waste system s 8-2103 a 15mm	Each	1710.00
		542	Wall mixer with arrangement for telephonic shower s 2105 a 15mm	Each	1406.00
		543	Wall mixer non telephonic shower arrangement s 2106 15mm	Each	1159.00
		544	Wall mixer with bend for over head shower s 2105 15mm	Each	1454.00
		545	Wall mixer with tip ton for telephonic shower arrangement s 2104 15mm	Each	1425.00
		546	Wall mixer 3 in 1 for both telephonic shower & overlead shower s 2107 15mm	Each	1710.00

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
		547	Sink mixer with casted swivel spout s 2109 15mm	Each	1088.00
		548	Sink mixer table mounted with casted swivel spout s 2111 15mm	Each	1197.00
		549	Sink mixer pipe spout "goose" s 2112 15mm	Each	1259.00
		550	Four hole bidet mixer with pop up waste system (bottom spray) s 2110 15 mm	Each	1910.00
		551	One hole bidet mixer with pop up waste system s 2108 15 mm	Each	1663.00
		552	Spout plain with flange s 2201 15mm	Each	485.00
		553	Spout plain with flange s 2202 20mm	Each	525.00
		554	Spout with flange 9" long s 2203 15mm	Each	609.00
		555	Tip ton spout with flange s 2205 15mm	Each	796.00
		556	Shower arm with wall range s 2306 15mm	Each	243.00
		557	Sona shower s 2305 15mm	Each	335.00
		558	Tushar shower s 2304 15mm	Each	330.00
		559	Flush valve without elbow bend s 2401 32mm	Each	1563.00
		560	Flush valve with elbow blend & wall falnge s 2402 32 mm	Each	1781.00
		561	Two way bvertor with flange s 2501 15 mm	Each	875.00
		562	Four way owertor with nrv s 2503 15mm	Each	1363.00
		563	Four way fflvertor with nrv extended for duct provision s 2504 15mm	Each	1811.00
		564	Concealed casted sliding extended for duct s 2505 15mm	Each	829.00
		565	Piller cock sy 101 cp	Each	380.00
		566	Piller cock sy 101 col/cp	Each	506.00
		567	Piller cock sy 101 col/gold	Each	596.00
		568	Piller cock sy 101 spl/gold	Each	662.00
		569	Piller cock sy 101 gold	Each	779.00
		570	Bib cock with flange sy 102 cp	Each	366.00
		571	Bib cock with flange sy 102 col/cp	Each	501.00
		572	Bib cock with flange sy 102 col/gold	Each	589.00
		573	Bib cock with flange sy 102 spl/gold	Each	654.00
		574	Bib cock with flange sy 102 gold	Each	770.00
		575	Bib cock long nose with flange sy 103 cp	Each	475.00
		576	Bib cock long nose with flange sy 103 col/cp	Each	634.00
		577	Bib cock long nose with flange sy 103 col/gold	Each	745.00
		578	Bib cock long nose with flange sy 103 spl/gold	Each	827.00
		579	Bib cock long nose with flange sy 103 gold	Each	974.00
		580	Stop cock male/female sy 105 cp	Each	342.00
		581	Stop cock male/female sy 105 col/cp	Each	456.00
		582	Stop cock male/female sy 105 col/gold	Each	537.00
		583	Stop cock male/female sy 105 spl/gold	Each	596.00
		584	Stop cock male/female sy 105 gold	Each	701.00
		585	Concealed casted 15 mm with adjustable w/f sy 106 cp	Each	534.00
		586	Concealed casted 15 mm with adjustable w/f sy 106 col/cp	Each	712.00
		587	Concealed casted 15 mm with adjustable w/f sy 106 col/gold	Each	837.00
		588	Concealed casted 15 mm with adjustable w/f sy 106 spl/gold	Each	930.00
		589	Concealed casted 15 mm with adjustable w/f sy 106 gold	Each	1094.00
		590	Concealed casted 20mm with adjustable w/f sy 107 cp	Each	724.00
		591	Concealed casted 20mm with adjustable w/f sy 107 col/cp	Each	965.00
		592	Concealed casted 20mm with adjustable w/f sy 107 col/gold	Each	1135.00
		593	Concealed casted 20mm with adjustable w/f sy 107 spl/gold	Each	1262.00
		594	Concealed casted 20mm with adjustable w/f sy 107 gold	Each	1484.00
		595	Concealed casted heavy 20mm with adjustable w/f sy 107a cp	Each	770.00
		596	Concealed casted heavy 20mm with adjustable w/f sy 107a col/cp	Each	1027.00
		597	Concealed casted heavy 20mm with adjustable w/f sy 107a col/gold	Each	1208.00
		598	Concealed casted heavy 20mm with adjustable w/f sy 107a spl/gold	Each	1342.00
		599	Concealed casted heavy 20mm with adjustable w/f sy 107a gold	Each	1580.00
		600	Angle cock with wall flange sy 100 cp	Each	342.00



Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
		601	Angle cock with wall flange sy 100 col/cp	Each	456.00
		602	Angle cock with wall flange sy 100 col/gold	Each	537.00
		603	Angle cock with wall flange sy 100 spl/gold	Each	596.00
		604	Angle cock with wall flange sy 100 gold	Each	701.00
		605	Angle cock with 18" connection & flange sy 100a cp	Each	491.00
		606	Angle cock with 18" connection & flange sy 100a col/cp	Each	656.00
		607	Angle cock with 18" connection & flange sy 100a col/gold	Each	771.00
		608	Angle cock with 18" connection & flange sy 100a spl/gold	Each	857.00
		609	Angle cock with 18" connection & flange sy 100a gold	Each	1008.00
		610	Two way angle cock with flange sy 100b cp	Each	665.00
		611	Two way angle cock with flange sy 100b col/cp	Each	886.00
		612	Two way angle cock with flange sy 100b col/gold	Each	1043.00
		613	Two way angle cock with flange sy 100b spl/gold	Each	1159.00
		614	Two way angle cock with flange sy 100b gold	Each	1363.00
			Swan neck (left/right) sy 111 cp	Each	694.00
		615	Swan neck (left/right) sy 111 col/cp	Each	924.00
		616	Swan neck (left/right) sy 111 col/gold	Each	1088.00
		617	Swan neck (left/right) sy 111 spl/gold	Each	1208.00
		618	Swan neck (left/right) sy 111 gold	Each	1422.00
		619	Sink cock with casted swivel spout sy 112 cp	Each	656.00
		620	Sink cock with casted swivel spout sy 112 col/cp	Each	874.00
		621	Sink cock with casted swivel spout sy 112 col/gold	Each	1028.00
		622	Sink cock with casted swivel spout sy 112 spl/gold	Each	1142.00
		623	Sink cock with casted swivel spout sy 112 gold	Each	1344.00
		624	Bib cock surgical with flange sy 114 cp	Each	702.00
		625	Bib cock surgical with flange sy 114 col/cp	Each	936.00
		626	Bib cock surgical with flange sy 114 col/gold	Each	1101.00
		627	Bib cock surgical with flange sy 114 spl/gold	Each	1224.00
		628	Bib cock surgical with flange sy 114 gold	Each	1440.00
		629	Pillar cock surgical sy 115 cp	Each	653.00
		630	Pillar cock surgical sy 115 col/cp	Each	870.00
		631	Pillar cock surgical sy 115 col/gold	Each	1024.00
		632	Pillar cock surgical sy 115 spl/gold	Each	1137.00
		633	Pillar cock surgical sy 115 gold	Each	1339.00
		634	Two way bib cock with flange sy 116 cp	Each	665.00
		635	Two way bib cock with flange sy 116 col/cp	Each	886.00
		636	Two way bib cock with flange sy 116 col/gold	Each	1043.00
		637	Two way bib cock with flange sy 116 spl/gold	Each	1159.00
		638	Two way bib cock with flange sy 116 gold	Each	1363.00
		639	Bib cock tip ton with wall flange sy 116a cp	Each	665.00
		640	Bib cock tip ton with wall flange sy 116a col/cp	Each	886.00
		641	Bib cock tip ton with wall flange sy 116a spl/gold	Each	1043.00
		642	Bib cock tip ton with wall flange sy 116a spl/gold	Each	1159.00
		643	Bib cock tip ton with wall flange sy 116a gold	Each	1363.00
		644	Swan neck with casted swivel spout sy 118 cp	Each	732.00
		645	Swan neck with casted swivel spout sy 118 col/cp	Each	976.00
		646	Swan neck with casted swivel spout sy 118 col/gold	Each	1148.00
		647	Swan neck with casted swivel spout sy 118 spl/gold	Each	1275.00
		648	Swan neck with casted swivel spout sy 118 gold	Each	1500.00
		649	Sink cock table top with casted swivel spout sy 119 cp	Each	689.00
		650	Sink cock table top with casted swivel spout sy 119 col/cp	Each	919.00
		651	Sink cock table top with casted swivel spout sy 119 col/gold	Each	1080.00
		652	Sink cock table top with casted swivel spout sy 119 spl/gold	Each	1200.00
		653	Sink cock table top with casted swivel spout sy 119 gold	Each	1413.00
		654	Cental hole basin mixer sy 121 cp	Each	1335.00
		655	Cental hole basin mixer sy 121 col/cp	Each	1779.00

Sl. No.	S.S. No.	Item Description	Unit (per)	S S RATE FOR 2005-06
	656	Cental hole basin mixer sy 121 col/gold	Each	2094.00
	657	Cental hole basin mixer sy 121 spl/gold	Each	2327.00
	658	Cental hole basin mixer sy 121 gold	Each	2737.00
	659	3 tap hole basin mixer w/o pop up waste system sy 122 cp	Each	1525.00
	660	3 tap hole basin mixer w/o pop up waste system sy 122 col/cp	Each	2033.00
	661	3 tap hole basin mixer w/o pop up waste system sy 122 col/gold	Each	2392.00
	662	3 tap hole basin mixer w/o pop up waste system sy 122 spl/gold	Each	2657.00
	663	3 tap hole basin mixer w/o pop up waste system sy 122 gold	Each	3126.00
	664	3 top hole with pop up waste system sy 134 cp	Each	1899.00
	665	3 top hole with pop up waste system sy 134 col/cp	Each	2518.00
	666	3 top hole with pop up waste system sy 134 col/gold	Each	2962.00
	667	3 top hole with pop up waste system sy 134 spl/gold	Each	3292.00
	668	3 top hole with pop up waste system sy 134 gold	Each	3872.00
	669	Wall mixer with bend for over head shower sy 123 cp	Each	1699.00
	670	Wall mixer with bend for over head shower sy 123 col/cp	Each	2265.00
	671	Wall mixer with bend for over head shower sy 123 col/gold	Each	2665.00
	672	Wall mixer with bend for over head shower sy 123 spl/gold	Each	2960.00
	673	Wall mixer with bend for over head shower sy 123 gold	Each	3483.00
	674	Wall mixer with arrangement for telephonic shower sy 124 cp	Each	1618.00
	675	Wall mixer with arrangement for telephonic shower sy 124 col/cp	Each	2157.00
	676	Wall mixer with arrangement for telephonic shower sy 124 col/gold	Each	2537.00
	677	Wall mixer with arrangement for telephonic shower sy 124 spl/gold	Each	2820.00
	678	Wall mixer with arrangement for telephonic shower sy 124 gold	Each	3317.00
	679	Wall mixer tip ton for telephonic shower arrangement sy 125 cp	Each	1618.00
	680	Wall mixer tip ton for telephonic shower arrangement sy 125 col/cp	Each	2157.00
	681	Wall mixer tip ton for telephonic shower arrangement sy 125 col/gold	Each	2537.00
	682	Wall mixer tip ton for telephonic shower arrangement sy 125 spl/gold	Each	2820.00
	683	Wall mixer tip ton for telephonic shower arrangement sy 125 gold	Each	3317.00
	684	Wall mixer non telephonic shower system sy 126 cp	Each	1224.00
	685	Wall mixer non telephonic shower system sy 126 col/cp	Each	1631.00
	686	Wall mixer non telephonic shower system sy 126 col/gold	Each	1919.00
	687	Wall mixer non telephonic shower system sy 126 spl/gold	Each	2133.00
	688	Wall mixer non telephonic shower system sy 126 gold	Each	2509.00
	689	Wall mixer 2 in i for both telephonic shower & o/s sy 127 cp	Each	2110.00
	690	Wall mixer 2 in i for both telephonic shower & o/s sy 127 col/cp	Each	2813.00
	691	Wall mixer 2 in i for both telephonic shower & o/s sy 127 col/gold	Each	3310.00
	692	Wall mixer 2 in i for both telephonic shower & o/s sy 127 spl/gold	Each	3677.00
	693	Wall mixer 2 in i for both telephonic shower & o/s sy 127 gold	Each	4326.00
	694	Sink mixer with casted swivel spout sy 126 cp	Each	1224.00
	695	Sink mixer with casted swivel spout sy 126 col/cp	Each	1631.00
	696	Sink mixer with casted swivel spout sy 126 col/gold	Each	1919.00
	697	Sink mixer with casted swivel spout sy 126 spl/gold	Each	2133.00
	698	Sink mixer with casted swivel spout sy 126 gold	Each	2509.00
	699	Four hole bidet mixer with pop up waste system (bottom spray) sy 130 cp	Each	2119.00
	700	Four hole bidet mixer with pop up waste system (bottom spray) sy 130 col/cp	Each	2826.00
	701	Four hole bidet mixer with pop up waste system (bottom spray) sy 130 col/gold	Each	3325.00
	702	Four hole bidet mixer with pop up waste system (bottom spray) sy 130 spl/gold	Each	3694.00
	703	Four hole bidet mixer with pop up waste system (bottom spray) sy 130 gold	Each	4346.00
	704	One hole bidet mixer with pop up waste system sy131 cp	Each	1816.00
	705	One hole bidet mixer with pop up waste system sy131 col/cp	Each	2422.00
	706	One hole bidet mixer with pop up waste system sy131 col/gold	Each	2849.00

Sl. No.	S.S. No.	Item Description	Unit (per)	S S RATE FOR 2005-06
	707	One hole bidet mixer with pop up waste system sy131 spl/gold	Each	3165.00
	708	One hole bidet mixer with pop up waste system sy131 gold	Each	3725.00
	709	Single hole sink mixer table top with waste system sy 132 cp	Each	1321.00
	710	Single hole sink mixer table top with waste system sy 132 col/cp	Each	1760.00
	711	Single hole sink mixer table top with waste system sy 132 col/gold	Each	2071.00
	712	Single hole sink mixer table top with waste system sy 132 spl/gold	Each	2301.00
	713	Single hole sink mixer table top with waste system sy 132 gold	Each	2708.00
	714	Bath tub mixer table mounted with telephone shower arrangement (exposed adjustable legs) sy 133 cp	Each	1777.00
	715	Bath tub mixer table mounted with telephone shower arrangement (exposed adjustable legs) sy 133 col/cp	Each	2370.00
	716	Bath tub mixer table mounted with telephone shower arrangement (exposed adjustable legs) sy 133 col/gold	Each	2788.00
	717	Bath tub mixer table mounted with telephone shower arrangement (exposed adjustable legs) sy 133 spl/gold	Each	3098.00
	718	Bath tub mixer table mounted with telephone shower arrangement (exposed adjustable legs) sy 133 gold	Each	3645.00
	719	Spout up ton with flange sy 141 cp	Each	948.00
	720	Spout up ton with flange sy 141 col/cp	Each	1264.00
	721	Spout up ton with flange sy 141 col/gold	Each	1487.00
	722	Spout up ton with flange sy 141 spl/gold	Each	1652.00
	723	Spout up ton with flange sy 141 gold	Each	1944.00
	724	Spout plain with flange sy 142 cp	Each	632.00
	725	Spout plain with flange sy 142 col/cp	Each	843.00
	726	Spout plain with flange sy 142 col/gold	Each	991.00
	727	Spout plain with flange sy 142 spl/gold	Each	1101.00
	728	Spout plain with flange sy 142 gold	Each	1296.00
	729	Telephonic shower fitted with 1.5 metre pvc tube & swivel hook sy 152 cp	Each	673.00
	730	Telephonic shower fitted with 1.5 metre pvc tube & swivel hook sy 152 col/cp	Each	896.00
	731	Telephonic shower fitted with 1.5 metre pvc tube & swivel hook sy 152 col/gold	Each	1055.00
	732	Telephonic shower fitted with 1.5 metre pvc tube & swivel hook sy 152 spl/gold	Each	1171.00
	733	Telephonic shower fitted with 1.5 metre pvc tube & swivel hook sy 152 gold	Each	1378.00
	734	Bell shower sy 155 cp	Each	352.00
	735	Bell shower sy 155 col/cp	Each	469.00
	736	Bell shower sy 155 col/gold	Each	552.00
	737	Bell shower sy 155 spl/gold	Each	614.00
	738	Bell shower sy 155 gold	Each	722.00
	739	Shower arm with flange cp	Each	287.00
	740	Shower arm with flange col/cp	Each	383.00
	741	Shower arm with flange col/gold	Each	450.00
	742	Shower arm with flange spl/gold	Each	501.00
	743	Shower arm with flange gold	Each	589.00
	744	Flush valve with elbow bend 32mm & wall range sy 161 cp	Each	1933.00
	745	Flush valve with elbow bend 32mm & wall range sy 161 col/cp	Each	2577.00
	746	Flush valve with elbow bend 32mm & wall range sy 161 col/gold	Each	3032.00
	747	Flush valve with elbow bend 32mm & wall range sy 161 spl/gold	Each	3369.00
	748	Flush valve with elbow bend 32mm & wall range sy 161 gold	Each	3963.00
	749	Flush valve with out elbow bend 32mm sy 162 cp	Each	1673.00
	750	Flush valve with out elbow bend 32mm sy 162 col/cp	Each	2231.00
	751	Flush valve with out elbow bend 32mm sy 162 col/gold	Each	2624.00
	752	Flush valve with out elbow bend 32mm sy 162 spl/gold	Each	2916.00
	753	Flush valve with out elbow bend 32mm sy 162 gold	Each	3430.00
	754	Flush cock half turn 25mm cp	Each	950.00

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
		755	Flush cock half turn 25mm col/cp	Each	1266.00
		756	Flush cock half turn 25mm col/gold	Each	1491.00
		757	Flush cock half turn 25mm spl/gold	Each	1656.00
		758	Flush cock half turn 25mm gold	Each	1948.00
		759	Two way divertor with flange sy 172 cp	Each	888.00
		760	Two way divertor with flange sy 172 col/cp	Each	1184.00
		761	Two way divertor with flange sy 172 col/gold	Each	1393.00
		762	Two way divertor with flange sy 172 spl/gold	Each	1548.00
		763	Two way divertor with flange sy 172 gold	Each	1821.00
		764	Four way divertor with nrv sy 173 cp	Each	1440.00
		765	Four way divertor with nrv sy 173 col/cp	Each	1921.00
		766	Four way divertor with nrv sy 173 col/gold	Each	2259.00
		767	Four way divertor with nrv sy 173 spl/gold	Each	2510.00
		768	Four way divertor with nrv sy 173 gold	Each	2954.00
		769	Single lever basin mixer without pop up waste system with 455mm copper connections & nuts sy 181 cp	Each	2594.00
		770	Single lever basin mixer without pop up waste system with 455mm copper connections & nuts sy 181 col/cp	Each	3458.00
		771	Single lever basin mixer without pop up waste system with 455mm copper connections & nuts sy 181 col/gold	Each	4068.00
		772	Single lever basin mixer without pop up waste system with 455mm copper connections & nuts sy 181 spl/gold	Each	4520.00
		773	Single lever basin mixer without pop up waste system with 455mm copper connections & nuts sy 181 gold	Each	5318.00
		774	Single lever basin mixer with pop up waste system with 455mm copper connections & nuts sy 185 cp	Each	2898.00
		775	Single lever basin mixer with pop up waste system with 455mm copper connections & nuts sy 185 col/cp	Each	3864.00
		776	Single lever basin mixer with pop up waste system with 455mm copper connections & nuts sy 185 col/gold	Each	4545.00
		777	Single lever basin mixer with pop up waste system with 455mm copper connections & nuts sy 185 spl/gold	Each	5049.00
		778	Single lever basin mixer with pop up waste system with 455mm copper connections & nuts sy 185 gold	Each	5941.00
		779	Single lever concealed divertor for bath & over head shower system sy 182 cp	Each	2898.00
		780	Single lever concealed divertor for bath & over head shower system sy 182 col/cp	Each	3864.00
		781	Single lever concealed divertor for bath & over head shower system sy 182 col/gold	Each	4545.00
		782	Single lever concealed divertor for bath & over head shower system sy 182 spl/gold	Each	5049.00
		783	Single lever concealed divertor for bath & over head shower system sy 182 gold	Each	5941.00
		784	Single lever wall mixer with telephonic shower arrangement sy 183 cp	Each	3705.00
		785	Single lever wall mixer with telephonic shower arrangement sy 183 col/cp	Each	4940.00
		786	Single lever wall mixer with telephonic shower arrangement sy 183 col/gold	Each	5812.00
		787	Single lever wall mixer with telephonic shower arrangement sy 183 spl/gold	Each	6457.00
		788	Single lever wall mixer with telephonic shower arrangement sy 183 gold	Each	7597.00
		789	Single lever sink mixer with casted swivel spout sy 184 cp	Each	3409.00
		790	Single lever sink mixer with casted swivel spout sy 184 col/cp	Each	4545.00
		791	Single lever sink mixer with casted swivel spout sy 184 col/gold	Each	5347.00
		792	Single lever sink mixer with casted swivel spout sy 184 spl/gold	Each	5940.00
		793	Single lever sink mixer with casted swivel spout sy 184 gold	Each	6989.00
		794	Single lever bidet mixer with pop up waste system sy 186 cp	Each	3408.00

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
		795	Single lever bidet mixer with pop up waste system sy 186 col/cp	Each	4544.00
		796	Single lever bidet mixer with pop up waste system sy 186 col/gold	Each	5346.00
		797	Single lever bidet mixer with pop up waste system sy 186 spl/gold	Each	5938.00
		798	Single lever bidet mixer with pop up waste system sy 186 gold	Each	6987.00
		799	Single lever concealed divertor extended (quotable) sy 187 cp	Each	3548.00
		800	Single lever concealed divertor extended (quotable) sy 187 col/cp	Each	4731.00
		801	Single lever concealed divertor extended (quotable) sy 187 col/gold	Each	5566.00
		802	Single lever concealed divertor extended (quotable) sy 187 spl/gold	Each	6184.00
		803	Single lever concealed divertor extended (quotable) sy 187 gold	Each	7276.00
		804	Sur single lever basin mixer with 455 mm copper connection & nuts sy 188 cp	Each	3148.00
		805	Sur single lever basin mixer with 455 mm copper connection & nuts sy 188 col/cp	Each	4198.00
		806	Sur single lever basin mixer with 455 mm copper connection & nuts sy 188 col/gold	Each	4938.00
		807	Sur single lever basin mixer with 455 mm copper connection & nuts sy 188 spl/gold	Each	5486.00
		808	Sur single lever basin mixer with 455 mm copper connection & nuts sy 188 gold	Each	6455.00
		809	Towel rail sy 191 cp	Each	575.00
		810	Towel rail sy 191 col/cp	Each	766.00
		811	Towel rail sy 191 col/gold	Each	902.00
		812	Towel rail sy 191 spl/gold	Each	1001.00
		813	Towel rail sy 191 gold	Each	1178.00
		814	Towel ring sy 192 cp	Each	350.00
		815	Towel ring sy 192 col/cp	Each	466.00
		816	Towel ring sy 192 col/gold	Each	549.00
		817	Towel ring sy 192 spl/gold	Each	610.00
		818	Towel ring sy 192 gold	Each	717.00
		819	Soap dish sy 193 cp	Each	413.00
		820	Soap dish sy 193 col/cp	Each	551.00
		821	Soap dish sy 193 col/gold	Each	649.00
		822	Soap dish sy 193 spl/gold	Each	721.00
		823	Soap dish sy 193 gold	Each	848.00
		824	Tooth brush holder sy 194 cp	Each	382.00
		825	Tooth brush holder sy 194 col/cp	Each	509.00
		826	Tooth brush holder sy 194 col/gold	Each	599.00
		827	Tooth brush holder sy 194 spl/gold	Each	666.00
		828	Tooth brush holder sy 194 gold	Each	784.00
		829	Toilet paper holder sy 194 cp	Each	432.00
		830	Toilet paper holder sy 194 col/cp	Each	577.00
		831	Toilet paper holder sy 194 col/gold	Each	678.00
		832	Toilet paper holder sy 194 spl/gold	Each	753.00
		833	Toilet paper holder sy 194 gold	Each	886.00
		834	Robe hook sy 195 cp	Each	255.00
		835	Robe hook sy 195 col/cp	Each	339.00
		836	Robe hook sy 195 col/gold	Each	399.00
		837	Robe hook sy 195 spl/gold	Each	444.00
		838	Robe hook sy 195 gold	Each	523.00
		839	Bath set complete sy 196 cp	Each	2399.00
		840	Bath set complete sy 196 col/cp	Each	3199.00
		841	Bath set complete sy 196 col/gold	Each	3763.00
		842	Bath set complete sy 196 spl/gold	Each	4180.00
		843	Bath set complete sy 196 gold	Each	4919.00
		844	Towel rack 18 " sy 197 cp	Each	1012.00
		845	Towel rack 18 " sy 197 col/cp	Each	1348.00
		846	Towel rack 18 " sy 197 col/gold	Each	1587.00

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
		847	Towel rack 18 " sy 197 spl/gold	Each	1762.00
		848	Towel rack 18 " sy 197 gold	Each	2074.00
		849	Towel rack 24 " sy 197a cp	Each	1207.00
		850	Towel rack 24 " sy 197a col/cp	Each	1609.00
		851	Towel rack 24 " sy 197a col/gold	Each	1893.00
		852	Towel rack 24 " sy 197a spl/gold	Each	2103.00
		853	Towel rack 24 " sy 197a gold	Each	2475.00
		854	Counted mounted soap dish sy 199 cp	Each	805.00
		855	Counted mounted soap dish sy 199 col/cp	Each	1073.00
		856	Counted mounted soap dish sy 199 col/gold	Each	1263.00
		857	Counted mounted soap dish sy 199 spl/gold	Each	1402.00
		858	Counted mounted soap dish sy 199 gold	Each	1650.00
		859	Toilet paper with brass cover sy 201 cp	Each	751.00
		860	Toilet paper with brass cover sy 201 col/cp	Each	1001.00
		861	Toilet paper with brass cover sy 201 col/gold	Each	1178.00
		862	Toilet paper with brass cover sy 201 spl/gold	Each	1309.00
		863	Toilet paper with brass cover sy 201 gold	Each	1540.00
		864	Grab 8 ar 9" sy 200 cp	Each	644.00
		865	Grab 8 ar 9" sy 200 col/cp	Each	858.00
		866	Grab 8 ar 9" sy 200 col/gold	Each	1010.00
		867	Grab 8 ar 9" sy 200 spl/gold	Each	1122.00
		868	Grab 8 ar 9" sy 200 gold	Each	1320.00
			<b>PRINCE/SUDHAKAR PVC/SWR PIPES &amp; FITTINGS (OR EQUIVALENT)</b>		
			<b>Prince/ Sudhakar make or equivalent quality PVC /SWR pipes &amp; fittings ( asper ISI standards) 4kg/cm2</b>		
		869	75 mm dia 3 M Single Socket pipe	Each	158.70
		870	90 mm dia 3 M single socket pipe	Each	252.30
		871	110 mm dia 3 M Single socket pipe	Each	301.70
		872	75 mm dia 3 M Double socket pipe	Each	179.50
		873	90 mm dia 3 M Double socket pipe	Each	286.30
		874	110 mm dia 3 M Double socket pipe	Each	349.40
		875	75 mm dia 1828.8 mm (6'-0") Single Socket pipe	Each	111.20
		876	90 mm dia 1828.8 mm (6'-0") Single Socket pipe	Each	173.00
		877	110 mm dia 1828.8 mm (6'-0") Single Socket pipe	Each	213.80
		878	75 mm dia 1828.8 mm (6'-0") Double Socket pipe	Each	118.70
		879	90 mm dia 1828.8 mm (6'-0") Double Socket pipe	Each	182.40
		880	110 mm dia 1828.8 mm (6'-0") Double Socket pipe	Each	222.40
		881	75 mm dia 1219. mm (4'-0") Double Socket pipe	Each	82.20
		882	90 mm dia 1219. mm (4'-0") Double Socket pipe	Each	125.50
		883	110 mm dia 1219. mm (4'-0") Double Socket pipe	Each	151.60
		884	75 mm dia 914.4mm (3'-0") Double Socket pipe	Each	69.10
		885	90 mm dia 914.4mm (3'-0") Double Socket pipe	Each	102.00
		886	110 mm dia 914.4mm (3'-0") Double Socket pipe	Each	130.70
		887	75 mm dia 609.6mm (2'-0") Double Socket pipe	Each	41.00
		888	90 mm dia 609.6mm (2'-0") Double Socket pipe	Each	70.10
		889	110 mm dia 609.6mm (2'-0") Double Socket pipe	Each	87.20
		890	160 MM dia 3 M Double socket pipe	Each	717.20
			<b>Prince/ Sudhakar make or equivalent quality PVC /SWR pipes &amp; fittings ( asper ISI standards) 6kg/cm2</b>		
		891	75 mm dia 3 M Single Socket pipe	Each	269.30
		892	90 mm dia 3 M single socket pipe	Each	433.00
		893	110 mm dia 3 M Single socket pipe	Each	515.40
		894	75 mm dia 3 M Double socket pipe	Each	293.90
		895	90 mm dia 3 M Double socket pipe	Each	466.60
		896	110 mm dia 3 M Double socket pipe	Each	569.10
		897	75 mm dia 1828.8 mm (6'-0") Single Socket pipe	Each	176.30

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
		898	90 mm dia 1828.8 mm (6'-0") Single Socket pipe	Each	274.70
		899	110 mm dia 1828.8 mm (6'-0") Single Socket pipe	Each	326.50
		900	75 mm dia 1828.8 mm (6'-0") Double Socket pipe	Each	188.10
		901	90 mm dia 1828.8 mm (6'-0") Double Socket pipe	Each	285.70
		902	110 mm dia 1828.8 mm (6'-0") Double Socket pipe	Each	352.90
		903	75 mm dia 1219. mm (4'-0") Double Socket pipe	Each	127.60
		904	90 mm dia 1219. mm (4'-0") Double Socket pipe	Each	197.70
		905	110 mm dia 1219. mm (4'-0") Double Socket pipe	Each	240.60
		906	75 mm dia 914.4mm (3'-0") Double Socket pipe	Each	109.80
		907	90 mm dia 914.4mm (3'-0") Double Socket pipe	Each	160.80
		908	110 mm dia 914.4mm (3'-0") Double Socket pipe	Each	194.90
		909	75 mm dia 609.6mm (2'-0") Double Socket pipe	Each	70.80
		910	90 mm dia 609.6mm (2'-0") Double Socket pipe	Each	110.60
		911	110 mm dia 609.6mm (2'-0") Double Socket pipe	Each	140.50
		912	160 mm dia 3 M Double socket pipe	Each	1173.00
			<b>Prince/ Sudhakar make or equivalent quality U.V resistant UPVC) SWR pipe fittings (as per ISI standards )</b>		
			<b>Plain Bend 87.5 Degrees.</b>		
		913	75 mm dia	Each	30.50
		914	90 mm dia	Each	44.00
		915	110 mm dia	Each	51.30
			<b>Door Bend 87.5 Degrees.</b>		
		916	75 mm dia	Each	41.60
		917	90 mm dia	Each	58.90
		918	110 mm dia	Each	65.80
			<b>45 Degree Bend</b>		
		919	75 mm dia	Each	23.70
		920	90 mm dia	Each	34.10
		921	110 mm dia	Each	43.90
			<b>Cleaning Pipe</b>		
		922	75 mm dia	Each	41.50
		923	90 mm dia	Each	60.50
		924	110 mm dia	Each	73.50
			<b>Single Tee</b>		
		925	75 mm dia	Each	36.90
		926	90 mm dia	Each	55.20
		927	110 mm dia	Each	67.00
			<b>Single Tee (With Door)</b>		
		928	75 mm dia	Each	44.30
		929	90 mm dia	Each	66.80
		930	110 mm dia	Each	80.70
			<b>Doube Tee</b>		
		931	75 mm dia	Each	78.00
		932	90 mm dia	Each	113.50
		933	110 mm dia	Each	160.80
			<b>Doube Tee (With Door)</b>		
		934	75 mm dia	Each	123.80
		935	90 mm dia	Each	177.30
		936	110 mm dia	Each	183.50
			<b>Single ' Y'</b>		
		937	75 mm dia	Each	45.70
		938	90 mm dia	Each	73.70
		939	110 mm dia	Each	84.90
			<b>Single ' Y' (With Door)</b>		
		940	75 mm dia	Each	58.30
		941	90 mm dia	Each	91.50

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
	942		110 mm dia	Each	106.90
			<b>Double ' Y'</b>		
	943		75 mm dia	Each	63.70
	944		90 mm dia	Each	98.50
	945		110 mm dia	Each	111.80
			<b>Double ' Y' (With Door )</b>		
	946		75 mm dia	Each	82.10
	947		90 mm dia	Each	127.90
	948		110 mm dia	Each	143.80
			<b>Coupler</b>		
	949		75 mm dia	Each	22.40
	950		90 mm dia	Each	31.70
	951		110 mm dia	Each	35.60
			<b>Reducer</b>		
	952		90 x 75 mm dia	Each	37.20
	953		110 x 75 mm dia	Each	35.80
	954		90 x 110 mm dia	Each	49.50
			<b>Vent Cowl</b>		
	955		63 mm dia	Each	6.10
	956		75 mm dia	Each	8.00
	957		90 mm dia	Each	10.30
	958		110 mm dia	Each	11.30
			<b>Pipe Clip</b>		
	959		40 mm dia	Each	7.20
	960		50 mm dia	Each	7.90
	961		63 mm dia	Each	7.90
	962		75 mm dia	Each	9.00
	963		90 mm dia	Each	10.00
	964		110 mm	Each	11.10
	965		160 mm dia	Each	22.20
			<b>P Trap</b>		
	966		P' Trap ( Small without Airvent ) 110 mm	Each	117.70
	967		P' Trap ( Small with Airvent ) 110 mm	Each	129.30
	968		P' Trap (Big with Airvent ) 110 mm	Each	148.10
	969		P' Trap ( Big without Airvent ) 110 mm	Each	136.20
	970		Floor Trap (Bell Mouth ) 110 mm	Each	140.10
	971		Bell Mouth Trap 7 " ( 177.8 mm)	Each	205.90
	972		4" (101.6 mm ) Nahani Trap ( Without Jali with inlet)	Each	70.40
	973		3" (76.2 mm ) Nahani Trap ( without Jali without inlet)	Each	54.20
	974		4" (101.6 mm ) Nahani Trap ( without inlet with out Jali)	Each	66.60
	975		Mini Trap	Each	33.20
	976		3" (76.2 mm ) nahani Trap with Jali	Each	63.90
	977		4" (101.6 mm ) multi floor trap with jali	Each	89.70
	978		4" (101.6) multi floor trap with out jali	Each	70.10
	979		Round Jali	Each	15.00
	980		Square tile & jali	Each	23.90
	981		Pipe connector ( with LIP ring)	Each	93.70
	982		Pipe connector ( with out LIP ring)	Each	72.80
			<b>Floor Traps</b>		
	983		4" (101.6 mm ) Floor Trap	Each	85.80
	984		5" (127.mm ) floor Trap	Each	91.20
			<b>Door cap</b>		0.00
	985		75 mm dia	Each	35.40
	986		90 mm dia	Each	39.30
	987		110 mm dia	Each	45.10
			<b>Socket Plug</b>		



Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
	988		75 mm dia	Each	32.90
	989		90 mm dia	Each	38.00
	990		110 mm dia	Each	39.30
			<b>Rubber Ring for socket</b>		
	991		75 mm dia	Each	4.80
	992		90 mm dia	Each	6.10
	993		110 mm dia	Each	7.20
			<b>Door Socket</b>		
	994		75 mm dia	Each	5.70
	995		90 mm dia	Each	7.20
	996		110 mm dia	Each	7.90
	997		LIP ring 110 mm	Each	42.90
			<b>Rubber Lubricant</b>		
	998		100 Grams	Each	18.40
	999		250 Grams	Each	40.40
	1000		500 Grams	Each	73.50
	1001		1000 Grams	Each	136.00
	1002		P <sup>h</sup> Trap with lip Ring	Each	185.90
			<b>Solvent Cement</b>		
	1003		50 ml	Each	9.40
	1004		100 ml	Each	16.10
	1005		250 ml	Each	37.40
	1006		500 ml	Each	71.80
	1007		1000 ml	Each	140.10
			<b>Internal Reducer.</b>		
	1008		110mm x 90 mm	Each	55.80
	1009		160 mm x 110 mm	Each	139.40
			<b>CENTIFUGAL CAST IRON PIPES &amp; FITTINGS AS PER IS : 3989 - 1984</b>		
			<b>Note : Sales Tax and Excise duties extra</b>		
			<b>CI (spun) soils Waste &amp; Ventilating pipe (3 M)</b>		
	1010		75 mm dia	Each	693.00
	1011		100 mm dia	Each	924.00
	1012		150 mm dia	Each	1694.00
			<b>CI (spun) soils Waste &amp; Ventilating pipe (3 M) Double socket</b>		
	1013		75 mm dia	Each	770.00
	1014		100 mm dia	Each	1039.50
			<b>9 feet (2743.2 mm ) pipes</b>		
	1015		75 mm dia	Each	624.80
	1016		100 mm dia	Each	832.70
			<b>8 feet (2438.4 mm ) pipes</b>		
	1017		75 mm dia	Each	557.70
	1018		100 mm dia	Each	742.50
			<b>6 feet (1828.8 mm ) pipes</b>		
	1018		75 mm dia	Each	454.30
	1019		100 mm dia	Each	592.90
			<b>6 feet (1828.8 mm ) pipes Double socket</b>		
	1020		75 mm dia	Each	477.40
	1021		100 mm dia	Each	592.90
			<b>Cut pipes (pieces) 1 foot (304.8 mm)</b>		
	1022		75 mm dia	Each	107.80
	1023		100 mm dia	Each	115.50
			<b>Cut pipes (pieces) 1'.6" (457.2 mm )</b>		
	1024		75 mm dia	Each	146.30
	1025		100 mm dia	Each	169.40
	1026		150 mm dia	Each	322.30
			<b>Cut pipes (pieces ) 2 feet (609.6 mm)</b>		

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
		1027	75 mm dia	Each	200.20
		1028	100 mm dia	Each	223.30
		1029	150 mm dia	Each	401.50
			<b>Cut pipes (pieces ) 3 feet (914.4 mm)</b>		
		1030	75 mm dia	Each	254.10
		1031	100 mm dia	Each	308.00
			<b>Cut pipes (pieces ) 4 feet (1219.2 mm)</b>		
		1032	75 mm dia	Each	284.90
		1033	100 mm dia	Each	400.40
			<b>Plain Bend</b>		
		1034	75 mm dia	Each	91.30
		1035	100 mm dia	Each	119.90
		1036	150 mm dia	Each	261.80
			<b>Door Bend</b>		
		1037	75 mm dia	Each	106.70
		1038	100 mm dia	Each	138.60
		1039	150 mm dia	Each	289.30
			<b>Plain Bend 45 Degrees.</b>		
		1040	75 mm dia	Each	92.40
		1041	100 mm dia	Each	107.80
		1042	150 mm dia	Each	231.00
			<b>Door Bend 45 Degrees.</b>		
		1043	75 mm dia	Each	104.50
		1044	100 mm dia	Each	123.20
		1045	150 mm dia	Each	243.10
		1046	Horn Bend Plain 101.6 x 50.8 mm (4" x 2") 100 mm dia	Each	210.10
		1047	Horn Bend door 101.6 x 50.8 mm (4" x 2") 100 mm dia	Each	243.10
			<b>Heel Rest Bend</b>		
		1048	75 mm dia	Each	107.80
		1049	100 mm dia	Each	138.60
		1050	150 mm dia	Each	289.30
			<b>Single Branch Plain "T"</b>		
		1051	75 mm dia	Each	136.40
		1052	100 mm dia	Each	181.50
		1053	150 mm dia	Each	377.30
			<b>Single Branch Door "T"</b>		
		1054	75 mm dia	Each	154.00
		1055	100 mm dia	Each	204.60
		1056	150 mm dia	Each	408.10
			<b>Single Branch plain "Y"</b>		
		1057	75 mm dia	Each	154.00
		1058	100 mm dia	Each	207.90
		1059	150 mm dia	Each	466.40
			<b>Single Branch Door "Y"</b>		
		1060	75 mm dia	Each	169.40
		1061	100 mm dia	Each	231.00
		1062	150 mm dia	Each	492.80
			<b>Double Branch Plain "T"</b>		
		1063	75 mm dia	Each	181.50
		1064	100 mm dia	Each	246.40
			<b>Double Branch Door "T"</b>		
		1065	75 mm dia	Each	204.60
		1066	100 mm dia	Each	254.10
			<b>Double Branch Plain " Y"</b>		
		1067	75 mm dia	Each	204.60
		1068	100 mm dia	Each	273.90

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
			<b>Double Branch Door " Y "</b>		
	1069		75 mm dia	Each	215.60
	1070		100 mm dia	Each	297.00
			<b>Shoe bend</b>		
	1071		75 mm dia	Each	89.10
	1072		100 mm dia	Each	107.80
	1073		150 mm dia	Each	231.00
			<b>Collar</b>		
	1074		75 mm dia	Each	89.10
	1075		100 mm dia	Each	107.80
	1076		150 mm dia	Each	212.30
			<b>Cowel</b>		
	1077		75 mm dia	Each	73.70
	1078		100 mm dia	Each	85.80
	1079		150 mm dia	Each	192.50
			<b>Offset 3" (76.2 mm ) projection</b>		
	1080		75 mm dia	Each	104.50
	1081		100 mm dia	Each	137.50
	1082		150 mm dia	Each	278.30
			<b>Offset 6" (152.4mm ) projection</b>		
	1083		75 mm dia	Each	116.60
	1084		100 mm dia	Each	152.90
	1085		150 mm dia	Each	315.70
			<b>Long Door Bend</b>		
	1086		75 mm dia	Each	261.80
	1087		100 mm dia	Each	281.60
			<b>Hand Hole pipe ( Inspection pipe)</b>		
	1088		75 mm dia	Each	150.70
	1089		100 mm dia	Each	204.60
	1090		150 mm dia	Each	267.30
			<b>P Traps</b>		
	1091		75 mm dia	Each	161.70
	1092		100 mm dia	Each	223.30
	1093		4" x 3" (101.6 mm x 76.2mm ) P. Traps 100 mm dia	Each	231.00
	1094		4" x 3" (101.6 mm x 76.2mm ) Vent Traps 100 mm dia	Each	231.00
	1095		4" x 3" (101.6 mm x 76.2mm ) Reducer 75 mm dia	Each	154.00
	1096		6" x 4" (152.4 mm x101.6 mm ) Reducer 75 mm dia	Each	192.50
	1097		3" x 2" ( 76.2 mm x 50.8 mm ) plain T 75 mm dia	Each	158.40
	1098		3" x 2" ( 76.2 mm x 50.8 mm ) Door T 75 mm dia	Each	184.80
	1099		3" x 2" ( 76.2 mm x 50.8 mm ) Plain Y 75 mm dia	Each	184.80
	1100		3" x 2" ( 76.2 mm x 50.8 mm ) Door Y 75 mm dia	Each	184.80
	1101		4" x 3" (101.6 mm x 76.2mm ) Plain T 75 mm dia	Each	184.80
	1102		4" x 3" (101.6 mm x 76.2mm ) Door T 75 mm dia	Each	207.90
	1103		4" x 3" (101.6 mm x 76.2mm ) Plain Y 75 mm dia	Each	207.90
	1104		4" x 3" (101.6 mm x 76.2mm ) Door Y 75 mm dia	Each	231.00
	1105		6" x 4" (152.4 mm x101.6 mm ) Plain T 75 mm dia	Each	346.50
	1106		6" x 4" (152.4 mm x101.6 mm ) Door T 75 mm dia	Each	385.00
	1107		6" x 4" (152.4 mm x101.6 mm ) Plain Y 75 mm dia	Each	400.40
	1108		6" x 4" (152.4 mm x101.6 mm ) Door Y 75 mm dia	Each	431.20
			<b>Special Types of Long Fittings</b>		
			<b>Plain " T" 27 " (685.8 mm )</b>		
	1109		75 mm dia	Each	454.30
	1110		100 mm dia	Each	639.10
			<b>Door "T" 27" (685.8 mm )</b>		
	1111		75 mm dia	Each	508.20
	1112		100mm dia	Each	700.70

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
		<b>Plain " Y" 27" (685.8 mm)</b>		
	1113	75 mm dia	Each	508.20
	1114	100mm dia	Each	700.70
		<b>Door " Y" 27" (685.8 mm)</b>		
	1115	75 mm dia	Each	566.50
	1116	100mm dia	Each	770.00

## PUBLIC HEALTH ITEMS

S.No.	Description	Unit	S S RATE FOR 2005-06
1	2	3	4.00
1	<b>RATES OF LABOUR (SKILLED WORKMEN)</b>		
	1. Caulkar	Per Day	As per common SSR
	2. Plumber 1st Class	Per Day	
	3. Plumber 2nd Class	Per Day	
	4. Sewer Cleaner	Per Day	
	5. Well Sinkers	Per Day	
	6. Pipe line Fitter 1st Class	Per Day	
	7. Pipe line Fitter 2nd Class	Per Day	
	8. Pump Driver	Per Day	
	9. Bore Mechanic	Per Day	
	10. Light Vehicle Driver	Per Day	
	<b>Note:</b> The rate at relevant item in common SSR is applicable for occasional employment.		
2	<b>RATES FOR EARTH WORK :</b>		
a.	Earth work excavation in all soils for pipe lines, for drainage and water supply, where the depth is 1.5 times more than the width.		AS PER COMMON SSR  25% extra over relevant SSR item
b.	Earth work excavation in all soils for pipe lines, for drainage and water supply, where the depth is less than 1.5 times the width.		
c.	Earth work excavation in all soils for open trenches, for valve pits, inspection chambers, etc.		
3. a.	Excavation of pipe line trenches for drainage and water supply in rock requiring blasting with initial lead and lift including cost of blasting materials where the depth is 1.5 times more than the width, in places where there is no habitation.		
b.	Excavation of pipe line trenches for drainage and water supply in rock requiring blasting with initial lead and lift including cost of blasting materials where the depth is less than 1.5 times the width, in places where there is no habitation.		
c.	Cutting rock for pipe line trenches by hammers, nuckles and chisels including stacking where the depth is 1.5 times or more than the width.		
d.	Cutting rock for pipe line trenches by hammers, nuckles and chisels including stacking where the depth is less than 1.5 times the width.		
e.	Cutting rock for works other than pipe lines trenches by hammers, nuckles and chisels including stacking.		
f.	For contol blasting at restricted places		
	<b>NOTE :-</b> Rock should be measured in solids. In case it is not possible, stacks should be made in which case 40% for voids to be deducted from the stack measurements.		
4	<b>Loading or unloading materials such as C.I. Pipes, PVC Pipes, AC Pressure Pipes, DI Pipes, SW Pipes, PVC Pipes, A.C/Specials less than 300 mm dia upto 4 m in length including stacking.</b>		
a.	C.I. Pipes/D.I. Pipes and fittings	Per Tonne	55.60

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
	b.	A.C. Pipes & Specials	Per Tonne	46.40
	c.	Stoneware pipes & Specials	Per Tonne	46.60
	d.	P.V.C. Pipes and fittings	Per Tonne	45.80
	5	<b>Loading or unloading materials such as C.I. Pipes, DI pipes, SW pipes, AC pressure pipes &amp; fittings/ specials from 300 mm to 600 mm dia upto 4 m in length including stacking.</b>		
	a.	C.I. Pipes/D.I. Pipes and fittings	Per Tonne	69.60
	b.	A.C. Pipes & Specials	Per Tonne	63.10
	c.	Stoneware pipes & Specials	Per Tonne	63.50
	6	<b>Loading or unloading materials such as C.I. Pipes, DI pipes, PVC pipes, AC pipes less than 300 mm dia, above 4 m in length including stacking.</b>		
	a.	C.I. Pipes/D.I. Pipes and fittings	Per Tonne	68.70
	b.	A.C. Pipes & Specials	Per Tonne	63.10
	c.	P.V.C. Pipes and fittings	Per Tonne	62.70
		<b>Note:-</b> For loading and unloading the above materials at Railway Stations, the rates may be adopted based on the competitive quotations or the hammalae charges if prevailing.		
	7	<b>Loading or unloading materials such as C.I. Pipes, DI pipes, AC pipes from 300 mm to 600 mm above 4 m in length including stacking.</b>		
	a.	C.I. Pipes/D.I. Pipes and fittings	Per Tonne	83.40
	b.	A.C. Pipes & Specials	Per Tonne	78.20
	8. a.	<b>Lowering the C.I. Pipes, D.I. Pipes and fittings with S/S ends carefully into the trenches and laying them true to alignment and gradient including all sundries, but excluding conveyance from source of supply as per BIS No.3114/85.</b>		
		<b>DIAMETER OF PIPE : (S/S Pipes) in mm :</b>		
		80	Per Metre	12.50
		100	Per Metre	12.50
		125	Per Metre	12.50
		150	Per Metre	12.50
		180	Per Metre	14.40
		200	Per Metre	16.10
		225	Per Metre	17.10
		250	Per Metre	18.20
		300	Per Metre	23.40
		350	Per Metre	42.20
		380	Per Metre	42.70
		400	Per Metre	44.60
		450	Per Metre	52.00
		500	Per Metre	56.10
		530	Per Metre	63.80
		560	Per Metre	69.90
		600	Per Metre	74.60
		650	Per Metre	77.20
		680	Per Metre	82.00
		700	Per Metre	90.80
		750	Per Metre	104.80
		800	Per Metre	121.50
		900	Per Metre	145.70
		1000	Per Metre	176.00
		1100	Per Metre	209.10
		1200	Per Metre	245.30

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
	8. b.	Lowering the C.I. Pipes, D.I. Pipes and fittings with flanged ends carefully into the trenches and laying them true to alignment and gradient including all sundries, but excluding conveyance from source of supply as per BIS No.3114/85.		
		DIAMETER OF PIPE : (D/F Pipes) in mm :		
		80	Per Metre	15.20
		100	Per Metre	15.20
		125	Per Metre	15.20
		150	Per Metre	15.90
		180	Per Metre	16.30
		200	Per Metre	17.80
		225	Per Metre	19.00
		250	Per Metre	20.30
		300	Per Metre	25.90
		350	Per Metre	46.40
		380	Per Metre	47.80
		400	Per Metre	51.30
		450	Per Metre	57.00
		500	Per Metre	59.60
		530	Per Metre	66.60
		560	Per Metre	71.60
		600	Per Metre	78.00
		650	Per Metre	80.00
		680	Per Metre	86.50
		700	Per Metre	99.70
		750	Per Metre	112.70
		800	Per Metre	138.20
		900	Per Metre	167.00
		1000	Per Metre	197.80
		1100	Per Metre	232.10
		1200	Per Metre	270.50
	9. a.	Jointing the C.I. / DI Pipes & fittings with S/S ends excluding cost of jointing materials such as lead or lead wool and hemp yarn but including sundries such as cost of fuel for melting lead, filling with water, with a water lead upto 500 m and testing to required pressure etc, complete as BIS No.3114/85		
		DIAMETER OF PIPE : (S/S Pipes) in mm :		
		80	Each Joint	40.50
		100	Each Joint	43.40
		125	Each Joint	62.50
		150	Each Joint	65.20
		180	Each Joint	75.70
		200	Each Joint	85.30
		225	Each Joint	96.30
		250	Each Joint	106.30
		300	Each Joint	124.80
		350	Each Joint	136.60
		380	Each Joint	156.60
		400	Each Joint	177.70
		450	Each Joint	197.50
		500	Each Joint	209.60
		530	Each Joint	227.60
		560	Each Joint	245.90
		600	Each Joint	282.20
		650	Each Joint	301.50
		680	Each Joint	306.50
		700	Each Joint	314.30

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
			750 Each Joint	342.70
			800 Each Joint	366.90
			900 Each Joint	426.40
			1000 Each Joint	483.50
			1100 Each Joint	545.30
			1200 Each Joint	600.20
	9. b.	<b>Jointing the C.I. Pipes, D.I. Pipes &amp; fittings with Rubber Gasket, excluding the cost of the gasket but including all sundries filling with water with a water lead upto 500 m and testing to required pressure etc., complete as per BIS No.3114/85.</b>		
		<b>DIAMETER OF PIPE : in mm :</b>		
			80 Each Joint	37.50
			100 Each Joint	40.20
			125 Each Joint	58.20
			150 Each Joint	60.70
			180 Each Joint	70.10
			200 Each Joint	80.60
			225 Each Joint	91.20
			250 Each Joint	99.00
			300 Each Joint	118.00
			350 Each Joint	127.30
			380 Each Joint	146.00
			400 Each Joint	167.40
			450 Each Joint	186.10
			500 Each Joint	197.40
			530 Each Joint	214.30
			560 Each Joint	231.60
			600 Each Joint	268.50
			650 Each Joint	287.00
			680 Each Joint	291.70
			700 Each Joint	299.10
			750 Each Joint	326.10
			800 Each Joint	349.30
			900 Each Joint	405.80
			1000 Each Joint	460.30
			1100 Each Joint	509.20
			1200 Each Joint	557.40
	10	<b>Jointing the C.I. Pipes, fittings and valves with flanged ends excluding cost of jointing materials such as bolts, nuts, rubber insertion, white lead and including filling with water with a water lead upto 500 m and testing to required pressure etc., comp as per BIS No.3114/85.</b>		
		<b>DIAMETER OF PIPE : in mm :</b>		
			80 Each Joint	47.70
			100 Each Joint	50.90
			125 Each Joint	73.40
			150 Each Joint	76.50
			180 Each Joint	89.20
			200 Each Joint	100.90
			225 Each Joint	114.90
			250 Each Joint	124.70
			300 Each Joint	149.30
			350 Each Joint	163.40
			380 Each Joint	186.90
			400 Each Joint	210.30
			450 Each Joint	235.80
			500 Each Joint	247.80

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
			530 Each Joint	273.20
			560 Each Joint	293.10
			600 Each Joint	345.70
			650 Each Joint	371.50
			680 Each Joint	375.90
			700 Each Joint	386.40
			750 Each Joint	421.40
			800 Each Joint	451.80
			900 Each Joint	524.30
			1000 Each Joint	629.60
			1100 Each Joint	670.40
			1200 Each Joint	739.00
	11a	Lowering the RCC plain ended pipes carefully into the trench laying them true to alignment and gradient, jointing RCC pipes with cement joints including curing, the cost of jointing materials i.e., Cement Mortar (1:1.5), hemp yarn etc., and testing including filling	Per Metre	7.30
	11b	Lowering the RCC S/S pipes carefully into the trenches, laying them true to the alignment and gradient, jointing with rubber rings and testing including filling with water with a water lead upto 500 metres excluding cost of rubber rings as per BIS No.783/	Per Metre	4.80
	12	Laying, jointing of G.I. / PVC/HDPE pipes and specials/fittings including excavation upto 0.5 m depth in all soils except rock requiring blasting and re-filling trenches after laying and jointing pipes.		
	a	G.I. PIPES :		
		DIA in mm		
			50 Per Metre	12.30
			40 Per Metre	12.30
			32 Per Metre	11.30
			25 Per Metre	11.30
			20 Per Metre	10.20
			15 Per Metre	10.20
	b	PVC/HDPE pipes as per BIS No.7634 part-III/75 for PVC and BIS No.7634 part-II/75 for HDPE pipes.		
		DIA in mm		
			50 Per Metre	11.30
			40 Per Metre	11.30
			32 Per Metre	10.40
			25 Per Metre	10.40
			20 Per Metre	9.50
		NOTE :- (i) The above rates are applicable for the works in District only.		
		(ii) If the depth of excavation is more than 0.5 m separate rates to be worked out.		
	13	Lowering & laying AC pressure pipes in ready made trenches true to alignment and gradient including all sundries but excluding conveyance from source of supply, as per BIS No.6530/72. Dia of Pipes in mm.		
			80 Per Metre	7.10
			100 Per Metre	7.10
			125 Per Metre	7.10
			150 Per Metre	7.40
			200 Per Metre	9.00
			250 Per Metre	10.40
			300 Per Metre	12.70
			350 Per Metre	22.30
			400 Per Metre	25.10
			450 Per Metre	27.90



Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
			500 Per Metre	33.20
			600 Per Metre	35.50
	14	<b>Jointing AC pressure pipes with AC couplings or CID joints complete with Rubber Rings including filling with water with a water lead upto 500 m and testing to required pressure, etc., complete but excluding cost of jointing materials and conveyance of pipes.</b>		
			80 Each Joint	15.70
			100 Each Joint	21.70
			125 Each Joint	21.70
			150 Each Joint	25.10
			200 Each Joint	25.10
			250 Each Joint	33.40
			300 Each Joint	33.40
			350 Each Joint	37.60
			400 Each Joint	37.60
			450 Each Joint	43.70
			500 Each Joint	43.70
			600 Each Joint	50.20
	15	Lowering and laying in ready made trenches true to alignment and gradient, jointing and testing of <b>stoneware pipes</b> excluding cost of jointing materials such as cement mortar and hemp yarn as per BIS No. 4127/83.		
		DIA of Pipes in mm .		
			100 Per Metre	18.90
			150 Per Metre	23.80
			200 Per Metre	26.50
			225 Per Metre	27.80
			250 Per Metre	31.70
			300 Per Metre	36.40
			400 Per Metre	40.60
			450 Per Metre	54.50
	16	Lowering, laying, jointing & testing to Hydraulic Field test pressure including cost of water with minimum water lead of 500 M (Labour charges only) for <b>PVC pipes</b> excluding the cost of jointing materials.		
		DIA of Pipes in mm .		
			63 Per Metre	6.70
			75 Per Metre	7.10
			90 Per Metre	7.20
			110 Per Metre	7.70
			125 Per Metre	8.10
			140 Per Metre	8.30
			160 Per Metre	8.50
			180 Per Metre	8.90
			200 Per Metre	9.50
			225 Per Metre	10.00
			250 Per Metre	10.40
			280 Per Metre	10.90
			315 Per Metre	11.50
		<b>NOTE:-</b> For item 9 to 16 the element of testing charges is to be considered as 20% of the combined rate for laying, jointing and testing. This 20% shall be released only after satisfactory testing of the pipe line to the required pressure.		
	17	<b>Labour charges for lowering and keeping in position of C.I. Sluice valves, reflux valves and scour valves. Dia of Valve in mm.</b>		
			80 Each	19.20
			100 Each	25.30

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
			125 Each	33.20
			150 Each	39.20
			200 Each	72.70
			250 Each	98.20
			300 Each	148.80
			350 Each	255.90
			400 Each	313.90
			450 Each	411.00
	18 a.	Labour charges for fixing Air Valves including boring the mains, threading the bore and fixing nipple etc., complete. Dia of Air valve in mm.		
			25 Each	52.70
			40 Each	60.40
			50 Each	63.80
			65 Each	68.00
			80 Each	74.70
			100 Each	87.70
			125 Each	135.90
			150 Each	148.60
	18 b.	Labour charges for fixing Kinetic Air Valves with isolating Sluice valves, Double Air valves/ Air Cushion valve excluding cost of jointing materials such as bolts, nuts and rubber insertions etc., complete. Dia of Air Valve in mm .		
			25 Each	52.40
			40 Each	60.10
			50 Each	63.40
			65 Each	67.70
			80 Each	74.40
			100 Each	87.30
			125 Each	135.30
			150 Each	147.90
	19	Labour charges for fixing fire hydrants excluding cost of jointing materials.		
		65 mm	Each	59.80
		80 mm	Each	74.50
	20	Uprooting C.I./ DI Pipes by melting the lead, loosening the joints, scraping the pipes, hoisting and keeping within a lead of 10 m but excluding earth work excavation and refilling. Dia of Pipes in mm.		
			80 Per Metre	Observed data only
			100 Per Metre	
			125 Per Metre	
			150 Per Metre	
			180 Per Metre	
			200 Per Metre	
			225 Per Metre	
			250 Per Metre	
			300 Per Metre	
			350 Per Metre	
			400 Per Metre	
			450 Per Metre	
			500 Per Metre	
			600 Per Metre	
	21	Uprooting of RCC pipes including breaking the collars, loosening the joint, scraping the pipes, hoisting and keeping within a lead of 10 m but excluding earthwork excavation and refilling.	Per Metre	observed data only
	22	Removing GI/PVC/HDPE pipes and specials/ fittings and clearing.		
		Dia of Pipes in mm		

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
			50	50% of data of laying & jointing of GI/ PVC/ HDPE pipes and fittings of relevant PH item.
			40 Per Metre	
			30 Per Metre	
			25 Per Metre	
			20 Per Metre	
			15 Per Metre	
23		<b>Cutting C.I./ DI Pipes without water in mains.Dia of pipes in mm.</b>		
			80 Each cut	28.80
			100 Each cut	28.80
			125 Each cut	28.80
			150 Each cut	28.80
			180 Each cut	32.90
			200 Each cut	32.90
			225 Each cut	32.90
			250 Each cut	47.30
			300 Each cut	47.30
			350 Each cut	65.90
			380 Each cut	72.30
			400 Each cut	75.40
			450 Each cut	93.70
			500 Each cut	112.70
			530 Each cut	122.50
			560 Each cut	132.30
			600 Each cut	150.00
			680 Each cut	169.20
24		<b>Cutting A.C. Pipes without water in mains.Dia of pipes in mm.</b>		
			80 Each cut	12.30
			100 Each cut	12.30
			125 Each cut	12.30
			150 Each cut	12.30
			200 Each cut	12.90
			250 Each cut	20.90
			300 Each cut	20.90
			350 Each cut	26.20
			400 Each cut	29.00
			450 Each cut	35.60
			500 Each cut	39.60
			600 Each cut	44.30
25		<b>Drilling and tapping CI/ DI Main and fixing brass screw down ferrule and plug.</b>		
		10 mm to 20mm	Each Tapping	57.40
		25 mm to 40mm	Each Tapping	68.50
26		<b>Cutting road surface including stacking of excavated materials for pipe line trench work.</b>		
		a) Cutting open B.T. road surface (as well as asphalt concrete upto 75 mm thick) including water bound macadam	10 Sqm	186.80
		b) Cutting open C.C. road surface	1 Cum	354.80
		c) Cutting open water bound macadam road including soiling	1 Cum	60.80
27		<b>Bailing out water.(For PH item)</b>		

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
		a) Bailing out water from the pipe line trenches with oil engine driven pumpsets, including hire charges, fuel charges and wages for Driver and Helper.	HP/Hour	13.00
		b) Bailing out water from the pipe line trenches with Electric Driven pumpset including hire charges, current charges and wages for Driver and Helper.	HP/Hour	10.20
		<b>NOTE:-</b> The rate is payable on the total H.P. hours ignoring fractions less than 0.5 HP hour and rounding off 0.5 HP hour or more to the next higher integer.		
28		<b>Shoring and strutting of trenches for water and sewer main.</b>		
		a) Single Staging from (0 to 2.5 Mts.)	10 Sqm of Shoring area	543.80
		b) Double staging from (2.5 m to 4.5 Mts.)	10 Sqm of Shoring area	735.30
29		<b>Barricading, hoarding, lighting and watching etc., for water supply and sewerage works for trenches.</b>	10 RM	29.40
30		<b>Excavation of trenches for infiltration galleries, syphon lines and connecting mains in all soils under water including all leads, lifts, shoring, strutting, bailing out water and removal of shoring and strutting materials, after completion of pipe line w</b>		
		a) 0 to 1 m deep under water.	10 Cum	4381.20
		b) 1 to 2 m deep under water.	10 Cum	6276.00
		c) 2 to 5 m deep under water.	10 Cum	9058.60
		d) Beyond 5 m deep under water for every additional 1 m depth over item 'c'	10 Cum	1714.20
		<b>NOTE:-</b> The above rates do not include rock requiring blasting or chiselling		
31		<b>Laying and jointing glazed stoneware pipes including loose jointing with cement fillets and all other incidental charges for infiltration gallery, inclusive of bailing out water by pumping to keep the trench reasonably dry to facilitate the work excluding cost of stoneware pipes</b>		
		a) 200 mm to 400 mm	Per Metre	218.10
32		Laying and jointing <b>perforated</b> RCC pipes inclusive of bailing out water and jointing with cement fillets and all other incidental charges for infiltration gallery inclusive of bailing out water by pumping to keep the trench reasonably dry to facilitate the work excluding.		
		a) 200 mm to 600 mm	Per Metre	225.10
33		<b>Centring and scaffolding charges for RCC members including all materials and labour charges for forming and dismantling</b> <b>a) for R C C Elevated Service Reservoir of staging up to 15 metre below L W L.</b>		
		1) Slabs for thickness (150 mm to 300 mm)	One Sqm of Centering area	
		2) Slabs for thickness above (300 mm)		826.20
		3) Side walls curved surfaces.		1651.70
		4) Side wall straight surfaces.		624.50
		5) Dome.		555.50
		6) Roof Slab.		676.50
				416.60

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
		7) Column footing.		455.40
		8) Column braces and beams		278.60
		9) Circular braces, ring beams & circular column.		305.20
		<b>Note:-</b> For RCC ELSR of staging above 15 m observed data may be worked out for the extra staging taking into consideration, the quantum of concrete to be lifted, extra scaffolding involved etc., and may be adopted in the working estimate after getting approval from the competent authority		
		<b>b) For Ground level works :-</b>		
		1) Slabs	1 Sqm	As per Common SSR
		2) Beams & Lintels	1 Sqm	
		3) Sun shades	1 Sqm	
		4) RCC vertical walls of plane surface upto 3 m height such as ground level tanks clarifiers and sludge digesters etc.	1 Sqm	302.30
		5) RCC vertical walls of circular faces upto 3 m height.	1 Sqm	385.70
		<b>NOTE:</b> Scaffolding for every extra height of 1 m or part thereof but not less than 0.5 m - 10 Sqm.	10 Sqm	
34		<b>Lift or delift of materials :</b>		
		a) Lifting of cement concrete for RCC elevated reservoir. For every 3 m height or part thereof over the initial lift of 5 m	1 Cum	53.90
		b) Delifting the materials such as stones, concrete etc., for concrete below ground level for construction of masonry ground level reservoirs, inspection wells, test wells and sump wells etc., for every 2 m depth or part thereof beyond the initial depth of 4 meters from ground level.	1 Cum	16.40
35		Labour charges for fixing ventilating shafts complete with all accessories.	Each	222.20
36		Labour charges for fixing water closets including fixing of foot rests (for all sizes).	Each	Relevant Common SSR item
37		Labour charges for fixing of flushing cistern including fixing of flush pipes, lead pipe, jointing etc., complete	Each	
38		Labour charges for fixing wash hand basin including fixing of inlet and waste pipe connections etc., complete	Each	
39		Fixing urinal with inlet and waste pipe connections etc., complete.	Each	
40		Refilling the trench for pipe line with excavated earth including watering and tamping etc., complete	10 Cum	
41 a		Extra allowance for isolated scattered works viz., valve pits, public fountains, meter pits and manholes etc., complete.	Each	25% extra over the cost of chamber.
41 b		Repairs to the existing mains, interconnections, replacement of valves/specials etc., including the cutting ,jointing, bailing out of water, drying, earth work excavation etc., complete.		100% extra over the cost of work
42		Removal of wet silt and sludge from sullage drains with aid of baskets and vessels.	10 Cum	554.10
43		Conveyance of C.I./ DI Pipes, C.I. Special excluding loading, unloading and stacking.		As per separate sheet enclosed
44		Conveyance of RCC pipes including loading, unloading and stacking.		Deleted

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
	45	Conveyance of Stoneware pipes including loading unloading and stacking.		As per local competitive quotations
	46	Conveyance of A.C. pressure pipes and accessories including loading, unloading and stacking.		As per local competitive quotations
	47	Conveyance of PVC pipes and accessories including loading, unloading and stacking.		Deleted
	48	<b>Well sinking in sandy and other loose soils under water either by manual labour, divers, or dredgers, weighting the top of staining to assist sinking etc., including dewatering and other incidental charges such as hire charges for mechanical equipment etc,complete up to 4 m internal dia.</b>		
		Upto 2 m below GL/m	Per metre	9220.60
		From 2 to 4 m below GL/m	Per metre	10098.10
		From 4 to 6 m below GL/m	Per metre	11414.80
		From 6 to 8 m below GL/m	Per metre	12871.10
		From 8 to 10 m below GL/m	Per metre	14227.90
		<b>Note:-</b> Below 10 m for every metre depth or part thereof add Rs.250/- per m. For higher dia, observed data is to be prepared and got approved.		
	49	Sinking in Hard strata other than rock but in soils like limestone, gravel, clay under water including, pumping dewatering, hire charges for mechanical equipment etc., complete.		Deleted
	50	Open well excavation in various soils.		As per Common SSR
	51	<b>Rates for OHSRs/ELSRs including fixtures with a staging of 15 m.</b>		
	a	Capacity in 500 Kilo litres	Per litre	4.75
	b	Capacity in 1000 Kilo litres	Per litre	4.54
	c	Capacity in 1500 Kilo litres	Per litre	4.28
	d	Capacity in 2000 Kilo litres	Per litre	4.10
	e	Capacity in 2500 Kilo litres	Per litre	3.89
		<b>NOTE: -1)</b> The above rates are applicable for <b>Elevated Level Services Reservoirs / OHSRs</b> with <b>RAFT FOUNDATION</b> and a rate of Rs.2,700/- per tonne for cement and Rs.28,000/- per tonne for steel.		
		2) For every m height of staging above 15 m or less than 15 m the rate shall be increased/reduced by Rs.0.02 paise per litre.		
		3) For every Rs.100/- increase/decrease in price of cement per tonn increase/ decrease the rate by 0.7%		
		4) for every Rs.1000/- increase/decrease in price of steel per tonne, increase/decrease the rate by 2%		
		5) Rate inclusion of three coats of epoxy paint to inner surface of the reservoir including roof dome.		
		6) For intermediate ranges proportional rates may be adopted.		
		7) The above rates be adopted for estimate purposes for construction of ELSR for a finished work including 2 coats of snowcem painting for external surfaces, lettering fixing of all required fixtures,		

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
		pipes, bends, valves etc., for pipe connections but excluding cost of pipes, bends and valves as per departmental designs and drawings		
		8) The above rates are arrived considering a wind pressure as per BIS No.875/88		
		9) For tribal/Agency / Rural area, the above rates shall be increased by 5%		
		<b>10) Fixtures include.</b>		
		a) A balcony of 0.75 m width at floor slab level/ middle ring beam level / top ring beam level with RCC post with GI pipe hand railing.		
		b) C.I. Manhole frame and cover : 0.60 x 0.6 m size 2 Nos.		
		c) RCC Mosquito proof ventilators.		
		d) RCC Finial - 1 No.		
		e) RCC precast ladders 0.45 m wide - 2 Nos.		
		f) RCC dog legged stair case of 1.00 m width with hand railing - 1 No.		
		g) RCC hand railing 0.75 m height around at top of reservoir.		
		h) Water level indicator of approved pattern - 1 No.		
		i) Lightening arrestor with all its accessories complete including earthing - 1 No.		
52		<b>Rates for OHSRs/ELSRs including fixtures with a staging of 15 m.</b>		
	a	40,000 Litres capacity	Per litre	11.23
	b	40,001 to 60,000 Litres capacity	Per litre	8.53
	c	60,001 to 1,00,000 Litres capacity	Per litre	7.88
	d	1,00,001 to 2,00,000 Litres capacity	Per litre	6.91
	e	2,00,001 to 3,00,000 Litres capacity	Per litre	6.48
	f	3,00,001 to 4,00,000 Litres capacity	Per litre	5.72
	g	4,00,001 to 4,50,000 Litres capacity	Per litre	4.97
		<b>NOTE: -1) The above rates are applicable for Elevated Level Services Reservoirs / OHSRs with RAFT FOUNDATION and a rate of Rs.2,700/- per tonne for cement and Rs.28,000/- per tonne for steel.</b>		
		2) For every metre height of staging above 15 m or less than 15 m, the rate shall be increase/reduced by Rs.0.02 paise per litre.		
		3) For every Rs.100/- increase/decrease in price of cement per tonne increase/decrease the rate by 0.70%		
		4) For every Rs.1000/- increase/decrease in price of steel per tonne increase/decrease the rate by 2%		
		5) Rate inclusive of three coats of epoxy paint to inner surface of the reservoir including roof dome.		
		6) For intermediate ranges proportional rates may be adopted.		
		7) The above rates be adopted for estimate purposes for construction of ELSR for a finished work including 2 coats of snowcem painting for external surfaces, lettering, fixing of all required fixtures, pipes, bends, valves etc., for pipe connections, but excluding cost of pipes, bends and valves, as per departmental designs and drawings		
		8) The above rates are arrived considering a wind pressure as per BIS No.875/88		

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
		9) For Tribal/Agency/ Rural area, the above rates shall be increased by 5%.		
		10) Fixtures include :		
		a) RCC or Aluminium ladder inside 0.45 m wide.		
		b) Dog legged staircase of 1.0 m wide.		
		c) M.S. Ladder/spiral on the outside.		
		d) Lightning arrestor, including conductor and earthing etc.		
		e) RCC ventilators with copper or stainless steel fly proof mesh.		
		f) RCC finial ventilators with copper or stainless steel fly proof mesh.		
		g) Manholes frame and cover 0.75x0.75 m with frame as per IS specifications (light duty) – 2 Nos.		
		h) Railing with 32 mm dia G.I. Pipes (A class) in two rows around OHSR fixed in RCC (1:2:4) posts of size 100x75x75 mm with 1.5 m intervals around periphery on top of the OHSR for smaller capacities.		
		i) Water level indicator of good quality with ebonite/ copper float approved pattern- 1 No.		
	53	<b>Construction of Rapid Gravity Filtration Plant including civil, mechanical and electrical trial running etc., complete.</b>		
		1) 2.0 Mld	Per litre	1.25
		2) 5.0 Mld	Per litre	1.15
		3) 10.0 Mld	Per litre	1.04
		4) 20.0 Mld	Per litre	0.94
		<b>NOTE:</b> - a) Above 20 mld the litre rate shall be arrived by reducing the litre rate of 20 mld @ Rs.0.01 P per each additional mld. For intermediate capacities, propotional rates shall be adopted.		
		b) The above rates are applicable with cement @ rate of Rs.2,700/-MT and steel of 28,000/MT.		
		c) For every Rs.100/MT increase/decrease the price of cement increase/reduce the rate by 0.7%.		
		d) For every Rs.1000/MT increase/decrease in price of steel increase/reduce the rate by 2%.		
		e) For rural areas an extra allowance of 5% shall be given on basic rate.		
		<b>NOTE:-</b> The prices of cement and steel will be reviewed and fixed quarterly and rates will be communicated separately by ENC (IW) I & CAD Dept Hyderabad.		

**PUBLIC HEALTH (PIPES AND SPECIAL)  
RATES FOR R.C.C. PLAIN ENDED PIPES**

Code No.	Description	Unit	
1	2		
	MANUFACTURE, SUPPLY AND DELIVERY OF R.C.C. PLAIN ENDED PIPES CONFORMING TO B.I.S. 45 EXCLUDING TRANSPORTATION, TAXES & DUTIES		
	Size	Unit	
			NP - 2 Class
	80 mm dia	Meter	60.77
	100 mm dia	Meter	70.56
	150 mm dia	Meter	83.2
	200 mm dia	Meter	98.37
	225 mm dia	Meter	107.68



Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
		250 mm dia	Meter	114.75
		300 mm dia	Meter	165.02
		350 mm dia	Meter	205.31
		400 mm dia	Meter	236.97
		450 mm dia	Meter	290.4
		500 mm dia	Meter	318.98
		600 mm dia	Meter	471.46
		700 mm dia	Meter	604.3
		800 mm dia	Meter	742.62
		900 mm dia	Meter	933.94
		1000 mm dia	Meter	1134.91
		1100 mm dia	Meter	1349.09
		1200 mm dia	Meter	1606.7
		1400 mm dia	Meter	2185.99
		1600 mm dia	Meter	2356.34
		1800 mm dia	Meter	3322.43

### RATES FOR R.C.C. COLLARS

Code No.	Description	Unit	S S F
1	2		
	MANUFACTURE, SUPPLY AND DELIVERY OF R.C.C. COLLARS CONFORMING TO B.I.S. 458/1988 (R COLLAR) SUITABLE FOR R.C.C. PLAIN ENDED PIPES INCLUDING TRANSPORTATION BUT EXCLU		
	Size	Unit	S S F
			NP - 2 Class
	80 mm dia	Each	16.58
	100 mm dia	Each	17.95
	150 mm dia	Each	18.65
	200 mm dia	Each	24.71
	225 mm dia	Each	27.1
	250 mm dia	Each	29.36
	300 mm dia	Each	38.67
	350 mm dia	Each	47.64
	400 mm dia	Each	51.54
	450 mm dia	Each	81.75
	500 mm dia	Each	93.75
	600 mm dia	Each	124.62
	700 mm dia	Each	162.92
	800 mm dia	Each	228.66
	900 mm dia	Each	274.39
	1000 mm dia	Each	320.12
	1100 mm dia	Each	392.15
	1200 mm dia	Each	476.76
	1400 mm dia	Each	615.1
	1600 mm dia	Each	784.3
	1800 mm dia	Each	815.17

### RATES FOR R.C.C. S/S PIPES (Non Pressure)

Code No.	Description
1	2

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
		<b>MANUFACTURE, SUPPLY AND DELIVERY OF R.C.C. SOCKET AND SPIGOT PIPES CONFORMING TO FACTORY (RATE PER METER OF EFFECTIVE LENGTH) EXCLUDING TRANSPORTATION, TAXES &amp;</b>		
		<b>Size</b>	<b>Unit</b>	<b>S S R</b>
				<b>NP - 2 Class</b>
		80 mm dia	Meter	<b>80.43</b>
		100 mm dia	Meter	<b>88.74</b>
		150 mm dia	Meter	<b>107.46</b>
		200 mm dia	Meter	<b>131.03</b>
		225 mm dia	Meter	<b>142.82</b>
		250 mm dia	Meter	<b>152.54</b>
		300 mm dia	Meter	<b>214</b>
		350 mm dia	Meter	<b>274.43</b>
		400 mm dia	Meter	<b>303.68</b>
		450 mm dia	Meter	<b>377.61</b>
		500 mm dia	Meter	<b>434.69</b>
		600 mm dia	Meter	<b>612.52</b>
		700 mm dia	Meter	<b>793.64</b>
		800 mm dia	Meter	<b>1017.57</b>
		900 mm dia	Meter	<b>1284.31</b>
		1000 mm dia	Meter	<b>1557.64</b>
		1100 mm dia	Meter	<b>1830.96</b>
		1200 mm dia	Meter	<b>2077.95</b>
		1400 mm dia	Meter	<b>2950.62</b>
		1600 mm dia	Meter	<b>3649.85</b>
		1800 mm dia	Meter	<b>4110.89</b>

**RATES FOR R.C.C. S/S PIPES  
(Pressure)**

Code No.	Description	Unit	S S R
<b>1</b>	<b>2</b>		
	<b>MANUFACTURE, SUPPLY AND DELIVERY OF R.C.C. SOCKET AND SPIGOT PIPES CONFORMING TO FACTORY (RATE PER METER OF EFFECTIVE LENGTH) EXCLUDING TRANSPORTATION, TAXES &amp;</b>		
	<b>Size</b>	<b>Unit</b>	<b>S S R</b>
			<b>P1 - Class</b>
	80 mm dia	Meter	<b>100.06</b>
	100 mm dia	Meter	<b>113.46</b>
	150 mm dia	Meter	<b>155.87</b>
	200 mm dia	Meter	<b>181.35</b>
	225 mm dia	Meter	<b>204.27</b>
	250 mm dia	Meter	<b>223.56</b>
	300 mm dia	Meter	<b>302.08</b>
	350 mm dia	Meter	<b>375.84</b>
	400 mm dia	Meter	<b>445.65</b>
	450 mm dia	Meter	<b>479.82</b>
	500 mm dia	Meter	<b>634.33</b>
	600 mm dia	Meter	<b>868.76</b>
	700 mm dia	Meter	<b>1154.90</b>
	800 mm dia	Meter	<b>1446.78</b>
	900 mm dia	Meter	<b>1747.86</b>
	1000 mm dia	Meter	<b>2199.47</b>
	1100 mm dia	Meter	<b>2637.30</b>
	1200 mm dia	Meter	<b>3099.26</b>

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
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**RATES FOR RUBBER RINGS TO SUIT R.C.C. S/S PIPES**

Code No.	Description	Unit	S S R
1	2		
	<b>MANUFACTURE, SUPPLY AND DELIVERY OF RUBBER RINGS TO SUIT R.C.C. SOCKET AND SPIGO TO B.I.S. 5382/ 1985 (RATE PER EACH RUBBER RING) INCLUDING TRANSPORTATION BUT EXCLU</b>		
	<b>Size</b>	<b>Unit</b>	<b>S S R</b>
			<b>NP - 2 Class</b>
	80 mm dia		10.00
	100 mm dia		12.00
	150 mm dia		21.00
	200 mm dia		25.00
	225 mm dia		27.00
	250 mm dia		31.00
	300 mm dia		38.00
	350 mm dia		44.00
	400 mm dia		48.00
	450 mm dia		55.00
	500 mm dia		72.00
	600 mm dia		94.00
	700 mm dia		129.00
	800 mm dia		163.00
	900 mm dia		204.00
	1000 mm dia		239.00
	1100 mm dia		288.00
	1200 mm dia		460.00
	1400 mm dia		506.00
	1600 mm dia		630.00
	1800 mm dia		785.00
	<b>Size</b>		<b>P1 - Class</b>
	80 mm dia	Each	10.00
	100 mm dia	Each	12.00
	150 mm dia	Each	21.00
	200 mm dia	Each	25.00
	225 mm dia	Each	27.00
	250 mm dia	Each	31.00
	300 mm dia	Each	38.00
	350 mm dia	Each	44.00
	400 mm dia	Each	48.00
	450 mm dia	Each	55.00
	500 mm dia	Each	72.00
	600 mm dia	Each	94.00
	700 mm dia	Each	129.00
	800 mm dia	Each	163.00
	900 mm dia	Each	204.00
	1000 mm dia	Each	239.00
	1100 mm dia	Each	288.00
	1200 mm dia	Each	460.00

**S.S. RATES FOR CONVEYANCE OF R.C.C. PLAIN ENDED PIPES**

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
			Rate upto 5 Kms Lead including Loading, unloading and stacking	Rate for every additional 1 KM lead or part thereof.
	Code No.	Description		
	1	2	3	4
<b>CONVEYANCE OF R.C.C. PLAIN ENDED PIPES ON ALL WEATHER ROADS INCLUDING LOADING, UNLOADING (per Meter)</b>				
			NP - 2 Class	
		80 mm dia	1.30	0.06
		100 mm dia	1.60	0.08
		150 mm dia	2.25	0.13
		200 mm dia	3.00	0.16
		225 mm dia	3.50	0.20
		250 mm dia	4.00	0.24
		300 mm dia	6.00	0.30
		350 mm dia	7.80	0.38
		400 mm dia	9.00	0.50
		450 mm dia	11.50	0.65
		500 mm dia	12.50	0.75
		600 mm dia	18.00	1.10
		700 mm dia	23.00	1.60
		800 mm dia	27.00	1.60
		900 mm dia	31.00	1.60
		1000 mm dia	46.00	3.25
		1100 mm dia	50.50	3.25
		1200 mm dia	57.00	3.45
		1400 mm dia	69.00	3.45
		1600 mm dia	80.00	3.50
		1800 mm dia	92.00	3.50

### S.S. RATES FOR CONVEYANCE OF R.C.C. S/S PIPES

			Rate upto 5 Kms Lead including Loading, unloading and stacking	Rate for every additional 1 KM lead or part thereof.
	Code No.	Description		
	1	2	3	
<b>CONVEYANCE OF R.C.C. SOCKET AND SPIGOT PIPES ON ALL WEATHER ROADS INCLUDING LOADING AND UNLOADING (per Meter of effective length)</b>				
			NP - 2 & P1 Class	
		Size		
		80 mm dia	1.65	0.10
		100 mm dia	1.90	0.11
		150 mm dia	2.65	0.15
		200 mm dia	3.40	0.25
		225 mm dia	4.10	0.30
		250 mm dia	4.60	0.36

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
		300 mm dia	6.80	0.40
		350 mm dia	8.50	0.50
		400 mm dia	10.30	0.65
		450 mm dia	11.80	0.70
		500 mm dia	13.25	0.75
		600 mm dia	17.50	1.21
		700 mm dia	21.25	1.30
		800 mm dia	29.50	2.00
		900 mm dia	44.00	3.65
		1000 mm dia	50.00	3.65
		1100 mm dia	56.50	3.65
		1200 mm dia	63.00	3.70
		1400 mm dia	78.00	3.70
		1600 mm dia	93.00	3.75
		1800 mm dia	115.00	3.75
			<b>P2 - Class</b>	
		80 mm dia	1.65	0.10
		100 mm dia	1.90	0.11
		150 mm dia	2.65	0.15
		200 mm dia	3.69	0.30
		225 mm dia	5.00	0.37
		250 mm dia	5.25	0.39
		300 mm dia	10.00	0.52
		350 mm dia	12.60	0.70
		400 mm dia	15.00	0.75
		450 mm dia	19.00	1.17
		500 mm dia	21.50	1.20
		600 mm dia	28.50	1.27
		700 mm dia	42.00	2.45
		800 mm dia	56.00	3.50
		900 mm dia	66.00	3.70
		1000 mm dia	84.00	3.75

### S.S.RATES FOR A.C. PIPES

Code No.	Description		
1	2		
	MANUFACTURE AS PER BIS NO: 1592/1989 AS AMENDED FROM TIME TO TIME (MAZZA PROCESS) WITH BIS MARK, INCLUDING COST OF MATERIAL, INCIDENTAL HANDLING, LOADING AND PAC TRANSPORTATION, UNLOADING, STACKING AT DEPARTMENTAL STORES, EXCISE DUTY, VAT 0		
	Size	Unit	Class -5
	80 mm dia	Rate/Meter	77.27
	100 mm dia	Rate/Meter	97.34
	125 mm dia	Rate/Meter	122.3
	150 mm dia	Rate/Meter	151.63
	200 mm dia	Rate/Meter	211.85
	250 mm dia	Rate/Meter	261.77
	300 mm dia	Rate/Meter	337.27
	350 mm dia	Rate/Meter	494.21
	400 mm dia	Rate/Meter	613.08
	450 mm dia	Rate/Meter	739.13
	500 mm dia	Rate/Meter	913.54
	600 mm dia	Rate/Meter	1279.2

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
<b>SCHEDULE OF RATES FOR TRANSPORTATION OF A.C. PRESSURE PIPES AT SITE OF WORK WITH ANDHRA PRADESH</b>					
			Stores delivery charges for transportation of AC pressure pipes at site of work anywhere in Andhra Pradesh on motor including transit insurance, unloading, and stacking at Departmental stores etc., complete (A.C. couplings and Rubber of transportation charges).		

**Note** The duties and taxes as applicable may be added as per rules at the time of preparation of estimate.

### RATES FOR A.C. COUPLINGS

Code No.	Description		
1	2		
	<b>MANUFACTURE AS PER MANUFACTURERS SPECIFICATION (MAZZA PROCESS) AND SUPPLY OF A.C. PRESSURE PIPES INCLUDING COST OF MATERIAL, INCIDENTAL HANDLING, PACKING TRANSPORTATION CHARGES EXCLUDING EXCISE DUTY, VAT AND OTHER GOVT. LEVIES.</b>		
	<b>Size</b>	<b>Unit</b>	<b>Class - 5</b>
	80 mm dia	Rate/Each	40.25
	100 mm dia	Rate/Each	50.54
	125 mm dia	Rate/Each	61.78
	150 mm dia	Rate/Each	71.14
	200 mm dia	Rate/Each	89.86
	250 mmdia	Rate/Each	101.09
	300 mm dia	Rate/Each	117.94
	350 mm dia	Rate/Each	220.90
	400 mm dia	Rate/Each	301.39
	450 mm dia	Rate/Each	357.55
	500 mm dia	Rate/Each	426.82
	600 mm dia	Rate/Each	570.96

### RATES FOR RUBBER RINGS TO SUIT A.C. PIPES

Code No.	Description		
1	2		
	<b>SCHEDULE OF RATE FOR SUPPLY OF RUBBER RINGS MANUFACTURED AS PER BIS: 5382/88 AND FOR A.C. COUPLINGS INCLUDING COST OF MATERIAL, INCIDENTAL, HANDLING, PACKING, TRANSPORTATION CHARGES, BUT EXCLUDING VAT.</b>		
	<b>Size</b>	<b>Unit</b>	<b>Class - 5</b>
	80 mm dia	Each Set	25.27
	100 mm dia	Each Set	30.99
	125 mm dia	Each Set	40.56
	150 mm dia	Each Set	51.79
	200 mm dia	Each Set	53.04
	250 mmdia	Each Set	61.88
	300 mm dia	Each Set	62.09

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
		350 mm dia	Each Set	<b>69.89</b>
		400 mm dia	Each Set	<b>85.38</b>
		450 mm dia	Each Set	<b>100.88</b>
		500 mm dia	Each Set	<b>116.48</b>
		600 mm dia	Each Set	<b>131.98</b>

**RATES FOR PRE-STRESSED (NON-CYLINDER) CONCRETE PIPES**

Code No.	Description		
1	2		
	<b>MANUFACTURE, SUPPLY, DELIVERY OF PRE-STRESSED (NON-CYLINDER) CONCRETE PIPES COI</b> transportation and taxes & duties.		
	Size	Unit	
			6 Kg/cm2
	350 MM DIA	Meter	1060.00
	400 MM DIA	Meter	1140.00
	450 MM DIA	Meter	1210.00
	500 MM DIA	Meter	1310.00
	600 MM DIA	Meter	1510.00
	700 MM DIA	Meter	1850.00
	800 MM DIA	Meter	2190.00
	900 MM DIA	Meter	2540.00
	1000 MM DIA	Meter	2980.00
	1100 MM DIA	Meter	3390.00
	1200 MM DIA	Meter	3760.00
	<b>Cost of laying jointing, testing to Hydrostatic field test pressure including cost of rubber rings, c</b> completion of field testing etc.		
	350 MM DIA	Meter	75.00
	400 MM DIA	Meter	85.00
	450 MM DIA	Meter	95.00
	500 MM DIA	Meter	100.00
	600 MM DIA	Meter	125.00
	700 MM DIA	Meter	145.00
	800 MM DIA	Meter	165.00
	900 MM DIA	Meter	185.00
	1000 MM DIA	Meter	210.00
	1100 MM DIA	Meter	235.00
	1200 MM DIA	Meter	255.00

	<b>CONVEYANCE OF PRE-STRESSED (NON-CYLINDER) CONCRETE PIPES AND ACCESSORIES includ</b> the following sizes.		
	350 MM DIA	Per KM/M	0.38
	400 MM DIA	Per KM/M	0.38
	450 MM DIA	Per KM/M	0.43
	500 MM DIA	Per KM/M	0.50
	600 MM DIA	Per KM/M	0.60
	700 MM DIA	Per KM/M	1.00
	800 MM DIA	Per KM/M	1.00
	900 MM DIA	Per KM/M	1.00
	1000 MM DIA	Per KM/M	1.50
	1100 MM DIA	Per KM/M	1.50
	1200 MM DIA	Per KM/M	3.00

**RATES FOR BAR WRAPPED STEEL CYLINDRICAL (BWSC) PIPES**

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
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Code No.			
1			
	<b>BAR WRAPPED STEEL CYLINDRICAL (BWSC) PIPES CONFORMING TO IS 15155 - 2002 @ Ex-facto</b>		
	<b>Size</b>	<b>Unit</b>	
			4 - 12 Kg/cm <sup>2</sup>
	250 MM DIA	Meter	1,027.00
	300 MM DIA	Meter	1,157.00
	350 MM DIA	Meter	1,418.00
	400 MM DIA	Meter	1,561.00
	450 MM DIA	Meter	1,704.00
	500 MM DIA	Meter	1,901.00
	600 MM DIA	Meter	2,502.00
	700 MM DIA	Meter	2,834.00
	800 MM DIA	Meter	3,221.00
	900 MM DIA	Meter	3,992.00
	1000 MM DIA	Meter	4,503.00
	<b>Cost of laying jointing, testing to hydrostatic field test pressure including cost of site welding an</b>		
	<b>Size</b>	<b>Unit</b>	
			4 - 12 Kg/cm <sup>2</sup>
	250 MM DIA	Meter	180.00
	300 MM DIA	Meter	210.00
	350 MM DIA	Meter	250.00
	400 MM DIA	Meter	280.00
	450 MM DIA	Meter	320.00
	500 MM DIA	Meter	350.00
	600 MM DIA	Meter	430.00
	700 MM DIA	Meter	500.00
	800 MM DIA	Meter	570.00
	900 MM DIA	Meter	670.00
	1000 MM DIA	Meter	740.00

<b>Conveyance of Bar Wrapped steel Cylindrical (BWSC) pipes and accessories including loading at F</b>			
	250 MM DIA	Per KM/M	0.20
	300 MM DIA	Per KM/M	0.20
	350 MM DIA	Per KM/M	0.25
	400 MM DIA	Per KM/M	0.30
	450 MM DIA	Per KM/M	0.38
	500 MM DIA	Per KM/M	0.43
	600 MM DIA	Per KM/M	0.50
	700 MM DIA	Per KM/M	0.60
	800 MM DIA	Per KM/M	0.75
	900 MM DIA	Per KM/M	0.75
	1000 MM DIA	Per KM/M	1.00

### RATES FOR DUCTILE IRON PRESSURE PIPES

Code No.	Description	Unit	S S Rates
1	2	3	4



Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
	1	CENTRIFUGALLY CAST (SPUN) DUCTILE IRON PRESSURE PIPES FOR WATER, GAS AND SEWAGE WITH SOCKET SPIGOT ENDS CONFORMING TO I.S.: 8329/2000 IN STANDARD WORKING LENGTHS OF 4, 5 5.5 & 6 METER FOR CLASSIFICATION K9 & K7 SUITABLE FOR PUSH-ON-JOINT (RUBBER GASKET D JOINTING) WITH CEMENT MOTOR LINING INSIDE THE PIPES WITH OUTSIDE ZINC COATING. RATES ARE EX-FACTORY EXCLUDING TRANSPORTATION, TAXES & DUTIES.		<b>NOTE : The rates of DI P D.G.S. &amp; D R shal</b>  <b>adop</b>
	2	CENTRIFUGALLY CAST (SPUN) DUCTILE IRON PRESSURE PIES WITH FLANGED (WELDED) ENDS FOR WATER, GAS, SEWAGE CONFORMING TO I.S.: 8329/2000 IN STANDARD WORKING LENGTHS OF 4, 5, AND 5.5. Mts FOR CLASSIFICATION K9 & K7 WITH CEMENT MORTOR LINING INSIDE THE PIPES WITH OUTSIDE ZINC COATING. RATES ARE EX-FACTORY EXCLUDING TRANSPORTATION, TAXES & DUTIES.		
	3	CENTRIFUGALLY CAST (SPUN) DUCTILE IRON PRESSURE PIPES FOR WATER, GAS AND SEWAGE WITH PLAIN ENDS CONFORMING TO I.S.: 8329/2000 IN STANDARD WORKING LENGTHS OF 4, 5, 5.5 & 6 METER FOR CLASSIFICATION K9 & K7 WITH CEMENT MOTOR LINING INSIDE THE PIPES WITH OUTSIDE ZINC COATING. RATES ARE EX-FACTORY EXCLUDING TRANSPORTATION, TAXES & DUTIES.		

**Note:** The duties and taxes as applicable may be added as per rules at the time of preparation of estimate.

### RATES FOR DUCTILE IRON FITTINGS

Code No.	Description	Unit	S S rate 2005
1	2	3	4
	<b>CENTRIFUGALLY CAST (SPUN) DUCTILE IRON FITTINGS CONFORMING TO IS:9523/2000 HAVING D AS PER TABLE. THE RATES MENTIONED HERE UNDER ARE FOR FITTINGS, ZINC COATED EXTER INSIDE MOTOR LINING (WITH FINISHING AS PER CLASS 13/IS 9523/2000) ( Ex-works) Excluding tra taxes and duties etc.</b>		
<b>I</b>	<b>DI double socket branch flange Tee</b>		
	Nominal dia in mm		
	80 x 80	Each	<b>585.00</b>
	100 x 80	Each	<b>675.00</b>
	100 x 100	Each	<b>765.00</b>
	150 x 80	Each	<b>945.00</b>
	150 x 100	Each	<b>1035.00</b>
	150 x 150	Each	<b>1260.00</b>
	200 x 80	Each	<b>1305.00</b>
	200 x 100	Each	<b>1395.00</b>
	200 x 150	Each	<b>1665.00</b>
	200 x 200	Each	<b>1980.00</b>
	250 x 80	Each	<b>1620.00</b>
	250 x 100	Each	<b>1755.00</b>
	250 x 150	Each	<b>2025.00</b>
	250 x 200	Each	<b>2385.00</b>
	250 x 250	Each	<b>2835.00</b>
	300 x 100	Each	<b>2295.00</b>
	300x 200	Each	<b>2970.00</b>
	300 x 300	Each	<b>3960.00</b>
	350 x 100	Each	<b>3000.00</b>
	350 x 200	Each	<b>3900.00</b>
	350 x 350	Each	<b>5850.00</b>
	400 x 80	Each	<b>3400.00</b>

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
		400 x 100	Each	3600.00
		400 x 150	Each	4050.00
		400 x 200	Each	4550.00
		400 x 300	Each	5800.00
		400 x 400	Each	7500.00
		450 x 100	Each	4400.00
		450 x 250	Each	6000.00
		500 x 100	Each	5665.00
		500 x 200	Each	6875.00
		500 x 400	Each	10065.00
		500 x 500	Each	12320.00
		600 x 200	Each	9405.00
	<b>II</b>	<b>DI All socket Tees+B16</b>		
		Nominal dia in mm		
		80 x 80	Each	540.00
		100 x 80	Each	630.00
		100 x 100	Each	675.00
		150 x 80	Each	900.00
		150 x 100	Each	945.00
		150 x 150	Each	1125.00
		200 x 80	Each	1260.00
		200 x 100	Each	1350.00
		200 x 150	Each	1530.00
		200 x 200	Each	1800.00
		250 x 80	Each	1575.00
		250 x 100	Each	1665.00
		250 x 150	Each	1890.00
		250 x 200	Each	2160.00
		250 x 250	Each	2475.00
		300 x 100	Each	2250.00
		300x 200	Each	2790.00
		300 x 300	Each	3465.00
	<b>III</b>	<b>DI double socket concertric TAPERS</b>		
		Nominal dia in mm		
		100 x 80	Unit	360.00
		150 x 80	Unit	585.00
		150 x 100	Unit	585.00
		200 x 100	Unit	900.00
		200 x 150	Unit	900.00
		250 x 150	Unit	1260.00
		250 x 200	Unit	1215.00
		300 x 150	Unit	1710.00
		300x 200	Unit	1710.00
		300 x 250	Unit	1575.00
		350 x 200	Unit	2500.00
		350 x 250	Unit	2400.00
		350 x 300	Unit	2250.00
		400 x 250	Unit	3100.00
		400 x 300	Unit	3000.00
		400 x 350	Unit	2750.00
		450 x 350	Unit	3700.00
		450 x 400	Unit	3450.00
		500 x 350	Unit	5115.00
		500 x 400	Unit	4785.00
		600 x 500	Unit	6710.00
	<b>IV</b>	<b>DI Flanged socket</b>	<b>PN-10</b>	<b>PN-16</b>

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06	
			Nominal dia in mm	Rate/Unit		
				80	400	400.00
				100	450	450.00
				150	700	700.00
				200	1,000.00	1000.00
				250	1,300.00	1300.00
				300	1,650.00	1750.00
				350	2,310.00	2475.00
				400	2,750.00	3025.00
				450	3,190.00	3740.00
				500	4,140.00	5040.00
				600	-	8160.00
	V		DI Flanged Spigot	PN-10	PN-16	
			Nominal dia in mm	Rate/Unit		
				80	400	400.00
				100	500	500.00
				150	800	800.00
				200	1,150.00	1150.00
				250	1,600.00	1600.00
				300	2,100.00	2150.00
				350	2,915.00	3080.00
				400	3,575.00	3905.00
				450	4,290.00	4840.00
				500	5,700.00	-
				600	8,100.00	9540.00

### S S RATES FOR D.I. DOUBLE SOCKET BENDS

Code No.	Description		
1	2	3	4
	CENTRIFUGALLY CAST (SPUN) DUCTILE IRON FITTINGS CONFORMING TO IS:9523/2000 HAVING DIMENTIONS AS PER TABLE. THE RATES MENTIONED HERE UNDER ARE FOR FITTINGS, ZINC COATED EXTERNALLY WITH INSIDE MOTOR LINING (WITH FINISHING AS PER CLASS 13/IS 9523/2000) Ex - works excluding transportation, taxes and duties etc.		
	DI double socket Bends		
	Nominal dia in mm	Rate/Each	
			90°
			45°
		80	-
		100	495.00
		150	-
		200	720.00
		250	1440.00
		300	2025.00
		350	2925.00
		400	-
		450	3200.00
		500	4000.00
		500	5300.00
		600	7040.00
		600	10890.00

### RATES FOR CENTRIFUGALLY CAST (SPUN) IRON PRESSURE PIPES

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
	Code No.	Description	Unit	S S Rate: 2005-06
1	2	3	4	
		Socket and spigot centrifugally cast (spun) iron pressure pipes for water, gas and sewage conforming to specification no: i.s 1536/1989 (third revision) with amdt. No: 1 & 2 in standard lengths of 3.66 m, 4 m, 4.5m, 5 m, 5.5 m & 6 m and details given below, suitable either for lead jointing or rubber gasket (pushon) jointing at purchasers option at ex-factory excluding transportation, taxes & duties.		<b>Note: The price for Centrifugal (Spun) Iron Pipes as per DGS Contract shall</b>

### RATES FOR GLASS FIBRE REINFORCED PLASTIC (GRP) PIPES

Code No.	Description	Unit	
1	2		
	<b>GLASSFIBRE REINFORCED PLASTIC (GRP) PIPES CONFORMING TO IS 12709 - 1994</b> Stiffness class jointing materials i.e., Reka couplings, Rubber Gaskets etc., for jointing pipes including cost of spigot jointing excluding Central Excise duty and sale tax.		
	<b>Size</b>	<b>Unit</b>	
			<b>3 Bar</b>
	350 MM DIA	Meter	1,523.00
	400 MM DIA	Meter	1,696.00
	450 MM DIA	Meter	1,990.00
	500 MM DIA	Meter	2,266.00
	600 MM DIA	Meter	2,880.00
	700 MM DIA	Meter	3,645.00
	800 MM DIA	Meter	4,462.00
	900 MM DIA	Meter	5,578.00
	1000 MM DIA	Meter	6,685.00
	<b>Cost of laying jointing, testing to Hydrostatic field test pressure including cost of transportation and testing.</b>		
	<b>Size</b>	<b>Unit</b>	
			<b>3 Bar</b>
	350 mm dia	Meter	120.00
	400 mm dia	Meter	180.00
	450 mm dia	Meter	220.00
	500 mm dia	Meter	280.00
	600 mm dia	Meter	300.00
	700 mm dia	Meter	340.00
	800 mm dia	Meter	400.00
	900 mm dia	Meter	440.00
	1000 mm dia	Meter	510.00

### S S RATES FOR H.D.P.E PIPES FOR THE YEAR 2005-06 (PE - 80 Grade)

Code No.	Description	2.5 kg/ sqcm	4.0 kg/ sqcm
1	2	3	4
	Manufacture, supply, & delivery of HDPE pipes conforming to IS 4984 - 1995 including transportation to any where in A.P, excluding excise duty, sale tax and specials etc., complete. ( Supply upto 90 mm dia in coil & above 90 mm dia stright length in 6 M.)		
	<b>Rate per Meter</b>		

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
		OD 20 mm	-	-
		OD 25 mm	-	-
		OD 32 mm	-	-
		OD 40 mm	-	17.55
		OD 50 mm	-	25.10
		OD 63 mm	21.20	34.39
		OD 75 mm	36.20	47.00
		OD 90 mm	46.28	68.00
		OD 110 mm	65.55	101.68
		OD 125 mm	81.00	130.49
		OD 140 mm	107.43	161.56
		OD 160 mm	138.96	211.67
		OD 180 mm	172.79	266.83
		OD 200 mm	212.22	326.45
		OD 225 mm	279.90	432.15
		OD 250 mm	345.30	534.60
		OD 280 mm	433.90	665.80
		OD 315 mm	544.70	846.90

#### RATES FOR SFRC MAN-HOLE FRAME WITH COVERS

S.No.	Description	Unit	S S Rate 2005-06
1	2	3	4
I	Manufacture as per BIS:12592 (Part 1&2) Supply & Delivery of manhole covers and frames anywhere in A.P., F.O.R. destination including, loading, un-loading & stacking at site but excluding central excise duty, sales tax, octroi and other Govt levies etc., as applicable.		
a)	M.D. -10 with 500mm dia clear opening	Each	594
b)	H.D.-20 with 500mm dia clear opening	Each	765
	H.D.-20 with 560mm dia clear opening	Each	821
	H.D.-35 with 560mm dia clear opening.	Each	880
II	Manufacture as per companys standard specification supply and delivery of encapsulated plastic steps for man holes anywhere in A.P. including cost of materials packing as per companys standards, loading, transportation, unloading and stacking at site of work etc, complete but excluding taxes such as sales tax,C.E.D and others etc., as applicable.	Each	65.

#### S S RATES FOR C.I. D/F VALVES

Code No.	Description		
1	2	3	4
1(a)	Manufacture, Supply and delivery of CI D/F sluice valves conforming to IS 14846/2000 with amdt. No.1 & 2 components / parts. Excluding transportation, Central Excise duty and sale tax etc., complete. The valves shall be tested for (closed and test) against Hydrostatic test requirement. ISI Marked.		
	With Cap	PN-1.0	PN-1.6
	Rate/Each	Rs.	Rs.
	DIA IN MM		
		50	1230.00
		65	1332.00
		80	1612.00
		100	2152.00
		125	2665.00
			1225.00
			1482.00
			1690.00
			2250.00
			2790.00

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06	
			150	3364.00	3500.00
			200	6076.00	6600.00
			250	8965.00	9700.00
			300	10829.00	11500.00
	1(b)	Manufacture, Supply and delivery of CI D/F sluice valves conforming to IS 14846/2000 with amdt. No.1 & 2 components / parts. Excluding transportation, Central Excise duty and sale tax etc., complete. The valves shall be tested for (closed and test) against Hydrostatic test requirement. ISI Marked.			
		With hand wheel	Rate/Each	PN-1.0	PN-1.6
		DIA IN MM		Rs.	Rs.
			50	1250.00	1250.00
			65	1398.00	1538.00
			80	1705.00	1700.00
			100	2255.00	2260.00
			125	2814.00	2820.00
			150	3373.00	3550.00
			200	6533.00	6700.00
			250	9515.00	9800.00
			300	11389.00	11710.00
	1 (c)	Manufacture, Supply and delivery of CI D/F sluice valves conforming to IS 14846/2000 Non-rising spindle type with /SS 410 Spindle & GM working parts. excluding transportation, Central Excise duty and sale tax etc., complete. The operation can be done with handwheel/cap ISI Marked.			
		With handwheel/cap	Rate/Each	PN-1.0	PN-1.6
		DIA IN MM		Rs.	Rs.
			350	26475.00	34032.00
			400	32700.00	42045.00
			450	47040.00	60940.00
			500	59160.00	74907.00
			600	79095.00	100125.00
			700	139215.00	N.A.
			750	235690.00	N.A.
			800	272250.00	N.A.
			900	328175.00	N.A.
	2	Manufacture, Supply and delivery of CI D/F Non Return Valve Heavy Duty Round Body conforming to IS 5312/Part1/1984. excluding transportation, Central Excise duty and sale tax etc., complete.			
		Rate/Each		PN-1.0	PN-1.6
		DIA IN MM		Rs.	Rs.
			50	1260.00	1260.00
			65	1575.00	1575.00
			80	1890.00	1890.00
			100	2520.00	2520.00
			125	3150.00	3150.00
			150	3780.00	4725.00
			200	7540.00	9425.00
			250	10935.00	13670.00
			300	16452.00	20565.00
			350	22635.00	28300.00
			400	28923.00	36150.00
			450	48717.00	60900.00
			500	58765.00	73460.00
			600	93885.00	117360.00

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
	3	Manufacture, Supply and delivery of CI D/F Kinetic Double Air Valve Heavy Duty suitable for working pressure upto 16kg/Cm2 without isolating valve, conforming to IS 14845 excluding transportation, Central Excise duty and sale tax etc., complete.		
		DIA IN MM	Rate/Each	Rs.
		40		1680.00
		50		2030.00
		80		2716.00
		100		3640.00
		150		8200.00
		200		13580.00
	4	Manufacture, Supply and delivery of CI D/F Double Air Valve suitable for working pressure upto 10kg/Cm2 conforming to G & K Fig.H7 excluding transportation, Central Excise duty and sale tax etc., complete.		
		DIA IN MM	Rate/Each	
		40		1043.00
		50		1440.00
		80		1995.00
		100		2475.00
		150		6450.00
		200		11250.00
	5	Manufacture, Supply and delivery of CI D/F Kinetic Air Valve as per IS:14845 Heavy Duty with isolating valve bevel gear operated as per IS 14846 excluding transportation, Central Excise duty and sales tax etc., complete.		
		DIA IN MM	Rate/Each in Rs.	
			PIN 1.0	PIN 1.6
		40	4782.00	5500.00
		50	5580.00	6417.00
		80	7350.00	8450.00
		100	10125.00	11650.00
		150	19950.00	22950.00
		200	29750.00	34215.00
	6	Manufacture, Supply and delivery of CI D/F Kinetic Air Valve as per G&K H42K with isolating valve bevel gear operated as per IS 14845 excluding transportation, Central Excise duty and sales tax etc., complete.		
		DIA IN MM	Rate/Each in Rs.	
			PIN 1.0	PIN 1.6
		40	3825.00	4782.00
		50	4463.00	5580.00
		80	5880.00	7350.00
		100	8100.00	10125.00
		150	15960.00	19950.00
		200	23800.00	29750.00
		Conveyance of valves and accessories including loading at factory and unloading, stacking at site of work.	10% on basic	

**S S RATES FOR WATER HAMMER CONTROL DEVICES**

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
	Code No.	Description	10 Kgs/cm <sup>2</sup>	15 Kgs/cm <sup>2</sup>
	1	2	3	4
		<b>Manufacture, Supply and delivery of zero velocity valve/ PSLV with CI body with flanged ends as per Central Excise duty and sale tax etc., complete.</b>		
		<b>DIA IN MM</b>	<b>Rate/Each</b>	
			100	
			125	
			150	36375.00
			200	38000.00
			250	42875.00
			300	48250.00
		<b>Manufacture, Supply and delivery of zero velocity valve/ PSLV with MS Fabricated Body with Plain transportation, Central Excise duty and sale tax etc., complete.</b>		
		<b>DIA IN MM</b>	<b>Rate/Each</b>	
			350	49055.00
			400	54223.00
			450	63066.00
			500	72888.00
		525/550		78290.00
			600	87659.00
			650	98125.00
			700	114375.00
			750	126688.00
			800	154328.00
			900	183429.00
			1000	222500.00
			1050	224725.00
			1100	283475.00
			1200	341188.00
			1400	511782.00
			1500	596313.00
			1600	608239.26
		<b>Manufacture, Supply and delivery of Air Cushan valves / Quick Released damped Air Valves transportation, Central Excise duty and sale tax etc., complete.</b>		
		<b>DIA IN MM</b>	<b>Rate/Each</b>	
			100	31750.00
			150	48250.00
			200	51500.00
		<b>Conveyance of valves and accessories including loading at factory and unloading, stacking at site of work.</b>		10% on basic

### S S RATES FOR DI D/F VALVES

Code No.	Description	TES	
		PN 10	PN 16
1	2	3	4



Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
	1	Manufacture, supply and delivery of Single Chamber DI <b>DUOJET Air Valve</b> with Body and cover in Ductile Iron of grade GGG40. All internal parts such as float, shell etc., all cover bolts, of austenitic alloy steel, Dn50 Float of HOSTAFLOX and Gaskets and seals of EPDM. Epoxy powder coating (EP-P) inside and outside colour blue RAL 5005.		
		<b>DIA IN MM                      Rate/Each in Rs.</b>		
			50	22150.00                      22150.00
			80	29550.00                      29550.00
			100	34500.00                      34500.00
			150	42000.00                      42000.00
			200	46000.00                      46000.00
	2	Manufacture, Supply and delivery of DI D/F <b>EKO/EKO plus Gate Valves</b> (Soft Seated) Resilient seated soft sealing gate valves (Sluice valves) with body bonnet of ductile cast iron of grade GGG40, wedge fully rubber lined with EPDM and seals of NBR and the valves should be of vacuum tight and 100% leak proof with face to face dimensions as per BS5163-89/IS14846-2000/DIN3202 F 4. All the valves should be with Electrostatic powder coating both inside and outside without pocket less body passage.		
		<b>DIA IN MM                      Rate/Each in Rs.</b>		
			50	5303.00                      5303.00
			80	6790.00                      6790.00
			100	8970.00                      8970.00
			150	14670.00                      14670.00
			200	23640.00                      23640.00
			250	32462.00                      32462.00
			300	54912.00                      54912.00
			350	160227.00                      160227.00
			400	177078.00                      177078.00
	3	Manufacture, Supply and delivery of DI D/F <b>EKN Butterfly Valves</b> Double eccentric Disc., with renewable soft seal on the disc and Body seat face of nickel weld overlay micro finished, with powder or liquid Epoxy coating with minimum thickness of 250 microns applied on both body and disc inside and outside. Face to face dimensions as per EN558-1 basic series 14 (DIN3202 F4) or AWWA C 504:80 or BS 5155 or IS:13095.		
		<b>DIA IN MM                      Rate/Each in Rs.</b>		
			400	123348.00                      139748.00
			450	135414.00                      150291.00
			500	136702.00                      161360.00
			600	179166.00                      252964.00
			700	353704.00                      425628.00
			800	383458.00                      528301.00
			900	603681.00                      707408.00
			1000	704070.00                      879897.00
			1100	812190.00
			1200	975249.00                      1209295.00
	4	Manufacture, Supply and delivery of DI D/F <b>Tilting disc Swing Check Valves</b> Slanted/Straight seated with metallic, corrosion proof and wear resistant seat faces, Body and Disc of ductile cast iron GGG 40/SG IRON 420/12. Shafts of stainless steel, shaft bearing of zincfree bronze and seat faces with nickel weld overlay, micro finished. All the inside and outside of the body is to be coated with double coating of epoxy liquid lacquer (EP-F).		
		<b>DIA IN MM                      Rate/Each in Rs.</b>		
			200	57038.00                      60431.00
			250	62771.00                      66573.00
			300	78683.00                      83363.00
			350	92606.00                      98163.00

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
			400	112496.00
			500	143033.00
			600	214600.00
			700	309750.00
			800	387300.00

**RATES FOR RUBBER GASKETS SUITABLE FOR C.I/ D.I. S/S PIPES**

Sl. No.	Description	Unit	S S Rates For 2005-06
1	2	3	4
	<b>MANUFACTURE AS PER BIS 12820/89 WITH S.B.R. QUALITY RUBBER CONFIRMING TO BIS: 5382/85, SUPPLY AND DELIVERY OF RUBBER GASKETS SUITABLE FOR C.I/ D.I. S/S PIPES ANYWHERE IN A.P. F.O.R. DESTINATION DEPARTMENTAL STORES INCLUDING COST OF MATERIAL, LOADING, INCIDENTAL HANDLING WITH COMPANYS STANDARD PACKING, TRANSPORTATION, UNLOADING &amp; STACKING BUT EXCLUDING CENTRAL EXCISE DUTY, SALES TAX, OCTROI AND OTHER GOVT. LEVIES ETC., COMPLETE.</b>		
	80mm dia	Each	27.80
	100mm dia	Each	40.00
	150mm dia	Each	63.85
	200mm dia	Each	78.30
	250mm dia	Each	87.55
	300mm dia	Each	133.90
	350mm dia	Each	168.90
	400mm dia	Each	184.35
	450mm dia	Each	198.80
	500mm dia	Each	299.75
	600mm dia	Each	354.25
	700mm dia	Each	470.90
	750mm dia	Each	523.20
	800mm dia	Each	626.75
	900mm dia	Each	757.55
	1000mm dia	Each	828.40

**S S RATES FOR PVC PIPES**

Code No.	Description	TE	
		2.5 Kgs/cm <sup>2</sup>	4.0 Kgs/cm <sup>2</sup>
1	2	3	4
	<b>Manufacture, Supply and delivery of Unplasticised PVCs Pipes for potable water supplies conforming to IS : 4985/2000 (third revision) with bell ends (Socket) as per specification in light Grey/Natural Ivory Grey/ Any other Color (except White) inclusive of transportation to the sub-divisional stores anywhere in AP excluding Excise duty and Sales Tax etc.</b>		
	<b>DIA IN MM      Rate/Metre</b>		
		20	--
		25	--
		32	--
		40	--
		50	--
		63	24.50
		75	35.10
		90	32.35
		110	48.75

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
			125	62.86
			140	77.00
			160	102.45
			180	128.52
			200	165.12
			225	213.13
			250	257.00
			280	331.27
			315	416.94

### OTHER ITEMS

Sl. No.	Description	Unit	S S Rates for 2005-06
1	2	3	4
1	Supply and delivery of pig lead 99.99 % pure including cost and conveyance etc., complete.	Per Kg	48.70
2	Supply and delivery of spun yarn of best quality including cost and conveyance etc., complete.	Per Kg	37.50
3	<b>Supply and delivery of rubber packing including cost and conveyance etc., complete.</b>		
	a) 3 mm thick	Per Kg	32.00
	b) 6 mm thick	Per Kg	35.50
4	Supply and delivery of bolts and nuts with double washers including cost and conveyance etc., complete. (1/2" to 1")	Per Kg	34.50

### S S RATES FOR CI PIPES AND SPECIALS

Sl. No.	Description	Quality or sort	Rate including forwarding, transport, delivery any where for the year Rs.
1	2	3	4
	<b>MANUFACTURE, SUPPLY AND DELIVERY OF CAST IRON PIPES AND FITTINGS (Spl.) CONFIRMING TO I.S. No. 7181/1986, 5531/1988, 3950/1979 AND C.I.D. JOINTS CONFIRMING TO IS No.8794/1988 AT SITE OF WORK ANYWHERE IN A.P. INCLUDING, LOADING, UNLOADING, TRANSPORTATION TO SITE OF WORK STACKING AT SITE TRANSIT RISK AND PACKAGE, EXCLUDING TAXES AND DUTIES.</b>	I.S. No. 7181/1986, 5531/1988, 3950/1979 & 8794/1988	33.25
	<b>Foot Note:</b> The rate of CI pipes, CI Specials and CID Joints etc., which are to be incorporated in the SSR are based on the following raw materials cost.		
	<b>Pig Iron:</b> Rs.20,000/- per M.T.		
	<b>Coke :</b> Rs.20,000/- per M.T.		
	The rates may be revised depending upon the increase/decrease in the cost of raw materials as per the following method. For every increase/decrease of Rs.1000/- in the cost of raw materials or part there of proportionately.		
	<b>In respect of Pig Iron:</b> The increase/decrease in cost of CI Specials per Kg is 3.43%.		
	<b>In respect of coke:</b> The increase/decrease in cost of CI Specials per Kg is 0.67%.		
	The above price is at site of work , Excise duty, CST/VAT extra as applicable at the time of supply.		

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
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**RATES FOR SALT GLAZED STONWARE PIPES AND FITTINGS**

Sl. No.	Description	Unit	S S Rate for 2005-06
1	2	3	4
	MANUFACTURE, SUPPLY AND DELIVERY OF SALT GLAZED STONWARE PIPES AND FITTINGS AS PER B.I.S. No. 651/1992 F.O.R. DEPARTMENTAL STORES ANYWHERE IN A.P. INCLUDING PACKING AS PER STANDARD SPECIFICATION, LOADING AT FACTORY, TRANSPORTATION, UNLOADING AND STACKING ETC., COMPLETE BUT EXCLUDING VAT AND OTHER GOVT. LEVIES.		
	<b>Salt Glazed Stoneware pipes.</b>		
	4" dia (101.6 mm)	1 Rmt.	Rates as proposed by R & B in S & WS items for Building items
	6" dia (152.4 mm)	1 Rmt.	
	8" dia (203.2 mm)	1 Rmt.	
	10" dia (254.0 mm)	1 Rmt.	
	<b>Bends (Dia in mm)</b>		
		100 Each	28.30
		150 Each	52.40
		200 Each	99.20
		250 Each	200.30
	<b>Junctions (T's &amp; Y's) (Dia in mm)</b>		
	Length of barrel is 60 cm		
	100 x 100	Each	52.40
	150 x 100	Each	77.90
	150 x 150	Each	85.00
	200 x 100	Each	120.40
	200 x 150	Each	141.70
	200 x 200	Each	162.90
	250 x 100	Each	191.30
	250 x 150	Each	252.10
	250 x 200	Each	312.90
	250 x 250	Each	373.70
	<b>Plugs (Diameter in mm)</b>		
		100 Each	10.40
		150 Each	19.80
		200 Each	38.00
		250 Each	66.10
	<b>S.W. Gully Traps (Round and Square)</b>		
	150 mm x 100 mm	Each	80.70

**S S RATES FOR FUSION BONDED EPOXY COATING**

Sl. No.	Description	Unit	S S Rate 2005
1	2	3	4

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
		Providing <b>fusion bonded epoxy coating</b> not less than 175 microns thickness and upto 300 microns to reinforcement of all diameters as per IS 13620-1993 including testing of coating at plant. The rate is inclusive of cost on account of careful handling, PVC coated binding wire instead of GI binding wire, touch up material supplied by coating agency, repair work, transportation from the source of supply of steel to the plant and transportation of coated steel from the plant to site of work, loading, unloading and straightening of bent rods etc., complete as per specification and as directed by the Engineer-in-charge.	per MT	<b>8964.00</b>

#### S S RATES FOR C.I BUTTERFLY VALVES (WAFER LUG)

Code No.	Description	TEST PRE	
1	2	3	4
	Manufacture, Supply and delivery of CI Wafer Lug type Butterfly Valves conforming to IS 13095/1991 (Reaffirmed 1998) <b>excluding transportation</b> and taxes etc., complete. Operation done with worm actuator ISI marked Rate at Ex-Factory.	PN-0.25	PN-0.6
	<b>DIA IN MM      Rate / Each</b>	<b>Rs.</b>	<b>Rs.</b>
	40	1590.00	1640.00
	50	1725.00	1775.00
	65	2035.00	2100.00
	80	2510.00	2590.00
	100	3360.00	3470.00
	125	4210.00	4340.00
	150	5050.00	5200.00
	200	7860.00	8100.00
	250	11250.00	11600.00
	300	15500.00	16000.00
	350	23500.00	24200.00
	400	28300.00	29200.00
	450	36400.00	37500.00
	500	49100.00	50600.00
	600	71500.00	73700.00
	700	106700.00	109700.00
	800	147000.00	151500.00
	900	183000.00	188000.00
	1000	223000.00	230000.00
	1100	264000.00	272000.00
	1200	299000.00	308000.00

## CONVEYANCE RATES OF MATERIALS

#### S S RATES FOR CONVEYANCE OF EARTH,SAND&GRAVEL INCLUDING LOADING, UNLOADING & STACKING ON

S.No.	LEAD	PER	SS rate for 2005-06
1	2	3	4
1	UP TO 250 METRES	cum	37.00
2	250 To 500 METRES	cum	54.60
3	1 Km.	cum	71.60
4	2 Km.	cum	75.00
5	3 Km.	cum	79.40
6	4 Km.	cum	82.90
7	5 Km.	cum	86.40
8	6 Km.	cum	89.70
9	7 Km.	cum	94.20

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
	10	8 Km.	cum	97.70
	11	9 Km.	cum	102.10
	12	10 Km.	cum	105.70
	13	11 Km.	cum	111.00
	14	12 Km.	cum	113.50
	15	13 Km.	cum	117.00
	16	14 Km.	cum	121.20
	17	15 Km.	cum	124.90
	18	16 Km.	cum	127.30
	19	17 Km.	cum	132.70
	20	18 Km.	cum	136.40
	21	19 Km.	cum	139.70
	22	20 Km.	cum	144.10
	23	Beyond 20 and up to 30 Km (Rate/Km)	cum	3.10
	24	Beyond 30 and up to 50 Km (Rate/Km)	cum	3.00
	25	Beyond 50 and up to 80 Km (Rate/Km)	cum	2.90
	26	Beyond 80 and up to 100 Km (Rate/Km)	cum	2.80
	27	Beyond 100 Km (Rate / Km)	cum	2.60
	28	LOADING	cum	7.20
	29	UNLOADING	cum	5.90
	30	STACKING	cum	3.80

**S S RATES FOR CONVEYANCE OF METAL, STONE, RUBBLE INCLUDING CUDDAPAH SLABS INCLUDING LOADING, UNLOADING & STACKING ON METALLED ROAD**

S.No.	LEAD	UNIT	SS Rate for 2005-06
1	2	3	4
1	UP TO 500 mts.	cum	83.30
2	1 Km.	cum	86.70
3	2 Km.	cum	88.90
4	3 Km.	cum	93.40
5	4 Km.	cum	97.10
6	5 Km.	cum	100.50
7	6 Km.	cum	106.20
8	7 Km.	cum	108.70
9	8 Km.	cum	110.80
10	9 Km.	cum	116.60
11	10 Km.	cum	119.10
12	11 Km.	cum	123.20
13	12 Km.	cum	128.10
14	13 Km.	cum	131.60
15	14 Km.	cum	136.20
16	15 Km.	cum	138.50
17	16 Km.	cum	142.00
18	17 Km.	cum	146.60
19	18 Km.	cum	150.20
20	19 Km.	cum	152.40
21	20 Km.	cum	158.10
22	Beyond 20 and up to 30 Km (Rate/Km)	cum	4.00
23	Beyond 30 and up to 50 Km (Rate/Km)	cum	3.60
24	Beyond 50 and up to 80 Km (Rate/Km)	cum	3.30
25	Beyond 80 and up to 100 Km (Rate/Km)	cum	3.20
26	Beyond 100 Km (Rate / Km)	cum	2.90
27	LOADING	cum	9.20

Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
	28	UNLOADING	cum	6.30
	29	STACKING	cum	6.30

**S S RATES FOR CONVEYANCE OF LIME STONE, BROKEN LATERITE AND BRICK JELLY INCLUDING LOADING, UNLOADING & STACKING ON METALLED ROAD**

S.No.	LEAD	UNIT	SS Rate for 2005-06
1	2	3	4
1	0 To 250 mts.	cum	79.90
2	251 To 500 mts.	cum	80.50
3	1 Km.	cum	83.20
4	2 Km.	cum	85.20
5	3 Km.	cum	89.50
6	4 Km.	cum	93.30
7	5 Km.	cum	97.00
8	6 Km.	cum	99.90
9	7 Km.	cum	103.70
10	8 Km.	cum	107.40
11	9 Km.	cum	110.80
12	10 Km.	cum	112.90
13	11 Km.	cum	117.70
14	12 Km.	cum	120.30
15	13 Km.	cum	125.20
16	14 Km.	cum	128.10
17	15 Km.	cum	131.20
18	16 Km.	cum	134.40
19	17 Km.	cum	137.70
20	18 Km.	cum	141.70
21	19 Km.	cum	145.60
22	20 Km.	cum	148.10
23	Beyond 20 and up to 30 Km (Rate/Km)	cum	3.70
24	Beyond 30 and up to 50 Km (Rate/Km)	cum	3.50
25	Beyond 50 and up to 80 Km (Rate/Km)	cum	2.90
26	Beyond 80 and up to 100 Km (Rate/Km)	cum	2.80
27	Beyond 100 Km (Rate / Km)	cum	2.50
28	LOADING	cum	7.30
29	UNLOADING	cum	5.80
30	STACKING	cum	4.00

**S S RATES FOR CONVEYANCE OF SURKI AND FLYASH INCLUDING LOADING, UNLOADING & STACKING ON METALLED ROAD**

S.No.	LEAD	UNIT	SS Rate for 2005-06
1	2	3	4
1	0 To 250 mts.	Tonne	68.30
2	250 To 500 mts.	Tonne	68.70
3	1 Km.	Tonne	71.80
4	2 Km.	Tonne	75.40
5	3 Km.	Tonne	77.40
6	4 Km.	Tonne	80.90
7	5 Km.	Tonne	84.20
8	6 Km.	Tonne	87.00

Sl. No.	S.S. No.	Item Description	Unit (per)	S S RATE FOR 2005-06
	9	7 Km.	Tonne	90.30
	10	8 Km.	Tonne	93.10
	11	9 Km.	Tonne	95.80
	12	10 Km.	Tonne	99.00
	13	11 Km.	Tonne	101.70
	14	12 Km.	Tonne	104.50
	15	13 Km.	Tonne	108.00
	16	14 Km.	Tonne	110.10
	17	15 Km.	Tonne	113.10
	18	16 Km.	Tonne	116.50
	19	17 Km.	Tonne	119.10
	20	18 Km.	Tonne	122.70
	21	19 Km.	Tonne	125.10
	22	20 Km.	Tonne	127.70
	23	Beyond 20 and up to 30 Km (Rate/Km)	Tonne	2.80
	24	Beyond 30 and up to 50 Km (Rate/Km)	Tonne	2.80
	25	Beyond 50 and up to 80 Km (Rate/Km)	Tonne	2.60
	26	Beyond 80 and up to 100 Km (Rate/Km)	Tonne	2.20
	27	Beyond 100 Km (Rate / Km)	Tonne	2.20
	28	LOADING	Tonne	12.30
	29	UNLOADING	Tonne	7.90
	30	STACKING	Tonne	5.00

**S S RATES FOR CONVEYANCE OF STEEL AND LUBRICATING OIL INCLUDING LOADING, UNLOADING & STACKING ON METALLED ROAD**

S.No.	LEAD	UNIT	SS Rate for 2005-06
1	2	3	4
1	0 To 500 mts.	Tonne	93.90
2	1 Km.	Tonne	95.30
3	2 Km.	Tonne	99.10
4	3 Km.	Tonne	103.30
5	4 Km.	Tonne	107.10
6	5 Km.	Tonne	110.80
7	6 Km.	Tonne	115.20
8	7 Km.	Tonne	118.30
9	8 Km.	Tonne	122.50
10	9 Km.	Tonne	125.90
11	10 Km.	Tonne	130.30
12	11 Km.	Tonne	134.30
13	12 Km.	Tonne	137.70
14	13 Km.	Tonne	141.80
15	14 Km.	Tonne	145.10
16	15 Km.	Tonne	149.40
17	16 Km.	Tonne	152.60
18	17 Km.	Tonne	156.30
19	18 Km.	Tonne	160.20
20	19 Km.	Tonne	163.80
21	20 Km.	Tonne	168.70
22	Beyond 20 and up to 30 Km (Rate/Km)	Tonne	3.50
23	Beyond 30 and up to 50 Km (Rate/Km)	Tonne	2.90
24	Beyond 50 and up to 80 Km (Rate/Km)	Tonne	2.90
25	Beyond 80 and up to 100 Km (Rate/Km)	Tonne	2.50



Sl. No.	S.S. Item No.	Description	Unit (per)	S S RATE FOR 2005-06
	26	Beyond 100 Km (Rate / Km)	Tonne	2.30
	27	LOADING	Tonne	16.00
	28	UNLOADING	Tonne	12.40
	29	STACKING	Tonne	7.20

**S S RATES FOR CONVEYANCE OF C.I. PIPES, SPECIALS & VALVES PER METRIC TONNE EXCLUDING LOADING & UNLOADING & STACKING**

Lead in Kilometers	80	100	125
1	2	3	4
For every K.M. or part thereof			
<b>2005-06</b>	<b>2.70</b>	<b>2.80</b>	<b>2.90</b>

**RATES FOR CONVEYANCE OF BRICKS, MANGLORE TILES, TERRACE BRICKS, FLAT TILES, LIME, COKE, AND LIME INCLUDING LOADING, UNLOADING & STACKING ON METALLED ROAD**

S.No	Description	S S RATE FOR	
		Bricks Mangalore Tiles 2500 Kgs per 1000 Nos	Terrace Bricks, Flat Tiles pan tiles 2500 Kgs per 1000 Nos
1	2	3	4
1	0 - 500 Mts	152.00	42.30
2	1 km	156.10	42.80
3	2 Km	161.20	44.60
4	3 Km	166.40	45.80
5	4 Km	171.50	48.70
6	5 Km	176.70	50.00
7	6 Km	181.80	52.50
8	7 Km	188.20	53.80
9	8 Km	192.00	56.10
10	9 Km	196.70	57.10
11	10 Km	202.30	60.10
12	11 Km	208.70	61.50
13	12 Km	213.80	64.10
14	13 Km	217.20	65.20
15	14 Km	222.80	66.40
16	15 Km	228.70	68.60
17	16 Km	234.40	70.40
18	17 Km	239.00	73.00
19	18 Km	243.30	74.30
20	19 Km	249.30	76.70
21	20 Km	254.80	77.70
22	BEYOND 20 to 50 Km (per Km)	6.80	2.20
23	Above 50 Km (per Km)	5.70	1.70
24	loading	16.00	7.70
25	Unloading	12.80	6.20
26	Stacking	6.20	4.60
	<b>Total</b>	<b>35.00</b>	<b>18.50</b>

Sl. No.	S.S. No.	Item	Description	Unit (per)	S S RATE FOR 2005-06
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## HIRE CHARGES

### HIRE/USAGE CHARGES FOR PLANT AND MACHINERY FOR 2005-06

Sl. No.	Description of Machine	Capacity / Output of machine	Unit of Measurement
1	2	3	4
1	Drum Mix Plant 40 / 60 TPH	50 TPH	Per Hour
2	Hot Mix Plant 30/45 TPH	40 TPH	Per Hour
3	Hot Mix Plant 30/45 TPH 20/30	25 TPH	Per Hour
4	Hot Mix Plant 30/45 TPH 6/10 TPH	8 TPH	Per Hour
5	Paver finisher Hydraulic with sensor	75 TPH	Per Hour
6	Paver finisher mechanical sold	75 TPH	Per Hour
7	1) Bitumen pressure	4T	Per Hour
8	Generating get 125 KVA	100 KVA	Per Hour
9	Loader of 1 Cu.M.	1 Cu. M	Per Hour
10	Tipper 5 cum capacity one trip /hour		
11	Tipper 10 T	10 T	Per Km.
12	Tandam Road Roller	8.5 T	Per Hour
13	Pneumatic tyre Roller	8 T	Per Hour
14	Road Roller	8/10 T	Per Hour
15	JCB Excavator	0.24 / 1 Cu.M	Per Hour
16	Wheeled Dozer. D 30 BEML		Per Hour
17	Mortar Grader BEML		Per Hour
18	Vibratory Roller	10 T	Per Hour
19	Tractor	50 HP	Per Hour
20	Air Compressor	170 Cu. M	Per Hour
21	Bitumen Boiler	1.5 T	Per Hour
22	Wet Mix Plant	60 T	Per Hour
23	Batching Plant	30 Cu.M PH	Per Hour
24	Batching Plant	15 Cu.M PH	Per Hour
25	Transit Mixture	4 Cu. M.	Per Hour
26	Concrete Pump	6 Cu. M. PH	Per Hour
27	Grab dredging crane (1cum) (normally runs for 4 hours a day)		Per Hour
28	Mastic Cooker	1 T	Per Hour
29	Drilling equipment		Per Hour
30	Needle Vibrator		Per Hour
31	Concrete Mixture		Per Hour
32	Tipper /Dumper 1 hour		Per Hour
33	Vibrating Roller		Per Hour
34	Front End Roller		Per Hour
35	Water Tanker		Per Hour
36	Crane (Rate of sinking 0.8 mts. per day)		Per Hour
37	Compressor Charges (6 cum per minit capacity)		Per Hour
38	Compressor Charges (10.5 cum per minit capacity)		Per Hour
39	Pump (23 KW)		Per Hour
40	Hydraulic Excavator 0.9 Cum bucket capacity at 60 CUM per hour		Per Hour
41	Hydraulic Excavator 1 CUM per hour		Per Hour
42	Water Tanker 6 KL.		Per Hour
43	Electric Generator Set 33.KVA.		per hour
44	Electric Generator Set 63.KVA.		Per Hour
45	Electric Generator Set 125.KVA.		Per Hour
46	Electric Generator Set 250.KVA.		Per Hour

Sl. No.	S.S. No.	Item Description	Unit (per)	S S RATE FOR 2005-06
	47	Plate Compactor @3.5 CUMt/Hour		Per Hour
	48	Crane with Grab Bucket of 0.75 CUM and 1 CUM of 35 tonnes to 80 tonnes		Per Hour
	49	Air Compressor 250 cum with two jack hammers		Per Hour
	50	Dozer-D-50-A15		Per Hour
	51	Dozer-D-80-A-12.		Per Hour
	52	Mortor Grader 3.35 M Blade		Per Hour
	53	Front end loader 1 cum bucket capacity		Per Hour
	54	Vibratory Roller 8 Tonne		Per Hour
	55	Smooth Wheeled Roller -8 Ton		Per Hour
	56	Water tanker per KM.		Per Km.
	57	Rotavator		Per Km.
	58	Ripper-Scarifying		Per Hour
	59	Mechanical Broom Hydraulic		Per Hour
	60	Bitumen Pressure Distributor		Per Hour
	61	Emulsion Pressure Distributor		Per Hour
	62	Hot Mix Plant-120 T/PH		Per Hour
	63	Hot Mix Plant-100 T/PH		Per Hour
	64	Hydraulic Chip Spreader		Per Hour
	65	Pot hole repairing Machine		Per Hour
	66	Bitumen boiler oil fired		Per Hour
	67	GSB Plant 50 CUM		Per Hour
	68	Mastic Cooker		Per Hour
	69	Concrete Pump of 45 & 30 CUM capacity		Per Hour
			A. 80 TON	
			B 35 TON	
	70	Crane	C 3 TON	Per Hour
	71	concrete bucket		Per Hour
	72	Kerb casting machine		Per Hour
	73	Concrete mixer		
	74	a)04/0.28 cum		Per Hour
	75	b) 1 Cum		Per Hour
	76	a) Piling Rig with Bantonite pump		Per Hour
	77	b) Hot Mix Plant 60-90 TPH		Per Hour
	78	c) Hot Mix Plant 40-60 TPH		Per Hour
	79	d) Paver Finisher with sensor control 100 TPH		Per Hour
	80	e) Paver finisher mechanical 100 TPH		Per Hour
	81	Concrete paver finisher with 40HP motor		Per Hour
	82	Intigrated Stone Crusher		Per Hour
	83	Prestressing Jack with pump and Acess		Per Hour
	84	Generator 100 KVA		Per Hour
	85	Pnumatic sinking plant		Per Hour
				Per Km
	86	Truck 5.5 Cum per 10 T		Per Tonn Km
	87	Road Marking machine		Per hour
	88	Mobile Slurry seal equipment		Per hour





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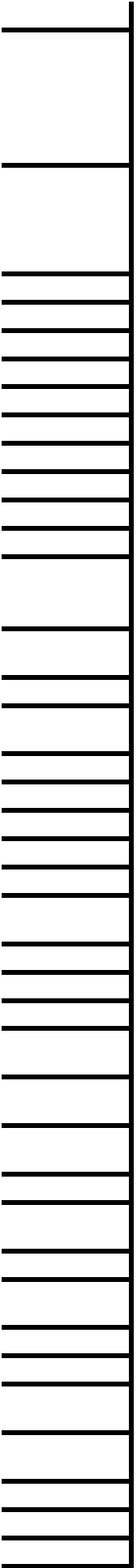
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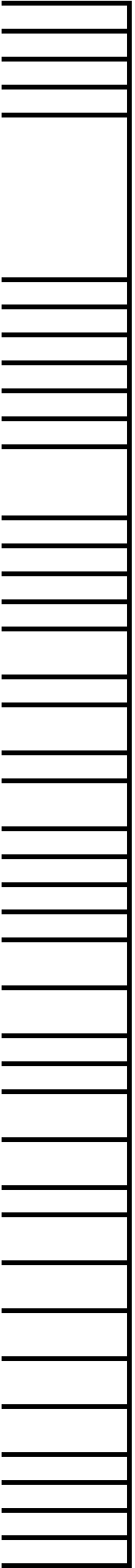












































































































































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58/1988 AT EX-FACTORY

S S Rates for 2005-06

NP - 3 Class	NP - 4 Class

464.18	473.67
513.68	524.66
587.66	593.37
673.4	732.86
959.23	1136.44
1191.32	1521.73
1574.32	1988.2
1976.77	2475.24
2455.12	3381.2
2894.84	3919.23
3409.32	4581.2
4406.28	6338.46
5716.5	7630.38
7575.51	10229.11

<b>RATE PER EACH DING TAXES &amp; DUTIES</b>	
<b>Rates for 2005-06</b>	
<b>NP - 3 Class</b>	<b>NP - 4 Class</b>
<b>67.45</b>	<b>67.45</b>
<b>76.72</b>	<b>76.72</b>
<b>101.98</b>	<b>101.98</b>
<b>121.19</b>	<b>121.19</b>
<b>160.06</b>	<b>160.06</b>
<b>214.94</b>	<b>214.94</b>
<b>272.11</b>	<b>272.11</b>
<b>317.84</b>	<b>317.84</b>
<b>397.87</b>	<b>397.87</b>
<b>503.05</b>	<b>503.05</b>
<b>629.96</b>	<b>629.96</b>
<b>798.02</b>	<b>798.02</b>
<b>1023.25</b>	<b>1023.25</b>
<b>1318.22</b>	<b>1318.22</b>


B.I.S. 458/1988 AT EX-DUTIES.

Rates for 2005-06

NP - 3 Class	NP - 4 Class
656.42	668.5
727.78	740.95
803.52	810.1
918.77	997.81
1287.6	1326.02
1643.26	1919.88
2173.45	2509.34
2731.08	3151.5
3093.32	3951.72
3648.75	4564.24
4304.08	5341.41
5700.36	7570.84
7396.3	9125.18
9800.27	12237.16

B.I.S. 458/1988 AT EX-DUTIES.

Rates for 2005-06

P2 - Class	P3 - Class
112.74	128.39
134.70	156.54
201.77	247.70
259.87	343.19
295.23	382.91
317.15	403.37
456.58	569.66
633.26	821.46
746.78	1082.81
992.87	1336.71
1083.05	1523.41
1613.71	2120.35
2130.52	2701.10
2544.13	3274.73
3002.10	
3440.68	

<b>T PIPES CONFORMING DING TAXES &amp; DUTIES.</b>	
<b>ates for 2005-06</b>	
<b>NP - 3 Class</b>	<b>NP - 4 Class</b>
<b>58.00</b>	<b>58.00</b>
<b>66.00</b>	<b>66.00</b>
<b>75.00</b>	<b>75.00</b>
<b>86.00</b>	<b>86.00</b>
<b>125.00</b>	<b>125.00</b>
<b>150.00</b>	<b>150.00</b>
<b>182.00</b>	<b>182.00</b>
<b>246.00</b>	<b>246.00</b>
<b>297.00</b>	<b>297.00</b>
<b>380.00</b>	<b>380.00</b>
<b>478.00</b>	<b>478.00</b>
<b>526.00</b>	<b>526.00</b>
<b>642.00</b>	<b>642.00</b>
<b>820.00</b>	<b>820.00</b>
<b>P2 - Class</b>	<b>P3 - Class</b>
<b>10.00</b>	<b>10.00</b>
<b>13.00</b>	<b>13.00</b>
<b>21.00</b>	<b>21.00</b>
<b>25.00</b>	<b>25.00</b>
<b>28.00</b>	<b>29.00</b>
<b>32.00</b>	<b>33.00</b>
<b>40.00</b>	<b>42.00</b>
<b>51.00</b>	<b>55.00</b>
<b>66.00</b>	<b>68.00</b>
<b>76.00</b>	<b>78.00</b>
<b>86.00</b>	<b>90.00</b>
<b>108.00</b>	<b>107.00</b>
<b>142.00</b>	<b>150.00</b>
<b>180.00</b>	<b>18.00</b>
<b>228.00</b>	
<b>275.00</b>	

Rate upto 5 Kms Lead including Loading, unloading and stacking	Rate for every additional 1 KM lead or part thereof.
5	6

**AND STACKING (per**

NP - 3 Class & NP - 4 Class	
17.00	0.45
20.00	0.65
22.00	0.75
24.00	0.75
36.00	1.60
40.00	1.88
48.00	1.88
63.00	3.50
76.00	3.50
82.00	3.75
92.00	3.75
125.00	3.96
150.00	3.96
200.00	5.54

Rate upto 5 Kms Lead including Loading, unloading and stacking	Rate for every additional 1 KM lead or part thereof.
	4

**DING, UNLOADING AND**

NP - 3 & NP - 4 Class	

20.00	0.70
25.00	1.22
27.50	1.25
30.00	1.30
41.00	1.85
55.00	3.68
65.00	3.70
75.00	3.70
79.00	3.70
85.00	3.70
95.00	3.75
127.00	3.75
150.00	4.00
200.00	5.50
<b>P3 – Class</b>	
1.65	0.10
1.90	0.11
2.65	0.15
5.00	0.33
5.60	0.38
6.60	0.50
11.50	0.60
16.00	0.75
21.50	1.22
26.50	1.25
32.50	1.75
46.50	2.32
68.50	3.70
87.00	3.70

<b>AND SUPPLY OF AC PRESSURE PIPES DULY MARKED</b>			
<b>WORKING CHARGES BUT ARE EXCLUSIVE OF</b>			
<b>CONTRACTOR AND OTHER GOVT. LEVIES.</b>			
<b>S S Rates for 2005-06</b>			
<b>Class - 10</b>	<b>Class - 15</b>	<b>Class - 20</b>	<b>Class - 25</b>
77.27	77.74	84.08	105.51
97.34	102.09	129.17	160.06
122.3	133.85	166.61	209.98
151.63	189.45	235.87	295.15
238.37	315.74	400.61	508.56
310.75	399.36	513.86	644.59
401.86	560.66	725.09	924.14
494.21	684.84	889.51	1117.58
613.08	891.38	1161.26	1440.19
739.13	1048.63	1388.71	1740.34
913.54	1301.04	1701.34	2137.51
1279.2	1847.35	2407.7	3068.83



**WITHIN THE STATE OF**

able roads for full truck loads  
rings are to be supplied free

**10% on the value of AC Pressure  
pipes only. (on basic price)**

**A.C. COUPLINGS WITHOUT RUBBER RINGS TO SUIT AC  
TRANSPORTATION AND UNLOADING AT SITE TRANSIT RISK BUT**

**S S Rates for 2005-06**

<b>Class - 10</b>	<b>Class - 15</b>	<b>Class - 20</b>	<b>Class - 25</b>
40.25	40.25	42.12	48.67
50.54	52.42	54.29	65.52
61.78	65.52	71.14	86.11
71.14	74.88	93.60	116.06
102.96	138.53	147.89	189.07
132.91	160.99	202.18	258.34
164.74	209.66	271.44	348.19
220.90	273.31	353.81	453.02
301.39	421.20	550.37	709.49
357.55	505.44	666.43	859.25
426.82	602.78	806.83	1033.34
570.96	692.64	904.18	1156.90

**WITH BIS MARK EMBOSSED PER EACH SET SUITABLE  
TRANSPORTATION AND UNLOADING AT SITE TRANSIT RISK**

**S S Rates for 2005-06**

<b>Class - 10</b>	<b>Class - 15</b>	<b>Class - 20</b>	<b>Class - 25</b>
25.27	25.27	25.27	25.272
30.99	30.99	30.99	30.992
40.56	40.56	40.56	40.56
51.79	51.79	51.79	51.792
53.04	53.04	53.04	53.04
61.88	61.88	61.88	61.88
62.09	62.09	62.09	62.088

69.89	69.89	69.89	69.888
85.38	85.38	85.38	85.384
100.88	100.88	100.88	100.88
116.48	116.48	116.48	116.48
131.98	131.98	131.98	131.976

INFORMING TO IS 784/2001 @ Ex-factory excluding				
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**S S Rates for 2005-06**

8 Kg/cm2	10 Kg/cm2	12 Kg/cm2	14 Kg/cm2	16 Kg/cm2
1060.00	1070.00	1080.00	1100.00	1140.00
1150.00	1160.00	1180.00	1200.00	1220.00
1220.00	1230.00	1260.00	1290.00	1320.00
1320.00	1330.00	1360.00	1390.00	1430.00
1520.00	1540.00	1590.00	1640.00	1690.00
1860.00	1890.00	1940.00	2010.00	2070.00
2210.00	2270.00	2330.00	2420.00	2510.00
2560.00	2620.00	2730.00	2840.00	3000.00
3010.00	3100.00	3220.00	3410.00	3560.00
3440.00	3540.00	3730.00	3900.00	4070.00
3830.00	3960.00	4170.00	4380.00	4580.00

cost of transportation of water and emptying pipe line after

75.00	75.00	75.00	75.00	75.00
85.00	85.00	85.00	85.00	85.00
95.00	95.00	95.00	95.00	95.00
100.00	100.00	100.00	100.00	100.00
125.00	125.00	125.00	125.00	125.00
145.00	145.00	145.00	145.00	145.00
165.00	165.00	165.00	165.00	165.00
185.00	185.00	185.00	185.00	185.00
210.00	210.00	210.00	210.00	210.00
235.00	235.00	235.00	235.00	235.00
255.00	255.00	255.00	255.00	255.00

ding loading at Factory, un-loading at site and stacking for

0.38	0.38	0.38	0.38	0.38
0.38	0.38	0.38	0.38	0.38
0.43	0.43	0.43	0.43	0.43
0.50	0.50	0.50	0.50	0.50
0.60	0.60	0.60	0.60	0.60
1.00	1.00	1.00	1.00	1.00
1.00	1.00	1.00	1.00	1.00
1.00	1.00	1.00	1.00	1.00
1.50	1.50	1.50	1.50	1.50
1.50	1.50	1.50	1.50	1.50
3.00	3.00	3.00	3.00	3.00

<b>Description</b>
<b>2</b>
Price excluding transportation, taxes and duties etc., for Bar wrapped steel cylindrical pipes.

**S S Rates for 2005-06**

14 Kg/cm <sup>2</sup>	16 Kg/cm <sup>2</sup>	18 Kg/cm <sup>2</sup>	20 Kg/cm <sup>2</sup>	22 Kg/cm <sup>2</sup>	24 Kg/cm <sup>2</sup>	26 Kg/cm <sup>2</sup>	28 Kg/cm <sup>2</sup>	30 Kg/cm <sup>2</sup>
1,027.00	1,027.00	1,027.00	1,027.00	1,027.00	1,027.00	1,027.00	1,037.00	1,075.00
1,157.00	1,157.00	1,157.00	1,157.00	1,157.00	1,185.00	1,230.00	1,252.00	1,297.00
1,418.00	1,418.00	1,418.00	1,418.00	1,418.00	1,453.00	1,502.00	1,544.00	1,587.00
1,561.00	1,561.00	1,561.00	1,561.00	1,633.00	1,696.00	1,760.00	1,824.00	2,044.00
1,704.00	1,704.00	1,722.00	1,802.00	1,881.00	1,961.00	2,041.00	2,122.00	2,279.00
1,901.00	1,921.00	2,010.00	2,109.00	2,209.00	2,317.00	2,404.00	2,589.00	2,687.00
2,502.00	2,537.00	2,679.00	2,820.00	2,949.00	3,097.00	3,241.00	2,441.00	3,564.00
2,902.00	3,092.00	3,282.00	3,473.00	3,663.00	3,917.00	4,084.00	1,284.00	4,501.00
3,467.00	3,714.00	3,953.00	4,195.00	4,526.00	4,775.00	5,162.00	5,411.00	5,677.00
4,147.00	4,457.00	4,758.00	5,060.00	5,388.00	5,867.00	6,231.00	6,557.00	6,919.00
4,884.00	5,259.00	5,625.00	5,992.00	6,556.00	7,022.00	7,685.00	8,045.00	8,528.00

and fixing of polypropylene diapher cloth, cost of tranfortation of water and emptying pipeline after completion of field testing

**S S Rates for 2005-06**

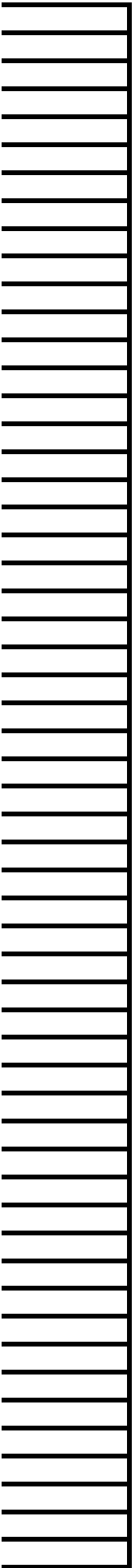
14 Kg/cm <sup>2</sup>	16 Kg/cm <sup>2</sup>	18 Kg/cm <sup>2</sup>	20 Kg/cm <sup>2</sup>	22 Kg/cm <sup>2</sup>	24 Kg/cm <sup>2</sup>	26 Kg/cm <sup>2</sup>	28 Kg/cm <sup>2</sup>	30 Kg/cm <sup>2</sup>
180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00
210.00	210.00	210.00	210.00	210.00	210.00	220.00	220.00	220.00
250.00	250.00	250.00	250.00	250.00	250.00	260.00	260.00	260.00
280.00	280.00	280.00	280.00	290.00	290.00	300.00	300.00	310.00
320.00	320.00	320.00	320.00	330.00	330.00	340.00	340.00	350.00
350.00	350.00	360.00	360.00	370.00	380.00	380.00	390.00	400.00
430.00	440.00	440.00	450.00	460.00	470.00	480.00	490.00	490.00
510.00	520.00	530.00	540.00	550.00	560.00	570.00	580.00	590.00
590.00	600.00	610.00	630.00	650.00	660.00	680.00	690.00	710.00
670.00	690.00	710.00	720.00	740.00	770.00	790.00	810.00	830.00
760.00	780.00	800.00	830.00	860.00	880.00	920.00	940.00	960.00

factory, un-loading at site and stacking for the following sizes.

0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38
0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43
0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

for 2005-06







s for

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evailing rates  
 ugally Cast  
 ressure Pipes  
 & D Rate  
 be adopted.

is 124 Kpa including transportation to any where in A.P. with  
 specials, loading, un-loading and stacking etc., complete but

**S S Rates for 2005-06**

6 Bar	9 Bar	12 Bar	15 Bar
1,544.00	1,592.00	1,636.00	1,712.00
1,771.00	1,836.00	1,922.00	1,998.00
2,066.00	2,179.00	2,287.00	2,417.00
2,358.00	2,493.00	2,649.00	2,800.00
2,999.00	3,182.00	3,506.00	3,669.00
3,812.00	4,050.00	4,417.00	4,752.00
4,673.00	5,045.00	5,488.00	5,926.00
5,815.00	6,318.00	6,852.00	7,420.00
6,993.00	7,522.00	8,203.00	8,845.00

n of water and emptying pipe line after completion of field

**S S Rates for 2005-06**

6 Bar	9 Bar	12 Bar	15 Bar
120.00	120.00	120.00	120.00
180.00	180.00	180.00	180.00
220.00	220.00	220.00	220.00
280.00	280.00	280.00	280.00
300.00	300.00	300.00	300.00
340.00	340.00	340.00	340.00
400.00	400.00	400.00	400.00
440.00	440.00	440.00	440.00
510.00	510.00	510.00	510.00

6.0 kg/ sqcm	8.0 kg/ sqcm	10.0 kg/ sqcm
5	6	7









		<b>Additional charges for Flanged ended valves</b>
<b>20 Kgs/cm<sup>2</sup></b>	<b>25 Kgs/cm<sup>2</sup></b>	
<b>5</b>	<b>6</b>	<b>7</b>

· AWWA, Ex-factory excluding transportation,

44968.00	49465.00	
46978.00	51675.00	
53004.00	58304.00	
59650.00	65615.00	

ends. as per AWWA, Ex-factory excluding trans-

60644.00	66709.00	4250.00	
67033.00	73738.00	5125.00	
77965.00	85763.00	6125.00	
90108.00	99119.00	6625.00	
98023.00	107825.00	8563.00	
108369.00	119205.00	12215.00	
122688.00	132438.00	13813.00	
143000.00	154438.00	16500.00	
158375.00	171063.00	18525.00	
190788.00	209865.00	20875.00	
222500.00	249440.00	25250.00	
222500.00	309188.00	32063.00	
224725.00	325550.00	33345.00	
350454.00	385500.00	37125.00	
427563.00	460625.00	42000.00	
641344.50	690937.50	63000.00	
745375.00	804938.00	59063.00	
760282.50	821036.76	60244.26	

· (QRDA) as per AWWA, Ex-factory excluding

40164.00	44180.00	
61036.00	67140.00	
65148.00	71663.00	

cost of valves

<b>ST PRESSURE</b>	
<b>PN 25</b>	<b>PN 40 Max. ^ P 32 bar</b>
<b>5</b>	<b>6</b>

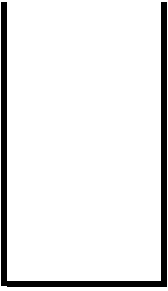
28500.00		
29550.00		
39675.00		
48000.00		
53500.00		
162707.00	230632.00	
191407.00		
256595.00	285000.00	
297828.00	312284.00	
560925.00		
818691.00		
1187155.00		
1326201.00		
88628.00	116006.00	
107640.00	136013.00	
131040.00	166023.00	
149058.00	181233.00	

150930.00	196268.00	
191295.00	251726.00	
282000.00	364500.00	
412900.00	523600.00	
520650.00	659600.00	

ST PRESSURE		
6 Kgs/cm <sup>2</sup>	10 Kgs/cm <sup>2</sup>	
5	6	
--	6.28	
--	9.81	
--	15.66	
15.48	24.02	
22.80	37.29	
34.91	53.92	
48.69	77.00	
69.77	109.15	
101.28	163.87	



for
5-06



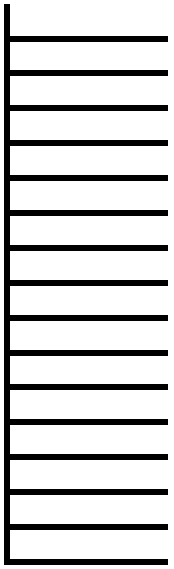
<b>ASSURES</b>
<b>5</b>
<b>PN-1.0</b>
<b>Rs.</b>
1720.00
1870.00
2200.00
2735.00
3650.00
4565.00
5475.00
8500.00
12200.00
18800.00
25200.00
30700.00
39500.00
53200.00
77500.00
113000.00
155150.00
192600.00
235400.00
278200.00
322000.00

**UNMETALLED ROAD**









**DADING**

150	200	250	300	350	400	450	500	600	700
5	6	7	8	9	10	11	12	13	14
<b>2.90</b>	<b>3.10</b>	<b>3.20</b>	<b>3.30</b>	<b>3.40</b>	<b>3.50</b>	<b>3.70</b>	<b>3.90</b>	<b>3.90</b>	<b>4.70</b>

**C. SHEETS AND WOOD**

<b>OR 2005-06</b>	
<b>Lime coke &amp; wood 1000 Kgs/ Cum</b>	<b>A.C sheets per tonne</b>
<b>5</b>	<b>6</b>
56.10	56.10
57.10	57.10
60.10	60.10
62.70	62.70
64.10	64.10
66.40	66.40
68.60	68.60
70.40	70.40
73.00	73.00
75.50	75.50
77.70	77.70
78.90	78.90
81.90	81.90
84.50	84.50
86.90	86.90
88.00	88.00
90.80	90.80
93.60	93.60
96.10	96.10
97.20	97.20
99.40	99.40
3.00	3.00
2.70	2.70
7.70	7.70
5.90	5.90
4.10	4.10
17.70	17.70

**Hire charges in Rupees**

5

6169.00

6328.00

4082.00

1268.00

1165.00

519.00

659.00

424.00

495.00

200.00

14.85

668.00

740.00

275.00

582.00

1124.00

1128.00

754.00

223.00

196.00

120.00

721.00

1500.00

1250.00

625.00

312.50

2500.00

250.00

882.00

27.87

27.73

202.55

754.00

495.00

223.00

500.00

93.00

145.25

75.00

50.00

840.00

234.00

240.00

250.00

450.00

450.00

30.00	
1250.00	
206.00	
1423.00	
2400.00	
1545.00	
520.00	
994.00	
297.00	
15.60	
11.00	
18.00	
230.00	
692.00	
516.00	
15100.00	
11167.00	
1700.00	
585.00	
128.00	
670.00	
40.00	
165.00	
825.00	
550.00	
230.00	
10.00	
200.00	
150.00	
150.00	
3525.00	
8930.00	
7150.00	
1725.00	
629.00	
1850.00	
5590.00	
83.00	
450.00	
2690.00	
14.50	
1.60	
60.00	
650.00	











































































































































































































































750	Remarks
15	16
6.40	







**Andhra Pradesh Standard Data**

**I. Roads and Bridges**

**Chapter - 5**

**BASES AND SURFACE COURSES (BITUMINOUS)**

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
1	<b>Prime Coat</b>					
	<b>i Low porosity</b>					
	<b>a</b> Providing and applying primer coat with bitumen emulsion (SS-1) on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.70-1.0 kg/sqm using mechanical means as per Technical Specification Clause 502 MORD (for use on Wet mix macadam & WBM)					
	Unit = sqm					
	Taking output = 1750 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.040			
	<b>b) Machinery</b>					
	Hydraulic broom @ 1250 sqm per hour	hour	1.400			
	Air compressor 210 cfm	hour	1.400			
	Bitumen emulsion pressure distributor @ 1750 sqm/hour	hour	1.000			
	Water tanker 6 kl capacity 1 trip per hour	hour	0.500			
	<b>c) Material</b>					
	Bitumen emulsion (SS-1) @ 0.85 kg per sqm	t	1.480			
	Water	kl	3.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost of 1750 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/1750</b>					
	<b>18.00%</b>					
	<b>b</b> Providing and applying primer coat with bitumen emulsion (medium setting) on prepared surface of granular Base including clearing of road surface and spraying primer at the rate of 0.60 kg/sqm using mechanical means as per Tech. specification No 502 MORD					
	Unit = sqm					
	Taking output = 3500 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	2.080			
	<b>b) Machinery</b>					
	Mechanical broom @ 1250 sqm per hour	hour	2.800			
	Air compressor 250 cfm	hour	2.800			
	Bitumen pressure distributor @ 1750 sqm per hour	hour	2.000			
	Water tanker 6 KL capacity @ 1 trip per hour	hour	1.000			
	<b>c) Material</b>					
	Bitumen emulsion @ 0.6 kg per sqm	t	2.100			
	Requirement of Water	KL	6.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost for 3500 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/3500</b>					
	<b>18.00%</b>					
	<b>Note :</b> Bitumen primer has been provided @ 0.60 kg per sqm as per clause 502.8. Payment shall be made with adjustment, plus or minus, for the variation between this quantity and the actual quantity approved by the Engineer after the preliminary trials referred to in clause No. 502.4.3.					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>ii Medium porosity</b>					
	Providing and applying primer coat with Bitumen emulsion (SS-1) (slow setting) on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.90- 1.2 kg/sqm using mechanical means as per Technical Specification Clause 502 MORD. (for use on Cement Stabilized Soil.)					
	Unit = sqm					
	Taking output = 1750 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	2.100			
	<b>b) Machinery</b>					
	Hydraulic broom @ 1250 sqm per hour	hour	1.400			
	Air compressor 210 cfm	hour	1.400			
	Bitumen emulsion pressure distributor @ 1750 sqm per hour	hour	1.000			
	Water tanker 6 kl capacity 1 trip per hour	hour	0.500			
	<b>c) Material</b>					
	Bitumen emulsion (SS-1) @ 1.05 kg per sqm	t	1.830			
	Water	kl	3.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Cost of 1750 sqm = a+b+c+d+e</b>					
	<b>Rate per sqm = (a+b+c+d+e)/1750</b>					
	<b>18.00%</b>					
	<b>iii High porosity</b>					
	Providing and applying primer coat with Bitumen emulsion (SS-1) on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 1.2-1.5 kg/sqm using mechanical means as per Technical Specification Clause 502 MORD. (for use on Gravel base)					
	Unit = sqm					
	Taking output = 1750 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	3.120			
	<b>b) Machinery</b>					
	Hydraulic broom @ 1250 sqm per hour	hour	1.400			
	Air compressor 210 cfm	hour	1.400			
	Bitumen emulsion pressure distributor @ 1750 sqm per hour	hour	1.000			
	Water tanker 6 kl capacity 1 trip per hour	hour	0.500			
	<b>c) Material</b>					
	Bitumen emulsion (SS-1) @ 1.35 kg per sqm	t	2.360			
	Water	kl	3.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Cost of 1750 sqm = (a+b+c+d+e)</b>					
	<b>Rate per sqm = a+b+c+d+e/1750</b>					
	<b>18.00%</b>					
<b>2</b>	<b>Tack Coat</b>					
	Providing and applying tack coat with Bitumen emulsion (RS-1) (Rapid Setting) using emulsion distributor at the rate of 0.20 to 0.25 kg per sqm on the prepared bituminous surface cleaned with Hydraulic broom as per Technical Specification Clause 503 MORD.					
	Unit = sqm					
	Taking output = 1750 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.040			
	<b>b) Machinery</b>					
	Hydraulic broom @ 1250 sqm per hour	hour	1.400			
	Air compressor 210 cfm	hour	1.400			
	Emulsion pressure distributor @ 1750 sqm per hour	hour	1.000			
	<b>c) Material</b>					
	Bitumen emulsion (RS-1) @ 0.225 kg per sqm	t	0.390			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Cost of 1750 sqm = (a+b+c+d+e)</b>					
	<b>Rate per sqm = a+b+c+d+e/1750</b>					
	<b>18.00%</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
ii	Providing and applying tack coat with Bitumen emulsion (RS-1) using emulsion distributor at the rate of 0.25 to 0.30 kg per sqm on the prepared dry and hungry bituminous surface cleaned with Hydraulic broom as per Technical Specification Clause 503 MORD.					
	Unit = sqm					
	Taking output = 1750 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.040			
	<b>b) Machinery</b>					
	Hydraulic broom @ 1250 sqm per hour	hour	1.400			
	Air compressor 210 cfm	hour	1.400			
	Emulsion pressure distributor @1750 sqm per hour	hour	1.000			
	<b>c) Material</b>					
	Bitumen emulsion (RS-1) @ 0.275 kg per sqm	t	0.480			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost of 1750 sqm = (a+b+c+d+e)</b>					
	<b>Rate per sqm = a+b+c+d+e/1750</b>					
iii	Providing and applying tack coat with Bitumen emulsion (RS-1) using emulsion distributor at the rate of 0.25 to 0.30 kg per sqm on the prepared granular surfaces treated with primer & cleaned with Hydraulic broom as per Technical Specification Clause 503 MORD.					
	Unit = sqm					
	Taking output = 1750 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.040			
	<b>b) Machinery</b>					
	Hydraulic broom @ 1250 sqm per hour	hour	1.400			
	Air compressor 210 cfm	hour	1.400			
	Emulsion pressure distributor @1750 sqm per hour	hour	1.000			
	<b>c) Material</b>					
	Bitumen emulsion (RS-1) @ 0.275 kg per sqm	t	0.480			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost of 1750 sqm = (a+b+c+d+e)</b>					
	<b>Rate per sqm = a+b+c+d+e/1750</b>					
iv	Providing and applying tack coat with Bitumen emulsion (RS-1) using emulsion pressure distributor at the rate of 0.30 to 0.35 kg per sqm on the prepared non-bituminous surfaces (cement concrete pavement) cleaned with Hydraulic broom as per Technical Speciation 503 MORD.					
	Unit = sqm					
	Taking output = 1750 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.040			
	<b>b) Machinery</b>					
	Hydraulic broom @ 1250 sqm per hour	hour	1.400			
	Air compressor 210 cfm	hour	1.400			
	Emulsion pressure distributor @1750 sqm per hour	hour	1.000			
	<b>c) Material</b>					
	Bitumen emulsion (RS-1) @ 0.325 kg per sqm	t	0.570			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost of 1750 sqm = (a+b+c+d+e)</b>					
	<b>Rate per sqm = a+b+c+d+e/1750</b>					
	<b>Note : 1.</b> An output of 1750 sqm has been considered in case of tack coat which can be covered by bituminous courses on the same day.					
	<b>2.</b> The use of cutback bitumen (Medium Curing grade) as per IS:217 shall be restricted only for sites at sub-zero temperature or for emergency applications as directed by the Engineer.					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
v	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom as per Tech. specification No 503 MORTH					
	<b>Unit = sqm</b>					
	<b>Taking output = 3500 sqm</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	2.080			
	<b>b) Machinery</b>					
	Mechanical broom @ 1250 sqm per hour	hour	2.800			
	Air compressor 250 cfm	hour	2.800			
	Emulsion pressure distributor @ 1750 sqm per hour	hour	2.000			
	<b>c) Material</b>					
	Bitumen emulsion @ 0.2 kg per sqm	t	0.700			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 3500 sqm = a+b+c+d+e</b>					
	<b>Rate per sqm = (a+b+c+d+e)/3500</b>					
	<b>Note : 1.</b> Bitumen emulsion has been provided @ 0.20 kg per sqm as per clause 503.8. Payment shall be made with adjustment, plus or minus, for the variation between this quantity and actual quantity approved by the Engineer after preliminary trials referred to in clause No. 503.4.3					
	<b>2.</b> An output of 3500 sqm has been considered in case of prime coat and tack coat which can be covered by bituminous courses on the same day.					
3	<b>Bituminous Macadam</b>					
i	Providing and laying bituminous macadam with <b>40-60 TPH</b> hot mix plant using crushed aggregates of grading as per Table 500.4 premixed with bituminous binder, transported to site upto a lead of 1000 m laid over a previously prepared surface with paver finisher to the required grade, level and alignment and rolled to achieved the desired compaction as per Technical Specification Clause 504 MORD ( <b>using vibratory Roller 80-100 KN for intermediate rolling and 3 wheel roller 80-100 KN for initial and final rolling</b> ).					
	Unit = cum					
	Taking output = 102.5 cum (225 t)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	10.000			
	Mazdoor (Skilled)	day	3.520			
	<b>b) Machinery</b>					
	Batch mix HMP 40-60 THP @ 40 t per hour actual output	hour	6.000			
	Hydraulic broom @ 1250 sqm per hour	hour	1.100			
	Air compressor 210 cfm	hour	1.100			
	Paver finisher	hour	6.000			
	Generator 125 KVA	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	Tipper 5.5 cum, 10 t / 5-6 t capacity	hour	6.210			
	Three wheel 80-100 kN static roller for initial break down rolling, final and finishing rolling	hour	12.000			
	Vibratory roller 80-100 kN for intermediate rolling	hour	6.000			
	<b>c) Material</b>					
	<b>(i) Bitumen @ 3.3 per cent of mix</b> (Weight of mix = 102.5 x 2.2 = 225 t)	t	7.425			
	<b>(ii) Aggregate</b>					
	Total weight of mix = 225 t					
	Weight of bitumen = 7.425 t					
	Weight of aggregate = 225 – 7.425 = 217.575 t					
	Taking density of aggregate = 1.5 t/cum					
	Volume of aggregate = 145.05 cum					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>Grading (19 mm nominal size) :</b>					
	25 -10 mm - 40 per cent	cum	58.020			
	10- 5 mm - 40 per cent	cum	58.020			
	5 mm and below - 20 per cent	cum	29.010			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 102.5 cum = a+b+c+d+e					
	<b>Rate per cum = (a+b+c+d+e)/102.5</b>					
	<b>Note : 1.</b> Although the rollers are required only for 3 hours as per norms of output, but the same have to be available at site for six hours as the hot mix plant and paver will take six hours for mixing and paving the output of 225 t considered in these analysis.					
	<b>2.</b> Quantity of bitumen has been taken for analysis purpose. The actual quantity will depend upon job mix formula.					
	<b>3.</b> Labour for traffic control, watch and ward and other miscellaneous duties at site, including sundries have been included in administrative overheads of the contractor.					
	<b>4.</b> In case BM is laid over freshly laid tack coat, provision of Hydraulic broom and 2 mazdoor for the same shall be <b>deleted</b> as the same has been included in the cost of tack coat.					
	<b>5.</b> Analysis is based on 1000 m lead of mixed material. Cost of additional cartage may be added as per site requirements.					
ii	<b>Providing and laying bituminous macadam with 100-120 TPH / 40-60 TPH hot mix plant producing an average output of 75 tonnes/ 37.50 t per hour using crushed aggregates of specified grading premixed with bituminous binder, transported to site, laid over a previously prepared surface with paver finisher to the required grade, level and alignment and rolled as per clauses 501.6 and 501.7 to achieve the desired compaction as per Tech. specification No. 504 MORTH.</b>					
	<b>Unit = cum</b>					
	<b>Taking output = 205 cum (450 tonnes)</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor working with HMP, mechanical broom, paver, roller, asphalt cutter and assistance for setting out lines, levels and layout of construction	day	14.000			
	Skilled mazdoor for checking line & levels	day	5.840			
	<b>b) Machinery</b>					
	Batch mix HMP 100-120 TPH @ 75 tonne per hour actual output	hour	6.000			
	<b>OR</b>					
	HMP 40-60 TPH @ 17 cum (37.5 Tonnes) / hour	hour	12.000			
	Air compressor 250 cfm	hour	2.200			
	Paver finisher 100 TPH	hour	6.000			
	Generator 250 KVA	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	Smooth wheeled roller 8-10 tonnes for initial break down rolling.	hour	3.900			
	Vibratory roller 8 tonnes for intermediate rolling.	hour	3.900			
	Finish rolling with 6-8 tonnes smooth wheeled tandem roller.	hour	3.900			
	<b>c) Material</b>					
	<b>i) Bitumen@ 3.3 per cent of mix</b>	t	14.850			
	weight of mix = 205 x 2.2 = 450 tonne					
	<b>ii) Aggregate</b>					
	Total weight of mix = 450 tonnes					
	Weight of bitumen = 14.85 tonnes					
	Weight of aggregate = 450 -14.85 = 435.15 tonnes					
	<b>Taking density of aggregate = 1.5 ton/cum</b>					
	Volume of aggregate = 290.1 cum					
	<b>Grading I ( 40 mm nominal size )</b>					
	37.5 - 25 mm 15 per cent	cum	43.510			
	25 - 10 mm 45 per cent	cum	130.550			
	10 - 5 mm 25 per cent	cum	72.530			
	5 mm and below 15 per cent	cum	43.510			
	<b>or</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>Grading II (19 mm nominal size)</b>					
	<b>116.04 Cum of 25-10mm @ 40%</b>					
	25 to 27mm IRC HBGM/C metal @ 40%	cum	29.010			
	19 to 22mm IRC HBGM/C metal @ 10%	cum	29.010			
	12 to 14mm IRC HBGM/C metal @ 10%	cum	29.010			
	9.5 to 11.2mm IRC HBGM/C metal @ 10%	cum	29.010			
	<b>116.04 Cum of 10-5mm @ 40%</b>					
	9.5 to 11.2mm IRC HBGM/C metal @ 20%	cum	58.020			
	5 to 7mm IRC HBGM/C metal @ 20%	cum	58.020			
	<b>58.02 Cum of 5mm below @ 20%</b>					
	5 to 7mm IRC HBGM/C metal @ 10%	cum	29.010			
	2.36mm & below @ 10%	cum	29.010			
	* Any one of the alternative may be adopted as per approved design					
	<b>(i) for Grading I ( 40 mm nominal size )</b>					
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 205 cum = a+b+c+d+e					
	<b>Rate per cum = (a+b+c+d+e)/205</b>					
	<b>(ii) for Grading II (19 mm nominal size)</b>					
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 205 cum = a+b+c+d+e					
	<b>Rate per cum = (a+b+c+d+e)/205</b>					
	<b>Note in MORTH : 1.</b> Although the rollers are required only for 3 hours as per norms of output, but the same have to be available at site for six hours as the hot mix plant and paver will take six hours for mixing and paving the output of 450 tonnes considered in this analysis. To cater for the idle period of these rollers, their usage rates have been multiplied by a factor of 0.65.					
	<b>2.</b> Quantity of Bitumen has been taken for analysis purpose. The actual quantity will depend upon job mix formula.					
	<b>3.</b> Labour for traffic control, watch and ward and other miscellaneous duties at site including sundries have been included in administrative overheads of the contractor.					
	<b>4.</b> In case BM is laid over freshly laid tack coat, provision of Mechanical broom and 2 mazdoors for the same shall be deleted as the same has been included in the cost of tack coat.					
<b>4</b>	<b>Built-Up Spray Grout</b>					
	<b>i</b> Providing, laying and rolling of built-up spray grout layer over prepared base consisting of a two layer composite construction of crushed coarse aggregates using motor grader for aggregates. Key stone chips spreader may be used with application of bituminous binder after each layer, and with key aggregates placed on top of the second layer to serve as a base, conforming to the line, grades and cross-section specified, the compacted layer thickness being 75 mm as per Technical Specification Clause 505 MORD. <b>(using Three wheel 80-100 KN static Roller/ Vibratory Roller 80-100 kN).</b>					
	<b>A By Manual Means</b>					
	Unit = sqm					
	Taking output = 800 sqm (60 cum)					
	<b>(I) Bitumen (S-90)</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	106.000			
	Chips spreader <b>(Stone Packer)</b>	day	10.000			
	Bitumen Sprayer	day	2.500			
	Mazdoor (Semi-Skilled)	day	25.500			
	<b>b) Machinery</b>					
	Bitumen boiler oil fired, capacity 1000 litre fitted with spray set	hour	6.000			
	Three wheel 80-100 kN static Roller	hour	6.000			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>c) Material</b>					
	Bitumen 30 kg per 10 sqm @ 15 kg per 10 sqm for each layer <b>(80 / 100 Grade)</b>	t	2.400			
	Crushed stone coarse aggregate passing 53 mm and retained on 2.8 mm sieve @ 0.5 cum per 10 sqm for each layer	cum	80.000			
	Key aggregates passing 22.4 mm and retained on 2.8 mm sieve @ 0.13 cum per 10 sqm	cum	10.400			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>				<b>18.00%</b>	
	Cost of 800 sqm = a+b+c+d+e					
	Rate per sqm = (a+b+c+d+e)/800					
(II)	<b>Bitumen (S-65)</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	106.000			
	Chips spreader <b>(Stone Paker)</b>	day	10.000			
	Bitumen Sprayer	day	2.500			
	Mazdoor (Semi-Skilled)	day	25.500			
	<b>b) Machinery</b>					
	Bitumen boiler oil fired, capacity 1000 litre fitted with spray set	hour	6.000			
	Three wheel 80-100 kN static Roller	hour	6.000			
	<b>c) Material</b>					
	Bitumen 30 kg per 10 sqm @ 15 kg per 10 sqm for each layer <b>(60 / 70 Grade)</b>	t	2.400			
	Crushed stone coarse aggregate passing 53 mm and retained on 2.8 mm sieve @ 0.5 cum per 10 sqm for each layer	cum	80.000			
	Key aggregates passing 22.4 mm and retained on 2.8 mm sieve @ 0.13 cum per 10 sqm	cum	10.400			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>				<b>18.00%</b>	
	Cost of 800 sqm = a+b+c+d+e					
	Rate per sqm = (a+b+c+d+e)/800					
<b>B</b>	<b>By Mechanical Means</b>					
	Unit = sqm					
	Taking output = 3000 sqm (225 cum)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	8.000			
	Mazdoor (Skilled)	day	2.400			
	<b>b) Machinery</b>					
	Hydraulic self propelled chip spreader both for aggregates and key aggregates @ 1500 sqm per hour for 3000 x 3 sqm	hour	6.000			
	Bitumen pressure distributor for 3000x 2 sqm @ 1750 sqm/hour	hour	3.430			
	Tipper 5.5 cum capacity	hour	10.000			
	Three wheel 80-100 kN Static Roller @ 10 cum per hour	hour	22.500			
	<b>OR</b>					
	vibratory roller 80 - 100 kN	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	5.000			
	<b>c) Material</b>					
	Bitumen 30 kg per 10 sqm @ 15 kg per 10 sqm for each layer <b>(80 / 100 Grade)</b>	t	9.000			
	Crushed stone coarse aggregate passing 53 mm and retained on 2.8 mm sieve @ 0.5 cum per 10 sqm for each layer	cum	300.000			
	Key aggregates passing 22.4 mm and retained on 2.8 mm sieve @ 0.13 cum per 10 sqm	cum	39.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>				<b>18.00%</b>	
	Cost for 3000 sqm = a+b+c+d+e (3 Wheel Roller)					
	Rate per sqm = (a+b+c+d+e)/3000					
	Cost for 3000 sqm = a+b+c+d+e (Vibratory Roller)					
	Rate per sqm = (a+b+c+d+e)/3000					
	<b>Note</b> : 2 tippers will be needed to match the capacity of hydraulic chip spreader and front end loader.					



S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
5	<b>Modified Penetration Macadam</b>					
	Construction of penetration macadam over prepared base by providing a layer of compacted crushed coarse aggregate using chips spreader with alternate applications of bituminous binder and key aggregates and rolling with a three wheel 80-100 kN static roller as per Tech. Specification No 506 MORD.					
	<b>A 50 mm thick</b>					
	Unit = sqm					
	Taking output = 4500 sqm (225 cum)					
	<b>(I) Bitumen (S-90)</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	6.000			
	Mazdoor (Skilled)	day	2.320			
	<b>b) Machinery</b>					
	Hydraulic self propelled chip spreader both for aggregates and key aggregates @ 1500 sqm per hour for 4500 x 2 sqm = 9000 sqm	hour	6.000			
	Bitumen pressure distributor for @ 1750 sqm per hour	hour	2.570			
	Tipper 5.5 cum capacity for carriage of aggregates from stockpile to chip spreader	hour	10.000			
	Three wheel 80-100 kN Static Roller	hour	22.500			
	Front end loader 1 cum bucked capacity	hour	6.000			
	<b>c) Material</b>					
	Bitumen @ 1.75 kg per sqm	t	7.870			
	40 mm size hand broken metal @ 0.06 cum per sqm	cum	270.000			
	12 mm size stone chips @ 0.018 cum per sqm	cum	81.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost of 4500 sqm = a+b+c+d+e</b>					
	<b>Rate per sqm = (a+b+c+d+e)/4500</b>					
	<b>B 75 mm thick</b>					
	Unit = sqm					
	Taking output = 4500 sqm (337.5 cum)					
	<b>(I) Bitumen (S-90)</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	8.000			
	Mazdoor (Skilled)	day	2.400			
	<b>b) Machinery</b>					
	Hydraulic self propelled chip spreader both for aggregates and key aggregates @ 1500 sqm per hour for 4500 x 2 sqm = 9000 sqm	hour	6.000			
	Bitumen pressure distributor for @ 1750 sqm per hour	hour	2.570			
	Tipper 5.5 cum capacity for carriage of aggregates from stockpile to chip spreader	hour	10.000			
	Three wheel 80-100 kN Static Roller	hour	33.750			
	Front end loader 1 cum bucked capacity	hour	6.000			
	<b>c) Material</b>					
	Bitumen @ 2 kg per sqm	t	9.000			
	40 mm size hand broken metal @ 0.09 cum per sqm	cum	405.000			
	12 mm size stone chips @ 0.018 cum per sqm	cum	81.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost of 4500 sqm = a+b+c+d+e</b>					
	<b>Rate per sqm = (a+b+c+d+e)/4500</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
(II)	<b>Bitumen (S-65)</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	8.000			
	Mazdoor (Skilled)	day	2.400			
	<b>b) Machinery</b>					
	Hydraulic self propelled chip spreader both for aggregates and key aggregates @ 1500 sqm per hour for 4500 x 2 sqm = 9000 sqm	hour	6.000			
	Bitumen pressure distributor for @ 1750 sqm per hour	hour	2.570			
	Tipper 5.5 cum capacity for carriage of aggregates from stockpile to chip spreader	hour	10.000			
	Three wheel 80-100 kN Static Roller	hour	33.750			
	Front end loader 1 cum bucket capacity	hour	6.000			
	<b>c) Material</b>					
	Bitumen @ 2 kg per sqm	t	9.000			
	40 mm size hand broken metal @ 0.09 cum per sqm	cum	405.000			
	12 mm size stone chips @ 0.018 cum per sqm	cum	81.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost of 4500 sqm = a+b+c+d+e</b>					
	<b>Rate per sqm = (a+b+c+d+e)/4500</b>					
6	<b>Bituminous Penetration Macadam</b>					
	Construction of penetration macadam over prepared Base by providing a layer of compacted crushed coarse aggregate using chips spreader with alternate applications of bituminous binder and key aggregates and rolling with a smooth wheeled steel roller 8-10 tonne capacity to achieve the desired degree of compaction as per Tech. Specification No 505 MORTH.					
A	<b>50 mm thick</b>					
	<b>Unit = sqm</b>					
	<b>Taking output = 4500 sqm (225 cum)</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled) including for brooming of key aggregates	day	6.000			
	Mazdoor skilled	day	2.320			
	<b>b) Machinery</b>					
	Hydraulic self propelled chip spreader both for aggregates and key aggregates@ 1500 sqm per hour for 4500 x 2 sqm = 9000 sqm	hour	6.000			
	Bitumen pressure distributor for @ 1750 sqm per hour	hour	2.570			
	Tipper 5.5 cum capacity for carriage of aggregates from stockpile to chip spreader	hour	10.000			
	Vibratory roller 8 tonnes	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	<b>c) Material</b>					
	Bitumen@ 5 kg per sqm	t	22.500			
	Crushed stone coarse aggregate passing 45 mm and retained on 2.8 mm sieve @ 0.06 cum per sqm	cum	270.000			
	Key aggregates passing 22.4 mm and retained on 2.8 mm sieve @ 0.015 cum per sqm	cum	67.500			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 4500 sqm = a+b+c+d+e</b>					
	<b>Rate per sqm = (a+b+c+d+e)/4500</b>					
	<b>Note</b> : 2 tippers will be needed to match the capacity of chip spreader and front end loader.					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
B	<b>75 mm thick</b>					
	<b>Unit = sqm</b>					
	<b>Taking output = 4500 sqm (337.5 cum compacted).</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled) including for brooming of key aggregates	day	8.000			
	Mazdoor skilled	day	2.400			
	<b>b) Machinery</b>					
	Hydraulic self propelled chip spreader both for aggregates and key aggregates @ 1500 sqm per hour for 4500 x 2 sqm	hour	6.000			
	Bitumen pressure distributor for @ 1750 sqm per hour	hour	2.570			
	Tipper 5.5 cum capacity for carriage of aggregates from stockpile to chip spreader	hour	10.000			
	Vibratory roller 8 tonnes	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	<b>c) Material</b>					
	Bitumen @ 6.8 kg per sqm	t	30.600			
	Crushed stone coarse aggregate (loose passing 63 mm and retained on 2.8 mm sieve @ 0.09 cum per sqm	cum	405.000			
	Key aggregates passing 26.5 mm and retained on 2.8 mm sieve @ 0.018 cum per sqm	cum	81.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 4500 sqm = a+b+c+d+e</b>					
	<b>Rate per sqm = (a+b+c+d+e)/4500</b>					
	<b>Note : 2 tippers and 2 rollers will be needed to match the capacity of chip spreader and front end loader.</b>					
7	<b>Dense Graded Bituminous Macadam</b>					
	Providing and laying dense graded bituminous macadam with 100-120 TPH batch type HMP producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder @ 4.0 to 4.5 per cent by weight of total mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification clause No. 507 complete in all respects.					
	<b>Unit = cum</b>					
	<b>Taking output = 195 cum (450 tonnes)</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled) working with HMP, mechanical broom, paver, roller, asphalt cutter and assistance for setting out lines, levels and layout of construction	day	16.000			
	Skilled mazdoor for checking line & levels	day	5.840			
	<b>b) Machinery</b>					
	Batch mix HMP @ 75 tonne per hour	hour	6.000			
	Paver finisher hydrostatic with sensor control @ 75 cum per hour	hour	6.000			
	Generator 250 KVA	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	Tipper 10 tonne capacity	t.km	450 x L			
	Add 10 per cent of cost of carriage to cover cost of loading and unloading					
	smooth wheeled roller 8-10 tonnes for initial break down rolling.	hour	3.900			
	Vibratory roller 8 tonnes for intermediate rolling.	hour	3.900			
	Finish rolling with 6-8 tonnes smooth wheeled tandem roller.	hour	3.900			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>c) Materials</b>					
	<b>Bitumen @ 4.25 per cent of weight of mix</b>	t	19.130			
	<b>Aggregate</b>					
	Total weight of mix = 450 tonnes					
	Weight of bitumen = 19.13 tonnes					
	Weight of aggregate = 450 -19.13 = 430.87 tonnes					
	<b>Taking density of aggregate = 1.5 ton/cum</b>					
	Volume of aggregate = 287.25 cum					
	<b>Grading - I 40 mm (Nominal Size)</b>					
	37.5 - 25 mm 22 per cent	cum	63.190			
	25 - 10 mm 13 per cent	cum	37.340			
	10 -4.75 mm 19 per cent	cum	54.580			
	4.75 mm and below 44 per cent	cum	126.390			
	<b>Filler @ 2 per cent of weight of aggregates (Cement)</b>	t	8.620			
	<b>or</b>					
	<b>Grading - II 19 mm (Nominal Size)</b>					
	25 - 10 mm 30 per cent	cum	86.160			
	10 - 5 mm 28 per cent	cum	80.430			
	5 mm and below 40 per cent	cum	114.900			
	<b>Filler @ 2 per cent of weight of aggregates (Cement).</b>	t	8.620			
	Any one of the alternative may be adopted as per approved design					
	<b>(i) For Grading I ( 40 mm nominal size )</b>					
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 195 cum = a+b+c+d+e					
	<b>Rate per cum = (a+b+c+d+e)/195</b>					
	<b>(ii) For GradingII(19 mm nominal size)</b>					
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 195 cum = a+b+c+d+e					
	<b>Rate per cum = (a+b+c+d+e)/195</b>					
	<b>Note : 1.</b> Although the roller are required only for 3 hours as per norms of output, but the same have to be available at site for six hours as the hot mix plant and paver will take six hours for mixing and paving the output of 450 tonnes considered in this analysis. To cater for the idle period of these rollers, their usage rates have been multiplied by a factor of 0.65.					
	<b>2.</b> Quantity of Bitumen has been taken for analysis purpose. The actual quantity will depend upon job mix formula.					
	<b>3.</b> Labour for traffic control, watch and ward and other miscellaneous duties at site including sundries have been included in administrative overheads of the contractor.					
	<b>4.</b> In case DBM is laid over freshly laid tack coat, provision of mechanical broom and 2 mazdoors shall be deleted as the same has been included in the cost of tack coat.					
	<b>5.</b> The individual density for each size of aggregates to be used for construction i.e. 37.5-25 mm, 25-10 mm etc. should be found in the laboratory and accordingly the quantities should be amended for use in field. The average density of 1.5 tonne/cum is only a reference density in this Data Book.					
	<b>6.</b> The individual percentage of aggregates should be calculated from the total weight of dry aggregates i.e.. excluding the weight of bitumen. The weight of filler will also be 2 per cent by weight of dry aggregates.					
<b>8</b>	<b>Semi-Dense Bituminous Concrete</b>					
	Providing and laying semi dense bituminous concrete with 40-60 TPH batch type HMP producing an average output of 37.5 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder @ 4.5 to 5 per cent of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification clause No. 508 complete in all respects					
	<b>Unit = cum</b>					
	<b>Taking output = 195 cum (450 tonnes)</b>					
	<b>a) Labour</b>					
	Mate	day	-			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	Mazdoor (Unskilled) working with HMP, mechanical broom, paver, roller, asphalt cutter and assistance for setting out lines, levels and layout of construction	day	14.000			
	Skilled mazdoor for checking line & levels	day	5.840			
	<b>b) Machinery</b>					
	HMP 40-60 TPH	hour	11.000			
	Paver finisher hydrostatic with sensor control @ 75 cum per hour	hour	6.000			
	Generator 250 KVA	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	Smooth wheeled roller 8-10 tonnes for initial break rolling. (6 x 0.65)	hour	3.900			
	Vibratory roller 8 tonnes for intermediate rolling.	hour	3.900			
	Finish rolling with 6-8 tonnes smooth wheeled tandem roller	hour	3.900			
	<b>c) Material</b>					
	<b>Grading I: 13 mm (Nominal Size)</b>					
	<b>i) Bitumen @ 4.5 per cent of weight of mix</b>	t	20.250			
	<b>ii) Aggregate</b>					
	Total weight of mix = 450 tonnes					
	Weight of bitumen = 20.25 tonnes					
	Weight of aggregate = 450-20.25 = 429.75 tonnes					
	Taking density of aggregate = 1.5 ton/cum					
	Volume of aggregate = 286.5 cum					
	13.2 - 10 mm 20 per cent	cum	57.300			
	10 - 5 mm 38 per cent	cum	108.870			
	5 mm and below 40 per cent	cum	114.600			
	Filler @ 2 per cent of weight of aggregates. <b>(Cement)</b>	t	8.620			
	<b>or</b>					
	<b>Grading II: 10 mm (Nominal Size)</b>					
	<b>Bitumen 80/100 Grade @ 5 per cent of weight of mix</b>	t	22.500			
	<b>OR</b>					
	<b>Bitumen 60/70 Grade @ 5 per cent of weight of mix</b>	t	22.500			
	weight of mix = 450 tonne					
	<b>Aggregate</b>					
	Total weight of mix = 450 tonnes					
	Weight of bitumen = 22.5 tonnes					
	Weight of aggregate = 450 - 22.50 = 427.50 tonnes					
	Taking density of aggregate = 1.5 ton/cum					
	Volume of aggregate = 285 cum					
	9.5 - 11.2 mm IRC HBG M/C Chips	cum	81.225			
	5 - 7 mm IRC HBG M/C Chips	cum	81.225			
	5 - 7 mm IRC HBG M/C Chips	cum	58.425			
	Below 2.36 mm	cum	58.425			
	Filler @ 2 per cent of weight of aggregates.	cum	5.700			
	<b>*Any one of the alternative may be adopted as per approved design</b>					
	<b>(i) For Grading I ( 13 mm nominal size )</b>					
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		18.00%			
	<b>Cost for 195 cum = a+b+c+d+e</b>					
	<b>Rate per cum = (a+b+c+d+e)/195</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>(ii) For Grading II (10 mm nominal size)</b>					
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		18.00%			
	Cost for 195 cum = a+b+c+d+e (80 / 100 Grade BT)					
	<b>Rate per cum = (a+b+c+d+e)/195</b>					
	Cost for 195 cum = a+b+c+d+e (60 / 70 Grade BT)					
	<b>Rate per cum = (a+b+c+d+e)/195</b>					
	<b>Note :</b> 1. Although the rollers are required only for 3 hours as per norms of output, but the same have to be available at site for six hours as the hot mix plant and paver will take six hours for mixing and paving the output of 450 tonnes considered in this analysis. To cater for the idle period of these rollers, their usage rates have been multiplied by a factor of 0.65					
	2. Quantity of Bitumen has been taken for analysis purpose. The actual quantity will depend upon job mix formula.					
	3. Labour for traffic control, watch and ward and other miscellaneous duties at site including sundries have been included in administrative overheads of the contractor.					
	4. In case SDBC is laid over freshly laid tack coat, provision of broom and 2 mazdoor shall be deleted as the same has been included in the cost of tack coat.					
	5. The quantity of Bitumen to be adjusted as per job mix formula.					
<b>9</b>	<b>Bituminous Concrete</b>					
	Providing and laying bituminous concrete with 100-120 TPH batch type hot mix plant producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder @ 5.4 to 5.6 per cent of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 509 complete in all respects					
	<b>Unit = cum</b>					
	<b>Taking output = 191 cum (450 tonnes)</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled) working with HMP, mechanical broom, paver, roller, asphalt cutter and assistance for setting out lines, levels and layout of construction	day	16.000			
	Skilled mazdoor for checking line & levels	day	5.840			
	<b>b) Machinery</b>					
	Batch mix HMP @ 75 tonne per hour	hour	6.000			
	Paver finisher hydrostatic with sensor control @ 75 cum per hour	hour	6.000			
	Generator 250 KVA	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	Tipper 10 tonne capacity	t.km	450 x L			
	Add 10 per cent of cost of carriage to cover cost of loading and unloading					
	Smooth wheeled roller 8-10 tonnes for initial break down rolling.	hour	3.900			
	Vibratory roller 8 tonnes for intermediate rolling.	hour	3.900			
	Finish rolling with 6-8 tonnes smooth wheeled tandem roller.	hour	3.900			
	<b>c) Material</b>					
	<b>i) Bitumen @ 5 per cent of weight of mix</b>	t	22.500			
	<b>ii) Aggregate</b>					
	Total weight of mix = 450 tonnes					
	Weight of bitumen = 22.5 tonnes					
	Weight of aggregate = 450 - 22.50 = 427.50 tonnes					
	<b>Taking density of aggregate = 1.5 ton/cum</b>					
	Volume of aggregate = 285 cum					
	<b>* Grading - I-19 mm (Nominal Size)</b>					
	20 - 10 mm 35 per cent	cum	99.750			
	10 - 5 mm 23 per cent	cum	65.550			
	5 mm and below 40 per cent	cum	114.000			
	Filler @ 2 per cent of weight of aggregates. <b>(Cement)</b>	t	8.620			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	or					
	<b>Grading - II-13 mm (Nominal Size)</b>					
	13.2 - 10 mm 30 per cent	cum	85.500			
	10 - 5 mm 25 per cent	cum	71.250			
	5 mm and below 43 per cent	cum	122.550			
	Filler @ 2 per cent of weight of aggregates. <b>(Cement)</b>	t	8.620			
	<b>Any one of the alternative may be adopted as per approved design</b>					
	<b>(i) for Grading-I ( 19 mm nominal size )</b>					
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>				18.00%	
	Cost for 191 cum = a+b+c+d+e					
	Rate per cum = (a+b+c+d+e)/191					
	<b>(ii) For Grading-II(13 mm nominal size)</b>					
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>				18.00%	
	Cost for 191 cum = a+b+c+d+e					
	Rate per cum = (a+b+c+d+e)/191					
	<b>Note :</b> 1. Although the rollers are required only for 3 hours as per norms of output, but the same have to be available at site for six hours as the hot mix plant and paver will take six hours for mixing and paving the output of 450 tonnes considered in this analysis. To cater for the idle period of these rollers, their usage rates have been multiplied by a factor of 0.65					
	2.Quantity of Bitumen has been taken for analysis purpose. The actual quantity will depend upon job mix formula.					
	3. Labour for traffic control, watch and ward and other miscellaneous duties at site including sundries have been included in administrative overheads of the contractor.					
	4. In case BC is laid over freshly laid tack coat, provision of mechanical broom and 2 mazdoors shall be deleted as the same has been included in the cost of tack coat.					
	5. The individual density for each size of aggregates to be used for construction i.e. 37.5-25 mm, 25-10 mm etc. should be found in the laboratory and accordingly the quantities should be amended for use in field. The average density of 1.5 tonne/cum is only a reference density in this Data Book.					
	6. The individual percentage of aggregates should be calculated from the total weight of dry aggregates i.e.. excluding the weight of bitumen. The weight of filler will also be 2 per cent by weight of dry aggregates.					
10	<b>Surface Dressing using Bituminous (Penetrations grade / modified bitumen) Binder</b>					
	Providing and laying surface dressing as wearing course consisting of a layer of bituminous binder laid on the prepared surface, followed by a cover of crushed stone aggregates of specified size and rolling with three wheel 80-100 kN static roller including cleaning the road surface as per Technical Specification Clause 507 MORD.					
	<b>A By Manual Means</b>					
	<b>Case – I: Using Nominal chipping size 13.2 mm</b>					
	<b>(I) Bitumen (S-90)</b>					
	Unit = sqm					
	Taking output = 900 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Bitumen Sprayer	day	1.000			
	Mazdoor (Unskilled)	day	58.000			
	Mazdoor (Semi-Skilled)	day	8.600			
	<b>b) Machinery</b>					
	Bitumen boiler oil fired, capacity 1000 litre fitted with spray set	hour	2.250			
	Three wheel 80-100 kN static roller	hour	2.250			
	Add: 0.5 per cent of (a) Labour for sundries	L.S.				
	<b>c) Material</b>					
	Bitumen (S-90) @ 1.00 kg per sqm	t	0.900			
	Crushed stone chipping, 13.2 mm nominal size @ 0.010 cum per sqm	cum	9.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>				18.00%	
	Cost of 900 sqm = a+b+c+d+e					
	Rate per sqm = (a+b+c+d+e)/900					



S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
(II)	<b>Bitumen (S-65)</b>					
	Unit = sqm					
	Taking output = 900 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Bitumen Sprayer	day	1.000			
	Mazdoor (Unskilled)	day	58.000			
	Mazdoor (Semi-Skilled)	day	8.600			
	<b>b) Machinery</b>					
	Bitumen boiler oil fired, capacity 1000 litre fitted with spray set	hour	2.250			
	Three wheel 80-100 kN static roller	hour	2.250			
	Add: 0.5 per cent of (a) Labour for sundries	L.S.				
	<b>c) Material</b>					
	Bitumen (S-65) @ 1.00 kg per sqm	t	0.900			
	Crushed stone chipping, 13.2 mm nominal size @ 0.010 cum per sqm	cum	9.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 900 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/900</b>					
(III)	<b>Polymer Modified Bitumen</b>					
	Unit = sqm					
	Taking output = 900 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Bitumen Sprayer	day	1.000			
	Mazdoor (Unskilled)	day	58.000			
	Mazdoor (Semi-Skilled)	day	8.600			
	<b>b) Machinery</b>					
	Bitumen boiler oil fired, capacity 1000 litre fitted with spray set	hour	2.250			
	Three wheel 80-100 kN static roller	hour	2.250			
	Add: 0.5 per cent of (a) Labour for sundries	L.S.				
	<b>c) Material</b>					
	Polymer Modified Bitumen @ 1.00 kg per sqm	t	0.900			
	Crushed stone chipping, 13.2 mm nominal size @ 0.010 cum per sqm	cum	9.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 900 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/900</b>					
(IV)	<b>Crumb Rubber Modified Bitumen</b>					
	Unit = sqm					
	Taking output = 900 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Bitumen Sprayer	day	1.000			
	Mazdoor (Unskilled)	day	58.000			
	Mazdoor (Semi-Skilled)	day	8.600			
	<b>b) Machinery</b>					
	Bitumen boiler oil fired, capacity 1000 litre fitted with spray set	hour	2.250			
	Three wheel 80-100 kN static roller	hour	2.250			
	Add: 0.5 per cent of (a) Labour for sundries	L.S.				
	<b>c) Material</b>					
	Crumb Rubber Modified Bitumen @ 1.00 kg per sqm	t	0.900			
	Crushed stone chipping, 13.2 mm nominal size @ 0.010 cum per sqm	cum	9.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 900 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/900</b>					



S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
(V)	<b>Natural Rubber Modified Bitumen</b>					
	Unit = sqm					
	Taking output = 900 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Bitumen Sprayer	day	1.000			
	Mazdoor (Unskilled)	day	58.000			
	Mazdoor (Semi-Skilled)	day	8.600			
	<b>b) Machinery</b>					
	Bitumen boiler oil fired, capacity 1000 litre fitted with spray set	hour	2.250			
	Three wheel 80-100 kN static roller	hour	2.250			
	Add: 0.5 per cent of (a) Labour for sundries	L.S.				
	<b>c) Material</b>					
	Natural Rubber Modified Bitumen @ 1.00 kg per sqm	t	0.900			
	Crushed stone chipping, 13.2 mm nominal size @ 0.010 cum per sqm	cum	9.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 900 sqm = a+b+c+d+e					
	Rate per sqm = (a+b+c+d+e)/900					
	<b>Case – II: Using Nominal chipping size 9.5 mm</b>					
	<b>Manual Means</b>					
(I)	<b>Bitumen (S-90)</b>					
	Unit = sqm					
	Taking output = 1000 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Bitumen Sprayer	day	1.000			
	Mazdoor (Unskilled)	day	58.000			
	Mazdoor (Semi-Skilled)	day	8.600			
	<b>b) Machinery</b>					
	Bitumen boiler oil fired, capacity 1000 litre fitted with spray set	hour	2.000			
	Three wheel 80-100 kN static roller	hour	2.000			
	<b>c) Material</b>					
	Bitumen (S-90) @ 0.90 kg per sqm	t	0.900			
	Crushed stone chipping, 9.5 mm nominal size @ 0.008 cum per sqm	cum	8.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 1000 sqm = a+b+c+d+e					
	Rate per sqm = (a+b+c+d+e)/1000					
(II)	<b>Bitumen (S-65)</b>					
	Unit = sqm					
	Taking output = 1000 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Bitumen Sprayer	day	1.000			
	Mazdoor (Unskilled)	day	58.000			
	Mazdoor (Semi-Skilled)	day	8.600			
	<b>b) Machinery</b>					
	Bitumen boiler oil fired, capacity 1000 litre fitted with spray set	hour	2.000			
	Three wheel 80-100 kN static roller	hour	2.000			
	<b>c) Material</b>					
	Bitumen (S-65) @ 0.90 kg per sqm	t	0.900			
	Crushed stone chipping, 9.5 mm nominal size @ 0.008 cum per sqm	cum	8.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 1000 sqm = a+b+c+d+e					
	Rate per sqm = (a+b+c+d+e)/1000					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
(III)	<b>Polymer Modified Bitumen</b>					
	Unit = sqm					
	Taking output = 1000 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Bitumen Sprayer	day	1.000			
	Mazdoor (Unskilled)	day	58.000			
	Mazdoor (Semi-Skilled)	day	8.600			
	<b>b) Machinery</b>					
	Bitumen boiler oil fired, capacity 1000 litre fitted with spray set	hour	2.000			
	Three wheel 80-100 kN static roller	hour	2.000			
	<b>c) Material</b>					
	Polymer Modified Bitumen @ 0.90 kg per sqm	t	0.900			
	Crushed stone chipping, 9.5 mm nominal size @ 0.008 cum per sqm	cum	8.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost of 1000 sqm = a+b+c+d+e</b>					
	<b>Rate per sqm = (a+b+c+d+e)/1000</b>					
(IV)	<b>Crumb Rubber Modified Bitumen</b>					
	Unit = sqm					
	Taking output = 1000 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Bitumen Sprayer	day	1.000			
	Mazdoor (Unskilled)	day	58.000			
	Mazdoor (Semi-Skilled)	day	8.600			
	<b>b) Machinery</b>					
	Bitumen boiler oil fired, capacity 1000 litre fitted with spray set	hour	2.000			
	Three wheel 80-100 kN static roller	hour	2.000			
	<b>c) Material</b>					
	Crumb Rubber Modified Bitumen @ 0.90 kg per sqm	t	0.900			
	Crushed stone chipping, 9.5 mm nominal size @ 0.008 cum per sqm	cum	8.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost of 1000 sqm = a+b+c+d+e</b>					
	<b>Rate per sqm = (a+b+c+d+e)/1000</b>					
(V)	<b>Natural Rubber Modified Bitumen</b>					
	Unit = sqm					
	Taking output = 1000 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Bitumen Sprayer	day	1.000			
	Mazdoor (Unskilled)	day	58.000			
	Mazdoor (Semi-Skilled)	day	8.600			
	<b>b) Machinery</b>					
	Bitumen boiler oil fired, capacity 1000 lt fitted with spray set	hour	2.000			
	Three wheel 80-100 kN static roller	hour	2.000			
	<b>c) Material</b>					
	Natural Rubber Modified Bitumen @ 0.90 kg per sqm	t	0.900			
	Crushed stone chipping, 9.5 mm nominal size @ 0.008 cum per sqm	cum	8.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost of 1000 sqm = a+b+c+d+e</b>					
	<b>Rate per sqm = (a+b+c+d+e)/1000</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
<b>B</b>	<b>By Mechanical Means</b>					
	<b>Case – I: Using Nominal chipping size 13.2 mm</b>					
<b>(I)</b>	<b>Bitumen (S-90)</b>					
	Unit = sqm					
	Taking output = 7500 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	9.000			
	Mazdoor (Skilled)	day	2.440			
	<b>b) Machinery</b>					
	Hydraulic broom @ 1250 sqm per hour	hour	6.000			
	Air compressor 210 cfm	hour	6.000			
	Hydraulic self propelled chip spreader @ 1500 sqm per hour	hour	6.000			
	Tipper 5.5 cum - 10 t capacity for carriage of stone chips from stockpile on road side to chip spreader	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	Bitumen pressure distributor	hour	6.000			
	Three wheel 80-100 kN static roller weight	hour	18.750			
	<b>c) Material</b>					
	Bitumen (S-90) @ 1.00 kg per sqm	t	7.500			
	Crushed stone chipping, 13.2 mm nominal size @ 0.010 cum per sqm	cum	75.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost of 7500 sqm = a+b+c+d+e					
	Rate per sqm = (a+b+c+d+e)/7500					
<b>(II)</b>	<b>Bitumen (S-65)</b>					
	Unit = sqm					
	Taking output = 7500 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	9.000			
	Mazdoor (Skilled)	day	2.440			
	<b>b) Machinery</b>					
	Hydraulic broom @ 1250 sqm per hour	hour	6.000			
	Air compressor 210 cfm	hour	6.000			
	Hydraulic self propelled chip spreader @ 1500 sqm per hour	hour	6.000			
	Tipper 5.5 cum - 10 t capacity for carriage of stone chips from stockpile on road side to chip spreader	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	Bitumen pressure distributor	hour	6.000			
	Three wheel 80-100 kN static roller weight	hour	18.750			
	<b>c) Material</b>					
	Bitumen (S-65) @ 1.00 kg per sqm	t	7.500			
	Crushed stone chipping, 13.2 mm nominal size @ 0.010 cum per sqm	cum	75.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost of 7500 sqm = a+b+c+d+e					
	Rate per sqm = (a+b+c+d+e)/7500					
<b>(III)</b>	<b>Polymer Modified Bitumen</b>					
	Unit = sqm					
	Taking output = 7500 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	9.000			
	Mazdoor (Skilled)	day	2.440			
	<b>b) Machinery</b>					
	Hydraulic broom @ 1250 sqm per hour	hour	6.000			
	Air compressor 210 cfm	hour	6.000			
	Hydraulic self propelled chip spreader @ 1500 sqm per hour	hour	6.000			
	Tipper 5.5 cum - 10 t capacity for carriage of stone chips from stockpile on road side to chip spreader	hour	6.000			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	Front end loader 1 cum bucket capacity	hour	6.000			
	Bitumen pressure distributor	hour	6.000			
	Three wheel 80-100 kN static roller weight	hour	18.750			
	<b>c) Material</b>					
	Polymer Modified Bitumen @ 1.00 kg per sqm	t	7.500			
	Crushed stone chipping, 13.2 mm nominal size @ 0.010 cum per sqm	cum	75.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 7500 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/7500</b>					
(IV)	<b>Crumb Rubber Modified Bitumen</b>					
	Unit = sqm					
	Taking output = 7500 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	9.000			
	Mazdoor (Skilled)	day	2.440			
	<b>b) Machinery</b>					
	Hydraulic broom @ 1250 sqm per hour	hour	6.000			
	Air compressor 210 cfm	hour	6.000			
	Hydraulic self propelled chip spreader @ 1500 sqm /hour	hour	6.000			
	Tipper 5.5 cum - 10 t capacity for carriage of stone chips from stockpile on road side to chip spreader	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	Bitumen pressure distributor	hour	6.000			
	Three wheel 80-100 kN static roller weight	hour	18.750			
	<b>c) Material</b>					
	Crumb Rubber Modified Bitumen @ 1.00 kg per sqm	t	7.500			
	Crushed stone chipping, 13.2 mm nominal size @ 0.010 cum per sqm	cum	75.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 7500 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/7500</b>					
(V)	<b>Natural Rubber Modified Bitumen</b>					
	Unit = sqm					
	Taking output = 7500 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	9.000			
	Mazdoor (Skilled)	day	2.440			
	<b>b) Machinery</b>					
	Hydraulic broom @ 1250 sqm per hour	hour	6.000			
	Air compressor 210 cfm	hour	6.000			
	Hydraulic self propelled chip spreader @ 1500 sqm per hour	hour	6.000			
	Tipper 5.5 cum - 10 t capacity for carriage of stone chips from stockpile on road side to chip spreader	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	Bitumen pressure distributor	hour	6.000			
	Three wheel 80-100 kN static roller weight	hour	18.750			
	<b>c) Material</b>					
	Natural Rubber Modified Bitumen @ 1.00 kg per sqm	t	7.500			
	Crushed stone chipping, 13.2 mm nominal size @ 0.010 cum per sqm	cum	75.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 7500 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/7500</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>Case – II: Using Nominal chipping size 9.5 mm</b>					
	<b>Mechanical Means</b>					
(I)	<b>Bitumen (S-90)</b>					
	Unit = sqm					
	Taking output = 7500 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	9.000			
	Mazdoor (Skilled)	day	2.440			
	<b>b) Machinery</b>					
	Hydraulic broom @ 1250 sqm per hour	hour	6.000			
	Air compressor 210 cfm	hour	6.000			
	Hydraulic self propelled chips spreader @ 1500 sqm / hour	hour	6.000			
	Tipper 5.5 cum - 10 t capacity for carriage of stone chips from stockpile on road side to chips spreader	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	Bitumen pressure distributor @ 1750 sqm per hour	hour	6.000			
	Three wheel 80-100 kN static roller weight	hour	15.000			
	<b>c) Material</b>					
	Bitumen (S-90) @ 0.90 kg per sqm	t	6.750			
	Crushed stone chipping, 9.5 mm nominal size @ 0.008 cum per sqm	cum	60.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
						<b>18.00%</b>
	<b>Cost of 7500 sqm = a+b+c+d+e</b>					
	<b>Rate per sqm = (a+b+c+d+e)/7500</b>					
(II)	<b>Bitumen (S-65)</b>					
	Unit = sqm					
	Taking output = 7500 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	9.000			
	Mazdoor (Skilled)	day	2.440			
	<b>b) Machinery</b>					
	Hydraulic broom @ 1250 sqm per hour	hour	6.000			
	Air compressor 210 cfm	hour	6.000			
	Hydraulic self propelled chips spreader @1500 sqm per hour	hour	6.000			
	Tipper 5.5 cum - 10 t capacity for carriage of stone chips from stockpile on road side to chips spreader	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	Bitumen pressure distributor @ 1750 sqm per hour	hour	6.000			
	Three wheel 80-100 kN static roller weight	hour	15.000			
	<b>c) Material</b>					
	Bitumen (S-65) @ 0.90 kg per sqm	t	6.750			
	Crushed stone chipping, 9.5 mm nominal size @ 0.008 cum per sqm	cum	60.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
						<b>18.00%</b>
	<b>Cost of 7500 sqm = a+b+c+d+e</b>					
	<b>Rate per sqm = (a+b+c+d+e)/7500</b>					
(III)	<b>Polymer Modified Bitumen</b>					
	Unit = sqm					
	Taking output = 7500 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	9.000			
	Mazdoor (Skilled)	day	2.440			
	<b>b) Machinery</b>					
	Hydraulic broom @ 1250 sqm per hour	hour	6.000			
	Air compressor 210 cfm	hour	6.000			
	Hydraulic self propelled chips spreader @ 1500 sqm per hour	hour	6.000			
	Tipper 5.5 cum - 10 t capacity for carriage of stone chips from stockpile on road side to chips spreader	hour	6.000			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	Front end loader 1 cum bucket capacity	hour	6.000			
	Bitumen pressure distributor @ 1750 sqm per hour	hour	6.000			
	Three wheel 80-100 kN static roller weight	hour	15.000			
	<b>c) Material</b>					
	Polymer Modified Bitumen @ 0.90 kg per sqm	t	6.750			
	Crushed stone chipping, 9.5 mm nominal size @ 0.008 cum per sqm	cum	60.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 7500 sqm = a+b+c+d+e					
	Rate per sqm = (a+b+c+d+e)/7500					
(IV)	<b>Crumb Rubber Modified Bitumen</b>					
	Unit = sqm					
	Taking output = 7500 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	9.000			
	Mazdoor (Skilled)	day	2.440			
	<b>b) Machinery</b>					
	Hydraulic broom @ 1250 sqm per hour	hour	6.000			
	Air compressor 210 cfm	hour	6.000			
	Hydraulic self propelled chips spreader @ 1500 sqm per hour	hour	6.000			
	Tipper 5.5 cum - 10 t capacity for carriage of stone chips from stockpile on road side to chips spreader	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	Bitumen pressure distributor @ 1750 sqm per hour	hour	6.000			
	Three wheel 80-100 kN static roller weight	hour	15.000			
	<b>c) Material</b>					
	Crumb Rubber Modified Bitumen @ 0.90 kg per sqm	t	6.750			
	Crushed stone chipping, 9.5 mm nominal size @ 0.008 cum per sqm	cum	60.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 7500 sqm = a+b+c+d+e					
	Rate per sqm = (a+b+c+d+e)/7500					
(V)	<b>Natural Rubber Modified Bitumen</b>					
	Unit = sqm					
	Taking output = 7500 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	9.000			
	Mazdoor (Skilled)	day	2.440			
	<b>b) Machinery</b>					
	Hydraulic broom @ 1250 sqm per hour	hour	6.000			
	Air compressor 210 cfm	hour	6.000			
	Hydraulic self propelled chips spreader @ 1500 sqm per hour	hour	6.000			
	Tipper 5.5 cum - 10 t capacity for carriage of stone chips from stockpile on road side to chips spreader	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	Bitumen pressure distributor @ 1750 sqm per hour	hour	6.000			
	Three wheel 80-100 kN static roller weight	hour	15.000			
	<b>c) Material</b>					
	Natural Rubber Modified Bitumen @ 0.90 kg per sqm	t	6.750			
	Crushed stone chipping, 9.5 mm nominal size @ 0.008 cum per sqm	cum	60.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 7500 sqm = a+b+c+d+e					
	Rate per sqm = (a+b+c+d+e)/7500					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
11	Providing and laying surface dressing as wearing course in single coat using crushed stone aggregates of specified size on a layer of bituminous binder laid on prepared surface and rolling with 8-10 tonne smooth wheeled steel roller as per Tech Specification No 509 & 510 MORTH					
	<b>Mechanical Means</b>					
	<b>Unit = sqm</b>					
	<b>Taking output = 9000 sqm</b>					
	<b>Case 1 :-19 mm nominal chipping size</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	9.000			
	Mazdoor skilled	day	2.440			
	<b>b) Machinery</b>					
	Mechanical broom @ 1250 sqm per hour	hour	7.200			
	Air compressor 250 cfm	hour	7.200			
	Hydraulic self propelled chip spreader @ 1500 sqm/hour	hour	6.000			
	Tipper 10 tonne capacity for carriage of stone chips from stockpile on road side to chip spreader	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	Bitumen pressure distributor	hour	6.000			
	Smooth wheeled roller 8-10 tonne weight	hour	6.000			
	<b>c) Material</b>					
	Bitumen@ 1.20 kg per sqm	t	10.800			
	Crushed stone chipping, 19 mm nominal size @ 0.015 cum per sqm	cum	135.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Cost for 9000 sqm = a+b+c+d+e</b>					
	<b>Rate per sqm = (a+b+c+d+e)/9000</b>					
	<b>Case 2 : 13 mm nominal size chipping</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	9.000			
	Mazdoor skilled	day	2.440			
	<b>b) Machinery</b>					
	Mechanical broom @ 1250 sqm per hour	hour	7.200			
	Air compressor 250 cfm	hour	7.200			
	Hydraulic self propelled chip spreader @ 1500 sqm per hour	hour	6.000			
	Tipper 10 tonne capacity for carriage of stone chips from stockpile on road side to chip spreader	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	Bitumen pressure distributor @ 1750 sqm per hour	hour	6.000			
	Vibratory roller 8-10 tonne weight	hour	6.000			
	<b>c) Material</b>					
	Bitumen@ 1.00 kg per sqm	t	9.000			
	Crushed stone chipping,13 mm nominal size @ 0.01 cum per sqm	cum	90.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Cost for 9000 sqm = a+b+c+d+e</b>					
	<b>Rate per sqm = (a+b+c+d+e)/9000</b>					
	<b>Note : 1.</b> Where the proposed aggregate fails to pass the stripping test, an approved adhesion agent may be added to the binder as per clause 510.2.4. Alternatively, chips may be pre-coated as per clause 510.2.5					
	<b>2.</b> Input for the second coat, where required, will be the same as per the 1st coat mentioned above					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>Case 3 : Using 6 mm nominal size chipping</b>					
ii	Providing and laying surface dressing in single coat using 6 mm nominal size IRC HBG machine crushed stone aggregates @ 0.004 cum / sqm on a layer of bitumen binder of 80/100 grade @ 0.75 kg / sqm laid on prepared surface and rolling with 8-10 T Power Road Roller etc., complete for finished item of work as per MoRT&H Specification 510 (4th Revision) and as directed by the Engineer-in-charge.					
	Unit = sqm					
	Taking output = 9000 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	9.000			
	Mazdoor skilled	day	2.440			
	<b>b) Machinery</b>					
	Mechanical broom @ 1250 sqm/hr.	hour	7.200			
	Air compressor 250 cfm	hour	7.200			
	Hydraulic self propelled chip spreader @ 1500 sqm/hr.	hour	6.000			
	Tipper 10Tonne capacity for carriage of stone chips from stock pile on road side to chip spreader	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	Bitumen pressure distributor @1750 sqm/hr	hour	6.000			
	Smooth wheeled roller 8 Ton	hour	6.000			
	<b>c) Material</b>					
	Bitumen 80/100 @0.75 Kg/sqm	MT	6.750			
	or					
	Bitumen 60/70 @0.75 Kg/sqm	MT	6.750			
	Crushed stone chippings 6 mm nominal size @0.004 cum/sqm	cum	36.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 9000 sqm = a+b+c+d (80/100 BT)					
	<b>Rate per sqm = (a+b+c+d)/9000</b>					
	Cost for 9000 sqm = a+b+c+d (60/70 BT)					
	<b>Rate per sqm = (a+b+c+d)/9000</b>					
12	<b>Surface Dressing using Bitumen Emulsion</b>					
	Providing and laying surface dressing as wearing course consisting of a layer of bitumen emulsion laid on the prepared surface, followed by a cover of crushed stone chippings of specified size and rolling with 80-100 kN roller including cleaning the road surface as per Technical Specification Clause 507 MORD.					
A	<b>By Manual Means</b>					
	<b>Case – I: Nominal aggregate size 13.2 mm</b>					
	Unit = sqm					
	Taking output = 900 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Bitumen Emulsion Sprayer	day	1.000			
	Mazdoor (Unskilled)	day	60.360			
	<b>b) Machinery</b>					
	Emulsion sprayer, capacity 1000 litre fitted with spray set	hour	2.250			
	Three wheel 80-100 kN static roller	hour	2.250			
	Add: 0.5 per cent of (a) Labour for sundries	L.S.				
	<b>c) Material</b>					
	Bitumen Emulsion (RS-1) @ 1.50 kg per sqm	t	1.350			
	Crushed stone chipping, 13.2 mm nominal size @ 0.010 cum per sqm	cum	9.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 900 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/900</b>					



S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>Case – II: Nominal chipping size 9.5 mm</b>					
	Unit = sqm					
	Taking output = 1000 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Bitumen Sprayer	day	1.000			
	Mazdoor (Unskilled)	day	60.360			
	<b>b) Machinery</b>					
	Emulsion sprayer, capacity 1000 litre fitted with spray set	hour	2.000			
	Three wheel 80-100 kN static roller	hour	2.000			
	<b>c) Material</b>					
	Bitumen Emulsion (RS-1) @ 1.40 kg per sqm	t	1.400			
	Crushed stone chipping, 9.5 mm nominal size @ 0.008 cum/ sqm	cum	8.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 1000 sqm = a+b+c+d+e					
	Rate per sqm = (a+b+c+d+e)/1000					
<b>B</b>	<b>By Mechanical Means</b>					
	<b>Case – I: Nominal chipping size 13.2 mm</b>					
	Unit = sqm					
	Taking output = 7500 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	9.000			
	Mazdoor (Skilled)	day	2.440			
	<b>b) Machinery</b>					
	Hydraulic broom @ 1250 sqm per hour	hour	6.000			
	Air compressor 210 cfm	hour	6.000			
	Hydraulic self propelled chip spreader @ 1500 sqm / hour	hour	6.000			
	Tipper 5.5 cum - 10 t capacity for carriage of stone chips from stockpile on road side to chip spreader	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	Bitumen Emulsion pressure distributor	hour	6.000			
	Three wheel 80-100 kN static roller	hour	18.750			
	<b>c) Material</b>					
	Bitumen Emulsion (RS-1) @ 1.50 kg per sqm	t	11.250			
	Crushed stone chipping, 13.2 mm nominal size @ 0.010 cum/sqm	cum	75.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 7500 sqm = a+b+c+d+e					
	Rate per sqm = (a+b+c+d+e)/7500					
	<b>Case – II: Nominal chipping size 9.5 mm</b>					
	Unit = sqm					
	Taking output = 7500 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	9.000			
	Mazdoor (Skilled)	day	2.440			
	<b>b) Machinery</b>					
	Hydraulic broom @ 1250 sqm per hour	hour	6.000			
	Air compressor 210 cfm	hour	6.000			
	Hydraulic self propelled chip spreader @1500 sqm per hour	hour	6.000			
	Tipper 5.5 cum - 10 t capacity for carriage of stone chips from stockpile on road side to chip spreader	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	Bitumen Emulsion pressure distributor	hour	6.000			
	Three wheel 80-100 kN static roller	hour	15.000			
	<b>c) Material</b>					
	Bitumen Emulsion (RS-1) @ 1.40 kg per sqm	t	10.500			
	Crushed stone chipping, 9.5 mm nominal size @ 0.008 cum/sqm	cum	60.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 7500 sqm = a+b+c+d+e					
	Rate per sqm = (a+b+c+d+e)/7500					
	<b>Note</b> : Where the proposed aggregate fails to pass the stripping value test, an approved adhesion agent may be added to the binder as per Clause 507.24. Alternatively, chips may be pre-coated as per Clause 507.25.					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
13	<b>Pre-coating Chips</b>					
	Pre-coating of chips with 1 per cent of paving bitumen by weight of chips in a suitable mixer duly heated to 160 degree C as per Technical Specification Clause 507.2.5 MORD					
	Unit = cum					
	Taking output = 30 cum					
	<b>(I) Bitumen (S-90)</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	15.600			
	<b>b) Machinery</b>					
	Bitumen boiler oil fired, capacity 1000 litre tire	hour	6.000			
	Mixall 6-10 t capacity	hour	6.000			
	<b>c) Material</b>					
	Bitumen @1 per cent by weight of chips (30x1.6)/100	t	0.480			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 30 cum = a+b+c+d+e					
	<b>Rate per cum = (a+b+c+d+e)/30</b>					
	<b>(II) Bitumen (S-65)</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	15.600			
	<b>b) Machinery</b>					
	Bitumen boiler oil fired, capacity 1000 litre tire	hour	6.000			
	Mixall 6-10 t capacity	hour	6.000			
	<b>c) Material</b>					
	Bitumen @1 per cent by weight of chips (30x1.6)/100	t	0.480			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 30 cum = a+b+c+d+e					
	<b>Rate per cum = (a+b+c+d+e)/30</b>					
14	<b>i 20mm thick Open-Graded Premix Carpet using Bituminous (penetration grade/modified bitumen) Binder</b>					
	Providing, laying and rolling of open-graded premix carpet of 20 mm thickness composed of 13.2 mm to 5.6 mm aggregates either using penetration grade bitumen or emulsion to required line, grade and level to serve as wearing course on a previously prepared base, including mixing a suitable plant, laying and rolling with a three wheel 0-100 kN static roller capacity, finished to required level and grades to be followed by seal coat of either type A or Type B or Type C as per Technical Specification Clause 508 MORD.					
	<b>Case - I By Manual Means</b>					
	<b>(I) Bitumen (S-90)</b>					
	Unit = sqm					
	Taking output = 500 sqm (10 cum)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	21.000			
	Mazdoor (Semi-Skilled)	day	7.080			
	Labour & Hire charges	sqm				
	<b>b) Machinery</b>					
	Mixall 6/10 t capacity	hour	4.000			
	Bitumen boiler oil fired 1000 litre capacity fitted with spray set	hour	4.000			
	Three wheel 80-100 kN static roller	hour	2.000			
	<b>c) Material</b>					
	Bitumen (S-90) @ 14.60 kg per 10 sqm	t	0.730			
	Crushed stone chipping, 13.2 mm to 5.6 mm @ 0.27 cum per 10 sqm	cum	13.500			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 500 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/500</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
(II)	<b>Bitumen (S-65)</b>					
	Unit = sqm					
	Taking output = 500 sqm (10 cum)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	21.000			
	Mazdoor (Semi-Skilled)	day	7.080			
	<b>b) Machinery</b>					
	Mixall 6/10 t capacity	hour	4.000			
	Bitumen boiler oil fired 1000 litre capacity fitted with spray set	hour	4.000			
	Three wheel 80-100 kN static roller	hour	2.000			
	<b>c) Material</b>					
	Bitumen (S-65) @ 14.60 kg per 10 sqm	t	0.730			
	Crushed stone chipping, 13.2 mm to 5.6 mm @ 0.27 cum per 10 sqm	cum	13.500			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost of 500 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/500</b>					
(III)	<b>Polymer Modified Bitumen</b>					
	Unit = sqm					
	Taking output = 500 sqm (10 cum)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	21.000			
	Mazdoor (Semi-Skilled)	day	7.080			
	<b>b) Machinery</b>					
	Mixall 6/10 t capacity	hour	4.000			
	Bitumen boiler oil fired 1000 litre capacity fitted with spray set	hour	4.000			
	Three wheel 80-100 kN static roller	hour	2.000			
	<b>c) Material</b>					
	Polymer Modified Bitumen @ 14.60 kg per 10 sqm	t	0.730			
	Crushed stone chipping, 13.2 mm to 5.6 mm @ 0.27 cum per 10 sqm	cum	13.500			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost of 500 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/500</b>					
(IV)	<b>Crumb Rubber Modified Bitumen</b>					
	Unit = sqm					
	Taking output = 500 sqm (10 cum)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	21.000			
	Mazdoor (Semi-Skilled)	day	7.080			
	<b>b) Machinery</b>					
	Mixall 6/10 t capacity	hour	4.000			
	Bitumen boiler oil fired 1000 litre capacity fitted with spray set	hour	4.000			
	Three wheel 80-100 kN static roller	hour	2.000			
	<b>c) Material</b>					
	Crumb Rubber Modified Bitumen @ 14.60 kg per 10 sqm	t	0.730			
	Crushed stone chipping, 13.2 mm to 5.6 mm @ 0.27 cum per 10 sqm	cum	13.500			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost of 500 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/500</b>					
(V)	<b>Natural Rubber Modified Bitumen</b>					
	Unit = sqm					
	Taking output = 500 sqm (10 cum)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	21.000			
	Mazdoor (Semi-Skilled)	day	7.080			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>b) Machinery</b>					
	Mixall 6/10 t capacity	hour	4.000			
	Bitumen boiler oil fired 1000 litre capacity fitted with spray set	hour	4.000			
	Three wheel 80-100 kN static roller	hour	2.000			
	<b>c) Material</b>					
	Natural Rubber Modified Bitumen @ 14.60 kg per 10 sqm	t	0.730			
	Crushed stone chipping, 13.2 mm to 5.6 mm @ 0.27 cum per 10 sqm	cum	13.500			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 500 sqm = a+b+c+d+e					
	Rate per sqm = (a+b+c+d+e)/500					
	<b>Case - II By Mechanical Means</b>					
(I)	<b>Bitumen (S-90)</b>					
	Unit = sqm					
	Taking output = 4000 sqm (80 cum)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	10.000			
	Mazdoor (Skilled)	day	3.520			
	<b>b) Machinery</b>					
	HMP 30/40 t per hour	hour	6.000			
	Electric generator set 125 KVA	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	Tipper 5.5 cum - 10 t/ 5-6t capacity	hour	3.640			
	Paver finisher	hour	6.000			
	Three wheel 80-100 kN static roller	hour	16.000			
	<b>c) Material</b>					
	Bitumen (S-90) @ 14.60 kg per 10 sqm	t	5.840			
	Crushed stone chipping, 13.2 mm to 5.6 mm @ 0.27 cum per 10 sqm	cum	108.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 4000 sqm = a+b+c+d+e					
	Rate per sqm = (a+b+c+d+e)/4000					
(II)	<b>Bitumen (S-65)</b>					
	Unit = sqm					
	Taking output = 4000 sqm (80 cum)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	10.000			
	Mazdoor (Skilled)	day	3.520			
	<b>b) Machinery</b>					
	HMP 30/40 t per hour	hour	6.000			
	Electric generator set 125 KVA	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	Tipper 5.5 cum - 10 t capacity	hour	3.640			
	Paver finisher	hour	6.000			
	Three wheel 80-100 kN static roller	hour	16.000			
	<b>c) Material</b>					
	Bitumen (S-65) @ 14.60 kg per 10 sqm	t	5.840			
	Crushed stone chipping, 13.2 mm to 5.6 mm @ 0.27 cum per 10 sqm	cum	108.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 4000 sqm = a+b+c+d+e					
	Rate per sqm = (a+b+c+d+e)/4000					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
(III)	<b>Polymer Modified Bitumen</b>					
	Unit = sqm					
	Taking output = 4000 sqm (80 cum)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	10.000			
	Mazdoor (Skilled)	day	3.520			
	<b>b) Machinery</b>					
	HMP 30/40 t per hour	hour	6.000			
	Electric generator set 125 KVA	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	Tipper 5.5 cum - 10 t capacity	hour	3.640			
	Paver finisher	hour	6.000			
	Three wheel 80-100 kN static roller	hour	16.000			
	<b>c) Material</b>					
	Polymer Modified Bitumen @ 14.60 kg per 10 sqm	t	5.840			
	Crushed stone chipping, 13.2 mm to 5.6 mm @ 0.27 cum/ 10 sqm	cum	108.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost of 4000 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/4000</b>					
(IV)	<b>Crumb Rubber Modified Bitumen</b>					
	Unit = sqm					
	Taking output = 4000 sqm (80 cum)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	10.000			
	Mazdoor (Skilled)	day	3.520			
	<b>b) Machinery</b>					
	HMP 30/40 t per hour	hour	6.000			
	Electric generator set 125 KVA	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	Tipper 5.5 cum - 10 t / 5-6 t capacity	hour	3.640			
	Paver finisher	hour	6.000			
	Three wheel 80-100 kN static roller	hour	16.000			
	<b>c) Material</b>					
	Crumb Rubber Modified Bitumen @ 14.60 kg per 10 sqm	t	5.840			
	Crushed stone chipping, 13.2 mm to 5.6 mm @ 0.27 cum/ 10 sqm	cum	108.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost of 4000 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/4000</b>					
(V)	<b>Natural Rubber Modified Bitumen</b>					
	Unit = sqm					
	Taking output = 4000 sqm (80 cum)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	10.000			
	Mazdoor (Skilled)	day	3.520			
	<b>b) Machinery</b>					
	HMP 30/40 t per hour	hour	6.000			
	Electric generator set 125 KVA	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	Tipper 5.5 cum - 10 t capacity	hour	3.640			
	Paver finisher	hour	6.000			
	Three wheel 80-100 kN static roller	hour	16.000			
	<b>c) Material</b>					
	Natural Rubber Modified Bitumen @ 14.60 kg per 10 sqm	t	5.840			
	Crushed stone chipping, 13.2 mm to 5.6 mm @ 0.27 cum/ 10 sqm	cum	108.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost of 4000 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/4000</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
ii	<b>20 mm thick Open Graded Premix Carpet using Bitumen Emulsion as per Technical Specification Clause 508.2 MORTH</b>					
	Unit = sqm					
	Taking output = 900 sqm (24.3 cum)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	18.000			
	Mazdoor (Skilled)	day	2.800			
	<b>b) Machinery</b>					
	Concrete mixer 0.4/0.28 cum capacity	hour	6.000			
	Three wheel 80-100 kN static roller	hour	3.600			
	<b>c) Material</b>					
	Bitumen emulsion (RS-1) @ 21.50 kg per 10 sqm	t	1.940			
	Crushed stone chipping, 13.2 mm to 5.6 mm @ 0.27 cum/ 10 sqm	cum	24.300			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 900 sqm = a+b+c+d+e					
	Rate per sqm = (a+b+c+d+e)/900					
15	<b>Open - Graded Premix Surfacing</b>					
	Providing, laying and rolling of open - graded premix surfacing of 20 mm thickness composed of 13.2 mm to 5.6 mm aggregates either using penetration grade bitumen or cut-back or emulsion to required line, grade and level to serve as wearing course on a previously prepared base, including mixing in a suitable plant, laying and rolling with a smooth wheeled roller 8-10 tonne capacity, finished to required level and grades as per Tech. Specification No. 511 MORTH.					
	Unit = sqm					
	Taking output = 10250 sqm (205 cum)					
i	<b>Case - I: Mechanical method using Penetration grade Bitumen and HMP of appropriate capacity not less than 75 tonnes/hour .</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled) working with HMP, road sweeper, paver and roller	day	16.000			
	Skilled mazdoor for checking line & levels	day	5.840			
	<b>b) Machinery</b>					
	i) Batch type HMP 75 tonne per hour	hour	6.000			
	ii) Electric Generator Set 250 KVA	hour	6.000			
	iii) Front end loader 1 cum bucket capacity	hour	6.000			
	iv) Tipper 10 tonne capacity	t.km	450 x L			
	Add 10 per cent of cost of carriage to cover cost of loading and unloading					
	v) Paver finisher hydrostatic with sensor attachment	hour	6.000			
	iv) Smooth wheeled/tandem roller 8-10 tonnes weight	hour	6.000			
	<b>c) Material</b>					
	Bitumen@ 14.60 kg per 10 sqm	t	14.970			
	Crushed stone chipping, 13.2 mm to 5.6 mm @ 0.27 cum/ 10 sqm	cum	276.750			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 10250 sqm = a+b+c+d+e					
	Rate per sqm = (a+b+c+d+e)/10250					
	<b>Note :</b> If a premix sand seal coat of 'B' type is proposed, the same is required to be provided over the open graded premix carpet immediately on the same day. As the same HMP and other machines will be used for laying of premix sand seal coat, out of 6 effective working hours, 4.00 hours may be utilised for laying of premix carpet and balance 2.00 hours for the seal coat. The rate for the premix sand seal coat under clause 513 (case II) has been worked out accordingly by utilising the HMP for 2.00 hours for the purpose of seal coat. In case type 'A' seal coat is proposed, HMP can be worked for six hours for the premix carpet as type 'A' seal coat does not require the use of HMP.					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
ii	<b>Case - II: Open-Graded Premix Surfacing using cationic Bitumen Emulsion</b>					
	Unit = sqm					
	Taking output = 900 sqm (24.3 cum)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	18.000			
	Mazdoor skilled	day	2.800			
	<b>b) Machinery</b>					
	Concrete mixer 0.4/0.28 cum capacity	hour	6.000			
	Smooth wheeled steel roller 8-10 tonne	hour	6.000			
	<b>c) Material</b>					
	Cationic Bitumen Emulsion @ 21.50 kg per 10 sqm	t	1.940			
	Crushed stone chipping, 13.2 mm to 5.6 mm @ 0.27 cum/ 10 sqm	cum	24.300			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost for 900 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/900</b>					
16	<b>Mix Seal Surfacing</b>					
i	Providing, laying and rolling of close-graded premix surfacing material of 20 mm thickness composed of 11.2 mm to 0.9 mm (Type-A) or 13.2 mm to 0.9 mm (Type-B) aggregates using penetration grade bitumen to required line, grade and level to serve as wearing course on a previously prepared base, including mixing in a suitable plant, laying and rolling with a three wheel 8-10 kN static roller and finishing to required level and grades as per Technical Specification Clause 509 MORD					
	<b>By Manual Means</b>					
	<b>Type A</b>					
(I)	<b>Bitumen (S-90)</b>					
	Unit = sqm					
	Taking output = 500 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	21.000			
	Mazdoor (Skilled)	day	8.400			
	<b>b) Machinery</b>					
	Mixall 6-10 t capacity	hour	6.000			
	Oil fired bitumen boiler 1000 litre capacity fitted with spray set	hour	6.000			
	Three wheel 80-100 kN static roller	hour	6.000			
	<b>c) Material</b>					
	Bitumen (S-90) @ 22 kg per 10 sqm	t	1.100			
	Stone crushed aggregates 11.2 mm to 0.09 mm @ 0.27 cum per 10 sqm	cum	13.500			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost of 500 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/500</b>					
(II)	<b>Bitumen (S-65)</b>					
	Unit = sqm					
	Taking output = 500 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	21.000			
	Mazdoor (Skilled)	day	8.400			
	<b>b) Machinery</b>					
	Mixall 6-10 t capacity	hour	6.000			
	Oil fired bitumen boiler 1000 litre capacity fitted with spray set	hour	6.000			
	Three wheel 80-100 kN static roller	hour	6.000			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>c) Material</b>					
	Bitumen (S-65) @ 22 kg per 10 sqm	t	1.100			
	Stone crushed aggregates 11.2 mm to 0.09 mm @ 0.27 cum per 10 sqm	cum	13.500			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 500 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/500</b>					
(III)	<b>Polymer Modified Bitumen</b>					
	Unit = sqm					
	Taking output = 500 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	21.000			
	Mazdoor (Skilled)	day	8.400			
	<b>b) Machinery</b>					
	Mixall 6-10 t capacity	hour	6.000			
	Oil fired bitumen boiler 1000 litre capacity fitted with spray set	hour	6.000			
	Three wheel 80-100 kN static roller	hour	6.000			
	<b>c) Material</b>					
	Polymer Modified Bitumen @ 22 kg per 10 sqm	t	1.100			
	Stone crushed aggregates 11.2 mm to 0.09 mm @ 0.27 cum per 10 sqm	cum	13.500			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 500 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/500</b>					
(IV)	<b>Crumb Rubber Modified Bitumen</b>					
	Unit = sqm					
	Taking output = 500 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	21.000			
	Mazdoor (Skilled)	day	8.400			
	<b>b) Machinery</b>					
	Mixall 6-10 t capacity	hour	6.000			
	Oil fired bitumen boiler 1000 litre capacity fitted with spray set	hour	6.000			
	Three wheel 80-100 kN static roller	hour	6.000			
	<b>c) Material</b>					
	Crumb Rubber Modified Bitumen @ 22 kg per 10 sqm	t	1.100			
	Stone crushed aggregates 11.2 mm to 0.09 mm @ 0.27 cum per 10 sqm	cum	13.500			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 500 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/500</b>					
(V)	<b>Natural Rubber Modified Bitumen</b>					
	Unit = sqm					
	Taking output = 500 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	21.000			
	Mazdoor (Skilled)	day	8.400			
	<b>b) Machinery</b>					
	Mixall 6-10 t capacity	hour	6.000			
	Oil fired bitumen boiler 1000 lt capacity fitted with spray set	hour	6.000			
	Three wheel 80-100 kN static roller	hour	6.000			
	<b>c) Material</b>					
	Natural Rubber Modified Bitumen @ 22 kg per 10 sqm	t	1.100			
	Stone crushed aggregates 11.2 mm to 0.09 mm @ 0.27 cum per 10 sqm	cum	13.500			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 500 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/500</b>					



S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>Type B</b>					
(I)	<b>Bitumen (S-90)</b>					
	Unit = sqm					
	Taking output = 500 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	21.000			
	Mazdoor (Skilled)	day	8.400			
	<b>b) Machinery</b>					
	Mixall 6-10 t capacity	hour	6.000			
	Oil fired bitumen boiler 1000 lt capacity fitted with spray set	hour	6.000			
	Three wheel 80-100 kN static roller	hour	6.000			
	<b>c) Material</b>					
	Bitumen (S-90) @ 19 kg per 10 sqm	t	0.950			
	Stone crushed aggregates 13.2 mm to 0.09 mm @ 0.27cum per 10 sqm	cum	13.500			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Cost of 500 sqm = a+b+c+d+e</b>					
	<b>Rate per sqm = (a+b+c+d+e)/500</b>					
(II)	<b>Bitumen (S-65)</b>					
	Unit = sqm					
	Taking output = 500 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	21.000			
	Mazdoor (Skilled)	day	8.400			
	<b>b) Machinery</b>					
	Mixall 6-10 t capacity	hour	6.000			
	Oil fired bitumen boiler 1000 lt capacity fitted with spray set	hour	6.000			
	Three wheel 80-100 kN static roller	hour	6.000			
	<b>c) Material</b>					
	Bitumen (S-65) @ 19 kg per 10 sqm	t	0.950			
	Stone crushed aggregates 13.2 mm to 0.09 mm @ 0.27cum per 10 sqm	cum	13.500			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Cost of 500 sqm = a+b+c+d+e</b>					
	<b>Rate per sqm = (a+b+c+d+e)/500</b>					
(III)	<b>Polymer Modified Bitumen</b>					
	Unit = sqm					
	Taking output = 500 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	21.000			
	Mazdoor (Skilled)	day	8.400			
	<b>b) Machinery</b>					
	Mixall 6-10 t capacity	hour	6.000			
	Oil fired bitumen boiler 1000 lt capacity fitted with spray set	hour	6.000			
	Three wheel 80-100 kN static roller	hour	6.000			
	<b>c) Material</b>					
	Polymer Modified Bitumen @ 19 kg per 10 sqm	t	0.950			
	Stone crushed aggregates 13.2 mm to 0.09 mm @ 0.27cum per 10 sqm	cum	13.500			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Cost of 500 sqm = a+b+c+d+e</b>					
	<b>Rate per sqm = (a+b+c+d+e)/500</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
(IV)	<b>Crumb Rubber Modified Bitumen</b>					
	Unit = sqm					
	Taking output = 500 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	21.000			
	Mazdoor (Skilled)	day	8.400			
	<b>b) Machinery</b>					
	Mixall 6-10 t capacity	hour	6.000			
	Oil fired bitumen boiler 1000 lt capacity fitted with spray set	hour	6.000			
	Three wheel 80-100 kN static roller	hour	6.000			
	<b>c) Material</b>					
	Crumb Rubber Modified Bitumen @ 19 kg per 10 sqm	t	0.950			
	Stone crushed aggregates 13.2 mm to 0.09 mm @ 0.27cum per 10 sqm	cum	13.500			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 500 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/500</b>					
(V)	<b>Natural Rubber Modified Bitumen</b>					
	Unit = sqm					
	Taking output = 500 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	21.000			
	Mazdoor (Skilled)	day	8.400			
	<b>b) Machinery</b>					
	Mixall 6-10 t capacity	hour	6.000			
	Oil fired bitumen boiler 1000 lt capacity fitted with spray set	hour	6.000			
	Three wheel 80-100 kN static roller	hour	6.000			
	<b>c) Material</b>					
	Natural Rubber Modified Bitumen @ 19 kg per 10 sqm	t	0.950			
	Stone crushed aggregates 13.2 mm to 0.09 mm @ 0.27cum per 10 sqm	cum	13.500			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 500 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/500</b>					
	<b>By Mechanical Means</b>					
	<b>Type A</b>					
(I)	<b>Bitumen (S-90)</b>					
	Unit = sqm					
	Taking output = 4000 sqm (80 cum)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	10.000			
	Mazdoor (Skilled)	day	3.520			
	<b>b) Machinery</b>					
	HMP of appropriate capacity	hour	6.000			
	Electric generator set 125 KVA	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	Tipper 5.5 cum - 10 t capacity	hour	3.600			
	Paver finisher	hour	6.000			
	Three wheel 80-100 kN static roller	hour	18.000			
	<b>c) Material</b>					
	Bitumen (S-90) @ 22 kg per 10 sqm	t	8.800			
	Stone crushed aggregates 11.2 mm to 0.09 mm @ 0.27 cum per 10 sqm	cum	108.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 4000 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/4000</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
(II)	<b>Bitumen (S-65)</b>					
	Unit = sqm					
	Taking output = 4000 sqm (80 cum)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	10.000			
	Mazdoor (Skilled)	day	3.520			
	<b>b) Machinery</b>					
	HMP of appropriate capacity	hour	6.000			
	Electric generator set 125 KVA	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	Tipper 5.5 cum - 10 t capacity	hour	3.600			
	Paver finisher	hour	6.000			
	Three wheel 80-100 kN static roller	hour	18.000			
	<b>c) Material</b>					
	Bitumen (S-65) @ 22 kg per 10 sqm	t	8.800			
	Stone crushed aggregates 11.2 mm to 0.09 mm @ 0.27 cum per 10 sqm	cum	108.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 4000 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/4000</b>					
(III)	<b>Polymer Modified Bitumen</b>					
	Unit = sqm					
	Taking output = 4000 sqm (80 cum)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	10.000			
	Mazdoor (Skilled)	day	3.520			
	<b>b) Machinery</b>					
	HMP of appropriate capacity	hour	6.000			
	Electric generator set 125 KVA	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	Tipper 5.5 cum - 10 t capacity	hour	3.600			
	Paver finisher	hour	6.000			
	Three wheel 80-100 kN static roller	hour	18.000			
	<b>c) Material</b>					
	Polymer Modified Bitumen @ 22 kg per 10 sqm	t	8.800			
	Stone crushed aggregates 11.2 mm to 0.09 mm @ 0.27 cum per 10 sqm	cum	108.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 4000 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/4000</b>					
(IV)	<b>Crumb Rubber Modified Bitumen</b>					
	Unit = sqm					
	Taking output = 4000 sqm (80 cum)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	10.000			
	Mazdoor (Skilled)	day	3.520			
	<b>b) Machinery</b>					
	HMP of appropriate capacity	hour	6.000			
	Electric generator set 125 KVA	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	Tipper 5.5 cum - 10 t capacity	hour	3.600			
	Paver finisher	hour	6.000			
	Three wheel 80-100 kN static roller	hour	18.000			
	<b>c) Material</b>					
	Crumb Rubber Modified Bitumen @ 22 kg per 10 sqm	t	8.800			
	Stone crushed aggregates 11.2 mm to 0.09 mm @ 0.27 cum per 10 sqm	cum	108.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 4000 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/4000</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
(V)	<b>Natural Rubber Modified Bitumen</b>					
	Unit = sqm					
	Taking output = 4000 sqm (80 cum)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	10.000			
	Mazdoor (Skilled)	day	3.520			
	<b>b) Machinery</b>					
	HMP of appropriate capacity	hour	6.000			
	Electric generator set 125 KVA	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	Tipper 5.5 cum - 10 t capacity	hour	3.600			
	Paver finisher	hour	6.000			
	Three wheel 80-100 kN static roller	hour	18.000			
	<b>c) Material</b>					
	Natural Rubber Modified Bitumen @ 22 kg per 10 sqm	t	8.800			
	Stone crushed aggregates 11.2 mm to 0.09 mm @ 0.27 cum per 10 sqm	cum	108.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost of 4000 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/4000</b>					
	<b>18.00%</b>					
	<b>Type B</b>					
	<b>(I) Bitumen (S-90)</b>					
	Unit = sqm					
	Taking output = 4000 sqm (80 cum)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	10.000			
	Mazdoor (Skilled)	day	3.520			
	<b>b) Machinery</b>					
	HMP of appropriate capacity	hour	6.000			
	Electric generator set 125 KVA	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	Tipper 5.5 cum - 10 t / 5-6 t capacity	hour	3.600			
	Add 10 per cent of cost of carriage to cover cost of loading and unloading					
	Paver finisher	hour	6.000			
	Three wheel 80-100 kN static roller	hour	18.000			
	<b>c) Material</b>					
	Bitumen (S-90) @ 19 kg per 10 sqm	t	7.600			
	Stone crushed aggregates 13.2 mm to 0.09 mm @ 0.27 cum per 10 sqm	cum	108.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost of 4000 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/4000</b>					
	<b>18.00%</b>					
(II)	<b>Bitumen (S-65)</b>					
	Unit = sqm					
	Taking output = 4000 sqm (80 cum)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	10.000			
	Mazdoor (Skilled)	day	3.520			
	<b>b) Machinery</b>					
	HMP of appropriate capacity	hour	6.000			
	Electric generator set 125 KVA	hour	6.000			
	Tipper 5.5 cum - 10 t capacity	hour	3.600			
	Paver finisher	hour	6.000			
	Three wheel 80-100 kN static roller	hour	18.000			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>c) Material</b>					
	Bitumen (S-65) @ 19 kg per 10 sqm	t	7.600			
	Stone crushed aggregates 13.2 mm to 0.09 mm @ 0.27 cum per 10 sqm	cum	108.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 4000 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/4000</b>					
(III)	<b>Polymer Modified Bitumen</b>					
	Unit = sqm					
	Taking output = 4000 sqm (80 cum)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	10.000			
	Mazdoor (Skilled)	day	3.520			
	<b>b) Machinery</b>					
	HMP of appropriate capacity	hour	6.000			
	Electric generator set 125 KVA	hour	6.000			
	Tipper 5.5 cum - 10 t capacity	hour	3.600			
	Paver finisher	hour	6.000			
	Three wheel 80-100 kN static roller	hour	18.000			
	<b>c) Material</b>					
	Polymer Modified Bitumen @ 19 kg per 10 sqm	t	7.600			
	Stone crushed aggregates 13.2 mm to 0.09 mm @ 0.27 cum /10 sqm	cum	108.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 4000 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/4000</b>					
(IV)	<b>Crumb Rubber Modified Bitumen</b>					
	Unit = sqm					
	Taking output = 4000 sqm (80 cum)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	10.000			
	Mazdoor (Skilled)	day	3.520			
	<b>b) Machinery</b>					
	HMP of appropriate capacity	hour	6.000			
	Electric generator set 125 KVA	hour	6.000			
	Tipper 5.5 cum - 10 t capacity	hour	3.600			
	Paver finisher	hour	6.000			
	Three wheel 80-100 kN static roller	hour	18.000			
	<b>c) Material</b>					
	Crumb Rubber Modified Bitumen @ 19 kg per 10 sqm	t	7.600			
	Stone crushed aggregates 13.2 mm to 0.09 mm @ 0.27 cum /10 sqm	cum	108.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 4000 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/4000</b>					
(V)	<b>Natural Rubber Modified Bitumen</b>					
	Unit = sqm					
	Taking output = 4000 sqm (80 cum)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	10.000			
	Mazdoor (Skilled)	day	3.520			
	<b>b) Machinery</b>					
	HMP of appropriate capacity	hour	6.000			
	Electric generator set 125 KVA	hour	6.000			
	Tipper 5.5 cum - 10 t capacity	hour	3.600			
	Paver finisher	hour	6.000			
	Three wheel 80-100 kN static roller	hour	18.000			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>c) Material</b>					
	Natural Rubber Modified Bitumen @ 19 kg per 10 sqm	t	7.600			
	Stone crushed aggregates 13.2 mm to 0.09 mm @ 0.27 cum /10 sqm	cum	108.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 4000 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/4000</b>					
ii	<b>Close Graded Premix Surfacing/Mixed Seal Surfacing</b>					
	<b>Case 1 :</b> Mechanical means using HMP of appropriate capacity not less than 75 tonnes/hour.					
	Providing, laying and rolling of close-graded premix surfacing material of 20 mm thickness composed of 11.2 mm to 0.09 mm (Type-a) or 13.2 mm to 0.09 mm (Type-b) aggregates using penetration grade bitumen to the required line, grade and level to serve as wearing course on a previously prepared base, including mixing in a suitable plant, laying and rolling with a Smooth wheeled roller 8-10 tonne capacity, and finishing to required level and grade as per Tech. Specification No 512 MORTH.					
A	<b>Type - A</b>					
	<b>Unit = sqm</b>					
	<b>Taking output = 10250 sqm (205 cum)</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled) working with HMP, road sweeper, paver and roller	day	16.000			
	Skilled mazdoor for checking line & levels	day	5.840			
	<b>b) Machinery</b>					
	i) HMP of appropriate capacity.	hour	6.000			
	ii) Electric Generator Set 250 KVA	hour	6.000			
	iii) Front end loader 1 cum bucket capacity	hour	6.000			
	iv) Tipper 10 tonne capacity	t.km	450 x L			
	Add 10 per cent of cost of carriage to cover cost of loading and unloading					
	v) Paver finisher hydrostatic with sensor attachment	hour	6.000			
	iv) Smooth wheeled8-10 tonnes weight	hour	6.000			
	<b>c) Material</b>					
	<b>Type - A</b>					
	* Bitumen@ 22 kg per 10 sqm	t	22.500			
	Stone crushed aggregates 11.2 mm to 0.09 @ 0.27 cum per 10 sqm	cum	276.750			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 10250 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/10250</b>					
B	<b>Type - B</b>					
	<b>Unit = sqm</b>					
	<b>Taking output = 10250 sqm (205 cum)</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled) working with HMP, road sweeper, paver and roller	day	16.000			
	Skilled mazdoor for checking line & levels	day	5.840			
	<b>b) Machinery</b>					
	i) HMP of appropriate capacity. Not less than 75 t / hour	hour	6.000			
	ii) Electric Generator Set 250 KVA	hour	6.000			
	iii) Front end loader 1 cum bucket capacity	hour	6.000			
	iv) Tipper 10 tonne capacity	tkm	450 x L			
	Add 10 per cent of cost of carriage to cover cost of loading and unloading					
	v) Paver finisher hydrostatic with sensor attachment	hour	6.000			
	iv) Smooth wheeled8-10 tonnes weight	hour	6.000			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>c) Material</b>					
	<b>Type - B</b>					
	Bitumen @ 19 kg per 10 sqm	t	19.480			
	Stone crushed aggregates 13.2 mm to 0.09 mm @ 0.27 cum per 10 sqm	cum	276.750			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 10250 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/10250</b>					
17	<b>Seal Coat</b>					
	i Providing and laying seal coat sealing the voids in a bituminous surface laid to the specified levels, grade and cross fall using Type A, Type B and Type C as per Technical Specification Clause 510 MORD. (using Three wheel 80-100 kN static roller)					
	<b>A By Manual Means</b>					
	<b>Case - I : Type A</b>					
	<b>(I) Bitumen (S-90)</b>					
	Unit = sqm					
	Taking output = 1100 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Bitumen Sprayer	day	1.000			
	Mazdoor (Unskilled)	day	22.000			
	Mazdoor (Semi-Skilled)	day	7.150			
	<b>b) Machinery</b>					
	Bitumen boiler oil fired, capacity 1000 litre fitted with spray set	hour	2.200			
	Three wheel 80-100 kN static roller	hour	2.200			
	<b>c) Material</b>					
	Bitumen (S-90) @ 9.80 kg per 10 sqm	t	1.078			
	Crushed stone chipping of 6.7 mm size 100 per cent passing 11.2 mm sieve and retained on 2.36 mm sieve applied @ 0.09 cum per 10 sqm	cum	9.900			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 1100 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/1100</b>					
	<b>(II) Bitumen (S-65)</b>					
	Unit = sqm					
	Taking output = 1100 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Bitumen Sprayer	day	1.000			
	Mazdoor (Unskilled)	day	22.000			
	Mazdoor (Semi-Skilled)	day	7.150			
	<b>b) Machinery</b>					
	Bitumen boiler oil fired, capacity 1000 litre fitted with spray set	hour	2.200			
	Three wheel 80-100 kN static roller	hour	2.200			
	<b>c) Material</b>					
	Bitumen (S-65) @ 9.80 kg per 10 sqm	t	1.078			
	Crushed stone chipping of 6.7 mm size 100 per cent passing 11.2 mm sieve and retained on 2.36 mm sieve applied @ 0.09 cum per 10 sqm	cum	9.900			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 1100 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/1100</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
(III)	<b>Polymer Modified Bitumen</b>					
	Unit = sqm					
	Taking output = 1100 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Bitumen Sprayer	day	1.000			
	Mazdoor (Unskilled)	day	22.000			
	Mazdoor (Semi-Skilled)	day	7.150			
	<b>b) Machinery</b>					
	Bitumen boiler oil fired, capacity 1000 litre fitted with spray set	hour	2.200			
	Three wheel 80-100 kN static roller	hour	2.200			
	<b>c) Material</b>					
	Polymer Modified Bitumen @ 9.80 kg per 10 sqm	t	1.078			
	Crushed stone chipping of 6.7 mm size 100 per cent passing 11.2 mm sieve and retained on 2.36 mm sieve applied @ 0.09 cum per 10 sqm	cum	9.900			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 1100 sqm = a+b+c+d+e					
	Rate per sqm = (a+b+c+d+e)/1100					
(IV)	<b>Crumb Rubber Modified Bitumen</b>					
	Unit = sqm					
	Taking output = 1100 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Bitumen Sprayer	day	1.000			
	Mazdoor (Unskilled)	day	22.000			
	Mazdoor (Semi-Skilled)	day	7.150			
	<b>b) Machinery</b>					
	Bitumen boiler oil fired, capacity 1000 litre / 245 kg fitted with spray set	hour	2.200			
	Three wheel 80-100 kN static roller	hour	2.200			
	<b>c) Material</b>					
	Crumb Rubber Modified Bitumen @ 9.80 kg per 10 sqm	t	1.078			
	Crushed stone chipping of 6.7 mm size 100 per cent passing 11.2 mm sieve and retained on 2.36 mm sieve applied @ 0.09 cum per 10 sqm	cum	9.900			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 1100 sqm = a+b+c+d+e					
	Rate per sqm = (a+b+c+d+e)/1100					
(V)	<b>Natural Rubber Modified Bitumen</b>					
	Unit = sqm					
	Taking output = 1100 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Bitumen Sprayer	day	1.000			
	Mazdoor (Unskilled)	day	22.000			
	Mazdoor (Semi-Skilled)	day	7.150			
	<b>b) Machinery</b>					
	Bitumen boiler oil fired, capacity 1000 litre fitted with spray set	hour	2.200			
	Three wheel 80-100 kN static roller	hour	2.200			
	<b>c) Material</b>					
	Natural Rubber Modified Bitumen @ 9.80 kg per 10 sqm	t	1.078			
	Crushed stone chipping of 6.7 mm size 100 per cent passing 11.2 mm sieve and retained on 2.36 mm sieve applied @ 0.09 cum per 10 sqm	cum	9.900			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 1100 sqm = a+b+c+d+e					
	Rate per sqm = (a+b+c+d+e)/1100					



S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>Case - II : Type B (510 - MORD)</b>					
(I)	<b>Bitumen (S-90)</b>					
	Unit = sqm					
	Taking output = 1250 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	15.000			
	Mazdoor (Semi-Skilled)	day	2.850			
	<b>b) Machinery</b>					
	Mixall 6/10 t capacity	hour	2.500			
	Three wheel 80-100 kN static roller	hour	2.500			
	Bitumen boiler oil fired 1000 litre capacity fitted with spray set	hour	2.500			
	<b>c) Material</b>					
	Bitumen (S-90) @ 6.80 kg per 10 sqm	t	0.850			
	Crushed sand or grit as passing 2.36 mm sieve and retained on 180 micron sieve applied @ 0.06 cum per 10 sqm	cum	7.500			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost of 1250 sqm = a+b+c+d+e		18.00%			
	<b>Rate per sqm = (a+b+c+d+e)/1250</b>					
(II)	<b>Bitumen (S-65)</b>					
	Unit = sqm					
	Taking output = 1250 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	15.000			
	Mazdoor (Semi-Skilled)	day	2.850			
	<b>b) Machinery</b>					
	Mixall 6/10 t capacity	hour	2.500			
	Three wheel 80-100 kN static roller	hour	2.500			
	Bitumen boiler oil fired 1000 litre capacity fitted with spray set	hour	2.500			
	<b>c) Material</b>					
	Bitumen (S-65) @ 6.80 kg per 10 sqm	t	0.850			
	Crushed sand or grit as passing 2.36 mm sieve and retained on 180 micron sieve applied @ 0.06 cum/10 sqm	cum	7.500			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost of 1250 sqm = a+b+c+d+e		18.00%			
	<b>Rate per sqm = (a+b+c+d+e)/1250</b>					
(III)	<b>Polymer Modified Bitumen</b>					
	Unit = sqm					
	Taking output = 1250 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	15.000			
	Mazdoor (Semi-Skilled)	day	2.850			
	<b>b) Machinery</b>					
	Mixall 6/10 t capacity	hour	2.500			
	Three wheel 80-100 kN static roller	hour	2.500			
	Bitumen boiler oil fired 1000 litre capacity fitted with spray set	hour	2.500			
	<b>c) Material</b>					
	Polymer Modified Bitumen @ 6.80 kg per 10 sqm	t	0.850			
	Crushed sand or grit as passing 2.36 mm sieve and retained on 180 micron sieve applied @ 0.06 cum/10 sqm	cum	7.500			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost of 1250 sqm = a+b+c+d+e		18.00%			
	<b>Rate per sqm = (a+b+c+d+e)/1250</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
(IV)	<b>Crumb Rubber Modified Bitumen</b>					
	Unit = sqm					
	Taking output = 1250 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	15.000			
	Mazdoor (Semi-Skilled)	day	2.850			
	<b>b) Machinery</b>					
	Mixall 6/10 t capacity	hour	2.500			
	Three wheel 80-100 kN static roller	hour	2.500			
	Bitumen boiler oil fired 1000 litre capacity fitted with spray set	hour	2.500			
	<b>c) Material</b>					
	Crumb Rubber Modified Bitumen @ 6.80 kg per 10 sqm	t	0.850			
	Crushed sand or grit as passing 2.36 mm sieve and retained on 180 micron sieve applied @ 0.06 cum /10 sqm	cum	7.500			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 1250 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/1250</b>					
(V)	<b>Natural Rubber Modified Bitumen</b>					
	Unit = sqm					
	Taking output = 1250 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	15.000			
	Mazdoor (Semi-Skilled)	day	2.850			
	<b>b) Machinery</b>					
	Mixall 6/10 t capacity	hour	2.500			
	Three wheel 80-100 kN static roller	hour	2.500			
	Bitumen boiler oil fired 1000 litre capacity fitted with spray set	hour	2.500			
	<b>c) Material</b>					
	Natural Rubber Modified Bitumen @ 6.80 kg per 10 sqm	t	0.850			
	Crushed sand or grit as passing 2.36 mm sieve and retained on 180 micron sieve applied @ 0.06 cum /10 sqm	cum	7.500			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 1250 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/1250</b>					
	<b>Case - III : Type C (510 - MORD)</b>					
(I)	<b>Bitumen (S-90)</b>					
	Unit = sqm					
	Taking output = 1100 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Bitumen Sprayer	day	1.000			
	Mazdoor (Unskilled) for carrying of chips & spraying	day	22.000			
	Mazdoor (Semi-Skilled)	day	6.150			
	<b>b) Machinery</b>					
	Bitumen boiler oil fired 1000 litre capacity fitted with spray set	hour	2.200			
	Three wheel 80-100 kN static roller	hour	2.200			
	<b>c) Material</b>					
	Bitumen (S-90) @ 6.50 kg per 10 sqm	t	0.715			
	Crushed stone chipping of 6.7 mm size defined as 100% passing 9.5 mm sieve and retained on 2.36 mm sieve applied @ 0.09 cum.	cum	9.900			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 1100 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/1100</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
(II)	<b>Bitumen (S-65)</b>					
	Unit = sqm					
	Taking output = 1100 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Bitumen Sprayer	day	1.000			
	Mazdoor (Unskilled)	day	22.000			
	Mazdoor (Semi-Skilled)	day	6.150			
	<b>b) Machinery</b>					
	Bitumen boiler oil fired 1000 litre capacity fitted with spray set	hour	2.200			
	Three wheel 80-100 kN static roller	hour	2.200			
	<b>c) Material</b>					
	Bitumen (S-65) @ 6.50 kg per 10 sqm	t	0.715			
	Crushed stone chipping of 6.7 mm size defined as 100% passing 9.5 mm sieve and retained on 2.36 mm sieve applied @ 0.09 cum.	cum	9.900			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Cost of 1100 sqm = a+b+c+d+e</b>					
	<b>Rate per sqm = (a+b+c+d+e)/1100</b>					
(III)	<b>Polymer Modified Bitumen</b>					
	Unit = sqm					
	Taking output = 1100 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Bitumen Sprayer	day	1.000			
	Mazdoor (Unskilled)	day	22.000			
	Mazdoor (Semi-Skilled)	day	6.150			
	<b>b) Machinery</b>					
	Bitumen boiler oil fired 1000 litre capacity fitted with spray set	hour	2.200			
	Three wheel 80-100 kN static roller	hour	2.200			
	<b>c) Material</b>					
	Polymer Modified Bitumen @ 6.50 kg per 10 sqm	t	0.715			
	Crushed stone chipping of 6.7 mm size defined as 100% passing 9.5 mm sieve and retained on 2.36 mm sieve applied @ 0.09 cum.	cum	9.900			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Cost of 1100 sqm = a+b+c+d+e</b>					
	<b>Rate per sqm = (a+b+c+d+e)/1100</b>					
(IV)	<b>Crumb Rubber Modified Bitumen</b>					
	Unit = sqm					
	Taking output = 1100 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Bitumen Sprayer	day	1.000			
	Mazdoor (Unskilled)	day	22.000			
	Mazdoor (Semi-Skilled)	day	6.150			
	<b>b) Machinery</b>					
	Bitumen boiler oil fired 1000 litre capacity fitted with spray set	hour	2.200			
	Three wheel 80-100 kN static roller	hour	2.200			
	<b>c) Material</b>					
	Crumb Rubber Modified Bitumen @ 6.50 kg per 10 sqm	t	0.715			
	Crushed stone chipping of 6.7 mm size defined as 100% passing 9.5 mm sieve and retained on 2.36 mm sieve applied @ 0.09 cum.	cum	9.900			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Cost of 1100 sqm = a+b+c+d+e</b>					
	<b>Rate per sqm = (a+b+c+d+e)/1100</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
(V)	<b>Natural Rubber Modified Bitumen</b>					
	Unit = sqm					
	Taking output = 1100 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Bitumen Sprayer	day	1.000			
	Mazdoor (Unskilled)	day	22.000			
	Mazdoor (Semi-Skilled)	day	6.150			
	<b>b) Machinery</b>					
	Bitumen boiler oil fired 1000 litre capacity fitted with spray set	hour	2.200			
	Three wheel 80-100 kN static roller	hour	2.200			
	<b>c) Material</b>					
	Natural Rubber Modified Bitumen @ 6.50 kg per 10 sqm	t	0.715			
	Crushed stone chipping of 6.7 mm size defined as 100% passing 9.5 mm sieve and retained on 2.36 mm sieve applied @ 0.09 cum.	cum	9.900			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost of 1100 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/1100</b>					
	<b>Note</b> : Since seal coat is provided immediately over the bituminous layers, hydraulic broom for cleaning has not been catered.					
<b>B</b>	<b>By Mechanical Means</b>					
	<b>Case - I : Type A</b>					
(I)	<b>Bitumen (S-90)</b>					
	Unit = sqm					
	Taking output = 7500 sqm (67.5 cum)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	6.240			
	<b>b) Machinery</b>					
	Hydraulic self propelled chips spreader	hour	6.000			
	Tipper 5.5 cum capacity	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	Bitumen pressure distributor	hour	6.000			
	Three wheel 80-100 kN static roller	hour	15.000			
	<b>c) Material</b>					
	Bitumen (S-90) @ 9.80 kg per 10 sqm	t	7.350			
	Crushed stone chipping of 6.7 mm size 100 per cent passing 11.2 mm sieve and retained on 2.36 mm sieve applied @ 0.09 cum/10 sqm	cum	67.500			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost of 7500 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/7500</b>					
(II)	<b>Bitumen (S-65)</b>					
	Unit = sqm					
	Taking output = 7500 sqm (67.5 cum)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	6.240			
	<b>b) Machinery</b>					
	Hydraulic self propelled chips spreader	hour	6.000			
	Tipper 5.5 cum capacity	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	Bitumen pressure distributor	hour	6.000			
	Three wheel 80-100 kN static roller	hour	15.000			
	<b>c) Material</b>					
	Bitumen (S-65) @ 9.80 kg per 10 sqm	t	7.350			
	Crushed stone chipping of 6.7 mm size 100 per cent passing 11.2 mm sieve and retained on 2.36 mm sieve applied @ 0.09 cum per 10 sqm	cum	67.500			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost of 7500 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/7500</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
(III)	<b>Polymer Modified Bitumen</b>					
	Unit = sqm					
	Taking output = 7500 sqm (67.5 cum)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	6.240			
	<b>b) Machinery</b>					
	Hydraulic self propelled chips spreader	hour	6.000			
	Tipper 5.5 cum capacity	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	Bitumen pressure distributor	hour	6.000			
	Three wheel 80-100 kN static roller	hour	15.000			
	<b>c) Material</b>					
	Polymer Modified Bitumen @ 9.80 kg per 10 sqm	t	7.350			
	Crushed stone chipping of 6.7 mm size 100 per cent passing 11.2 mm sieve and retained on 2.36 mm sieve applied @ 0.09 cum per 10 sqm	cum	67.500			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 7500 sqm = a+b+c+d+e					
	Rate per sqm = (a+b+c+d+e)/7500					
(IV)	<b>Crumb Rubber Modified Bitumen</b>					
	Unit = sqm					
	Taking output = 7500 sqm (67.5 cum)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	6.240			
	<b>b) Machinery</b>					
	Hydraulic self propelled chips spreader	hour	6.000			
	Tipper 5.5 cum capacity	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	Bitumen pressure distributor	hour	6.000			
	Three wheel 80-100 kN static roller	hour	15.000			
	<b>c) Material</b>					
	Crumb Rubber Modified Bitumen @ 9.80 kg per 10 sqm	t	7.350			
	Crushed stone chipping of 6.7 mm size 100 per cent passing 11.2 mm sieve and retained on 2.36 mm sieve applied @ 0.09 cum/10 sqm	cum	67.500			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 7500 sqm = a+b+c+d+e					
	Rate per sqm = (a+b+c+d+e)/7500					
(V)	<b>Natural Rubber Modified Bitumen</b>					
	Unit = sqm					
	Taking output = 7500 sqm (67.5 cum)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	6.240			
	<b>b) Machinery</b>					
	Hydraulic self propelled chips spreader	hour	6.000			
	Tipper 5.5 cum capacity	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	Bitumen pressure distributor	hour	6.000			
	Three wheel 80-100 kN static roller	hour	15.000			
	<b>c) Material</b>					
	Natural Rubber Modified Bitumen @ 9.80 kg per 10 sqm	t	7.350			
	Crushed stone chipping of 6.7 mm size 100 per cent passing 11.2 mm sieve and retained on 2.36 mm sieve applied @ 0.09 cum per 10	cum	67.500			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 7500 sqm = a+b+c+d+e					
	Rate per sqm = (a+b+c+d+e)/7500					
	<b>Note</b> : Since seal coat is provided immediately over the bituminous layers, Hydraulic broom for cleaning has not been catered.					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>Case - II : Type B</b>					
	<b>(I) Bitumen (S-90)</b>					
	Unit = sqm					
	Taking output = 5000 sqm (30 cum)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	4.160			
	<b>b) Machinery</b>					
	HMP of 30/40 t per hour	hour	2.000			
	Electric generator set 125 KVA	hour	2.000			
	Front end loader 1 cum bucket capacity	hour	2.000			
	Tipper 5.5 cum - 10 t capacity	hour	1.360			
	Paver finisher	hour	2.000			
	Three wheel 80-100 kN static roller	hour	10.000			
	<b>c) Material</b>					
	Bitumen (S-90) @ 6.80 kg per 10 sqm	t	3.400			
	Crushed sand defined as passing 2.36 mm sieve and retained on 180 micron sieve applied @ 0.06 cum per 10 sqm	cum	30.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>				<b>18.00%</b>	
	Cost of 5000 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/5000</b>					
	<b>(II) Bitumen (S-65)</b>					
	Unit = sqm					
	Taking output = 5000 sqm (30 cum)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	4.160			
	<b>b) Machinery</b>					
	HMP of 30/40 t per hour	hour	2.000			
	Electric generator set 125 KVA	hour	2.000			
	Front end loader 1 cum bucket capacity	hour	2.000			
	Tipper 5.5 cum - 10 t capacity	hour	1.360			
	Paver finisher	hour	2.000			
	Three wheel 80-100 kN static roller	hour	10.000			
	<b>c) Material</b>					
	Bitumen (S-65) @ 6.80 kg per 10 sqm	t	3.400			
	Crushed sand defined as passing 2.36 mm sieve and retained on 180 micron sieve applied @ 0.06 cum /10 sqm	cum	30.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>				<b>18.00%</b>	
	Cost of 5000 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/5000</b>					
	<b>(III) Polymer Modified Bitumen</b>					
	Unit = sqm					
	Taking output = 5000 sqm (30 cum)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	4.160			
	<b>b) Machinery</b>					
	HMP of 30/40 t per hour	hour	2.000			
	Electric generator set 125 KVA	hour	2.000			
	Front end loader 1 cum bucket capacity	hour	2.000			
	Tipper 5.5 cum - 10 t capacity	hour	1.360			
	Paver finisher	hour	2.000			
	Three wheel 80-100 kN static roller	hour	10.000			
	<b>c) Material</b>					
	Polymer Modified Bitumen @ 6.80 kg per 10 sqm	t	3.400			
	Crushed sand defined as passing 2.36 mm sieve and retained on 180 micron sieve applied @ 0.06 cum per 10 sqm	cum	30.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>				<b>18.00%</b>	
	Cost of 5000 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/5000</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
(IV)	<b>Crumb Rubber Modified Bitumen</b>					
	Unit = sqm					
	Taking output = 5000 sqm (30 cum)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	4.160			
	<b>b) Machinery</b>					
	HMP of 30/40 t per hour	hour	2.000			
	Electric generator set 125 KVA	hour	2.000			
	Front end loader 1 cum bucket capacity	hour	2.000			
	Tipper 5.5 cum - 10 t capacity	hour	1.360			
	Paver finisher	hour	2.000			
	Three wheel 80-100 kN static roller	hour	10.000			
	<b>c) Material</b>					
	Crumb Rubber Modified Bitumen @ 6.80 kg per 10 sqm	t	3.400			
	Crushed sand defined as passing 2.36 mm sieve and retained on 180 micron sieve applied @ 0.06 cum per 10 sqm	cum	30.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Cost of 5000 sqm = a+b+c+d+e</b>					
	<b>Rate per sqm = (a+b+c+d+e)/5000</b>					
(V)	<b>Natural Rubber Modified Bitumen</b>					
	Unit = sqm					
	Taking output = 5000 sqm (30 cum)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	4.160			
	<b>b) Machinery</b>					
	HMP of 30/40 t per hour	hour	2.000			
	Electric generator set 125 KVA	hour	2.000			
	Front end loader 1 cum bucket capacity	hour	2.000			
	Tipper 5.5 cum - 10 t capacity	hour	1.360			
	Paver finisher	hour	2.000			
	Three wheel 80-100 kN static roller	hour	10.000			
	<b>c) Material</b>					
	Natural Rubber Modified Bitumen @ 6.80 kg per 10 sqm	t	3.400			
	Crushed sand defined as passing 2.36 mm sieve and retained on 180 micron sieve applied @ 0.06 cum per 10 sqm	cum	30.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Cost of 5000 sqm = a+b+c+d+e</b>					
	<b>Rate per sqm = (a+b+c+d+e)/5000</b>					
	<b>Note</b> : Since seal coat is required to be provided over the premix carpet on the same day, out of the 6 working hours of the HMP, 4.00 hours are proposed to be utilised for the premix carpet and the balance 2.00 hours have been considered for this case.					
	<b>Case - III : Type C</b>					
	<b>(I) Bitumen (S-90)</b>					
	Unit = sqm					
	Taking output = 7500 sqm (67.5 cum)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	5.200			
	<b>b) Machinery</b>					
	Hydraulic self propelled chips spreader	hour	6.000			
	Tipper 5.5 cum capacity	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	Bitumen pressure distributor	hour	6.000			
	Three wheel 80-100 kN static roller	hour	15.000			
	<b>c) Material</b>					
	Bitumen (S-90) @ 6.50 kg per 10 sqm	t	4.880			
	Crushed stone chipping of 6.7 mm size 100 per cent passing 9.5 mm sieve and retained on 2.36 mm sieve applied @ 0.09 cum per 10	cum	67.500			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Cost of 7500 sqm = a+b+c+d+e</b>					
	<b>Rate per sqm = (a+b+c+d+e)/7500</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
(II)	<b>Bitumen (S-65)</b>					
	Unit = sqm					
	Taking output = 7500 sqm (67.5 cum)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	5.200			
	<b>b) Machinery</b>					
	Hydraulic self propelled chips spreader	hour	6.000			
	Tipper 5.5 cum capacity	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	Bitumen pressure distributor	hour	6.000			
	Three wheel 80-100 kN static roller	hour	15.000			
	<b>c) Material</b>					
	Bitumen (S-65) @ 6.50 kg per 10 sqm	t	4.880			
	Crushed stone chipping of 6.7 mm size 100 per cent passing 9.5 mm sieve and retained on 2.36 mm sieve applied @ 0.09 cum per 10 sqm	cum	67.500			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Cost of 7500 sqm = a+b+c+d+e</b>					
	<b>Rate per sqm = (a+b+c+d+e)/7500</b>					
(III)	<b>Polymer Modified Bitumen</b>					
	Unit = sqm					
	Taking output = 7500 sqm (67.5 cum)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	5.200			
	<b>b) Machinery</b>					
	Hydraulic self propelled chips spreader	hour	6.000			
	Tipper 5.5 cum capacity	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	Bitumen pressure distributor	hour	6.000			
	Three wheel 80-100 kN static roller	hour	15.000			
	<b>c) Material</b>					
	Polymer Modified Bitumen @ 6.50 kg per 10 sqm	t	4.880			
	Crushed stone chipping of 6.7 mm size 100 per cent passing 9.5 mm sieve and retained on 2.36 mm sieve applied @ 0.09 cum per 10 sqm	cum	67.500			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Cost of 7500 sqm = a+b+c+d+e</b>					
	<b>Rate per sqm = (a+b+c+d+e)/7500</b>					
(IV)	<b>Crumb Rubber Modified Bitumen</b>					
	Unit = sqm					
	Taking output = 7500 sqm (67.5 cum)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	5.200			
	<b>b) Machinery</b>					
	Hydraulic self propelled chips spreader	hour	6.000			
	Tipper 5.5 cum capacity	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	Bitumen pressure distributor	hour	6.000			
	Three wheel 80-100 kN static roller	hour	15.000			
	<b>c) Material</b>					
	Crumb Rubber Modified Bitumen @ 6.50 kg per 10 sqm	t	4.880			
	Crushed stone chipping of 6.7 mm size 100 per cent passing 9.5 mm sieve and retained on 2.36 mm sieve applied @ 0.09 cum per 10 sqm	cum	67.500			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Cost of 7500 sqm = a+b+c+d+e</b>					
	<b>Rate per sqm = (a+b+c+d+e)/7500</b>					



S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
(V)	<b>Natural Rubber Modified Bitumen</b>					
	Unit = sqm					
	Taking output = 7500 sqm (67.5 cum)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	5.200			
	<b>b) Machinery</b>					
	Hydraulic self propelled chips spreader	hour	6.000			
	Tipper 5.5 cum capacity	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	Bitumen pressure distributor	hour	6.000			
	Three wheel 80-100 kN static roller	hour	15.000			
	<b>c) Material</b>					
	Natural Rubber Modified Bitumen @ 6.50 kg per 10 sqm	t	4.880			
	Crushed stone chipping of 6.7 mm size 100 per cent passing 9.5 mm sieve and retained on 2.36 mm sieve applied @ 0.09 cum per 10 sqm	cum	67.500			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Cost of 7500 sqm = a+b+c+d+e</b>					
	<b>Rate per sqm = (a+b+c+d+e)/7500</b>					
	<b>Note</b> : Since seal coat is provided immediately over the bituminous layers, Hydraulic broom for cleaning has not been catered.					
ii	Providing and laying seal coat sealing the voids in a bituminous surface laid to the specified levels, grade and cross fall using Type A and B seal coats as per Tech. specification No. 513 MORTH					
	<b>Unit = sqm</b>					
	<b>Taking output = 10250 sqm (92.25 cum)</b>					
	<b>Case - I : Type A</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	6.240			
	<b>b) Machinery</b>					
	Hydraulic self propelled chip spreader	hour	6.000			
	Tipper 5.5 cum capacity	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	Bitumen pressure distributor @ 1750 sqm per hour	hour	6.000			
	Smooth wheeled roller 8 -10 tonne weight	hour	6.000			
	<b>c) Material</b>					
	Bitumen@ 9.80 kg per 10 sqm	t	10.050			
	Crushed stone chipping of 6.7 mm size defined as 100 per cent passing 11.2 mm sieve and retained on 2.36 mm sieve applied @ 0.09 cum per 10 sqm	cum	92.250			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Cost for 10250 sqm = a+b+c+d+e</b>					
	<b>Rate per sqm = (a+b+c+d+e)/10250</b>					
	<b>Note</b> : Since seal coat is provided immediately over the bituminous layers, mechanical broom for clearing has not been catered.					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>Case - II : Type B</b>					
	Providing and laying of premix sand seal coat with HMP of appropriate capacity not less than 75 tonnes/ hours using crushed stone chipping 6.7 mm size and penetration bitumen of suitable grade.					
	<b>Unit = sqm</b>					
	<b>Taking output = 7858 sqm (47.16 cum)</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	4.160			
	<b>b) Machinery</b>					
	HMP of 75 tonnes/hour.	hour	2.000			
	Electric Generator Set 250 KVA	hour	2.000			
	Front end loader 1 cum bucket capacity	hour	2.000			
	Tipper 10 tonne capacity	t.km	104 x 'L'			
	Add 10 per cent of cost of carriage to cover cost of loading and unloading					
	Paver finisher hydrostatic with sensor attachment	hour	2.000			
	Smooth wheeled 8-10 tonnes capacity	hour	2.000			
	<b>c) Material</b>					
	Bitumen@ 6.80 kg per 10 sqm	t	5.340			
	Crushed stone chipping of 6.7 mm size defined as passing 11.2 mm sieve and retained on 2.36 mm sieve applied @ 0.06 cum per 10 sqm		47.160			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 7858 sqm = a+b+c+d+e</b>					
	<b>Rate per sqm = (a+b+c+d+e)/7858</b>					
	<b>Note :</b> Since seal coat is required to be provided over the premix carpet on the same day, out of the 6 working hours of the HMP, 4.00 hours are proposed to be utilised for the premix carpet and the balance 2.00 hours for the seal coat. Hence 2.00 hours have been considered for this case. This may be linked to rate analysis worked out under clause 511.					
18	5.1 <b>Supply of Stone Aggregates for Pavement Courses</b>					
	Supply of stone aggregates from approved sources conforming to the physical requirement, specified in the respective clauses, including royalties, fees, rents, collection, transportation, stacking and testing and measured in cum as per Clause 511.5 MORD / 514.5 MORTH					
	<b>Note :</b> Rates for stone crushing given in Chapter 1 may be adopted. In case for supply of aggregates at site are not available, nearest crusher site may be ascertained. Loading and unloading charges and cost of carriage may be added to these rates to arrive at the cost at site.					
19	<b>Mastic Asphalt</b>					
	Providing and laying 25 mm thick mastic asphalt wearing course with paving grade bitumen meeting the requirements given in table 500-29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated finegrained hard stone chipping of 13.2 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces is not less than 100°C, protruding 1 mm to 4 mm over mastic surface, all complete as per clause 515 MORTH.					
	<b>Unit = sqm</b>					
	<b>Taking output = 35.00 sqm (0.87 cum ) assuming a density of 2.3 tonnes/cum.-2 tonnes</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	10.000			
	Mazdoor skilled	day	1.440			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>b) Machinery</b>					
	Mechanical broom @ 1250 sqm per hour	hour	0.060			
	Air compressor 250 cfm	hour	0.060			
	Mastic cooker 1 tonne capacity	hour	6.000			
	Bitumen boiler 1500 litres capacity	hour	6.000			
	Tractor for towing and positioning of mastic cooker and bitumen boiler	hour	1.000			
	<b>c) Material</b>					
	Base mastic (without coarse aggregates) = 60 per cent					
	Coarse aggregate (6.3mm to 13.2 mm) = 40 per cent					
	Proportion of material required for mastic asphalt with coarse aggregates (based on mix design done by CRRRI for a specific case)					
	i) Bitumen <b>80 / 100</b> or 30/40 @ 10.2 per cent by weight of mix. $2 \times 10.2/100 = 0.204$	t	0.204			
	ii) Fine aggregate passing 2.36mm and retained on 0.075mm sieve @ 31.9 per cent by weight of mix = $2 \times 31.9/100 = 0.638$ tonnes = $0.638/1.625 = 0.39$	cum	0.390			
	iii) Lime stone dust filler with calcium content not less than 80 per cent by weight @ 17.92 per cent by weight of mix = $2 \times 17.92/100 = 0.36$	t	0.360			
	iv) Coarse aggregates 6.3 mm to 13.2 mm @ 40 per cent by weight of mix = $2 \times 40/100 = 0.8$ MT = $0.8/1.456 = 0.55$	cum	0.550			
	v) Pre-coated stone chips of 13.2 mm nominal size for skid resistance = $35 \times 0.005/10 = 0.018$	cum	0.018			
	vi) Bitumen for coating of chips @ 2 per cent by weight = $0.018 \times 1.456 \times 2/100 = 0.0005$ MT = 0.5kg	kg	0.500			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 35.00 sqm = a+b+c+d+e</b>					
	<b>Rate per sqm = (a+b+c+d+e)/35</b>					
	<b>Note :</b> 1.The rates for 50 mm & 40 mm thick layers may be worked out on pro-rata basis.					
	2. Where tack coat is required to be provided before laying mastic asphalt, the same is required to be measured and paid separately.					
	3. The quantities of binder, filler and aggregates are for estimating purpose. Exact quantities shall be as per mix design.					
	4. This rate analysis is based on design made by CRRRI for a specific case and is meant for estimating purposes only. Actual design is required to be done for each case.					
<b>20</b>	<b>Slurry Seal</b>					
	Providing and laying slurry seal consisting of a mixture of fine aggregates, portland cement filler, bituminous emulsion and water on a road surface including cleaning of surface, mixing of slurry seal in a suitable mobile plant, laying and compacting to provide even riding surface as per Tech. Specification 516 MORTH					
	<b>(i) 5 mm thickness</b>					
	<b>Unit = sqm</b>					
	<b>Taking output = 16000 sqm (80 cum)</b>					
	<b>Taking density of 2.2 tonnes per cum</b>					
	weight of mix = 176 tonnes					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	6.240			
	<b>b) Machinery</b>					
	Mechanical broom	hour	6.000			
	Air compressor 250 cfm	hour	6.000			
	Mobile slurry seal equipment	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	Tipper 5.5 cum capacity for carriage of aggregate from stockpile on road side to slurry equipment, bitumen emulsion and filler.	hour	6.000			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	Pneumatic tyred roller with individual wheel load not exceeding 1.5 tonnes	hour	6.000			
	Water tanker 6 KL capacity	hour	2.000			
	<b>c) Material</b>					
	Residual Binder (BT Emulsion - medium setting) @ 11 per cent of mix 80 x 2.2 x 0.11	t	19.360			
	Fine aggregate 4.75 mm and below 87 per cent of total mix, 80 x 2.2 x 0.87 = 153.12 tonnes. Taking density 1.5, = 153.12/1.5 = 102.08 cum	cum	102.080			
	Filler @ 2 per cent of total mix = 80 x 2.2 x 0.02 (Cement)	t	3.520			
	Cost of water	KL	12.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 16000 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/16000</b>					
(ii)	<b>3 mm thickness</b>					
	Unit = sqm					
	Taking output = 20000 sqm (60 cum)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	5.200			
	<b>b) Machinery</b>					
	Mechanical broom	hour	6.000			
	Air compressor 250 cfm	hour	6.000			
	Mobile slurry seal equipment	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	Tipper 5.5 cum capacity for carriage of aggregate from stockpile on road side to slurry equipment, bitumen emulsion and filler	hour	6.000			
	Water tanker 6 KL capacity	hour	2.000			
	<b>c) Material</b>					
	Residual Binder (BT Emulsion - medium setting) @ 13 per cent of mix = 60 x 2.2 x 0.13	t	17.160			
	Fine aggregate 3 mm and below 85 per cent of total mix, 60x 2.2 x 0.85 = 112.2 tonnes. Taking density 1.5,	cum	74.800			
	Filler @ 2 per cent of total mix = 60x 2.2 x 0.02	t	2.640			
	Cost of water	KL	12.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 20000 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/20000</b>					
(iii)	<b>1.5 mm thickness</b>					
	Unit = sqm					
	Taking output = 24000 sqm (36 cum)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	5.200			
	<b>b) Machinery</b>					
	Mechanical broom	hour	6.000			
	Air compressor 250 cfm	hour	6.000			
	Mobile slurry seal equipment	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	Tipper 5.5 cum capacity for carriage of aggregate from stockpile on road side to slurry equipment, bitumen emulsion and filler.	hour	6.000			
	Water tanker 6 KL capacity	hour	2.000			
	<b>c) Material</b>					
	Residual Binder (BT Emulsion -Medium setting) @ 16 per cent of mix, 36 x 2.2 x 0.16	t	12.670			
	Fine aggregate 2.36 mm and below, 82 per cent of total mix, 36x 2.2 x 0.82 = 64.94 tonnes. Taking density 1.5	cum	43.300			
	Filler @ 2 per cent of total mix = 36x 2.2 x 0.02	t	1.580			
	Cost of water	KL	12.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 24000 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/24000</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>Note</b> : 1.Tack coat, if required to be provided, before laying slurry seal may be measured and paid separately					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
21	<b>Recycling of Bituminous Pavement with Central Recycling Plant</b>					
	Recycling pavement by cold milling of existing bituminous layers, planning the surface after cold milling, reclaiming excavated material to the extent of 30 per cent of the required quantity, hauling and stock piling the reclaimed material near the central recycling plant after carrying out necessary checks and evaluation, adding fresh material including rejuvenators as required, mixing in a hot mix plant, transporting and laying at site and compacting to the required grade, level and thickness, all as specified in clause 517 MORTH.					
	<b>Unit = cum</b>					
	<b>Taking output = 120 cum (276 tonnes)</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	10.000			
	Mazdoor skilled	day	2.480			
	<b>b) Machinery</b>					
	Cold milling machine @ 20 cum per hour	hour	6.000			
	Mechanical broom @ 1250 sqm per hour	hour	1.280			
	Air compressor 250 cfm	hour	1.280			
	Bitumen pressure distributor @ 1750 sqm per hour	hour	0.910			
	Hot mix plant 100-120 TPH producing an average of 75 tonnes per hour	hour	3.000			
	Electric generator set 250 KVA	hour	3.000			
	Front end loader 1.00 cum bucket capacity	hour	3.000			
	Tipper 5.5 cum capacity	hour	18.000			
	Smooth wheeled roller 8-10 tonnes	hour	1.950			
	Vibratory roller 8 tonnes	hour	1.950			
	Smooth wheeled tandem roller 6-8 tonnes	hour	1.950			
	<b>c) Material</b>					
	<b>i) Bitumen</b>					
	A bitumen content is 4.5 per cent bitumen weight of mix. For reclaimed material, fresh bitumen will be required to the extent of 60 per cent of normal requirement.					
	In a mix of 276 tonnes, 82.8 tonne is reclaimed and balance 193.2 tonne is fresh mix.					
	Bitumen required for reclaimed mix of 82.8 tonne @ 60 per cent = $82.8 \times 0.60 \times 0.04 = 1.99$	t	1.987			
	Bitumen required for fresh mix of 193.2 tonnes = $193.2 \times 0.04 = 7.73$	t	7.728			
	<b>ii) Aggregates</b>					
	Percentage of mix requiring fresh aggregates - 70 per cent					
	Weight of fresh mix = $276 \times 0.70 = 193.2$ tonne					
	Weight of fresh aggregate in the mix = $193.2 \times 0.96 = 185.47$ tonne					
	<b>Taking average density of 1.5 tonnes/cum, total volume of aggregate = 123.65 cum.</b>					
	Size wise requirement of fresh aggregates					
	37.5 - 25 mm @ 23 per cent	cum	28.440			
	25 - 10 mm @ 15 per cent	cum	18.550			
	10- 5 mm @ 20 per cent	cum	24.730			
	Below 5 mm @40 per cent	cum	49.460			
	Filler (cement) @ 2 % of 276 tonne = 5.52 tonnes	t	5.520			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 120 cum = a+b+c+d+e</b>					
	<b>Rate per cum = (a+b+c+d+e)/120</b>					
	<b>Note</b> : Although the total rolling time is only 4 hours as per norms, all the three rollers have to be available at site for 3 hours each to match with the output of re-cycling plant. To cater for their idling time, these have been multiplied with a factor of 0.65.					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
22	<b>Fog Spray</b>					
	Providing and applying low viscosity bitumen emulsion for sealing cracks less than 3 mm wide or incipient fretting or disintegration in an existing bituminous surfacing as per Tech. Specification 518 MORTH.					
	<b>Unit = sqm</b>					
	<b>Taking output = 10500 sqm</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	3.120			
	<b>b) Machinery</b>					
	Mechanical broom @ 1250 sqm per hour	hour	6.000			
	Air compressor 250 cfm	hour	6.000			
	Bitumen emulsion pressure distributor @ 1750 sqm per hour	hour	6.000			
	<b>c) Material</b>					
	Bitumen emulsion ( <b>Medium setting</b> ) @ 0.75 kg/sqm	t	7.880			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 10500 sqm = a+b+c+d+e</b>					
	<b>Rate per sqm = (a+b+c+d+e)/10500</b>					
	1.In case it is decided by the engineer to blind the fog spray, the following may be added					
	<b>a) Labour</b>					
	Mate	day	0.160			
	Mazdoor (Unskilled) for precoating of grit	day	4.000			
	<b>b) Material</b>					
	Crushed stone grit 3 mm size @ 3.75 kg per sqm	cum	26.250			
	Bitumen emulsion for precoating grit @ 2 per cent of grit, 39.38 x 0.02	t	0.790			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 10500 sqm = a+b</b>					
	<b>Rate per sqm = (a+b)/10500</b>					
23	<b>Bituminous Cold Mix ( Including Gravel Emulsion)</b>					
	Providing, laying and rolling of bituminous cold mix on prepared base consisting of a mixture of unheated mineral aggregate and emulsified or cutback bitumen, including mixing in a plant of suitable type and capacity, transporting, laying, compacting and finishing to specified grades and levels as per Tech. Specification 519 MORTH.					
	<b>Unit = cum</b>					
	<b>Taking output = 205 cum (450 tonne)</b>					
	<b>(i) Using bitumen emulsion and 9.5 mm or 13.2 mm size aggregate</b>					
	<b>Composition of mix</b> (450 tonne) is assumed to be as under:-					
	Bitumen Emulsion 8 per cent by weight of Total Mixture					
	Filler 2 per cent					
	Total aggregates 90 per cent					
	<b>Proportion of aggregates</b>					
	19 mm to 9.5 mm 25 per cent					
	9.5 mm to 6 mm 29 per cent					
	6 mm to 0.075 mm 36 per cent					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	16.000			
	Mazdoor skilled	day	5.840			
	<b>b) Machinery</b>					
	Drum mix plant for cold mixes of appropriate capacity but not less than 75 tonnes/hour.	hour	6.000			
	Electric generator 125 KVA	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	Tipper 10 tonne capacity	t.km	450 x L			
	Add 10 per cent of cost of carriage to cover cost of loading and unloading					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	Paver finisher	hour	6.000			
	Pneumatic tyred roller 12-15 tonnes	hour	3.900			
	Smooth wheeled steel tandem roller 6-8 tonnes	hour	3.900			
	<b>c) Material</b>					
	Bitumen emulsion ( <b>Medium setting</b> ) @ 8 per cent	t	36.000			
	Filler (lime)@ 2 per cent	t	9.000			
	Aggregates size 19 to 9.5 mm - 450 x 0.25 x 1/1.5	cum	75.000			
	Aggregates size 9.5 to 6 mm - 450 x 0.29 x 1/1.5	cum	87.000			
	Aggregates size 6 to 0.075 mm - 450 x 0.36 x 1/1.5	cum	108.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 205 cum = a+b+c+d+e					
	<b>Rate per cum = (a+b+c+d+e)/205</b>					
	<b>(Applicable to cases I to IV)</b>					
	<b>Note : 1.</b> Density of aggregates has been assumed 1.5 gms/cc					
	<b>2.</b> Tack coat where provided will be measured and paid separately.					
	<b>3.</b> Though the rollers are required only for 3.5 hours each as per norms of output, but these are required to be available at site for 6 hours as the drum mix plant and the paver would take 6 hours for mixing and paving. To cater for the idle period, their usage rates have been multiplied by a factor of 0.65					
(ii)	<b>Using bitumen emulsion and 19 mm or 26.5 mm nominal size aggregate</b>					
	<b>Composition of mix</b> (450 tonne) is assumed to be as under:-					
	Bitumen Emulsion 8 per cent					
	Filler 2 per cent					
	Total aggregates 90 per cent					
	<b>Proportion of aggregates</b>					
	37.5 mm to 19 mm 25 per cent					
	19 mm to 6 mm 30 per cent					
	6 mm to 0.075 mm 35 per cent					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	16.000			
	Mazdoor skilled	day	5.840			
	<b>b) Machinery</b>					
	Drum mix plant for cold mixes 60-90 tonne per hour producing average output of 75 tonnes per hour	hour	6.000			
	Electric generator 125 KVA	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	Tipper 10 tonne capacity	t.km	450 x L			
	Add 10 per cent of cost of carriage to cover cost of loading and unloading					
	Paver finisher	hour	6.000			
	Pneumatic tyred roller 12-15 tonnes	hour	3.900			
	Smooth wheeled steel tandem roller 6-8 tonnes	hour	3.900			
	<b>c) Material</b>					
	Bitumen emulsion ( <b>Medium setting</b> ) @ 8 per cent	t	36.000			
	Filler (lime)@ 2 per cent	t	9.000			
	Aggregates size 37.5 to 19 mm - 450 x 0.25 x 1/1.5	cum	75.000			
	Aggregates size 19 to 6 mm - 450 x 0.3 x 1/1.5	cum	90.000			
	Aggregates size 6 to 0.075 mm - 450 x 0.35 x 1/1.5	cum	105.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 205 cum = a+b+c+d+e					
	<b>Rate per cum = (a+b+c+d+e)/205</b>					
	<b>Note : 1.</b> Density of aggregates has been assumed 1.5 gms/cc					
	<b>2.</b> Tack coat where provided will be measured and paid separately.					
	<b>3.</b> Though the rollers are required only for 3.5 hours each as per norms of output, but these are required to be available at site for 6 hours as the drum mix plant and the paver would take 6 hours for mixing and paving. To cater for the idle period, their usage rates have been multiplied by a factor of 0.65					



S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
(iii)	<b>Using cutback bitumen and 9.5 mm or 13.2 mm nominal size aggregate</b>					
	<b>Composition of mix</b> (450 tonne) is assumed to be as under:-					
	Cutback bitumen 5 per cent					
	Filler (lime) 2 per cent					
	Total aggregates 93 per cent					
	<b>Proportion of aggregates</b>					
	19 mm to 9.5 mm 26 per cent					
	9.5 mm to 6 mm 31 per cent					
	6 mm to 0.075 mm 36 per cent					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	16.000			
	Mazdoor skilled	day	5.840			
	<b>b) Machinery</b>					
	Drum mix plant for cold mixes 60-90 tonne per hour producing average output of 75 tonnes per hour	hour	6.000			
	Electric generator 125 KVA	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	Tipper 10 tonne capacity	t.km	450 x L			
	Add 10 per cent of cost of carriage to cover cost of loading and unloading					
	Paver finisher	hour	6.000			
	Pneumatic tyred roller 12-15 tonnes	hour	3.900			
	Smooth wheeled steel tandem roller 6-8 tonnes	hour	3.900			
	<b>c) Material</b>					
	Cutback bitumen @ 5 per cent	t	22.500			
	Filler (lime) @ 2 per cent	t	9.000			
	Aggregates size 19 to 9.5 mm - 450 x 0.26 x 1/1.5	cum	78.000			
	Aggregates size 9.5 to 6 mm - 450 x 0.31 x 1/1.5	cum	93.000			
	Aggregates size 6 to 0.075 mm - 450 x 0.36 x 1/1.5	cum	108.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Cost for 205 cum = a+b+c+d+e</b>					
	<b>Rate per cum = (a+b+c+d+e)/205</b>					
	<b>Note : 1.</b> Density of aggregates has been assumed 1.5 gms/cc					
	<b>2.</b> Tack coat where provided will be measured and paid separately.					
	<b>3.</b> Though the rollers are required only for 3.5 hours each as per norms of output, but these are required to be available at site for 6 hours as the drum mix plant and the paver would take 6 hours for mixing and paving. To cater for the idle period, their usage rates have been multiplied by a factor of 0.65					
(iv)	<b>Using cutback bitumen and 19 mm or 26.5 mm nominal size aggregate</b>					
	<b>Composition of mix</b> (450 tonne) is assumed to be as under:-					
	Cutback bitumen 5 per cent					
	Filler 2 per cent					
	Total aggregates 93 per cent					
	<b>Proportion of aggregates</b>					
	37.5 mm to 19 mm 25 per cent					
	19 mm to 6 mm 30 per cent					
	6 mm to 0.075 mm 38 per cent					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	16.000			
	Mazdoor skilled	day	5.840			
	<b>b) Machinery</b>					
	Drum mix plant for cold mixes 60-90 tonne per hour producing output of 75 tonnes per hour	hour	6.000			
	Electric generator 125 KVA	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	Tipper 10 tonne capacity	t.km	450 x L			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	Paver finisher	hour	6.000			
	Pneumatic tyred roller 12-15 tonnes.	hour	3.900			
	Smooth wheeled steel tandem roller 6-8 tonnes	hour	3.900			
	<b>c) Material</b>					
	Cutback bitumen on @ 5 per cent	t	22.500			
	Filler (lime)@ 2 per cent	t	9.000			
	Aggregates size 37.5 to 19 mm - 450 x 0.25 x 1/1.5	cum	75.000			
	Aggregates size 19 to 6 mm - 450 x 0.3 x 1/1.5	cum	90.000			
	Aggregates size 6 to 0.075 mm - 450 x 0.38 x 1/1.5	cum	114.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 205 cum = a+b+c+d+e</b>					
	<b>Rate per cum = (a+b+c+d+e)/205</b>					
	<b>Note : 1.</b> Density of aggregates has been assumed 1.5 gms/cc					
	<b>2.</b> Tack coat where provided will be measured and paid separately.					
	<b>3.</b> Though the rollers are required only for 3.5 hours each as per norms of output, but these are required to be available at site for 6 hours as the drum mix plant and the paver would take 6 hours for mixing and paving. To cater for the idle period, their usage rates have been multiplied by a factor of 0.65					
<b>24</b>	<b>Sand Asphalt Base Course</b>					
	Providing, laying and rolling sand-asphalt base course composed of sand, mineral filler and bituminous binder on a prepared sub-grade or sub-base to the lines, levels, grades and cross sections as per the drawings including mixing in a plant of suitable type and capacity, transporting, laying, compacting and finishing as per Tech. specification 520 MORTH.					
	<b>Unit = cum</b>					
	<b>Taking output = 205 cum (450 tonne)</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	16.000			
	Mazdoor skilled	day	5.840			
	<b>b) Machinery</b>					
	Hot Mix Plant of appropriate capacity but not less than 75 tonnes/hour	hour	6.000			
	Electric generator set 250 KVA	hour	6.000			
	Front end loader 1 cum bucket capacity	hour	6.000			
	Tipper 10 tonne capacity	t.km	450 x L			
	Add 10 per cent of cost of carriage to cover cost of loading and unloading					
	Paver finisher	hour	6.000			
	smooth wheeled roller 8-10 tonnes for initial break down rolling.	hour	3.900			
	Vibratory roller 8 tonnes for intermediate rolling.	hour	3.900			
	Finish rolling with 6-8 tonnes smooth wheeled tandom rollers.	hour	3.900			
	<b>c) Material</b>					
	<b>Composition of mix (450 tonne) is assumed to be as under:-</b>					
	Density 2.20 tonne per cum					
	Weight 450 tonne					
	Bitumen 5 per cent					
	Filler 2 per cent					
	Sand of size 4.75 to 0.075 mm 93 per cent					
	Bitumen @ 5 per cent	t	22.500			
	Filler (lime) @ 2 per cent	t	9.000			
	Sand of size 4.75 to 0.075 mm - 450 x 0.93 x 1/1.5	cum	288.620			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 205 cum = a+b+c+d+e (3 Wheel Roller)</b>					
	<b>Rate per cum = (a+b+c+d+e)/205</b>					
	<b>Note : 1.</b> Tack coat will be measured and paid separately					
	<b>2.</b> Although the rollers are required only for 3 hours as per norms of output, but the same have to be available at site for six hours as the hot mix plant and paver will take six hours for mixing and paving the output of 450 tonnes considered in this analysis. To cater for the idle period of this roller, their usage rates has been multiplied by a factor of 0.65					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
25	<b>Modified Binder</b>					
	Supply of modified binder produced by mixing bitumen with modifier such as natural rubber or crumb rubber or any other polymer found compatible with bitumen and which allows properties given in clause 521.3 and IRC:SP: 53 blending of modifier with bitumen to be done either at the refinery or at central unit with all facilities by proper industrial process, is essential. See Tech. specification 521 MORTH.					
	Unit = tonne					
	The use of modified binder is expected to result in an extended service life of bituminous pavements subject to heavy traffic loads in extreme climatic conditions, thus justifying the entire cost of adding modifiers/fibers. Other advantages include lower temperature susceptibility, higher resistance to aging, higher fatigue life, higher resistance to cracking and better adhesion between aggregates and binder.					
	Detailed information and inductive dose level on the use of polymer modified binder is available in IRC : SP-53 / 2002. A number of proprietary products are now available in the market. For such proprietary products, test reports and cost effectiveness should be the basis for their selection in road works.					
	The modifier, in the required quantity shall be blended at the refinery or at central unit with all facilities by proper industrial process, is essential. If supplied in drums it shall be agitated in melted condition with suitable device for achieving homogeneity					
	Proposals to use glass fiber, polypropylene fibers or any other similar material in a bituminous mixture should be substantiated, complete with all details including test results, manufacturer's recommendations for addition or means of incorporating the fibers, homogeneously, without segregation, into the mixture.					
	Before agreeing to the use of a fiber, it should have been proved to be satisfactory in use under circumstances, similar to the work, elsewhere or it would have under gone appropriate performance trials. Documented evidence of use and trials of the fiber, in any country having conditions similar to Indian will be acceptable.					
	where information on use of trials is inadequate or lacking, trials may be required to be under taken before agreeing to the use of the fiber.					
	Note : 1. The modified binder is usually manufactured by specialised firms as a proprietary product. The rate for this product is required to be ascertained from the market.					
	2.The specifications for various item of road works using polymer/rubber modified bitumens are same as those for penetration grade bitumen except those for any special conditions which the manufacturer may indicate					
	3.The other controls during mixing, laying shall be same as specified in IRC - 14, 29, 94 and 95 for open graded premix carpet, bituminous concrete, DBM and SDBC respectively					
	4.The temperature of mixing and rolling will be slightly higher than conventional bituminous mixes as indicated in Table 8 of IRC: SP: 53 - 2002					
26	<b>Crack Prevention Courses</b>					
	<b>i Stress absorbing membrane (SAM) crack width less than 6 mm</b>					
	Providing and laying of a stress absorbing membrane over a cracked road surface, with crack width below 6 mm after cleaning with a mechanical broom, using modified binder complying with clause 521, sprayed at the rate of 9 kg per 10 sqm and spreading 5.6 mm crushed stone aggregates @ 0.11 cum per 10 sqm with hydraulic chip spreader, sweeping the surface for uniform spread of aggregates and surface finished to conform to clause 902. Tech. Specification 522 MORTH.					
	<b>Unit = sqm</b>					
	<b>Taking output = 10500 sqm</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	6.240			
	<b>b) Machinery</b>					
	Mechanical broom @ 1250 sqm per hour	hour	6.000			
	Air compressor 250 cfm	hour	6.000			
	Bitumen pressure distributor @ 1750 sqm per hour	hour	6.000			
	Hydraulic Chip spreader	hour	6.000			
	Smooth wheeled road roller 8-10 tonne	hour	6.000			
	<b>c) Material</b>					
	Modified binder	t	9.450			
	Crushed stone aggregates 5.6 mm size	cum	105.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 10500 sqm = a+b+c+d+e</b>					
	<b>Rate per sqm = (a+b+c+d+e)/10500</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
(ii)	<b>Stress absorbing membrane (SAM) with crack width 6 mm to 9 mm</b>					
	Providing and laying of a stress absorbing membrane over a cracked road surface, with crack width 6 to 9 mm after cleaning with a mechanical broom, using modified binder complying with clause 521, sprayed at the rate of 11 kg per 10 sqm and spreading 11.2 mm crushed stone aggregates @ 0.12 cum per 10 sqm, sweeping the surface for uniform spread of aggregates and surface finished to conform to clause 902, Tech. Specification 522 MORTH.					
	<b>Unit = sqm</b>					
	<b>Taking output = 10500 sqm</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	6.240			
	<b>b) Machinery</b>					
	Mechanical broom @ 1250 sqm per hour	hour	6.000			
	Air compressor 250 cfm capacity	hour	6.000			
	Bitumen pressure distributor @ 1750 sqm per hour	hour	6.000			
	Hydraulic Chip spreader	hour	6.000			
	Smooth wheeled road roller 8-10 tonne	hour	6.000			
	<b>c) Material</b>					
	Modified binder	t	11.550			
	Crushed stone chipping 11.2 mm size	cum	105.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Cost for 10500 sqm = a+b+c+d+e</b>					
	<b>Rate per sqm = (a+b+c+d+e)/10500</b>					
(iii)	<b>Stress absorbing membrane (SAM) crack width above 9 mm and cracked area above 50 per cent</b>					
	Providing and laying a single coat of a stress absorbing membrane over a cracked road surface, with crack width above 9 mm and cracked area above 50 per cent after cleaning with a mechanical broom, using modified binder complying with clause 521, sprayed at the rate of 15 kg per 10 sqm and spreading 11.2 mm crushed stone aggregates @ 0.12 cum per 10 sqm, sweeping the surface for uniform spread of aggregates and surface finished to conform to clause 902, Tech. Specification 522 MORTH.					
	<b>Unit = sqm</b>					
	<b>Taking output = 10500 sqm</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	6.000			
	Mazdoor skilled	day	2.240			
	<b>b) Machinery</b>					
	Mechanical broom @ 1250 sqm per hour	hour	6.000			
	Air compressor 250 cfm capacity	hour	6.000			
	Bitumen pressure distributor @ 1750 sqm per hour	hour	6.000			
	Hydraulic Chip spreader	hour	6.000			
	Smooth wheeled road roller 8-10 tonne	hour	6.000			
	<b>c) Material</b>					
	Modified binder	t	15.750			
	Crushed stone aggregates 11.2 mm size	cum	126.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Cost for 10500 sqm = a+b+c+d+e</b>					
	<b>Rate per sqm = (a+b+c+d+e)/10500</b>					
	<b>Note : In case 2nd coat is also required to be provided, material provided for the 2nd coat shall be as per table 500-47.</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
(iv)	<b>Case-IV : Bitumen impregnated geotextile</b>					
	Providing and laying a bitumen impregnated geotextile layer after cleaning the road surface, geotextile conforming to requirements of clause 703.3, laid over a tack coat with 1.05 kg per sqm of paving grade bitumen 80 - 100 penetration and constructed to the requirement of clause 703.4.5, Tech. Specification 522 MORTH.					
	<b>Unit = sqm</b>					
	<b>Taking output = 3500 sqm</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	12.000			
	Mazdoor skilled	day	2.560			
	<b>b) Machinery</b>					
	Mechanical broom @ 1250 sqm per hour	hour	2.800			
	Air compressor 250 cfm capacity	hour	2.800			
	Bitumen pressure distributor @ 1750 sqm per hour	t	2.000			
	Pneumatic roller	hour	2.000			
	<b>c) Material</b>					
	Paving grade bitumen of 80 - 100 penetration @ 1.05 kg per sqm	t	3.680			
	Geotextile including 10 per cent for overlaps	sqm	3850.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 3500 sqm = a+b+c+d+e</b>					
	<b>Rate per sqm = (a+b+c+d+e)/3500</b>					
	<b>Note :</b> As bitumen overlay construction shall follow closely the fabric placement on the same day, an output of 3500 sqm only has been considered for the analysis which will cover a length of 500 m, of 7 m wide carriageway. This can be conveniently overlaid by a bituminous course in a day					
27	<b>Recipe Cold Mix</b>					
	Providing and laying of premix of crushed stone aggregates and emulsion binder, mixed in a batch type cold mixing plant, laid over prepared surface, by paver finisher, rolled with a pneumatic tyred roller initially and finished with a smooth steel wheel roller, all as per clause 519.3 MORTH					
	<b>Unit = cum</b>					
	<b>Taking output = 205 sqm (450 tonnes)</b>					
	<b>(i) 75 mm thickness</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	12.000			
	Mazdoor skilled	day	6.000			
	<b>b) Machinery</b>					
	<b>Drum mix plant for cold mixes 40 / 60 tonne per hour producing output of 50 tonnes per hour</b>	hour	9.000			
	Electric generator 125 KVA	hour	6.000			
	Front end loader 1 cum capacity	hour	6.000			
	Paver finisher hydrostatic with sensor control @ 75 cum/ hour	hour	6.000			
	Tipper 10 tonne capacity	t.km	450 x L			
	Add 10 per cent of cost of carriage to cover cost of loading and unloading					
	Pneumatic tyred roller 12-15 tonnes.	hour	3.900			
	Smooth wheeled steel roller 6-8 tonnes.	hour	3.900			
	Water tanker 6 KL capacity	hour	1.000			
	<b>c) Material</b>					
	Bitumen emulsion (MS) @ 45 litres per tonne	t	20.250			
	Crushed stone aggregates 40 mm nominal size	cum	297.000			
	Cost of water	KL	6.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 205 sqm = a+b+c+d+e</b>					
	<b>Rate per sqm = (a+b+c+d+e)/205</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
ii	<b>40 mm thickness</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	12.000			
	Mazdoor skilled	day	6.000			
	<b>b) Machinery</b>					
	Batch type cold mixing plant 100-120 TPH capacity producing an average output of 75 tonne per hour	hour	-			
	<b>Drum mix plant for cold mixes 40 / 60 tonne per hour producing output of 50 tonnes per hour</b>	hour	9.000			
	Electric generator 125 KVA	hour	6.000			
	Front end loader 1 cum capacity	hour	6.000			
	Paver finisher hydrostatic with sensor control @ 75 cum per hour	hour	6.000			
	Tipper 10 tonne capacity	t.km	450 x L			
	Add 10 per cent of cost of carriage to cover cost of loading and unloading					
	Pneumatic tyred roller 12-15 tonnes.	hour	3.900			
	Smooth wheeled steel roller 6-8 tonnes.	hour	3.900			
	Water tanker 6 KL capacity	hour	1.000			
	<b>c) Material</b>					
	Bitumen emulsion (MS) @ 70 litres per tonne	t	31.500			
	Crushed stone aggregates 14 mm nominal size	cum	287.000			
	Cost of water	KL	6.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Cost for 205 sqm = a+b+c+d+e</b>					
	<b>Rate per sqm = (a+b+c+d+e)/205</b>					
iii	<b>25 mm thickness</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	12.000			
	Mazdoor skilled	day	6.000			
	<b>b) Machinery</b>					
	Batch type cold mixing plant 100-120 TPH capacity producing an average output of 75 tonne per hour	hour	-			
	<b>Drum mix plant for cold mixes 40 / 60 tonne per hour producing output of 50 tonnes per hour</b>	hour	9.000			
	Electric generator 125 KVA	hour	6.000			
	Front end loader 1 cum capacity	hour	6.000			
	Paver finisher hydrostatic with sensor control @ 75 cum per hour	hour	6.000			
	Tipper 10 tonne capacity	t.km	450 x L			
	Add 10 per cent of cost of carriage to cover cost of loading and unloading					
	Pneumatic tyred roller	hour	3.900			
	Smooth wheeled steel roller	hour	3.900			
	Water tanker 6 KL capacity	hour	1.000			
	<b>c) Material</b>					
	Bitumen emulsion (MS) @ 85 litres per tonne	t	38.250			
	Crushed stone aggregates 6 mm nominal size	cum	270.000			
	Cost of water	KL	6.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Cost for 205 sqm = a+b+c+d+e</b>					
	<b>Rate per sqm = (a+b+c+d+e)/205</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>Note : (Case I to III)</b>					
	1. These mixes are considered suitable for minor repair work and temporary road surface improvement.					
	2. In case concrete mixtures are required to be used for mixing, a number of these will be needed to match the capacity of road rollers.					
	3. Tack coat, where provided, will be measured and paid separately.					
	4. Both the rollers have to be available at site to match with the output of batch mixing plant and paver finisher. A multiplying factor of 0.65 has been adopted to cater for the idling period of road rollers.					

**General Note :**

1. The provisions towards Mate is included in the provision towards unskilled Mazdoor upto item 2.
2. The provisions towards Mate is included in the provision towards skilled Mazdoor from item 3.

**Andhra Pradesh Standard Data**

**I. Roads and Bridges**

**Chapter - 6**

**CEMENT CONCRETE PAVEMENT**

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
1	<b>Granual Sub-base</b> Rate as per item No. 1 or 2 of Chapter 4					
2	<b>Lime Treated Soil</b> Rate as per item No. 3 or 4 of Chapter 4					
3	<b>Water Bound Macadam (WBM) - Sub-base</b>					
	<b>(A) By Manual Means</b> As per item No.9 of Chapter 4					
	<b>(B) By Mechanical Means</b> As per item No.9 of Chapter 4					
4	<b>Dry Lean Cement Concrete Sub- base</b> Construction of dry lean cement concrete Sub- base over a prepared sub-grade with coarse and fine aggregate conforming to IS: 383, the size of coarse aggregate not exceeding 25 mm, aggregate cement ratio not to exceed 15:1, aggregate gradation after blending to be as per table 600-1, 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, transported to site, laid with a paver with electronic sensor, compacting with 8-10 tonnes vibratory roller, finishing and curing etc. complete as per Technical Specification 601 MORTH.					
	<b>Unit = cum</b>					
	<b>Taking output = 450 cum (990 tonne)</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor skilled	day	7.12			
	Mazdoor (Unskilled)	day	22.00			
	<b>b) Machinery</b>					
	Front end loader 1 cum bucket capacity	hour	6.00			
	Cement concrete batch mix plant @ 75 cum per hour	hour	6.00			
	Electric generator 100 KVA	hour	6.00			
	Paver with electronic sensor	hour	6.00			
	Vibratory roller 8-10 t capacity	hour	8.00			
	Water tanker 6 KL capacity	hour	8.00			
	Tipper	t.km	990 x L			
	<b>c) Material</b>					
	Crushed stone coarse aggregate of 25 mm and 12.5 mm nominal sizes graded as per table 600-1 @ 0.90 cum/cum of concrete conforming to clause 602.2.4.	cum	405.00			
	Coarse Sand as per IS: 383 @ 0.45 cum/cum of concrete	cum	203.00			
	Cement @ 150 kg/cum of concrete	tonn	67.50			
	Cost of water	KL	48.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Cost for 450 cum = a+b+c+d+e</b>					
	<b>Rate per cum = (a+b+c+d+e)/450</b>					
	<b>Note</b> : Quantity provided for aggregate is for estimating purpose. Exact quantity shall be as per mix design.					



S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
5	<b>Cement Concrete Pavement</b>					
	Construction of un-reinforced, dowel jointed at expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS : 383, maximum in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge / culvert and construction joints, admixtures as approved, curing of concrete slabs for 14- days, curing compound (where specified) and water finishing to lines and grade as per drawing and Technical Specification Clause 1501 MORD.					
	Unit = cum					
	Taking output = 75 cum (172.50 t) (100 x 3.75 x 0.200)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mason (1st class)	day	5.00			
	Mason (2nd class)	day	5.00			
	Mazdoor (Unskilled)	day	150.00			
	Mazdoor (Skilled)	day	6.00			
	Surveyor	day	2.00			
	Mazdoor (Semi-Skilled)	day	6.00			
	Blacksmith for cutting of dowel bars including removal of burrs, fabrications & fixing of dowel bars.	day	1.00			
	<b>b) Machinery</b>					
	Concrete mixer 0.28 / 0.4 cum capacity (6 mixers) with weigh batcher and suitable capacity calibrated water tank	hour	36.00			
	Needle vibrator	hour	9.00			
	Screed vibrator	hour	9.00			
	Plate vibrator	hour	9.00			
	Concrete joint cutting machine for initial & final cuts	hour	4.00			
	Water tanker 6 kl capacity	hour	5.00			
	Air Compressor (1 hour initial + 1 hour final)	hour	2.00			
	<b>c) Material</b>					
	Crushed stone coarse aggregates, grading will be as per Clause 1501.2.4.1 (Table 1500.1) of specifications @ 0.90 cum/cum of concrete <b>(25 mm &amp; 12.5 mm blending)</b>	cum	67.50			
	Sand as per IS:383 and conforming to Clause 1500.2.4.2 @ 0.45 cum/cum of concrete	cum	33.75			
	Cement @ 310 kg/cum of concrete	t	26.25			
	Polythene sheet 125 micron	sqm	412.50			
	Mild steel dowel bar 25 mm dia of grade S 240. 500 mm long 20 Nos. at culvert/bridge slab and at construction joint including 5 per cent wastage.					
	(4 x 20 x 0.500) + 5 per cent wastage = 42 m @ 2.80 kg per m = 117.6 kg.	t	0.118			
	Bitumen primer @ 200 ml per joint for 23 joints	kg	5.00			
	Bituminous sealant 800 ml per joint for 23 joints	litre	19.00			
	Jute rope 12 mm dia including 5 per cent wastage	m	90.00			
	Debonding strips 3.75 m (length) x 10 mm (width) x 5 mm (thick) cut-out of rubber filler board or similar material including 5 per cent wastage	m	90.00			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	Polythene sheathing, covering 2/3rd dowel bars (20x23) and tight fit including 5 per cent wastage	No.	483.00			
	Plasticizer 0.5 per cent by weight of cement	litre	122.00			
	Curing compound (if used) @ 0.33 litre per sqm	litre	131.25			
	Water for curing	kl	18.00			
	Joint filler board 20 mm thick as per IS:1838 (4 x 3.75 x 0.200 = 3 sqm)	sqm	3.00			
	<b>d) Formwork @ 3% of (a+b+c)</b>					
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 75 cum = a+b+c+d+e+f</b>					
	<b>Rate per cum = (a+b+c+d+e+f)/75</b>					
<b>6</b>	Construction of un-reinforced, dowel jointed, plain cement concrete pavement over a prepared sub base with 43 grade cement @ 400 kg per cum, coarse and fine aggregate conforming to IS 383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a batching and mixing plant as per approved mix design, transported to site, laid with a fixed form or slip form paver, spread, compacted and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints, joint filler, separation membrane, sealant primer, joint sealant, debonding strip, dowel bar, tie rod, admixtures as approved, curing compound, finishing to lines and grades as per drawing and Technical Specification 602 MORTH.					
	<b>Unit = cum</b>					
	<b>Taking output = 1050 cum (2415 tonne)</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor skilled	day	15.00			
	Mazdoor (Unskilled)	day	37.00			
	<b>b) Machinery</b>					
	Road Sweeper @ 1250 sqm per hour	hour	2.80			
	Front end loader 1 cum bucket capacity	hour	18.00			
	Cement concrete batch mix plant @ 175 cum per hour	hour	6.00			
	Electric generator 250 KVA	hour	6.00			
	Slip form paver with electronic sensor	hour	6.00			
	Water tanker 6 KL capacity	hour	36.00			
	Transit truck agitator 5 cum capacity.	tonn	2415xL			
	Concrete joint cutting machine	hour	12.00			
	Texturing machine	hour	12.00			
	<b>c) Material</b>					
	Crushed stone coarse aggregates of 25mm and 12.5mm nominal size @ 0.90 cum/cum of concrete conforming to clause 602.2.4.	cum	945.00			
	Sand as per IS: 383 and conforming to clause 602.2.4 @ 0.45 cum/cum of concrete	cum	473.00			
	Cement 43 grade @ 400 kg/cum of concrete	tonn	414.00			
	32 mm mild steel dowel bars of grade S 240	tonn	9.45			
	16 mm deformed steel tie bars of grade S 415	tonn	1.17			
	Separation Membrane of impermeable plastic sheeting 125 micron thick	sqm	3675.00			
	Pre moulded Joint filler, 25 mm thick for expansion joint.	sqm	16.33			
	Joint sealant	kg	875.00			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	Sealant primer	kg	116.67			
	Plastic sheath, 1.25 mm thick for dowel bars	sqm	46.67			
	Curing compound	liter	1850.00			
	Super plastisizer admixture IS marked as per 9103-1999 @ 0.5 per cent by weight of cement	kg	2070.00			
	Cost of water	KL	216.00			
	Add 1 per cent of material for cost of miscellaneous materials like tarpaulin, Hessian cloth, metal cap, cotton / compressible sponge and cradle for dowel bars, work bridges for men to approach concrete surface without walking over it, cutting blades and bites, minor equipments like scrabbling machine, threads, ropes, guide wires and any other unforeseen items.					
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	Cost for 1050 cum = a+b+c+d+e					
	<b>Rate per cum = (a+b+c+d+e)/1050</b>					
	<b>Note :</b> The quantities for cement, coarse aggregate and fine aggregates are for estimating only .The exact quantities will be as per mix design.					
<b>7</b>	<b>Roller Compacted Concrete Pavement</b>					
	Construction of Roller Compacted Concrete Pavement (RCCP) with coarse and fine aggregates conforming to IS:383, the size of coarse aggregate not exceeding 25 mm with <u>minimum aggregate cement ratio of 5:1</u> and with minimum cement content of 310 kg per cum, aggregate gradation to be as per Table 602.2 after blending, mixing in concrete mixer at optimum moisture content, transporting to site, laying with wheel barrows or steel pans or with mechanical paver, compacting with 80-100 kN smooth wheel, tandem, vibratory roller, to achieve, the designed flexural strength, finishing and curing as per drawings and Technical Specification Clause 1502 MORD.					
	Unit = cum					
	Taking output = 75 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	152.00			
	Mason (1st class)	day	4.00			
	Mason (2nd class)	day	4.00			
	Surveyor	day	2.00			
	<b>b) Machinery</b>					
	Concrete mixer 0.28 / 0.4 cum capacity (6 mixers) with weigh batcher and suitable capacity calibrated water tank	hour	36.00			
	Three wheel 80-100 kN static roller	hour	7.50			
	<b>OR</b>					
	Vibratory roller 80-100 kN	hour	6.00			
	Concrete joint cutting machine for day's end work and regular	hour	6.00			
	Water tanker 6 kl capacity	hour	6.00			
	Air compressor (1 hour initial + 1 hour final)	hour	2.00			
	<b>c) Material</b>					
	Crushed stone coarse aggregates grading as per Clause 1501.2.4.1 (Table 1500.3) @ 0.90 cum/cum of concrete conforming to Clause 600.4.4 ( <b>25 mm &amp; 12.5 mm blending</b> )	cum	67.50			
	Sand as per IS:383 and conforming to Clause 1501.2.4.2 @ 0.45 cum/cum of concrete	cum	33.75			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	Cement @ 310 kg/cum of concrete	t	23.25			
	Bituminous primer @ 200 ml per joint for 21 joints	kg	4.00			
	Jute rope 10 mm dia including 5 per cent wastage	m	90.00			
	Bituminous sealant @ 800 ml per joint for 21 joints	kg	16.80			
	Curing compound @ 0.33 litre per sqm	l	131.25			
	Water for mixing and curing for 14-days	kl	18.00			
	<b>d) Formwork @ 3% of (a+b+c)</b>					
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>				18.00%	
	Cost for 75 cum = a+b+c+d+e (3 Wheel Roller)					
	Rate per cum = (a+b+c+d+e)/75					
	Cost for 75 cum = a+b+c+d+e (Vibratory Roller)					
	Rate per cum = (a+b+c+d+e)/75					
	<b>Note :</b> When curing compound is used 4-days water curing will be done					
8	<b>Rolled Cement Concrete Base</b>					
	Construction of rolled cement concrete base course with coarse and fine aggregate conforming to IS:383, the size of coarse aggregate not exceeding 25 mm with minimum, aggregate cement ratio 15:1 and minimum cement content of 200 kg/cum, aggregate gradation to be as per table 600-4 after blending, mixing in batching plant at optimum moisture content, transporting to site, laying with a paver with electronic sensor, compacting with 8-10 tonnes smooth wheeled vibratory roller to achieve, the designed flexural strength, finishing and curing as per Technical Specification 603 MORTH.					
	<b>Unit = cum</b>					
	<b>Taking output = 450 cum (990 tonne)</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor skilled	day	7.00			
	Mazdoor (Unskilled)	day	24.20			
	<b>b) Machinery</b>					
	Front end loader 1 cum bucket capacity	hour	6.00			
	Cement concrete batch mix plant @ 75 cum per hour	hour	6.00			
	Electric generator 100 KVA	hour	6.00			
	Paver with electronic sensor @ 75 cum/hr.	hour	6.00			
	Vibratory roller 8-10 t capacity	hour	8.00			
	Water tanker with 5 km lead 6 KL capacity	hour	8.00			
	Tipper	tonn	990xL			
	Add 10 per cent of cost of carriage to cover cost of loading and unloading					
	<b>c) Material</b>					
	Crushed stone coarse aggregates of 25mm and 12.5mm nominal size @ 0.90 cum/cum of concrete conforming to clause 602.2.3.	cum	405.00			
	Sand as per IS: 383 and conforming to clause 602.2.3 @ 0.45 cum/cum of concrete	cum	203.00			
	Cement @ 200 kg/cum of concrete	tonn	90.00			
	Cost of water	KL	48.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>				18.00%	
	Cost for 450cum = a+b+c+d+e					
	Rate per cum = (a+b+c+d+e)/450					
	<b>Note :</b> The quantities for cement, coarse aggregate and fine aggregates are for estimating only .The exact quantities will be as per mix design.					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
9	<b>Transition Section between Rigid and Flexible Pavement</b>					
	Due to change in the properties of materials and type of construction, a gradual changeover from rigid pavement to flexible pavement is desirable to avoid any damage at the butting joint. After provision of an expansion joint in the cement concrete slab, the thickness of slab should be tapered to 10 cm over a length of 3 m towards the flexible pavement. The deficiency of thickness caused due to tapering of the slab should be made up by the asphaltic layers.					
	The quantities of items should be worked out based on the approved design and drawings and priced as per rates given under respective clauses for cement concrete and asphaltic work.					
10	<b>Construction of Base/Sub-Base of Pavement with Lean Concrete - Flyash.</b>					
	Construction of Base/sub-base using cement, sand, fly ash and coarse aggregates proportioned as per table 4 of IRC: 74/1979 and with water content ratio, slump and compressive strength as defined in the said table, mix prepared in a batching and mixing plant and compacted with a vibratory roller 8-10 tonnes capacity within the time limit laid down vide clause 7.6.3 of IRC: 74-1979, construction joints properly formed at the end of day's work, cured for 14 days, all as specified in IRC: 74-1979 and as per approved plans MORTH. <b>(Suggestive MORTH)</b>					
	<b>Unit = cum</b>					
	<b>Taking output = 450 cum (990 tonne)</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor skilled	day	6.00			
	Mazdoor (Unskilled)	day	23.12			
	<b>b) Machinery</b>					
	Front end loader 1 cum bucket capacity	hour	6.00			
	Cement concrete batch mix plant @ 75 cum per hour	hour	6.00			
	Electric generator 100 KVA	hour	6.00			
	Paver finisher with electronic sensor	hour	6.00			
	Vibratory roller 8-10 t capacity	hour	8.00			
	Water tanker 6 KL capacity	hour	8.00			
	Tipper 10 T Capacity	t.km	990 x L			
	Add 10 per cent of cost of carriage to cover cost of loading and unloading	-				
	<b>c) Material</b>					
	Crushed stone coarse aggregate of 40 mm nominal size @ 0.90 cum/cum of concrete conforming to table 2 of IRC: 74-1979.	cum	405.00			
	Coarse Sand as per IS: 383 - 1970	cum	110.96			
	Cement @ 150 kg/cum of concrete	tonn	67.50			
	Fly ash conforming to IS: 3812 ( Part II )	cum	91.54			
	( Total fine aggregates = 450 x 0.45 = 202.50 cum To be divided in ratio of 2 sand : 1.65 flyash. Refer table 4 of IRC: 74-1979).					
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 450cum = a+b+c+d+e</b>					
	<b>Rate per cum = (a+b+c+d+e)/450</b>					
	<b>Note : 1.</b> Depending upon approved designs, crushed stone aggregates of nominal size 20mm can also be used as per gradation given in table 2 of IRC: 74-1979.					
	<b>2.</b> The ratio of specific gravities of fly ash and sand has been assumed to be 0.827.					
	<b>3.</b> The quantities of materials given in the analyses are for estimating purposes. Actual quantities shall be as per job mix formula.					
	<b>4.</b> Construction procedure as laid down in clause, of IRC: 74-1979 shall be followed.					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
11	<b>Cement - Flyash Concrete Pavement.</b>					
	Construction reinforced-reinforced, dowel jointed, plain cement concrete pavement over a prepared sub base with 43 grade cement, coarse and fine aggregate conforming to IS 383, maximum size of coarse aggregate not exceeding 25 mm, replacing cement by fly ash to the extent of 15 per cent and sand by 10 per cent, mixed in a batching and mixing plant as per approved mix design, transported to site, laid with a fixed form or slip form paver, spread, compacted and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints, joint filler, separation membrane, sealant primer, joint sealant, debonding strip, dowel bar, tie rod, admixtures as approved, curing compound, finishing to lines and grades as per drawing. <b>(Suggestive MORTH)</b>					
	<b>Unit = cum</b>					
	<b>Taking output = 1050 cum (2415 tonne)</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor skilled	day	15.00			
	Mazdoor (Unskilled)	day	37.00			
	<b>b) Machinery</b>					
	Road Sweeper @ 1250 sqm per hour	hour	2.80			
	Front end loader 1 cum bucket capacity	hour	18.00			
	Cement concrete batch mix plant @ 175 cum per hour (effective output)	hour	6.00			
	Electric generator 250 KVA	hour	6.00			
	Slip form paver with electronic sensor	hour	6.00			
	Water tanker 6 KL capacity	hour	36.00			
	Transit truck agitator 5 cum capacity.	tonn	2415xL			
	Add 10 per cent of cost of carriage to cover cost of loading and unloading		-			
	Concrete joint cutting machine .	hour	12.00			
	Texturing machine .	hour	12.00			
	<b>c) Material</b>					
	Crushed stone coarse aggregates of 25mm and 12.5mm nominal size @ 0.90 cum/cum of concrete conforming to clause 602.2.4.	cum	945.00			
	Sand as per IS: 383 and conforming to clause 602.2.4	cum	425.00			
	Cement 43 grade	tonn	357.00			
	Fly ash conforming to IS: 3812-1966 (Part-I)	tonn	109.00			
	32 mm mild steel dowel bars of grade S 240	tonn	9.45			
	16 mm deformed steel tie bars of grade S 415	tonn	1.17			
	Separation Membrane of impermeable plastic sheeting 125 micron thick	sqm	3675.00			
	Pre moulded Joint filler, 25 mm thick for expansion joint ('SILFLEX' CAPCELL HD -100)	sqm	16.33			
	Joint sealant	kg	875.00			
	Sealant primer	kg	116.67			
	Plastic sheath, 1.25 mm thick for dowel bars	sqm	46.67			
	Curing compound	liter	1850.00			
	Super plastisizer admixture IS marked as per 9103-1999 @ 0.5 per cent by weight of cement	kg	2070.00			
	Cost of water	KL	216.00			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	Add 1 per cent of material for cost of miscellaneous materials like tarpaulin, Hessian cloth, metal cap, cotton / compressible sponge and cradle for dowel bars, work bridges for men to approach concrete surface without walking over it, cutting blades and bites, minor equipments like scabbling machine, threads, ropes, guide wires and any other unforeseen items.					
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		18.00%			
	Cost for 1050cum = a+b+c+d+e					
	<b>Rate per cum = (a+b+c+d+e)/1050</b>					
	<b>Note : 1.</b> The quantities for cement, coarse aggregate and fine aggregates are for estimating only. The exact quantities will be as per mix design.					
	<b>2.</b> IRC: 68-1976 may be referred for guidelines on the design of cement-fly ash concrete for rigid pavement construction.					
	<b>*Calculation of cement, sand and fly ash.</b>					
	<b>Cement @ 400 kg/cum = 1050 x 400 = 420 tonnes. 15 per cent of cement to be replaced by fly ash = 63 tonnes. Balance cement = 357 tonnes. Quantity of fly ash = 63 x specific gravity of fly ash /specific gravity of cement = 63 x 2.25/3.15 = 45 tonnes.</b>					
	<b>Sand @ 0.45 cum / cum of concrete = 1050 x 0.45 = 472.50 x 1.6 = 756 tonnes.10 per cent to be replaced by flyash. Balance sand = 756 x 0.9 = 680.4 tonnes = 680.4 / 1.6 = 425 cum. Quantity of flyash = (756-680.4) x specific gravity of fly ash/specific gravity of sand = 76.4 x 2.25 / 2.687 = 63.97 tonnes (say 64 tonnes)</b>					
	<b>Fly ash Total fly ash = 45 + 64 = 109 tonnes.</b>					
12	<b>Rectangular Concrete Block Pavement</b>					
	Manufacturing, laying of cement concrete blocks of size 0.450 m x 0.300 m x 0.15 m of Cement Concrete (C.C.) M30 grade and spreading 25 mm thick sand under neath and filling joints with sand on existing W.B.M. base as per Technical Specification Clause 1503 MORD.					
	Unit = sqm					
	Taking output = 112.5 sqm					
	Concrete M30 grade for block, 400 x (0.450 x 0.300 x 0.150) = 8.10	cum				
	Concrete M30 for edge block, 2 x 50 x (0.300 x 0.300 x 0.150) = 1.35 cum	cum				
	<b>TOTAL</b>	<b>cum</b>				
	<b>a) Labour</b>					
	<b>Labour for Manufacturing the Cement Concrete Block :</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	44.10			
	Mason (2nd class)	day	6.00			
	Bhisti	day	-			
	<b>b) Machinery</b>					
	Concrete mixer 0.28 / 0.4 cum	hour	6.00			
	Plate vibrator	hour	12.00			
	Water tanker 6 kl capacity	hour	2.00			
	<b>c) Material</b>					
	<b>For CC Blocks M 30</b>					
	Coarse aggregates (9.45 x 0.90)	cum	8.505			
	Sand (9.450 x 0.45)	cum	4.25			
	Cement	t	3.80			
	Sand as per Table 1500.5	cum	1.73			
	Bed = 60*0.025 = 1.5 cum					
	Joints = 1.5*0.15 = 0.225 cum					
	Cost of water	kl	6.00			
	<b>d) Formwork @ 3% of (a+b+c)</b>					
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>		18.00%			
	Cost for 112.5 sqm = a+b+c+d+e+f					
	<b>Rate per sqm = (a+b+c+d+e+f)/112.5</b>					
	<b>Note : 1.</b> In case curing compound is used in places where there is scarcity of water, the water curing will be used for 4-days and rate analysis will be amended accordingly					
	<b>2.</b> Carriage of C.C. block to site of is payable separately as per Chapter of carriage of material from manufacturing site to the site of work.					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
13	<b>Interlocking Concrete Block Pavement</b>					
	i Providing and Laying of Interlocking Concrete Block Pavements <b>using CC M30</b> having thickness 80 mm as per drawings and Technical Specification Clause 1504 MORD.					
	Unit = sqm					
	Taking output = 225 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	18.00			
	Mason (2nd class)	day	8.00			
	<b>b) Machinery</b>					
	Water tanker 6 kl capacity	hour	2.00			
	<b>c) Material</b>					
	(i) Providing inter-locking blocks of approved shape, thickness and size.	sqm	225.00			
	(ii) Edge blocks 60 mx2	m	120.00			
	(iii) Sand as per Table 1500.5	cum	7.23			
	Bed = 603x75x 0.03 = 6.75 cum					
	Joints = 60x0.08 = 0.48 cum					
	(iv) Water for wetting of bedding sand	kl	3.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 225 sqm = a+b+c+d+e</b>					
	<b>Rate per sqm = (a+b+c+d+e)/225</b>					
	ii Providing and Laying of Interlocking Concrete Block Pavements <b>using CC M30</b> having thickness 60 mm as per drawing and Technical Specification Clause 1504 MORD					
	Unit = sqm					
	Taking output = 225 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	15.90			
	Mason (2nd class)	day	7.00			
	<b>b) Machinery</b>					
	Water tanker 6 kl capacity	hour	2.00			
	<b>c) Material</b>					
	(i) Providing inter-locking blocks of approved shape, thickness and size.	sqm	225.00			
	(ii) Edge blocks 60 mx2	m	120.00			
	(iii) Sand as per Table 1500.5	cum	5.42			
	(iv) Water	kl	3.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 225 sqm = a+b+c+d+e</b>					
	<b>Rate per sqm = (a+b+c+d+e)/225</b>					
	<b>Note : 1.</b> Carriage of interlocking blocks is payable separately as per Chapter of carriage of material from manufacturing site to the site of work.					
	<b>2.</b> Edge blocks may be cast-in-situ. Brick masonry toe wall or CC block 300 mm x 300 mm x 150 mm or any other shape can also be used and their cost shall be analysed/included accordingly					
	<b>3.</b> The rates for sub-grade, sub-base and base course can be taken from Chapters 3 and 4					

**General Note :**

The provisions towards Mate is included in the provision towards unskilled Mazdoor



**Andhra Pradesh Standard Data**  
**I. Roads and Bridges**  
**Chapter - 7**  
**CAUSEWAY AND SUBMERSIBLE BRIDGES**

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
<b>1</b>	<b>Construction of Cut-off Walls/Head Walls</b>					
	i Earthwork in excavation for structures as per drawing and technical specification Clause 305. Rate as per item No. 1 of Chapter 11	cum				
	ii Plain cement concrete M15 grade Rate as per item No. 4 (A) (iii) / 4 (A) (iv) of Chapter 11	cum				
	iii Brick masonry in cement mortar 1:4 Rate as per item No. 5 (ii) of Chapter 11	cum				
	iv Stone masonry in cement mortar 1:4 Rate as per item No. 6 (ii) of Chapter 11	cum				
	v Providing P.C.C M20 architectural coping on top of wall Rate as per item No. 13 of Chapter 12	m				
	<b>Note</b> : Rate as appropriate for the type of soil/rock are to be taken in (i)					
<b>2</b>	<b>Preparation of Subgrade</b> Rate as per item No. 15 of Chapter 3	cum				
<b>3</b>	<b>Granular Sub-base</b> Rate as per item No. 1 or 2 of Chapter 4	cum				
<b>4</b>	<b>W.B.M. Base Course</b> Rate as per item No. 9 of Chapter 4	cum				
<b>5</b>	<b>Cement Concrete Slab</b> Rate as per item No. 4 of Chapter 6	cum				
<b>6</b>	i <b>Providing and Laying Apron with Stone Boulders as per Drawings &amp; Technical Specification Clause 1301</b> Rate as per item No. 1 of Chapter 14	cum				
	ii <b>Providing and Laying of Boulder Apron Laid in Wire Crates as per Drawing and Technical Specification Clause 1301</b> Rate as per item No. 2 of Chapter 14	cum				
	iii <b>Providing and Laying of Apron with Cement Concrete Blocks as per Drawing and Technical Specification Clause 1301</b> Rate as per item No.3 of Chapter 14	cum				
	<b>Note</b> : Any one of the items appropriate may be taken					
<b>7</b>	<b>Guide Posts</b> Construction of R.C.C. guide posts of 250 mm dia, M25 grade as per drawing and technical specification Clause 1401.6 Rate as per item No. 8 of Chapter 8	cum				
<b>8</b>	<b>Bedding for Causeway</b>					
	i Type A (concrete cradle) Bedding Clause 1402.5 As per item No.2 (i) of Chapter 9	cum				
	ii Type B (first class) Bedding Clause 1402.5 As per item No.2 (ii) of Chapter 9	cum				
<b>9</b>	<b>Laying Reinforced Cement Concrete Pipe NP3 as per drawing and technical specification Clause 1402.6</b> As per item No. 3 of Chapter 9	m				
<b>10</b>	<b>Laying Reinforced Cement Concrete Pipe NP4 as per technical specification Clause 1402.6</b> As per item No. 4 of Chapter 9	m				

**Andhra Pradesh Standard Data**

**I. Roads and Bridges**

**Chapter - 8**

**HILL ROADS**

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
1	<b>Site Clearance</b>					
	As per Chapter 2					
2	<b>Setting Out</b>					
	Unit = 1km					
	The analysis of rate per km shall account for the following:					
	(1) Construction of reference pillars (burjee) @ 20 m on both sides as per Fig. 1600.1 (b) and @ 8.33 m interval on curves					
	(2) Construction of back pillars in front of each reference pillar as per Fig. 1600.1 (c)					
	(3) Construction of job pillars as per Fig. 1600.1 (d)					
	(1) Construction of reference pillars as per Fig. 1600.1 (b) as per drawing and Technical Specification Clause 1602.1					
	(a) Earthwork in excavation for foundation as per drawing and technical specifications.					
	Rate as per item No.1 of Chapter 11	cum	1.20			
	(b) Stone masonry work in cement mortar 1:4 in foundation complete as per drawing and technical specifications					
	Rate as per item No. 6 (I) (ii) or 6 (II) (ii) of Chapter 11	cum	1.20			
	(c) Plaster with cement mortar 1:4 as per technical specifications					
	Rate as per item No. 3 (A) or (B) or (C) of Chapter 12	sqm	4.00			
	Add 5% of (a+b+c) for white washing, lettering and painting, etc.					
	<b>Total Cost for each Reference Pillar</b>					
	(2) Construction of back pillar as per Fig. 1600.1 (c) as per drawing and Technical Specification Clause 1602.3					
	(a) Earthwork in excavation for foundation as per drawing and technical specifications.					
	Rate as per item No.1 of Chapter 11	cum	3.60			
	(b) Stone masonry work in cement mortar 1:4 in foundation complete as per drawing and technical specifications					
	Rate as per item No. 6 (I) (ii) or 6 (II) (ii) of Chapter 11	cum	3.60			
	(c) Plaster with cement mortar 1:4 as per technical specifications					
	Rate as per item No. 3 (A) or (B) or (C) of Chapter 12	sqm	45.00			
	Add 5% of (a+b+c) for white washing, lettering and painting, etc.					
	<b>Total Cost for each Reference Pillar</b>					
	(3) Construction of Job pillars as per Fig. 1600.1 (d) and Technical Specification Clause 1602.4					
	(a) Earthwork in excavation for foundation as per drawing and technical specifications.					
	Rate as per item No.1 of Chapter 11	cum	0.10			
	(b) Stone masonry work in cement mortar 1:4 in foundation complete as per drawing and technical specifications					
	Rate as per item No. 6 (I) (ii) or 6 (II) (ii) of Chapter 11	cum	0.10			
	(c) Plaster with cement mortar 1:4 as per technical specifications					
	Rate as per item No. 3 (A) or (B) or (C) of Chapter 12	sqm	0.96			
	Add 5% of (a+b+c) for white washing, lettering and painting, etc.					
	<b>Total Cost for each Reference Pillar</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>Note : 1.</b> The dimensions of reference pillars, back pillars and job pillars are as per figure/site conditions. The above items are covered under different Chapters of MORD Specifications for payment.					
	<b>2.</b> The marking of centre line, setting out, curves, recording of levels, etc. by the surveyor will be incidental to work and no extra payment shall be made for the same.					
<b>3</b>	<b>Earthwork in Hill Road</b>					
	<b>i Excavation in Hilly Areas in Soil by manual means.</b>					
	<b>A Excavation in soil in Hilly Area by manual means including cutting and trimming of side slopes and disposing of excavated earth with a lift upto 1.5 m and a lead upto 20 m as per drawing and Technical Specification Clause 1603.1</b>					
	Unit = cum					
	Taking output = 120 cum					
	<b>a) Labour</b>					
	Mate	day				
	Mazdoor (Unskilled)	day	62.40			
	<b>b&amp;c) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 120 cum = (a+b+c)					
	<b>Rate per cum = (a+b+c)/120</b>					
	<b>B Extra for Every Additional Lift of 1.5 m or Part thereof</b>					
	<b>Excavation in Soil</b>					
	Unit = cum					
	Taking output = 10 cum					
	<b>a) Labour</b>					
	Mazdoor (Unskilled)	day	0.55			
	<b>b&amp;c) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 10 cum = (a+b+c)					
	<b>Rate per cum = (a+b+c)/10</b>					
	<b>ii Excavation in Hilly Areas in Soil by mechanical means</b>					
	<b>A Excavation in soil in Hilly Area by mechanical means including cutting and trimming of side slopes and disposing of excavated earth with a lift upto 1.5 m and a lead upto 20 m as per Technical Specification Clause 1603.1</b>					
	Unit = cum					
	Taking output = 260 cum					
	<b>a) Labour</b>					
	Mate	day				
	Mazdoor (Unskilled) for trimming slopes and helping in excavation, etc.	day	20.80			
	<b>b) Machinery</b>					
	Dozer D-50 @ 43.28 cum per hour	hour	6.00			
	Front end loader	hour	6.00			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 260 cum = a+b+c+d					
	<b>Rate per cum = (a+b+c+d)/260</b>					
	<b>B Extra for Every Additional Lift of 1.5 m or Part thereof</b>					
	<b>Excavation in Soil</b>					
	Unit = cum					
	Taking output = 10 cum					
	<b>a) Labour</b>					
	Mazdoor (Unskilled)	day	0.55			
	<b>b&amp;c) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 10 cum = (a+b+c)					
	<b>Rate per cum = (a+b+c)/10</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>Note : 1.</b> In case the land on the valley side is barren and there is no objection for disposing of excavated earth on the valley side, the provision of front end loader and tipper shall be deleted as excavated earth shall be disposed off on the valley side.					
	<b>2.</b> For disposal of excavated surplus earth beyond 20 m, the relevant items of carriage be followed					
	<b>3.</b> In case, alternative machine like hydraulic excavator 0.9 cum bucket capacity is necessitude because of site conditions, the same can be used.					
<b>C</b>	<b>Excavation in soil in hilly area by mechanical means including cutting and trimming of side slopes and disposing of excavated earth with all lifts and lead upto 1000 metres as per Tech Specification 301 MORTH</b>					
	<b>Unit = cum</b>					
	<b>Taking output = 260 cum</b>					
	<b>a) Labour</b>					
	Mate	day				
	Mazdoor (Unskilled) for trimming slopes and helping in	day	6.24			
	<b>b) Machinery</b>					
	Dozer 80 HP (D-80 A 12)@ 43.28 cum per hour	hour	6.00			
	Front end loader	hour	6.00			
	Tipper 5.5cum capacity, 4 trips per hour.	hour	12.00			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>				<b>18.00%</b>	
	<b>Cost for 260 cum = a+b+c+d</b>					
	<b>Rate per cum = (a+b+c+d)/260</b>					
	<b>Note :</b> In case the land on the valley side is barren and there is no objection for disposing of excavated earth on the valley side, the provision of front end loader and tipper shall be deleted as excavated earth shall be disposed off on the valley side.					
<b>iii</b>	<b>Excavation in Hilly Area in Ordinary Rock by manual means</b>					
<b>A</b>	<b>Excavation in ordinary rock using manual means including loading in a truck and carrying of excavated material to embankment site with a lift upto 1.5 m and lead upto 20 m as per Clause 1603.2</b>					
	<b>Unit = cum</b>					
	<b>Taking output = 120 cum</b>					
	<b>a) Labour</b>					
	Mate	day	5.28			
	Mazdoor (Unskilled)	day	132.00			
	<b>b&amp;c) Overheads &amp; Contractors Profit</b>				<b>18.00%</b>	
	<b>Cost for 120 cum = (a+b+c)</b>					
	<b>Rate per cum = (a+b+c)/120</b>					
<b>B</b>	<b>Extra for Every Additional Lift of 1.5 m or Part thereof</b>					
	For Ordinary Rock					
	<b>Unit = cum</b>					
	<b>Taking output = 10 cum</b>					
	<b>a) Labour</b>					
	Mazdoor (Unskilled)	day	0.86			
	<b>b&amp;c) Overheads &amp; Contractors Profit</b>				<b>18.00%</b>	
	<b>Cost for 10 cum = (a+b+c)</b>					
	<b>Rate per cum = (a+b+c)/10</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
iv	<b>Excavation in Hilly Areas in Ordinary Rock by mechanical means not requiring blasting</b>					
A	Excavation in hilly area in ordinary rock not requiring blasting by mechanical means including cutting and trimming of slopes and disposal of cut material with a lift upto 1.5 m and lead upto 20 m as per Clause 1603.2.					
	Unit = cum					
	Taking output = 170 cum					
	<b>a) Labour</b>					
	Mate	day				
	Mazdoor (Unskilled)	day	17.68			
	Mazdoor for disposing of earth upto 20 m	day	9.00			
	<b>b) Machinery</b>					
	Dozer D-50 @ 28.32 cum per hour	hour	6.00			
	Hydraulic Excavator 0.9 cum bucket capacity @ 40 cum per hour	hour	4.25			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 170 cum = a+b+c+d					
	<b>Rate per cum = (a+b+c+d)/170</b>					
	<b>Note : 1.</b> In case the land on the valley side is barren and there is no objection for disposing of excavated earth on the valley side, the provision of front end loader and tipper shall be deleted as excavated earth shall be disposed off on the valley side.					
	<b>2.</b> In case, alternative machine like hydraulic excavator 0.9 cum bucket capacity is necessitude because of site conditions, the same can be used.					
B	<b>Excavation in hilly area in ordinary rock not requiring blasting by mechanical means including cutting and trimming of slopes and disposal of cut material with all lift and lead upto 1000 metres as per Tech Specification 301 MORTH.</b>					
	Unit = cum					
	Taking output = 170 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	8.32			
	<b>b) Machinery</b>					
	Dozer 80 HP (D-80 A 12)@ 28.32 cum per hour	hour	6.00			
	Front end loader	hour	7.00			
	Tipper 5.5cum capacity, 4 trips per hour.	hour	7.00			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 170 cum = a+b+c+d					
	<b>Rate per cum = (a+b+c+d)/170</b>					
	<b>Note :</b> In case the land on the valley side is barren and there is no objection for disposing of excavated earth on the valley side, the provision of front end loader and tipper shall be deleted as excavated earth can be disposed off on the valley side.					
v	<b>Excavation in Hilly Areas in Hard Rock requiring blasting</b>					
A	<b>Excavation in hilly areas in hard rock requiring blasting, by mechanical means, lift upto 1.5 m and disposal of excavated rock upto a lead of 20 m as per Clause 1603.2.</b>					
	Unit = cum					
	Taking output = 170 cum					
	<b>a) Labour</b>					
	Mate	day				
	Mazdoor (Unskilled)	day	23.36			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	Driller	day	2.00			
	Blaster	day	10.00			
	<b>b) Machinery</b>					
	Dozer D-50 @ 56.67 cum per hour (blasted rock)	hour	3.00			
	Hydraulic Excavator 0.9 cum bucket capacity @ 34 cum/hour	hour	5.00			
	Air compressor 210 cfm with two jack hammer @ 6 cum/ hour	hour	28.00			
	<b>c) Material</b>					
	Gelatin 80 per cent	kg	67.00			
	Electric detonators @ 1 detonator for 1 Gelatin stick of 285 gm each	nos	235.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost for 170 cum = a+b+c+d+e					
	Rate per cum = (a+b+c+d+e)/170					
<b>B</b>	<b>Extra for Every Additional Lift of 1.5 m or Part thereof</b>					
	For Hard Rock					
	Unit = cum					
	Taking output = 10 cum					
	<b>a) Labour</b>					
	Mazdoor (Unskilled)	day	1.08			
	<b>b&amp;c) Overheads &amp; Contractors Profit</b>					
	Cost for 10 cum = (a+b+c)					
	Rate per cum = (a+b+c)/10					
<b>C</b>	<b>Excavation in hilly areas in hard rock requiring blasting, by mechanical means including trimming of slopes and disposal of cut material with all lifts and lead upto 1000 metres as per Tech Specification 301 MORTH</b>					
	Unit = cum					
	Taking output = 170 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	10.49			
	Driller	day	2.00			
	Blaster	day	0.25			
	<b>b) Machinery</b>					
	Dozer 80 HP (D-80 A 12)@ 28.32 cum per hour	hour	6.00			
	Air compressor 250 cfm with two jack hammer @ 20 cum per hour	hour	5.00			
	Front end loader	hour	7.00			
	Tipper 5.5cum capacity, 4 trips per hour.	hour	7.00			
	<b>c) Materials</b>					
	Gelatin 80 per cent	kg	35.00			
	Electric Detonators @ 1 Detonator for 2 Gelatin sticks of 125 gms each	each	140.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost for 170 cum = a+b+c+d+e					
	Rate per cum = (a+b+c+d+e)/170					
	<b>Note : 1.</b> In case the land on the valley side is barren and there is no objection for disposing of excavated earth on the valley side, the provision of front end loader and tipper shall be deleted as excavated earth shall be disposed off on the valley side.					
	<b>2.</b> In case of hill roads, the altitude effect comes into play. The output of men and machines decreases progressively after 2100 m elevation leading to increase in cost. High altitude effect has been explained in the basic approach.					
	<b>3.</b> The arrangement for igniting the detonator is covered under overheads					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
4	<b>Retaining Walls / Breast Walls</b>					
	Construction of retaining walls/breast walls in cement mortar 1:5 as per drawing and technical specifications Clause 1604					
	<b>(i) Earthwork in excavation for structures</b>					
	Rate as per item No. 1 of Chapter 11	cum				
	<b>(ii) Plain cement concrete M 10 grade</b>					
	Rate as per item No. 4 (A) (i) or (ii) of Chapter 11	cum				
	<b>(iii) Stone masonry in cement mortar 1:5</b>					
	Rate as per item No. 4 (I) (iii) or 4 (II) (iii) of Chapter 12	cum				
	<b>(iv) Pointing with cement mortar 1:3</b>					
	Rate as per item No 2 of Chapter 12	sqm				
	<b>(v) Providing P.C.C. M 20 architectural coping on top of retaining wall/breast wall</b>					
	Rate as per item No. 13 of Chapter 12	m				
	<b>(vi) Filter material behind retaining wall / breast wall as per Specification 1204.3.8 in a width of 600 m</b>					
	Rate as per item No. 11 of Chapter 12	cum				
	<b>(vii) Back filling behind retaining wall/breast wall</b>					
	Rate as per item No. 10 of Chapter 12	cum				
	<b>Note : 1.</b> Quantities of material/work shall be as per design and drawings					
	<b>2.</b> Earth work in excavation may be taken as per site conditions. It may comprise of a number of sub-items depending upon the type of soil/rock encountered.					
5	<b>Construction of Hill Side Drain</b>					
	Construction of hill side drain in accordance with the requirement of specifications true to lines and grades. Dimensions and other particulars as per drawing and Technical Specification Clause 1606.1					
	Unit = 1 m					
	<b>(i) Earthwork in excavation for structures as per drawing and technical specification</b>					
	Rate as per item No. 1 of Chapter 11	cum				
	<b>(ii) Plain cement concrete M10 grade</b>					
	Rate as per item No. 4 (A) (i) or (ii) of Chapter 11	cum				
	<b>(iii) Stone masonry in cement mortar 1:5</b>					
	Rate as per item No. 4 (I) (iii) or 4 (II) (iii) of Chapter 12	cum				
	<b>(iv) Plain cement concrete M15 grade</b>					
	Rate as per item No. 4 (A) (iii) or (iv) of Chapter 11	cum				
	<b>(v) Cement plaster 15 mm thick 1:4 on stone masonry</b>					
	Rate as per item No. 3 (A) or (B) or (C) of Chapter 12	cum				
	<b>(vi) Providing P.C.C. M20 architectural coping on top of wall</b>					
	Rate as per item No. 13 of Chapter 12	m				
	<b>Rate per m length (i+ii+iii+iv+v+vi)</b>					
	<b>Note : 1.</b> Quantities of material/work shall be as per design and drawings					
	<b>2.</b> Earth work in excavation may be taken as per site conditions. It may comprise of a number of sub-items depending upon the type of soil/rock encountered.					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
6	<b>Construction of Catch Water / Intercepting Drain</b>					
	Construction of catch water/intercepting drain in random rubble masonry in 1:5 cement mortar true to the specified lines grades levels and dimensions as per the requirement of the specifications Clause 1606.2					
	Unit = 1 m					
	<b>(i) Earthwork in excavation for structures as per drawing and technical specification</b>					
	Rate as per item No. 1 of Chapter 11	cum				
	<b>(ii) Plain cement concrete M10 grade</b>					
	Rate as per item No. 4 (A) (i) or (ii) of Chapter 11	cum				
	<b>(iii) Stone masonry in cement mortar 1:5</b>					
	Rate as per item No. 4 (I) (iii) or 4 (II) (iii) of Chapter 12	cum				
	<b>(iv) Plain cement concrete M15 grade</b>					
	Rate as per item No. 4 (A) (iii) or (iv) of Chapter 11	cum				
	<b>(v) Cement plaster 15 mm thick 1:4 on stone masonry</b>					
	Rate as per item No. 3 (A) or (B) or (C) of Chapter 12	cum				
	<b>(vi) Providing P.C.C. M20 architectural coping on top of wall</b>					
	Rate as per item No. 13 of Chapter 12	m				
	<b>Rate per m length (i+ii+iii+iv+v+vi)</b>					
	<b>Note : 1.</b> Quantities of material/work shall be as per design and drawings					
	<b>2.</b> Earth work in excavation may be taken as per site conditions. It may comprise of a number of sub-items depending upon the type of soil/rock encountered.					
7	<b>Construction of Scupper</b>					
	Construction of scupper with dry stone masonry as per drawing and technical specifications as per Clause 1606.5.					
	Unit = 1 m					
	Taking output = 6 m					
	<b>i Earthwork in excavation for structures as per drawing and technical specifications</b>					
	Quantity for 6 m formation width of hill side rock cutting and foundation as per plate No. 7.27 of Rural Road Manual					
	Rate as per item No. 1 of Chapter 11	cum	115.00			
	<b>Rate per m = a/6</b>					
	<b>ii Random rubble dry stone masonry</b>					
	Quantity for 6 m formation width = 38 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	38.00			
	Mazdoor (Unskilled)	day	60.80			
	<b>b) Material</b>					
	Stone for RR masonry	cum	35.72			
	Bond stone	nos	6.08			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Cost for 6 m = a+b+c+d</b>					
	<b>Rate per m = (a+b+c+d)/6</b>					



S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>iii Random course rubble dry stone masonry in corbelling</b>					
	Quantity for 6 m formation width = 9 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mason (2nd class)	day	6.00			
	Mazdoor (Unskilled)	day	12.72			
	<b>b) Material</b>					
	Corbelling Stones size 300 mm x 150 mm x 150 mm including wastage	nos	1335.00			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 6 m = a+b+c+d					
	Rate per m = (a+b+c+d)/6					
	<b>iv Stone filling in foundation trenches as per drawing and technical specification</b>					
	Quantity for 6 m formation width = 10 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	3.12			
	<b>b) Material</b>					
	Loose stone	cum	12.00			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 6 m = a+b+c+d					
	Rate per m = (a+b+c+d)/6					
	Rate per m length= (i + ii + iii + iv)					
	<b>Note : 1.</b> Quantities of parapet are not included in the quantities of scupper.					
	<b>2.</b> The above analysis is based on plate No.7.27 of Rural Roads Manual.					
	<b>3.</b> Rates for earth work are to be taken appropriate to the type of soil/rock					
<b>8</b>	<b>Construction of RCC guide posts of 250 mm dia M 20 grade cast-in-situ with 20 mm nominal size aggregate, true to line and grade, tolerance of vertical RCC posts not to exceed 1 in 500 as per drawing and Technical Specification Clause 1608.2</b>					
	<b>i Earth work in excavation for structures</b>					
	Unit = cum					
	Rates as per item No. 1 of Chapter 11	cum				
	<b>ii RCC M20 grade</b>					
	Unit = cum					
	Rate as per item No. 4 (C) (i) of Chapter 11	cum				
	<b>iii HYSD steel bars</b>					
	Unit = t					
	Rate as per item No. 7 of Chapter 11	t				
	<b>iv Painting two coats including prime coat on new concrete surface</b>					
	Unit = sqm					
	Rate as per item No. 5 of Chapter 10	sqm				
	<b>Note :</b> Quantities are to be taken as per drawing					
<b>9</b>	<b>Providing edge stones on valley side of formation as per drawing and Technical Specification Clause 1608.2.6</b>					
	Unit = 1 m					
	Taking Output = 45 m (100 no of edge stones of size 450 mm x 300 mm x 100 mm)					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	3.18			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	Mason (2nd class)	day	1.50			
	<b>b) Material</b>					
	Stones of size 450 mmx300 mmx100 mm	nos	100.00			
	<b>c) Painting two coats including priming coat on new concrete/stone surfaces</b>					
	45 x 0.500 = 22.50					
	Rate as per item No. 5 of Chapter 10	sqm	22.50			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 45 m = a+b+c+d+e					
	<b>Rate per m = (a+b+c+d+e)/45</b>					
<b>10</b>	<b>Turfing with Sods</b>					
	Furnishing and laying of the live sods of perennial turf forming grass on embankment slope, verges or other locations shown on the drawing or as directed by the Engineer including preparation of ground, stacking the sods and watering as per Clause 309					
	Unit = sqm					
	Taking output = 100 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	4.16			
	<b>b) Machinery</b>					
	Water tanker including watering for 3 months	hour	4.00			
	Tractor with Trolley	hour	1.00			
	<b>c) Material</b>					
	Farmyard manure @ 0.18 cum per 100 sqm at site of work	cum	0.18			
	Water	kl	24.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 100 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/100</b>					
<b>11</b>	<b>Seeding and Mulching</b>					
	Preparation of seed bed on previously laid top soil, furnishing and placing of seeds, fertilizer, mulching material, applying bituminous emulsion at the rate of 0.23 l per sqm and laying and fixing jute netting, including watering for 3 months as per clause 310 & 1600 MORD.					
	Unit = sqm					
	Taking output = 240 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	15.60			
	<b>b) Machinery</b>					
	Water tanker 6 kl capacity including watering for 3 months (for one hour per week)	hour	13.00			
	Tractor with Trolley	hour	2.40			
	<b>c) Material</b>					
	Seeds	kg	3.60			
	Sludge / Farm yard manure @ 0.18 cum per 100 sqm	cum	0.43			
	Bitumen Emulsion	t	0.06			
	Jute netting, open weave, 25 mm square opening	sqm	264.00			
	Water for 3 months	kl	84.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 240 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/240</b>					

**General Note :**

The provisions towards Mate is included in the provision towards unskilled Mazdoor.

**Andhra Pradesh Standard Data**

**I. Roads and Bridges**

**Chapter - 9**

**PIPE CULVERTS**

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
1	<b>9.1 Excavation for Structures</b>					
	Earthwork in excavation for foundation of structures upto 3 m depth as per drawing and technical specification Clause 300 / 1104 MORD including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material.					
	Unit = cum					
	Rate as per item No. 1 of Chapter 11					
	Rate as applicable for the type of soil/rock are to be taken					
2	<b>Bedding for Pipe</b>					
	<b>(i) Type A (Concrete Cradle) Bedding</b>					
	Laying concrete cradle bedding with M15 Grade Cement Concrete as per Clause 1105 (i)					
	Unit = cum					
	Rate as per Item No. 4 (A) (iii) or (iv) of Chapter 11	cum	1.00			
	<b>(ii) Type B (First Class) Bedding</b>					
	Laying (First Class) bedding on well compacted sand, moorum or approved granular material as per Clause 1105 (ii)					
	Unit = cum					
	Rate as per Item No. 2 of Chapter 11	cum	1.00			
3	<b>Providing and Laying Reinforced Cement Concrete Pipe NP3 as per design.</b>					
	Providing and laying reinforced cement concrete pipe NP3 for culverts on first class bedding of granular material including fixing collar with cement mortar 1:2 but excluding excavation, protection works, backfilling, concrete and masonry works in head wall and parapets. Tech Specification Clause 1106 MORD.					
	Unit = m					
	Taking output = 7.5 m (3 pipes of 2.5 m length each)					
A	<b>1200 mm dia</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	0.50			
	Mazdoor (Unskilled)	day	3.14			
	Laying & fixing of Pipes with collars in position including lifting, aligning etc.,	rm				
	<b>b) Material</b>					
	Sand at site	cum	0.05			
	Cement at site	t	0.07			
	RCC pipe NP3 pipe including collar at site	m	7.50			
	Handling loading and unloading on (b)					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		18.00%			
	Cost for 7.5 m = a+b+c+d					
	Rate per m = (a+b+c+d)/7.5					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>B 1000 mm dia</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	0.25			
	Mazdoor (Unskilled)	day	2.09			
	Laying & fixing of Pipes with colors in position including lifting, aligning etc.,	rm				
	<b>b) Material</b>					
	Sand at site	cum	0.04			
	Cement at site	t	0.03			
	RCC pipe NP3 pipe including collar at site	m	7.50			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	Cost for 7.5 m = a+b+c+d					
	<b>Rate per m = (a+b+c+d)/7.5</b>					
	<b>C 750 mm dia</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	0.15			
	Mazdoor (Unskilled)	day	1.25			
	Laying & fixing of Pipes with colors in position including lifting, aligning etc.,	rm				
	<b>b) Material</b>					
	Sand at site	cum	0.024			
	Cement at site	t	0.018			
	RCC pipe NP3 pipe including collar at site	m	7.50			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	Cost for 7.5 m = a+b+c+d					
	<b>Rate per m = (a+b+c+d)/7.5</b>					
	<b>Note :</b> The labour rate for 600 mm dia Hume pipe may be derived from the rates for 750 dia by decreasing 20 per cent					
4	<b>Providing and Laying Reinforced Cement Concrete Pipe NP4 as per design.</b>					
	Providing and laying reinforced cement concrete pipe NP4 for culverts on first class bedding of granular material including fixing collar with cement mortar 1:2 but excluding excavation, protection works, backfilling, concrete and masonry works in head walls and parapets as per Clause 1106 MORD / 2900 MORTH					
	Unit = m					
	Taking output = 7.5 m					
	(3 pipes of 2.5 m length each)					
	<b>(A) 1200 mm dia</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	0.50			
	Mazdoor (Unskilled)	day	3.14			
	<b>b) Material</b>					
	Sand at site	cum	0.05			
	Cement at site	t	0.07			
	RCC pipe NP4 pipe including collar at site	m	7.50			
	Granular material passing 5.6 mm sieve for bedding	cum	5.00			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	Cost for 7.5 m = a+b+c+d					
	<b>Rate per m = (a+b+c+d)/7.5</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>(B) 1000 mm dia</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	0.25			
	Mazdoor (Unskilled)	day	2.09			
	<b>b) Material</b>					
	Sand at site	cum	0.04			
	Cement at site	t	0.03			
	RCC pipe NP4 pipe including collar at site	m	7.50			
	Granular material passing 5.6 mm sieve for bedding	cum	4.50			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	Cost for 7.5 m = a+b+c+d					
	<b>Rate per m = (a+b+c+d)/7.5</b>					
	<b>Note : 1.</b> In case of cement cradle bedding, quantity of PCC M15 is to be calculated as per design and priced separately and added .					
	<b>2.</b> The rate analysis does not include excavation, cement /masonry works in head walls, backfilling, protection works and parapet walls. The same are to be calculated as per approved design and drawings and priced separately on rates available under respective sections.					
	<b>(C) 750 mm dia</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	0.15			
	Mazdoor (Unskilled)	day	1.25			
	<b>b) Material</b>					
	Sand at site	cum	0.024			
	Cement at site	t	0.018			
	RCC pipe NP4 pipe including collar at site	m	7.50			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	Cost for 7.5 m = a+b+c+d					
	<b>Rate per m = (a+b+c+d)/7.5</b>					
	<b>Note :</b> The labour rate for 600 mm dia Hume pipe may be derived from the rates for 750 dia by decreasing 20 per cent					
5	<b>Laying Cement Concrete Pipe NP3 on first class bedding of granular material including fixing collar with cement sand mortar 1:2 but excluding excavation, protection works, backfilling, concrete and masonry work in head wall and parapet as per Tech Specification No. 1100 MORTH</b>					
	Unit = m					
	Taking output = 7.5 m (3 pipes of 2.5 m length each)					
	<b>500 mm dia</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	0.30			
	Mazdoor (Unskilled)	day	2.51			
	<b>b) Material</b>					
	Sand at site	cum	0.04			
	Cement at site	t	0.036			
	RCC pipe NP3 concrete pipe including collar at site	m	15.00			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	Cost for 7.5 m = a+b+c+d					
	<b>Rate per m = (a+b+c+d)/7.5</b>					
	<b>Note :</b> The labour rate for 300 mm dia shall be decreased by 20%					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
6	<b>Laying Cement Concrete Pipe NP4 on first class bedding of granular material including fixing collar with cement sand mortar 1:2 but excluding excavation, protection works, backfilling, concrete and masonry work in head wall and parapet as per Tech Specification No. 1100 MORTH</b>					
	Unit = m					
	Taking output = 7.5 m (3 pipes of 2.5 m length each)					
	<b>500 mm dia</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	0.11			
	Mazdoor (Unskilled)	day	0.94			
	<b>b) Material</b>					
	Sand at site	cum	0.02			
	Cement at site	t	0.01			
	RCC pipe NP4 concrete pipe including collar at site	m	7.50			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			18.00%		
	Cost for 7.5 m = a+b+c+d					
	<b>Rate per m = (a+b+c+d)/7.5</b>					
	<b>Note :</b> The labour rate for 300 mm dia shall be decreased by 20%					
7	<b>Plain Cement Concrete M10 (1:3:6 nominal mix) in leveling course below open foundation of Head walls as per drawings &amp; Technical Specification Clause 1109</b>					
	Rate as per item No. 4 (A) (i) or (ii) of Chapter 11	cum				
8	<b>Brick Masonry Work in cement mortar in foundation of Head walls complete excluding pointing and plastering as per drawing and technical specification Clause 1109</b>					
	<b>A. Brick Masonry in 1:4 cement mortar</b>					
	Rate as per item No. 5 (ii) Chapter 11	cum				
	<b>B. Brick Masonry in cement-lime mortar (1:0.5:4.5)</b>					
	Rate as per item No. 5 (iii) Chapter 11	cum				
9	<b>Stone Masonry Work in cement mortar in foundation of Head walls complete as per drawing and technical specification Clause 1109</b>					
	<b>A. In 1:4 cement mortar</b>					
	Rate as per item No. 6 (I) (ii) or (II) (ii) Chapter 11	cum				
	<b>B. In cement-lime mortar (1:0.5:4.5)</b>					
	Rate as per item No. 6 (I) (iii) or (II) (iii) Chapter 11	cum				
10	<b>Pointing with Cement Mortar (1:3) on brickwork as per technical specification Clause 613.3</b>					
	Rate as per item No. 2 of Chapter 12	10 sqm				
11	<b>Plastering with Cement Mortar (1:4), 15 mm thick on brickwork in substructure as per technical specification</b>					
	Rate as per item No. 3 (A) of Chapter 12	10 sqm				
12	<b>Backfilling in Foundation Trenches as per drawing and technical specification Clause 1108</b>					
	Rate as per Item No. 2 of Chapter 11	cum				
13	<b>Providing PCC M20 Architectural Coping on the top of wing wall, return wall etc. complete as per drawing and technical specification Clause 615</b>					
	Rate as per Item No. 13 of Chapter 12	m				

**General Note :**

The provisions towards Mate is included in the provision towards unskilled Mazdoor.

**Andhra Pradesh Standard Data**

**I. Roads and Bridges**

**Chapter - 10**

**TRAFFIC SIGNS, MARKINGS AND OTHER ROAD APPURTENANCES**

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
1	<b>Printing New Letters and Figures of any Shade</b>					
	Printing new letter and figures of any shade with synthetic enamel paint black or any other approved colour to give an even shade as per drawings and Technical Specification Clause 1701 MORD / 801 MORTH					
	(i) <b>Hindi (Matras commas and the like not to be measured and paid for. Half letters shall be counted as half only)</b>					
	<b>Details for 100 letters of 160 mm height, i.e., 1600 cm</b>					
	Unit = per cm height per letter					
	<b>a) Labour</b>					
	Mate	day	-			
	Painter 1st Class	day	2.00			
	Painter Assistant	day				
	Mazdoor (Unskilled)	day	1.12			
	<b>b) Material</b>					
	Paint	litre	0.70			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			18.00%		
	Cost for 1600 cm = a+b+c+d					
	<b>Rate per cm height per letter = (a+b+c+d)/1600</b>					
	(ii) <b>English and Roman</b>					
	Hyphens, commas and the like not to be measured and paid for.					
	<b>Detail for 100 letters of 160 mm height, i.e. 1600 cm</b>					
	Unit = per cm height per letter					
	<b>a) Labour</b>					
	Mate	day	-			
	Painter 1st Class	day	1.25			
	Painter Assistant	day				
	Mazdoor (Unskilled)	day	0.57			
	<b>b) Material</b>					
	Paint	litre	0.50			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			18.00%		
	Cost for 1600 cm = a+b+c+d					
	<b>Rate per cm height per letter = (a+b+c+d)/1600</b>					
2	<b>Traffic Signs</b>					
A	<b>Retro-reflectorised Traffic Signs</b>					
i	Providing and fixing of retro-reflectorised cautionary, mandatory and informative sign as per IRC:67 made of encapsulated lens type reflective sheeting vide Clause 1701.2.3 MORD / 801.3 MORTH fixed over aluminum sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 450 mm x 450 mm x 600 mm, 600 mm below ground level as per drawings and Technical Specification Clause 801 MORTH / 1701 MORD.					
	Unit = each					
	Taking output = one traffic sign					
	<b>(i) Excavation for foundation</b>					
	As per item No. 1 of Chapter 11	cum	0.126			
	<b>(ii) Cement concrete M15 grade</b>					
	As per item No. 4 (A) (iii) or (iv) of Chapter 11	cum	0.126			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>(iii) Painting Angle Iron Post with Primer and two coats of Epoxy Paint as per specifications</b>					
	As per item No. 9 of this Chapter (or)	sqm	0.887			
	<b>Painting Angle Iron Post with Primer and two coats item 6 of this chapter</b>	sqm	0.43			
	<b>(a) labour (For fixing at site)</b>					
	Mate	day				
	Mazdoor (Unskilled)	day	0.26			
	<b>b) Material</b>					
	Mild steel angle iron 75 x 75 x 6 mm	kg	19.00			
	Add 3 per cent of cost of angle iron towards cost of fabrication, drilling holes, nuts, bolts etc.					
	Aluminum sheeting fixed with encapsulated lens type reflective sheeting of size including lettering and signs as applicable background with epoxy paint					
	(i) 900 mm equilateral triangle	sqm	0.35			
	OR					
	(ii) 600 mm equilateral triangle	sqm	0.156			
	OR					
	(iii) 600 mm circular	sqm	0.283			
	OR					
	(iv) 800 mm x 600 mm rectangular	sqm	0.48			
	OR					
	(v) 600 mm x 450 mm rectangular	sqm	0.27			
	OR					
	(vi) 600 mm x 600 mm square	sqm	0.36			
	OR					
	(vii) 900 mm side octagon	sqm	0.672			
	<b>(c) Machinery</b>					
	Tractor with trolley	hour	0.01			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate per traffic sign = (i+ii+iii+a+b+c+d+e) (with Epoxy Paint)</b>					
	<b>Rate per traffic sign = (i+ii+iii+a+b+c+d+e) (with Enamel Paint)</b>					
ii	<b>Providing and fixing of retro-reflectorised cautionary, mandatory and informative sign as per IRC:67 made of encapsulated lens type reflective sheeting vide Clause 1701.2.3, fixed over aluminum sheeting, 1.5 mm thick supported on GI pipe 50 mm dia firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 450 mm x 450 mm x 600 mm, 600 mm below ground level as per drawings and Technical Specification Clause 1701 MORD</b>					
	Unit = each					
	Taking output = one traffic sign					
	<b>(i) Excavation for foundation</b>					
	As per item No. 1 of Chapter 11	cum	0.126			
	<b>(ii) Cement concrete M15 grade</b>					
	As per item No. 4 (A) (iii) or (iv) of Chapter 11	cum	0.126			
	<b>(a) labour (For fixing at site)</b>					
	Mate	day				
	Mazdoor (Unskilled)	day	0.26			
	<b>b) Material</b>					
	50 mm dia GI Pipe 2.85 m long including 5% wastage	m	3.00			
	Add 3 per cent of cost of GI Pipe towards cost of fabrication, drilling holes, nuts, bolts etc.					
	Aluminum sheeting fixed with encapsulated lens type reflective sheeting of size including lettering and signs as applicable background with epoxy paint					



S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	(i) 900 mm equilateral triangle	sqm	0.35			
	OR					
	(ii) 600 mm equilateral triangle	sqm	0.156			
	OR					
	(iii) 600 mm circular	sqm	0.283			
	OR					
	(iv) 800 mm x 600 mm rectangular	sqm	0.48			
	OR					
	(v) 600 mm x 450 mm rectangular	sqm	0.27			
	OR					
	(vi) 600 mm x 600 mm square	sqm	0.36			
	OR					
	(vii) 900 mm side octagon	sqm	0.672			
	<b>(c) Machinery</b>					
	Tractor with trolley	hour	0.08			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate per traffic sign = (i+ii+iii+a+b+c+d+e)</b>					
iii	Providing and fixing of retro-reflectorised cautionary, mandatory and informative sign as per IRC:67 made of encapsulated lens type reflective sheeting vide Clause 1701.2.3, fixed over aluminum sheeting, 1.5 mm thick supported on RCC Post 100 mm x 100 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 450 mm x 450 mm x 600 mm, 600 mm below ground level as per drawing and Technical Specification Clause 1701 MORD.					
	Unit = each					
	Taking output = one traffic sign					
	<b>(i) Excavation for foundation</b>					
	As per item No. 1 of Chapter 11	cum	0.126			
	<b>(ii) Cement concrete M15 grade</b>					
	As per item No. 4 (A) (iii) or (iv) of Chapter 11	cum	0.126			
	<b>(iii) Painting two coats including prime coat on concrete surface with Epoxy Paint as per specifications</b>					
	As per item No. 9 of this Chapter		0.90			
	<b>(a) labour (For fixing at site)</b>					
	Mate	day				
	Mazdoor	day	0.26			
	<b>b) Material</b>					
	RCC M15 Grade in Sub-structure					
	As per item No. 5 (i) or (ii) of Chapter 12	cum	0.0285			
	Steel reinforcement HYSD bars					
	As per item No. 6 of Chapter 12	t	0.0077			
	Add 3 per cent of cost of RCC Post towards cost of drilling holes, nuts, bolts, etc.					
	Aluminum sheeting fixed with encapsulated lens type reflective sheeting of size including lettering and signs as applicable background with epoxy paint					
	(i) 900 mm equilateral triangle	sqm	0.35			
	OR					
	(ii) 600 mm equilateral triangle	sqm	0.156			
	OR					
	(iii) 600 mm circular	sqm	0.283			
	OR					
	(iv) 800 mm x 600 mm rectangular	sqm	0.48			
	OR					
	(v) 600 mm x 450 mm rectangular	sqm	0.27			
	OR					
	(vi) 600 mm x 600 mm square	sqm	0.36			
	OR					
	(vii) 900 mm side octagon	sqm	0.672			
	<b>(c) Machinery</b>					
	Tractor with trolley	hour	0.08			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate per traffic sign = (i+ii+iii+a+b+c+d+e)</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>Note : 1.</b> Any one area of aluminum sheeting given at (i) to (vii) may be adopted as per site requirement and in accordance with IRC:67.					
	<b>2. The rate for excavation, cement concrete M-15, RCC M-15 in Sub-structure, steel reinforcement and painting may be taken from respective Chapters.</b>					
	<b>3. The depth of foundation and quantity of cement concrete in the foundation are indicative. These may be increased for areas having higher wind velocities like in coastal areas. This is applicable to all road signs and directions boards.</b>					
<b>B</b>	<b>Semi Reflective Traffic Signs</b>					
	Providing and fixing of semi reflective cautionary, mandatory and informatory sign board as per IRC:67 made of 1.5 mm thick MS Sheet duly stove white colour in front and gray colour on back with red reflective border of 65 mm width and required letters and figures with reflective tape engineering grade as per Clause 1701.3.9 of MORD for Rural Roads of required shade and colour supported and welded on 47 mm x 47 mm 12 SWG sheet tube firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 450 mm x 450 mm x 600 mm, 600 mm below ground level as per drawings and Technical Specification Clause 1701 MORD					
	Unit = Each					
	Taking output = one traffic sign					
	<b>(i) Excavation for foundation</b>					
	As per item No. 1 of Chapter 11	cum	0.126			
	<b>(ii) Cement concrete M15 grade</b>					
	As per item No. 4 (A) (iii) or (iv) of Chapter 11	cum	0.126			
	<b>(iii) Painting two coats including prime coat on concrete surface with Epoxy Paint as per specifications</b>					
	As per item No. 9 of this Chapter	sqm	0.46			
	<b>(a) labour (For fixing at site)</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.26			
	<b>b) Material</b>					
	Support of M.S. Sheet tube					
	(I) 47 mm x 47 mm x 12 SWG Sheet 3050 mm long	kg	12.40			
	(II) Angle iron 50 x 50 x 6 mm for hold fast including 5% wastage	kg	1.06			
	Add 3% cost of MS Sheet tube 12 SWG and angle irons towards the cost of fabrication, drilling holes, nuts and bolts etc.					
	(III) 1.5 mm thick M.S. Sheet duly painted with stove enameled paint including lettering, signs, border, message with reflective tape of engineering grade required size, shade and colour as per Technical Specifications					
	(i) 900 mm equilateral triangle	sqm	0.35			
	OR					
	(ii) 600 mm equilateral triangle	sqm	0.156			
	OR					
	(iii) 600 mm circular	sqm	0.283			
	OR					
	(iv) 800 mm x 600 mm rectangular	sqm	0.48			
	OR					
	(v) 600 mm x 450 mm rectangular	sqm	0.27			
	OR					
	(vi) 600 mm x 600 mm square	sqm	0.36			
	OR					
	(vii) 900 mm side octagon	sqm	0.672			
	<b>(c) Machinery</b>					
	Tractor with trolley	hour	0.08			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Rate per traffic sign = (i+ii+iii+a+b+c+d+e)</b>					
	<b>18.00%</b>					
	<b>Note : 1.</b> Any one area of M.S. Sheet given at (i) to (viii) may be adopted as per site requirement and in accordance with IRC-67.					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	2. The rate for excavation, cement concrete M-15, and painting may be taken from respective Chapters.					
	3. The depth of foundation and quantity of cement in the foundation are indicative. These may be increased for areas having higher wind velocities like in coastal area. This is applicable to all road signs and direction boards.					
3	Direction and Place Identification signs upto 0.9 sqm size board					
	<b>A Retro-reflectorised Traffic Signs</b>					
	i Providing and erecting direction and place identification retro-reflectorised sign as per IRC:67 made of encapsulated lens type reflective sheeting vide Clause 1701.2.3 MORD / 801.3 MORTH, fixed over aluminum sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 450 mm x 450 mm x 600 mm, 600 mm below ground level as per drawings and Technical Specification Clause 1701 MORD / 801 MORTH					
	Unit = sqm					
	Taking output = 0.9 sqm					
	<b>(i) Excavation for foundation</b>					
	As per item No. 1 of Chapter 11	cum	0.126			
	<b>(ii) Cement concrete M15 grade</b>					
	As per item No. 4 (A) (iii) or (iv) of Chapter 11	cum	0.12			
	<b>(iii) Painting Angle Iron Post with Primer and two coats of Epoxy Paint as per specifications</b>					
	As per item No. 9 of this Chapter OR	sqm	0.887			
	<b>Painting Angle Iron Post with Primer and two coats as per item 6 of this chapter.</b>		0.43			
	<b>(a) labour (For fixing at site)</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.21			
	<b>b) Material</b>					
	Mild steel angle iron 75 x 75 x 6 mm	kg	19			
	Aluminum sheeting fixed with encapsulated lens type reflective sheeting of size 0.90 sqm including lettering and signs as applicable background with epoxy paint	sqm	0.9			
	Add 3 per cent of cost of angle iron towards cost of fabrication, drilling holes, nuts, bolts, etc.					
	<b>(c) Machinery</b>					
	Tractor with trolley	hour	0.02			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>				18.00%	
	Cost for 0.9 sqm = (i+ii+iii+a+b+c+d+e) (with epoxy paint)					
	<b>Rate per sqm (for sign having area upto 0.9 sqm) = (i+ii+iii+a+b+c+d+e)/0.90</b>					
	Cost for 0.9 sqm = (i+ii+iii+a+b+c+d+e) (with enamel paint)					
	<b>Rate per sqm (for sign having area upto 0.9 sqm) = (i+ii+iii+a+b+c+d+e)/0.90</b>					
	(ii) Providing and erecting direction and place identification retro-reflectorised sign as per IRC:67 made of encapsulated lens type reflective sheeting vide Clause 1701.2.3, fixed over aluminum sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on 2 inch dia GI Pipe firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 450 mm x 450 mm x 600 mm, 600 mm below ground level as per drawings and Technical Specification Clause 1701 MORD.					
	Unit = sqm					
	Taking output = 0.9 sqm					
	<b>(i) Excavation for foundation</b>					
	As per item No. 1 of Chapter 11	cum	0.126			
	<b>(ii) Cement concrete M15 grade</b>					
	As per item No. 4 (A) (iii) or (iv) of Chapter 11	cum	0.126			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>(a) labour (For fixing at site)</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.26			
	<b>b) Material</b>					
	50 mm dia GI Pipe 2.85 m long including 5 per cent wastage	m	3.00			
	Aluminum sheeting fixed with encapsulated lens type reflective sheeting of size including lettering and signs as applicable background with epoxy paint	sqm	0.90			
	Add 3 per cent of cost of GI Pipe towards cost of fabrication, drilling holes, nuts, bolts etc.					
	<b>(c) Machinery</b>					
	Tractor with trolley	hour	0.08			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Cost for 0.9 sqm = (i+ii+iii+a+b+c+d+e)</b>					
	<b>Rate per sqm (for sign having area upto 0.9 sqm) = (i+ii+iii+a+b+c+d+e)/0.90</b>					
(iii)	<b>Providing and erecting direction and place identification retro-reflectorisred sign as per IRC:67 made of encapsulated lens type reflective sheeting vide Clause 1701.2.3, fixed over aluminum sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on RCC Post 100 mm x 100 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 450 mm x 450 mm x 600 mm, 600 mm below ground level as per drawings and Technical Specification Clause 1701 MORD.</b>					
	Unit = sqm					
	Taking output = 0.9 sqm					
	<b>(i) Excavation for foundation</b>					
	As per item No. 1 of Chapter 11	cum	0.126			
	<b>(ii) Cement concrete M15 grade</b>					
	As per item No. 4 (A) (iii) or (iv) of Chapter 11	cum	0.126			
	<b>(iii) Painting two coats including prime coat on concrete surface with Epoxy Paint as per specifications</b>					
	As per item No. 9 of this Chapter		0.90			
	<b>(a) labour (For fixing at site)</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.26			
	<b>b) Material</b>					
	RCC M15 Grade in Sub-structure					
	As per item No. 5 (i) or (ii) of Chapter 12	cum	0.0285			
	Steel reinforcement HYSD bars					
	As per item No. 6 of Chapter 12	t	0.0077			
	Aluminum sheeting fixed with encapsulated lens type reflective sheeting of size including lettering and signs as applicable background with epoxy paint	sqm	0.90			
	Add 3 per cent of cost of RCC Post towards cost of drilling holes, nuts, bolts, etc.					
	<b>(c) Machinery</b>					
	Tractor with trolley	hour	0.08			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Cost for 0.9 sqm = (i+ii+iii+a+b+c+d+e)</b>					
	<b>Rate per sqm (for sign having area upto 0.9 sqm) = (i+ii+iii+a+b+c+d+e)/0.90</b>					
	<b>Note : 1. Lettering and arrow markings on sign board to be provided separately as per actual requirement. Rates for these items have been analysed separately.</b>					
	<b>2. The rate for excavation, cement concrete M15, RCC M15 in Sub-structure, steel re-enforcement and painting may be taken from respective Chapters.</b>					
	<b>3. The depth of foundation and quantity of cement concrete in the foundation are indicative. These may be increased for areas having higher wind velocities like in coastal areas. This is applicable to all road signs and directions boards.</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
B	<b>Semi-Reflective Traffic signs</b>					
	<b>Direction and place identification signs up to 0.9 sqm size board</b>					
	Providing and erecting direction and place identifications of semi reflective sign boards as per IRC:67 made of 2 mm thick M.S. Sheet duly stove enameled paint in white colour in front and grey colour on back with red reflective border of 70 mm width and required message, letters, figures with reflective engineering grade tape as per MORD specifications of required shade and colour. supported and welded on 47 mm x 47 mm of 12 SWG Square tube of 3050 mm height duly strengthened by 25 mm x 5 mm M/s flat iron on edges on back firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 450 mm x 450 mm x 600 mm, 600 mm below ground level as per drawings and Technical Specification Clause 1701 MORD.					
	Unit = each					
	Take Output = 0.9 sqm					
	<b>(i) Excavation for foundation</b>					
	As per item No. 1 of Chapter 11	cum	0.126			
	<b>(ii) Cement concrete M15 grade</b>					
	As per item No. 4 (A) (iii) or (iv) of Chapter 11	cum	0.126			
	<b>(iii) Painting on M.S. tube post with primer and two coat of epoxy paint as per specifications</b>					
	As per item No.9 of Chapter 10	sqm	0.59			
	<b>(a) labour (For fixing at site)</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.26			
	<b>b) Material</b>					
	(i) Support of MS sheet tube					
	47 mm x 47 mm of 12 SWG sheet 3050 mm long	kg	12.40			
	(ii) Angle iron 50 x 50 x 6 mm for lugs including 5% wastage	kg	1.06			
	(iii) 2 mm thick MS sheet strengthened by 25 mm x 5 mm MS flat iron & painted with stove enameled paint including lettering, signs, message, border with reflective tape of engineering grade of required shade and colour as per Technical Specifications.	sqm	0.90			
	Add 3% cost of MS sheet angle iron towards the cost of fabrications, drilling, holes, nuts, bolts etc.					
	<b>(c) Machinery</b>					
	Tractor with trolley	hour	0.08			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost for 0.9 sqm = (i+ii+iii+a+b+c+d+e)					
	<b>Rate per sqm (for sign having area upto 0.9 sqm) = (i+ii+iii+a+b+c+d+e)/0.90</b>					
	<b>Note : Rate for excavation, cement concrete M15 and painting may be taken from respective Chapters.</b>					
4	<b>Direction and Place Identification signs with size more than 0.9 sqm size board</b>					
A	<b>Retro-reflectorised Traffic Signs</b>					
i	Providing and erecting direction and place identification retro-reflectorised sign as per IRC:67 made of encapsulated lens type reflective sheeting vide Clause 1701.2.3 MORD / 801.3 MORTH, fixed over aluminum sheeting, 2 mm thick with area exceeding 0.9 sqm supported on mild steel angle iron posts 75 mm x 75 mm x 6 mm, 2 Nos. firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 450 mm x 450 mm x 600 mm, 600 mm below ground level as per drawings and Technical Specification Clause 1701 MORD / 801 MORTH					
	Unit = sqm					
	Taking output = 1.50 sqm					
	<b>(i) Excavation for foundation</b>					
	As per item No. 1 of Chapter 11	cum	0.252			
	<b>(ii) Cement concrete M15 grade</b>					
	As per item No. 4 (A) (iii) or (iv) of Chapter 11	cum	0.252			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>(iii) Painting Angle Iron Post with Primer and two coats of Epoxy Paint as per specifications</b>					
	As per item No. 9 of this Chapter (or)	sqm	1.774			
	Painting Angle Iron Post with Primer and two coats (item 6 of this chapter)	sqm	0.86			
	<b>(a) labour (For fixing at site)</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.31			
	<b>b) Material</b>					
	Mild steel angle iron 75 mm x 75 mm x 6 mm, 2.85 m long, 2 nos. with 5 per cent wastage	kg	38.00			
	Aluminum sheeting fixed with encapsulated lens type reflective sheeting of size including lettering and signs as applicable background with epoxy paint	sqm	1.50			
	Add 2 per cent of cost of angle iron towards cost of fabrication, drilling holes, nuts, bolts, etc.		2.00%			
	<b>(c) Machinery</b>					
	Tractor with trolley	hour	0.02			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		18.00%			
	Cost for 1.5 sqm = i+ii+iii+a+b+c+d+e (with epoxy paint)					
	<b>Rate per sqm (for sign having area more than 0.9 sqm) = (i+ii+iii+a+b+c+d+e)/1.50</b>					
	Cost for 1.5 sqm = i+ii+iii+a+b+c+d+e (with enamel paint)					
	<b>Rate per sqm (for sign having area more than 0.9 sqm) = (i+ii+iii+a+b+c+d+e)/1.50</b>					
	<b>(ii) Providing and erecting direction and place identification retro-reflectorised sign as per IRC:67 made of encapsulated lens type reflective sheeting vide Clause 1701.2.3, fixed over aluminum sheeting, 2 mm thick with area exceeding 0.9 sqm supported on dia GI Pipe firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 450 mm x 450 mm x 600 mm, 600 mm below ground level as per drawings and Technical Specification Clause 1701 MORD.</b>					
	Unit = sqm					
	Taking output = 1.50 sqm					
	<b>(i) Excavation for foundation</b>					
	As per item No. 1 of Chapter 11	cum	0.252			
	<b>(ii) Cement concrete M15 grade</b>					
	As per item No. 4 (A) (iii) or (iv) of Chapter 11	cum	0.252			
	<b>(a) labour (For fixing at site)</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.52			
	<b>b) Material</b>					
	50 mm dia GI Pipe 2.85 m long including 5 per cent wastage	m	6.00			
	Aluminum sheeting fixed with encapsulated lens type reflective sheeting of size including lettering and signs as applicable background with epoxy paint	sqm	1.50			
	Add 3 per cent of cost of GI Pipe towards cost of fabrication, drilling holes, nuts, bolts, etc.					
	<b>(c) Machinery</b>					
	Tractor with trolley	hour	0.12			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		18.00%			
	Cost for 1.5 sqm = i+ii+iii+a+b+c+d+e					
	<b>Rate per sqm (for sign having area more than 0.9 sqm) = (i+ii+iii+a+b+c+d+e)/1.50</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
(iii)	Providing and erecting direction and place identification retro-reflectorisrd sign as per IRC:67 made of encapsulated lens type reflective sheeting vide Clause 1701.2.3, fixed over aluminum sheeting, 2 mm thick with area exceeding 0.9 sqm supported on RCC Posts 100 mm x 100 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 450 mm x 450 mm x 600 mm, 600 mm below ground level as per drawings and Technical Specification Clause 1701 MORD.					
	Unit = sqm					
	Taking output = 1.50 sqm					
	<b>(i) Excavation for foundation</b>					
	As per item No. 1 of Chapter 11	cum	0.252			
	<b>(ii) Cement concrete M15 grade</b>					
	As per item No. 4 (A) (iii) or (iv) of Chapter 11	cum	0.252			
	<b>(iii) Painting two coats including prime coat on concrete surface with Epoxy Paint as per specifications</b>					
	As per item No. 9 of this Chapter		1.00			
	<b>(a) labour (For fixing at site)</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.52			
	<b>b) Material</b>					
	RCC M15 Grade in Sub-structure					
	As per item No.12.5 of Chapter 12	cum	0.057			
	Steel reinforcement HYSD bars					
	As per item No.12.6 of Chapter 12	t	0.0154			
	Aluminum sheeting fixed with encapsulated lens type reflective sheeting of size including lettering and signs as applicable background with epoxy paint	sqm	1.50			
	Add 3 per cent of cost of RCC Post towards cost of drilling holes, nuts, bolts, etc.					
	<b>(c) Machinery</b>					
	Tractor with trolley	hour	0.12			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost for 1.5 sqm = a+b+c+d+e					
	<b>Rate per sqm (for sign having area more than 0.9 sqm) = (a+b+c+d+e)/1.50</b>					
	<b>Note : 1.</b> Lettering and arrow markings on sign boards to be provided separately as per actual requirement. Rates for these items have been analysed separately.					
	2. The rate for excavation, cement concrete M15, RCC M15 in Sub-structure, steel re-enforcement and painting may be taken from respective Chapters.					
	3. The depth of foundation and quantity of cement concrete in the foundation are indicative. These may be increased for areas having higher wind velocities like in coastal areas. This is applicable to all road signs and directions boards.					



S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
B	<b>Semi-Reflective Traffic signs</b>					
	<b>Direction and place identification signs more than 0.90 sqm sign board</b>					
	Providing and erecting direction and place identification of semi reflective sign boards as per IRC-67 made of 2 mm thick M.S. Sheet duly stove enameled paint white colour in front and grey colour on back with reflective border of 70 mm width and required message, letters, figures with reflective tape of engineering grade as per MORD specifications of required shade and colour. Supported and welded on two nos. 47 mm x 47 mm of 12 SWG square tube of 3050 mm height duly strengthened by 25 mm x 5 mm MS flat iron on edges on back firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 450 mm x 450 mm x 600 mm, 600 mm below ground level as per drawings and Technical Specification Clause 1701 MORD.					
	Unit = each					
	Taking output = 1.5 sqm					
	<b>(i) Excavation for foundation</b>					
	As per item No. 1 of Chapter 11	cum	0.252			
	<b>(ii) Cement concrete M15 grade</b>					
	As per item No. 4 (A) (iii) or (iv) of Chapter 11	cum	0.252			
	<b>(iii) Painting M.S. tube posts with primer and two coats of epoxy paint as per specification</b>					
	As per item No. 9 of chapter 10	sqm	0.92			
	<b>(a) labour (For fixing at site)</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.52			
	<b>b) Material</b>					
	(i) Support of MS Sheet tubes 47 mm x 47 mm x 12 SWG sheet 3050 mm long	kg	24.80			
	(ii) Angle iron 50 mm x 50 mm x 6 mm for lugs	kg	2.12			
	(iii) 2 mm thick MS Sheet strengthened by 25 mm x 5 mm M.S. flat iron and painted with stove enameled paint including lettering, signs, messages, border with reflective tape of engineering grade of required size, shade and colour as per MORD specifications	sqm	1.50			
	Add 3% cost of MS sheet and angle iron towards the cost of fabrications, drilling, holes, nuts, bolts etc.					
	<b>(c) Machinery</b>					
	Tractor with trolley	hour	0.16			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost for 1.5 sqm = a+b+c+d+e					
	<b>Rate per sqm (for sign having area more than 0.9 sqm) = (a+b+c+d+e)/1.50</b>					
	<b>Note :</b> Rate for excavation cement concrete M15 and painting may be taken from respective chapter					
5	<b>Overhead Signs</b>					
	Providing and erecting overhead signs with a corrosion resistant 2mm thick aluminum alloy sheet reflectorised with high intensity retro-reflective sheeting of encapsulated lense type with vertical and lateral clearance given in clause 802.2 and 802.3 and installed as per clause 802.7 over a designed support system of aluminum alloy or galvanised steel trestles and trusses of sections and type as per structural design requirements and approved plans as per clause 802 MORTH					
A	<b>Truss and Vertical Support</b>					
	Unit = tonne					
	Taking output = 1 tonne					
	<b>a) Labour</b>					
	Mate	day	-			
	Blacksmith	day	2.00			
	Mazdoor including for handling & fixing at site.	day	4.24			



S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>b) Material</b>					
	Aluminum alloy / galvanised steel including 5% wastage	tonne	1.05			
	Add 1 per cent on cost of material for nuts, bolts and drilling and welding consumables					
	Add 15 per cent on cost of material for fabrication of trusses as per approved design					
	<b>c) Machinery</b>					
	Crane 3 tonne capacity	hour	3.00			
	Truck	hour	0.50			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate per tonne = (a+b+c+d+e)</b>					
<b>B</b>	<b>Aluminum Alloy Plate for Over Head Sign</b>					
	<b>Unit = sqm</b>					
	Taking output = 1 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Blacksmith	day	0.10			
	Mazdoor	day	0.17			
	<b>b) Material</b>					
	Aluminum alloy plate, 2 mm thick, fixed with high intensity grade sheeting vide clause 801.3	sqm	1.00			
	<b>Miscellaneous</b>					
	Add 1 per cent of cost of labour for lifting arrangement, like ladders, pulleys, ropes etc					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate per sqm = (a+b+c+d)</b>					
	<b>Note : 1.</b> The cost of excavation and foundation concrete for fixing of vertical support system to be worked out separately as per the approved drawing/design and to be included in the estimate.					
	<b>2.</b> Lettering and arrow marks on sign board to be provided separately as per actual requirement. Rates for these items have been included separately in this chapter.					
<b>6</b>	<b>Painting Two Coats on New Concrete Surfaces</b>					
i	Painting two coats including primer coat after filling the surface with synthetic enamel paint in all shades on new, plastered / concrete surfaces as per drawing and Technical Specification Clause 1701MORD.					
	Unit = sqm					
	Taking output = 40 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Painter (1st Class)	day	3.00			
	Painter Assistant	day				
	Mazdoor (Unskilled)	day	2.20			
	<b>b) Material</b>					
	Cement Primer as per specifications	litre	3.00			
	Paint conforming to requirement of Clause 1701.3.8	litre	6.00			
	Add for scaffolding @ 1 per cent of labour cost where required					
	Filling Material on Paint Cost					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Cost for 40 sqm = a+b+c+d</b>					
	<b>Rate per sqm = (a+b+c+d)/40</b>					
ii	Painting two coats after filling the surface with synthetic enamel paint in all shades on new plastered concrete surfaces (excluding Primary Coat) as per Specification 803 MORTH					
	Unit = sqm					
	Taking output = 40 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Painter	day	2.000			
	Mazdoor	day	1.120			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>b) Material</b>					
	Paint conforming to requirement of clause 803.3 MORTH	Litre	6.000			
	Add for scaffolding @ 1% of labour cost where required					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 40 sqm = a+b+c+d					
	Rate per sqm = (a+b+c+d)/40					
7	<b>Painting on Steel Surfaces</b>					
i	Providing and applying two coats of ready mix <b>Enamel</b> paint including primer coat of approved brand on steel surface after through cleaning of surface to give an even shade as per drawing and Technical Specification Clause 1701MORD					
	Unit = sqm					
	Taking output = 10 sqm					
	<b>a) Labour</b>					
	Mate	day	0.25			
	Painter (1st Class)	day	0.60			
	Mazdoor (Unskilled)	day	0.40			
	<b>b) Material</b>					
	Red-oxide Primer as per specifications	litre	0.60			
	Paint ready mixed approved brand	litre	1.25			
	Add @ 1% on cost of material for scaffolding wherever required					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 10 sqm = a+b+c+d					
	Rate per sqm = (a+b+c+d)/10					
ii	Providing and applying two coats of ready mix <b>Enamel</b> paint of approved brand on steel surface after through cleaning of surface to give an even shade ( <b>excluding Primary Coat</b> ) as per specification 803 MORTH.					
	Unit = sqm					
	Taking output = 10 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Painter	day	0.45			
	Mazdoor	day	0.28			
	<b>b) Material</b>					
	Paint ready mixed approved brand.	Litre	1.25			
	Add @ 1 per cent on cost of material for scaffolding					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 10 sqm = a+b+c+d					
	Rate per sqm = (a+b+c+d)/10					
iii	<b>Painting on Steel Surfaces</b>					
	Providing and applying two coats of ready mix <b>Aluminum</b> paint including primer coat of approved brand on steel surface after through cleaning of surface to give an even shade as per drawing and Technical Specification Clause 1701MORD					
	Unit = sqm					
	Taking output = 10 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Painter (1st Class)	day	0.60			
	Mazdoor (Unskilled)	day	0.65			
	<b>b) Material</b>					
	Red-oxide Primer as per specifications	litre	0.60			
	Paint ready mixed approved brand	litre	1.25			
	Add @ 1 per cent on cost of material for scaffolding wherever required					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 10 sqm = a+b+c+d					
	Rate per sqm = (a+b+c+d)/10					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
iv	Providing and applying two coats of ready mix paint <b>Aluminum</b> of approved brand on steel surface after through cleaning of surface to give an even shade ( <b>excluding Primary Coat</b> ) as per Specification 803 MORTH					
	<b>Unit = sqm</b>					
	<b>Taking output = 10 sqm</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Painter	day	0.45			
	Mazdoor	day	0.28			
	<b>b) Material</b>					
	Paint ready mixed approved brand.	Litre	1.25			
	Add @ 1 per cent on cost of material for scaffolding					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>				<b>18.00%</b>	
	<b>Cost for 10 sqm = a+b+c+d</b>					
	<b>Rate per sqm = (a+b+c+d)/10</b>					
8	<b>Painting on Wood Surfaces</b>					
i	Providing and applying two coats of ready mix paint including primer coat of approved brand on wood surface after through cleaning of surface to give an even shade as per drawing and Technical Specification Clause 803 MORTH					
	<b>Unit = sqm</b>					
	<b>Taking output = 10 sqm</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Painter (1st Class)	day	0.50			
	Mazdoor (Unskilled)	day	0.23			
	<b>b) Material</b>					
	Red-oxide Primer as per specifications	litre	0.60			
	Paint ready mixed approved brand	litre	1.5			
	Add @ 1 per cent on cost of material for scaffolding wherever required				<b>1.00%</b>	
	Add @ 5 per cent on cost of labour & materials to prepare the surface by filling minutes roughness on the surface and priming the surface before laying 2 coats of painting.				<b>5.00%</b>	
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>				<b>18.00%</b>	
	<b>Cost for 10 sqm = a+b+c+d</b>					
	<b>Rate per sqm = (a+b+c+d)/10</b>					
ii	Providing and applying two coats of ready mix paint <b>excluding</b> primer coat of approved brand on wood surface after through cleaning of surface to give an even shade as per drawing and Technical Specification Clause 803 MORTH					
	<b>Unit = sqm</b>					
	<b>Taking output = 10 sqm</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Painter (1st Class)	day	0.50			
	Mazdoor (Unskilled)	day	0.23			
	<b>b) Material</b>					
	Paint ready mixed approved brand	litre	1.5			
	Add @ 1 per cent on cost of material for scaffolding wherever required				<b>1.00%</b>	
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>				<b>18.00%</b>	
	<b>Cost for 10 sqm = a+b+c+d</b>					
	<b>Rate per sqm = (a+b+c+d)/10</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
9	<b>Painting on Concrete/Steel Surfaces with Epoxy</b>					
	Painting two coats including prime coat with epoxy paint of approved brand on concrete/steel surfaces after through cleaning of surface to give an even shade as per drawing and Technical Specification Clause 1701 MORD					
	Unit = sqm					
	Taking output = 10 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Painter (1st Class)	day	0.60			
	Mazdoor (Unskilled)	day	0.65			
	<b>b) Material</b>					
	Epoxy primer / Red-oxide	litre	0.60			
	Epoxy paint	litre	1.25			
	Add @ 1 per cent on cost of material for scaffolding wherever required					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	Cost for 10 sqm = a+b+c+d					
	Rate per sqm = (a+b+c+d)/10					
10	<b>Painting lines, Dashes, Arrows, etc. on Road in Two Coats on New Work</b>					
	Painting lines, dashes, arrows, etc. on roads in two coats on new work with ready mixed road marking paint conforming to IS:164 on bituminous/concrete surface, including cleaning the surface of all dirt, dust and other foreign matter, demarcation at site and traffic control as per drawing and Technical Specification Clause 1702 MORD / 803 MORTH					
	<b>i Upto 100 mm width</b>					
	Unit = sqm					
	Taking output = 10 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Painter (1st Class)	day	0.35			
	Painter (2nd Class)	day				
	Painter Assistant	day				
	Mazdoor (Unskilled)	day	1.42			
	<b>b) Material</b>					
	Road marking paint as per IS:164	litre	1.48			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	Cost for 10 sqm = a+b+c+d					
	Rate per sqm = (a+b+c+d)/10					
	<b>ii Over 100 mm width (MORTH)</b>					
	Unit = sqm					
	Taking output = 10 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Painter (1st Class)	day	0.55			
	Painter (2nd Class)	day				
	Painter Assistant	day				
	Mazdoor (Unskilled)	day	1.64			
	<b>b) Material</b>					
	Road marking paint as per IS:164	litre	1.48			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	Cost for 10 sqm = a+b+c+d					
	Rate per sqm = (a+b+c+d)/10					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
11	<b>Painting lines, Dashes, Arrows, etc. on Roads in Two Coats on Old Work</b>					
	Painting lines, dashes, arrows, etc. on roads in two coats on old work with ready mixed road marking paint conforming to IS:164 on bituminous/concrete surface, including cleaning the surface of all dirt, dust and other foreign matter, demarcation at site and traffic control as per drawing and Technical Specification Clause 1702 MORD / 803 MORTH.					
	<b>i Upto 100 mm width</b>					
	Unit = sqm					
	Taking output = 10 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Painter (1st Class)	day	0.30			
	Mazdoor (Unskilled)	day	1.31			
	<b>b) Material</b>					
	Road marking paint	litre	0.90			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	Cost for 10 sqm = a+b+c+d					
	Rate per sqm = (a+b+c+d)/10					
	<b>ii Over 100 mm width</b>					
	Unit = sqm					
	Taking output = 10 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Painter (1st Class)	day	0.35			
	Mazdoor (Unskilled)	day	1.42			
	<b>b) Material</b>					
	Road marking paint	litre	0.90			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	Cost for 10 sqm = a+b+c+d					
	Rate per sqm = (a+b+c+d)/10					
12	<b>Road Marking with Hot Applied Thermoplastic Compound with Reflectorising Glass Beads on Bituminous Surface</b>					
	Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes as per Specification 803 MORTH					
	<b>Unit = sqm</b>					
	<b>Taking output = 600 sqm</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor	day	0.78			
	<b>b) Machinery</b>					
	Road marking machine @ 60 sqm per hour	hour	10.00			
	Tractor-trolley	hour	0.50			
	<b>c) Material</b>					
	Hot applied thermoplastic compound	Litre	1500.00			
	Reflectorising glass beads	kg	150.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost for 600 sqm = a+b+c+d+e					
	Rate per sqm = (a+b+c+d+e)/600					
	<b>Note : 1.</b> A sealing primer may be applied in advance on cement concrete pavement to ensure proper bonding. Any laitance and/or curing compound to be removed where paint is required to be applied on concrete surface.					
	<b>2.</b> Cost of painter is already included in hire charges of road marking machine.					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
13	<b>Kilometre Stone</b>					
	Reinforced cement concrete M15 grade kilometre stone/local stone of standard design as per IRC:8 fixing in position including painting and printing, etc as per drawing and Technical Specification Clause 1703 MORD / 804 MORTH					
	<b>(i) 5th Kilometre Stone (precast)</b>					
	Unit = each					
	Taking output = 6 Nos.					
	a) M-15 grade of concrete					
	As per item No. 5 (i) or (ii) of Chapter 12	cum	2.35			
	b) Steel reinforcement @ 5 kg per sqm					
	As per item No. 6 of Chapter 12	kg	22.08			
	c) Excavation in soil for foundation					
	As per item No. 1 of Chapter 11	cum	1.68			
	d) Painting two coats on concrete surface					
	As per item No.5 of Chapter 10	sqm	9.85			
	e) lettering on km post (average 30 letters of 10 cm height each)					
	As per item No. 1 of Chapter 10	per cm high per letter	1800.00			
	<b>Transportation and fixing</b>					
	<b>f) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	0.60			
	Mazdoor (Unskilled)	day	6.26			
	<b>g) Machinery</b>					
	50 HP Tractor with trolley	hour	6.00			
	<b>h&amp;i) Overheads &amp; Contractors Profit</b>					
				18.00%		
	j )Cost for 6 Nos. 5th km stone = a+b+c+d+e+f+g+h+i					
	<b>Rate for each 5th km stone = j/6</b>					
	<b>(ii) Ordinary Kilometer Stone (Precast)</b>					
	Unit = each					
	Taking output = 14 Nos.					
	a) M-15 grade of concrete					
	As per item No. 5 (i) or (ii) of Chapter 12	cum	3.77			
	b) Steel reinforcement @ 5 kg per sqm					
	As per item No. 6 of Chapter 12	kg	26.32			
	c) Excavation in soil for foundation					
	As per item No. 1 of Chapter 11	cum	2.77			
	d) Painting two coats on concrete surface					
	As per item No.5 of Chapter 10	sqm	11.41			
	e) lettering on km post (average 12 letters of 10 cm height each)					
	As per item No. 1 of Chapter 10	per cm high per letter	1680.00			
	<b>Transportation and fixing</b>					
	<b>f) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	1.00			
	Mazdoor (Unskilled)	day	7.32			
	<b>g) Machinery</b>					
	50 HP Tractor with trolley	hour	6.00			
	<b>h&amp;i) Overheads &amp; Contractors Profit</b>					
				18.00%		
	j) Cost for 14 Nos. ordinary km stone = (a+b+c+d+e+f+g+h+i)					
	<b>Rate for each ordinary km stone = j/ 14</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
(iii)	<b>200 m / Hectometer stone (precast)</b>					
	Unit = each					
	Taking output = 33 Nos.					
	a) M-15 grade of concrete					
	As per item No. 5 (i) or (ii) of Chapter 12	cum	1.58			
	b) Steel reinforcement @ 5 kg per sqm					
	As per item No. 6 of Chapter 12	kg	66.00			
	c) Excavation in soil for foundation					
	As per item No. 1 of Chapter 11	cum	1.39			
	d) Painting two coats on concrete surface					
	As per item No.5 of Chapter 10	sqm	6.27			
	e) lettering on km post (average 1 letter of 10 cm height each)					
	As per item No. 1 of Chapter 10	per cm high per letter	330.00			
	<b>Transportation and fixing</b>					
	<b>f) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	1.50			
	Mazdoor (Unskilled)	day	7.34			
	<b>g) Machinery</b>					
	50 HP Tractor with trolley	hour	6.00			
	<b>h&amp;i) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>j) Cost for 33 Nos. 200 m stone = (a+b+c+d+e+f+g+h+i)</b>					
	<b>Rate for each 200 m stone = j / 33</b>					
	<b>Note : 1. The rate for excavation, cement concrete, steel reinforcement, painting and lettering may be taken from respective Chapters.</b>					
	<b>2. In case local stone is to be used in place of precast RCC stones, then rate of cement concrete and steel reinforcement may be deleted.</b>					
14	<b>Road Delineators</b>					
	Supplying and installation of delineators (road way indicators, hazard markers, object markers), 80-100 cm high above ground level, painted black and white in 15 cm wide strips, fitted with 80 x 100 mm rectangular or 75 mm dia circular reflectorised panels at the top, buried or pressed into the ground and conforming to IRC-79 and the drawings as per Specification 805 MORTH.					
	<b>Unit = Each</b>					
	Taking output= 30 Nos.					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor for fixing	day	1.04			
	<b>b) Material</b>					
	Cost of approved type of delineators from ISI certified firm as per the standard drawing given in IRC - 79	each	30.00			
	Add 10 per cent cost of material for installation					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Cost for 30 Nos. delineators = (a+b+ c+d)</b>					
	<b>Rate per delineators = (a+b+c+d) /30</b>					
	<b>Note : In case of soft ground, a proper foundation may be provided as per approved design. In case foundation is required to be provided, the items of excavation and foundation concrete are required to be measured and paid separately.</b>					
15	<b>Boundary Pillar</b>					
	Reinforced cement concrete M15 grade boundary pillars/local stone of standard design as per IRC:25, fixed in position including finishing and lettering but excluding painting as per drawing and Technical Specification Clause 1704 MORD / 806 MORTH					
	Unit = each					
	Taking output = 57 Nos.					
	a) M-15 grade of concrete					
	As per item No. 5 (i) or (ii) of Chapter 12	cum	1.25			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	b) Steel reinforcement @ 5 kg per sqm As per item No. 6 of Chapter 12	kg	79.80			
	c) Excavation in soil for foundation As per item No. 1 of Chapter 11	cum	10.72			
	d) lettering, each 10 cm high As per Item No. 1 of Chapter 10	per letter per cm high	2280.00			
	<b>Transportation and fixing</b>					
	<b>f) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	14.82			
	<b>g) Machinery</b>					
	Tractor with trolley	hour	6.00			
	<b>h) Material</b>					
	Stone spall	cum	11.97			
	<b>i&amp;j) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>k) Cost for 57 Nos. boundary pillar = a+b+c+d+e+f+g+h+i+j</b>					
	<b>Rate for each boundary pillar = k/57</b>					
	<b>Note : 1. In case of soft ground, a proper foundation may be provided as per approved design. In case foundation is required to be provided, the items of excavation and foundation concrete are required to be measured and paid separately.</b>					
	<b>2. In case local stone is to be used in place of precast RCC stones, then rate of cement concrete and steel reinforcement may be deleted.</b>					
16	<b>G.I Barbed Wire Fencing 1.2 m high</b>					
	i Providing and fixing 1.2 m high GI barbed wire fencing with 1.8 m RCC posts 150 mm x 150 mm placed every 3 m centre-to-centre founded in M15 grade cement concrete, 0.6 m below ground level, every 15th post, last but one end post and corner post shall be strutted on both sides and end post on one side only and provided with 9 horizontal lines and 2 diagonals interwoven with horizontal wires, fixed with GI staples, turn buckles etc., complete as per Clause 1705 MORD.					
	Unit = per running m					
	Taking output = 30 m					
	<b>a) Labour</b>					
	Mate	day	-			
	Blacksmith	day	0.25			
	Mazdoor (Unskilled)	day	2.09			
	<b>b) Machinery</b>					
	Barbed wire 335 m length @ 9.38 kg per 100 m	kg	31.42			
	R.C.C. Post 150 mm x 150 mm x 1.80 m M15 Grade concrete 13 x 150 mm x 150 mm x 1.8 m As per item No. 5 (i) or (ii) of Chapter 12 Add 5 per cent extra cost for formwork of M-15	cum	0.526			
	Supply of HYSD Bars including cutting, bending, tying & placing in position.					
	10 mm dia HYSD bars for posts 13 x 4 x 1.8 = 93.6 m @ 0.62 kg/mt = 43.60 kg					
	8 mm dia HYSD bars for rings 13 x 10 x 0.6 = 78 m @ 0.39 kg/mt = 30.42 kg					
	<b>Total = 74.02 Kgs</b>					
	As per item No. 6 of Chapter 12	t	0.074			
	Add for GI staple binding wire, drilling holes, etc. @ 2 per cent of the cost of material					



S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>c) Painting</b>					
	Applying two coats of painting including primer coat on exposed surface of RCC posts					
	As per item No. 6 of this Chapter	sqm	8.14			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 30 m fencing = a+b+c+d+e</b>					
	<b>Rate per m = (a+b+c+d+e)/30</b>					
	<b>Note :</b> Cost of excavation for foundation and foundation concrete to be added separately in the cost estimate as per approved design. The rate for these items may be taken from respective Chapters.					
ii	<b>G.I Barbed Wire Fencing 1.8 m high</b>					
	Providing and fixing 1.8 m high GI barbed wire fencing with 2.4 m RCC M15 grade 150 mm x 150 mm concrete post placed every 3 m centre-to-centre founded in M15 grade cement concrete, 0.6 m below ground level, every 15th post, last but one end post and corner post shall be strutted on both sides and end post on one side only and provided with 9 horizontal lines and 2 diagonals interwoven with horizontal wires, fixed with GI staples, turn buckles etc. complete as per Clause 1705 MORD.					
	Unit = per running m					
	Taking output = 30 m					
	<b>a) Labour</b>					
	Mate	day	-			
	Blacksmith	day	0.40			
	Mazdoor (Unskilled)	day	2.62			
	<b>b) Machinery</b>					
	Barbed wire 428 m length @ 9.38 kg per 100 m	kg	40.15			
	R.C.C. Post 150 mm x 150 mm x 2.4 m High M-15 Grade 13 x 150 mm x 150 mm x 2.4 m					
	As per item No. 5 (i) or (ii) of Chapter 12	cum	0.702			
	Add 5 per cent extra cost of C.C. for formwork of M-15					
	Supply of HYSD Bars including cutting, bending, tying & placing in position.					
	10 mm dia HYSD bars for posts 13 x 4 x 2.4 = 124.80 m					
	@ 0.62 kg/mt = 77.38 kg					
	8 mm dia HYSD bars for rings					
	13 x 11 x 0.6 = 85.80 m					
	@ 0.39 kg/m = 33.46 kg					
	<b>Total = 110.84 Kgs</b>					
	As per item No. 6 of Chapter 12	t	0.111			
	Add for GI staple, binding wire, drilling holes etc. @ 2 per cent of the cost of material					
	<b>c) Painting</b>					
	Applying two coats of painting including primer coat on exposed surface of RCC posts					
	As per item No. 6 of this Chapter	sqm	12.10			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 30 m fencing = a+b+c+d+e</b>					
	<b>Rate per m fencing = (a+b+c+d+e)/30</b>					
	<b>Note :</b> Cost of excavation for foundation and foundation concrete to be added separately in the cost estimate as per approved design. The rate for these items may be taken from respective Chapters.					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
iii	<b>G.I Barbed Wire Fencing 1.2 Metre High</b>					
	Providing and fixing 1.2 metres high GI barbed wire fencing with 1.8 m angle iron posts 40 mm x 40 mm x 6 mm placed every 3 metres center to center founded in M15 grade cement concrete, 0.6 metre below ground level, every 15th post, last but one end post and corner post shall be strutted on both sides and end post on one side only and provided with 9 horizontal lines and 2 diagonals interwoven with horizontal wires, fixed with GI staples, turn buckles etc complete as per clause 807 MORTH					
	<b>Unit = per running metre</b>					
	Taking output = 30 metres					
	<b>a) Labour</b>					
	Mate	day	-			
	Blacksmith	day	0.25			
	Mazdoor	day	2.09			
	<b>b) Material</b>					
	Barbed wire 335 metres length @ 9.38 kg / 100 metres	kg	31.42			
	MS angle iron 40 mm x 40mm x 6 mm, 23 metres in length @ 3.5 kg per metre	kg	80.50			
	Add for GI staple binding wire, drilling holes etc. @ 2 per cent of the cost of material					
	<b>c) Painting</b>					
	Applying two coats of painting on exposed surface of angle iron posts ( Rate as per item no. 7)	sqm	2.11			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost for 30 metres fencing = a+b+c+d+e			18.00%		
	<b>Rate per metre = (a+b+c+d+e)/30</b>					
	<b>Note :</b> Cost of excavation for foundation and foundation concrete to be added separately in the cost estimate as per approved design. The rate for these items may be taken from respective chapters.					
iv	<b>G.I Barbed Wire Fencing 1.8 Metre High</b>					
	Providing and fixing 1.8 metres high GI barbed wire fencing with 2.4 m angle iron posts 50 mm x 50 mm x 6 mm placed every 3 metres center to center founded in M15 grade cement concrete, 0.6 metre below ground level, every 15th post, last but one end post and corner post shall be strutted on both sides and end post on one side only and provided with 12 horizontal lines and 2 diagonals interwoven with horizontal wires, fixed with GI staples, turn buckles etc complete as per clause 807 MORTH.					
	<b>Unit = per running metre</b>					
	Taking output = 30 metres					
	<b>a) Labour</b>					
	Mate	day	-			
	Blacksmith	day	0.40			
	Mazdoor	day	2.62			
	<b>b) Material</b>					
	Barbed wire 428 metres length @ 9.38 kg / 100 metres	kg	40.15			
	MS angle iron 50 mm x 50 mm x 6 mm, 33.8 metres in length @ 4.5 kg per metre	kg	152.00			
	Add for GI staple, binding wire, drilling holes etc. @ 2 per cent of the cost of material					
	<b>c) Painting</b>					
	Applying two coats of painting on exposed surface of angle iron posts	sqm	3.96			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost for 30 metres fencing = a+b+c+d+e			18.00%		
	<b>Rate per metre fencing = (a+b+c+d+e)/30</b>					
	<b>Note :</b> Cost of excavation for foundation and foundation concrete to be added separately in the cost estimate as per approved design. The rate for these items may be taken from respective chapters.					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
17	<b>Fencing With Welded Steel Wire Fabric 75 mmx50 mm</b>					
	Providing 1.20 metre high fencing with angle iron posts 50 mm x 50 mm x 6 mm at 3 metre center to center with 0.40 metre embedded in M15 grade cement concrete, corner, end and every 10th post to be strutted, provided with welded steel wire fabric of 75 mm x 50 mm mesh or 75 mm x 25 mm mesh and fixed to iron posts by flat iron 50 x 5 mm and bolts etc. complete in all respects. <b>(MORTH Suggestive )</b>					
	<b>Unit = Running metre</b>					
	Taking output = 30 m					
	<b>a) Labour</b>					
	Mate	day	-			
	Welder	day	1.00			
	Mazdoor	day	2.12			
	<b>b) Material</b>					
	i) Angle iron for posts 50 x 50 x 6 mm	kg	106.00			
	ii) Runner flat 50 x 5 mm	kg	26.00			
	iii) Welded steel wire fabric 75x50 mm mesh @ 4 kg/sqm, 4 x 30 x 1.2 + 5 per cent wastage	kg	151.00			
	<b>OR</b>					
	Welded steel wire fabric 75 x 25 mm mesh @ 7.75 kg/sqm, 7.75 x 30 x 1.2 + 5 per cent wastage	kg	293.00			
	Add 2.5 per cent of cost of material for drilling holes in angles, flats, splitting angle at bottom, nuts and bolts and welded consumables					
	<b>c) Machinery</b>					
	Tractor-trolley	hour	0.10			
	<b>d) Painting</b>					
	Painting two coats including priming	sqm	8.00			
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 30 metre = a+b+c+d+e+f</b>					
	<b>Rate per metre = (a+b+c+d+e+f)/30</b>					
	<b>Note : i)</b> Adopt any one type of welded steel wire fabric 75 x 50 mm or 75 x 25 mm as per approved design.					
	<b>Note : ii)</b> The item of excavation and cement concrete in foundation shall be measured and paid separately					
18	<b>Tubular Steel Railing on Medium Weight Steel Channel (ISMC series) 100 mm x 50 mm</b>					
	Providing, fixing and erecting 50 mm dia steel pipe railing in 3 rows duly painted on medium weight steel channels (ISMC series) 100 mm x 50 mm, 1.2 m high above ground, 2 m centre-to-centre, complete as per approved drawings Clause 1706 MORD					
	Unit = Running m					
	Taking output = 10 m					
	<b>i) Excavation for foundation (6 Nos.) 6 x 0.6 x 0.6 x 0.6</b>					
	As per item No. 1 of Chapter 11	cum	1.296			
	<b>ii) Foundation concrete M-15 grade PCC 6 x 0.6 x 0.6 x 0.3</b>					
	As per item No. 4 (A) (iii) or (iv) of Chapter 11	cum	0.648			
	<b>iii) Painting of pipe</b>					
	As per item No. 6 of this Chapter	sqm	4.71			
	<b>iv) Painting of channel section (6 nos.) 1.8 m each 0.2 x 1.8 x 1.6 = 2.16</b>					
	As per item No.6 of this Chapter	sqm	2.16			
	<b>a) labour (For fixing at site)</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.26			
	Plumber	day	0.01			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>b) Material</b>					
	Steel pipe 50 mm external dia as per IS:1239	m	30.00			
	Medium weight steel channel (ISMC series) 100 mm x 50 mm, 10.8 m length @ 9.2 kg per m	kg	99.36			
	Add for drilling holes @ 3 per cent of cost of channels					
	<b>c) Machinery</b>					
	50 HP Tractor with trolley	hour	0.04			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost for 10 m = a+b+c+d+e					
	Rate per m = (a+b+c+d+e)/10					
19	<b>Tubular Steel Railing on Precast RCC posts, 1.2 m high above Ground Level</b>					
	Providing, fencing and erecting 50 mm dia painted steel pipe railing in 3 rows on precast M-20 grade RCC vertical posts 175 mm x 175 mm x 1.8 m high (1.2 m above GI) with 3 holes 50 mm dia for pipe, fixed 2 m centre-to- centre complete as per approved drawings Clause 1706 MORD					
	Unit = Running m					
	Taking output = 10 m					
	<b>i) Excavation for foundation (6 Nos.) 6 x 0.6 x 0.6 x 0.6</b>					
	As per item No. 1 of Chapter 11	cum	1.296			
	<b>ii) Foundation concrete M-15 grade PCC 6 x 0.6 x 0.6 x 0.3</b>					
	As per item No. 4 (A) (iii) or (iv) of Chapter 11	cum	0.648			
	<b>iii) RCC M20 for precast posts (6 nos.) of 1.8 m each</b>					
	As per item No. 5 (A) (i) of Chapter 12	cum	0.32			
	<b>iv) Painting of pipe</b>					
	As per item No.10.6 of this Chapter	sqm	4.71			
	<b>a) labour (For fixing at site)</b>					
	Mate	day				
	Mazdoor (Unskilled)	day	0.364			
	Plumber	day	0.01			
	<b>b) Material</b>					
	Steel pipe 50 mm external dia as per IS:1239	m	30.00			
	HYSD steel bars as per item No. 6 of Chapter 12	t	0.032			
	<b>c) Machinery</b>					
	50 HP Tractor with trolley	hour	0.25			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost for 10 m = a+b+c+d+e					
	Rate per m = (a+b+c+d+e)/10					
20	<b>Providing and Fixing 'Logo' of PMGSY Project</b>					
	Providing and fixing of typical PMGSY informatory sign board with Logo as per MORD specifications and drawing. Three MS Plates of 1.6 mm thick, top and middle plate duly welded with MS flat iron 25mm x 5m size on back on edges. The lower plate will be we welded with MS angle irone frame of 25 mm x 25 mm x 5 mm. The angle iron frame of the lower most plate and flat iron frame of middle plate will be welded to 2 nos. 75 mm x 75 mm of 12 SWG sheet tubes posts duly embedded in cement concrete M-15 grade blocks of 450 mm x 450 mm x 600 mm, 600 mm below ground level. The top most diamond plate will be welded to middle plate by 47 mm x 47mm of 12 SWG sheet tube. All M.s. will be stove enameled on both sides. Lettering and printing arrows, border etc., will be pointed with ready mixed synthetic enamel paint of superior quality in required shade and colour. All sections of framed posts and steel tube will be painted with primer and two coats of epoxy paint as per drawing clause 1701 MORD					
	Unit = Each					
	Taking out put = one typical board					
	<b>i) Excavation for foundation</b>					
	As per item No. 1 of Chapter 11	cum	0.252			
	<b>(ii) Cement Concrete M15 grade</b>					
	As per item No. 4 (A) (iii) or (iv) of Chapter 11	cum	0.252			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>(iii) Painting on MS Steel tubes with primer and two coats of epoxy paint</b>					
	2x2.05x.30 = 1.23					
	1x1.10x188 = 0.21					
	As per item no. 9 of Chapter 10	sqm	1.80			
	<b>(iv) Printing new letters and figures of any shade with synthetic enamel paint black or any other approved colour to give an even shade.</b>					
	Logo Border 60x4x5 = 1200 per cm height per letter					
	Figure 60x10 = 600 per cm height per letter					
	Middle plate words 28x5 = 140 per cm height per letter					
	Bottom plate border 150x2x5 = 1500 per cm height per letter					
	Bottom plate border 60x2x5 = 600 per cm height per letter					
	Words 101x2.5 = 252.5					
	Words 80x3 = 240.00					
	<b>Total (4532.5 per cm height per letter)</b>					
	As per item No. 1 of Chapter 10	per cm height / letter	4532.50			
	<b>a) Labour (for fixing at site)</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.78			
	<b>b) Material</b>					
	2 nos. MS tubes 75mx75mm of 12 SWG sheet 2650 mm long	kg	63.15			
	1 No. MS tube 47mm x 47mm of 12 SWG 1100 mm long	kg	4.47			
	Angle iron 50mm x 50mm x 5 mm for lugs	kg	2.12			
	1.6 mm thick MS sheet strengthened by 25mm x 5 MS flat iron on logo and middle plate angle iron 25mm x 25mm x 5mm on bottom plate painting with stove enameled paint on both sides as per MORD specifications	sqm	1.44			
	Add 3% cost of MS tube and angle iron towards the cost of fabrications, drilling holes, nuts, bolts, etc.					
	<b>c) Machinery</b>					
	Tractor with trolley	hour	0.24			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for one Board= (i+ii+iii+iv+a+b+c+d+e)</b>					
	Printing and lettering for blank spaces on the lower plate will be written as required and paid separately.					
	<b>Items Suggested by MORTH</b>					
<b>21</b>	<b>Traffic Cone</b>					
	Provision of red fluorescent with white reflective sleeve traffic cone made of Low Density Polyethylene (LDPE) material with a square base of 390 x 390 x 35 mm and a height of 770 mm, 4 kg in weight, placed at 1.5 m interval, all as per BS:873					
	Unit = Each					
	Taking output = 68 Nos.					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.52			
	<b>b) Material</b>					
	Traffic cones with 150 mm reflective sleeve	Nos.	68.00			
	<b>c) Machinery</b>					
	50 HP Tractor with trolley	Hour	0.10			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 68 Nos. = a+b+c+d+e</b>					
	<b>Rate for each cone = (a+b+c+d+e)/68</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
22	<b>Rumble Strips (MORD)</b>					
	Provision of 15 nos. rumble strips covered with premix bituminous carpet, 15-20 mm high at centre, 250 mm wide placed at 1 m centre-to-centre at approved locations to control speed, marked with white strips of road marking paint.					
	Unit = sqm					
	Taking output = 100 sqm (including gaps)					
	The rate per sqm of premix carpet and road marking may be adopted from Chapters 5 & 10 respectively for the quantities calculated from approved drawings.					
23	<b>Roadside Amenities</b>					
	<b>A Rest areas</b>					
	Providing plainly furnished accommodation for rest rooms, dormitories, restaurants, stalls, shops, petrol pump, telephone booth, first aid room, traffic aid post, police assistance booth, including electricity, toilet and sewerage system					
	Pricing may be done based on current plinth area rates approved by PWD/CPWD/MES for a particular zone. Area is required to be assessed for specific location as per actual site conditions					
	<b>B Parking areas and bus laybys for trucks, buses and light vehicles</b>					
	Pricing of parking areas may be done for the quantities of various items based on the approved dimensions and pavement design for a particular terrain and soil. Rates for items may be from respective chapters.					
	<b>C Lawn</b>					
	Providing a lawn planted with grass and its maintenance					
	Pricing of lawn may be done as per rates given in the chapter on horticulture for the quantities as per approved dimensions in the drawings					
24	<b>Policeman Umbrella</b>					
	Provision of a 2 m high (floor to roof) umbrella for traffic policeman at road crossings, where necessary, installed on a raised platform, built on a central support of a steel pipe 100 mm dia, roof made of 25 mm dia steel pipe to provide covered area of 3 sqm, roofed with CGI sheets, all steel parts to be given 2 coats of paint					
	<b>Unit = each</b>					
	Taking output = one number					
	Earthwork	cum				
	Cement Concrete	cum				
	brick masonry or	cum				
	stone masonry	cum				
	Painting	sqm	2.50			
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor	day	1.09			
	Blacksmith	day	1.00			
	Welder	day	0.25			
	<b>b) Material</b>					
	Steel pipe 100 mm dia	metre	3.50			
	Steel pipe 25 mm dia	metre	10.00			
	CGI sheets	kg	8.00			
	Add 25 per cent of cost of material for fabrication					
	Add 2 percent of cost of material for welding consumables, J hooks, washers etc.					
	<b>c) Machinery</b>					
	Tractor-trolley	hour	0.50			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		18.00%			
	<b>Rate per policeman umbrella = a+b+c+d+e</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
<b>25</b>	<b>High Mast Pole Lighting at Interchanges and Flyovers</b>					
	Providing and erecting a high mast pole lighting with 30 m high hot dip galvanised mast designed to withstand forces exerted with wind speeds of 180 km per hour with 3 seconds gust, as per IS:875 (Part 3) - 1978, fitted with a base flange, door at the base of mast with heavy duty internal lock, lantern carriage, suitable winching arrangement for safe working load of 750 kg and high powered electrically driven power tools for raising and lowering of lantern carriage, flexible 8 core electric cable, lightning conductor, earthing terminal, and fixing 2 nos aviation obstruction lights on top of the mast, all complete as per approved design and drawings					
	This is a specialised work and is generally done by firms who specialise in such jobs. The detailed designs and estimates are submitted by the firms along with their tender for checks by the Department. The cost of this work is required to be worked out based on approved design, drawings and estimate of the lowest tender. A separate contract for this work is concluded as the contractors for road and bridge works generally do not undertake such jobs.					
<b>26</b>	<b>Toll Plaza</b>					
	The construction, operation and maintenance of Toll Plaza can be broken into separate items of work as under based on the approved design and drawings:-					
	a) Provision of toll collection service lane to separate different categories of vehicles for purpose of toll collection. This involves considerable increase in carriage way width					
	b) Provision of 2.5 m wide separators for different toll collection service lanes for safety					
	c) Toll booths with integrated roof cover					
	d) Barrier gates for individual lanes					
	e) Provision of building to provide facility to toll plaza personnel					
	f) Toll plaza office equipment and furniture					
	g) Water supply, electricity, sanitation, septic-tank system and drainage					
	h) Telephone, intercomes, wireless communication system					
	i) High mast lighting					
	j) Pavement marking					
	k) Overhead signs					
	l) Fixed message signs (Advance)					
	m) Variable message signs					
	n) Traffic cones and pylons					
	o) First aid post					
	p) Traffic aid post and security					
	The quantities for the above mentioned items may be calculated from the approved design and drawings and their rates adopted from respective chapters of the Standard Data Book					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
27	<b>Safety Devices and Signs in Construction Zones</b>					
	Provision and fixing of traffic signs for limited period at suitable locations in construction zone comprising of warning zone, approach transition zone, working zone and terminal transition zone with a minimum distance of 2-3 m from the edge of the carriageway. the bottom edge of the lowest sign plate to be not less than 2 m above the road level, fixed on 600 mm x 600 mm x 6 mm angle iron post, founded and installed as per approved design and drawings, removed and disposed of after completion of construction work, all as per IRC : SP : 55-2001.					
	Unit = each					
	Taking output = one sign post					
	Following types of signs are required to be fixed in construction zones for safety of traffic:					
	a) Diversion one km ahead					
	b) Traffic sign ahead					
	c) Road ahead closed					
	d) Men at work					
	e) Road narrow					
	f) Un-even road					
	g) Slippery road					
	h) Loose chippings					
	i) Diversion					
	j) Do not enter					
	k) Road closed					
	l) Stop					
	m) Slow					
	n) Speed limit					
	o) Single file traffic					
	p) Right Lane Diverted					
	q) Left Lane Diverted					
	r) Right Lane Closed					
	s) Left Lane Closed					
	t) Median closed					
	u) Diversion to other carriageway					
	v) Traffic signal ahead					
	w) Two way Traffic					
	x) Dual Carriageway ends					
	y) One way					
	z) Give way					
	aa) Over taking prohibited					
	bb) Wight limit					
	cc) Height & Length limit					
	dd) No Stopping or Standing					
	ee) Any other warning or regulatory safety signs as per site requirement and consistent with IRC : SP:55-2001 & IRC:					
	<b>Note</b> : The rate for traffic signs are already worked out and given elsewhere in this Chapter. The same may be adopted.					
28	<b>Road Markers/Road Stud with Lens Reflector</b>					
	Providing and fixing of road stud 100 x 100 mm die cast in aluminum, resistant to corrosive effect of salt and grit, fitted with lense reflectors, installed in concrete or asphaltic surface by drilling holes 30 mm upto a depth of 600 mm and bedded in a suitable bituminous grout or epoxy mortar, all as per BS:873 (Part 4) 1973.					
	Unit = each					
	Taking output = 50 Nos.					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.04			



S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>b) Material</b>					
	Aluminum studs 100x100 mm fitted with lense reflectors	Nos.	50.00			
	Add 10 per cent of cost of material for fixing and installation.					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 50 studs = a+b+c+d					
	Rate per stud = (a+b+c+d)/50					
29	<b>Cast in Situ Cement Concrete M20 Kerb</b>					
	Construction of cement concrete kerb with top and bottom width 115 and 165 mm respectively, 250 mm high in M 20 grade PCC on M-10 grade foundation 150 mm thick, foundation having 50 mm projection beyond kerb stone, kerb stone laid with kerb laying machine, foundation concrete laid manually, all complete as per clause 408 MORTH					
	<b>Unit = Running metre</b>					
	<b>Taking output = 360 metre</b>					
	<b>A Using Concrete Mixer</b>					
	<b>Cement Concrete</b>					
	Cement concrete of grade M20 = 12.60 cum					
	Cement concrete of grade M10 for base= 11.61 cum					
	<b>Total Concrete = 24.21 cu.m</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mason	day	2.00			
	Mazdoor	day	16.72			
	<b>b) Machinery</b>					
	Kerb casting machine @ 60 metres/hour	hour	6.00			
	Concrete mixer 0.48/0.28 cum capacity	hour	12.00			
	Water tanker 6 KL capacity	hour	5.00			
	<b>c) Material</b>					
	Crushed stone aggregate 20 mm nominal size 59 %	cum	21.79			
	Coarse sand 30 per cent	cum	10.90			
	Cement 11 per cent	t	5.70			
	Cost of water	KL	30.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 360 meter = a+b+c+d+e					
	Rate per metre = (a+b+c+d+e)/360					
	<b>B Using Concrete Batching and Mixing Plant</b>					
	<b>Cement Concrete</b>					
	Cement concrete of grade M20 = 12.60 cum					
	Cement concrete of grade M10 for base = 11.61 cum					
	<b>Total Concrete = 24.21 cu.m</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mason	day	1.00			
	Mazdoor	day	2.12			
	<b>b) Machinery</b>					
	Kerb casting machine @ 60 metres/hour	hour	6.00			
	Concrete batching and mixing plant @ 15 cum/hr.	hour	1.60			
	Water tanker 6 KL capacity	hour	5.00			
	Tipper 5.5 cum capacity	hour	6.00			
	<b>c) Material</b>					
	Crushed stone aggregate 20 mm nominal size 59 %	cum	21.79			
	Coarse sand 30 per cent	cum	10.90			
	Cement 11 per cent	t	5.70			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	Cost of water	KL	30.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 360 meter = a+b+c+d+e					
	Rate per metre = (a+b+c+d+e)/360					
<b>30</b>	<b>Cast in Situ Cement Concrete M 20 Kerb with Channel</b>					
	Construction of cement concrete kerb with channel with top and bottom width 115 and 165 mm respectively, 250 mm high in M 20 grade PCC on M10 grade foundation 150 mm thick, kerb channel 300 mm wide, 50 mm thick in PCCM20 grade, sloped towards the kerb, kerb stone with channel laid with kerb laying machine, foundation concrete laid manually, all complete as per clause 408 MORTH					
<b>A</b>	<b>Using Concrete Mixer</b>					
	<b>Unit = Running metre</b>					
	<b>Taking output = 300 metre length</b>					
	<b>Cement Concrete</b>					
	Cement concrete of grade M20= 17.48 cum					
	Cement concrete of grade M10 for base = 23.18 cum					
	Total Concrete = <b>40.66 cum</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mason	day	2.00			
	Mazdoor	day	16.72			
	<b>b) Machinery</b>					
	Kerb casting machine @ 50 metres/hour for laying kerb and channel	hour	6.00			
	Concrete mixer 0.48/0.28	hour	16.00			
	Water tanker6 KL capacity	hour	6.00			
	<b>c) Material</b>					
	Crushed stone aggregate 20 mm nominal size 60%	cum	36.59			
	Coarse sand 30 per cent	cum	18.30			
	Cement 10 per cent	t	9.01			
	Cost of water	KL	36.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 360 meter = a+b+c+d+e					
	Rate per metre = (a+b+c+d+e)/300					
<b>B</b>	<b>Using Concrete Batching and Mixing Plant</b>					
	<b>Unit = Running metre</b>					
	<b>Taking output = 300 metre length</b>					
	<b>Cement Concrete</b>					
	Cement concrete of grade M20= 17.48 cum					
	Cement concrete of grade M10 for base = 23.18 cum					
	Total Concrete = <b>40.66 cum</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mason	day	1.00			
	Mazdoor	day	2.12			
	<b>b) Machinery</b>					
	Kerb casting machine @ 50 metres/hour for laying kerb and channel	hour	6.00			
	Concrete batching and mixing plant @ 15 cum/hr.	hour	2.70			
	Water tanker6 KL capacity	hour	6.00			
	Tipper of 5.5 cum capacity	hour	6.00			
	<b>c) Material</b>					
	Crushed stone aggregate 20 mm nominal size 60 %	cum	36.59			
	Coarse sand 30 per cent	cum	18.30			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	Cement 10 per cent	t	9.01			
	Cost of water	KL	36.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 300 meter = a+b+c+d+e					
	<b>Rate per metre = (a+b+c+d+e)/300</b>					
<b>31</b>	<b>Reinforced Cement Concrete Crash Barrier</b>					
	Provision of an Reinforced cement concrete crash barrier at the edges of the road, approaches to bridge structures and medians, constructed with M-20 grade concrete with HYSD reinforcement conforming to IRC:21 and dowel bars 25 mm dia, 450 mm long at expansion joints filled with pre-moulded asphalt filler board, keyed to the structure on which it is built and installed as per design given in the enclosure to MOST circular No. RW/NH - 33022/1/94-DO III dated 24 June 1994 as per dimensions in the approved drawing and at locations directed by the Engineer, all as specified 809 MORTH					
	<b>Unit = Linear metre</b>					
	Taking output = 10 m					
	<b>(i) a) M 20 grade concrete</b>					
	<b>M 20 grade concrete</b>	cum	3.00			
	<b>b) Labour</b>					
	Mate	day	-			
	Mazdoor	day	1.04			
	<b>c) Material</b>					
	HYSD steel reinforcement including dowel bars	t	0.28			
	Pre-moulded asphalt filler board	sqm	0.32			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 10 metre = a+b+c+d+e					
	<b>Rate per metre = (a+b+c+d+e)/10</b>					
	<b>Note : i)</b> Excavation and backfilling are incidental to work and not to be measured separately.					
	<b>ii)</b> Rate for RCC M 20 may be taken from chapter on super structure.					
<b>32</b>	<b>Metal Beam Crash Barrier</b>					
<b>A</b>	<b>Type - A, "W" : Metal Beam Crash Barrier</b>					
	Providing and erecting a "W" metal beam crash barrier comprising of 3 mm thick corrugated sheet metal beam rail, 70 cm above road/ground level, fixed on ISMC series channel vertical post, 150 x 75 x 5 mm spaced 2 m centre to centre, 1.8 m high, 1.1 m below ground/road level, all steel parts and fittings to be galvanised by hot dip process, all fittings to conform to IS:1367 and IS:1364, metal beam rail to be fixed on the vertical post with a spacer of channel section 150 x 75 x 5 mm, 330 mm long complete as per clause 810 MORTH					
	<b>Unit = Running metre</b>					
	Taking output = 4.5 metre length					
	<b>a) Labour</b>					
	Mate	day	-			
	Blacksmith	day	0.50			
	Mazdoor	day	1.06			
	<b>b) Machinery</b>					
	Tractor-trolley	hour	0.10			
	<b>c) Material</b>					
	Corrugated sheet,3 mm thick, "W" beam section railing,4.5 m in length	kg	41.21			
	Channel post 150 x 75 x 5 mm,1.8 m long,3 Nos @ 16.4 kg per metre	kg	88.56			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	Spacer 150 x 75 x 5 mm channel 0.33 m long, 3 Nos @ 16.4 kg per metre	kg	16.24			
	Nuts and bolts	kg	20.00			
	Add 25 per cent of the cost of material for fabrication, nuts, bolts and washers etc.)					
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	Cost for 4.5 metre = a+b+c+d+e					
	Rate per metre = (a+b+c+d+e)/4.5					
<b>B</b>	<b>Type - B, "THRIE" : Metal Beam Crash Barrier</b>					
	Providing and erecting a "Thrie" metal beam crash barrier comprising of 3 mm thick corrugated sheet metal beam rail, 85 cm above road/ground level, fixed on ISMC series channel vertical post, 150 x 75 x 5 mm spaced 2 m centre to centre, 2 m high with 1.15 m below ground level, all steel parts and fitments to be galvanised by hot dip process, all fittings to conform to IS:1367 and IS:1364, metal beam rail to be fixed on the vertical post with a space of channel section 150 x 75 x 5 mm, 546 mm long complete as per clause 810 MORTH					
	<b>Unit = Running metre</b>					
	Taking output = 4.5 metre length					
	<b>a) Labour</b>					
	Mate	day	-			
	Blacksmith	day	0.50			
	Mazdoor	day	1.06			
	<b>b) Machinery</b>					
	Tractor-trolley	hour	0.10			
	<b>c) Material</b>					
	Corrugated sheet, 3 mm thick, "Thrie" beam section railing, 4.5 m in length	kg	72.94			
	Channel post 150 x 75 x 5 mm, 2 m long, 3 Nos @ 16.4 kg per metre	kg	98.40			
	Spacer 150 x 75 x 5 mm channel 0.546 m long, 3 Nos	kg	26.86			
	Nuts and bolts	kg	30.00			
	Add 15 per cent of the cost of material for fabrication, nuts, bolts and washers etc.)					
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	Cost for 4.5 metre = a+b+c+d+e					
	Rate per metre = (a+b+c+d+e)/4.5					
	<b>Note</b> : In the case of median crash barrier, 'W' metal beam or thrie beam section should be provided on both sides of the vertical posts fixed in the median. Extra provision for metal beam railing and spacer is required to be made when fixed in the median depending on approved design.					
<b>33</b>	<b>Road Traffic Signals electrically operated</b>					
	<b>Note</b> : Since it is a ready made item commercially produced and erected by specialised firm in the electrical and electronic field, rate may be taken based on market enquiry from firms specialised in this field and ISI certified for the approved design and drawing.					
<b>34</b>	<b>Flexible Crash Barrier, Wire Rope Safety Barrier (Suggestive)</b>					
	Providing and erecting a wire rope safety barrier with vertical posts of medium weight RS Joist (ISMB series) 100 mm x 75 mm (11.50 kg/m), 1.50 m long 0.85 m above ground and 0.65 m below ground level, split at the bottom for better grip, embedded in M 15 grade cement concrete 450 x 450 x 450 mm, 1.50 m center to center and with 4 horizontal steel wire rope 40 mm dia and anchored at terminal posts 15 m apart. Terminal post to be embedded in M 15 grade cement concrete foundation 2400 x 450 x 900 mm (depth), strengthened by a strut of RS joist 100 x 75 mm, 2 m long at 450 inclination and a tie 100 x 8 mm, 1.50 m long at the bottom, all embedded in foundation concrete as per approved design and drawing, rate excluding excavation and cement concrete.					
	<b>Unit = Running metre</b>					
	Taking output = 15 metre					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor	day	2.12			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	Blacksmith	day	1.00			
	<b>b) Material</b>					
	i) RS Joist 100 x 75 mm - 16.5 m @ 11.5 kg per metre	kg	190.00			
	ii) Struts - 2 Nos. for terminal posts, 2 m long each 2 x 2 x 11.50	kg	46.00			
	iii) Tie 2 Nos. of 8 mm steel plate, 1.5 sqm each for terminal posts @ 62.80 kg/sqm (2 x 1.5)	kg	188.40			
	iv) Steel wire rope 40 mm, including 7.50 per cent extra for fixing at ends 15 x 4 x 1.075 @ 1 kg per m	kg	65.00			
	Add 5 per cent of cost of material for drilling, gripping, fixing, fabrication and welding consumables					
	<b>c) Painting</b>					
	Applying 2 coats of painting on exposed surface	sqm	16.50			
	<b>d) Machinery</b>					
	Tractor-trolley	hour	0.25			
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>					
	<b>Cost for 15 m = a+b+c+d+e+f</b>					
	<b>Rate per m = (a+b+c+d+e+f)/15</b>					
	<b>Note :</b> The items of excavations and cement concrete works will be measured and included separately as per the approved designs and drawings.					
35	8.3 <b>Anti-Glare Devices in Median</b>					
	<b>A Plantation</b>					
	Plantation of shrubs and plants of approved species in the median. apart from cutting off glare from vehicle coming from opposite direction, these plants provide a pleasant environment and are eco-friendly. The rate for this item is available in the chapter 11 on horticulture.					
	<b>B Anti-glare screen with 25 mm steel pipe framework fixed with circular and rectangular vans</b>					
	Providing and erecting an anti - glare screen with 25 mm dia vertical pipes fabricated and framed in the form of panels of one metre length and 1.75 metre height fixed with circular vane 250 mm dia at top and rectangular vane 600 x 300 mm at the middle, made out of steel sheet of 3 mm thickness, end vertical pipes of the panel made larger for embedding in foundation concrete, applying 2 coats of paint on all exposed surfaces, all as per approved design and drawings.					
	<b>Unit = Running metre</b>					
	Taking output = one metre					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor	day	0.104			
	<b>b) Material</b>					
	i) 25 mm steel pipe	metre	16.00			
	ii) MS sheet for 600 x 300 x 3 mm rectangular vane, one number @ 24kg/sqm	kg	4.32			
	iii) MS sheet for 250 mm dia circular vane 3 mm thick, 4 numbers @ 24 kg/sqm	kg	4.80			
	Add 5 per cent cost of material for fabrication, welding, bending, nuts, bolts etc					
	<b>c) Painting</b>					
	Applying 2 coats of painting on exposed surface	sqm	1.83			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Rate per metre = a+b+c+d+e</b>					
	<b>Note :</b> The items of excavation and cement concrete as per approved design to be measured and paid separately					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>C Anti-glare screen with rectangular vane of MS sheet</b>					
	Providing and erecting anti - glare screen with rectangular vanes of size 750 x 500 mm made from MS sheet, 3 mm thick and fixed on MS angle 50 x 50 x 6 mm at an angle of 45° to the direction of flow of traffic, 1.5 m center to center, top edge of the screen 1.75 m above ground level, vertical post firmly embedded in M-15 cement concrete foundation 0.60 m below ground level, applying 2 coats of paint on exposed faces, all complete as per approved design and drawings					
	<b>Unit = Running metre</b>					
	Taking output = 1.50 metre					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor	day	0.104			
	<b>b) Material</b>					
	i) Angle iron post, 50 x 50 x 6 mm, length 2.35 m	kg	10.58			
	ii) MS sheet 3 mm thick @ 24 kg/sqm	kg	9.00			
	Add 5 % of cost of material for fabrication, nuts, bolts etc					
	<b>c) Machinery</b>					
	Tractor-trolley	hour	0.10			
	<b>d) Painting</b>					
	Applying 2 coats of painting	sqm	0.85			
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>					
	<b>Cost for 1.5 m = a+b+c+d+e+f</b>					
	<b>Rate per metre = (a+b+c+d+e+f)/1.50</b>					
	<b>Note :</b> The items of excavation and cement concrete as per approved design to be measured and paid separately. Rate of painting has been analysed separately in this chapter.					
36	<b>Street Lighting</b>					
	Providing and erecting street light mounted on a steel circular hollow pole of standard specifications for street lighting, 9 m high spaced 40 m apart, 1.8 m overhang on both sides if fixed in the median and on one side if fixed on the footpath, fitted with sodium vapour lamp and fixed firmly in concrete foundation.					
	<b>Unit = Each</b>					
	Taking output = one light					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor	day	0.53			
	Electrician	day	0.25			
	<b>b) Material</b>					
	i) Steel circular hollow pole of standard specification for street lighting to mount light at 9 m height above road level	each	1.00			
	ii) Sodium vapour lamp	each	1.00			
	Add 5 per cent of cost of material for holder, electric cable, insulation, ladder, scaffolding etc					
	<b>c) Painting</b>					
	<b>For Fixing in Median</b>					
	Providing two coats of aluminum paint over steel circular hollow pipe with overhang on both sides	sqm	5.75			
	<b>For fixing in Footpath</b>					
	Providing two coats of aluminum paint over steel circular hollow pipe with overhang on one side	sqm	4.63			
	<b>(i) For Fixing in Median</b>					
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Rate per light for fixing in Median= a+b+c+d+e</b>					
	<b>(ii) For fixing in Footpath</b>					
	<b>Rate per light for Fixing in Footpath = a+b+c+d+e</b>					
	<b>Note :</b> The items of excavation and cement concrete foundation will be measured and included separately in the estimate as per approved design and drawing. The rate for painting has been analysed in this chapter.					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
37	<b>Lighting on Bridges</b>					
	Providing and fixing lighting on bridges, mounted on steel hollow circular poles of standard specifications, 5 m high fixed on parapets with cement concrete, 20 m apart and fitted with sodium vapour lamp					
	<b>Unit = Each</b>					
	Taking output = one light					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor	day	0.42			
	Electrician	day	0.20			
	<b>b) Material</b>					
	i) Steel circular hollow pole of standard specification for street lighting to mount light at 5 m above deck level	each	1.00			
	ii) Sodium vapour lamp 70 watt	each	1.00			
	Add 1 per cent of cost of material for holder, electric cable, insulation, ladder, scaffolding etc					
	<b>c) Painting</b>					
	Providing two coats of aluminum paint over steel circular hollow pipe	sqm	2.76			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Rate per light = a+b+c+d+e</b>					
	<b>Note :</b> The items of cement concrete to be measured and paid separately as per approved design. The rate for painting has already been analysed in this chapter.					
38	<b>Cable Duct Across the Road</b>					
	Providing and laying of a reinforced cement concrete pipe duct, 300 mm dia, across the road (new construction), extending from drain to drain in cuts and toe of slope to toe of slope in fills, constructing head walls at both ends, providing a minimum fill of granular material over top and sides of RCC pipe as per IRC:98-1997, bedded on a 0.3 m thick layer of granular material free of rock pieces, outer to outer distance of pipe at least half dia of pipe subject to minimum 450 mm in case of double and triple row ducts, joints to be made leak proof, invert level of duct to be above higher than ground level to prevent entry of water and dirt, all as per IRC: 98 - 1997 and approved drawings.					
	<b>i Single row for one utility service</b>					
	<b>Unit = Running metre</b>					
	Taking output = 20metres					
	<b>a) Random Rubble masonry/Brick masonry in cement mortar 1:6 for head wall both side (11.6 in Chapter 11)</b>	cum	2.36			
	<b>b) Labour</b>					
	Mate	day	-			
	Mazdoor	day	1.00			
	Mazdoor skilled	day	0.30			
	<b>c) Material</b>					
	Reinforced Cement Concrete pipe 300 mm dia <b>NP2</b>	metre	20.00			
	Granular soil with PI less than 6 for bedding and sides of pipe (0.6 x 0.6 x 20 m)	cum	7.20			
	Collar for joints 300 mm dia	each	9.00			
	Cement mortar 1:2 for joints (Rate as in Sub analysis)	cum	0.02			
	<b>d) Machinery</b>					
	Tractor-trolley	hour	0.50			
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>					
	<b>Cost for 20 metre = a+b+c+d+e+f</b>					
	<b>Rate per metre = (a+b+c+d+e+f)/20</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
ii	<b>Double row for two utility services</b>					
	<b>Unit = Running metre</b>					
	Taking output = 20metres					
	<b>a) Random Rubble brick/Brick masonry in cement mortar 1:6 for head wall both sides.</b>	cum	3.37			
	<b>b) Labour</b>					
	Mate	day	-			
	Mazdoor	day	2.00			
	Mazdoor skilled	day	0.30			
	<b>c) Material</b>					
	Reinforced Cement Concrete pipe 300 mm dia	metre	40.00			
	Granular soil with PI less than 6 for bedding and sides of pipe (0.6 x 0.6 x 40 m)	cum	14.40			
	Collar for joints 300 mm dia	each	18.00			
	Cement mortar 1:2 for joints (Rate as in Sub analysis)	cum	0.04			
	<b>d) Machinery</b>					
	Tractor-trolley	hour	1.00			
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>					
					18.00%	
	<b>Cost for 20 metre = a+b+c+d+e+f</b>					
	<b>Rate per metre = (a+b+c+d+e+f)/20</b>					
iii	<b>Triple Row for three utility services</b>					
	<b>Unit = Running metre</b>					
	Taking output = 20metres					
	<b>a) Random Rubble brick/Brick masonry in cement mortar 1:6 for head wall both sides.</b>	cum	4.38			
	<b>b) Labour</b>					
	Mate	day	-			
	Mazdoor	day	3.00			
	Mazdoor skilled	day	1.16			
	<b>c) Material</b>					
	Reinforced Cement Concrete pipe 300 mm dia	metre	60.00			
	Granular soil with PI less than 6 for bedding and sides of pipe (0.6 x 0.6 x 60 m)	cum	21.60			
	Collar for joints 300 mm dia	each	27.00			
	Cement mortar 1:2 for joints (Rate as in Sub analysis)	cum	0.06			
	<b>d) Machinery</b>					
	Tractor-trolley	hour	1.50			
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>					
					18.00%	
	<b>Cost for 20 metre = a+b+c+d+e+f</b>					
	<b>Rate per metre = (a+b+c+d+e+f)/20</b>					
	<b>Note : 1.</b> Inspection chamber at both ends is the responsibility of the agency who is laying the duct. Hence not included.					
	<b>2.</b> The rates for stone masonry / brick masonry and cement mortar to be adopted from respective clauses.					
	<b>Sub Analysis :</b>					
	<b>Cement Mortar 1:2</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Cement	t	0.72			
	Sand	cum	1.05			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.2			
	Bhisti	day				
	<b>Total material and labour = (a+b)</b>					



S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
39	<b>Highway Patrolling and Traffic Aid Post</b>					
	It is proposed to locate one Traffic Aid Post every 50-60 km of the highway.					
	The organisation and financial aspect are required to be finalised in consultation with administrative and traffic authorities .					
40	<b>Items Related to Underpass/ Subway/ Overhead Bridge/ Overhead Foot Bridge</b>					
	The items involved for underpass/ subway/ overhead bridge/ overhead foot bridge are earthwork, plain cement concrete, plastering, painting, information sign etc. The rates for these items are available in respective chapters which can be adopted for the quantities derived from the approved designs and drawings					
41	<b>Traffic Control System and Communication System</b>					
	Providing a traffic control centre and communication system including telecommunication facilities and related accessories, CCTV, radar, vehicle detection camera, central computer system					
	These are specialised item of telecommunication system and are the commercial products. The designer is required to contact the manufacturers to ascertain market prices. In case of civil works required to be executed for these installations, pricing may be done as per rates in relevant chapters for quantities derived as per approved design and drawing.					
	As regards the locations where such devices are required to be installed, the traffic control authority should be consulted to finalise the location					
42	<b>Gantry Mounted Variable Message Sign Board</b>					
	Providing and erecting gantry mounted variable message sign board electronically operated capable of flashing the desired message over a designed support system of aluminum alloy or galvanised steel, erected as per approved design and drawings and with lateral clearance as per clause 802.3					
	<b>≡ Gantry Support System</b>					
	<b>Unit = tonne</b>					
	Taking output=1 tonne					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor	day	2.12			
	Blacksmith	day	1.00			
	<b>b) Material</b>					
	Aluminum alloy/galvanised steel including 5 % wastage	tonne	1.05			
	Add 15 % of cost of material for fabrication and erection.					
	Add 1% of cost of material for nuts, bolts and welding					
	<b>c) Machinery</b>					
	Truck 10 tonne	hour	1.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Rate per tonne = a+b+c+d+e</b>					
	<b>18.00%</b>					
iii	<b>Message Display</b>					
	Message display board 6 sqm electronically operated with complete electronic fittings for flashing the pre-determined messages.					
	This is a specialised commercial product and the lumpsum rate including erection at site is required to be ascertained from the market and including in the rate analysis. The size of the board will vary depending upon specific location.					
	The rate for the gantry mounted variable sign would be the addition of cost of gantry support system as per approved design determined at (i) above and the cost of message display board as ascertained from the market at (ii) above					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
43	<b>Traffic Impact Attenuators at Abutments and Piers</b>					
	<b>A With Scrap Tyres</b>					
	Provision and installation of traffic attenuators at abutment/pier of flyovers bridges using scrap tyres of size 100 x 20 retrieved from trucks laid in 2 rows and 4 tiers, one above the other and tied with 20 mm wire rope as per approved design and drawings.					
	<b>Unit = sqm</b>					
	Taking output = 20sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor	day	1.58			
	Blacksmith	day	0.25			
	<b>b) Material</b>					
	Scrap tyres of size 900 x 20	each	80.00			
	20 mm steel wire rope	kg	150.00			
	Add 1 per cent of cost of wire rope for clamps etc.					
	<b>c) Machinery</b>					
	Tractor-trolley	hour	3.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Cost for 20 sqm = a+b+c+d+e</b>					
	<b>Rate per sqm = (a+b+c+d+e)/20</b>					
	<b>18.00%</b>					
	<b>B Using Plastic/Steel Barrel, Filled with Sand</b>					
	Provision and installation of traffic impact attenuator at abutment/pier of flyovers bridges using plastic/steel barrels 0.60 m dia and 1.0 m in height, filled with sand in three rows and tied with 20 mm steel wire rope as per approved design and drawings					
	<b>Unit = sqm</b>					
	Taking output = 20sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor	day	3.13			
	Blacksmith	day	0.25			
	<b>b) Material</b>					
	Plastic barrels	each	50.00			
	<b>or</b>					
	Steel barrels	each	50.00			
	Sand	cum	8.00			
	20 mm steel wire rope	kg	15.00			
	Add 1 per cent of cost of wire rope for clamps etc.					
	<b>c) Machinery</b>					
	Tractor-trolley	hour	2.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Cost for 20 sqm = a+b+c+d+e</b>					
	<b>Rate per sqm = (a+b+c+d+e)/20</b>					
	<b>18.00%</b>					
	<b>C With HI - DRO cell Sandwich (Patented)</b>					
	(In this patented HI - DRO cell system, water gets discharged from plastic tubes on impact over a pre-determined time, thus absorbing the energy)					
	Providing and installing a patentend HI - DRO cell system as a traffic impact attenuators, using plastic tubes 50 cm dia, 1.2 m in height, 25 mm opening at the top, placed in three rows, filled with water and tied with a 20 mm steel wire rope					
	<b>Unit = sqm</b>					
	Taking output = 10sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor	day	2.60			
	<b>b) Material</b>					
	Plastic tubes 50 cm dia, 1.2 m high	each	40.00			
	Cost of water	KL	12.00			
	20 mm steel wire rope	kg	100.00			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	Add 1 per cent of cost of wire rope for clamps etc.					
	<b>c) Machinery</b>					
	Tractor-trolley	hour	2.00			
	Water tanker 6 KL capacity	hour	2.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 10 sqm = a+b+c+d+e					
	Rate per sqm = (a+b+c+d+e)/10					
44	<b>Portable Barricade in Construction Zone</b>					
	Installation of a steel portable barricade with horizontal rail 300 mm wide, 2.5 m in length fitted on a 'A' frame made with 45 x 45 x 5 mm angle iron section, 1.5 m in height, horizontal rail painted (2 coats) with yellow and white stripes, 150 mm in width at an angle of 45°, 'A' frame painted with 2 coats of yellow paint, complete as per IRC:SP:55-2001					
	<b>Unit = each</b>					
	Taking output = one steel portable barricade					
	<b>a) Labour</b>					
	Mate	day	0.02			
	Mazdoor	day	0.25			
	Painter	day	0.50			
	Welder	day	0.25			
	<b>b) Material</b>					
	Angle iron 45 x 45 x 5 mm	kg	25.00			
	MS sheet 300 mm wide, 2.5 m long and 2.6 mm thick	kg	15.00			
	Paint	litre	0.50			
	Add 2 per cent of cost of steel for welding consumables, nuts & bolts and drilling holes					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Rate per barricade = a+b+c+d					
45	<b>Permanent Type Barricade in Construction Zone</b>					
	<b>A With steel components+C1454</b>					
	Construction of a permanent type barricade made of steel components, 1.5 m high from road level, fitted with 3 horizontal rails 200 mm wide and 4 m long on 50 x 50 x 5 mm angle iron vertical support, painted with yellow and white strips, 150 mm in width at an angle of 45°, complete as per IRC:SP:55-2001					
	<b>Unit = each</b>					
	Taking output = one barricade					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor	day	0.35			
	Painter	day	0.60			
	Welder	day	0.30			
	<b>b) Material</b>					
	Angle iron 50 x 50 x 5 mm, 2 m long, 2 Nos.	kg	15.00			
	MS sheet of 12 SWG, 3 Nos of 200 mm width and 4 m length	kg	50.00			
	Paint	litre	1.00			
	Add 1 per cent of cost of steel for welding consumables, nuts & bolts and drilling holes					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Rate per barricade = a+b+c+d					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>B With wooden components</b>					
	Construction of a permanent type barricade made of wooden components, 1.5 m high from road level, fitted with 3 horizontal planks 200 mm wide and 3.66 m long on 100 x 100mm wooden vertical post, painted with yellow and white strips, 150 mm in width at an angle of 45°, complete as per IRC:SP:55-2001					
	<b>Unit = each</b>					
	Taking output = one barricade					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor	day	0.35			
	Painter	day	0.60			
	Carpenter	day	0.60			
	<b>b) Material</b>					
	Timber	cum	0.18			
	Add 1percent of cost of timber for nuts & bolts, nails, etc.					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per barricade = a+b+c+d</b>					
	<b>C With bricks</b>					
	Construction of a permanent type barricade made with brick work in mud mortar, 1.5 m high, 4 m long, 600 mm thick, plastered with cement mortar 1:6, painted with yellow and white strips					
	<b>Unit = each</b>					
	Taking output = one barricade					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor	day	3.24			
	Painter	day	1.00			
	Mason	day	2.00			
	<b>b) Material</b>					
	Brick	each	1800.00			
	Cement	kg	22.00			
	Sand	cum	0.09			
	Paint	litre	1.25			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per barricade = a+b+c+d</b>					
46	<b>Drum Delineator in Construction Zone</b>					
	Provision of metal drum/empty bitumen drum delineator, 300 mm in diameter, 800 mm high, filled with earth for stability, painted in circumferential strips of alternate black and white 100 mm wide fitted with reflectors 3 Nos of 7.5 cm dia, all as per IRC:SP:55-2001					
	<b>Unit = each</b>					
	Taking output = one drum delineator					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor	day	0.27			
	Painter	day	0.25			
	<b>b) Material</b>					
	Steel drum 300 mm dia 1.2 m high/empty bitumen drum	each	1.00			
	Paint	litre	0.50			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per drum delineator = a+b+c+d</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
47	<b>Flagman</b>					
	Positioning of a smart flagman with a yellow vest and a yellow cap and a red flag 600 x 600 mm securely fastened to a staff 1 m in length for guiding the traffic					
	<b>Unit = each</b>					
	Taking output = one flagman					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor	day	1.04			
	<b>b) Material</b>					
	Flag of red color cloth 600 x 600 mm	each	1.00			
	Wooden staff for fastening of flag 25 mm dia, one m long	each	1.00			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per flagman = a+b+c+d</b>			<b>18.00%</b>		
<b>BARRICADING ARRANGEMENTS - MADE BY R&amp;B DEPT</b>						
48	<b>Providing barricading arrangements with casuria posts for vertical to be fixed at 3 mts (10'.0") intervals duly excavating a pitt fixing the vertical post firmly in the pit with excavated earth and metal for additional gap, tying two horizontal casuarinas posts to the verticals with coconut rope firmly. Dismantling the barricading after the programmed including conveyance of all material, all labour charges, hire charges of casurina posts, cost of coconut rope and all other incidental charges etc., complete for finished item of work and as directed by the Engineer-in- Charge.</b>					
	<b>2 TIER FOR 2 DAYS :</b>					
	Labour charges for digging pits fixing vertical post in the excavated earth using crow bars for additional grip, tying horizontal posts two rows with coconut ropes firmly as directed by the departmental officer and dismantling the entire work after the programme is over.					
	<b>Mazdoor (Unskilled)</b>	day	9.000			
	Hire charges of vertical posts (2M long) Rs. 1.00 per day I.E., 2daysX1.00	Each	34.000			
	Hire charges of horizontal post of 4M long $100/4=25 \times 2=50$ Nos Rs. 2.50 per day I.e., $2 \times 2.50$	Each	50.000			
	Cost of coconut rope ( $55 \times 2 \times 2.00 \text{M} = 220 \text{RM}$ )	RM	220.000			
	Conveyance of vertical posts and horizontal posts including loading and unloading at site and vice versa for two operations.(55+50)	Each	84.000			
	<b>Mazdoor's (Unskilled) (NMR)</b> for maintenance of barricading such as refixing fallen posts if any in position including watch and ward-3 shifts at 3 Nos. for each shift (1 no. for 600RM) $9/1800 \times 2 \text{days} \times 100 \text{M} = 1 \text{No}$		1.000			
	<b>Rate per 100 RM</b>					
	<b>Rate per 1RM</b>	<b>Total</b>				
49	<b>Providing barricading arrangements with casuria posts for vertical to be fixed at 3 mts (10'.0") intervals duly excavating a pit fixing the vertical post firmly in the pit with excavated earth and metal for additional gap, tying three horizontal casuarina posts to the verticals with coconut rope firmly. Dismantling the barricading after the programme including conveyance of all material, all labour charges, hire charges of casurina posts, cost of coconut rope and all other incidental charges etc., complete for finished item of work and as directed by the Engineer -in- Charge.</b>					
	<b>3 TIER FOR 2 DAYS :</b>					
	Labour charges for digging pits fixing vertical post in the excavated earth using crow bars for additional grip, tying horizontal posts two rows with coconut ropes firmly as directed by the departmental officer and dismantling the entire work after the programme is over.					
	<b>Mazdoor (Unskilled)</b>	day	9.000			
	For tying third horizontal row					
	<b>Mazdoor (Unskilled)</b>	day	1.000			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	Hire charges of vertical posts (2M long) Rs. 1.00 per day I.E., 2daysX1.00		34.000			
	Hire charges of horizontal post of 4M long 100/4=25X3=75 Nos Rs. 2.50 per day I.e., 2X2.50		75.000			
	Cost of coconut rope (55X3X2.00M=330RM)	RM	330.000			
	Conveyance of vertical posts and horizontal posts including loading and unloading at site and vice versa for two operations.(55+75)	Each	130.000			
	<b>Mazdoor's (Unskilled) (NMR)</b> for maintenance of barricading such as refixing fallen posts if any in position including watch and ward-3 shifts at 3 Nos. for each shift (1 no. for 600RM) 9/1800X2daysX100M=1No		1.000			
	<b>Rate per 100 RM</b>					
	<b>Rate per 1RM</b>					
50	<b>Providing barricading arrangements with casuria posts for vertical to be fixed at 3 mts (10'0") intervals duly excavating a pitt fixing the vertical post firmly in the pit with excavated earth and metal for additional gap, tying two horizontal casuarina posts to the verticals with coconut rope firmly. Dismantling the barricading after the programme including conveyance of all material, all labour charges, hire charges of casurina posts, cost of coconut rope and all other incidental charges etc., complete for finished item of work and as directed by the Engineer -in- Charge.</b>					
	<b>2 TIER FOR 15 DAYS :</b>					
	Labour charges for digging pits fixing vertical post in the excavated earth using crow bars for additional grip, tying horizontal posts two rows with coconut ropes firmly as directed by the departmental officer and dismantling the entire work after the programme is over.					
	<b>Mazdoor (Unskilled)</b>	day	9.000			
	Hire charges of vertical posts (2M long) for 15 days at Rs. 1.00 per day	Each	55.000			
	Hire charges of horizontal post of 4M long for 15 days at Rs.2.50 per day 100/4=25X2=50 Nos	Each	50.000			
	Cost of coconut rope (55X2X2.00M=220RM)	RM	220.000			
	Conveyance of vertical posts and horizontal posts including loading and unloading at site and vice versa for two operations.(55+50)	Each	105.000			
	<b>Mazdoor's (Unskilled) (NMR)</b> for maintenance of barricading such as refixing fallen posts if any in position including watch and ward-3 shifts at 3 Nos. for each shift (1 no. for 600RM) 2X9/1800X15daysX100M=15 Nos		15.000			
	Compensation for damaged posts					
	<b>Rate per 100 RM</b>					
	<b>Rate per 1RM</b>					
51	<b>Providing barricading arrangements with casuria posts for vertical to be fixed at 3 mts (10'0") intervals duly excavating a pitt fixing the vertical post firmly in the pit with excavated earth and metal for additional gap, tying two horizontal casuarina posts to the verticals with coconut rope firmly. Dismantling the barricading after the programme including conveyance of all material, all labour charges, hire charges of casurina posts, cost of coconut rope and all other incidental charges etc., complete for finished item of work and as directed by the Engineer -in- Charge.</b>					
	<b>3 TIER FOR 15 DAYS :</b>					
	Labour charges for digging pits fixing vertical post in the excavated earth using crow bars for additional grip, tying horizontal posts two rows with coconut ropes firmly as directed by the departmental officer and dismantling the entire work after the programme is over.					
	<b>Mazdoor (Unskilled)</b>	day	9.000			
	For tying third horizontal row					
	<b>Mazdoor (Unskilled)</b>	day	1.000			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	Hire charges of vertical posts (2M long) Rs. 1.00 per day I.E., 15daysX1.00	Each	55.000			
	Hire charges of horizontal post of 4M long 15 days at Rs. 2.50 per day 100/4=25X3=75 Nos	Each	75.000			
	Cost of coconut rope (55X3X2.00M=330RM)	RM	330.000			
	Conveyance of vertical posts and horizontal posts including loading and unloading at site and vice versa for two operations.(55+75)	Each	130.000			
	<b>Mazdoor's (Unskilled) (NMR)</b> for maintenance of barricading such as refixing fallen posts if any in position including watch and ward-3 shifts at 3 Nos. for each shift (1 no. for 600RM) 2X9/1800X15daysX100M=15 Nos		15.000			
	Compensation for damaged posts					
	Rate per 100 RM					
	Rate per 1RM					
52	<b>Providing barricading arrangements with iron posts (Departmental Material) for vertical to be fixed at 3 mts (10'.0") intervals duly excavating a pit fixing the vertical post firmly in the pit with excavated earth and metal for additional gap, fixing three horizontal iron posts to the verticals with bolts &amp; nuts firmly. Dismantling the barricading after the programme including conveyance of all material, all labour charges, cost of bolts and nuts and all other incidental charges etc., complete for finished item of work and as directed by the Engineer -in-Charge.</b>					
	<b>3 TIER FOR 2 DAYS :</b>					
	Labour charges for digging pits fixing vertical post in the excavated earth using crow bars for additional grip, tying horizontal posts two rows with bolts & nuts firmly as directed by the departmental officer and dismantling the entire work after the programme is over.					
	<b>Mazdoor (Unskilled)</b>	day	8.000			
	Cost of bolts and nuts for fixing horizontal posts to vertical posts.(55X3=165 Nos)	Each	165.000			
	<b>Mazdoor's (Unskilled) (NMR)</b> for maintenance of barricading such as refixing fallen posts if any in position including watch and ward-3 shifts at 3 Nos. for each shift (1 no. for 600RM) 2X9/1800X15daysX100M=15 Nos		1.000			
	Conveyance of iron posts from stock place to various points of barricading	LS				
	Rate per 100 RM					
	Rate per 1RM					
53	<b>Providing barricading arrangements with iron posts (Departmental Material) for vertical to be fixed at 3 mts (10'.0") intervals duly excavating a pit fixing the vertical post firmly in the pit with excavated earth and metal for additional gap, fixing three horizontal iron posts to the verticals with bolts &amp; nuts firmly. Dismantling the barricading after the programme including conveyance of all material, all labour charges, cost of bolts and nuts and all other incidental charges etc., complete for finished item of work and as directed by the Engineer -in-Charge.</b>					
	<b>3 TIER FOR 15 DAYS :</b>					
	Labour charges for digging pits fixing vertical post in the excavated earth using crow bars for additional grip, tying horizontal posts three rows with bolts & nuts firmly as directed by the departmental officer and dismantling the entire work after the programme is over.					
	<b>Mazdoor (Unskilled)</b>	day	8.000			
	Cost of bolts and nuts for fixing horizontal posts to vertical posts.(55X3=165 Nos)	Each	165.000			
	<b>Mazdoor's (Unskilled) (NMR)</b> for maintenance of barricading such as refixing fallen posts if any in position including watch and ward-3 shifts at 3 Nos. for each shift (1 no. for 600 RM) 9/1800X15daysX100M=7.5 No		7.500			
	Conveyance of iron posts from stock place to various points of barricading	LS				
	Rate per 100 RM					
	Rate per 1RM					

**General Note :**

The provisions towards Mate is included in the provision towards unskilled Mazdoor.



**Andhra Pradesh Standard Data**

**I. Roads and Bridges**

**Chapter - 11**

**FOUNDATION**

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
1	<b>Excavation for Structures</b>					
	Earthwork in excavation for structures as per drawing and technical specifications Clause 305.1 including setting out, construction of shoring and bracing, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing of sides and bottom and backfilling in trenches with excavated suitable material as per Technical Specification 305 MORD / 304 MORTH					
	<b>Note : Classifications of Earth Work Specification are as per 302.2.1(a) of MORD and 301.2.1 of MORT&amp;H</b>					
	<b>(I) Ordinary soil</b>					
	<b>(A) Manual Means</b>					
	<b>(i) Upto 3 m depth</b>					
	Unit = cum					
	Taking output = 10 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	3.64			
	<b>b&amp;c) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Cost for 10 cum = a+b+c</b>					
	<b>Rate per cum = (a+b+c)/10</b>					
	<b>Note : 1.</b> Cost of dewatering may be added, where required, up to 5 per cent of labour cost. Assessment for dewatering shall be made as per site conditions.					
	<b>2.</b> The cost of shoring and shuttering, where needed, may be added on cost of excavation for open foundation.					
	<b>3.</b> The excavated earth if found suitable, can be used partly for backfilling in trenches & partly for road work. Hence cost of disposal has not been added except for marshy soil. This note is common to all cases of item 11.1 excluding 11.1 V					
	<b>(B) Mechanical Means</b>					
	<b>i Upto 3 m depth</b>					
	Unit = cum					
	Taking output = 240 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	8.32			
	<b>b) Machinery</b>					
	Hydraulic Excavator 1 cum bucket capacity	hour	6.00			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Cost for 240 cum = a+b+c+d</b>					
	<b>Rate per cum = (a+b+c+d)/240</b>					
	<b>Note : 1.</b> Cost of dewatering upto 5% of a+b may be added, where required, up to 10 per cent of labour cost. Assessment for dewatering shall be made as per site conditions.					
	<b>ii 3 m to 6 m depth</b>					
	Unit = cum					
	<b>(A) Manual Means</b>					
	<b>a) Labour</b>					
	Mate / Supervisor	day	-			
	Mazdoor (Unskilled)	day	4.68			
	<b>b&amp;c) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Cost for 10 cum = a+b+c</b>					
	<b>Rate per cum = (a+b+c)/10</b>					
	<b>Note : 1.</b> Cost of dewatering may be added, when needed, up to 5 per cent of labour cost.					
	<b>2.</b> Cost of shoring and shuttering, where needed, may be taken @ 10 per cent on cost of excavation for open foundation.					



S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>B Mechanical Means</b>					
	<b>Unit = cum</b>					
	<b>Taking output = 210 cum</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	8.32			
	<b>b) Machinery</b>					
	Hydraulic excavator 1.0 cum bucket capacity	hour	6.00			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 210 cum = a+b+c+d</b>					
	<b>Rate per cum = (a+b+c+d)/210</b>					
	<b>Note</b> : Cost of dewatering upto 5 per cent of (a+b) may be added, where required. Assessment for dewatering shall be made as per site conditions.					
	<b>iii Depth above 6 m</b>					
	<b>(A) Manual Means</b>					
	<b>Unit = cum</b>					
	<b>Taking output = 10 cum</b>					
	<b>a) Labour</b>					
	Mate/Supervisor	day	-			
	Mazdoor (Unskilled)	day	6.24			
	<b>b&amp;c) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 10 cum = a+b+c</b>					
	<b>Rate per cum = (a+b+c)/10</b>					
	<b>Note</b> : 1. Cost of dewatering may be added where required upto 5 per cent of labour cost. Assessment for dewatering shall be made as per site conditions..					
	<b>B Mechanical Means</b>					
	<b>Unit = cum</b>					
	<b>Taking output = 180 cum</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	10.40			
	<b>b) Machinery</b>					
	Hydraulic excavator 1.0 cum bucket capacity	hour	6.00			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 180 cum = a+b+c+d</b>					
	<b>Rate per cum = (a+b+c+d)/180</b>					
	<b>Note</b> : 1. Cost of dewatering upto 5 per cent of (a+b) may be added, where required. Assessment for dewatering shall be made as per site conditions..					
	2. Labour provided for excavation by mechanical means includes that required for trimming of bottom and side slopes.					
	<b>(II) Ordinary rock (not requiring blasting)</b>					
	<b>(A) Manual Means</b>					
	<b>Upto 3 m depth</b>					
	<b>Unit = cum</b>					
	<b>Taking output = 10 cum</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	5.20			
	<b>b&amp;c) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 10 cum = a+b+c</b>					
	<b>Rate per cum = (a+b+c)/10</b>					
	<b>Note</b> : Cost of dewatering upto 5 per cent of labour cost may be added, where required as per site condition.					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>(B) Mechanical Means</b>					
	<b>Upto 3 m depth</b>					
	Unit = cum					
	Taking output = 180 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	6.24			
	<b>b) Machinery</b>					
	Hydraulic Excavator 1 cum bucket capacity	hour	6.00			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
					<b>18.00%</b>	
	Cost for 180 cum = a+b+c+d					
	Rate per cum = (a+b+c+d)/180					
	<b>Note : 1.</b> Cost of dewatering upto 5% of a+b may be added, where required, up to 10 per cent of labour cost. Assessment for dewatering shall be made as per site conditions.					
	<b>2. in case of rock foundation beyond 3 m is not dug and hence not included.</b>					
(III)	<b>Hard rock (requiring blasting)</b>					
	Upto 3 m depth including 1.5 m depth in hard rock					
	Unit = cum					
	Taking output = 10 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Driller	day	0.50			
	Blaster	day	0.25			
	Mazdoor (Unskilled)	day	8.35			
	<b>b) Machinery</b>					
	Air compressor 210 cfm / 250 cfm with 2 jack hammers for drilling at 15 cum per hour	hour	1			
	<b>c) Material</b>					
	Gelatin 80%	kg	3.50			
	Detonator electric	Nos.	14.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
					<b>18.00%</b>	
	Cost for 10 cum = a+b+c+d+e					
	Rate per cum = a+b+c+d+e)/10					
	<b>Note : 1.</b> Cost of dewatering @ 5 per cent of (a+b) may be added, where required as per site condition.					
	<b>2. No limitation of depth in MORTH</b>					
(IV)	<b>Hard rock (blasting prohibited)</b>					
	Upto 3 m depth including 1.5 m depth in hard rock					
	Unit = cum					
	Taking output = 10 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	5.20			
	<b>b) Machinery</b>					
	Air compressor 210 cfm / 250 cfm with 2 jack hammers of pneumatic breaker at 1 cum per hour	hour	6.00			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
					<b>18.00%</b>	
	Cost for 10 cum = a+b+c+d					
	Rate per cum = a+b+c+d)/10					
	<b>Note :</b> Cost of dewatering up to 5 per cent of (a+b) may be added, where required as per site conditions.					
	<b>2. in case of rock foundation beyond 3 m is not dug and hence not included. (MORTH)</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
(V)	<b>Marshy soil</b>					
	Unit = cum					
	Taking output = 10 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	15.60			
	<b>b&amp;c) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 10 cum = a+b+c					
	Rate per cum = a+b+c/10					
	<b>Note</b> : Cost of dewatering @ 5 per cent of (a) may be added.					
	Shoring and shuttering @ 15 per cent of (a) may be added where required.					
	Since marshy soil cannot be used in filling in trenches, it shall be removed and replaced by approved quality of soil. The labour cost includes labour input for disposal of marshy soil from excavated pit with a lead upto 50 m lead.					
	Marshy soil is generally available upto 3 m depth. The rate has, therefore, been done upto 3 m depth of excavation. For deeper excavation refer analysis in item (i) to (iv) of ordinary soil.					
(a)	<b>Marshy soil</b>					
	<b>Including Refilling with selected earth conveyed from 1000 M lead through Tractor Trally.</b>					
	Unit = cum					
	Taking output = 10 cum					
	<b>(A) Manual Means (upto 3 m depth)</b>					
	<b>a) Labour</b>					
	Mate / Supervisor	day	-			
	Mazdoor (Unskilled)	day	10.40			
	<b>b) Machinery</b>					
	Tractor - Trally	hour	2.67			
	<b>c) Material</b>					
	Selected earth for refilling with conveyance from 1000m	cum	5.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 10 cum = a+b+c+d+e					
	Rate per cum = a+b+c+d+e/10					
	<b>Note</b> : 1. Cost of dewatering @ 5 per cent of (a) may be added. Assessment for dewatering shall be made as per site conditions.					
	2. Shoring and shuttering @ 15 per cent of (a) may be added where required.					
	3. It is assumed, that Marshy soil will be available upto 3 m depth only. For deeper excavation below 3m depth, refer analysis in item (i) to (iv) for ordinary soil.					
	<b>(B) Mechanical Means</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor for dressing sides, bottom and back filling (Unskilled)	day	2.08			
	<b>b) Machinery</b>					
	Hydraulic Excavator 1 cum bucket capacity @ 60 cum / hour	hour	0.17			
	Tipper 5.5 cum capacity, 4 trips per hour	hour	0.45			
	<b>c) Material</b>					
	Selected earth for refilling	cum	5.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 10 cum = a+b+c+d+e					
	Rate per cum = a+b+c+d+e/10					
	<b>Note</b> :1. Cost of dewatering @ 5 per cent of (a+b) may be added where required. Assessment for dewatering shall be made as per site conditions.					
	2. Shoring and shuttering @ 10 per cent of (a+b) may be added where required.					
	3. It is assumed, that Marshy soil will be available upto 3 m depth only. For deeper excavation below 3m depth, refer analysis in item (i) to (iv) for ordinary soil.					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>VI Back Filling in Marshy Foundation Pits</b>					
	Unit : Cum					
	Taking Output : 6 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled) for dressing sides, bottom and backfilling	day	3.12			
	<b>b) Machinery</b>					
	Tractor-trolley for transportation	hour	2.00			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			18.00%		
	Cost for 6 cum = a+b+c+d					
	Rate per cum = (a+b+c+d)/6					
2	<b>Filling in foundation trenches as per drawing and technical specification Clause 305.3.9 MORD &amp; 304 MORTU</b>					
	<b>I Sand filling</b>					
	Unit = cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.31			
	<b>b) Material</b>					
	Sand	cum	1.00			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			18.00%		
	Rate per cum = a+b+c+d					
	<b>II Earth filling (For marshy soil)</b>					
	Unit = cum					
	Taking output = 6 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	3.12			
	<b>b&amp;c) Overheads &amp; Contractors Profit</b>			18.00%		
	Cost for 6 cum = a+b+c					
	Rate per cum = (a+b+c)/6					
	<b>Note</b> : Cost of transportation of good quality earth has not been included. Only labour for carrying carted earth with a lead of 50 m to the foundation pits has been taken in the rate. The cost of carted earth may be worked out separately if the same is not available from the adjoining area.					
	Backfilling of foundation trenches shall normally be done with excavated earth. The cost of this operation is included in item 11.1. Only in case the excavated earth is not of suitable quality, sand filling or backfilling with carted earth may be resort to.					
3	<b>Filling annular space around footing in rock as per technical specification Clause 1203.4.3. MORD</b>					
	Unit = cum					
	<b>P.C.C grade M 15</b>					
	<b>Nominal mix 1:2.5:5 (Hand mixing)</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Cement	t	0.275			
	Coarse sand	cum	0.48			
	40 mm aggregate	cum	0.54			
	20 mm aggregate	cum	0.27			
	10 mm aggregate	cum	0.09			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	0.10			
	Mazdoor (Unskilled)	day	2.36			
	<b>(c) Formwork @ 4% on (a+b)</b>			4.00%		
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>			18.00%		
	Rate per cum = a+b+c+d+e					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	(a) Filling Annular Space Around Footing in Rock with CC 1:3:6 nominal mix using 40mm nominal size stone aggregate as per Tech. Specification 304 & 2100 MORTH					
	Unit = cum					
	Taking out put = 1 cum					
	Lean cement concrete 1:3:6 nominal mix. Rate may be taken as per item 11.4.		1			
4	Providing concrete for plain/reinforced concrete in open foundations using 40 mm nominal size Graded hard stone aggregate, mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days complete as per drawings and technical specifications Clause 802, 803, 1202 & 1203 MORD and 1500, 1700 & 2100 MORTH.					
	<b>I P.C.C grade M 10</b>					
	(i) Nominal mix 1:3:6					
	Unit = cum					
	<b>(a) Material</b>					
	Cement	t	0.22			
	Coarse sand	cum	0.45			
	40 mm aggregate	cum	0.9			
	Water	kl	1.2			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	0.1			
	Mazdoor (Unskilled)	day	1.39			
	<b>(c) Machinery</b>					
	Mechanical concrete mixer 0.4/0.28 cum capacity fitted with water measuring device and preferably also with load cell.	hour	0.40			
	Water tanker 6 kl capacity	hour	0.13			
	<b>(d) Formwork @ 4% on cost of material, labour and machinery (a+b+c)</b>				4.00%	
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>				18.00%	
	<b>Rate per cum = a+b+c+d+e+f</b>					
	(ii) Nominal mix 1:3:6 (Hand mixing) (MORD)					
	Unit = cum					
	<b>(a) Material</b>					
	Cement	t	0.220			
	Coarse sand	cum	0.45			
	40 mm aggregate	cum	0.570			
	20 mm aggregate	cum	0.280			
	10 mm aggregate	cum	0.050			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	0.10			
	Mazdoor (Unskilled)	day	2.36			
	<b>(c) Formwork@4% on cost of material (a) and labour (b)</b>				4.00%	
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>				18.00%	
	<b>Rate per cum = a+b+c+d+e</b>					
	<b>II P.C.C grade M 15 (MORD)</b>					
	iii Nominal mix (1:2.5:5) (Mechanical Mixer)					
	Unit = cum					
	<b>(a) Material</b>					
	Cement	t	0.275			
	Coarse sand	cum	0.48			
	40 mm aggregate	cum	0.48			
	20 mm aggregate	cum	0.24			
	10 mm aggregate	cum	0.08			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	0.10			
	Mazdoor (Unskilled)	day	1.39			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>(c) Machinery</b>					
	Concrete mixer 0.4/0.28 cum capacity	hour	0.40			
	<b>d) Formwork @ 4% on cost of material, labour and machinery (a+b+c)</b>		<b>4.00%</b>			
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate per cum = a+b+c+d+e+f</b>					
	<b>Note :</b> Needle Vibrator is an item of minor T & P which is already included in overhead charges. Hence not added in rate analysis of cement concrete works.					
iv	<b>Nominal mix 1:2.5:5 (Hand mixing) (MORD)</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Cement	t	0.275			
	Coarse sand	cum	0.48			
	40 mm aggregate	cum	0.54			
	20 mm aggregate	cum	0.27			
	10 mm aggregate	cum	0.09			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	0.10			
	Mazdoor (Unskilled)	day	2.36			
	<b>(c) Formwork @ 4% on (a+b)</b>		<b>4.00%</b>			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate per cum = a+b+c+d+e</b>					
V	<b>P.C.C. grade M 20 (MORD)</b>					
(i)	<b>Nominal mix (1:2:4) (Mechanical Mixer)</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Cement	t	0.33			
	Sand	cum	0.45			
	40 mm aggregate	cum	0.36			
	20 mm aggregate	cum	0.36			
	10 mm aggregate	cum	0.18			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	0.1			
	Mazdoor (Unskilled)	day	1.39			
	Bhisti	day				
	<b>(c) Machinery</b>					
	Concrete mixer 0.4/0.28 cum capacity	hour	0.4			
	<b>(d) Formwork @ 4% on (a+b+c)</b>		<b>4.00%</b>			
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate per cum = a+b+c+d+e+f</b>					
(ii)	<b>Nominal mix 1:2:4 (Hand mixed) (MORD)</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Cement	t	0.33			
	Sand	cum	0.45			
	40 mm aggregate	cum	0.36			
	20 mm aggregate	cum	0.36			
	10 mm aggregate	cum	0.18			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	0.1			
	Mazdoor (Unskilled)	day	2.36			
	<b>(c) Formwork @ 4% out of material and labour (a+b)</b>		<b>4.00%</b>			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate per cum = a+b+c+d+e</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks	
1	2	3	4	5	6	7	
B i	<b>P.C.C grade M 15 (Design Mix) MORTH 12.8 A using 40 mm Graded Metal</b>						
	Unit = cum						
	<b>(a) Material</b>						
	Cement	t	0.275				
	Coarse sand	cum	0.45				
	40 mm aggregate	cum	0.54				
	20 mm aggregate	cum	0.27				
	10 mm aggregate	cum	0.09				
	<b>(b) Labour</b>						
	Mate	day	-				
	Mason (1st Class)	day	0.10				
	Mazdoor (Unskilled)	day	1.39				
	<b>(c) Machinery</b>						
	Concrete mixer 0.4/0.28 cum capacity	hour	0.40				
	Generator 33 KVA	hour	0.40				
	<b>(d) Formwork @ 4% on cost of material, labour and machinery (a+b+c)</b>			4.00%			
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%			
	<b>Rate per cum = a+b+c+d+e+f</b>						
	ii	<b>P.C.C. grade M 20 (Design Mix) MORTH 12.8 B using 40 mm Graded Metal</b>					
		Unit = cum					
<b>(a) Material</b>							
Cement		t	0.343				
Sand		cum	0.45				
40 mm aggregate		cum	0.36				
20 mm aggregate		cum	0.36				
10 mm aggregate		cum	0.18				
<b>(b) Labour</b>							
Mate		day	-				
Mason (1st Class)		day	0.1				
Mazdoor (Unskilled)		day	1.39				
<b>(c) Machinery</b>							
Concrete mixer 0.4/0.28 cum capacity		hour	0.4				
Generator 33 KVA		hour	0.4				
<b>(d) Formwork @ 4% on (a+b+c)</b>				4.00%			
<b>e&amp;f) Overheads &amp; Contractors Profit</b>				18.00%			
<b>Rate per cum = a+b+c+d+e+f</b>							
C i		<b>R.C.C grade M 20 using Concrete mixer (Nominal Mix) using 20 mm Graded Metal (MORD)</b>					
		Unit = cum					
	<b>(a) Material</b>						
	Cement	t	0.33				
	Coarse sand	cum	0.45				
	20 mm aggregate	cum	0.54				
	10 mm aggregate	cum	0.36				
	<b>(b) Labour</b>						
	Mate	day	-				
	Mason (1st Class)	day	0.1				
	Mazdoor (Unskilled)	day	1.39				
	<b>(c) Machinery</b>						
	Concrete mixer 0.4/0.28 cum capacity	hr / cum	0.4				
	<b>(d) Formwork @ 4% on (a+b+c)</b>			4.00%			
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%			
	<b>Rate per cum = a+b+c+d+e+f</b>						

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
ii	<b>R.C.C grade M 20 (Design Mix) using 20 mm Graded Metal (MORTH)</b>					
	<b>CASE I : Using Concrete Mixer</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Cement	t	0.347			
	Coarse sand	cum	0.45			
	20 mm aggregate	cum	0.54			
	10 mm aggregate	cum	0.36			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	0.1			
	Mazdoor (Unskilled)	day	1.39			
	<b>(c) Machinery</b>					
	Concrete mixer 0.4/0.28 cum capacity	hr / cum	0.4			
	Generator 33 KVA	hour	0.4			
	<b>(d) Formwork @ 4% on (a+b+c)</b>					
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = a+b+c+d+e+f</b>					
	<b>Case II : With Batching Plant, Transit Mixer and Concrete Pump (RCC M20) (Design Mix) (MORTH 12.8 C)</b>					
	Unit : cum					
	<b>Taking Output = 120 cum</b>					
	<b>a) Material</b>					
	Cement	tonne	41.66			
	Coarse Sand	cum	54.00			
	20 mm Aggregate	cum	64.80			
	10 mm Aggregate	cum	43.20			
	<b>b) Labour</b>					
	Mate	day	0.84			
	Mason	day	3.00			
	Mazdoor (Unskilled)	day	18.00			
	<b>c) Machinery</b>					
	Batching Plant @ 20 cum/ hour	hour	6.00			
	Generator 100 KVA	hour	6.00			
	Loader 1 cum capacity	hour	6.00			
	Transit Mixer 4 cum capacity for lead upto 1 km.	hour	15.00			
	Lead beyond 1 km, L-lead in km	t.km	300L			
	Concrete Pump	hour	6.00			
	<b>d) Formwork @ 4 per cent on cost of concrete i.e. cost of material, labour and machinery</b>					
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>					
	<b>Cost for 120 cum = a+b+c+d+e+f</b>					
	<b>Rate per cum = ( a+b+c+d+e+f )/120</b>					
D	<b>PCC Grade M25 using 40 mm Graded Metal (Design Mix) (MORTH 12.8 D)</b>					
	<b>CASE I : Using Concrete Mixer</b>					
	Unit = cum					
	<b>Taking output = cum</b>					
	<b>a) Material</b>					
	Cement	tonne	0.40			
	Coarse sand	cum	0.45			
	40 mm Aggregate	cum	0.36			
	20 mm Aggregate	cum	0.36			
	10 mm Aggregate	cum	0.18			
	<b>b) Labour</b>					
	Mate	day	-			
	Mason	day	0.1			
	Mazdoor (Unskilled)	day	1.39			



S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>c) Machinery</b>					
	Concrete mixer (cap. 0.40/0.28 cum)	hr / cum	0.40			
	Generator 33 KVA	hour	0.40			
	<b>d) Formwork @ 3.75 per cent of (a+b+c)</b>		<b>4.00%</b>			
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate for cum = a+b+c+d+e+f</b>					
	<b>CASE II : With Batching Plant, Transit Mixer and Concrete Pump (M 25) (MORTH 12.8 D)</b>					
	<b>Unit : cum</b>					
	<b>Taking Output = 120 cum</b>					
	<b>a) Material</b>					
	Cement	tonne	47.95			
	Coarse sand	cum	54.00			
	40 mm Aggregate	cum	43.20			
	20 mm Aggregate	cum	43.20			
	10 mm Aggregate	cum	21.60			
	<b>b) Labour</b>					
	Mate	day	-			
	Mason	day	3.00			
	Mazdoor (Unskilled)	day	18.84			
	<b>c) Machinery</b>					
	Batching Plant @ 20 cum/hour	hour	6.00			
	Generator 100 KVA	hour	6.00			
	Loader 1 cum capacity	hour	6.00			
	Transit Mixer 4 cum capacity for lead upto 1 km.	hour	15.00			
	Transit Mixer 4 cum capacity lead beyond 1 Km, L - lead in Kilometer	tonne .km	300L			
	Concrete Pump	hour	6.00			
	<b>d) Formwork @ 3.75 per cent of cost of concrete i.e. cost of material, labour and machinerv</b>		<b>3.75%</b>			
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>cost of 120 cum = a+b+c+d+e+f</b>					
	<b>Rate per cum = (a+b+c+d+e+f)/120</b>					
E	<b>R.C.C. grade M 25 (Design Mix) using 20 mm Graded Metal (MORD &amp; MORTH 12.8 E)</b>					
	<b>Case 1 : Using Concrete Mixer</b>					
	<b>Unit = cum</b>					
	<b>(a) Material</b>					
	Cement	t	0.403			
	Coarse sand	cum	0.45			
	20 mm aggregate	cum	0.54			
	10 mm aggregate	cum	0.36			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	0.1			
	Mazdoor (Unskilled)	day	1.39			
	Bhisti	day				
	<b>(c) Machinery</b>					
	Concrete mixer 0.4/0.28 cum capacity	hr / cum	0.4			
	<b>(d) Formwork @ 3.75% on (a+b+c)</b>		<b>3.75%</b>			
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate per cum = a+b+c+d+e+f</b>					
	<b>Case 2 : With Batching Plant, Transit Mixer and Concrete Pump (RCC M 25) (MORTH 12.8 E)</b>					
	<b>Unit: cum</b>					
	<b>Taking Output = 120 cum</b>					
	<b>a) Material</b>					
	Cement	tonne	48.38			
	Coarse sand	cum	54.00			
	20 mm Aggregate	cum	64.80			
	10 mm Aggregate	cum	43.20			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>b) Labour</b>					
	Mate	day	-			
	Mason	day	3.00			
	Mazdoor (Unskilled)	day	18.84			
	<b>c) Machinery</b>					
	Batching Plant @ 20 cum/hour	hour	6.00			
	Generator 100 KVA	hour	6.00			
	Loader 1 cum capacity 1 cum	hour	6.00			
	Transit Mixer 4 cum capacity for lead upto 1 km.	hour	15.00			
	Transit Mixer 4 cum capacity lead beyond 1 Km, L - lead in Kilometer	tonne .km	300L			
	Concrete Pump	hour	6.00			
	<b>d) Formwork @ 3.75 per cent on cost of concrete i.e. cost of material, labour and machinery</b>				<b>3.75%</b>	
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>				<b>18.00%</b>	
	<b>cost of 120 cum = a+b+c+d+e+f</b>					
	<b>Rate per cum (a+b+c+d+e+f)/120</b>					
F	<b>PCC Grade M 30 (MORTH 12.8 F) Design Mix using 40 mm Graded Metal</b>					
	<b>CASE I : Using Concrete Mixer</b>					
	<b>Unit = cum</b>					
	<b>Taking output = cum</b>					
	<b>a) Material</b>					
	Cement	tonne	0.405			
	Coarse sand	cum	0.45			
	40 mm Aggregate	cum	0.36			
	20 mm Aggregate	cum	0.36			
	10 mm Aggregate	cum	0.18			
	<b>b) Labour</b>					
	Mate	day	-			
	Mason	day	0.1			
	Mazdoor (Unskilled)	day	1.39			
	<b>c) Machinery</b>					
	Concrete mixer (cap. 0.40/0.28 cum)	hour	0.4			
	Generator 33 KVA	hour	0.4			
	<b>d) Formwork @ 3.5 per cent of (a+b+c)</b>				<b>3.50%</b>	
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>				<b>18.00%</b>	
	<b>Rate for 1 cum = a+b+c+d+e+f</b>					
	<b>CASE II : With Batching Plant, Transit Mixer and Concrete Pump (PCC M 30) Design Mix</b>					
	<b>Unit : cum</b>					
	<b>Taking Output = 120 cum</b>					
	<b>a) Material</b>					
	Cement	tonne	48.60			
	Coarse sand	cum	54.00			
	40 mm Aggregate	cum	43.20			
	20 mm Aggregate	cum	43.20			
	10 mm Aggregate	cum	21.60			
	<b>b) Labour</b>					
	Mate	day	-			
	Mason	day	3.00			
	Mazdoor (Unskilled)	day	18.84			
	<b>c) Machinery</b>					
	Batching Plant @ 20 cum/hour	hour	6.00			
	Generator 100 KVA	hour	6.00			
	Loader 1 cum capacity	hour	6.00			
	Transit Mixer 4 cum capacity for lead upto 1 km.	hour	15.00			
	Transit Mixer 4 cum capacity lead beyond 1 Km, L - lead in Kilometer	tonne .km	300L			
	Concrete Pump	hour	6.00			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>d) Formwork @ 3.5 per cent of cost of concrete i.e. cost of material, labour and machinery</b>		3.50%			
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>		18.00%			
	cost of 120 cum = a+b+c+d+e+f					
	<b>Rate per cum = (a+b+c+d+e+f)/120</b>					
G	<b>R.C.C. grade M 30 Design Mix, using 20 mm Graded Metal (MORTH 12.8 G)</b>					
	<b>Case 1 : Using Concrete Mixer</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Cement	t	0.407			
	Coarse sand	cum	0.45			
	20 mm aggregate	cum	0.54			
	10 mm aggregate	cum	0.36			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	0.1			
	Mazdoor (Unskilled)	day	1.39			
	<b>(c) Machinery</b>					
	Concrete mixer 0.4/0.28 cum capacity	hour	0.40			
	Generator 33 KVA	hour	0.40			
	<b>(d) Formwork @ 3.5% on (a+b+c)</b>		3.50%			
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>		18.00%			
	<b>Rate per cum = a+b+c+d+e+f</b>					
	<b>Case 2 : With Batching Plant, Transit Mixer and Concrete Pump (RCC M 30) Design Mix</b>					
	Unit: cum					
	Taking Output = 120 cum					
	<b>a) Material</b>					
	Cement	tonne	48.80			
	Coarse sand	cum	54.00			
	20 mm Aggregate	cum	64.80			
	10 mm Aggregate	cum	43.20			
	<b>b) Labour</b>					
	Mate	day	-			
	Mason	day	3.00			
	Mazdoor (Unskilled)	day	18.84			
	<b>c) Machinery</b>					
	Batching Plant @ 20 cum/hour	hour	6.00			
	Generator 100 KVA	hour	6.00			
	Loader 1 cum capacity 1 cum	hour	6.00			
	Transit Mixer 4 cum capacity for lead upto 1 km.	hour	15.00			
	Transit Mixer 4 cum capacity lead beyond 1 Km, L - lead in Kilometer	tonne .km	300L			
	Concrete Pump	hour	6.00			
	<b>d) Formwork @ 3.5 per cent on cost of concrete i.e. cost of material, labour and machinery</b>		3.50%			
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>		18.00%			
	cost of 120 cum = a+b+c+d+e+f					
	<b>Rate per cum (a+b+c+d+e+f )/120</b>					
H	<b>R.C.C. grade M 35 Design Mix using 20 mm Graded Metal (MORTH 12.8.H)</b>					
	<b>Case 1 : Using Concrete Mixer</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Cement	t	0.422			
	Coarse sand	cum	0.45			
	20 mm aggregate	cum	0.54			
	10 mm aggregate	cum	0.36			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	0.1			
	Mazdoor (Unskilled)	day	1.39			
	<b>(c) Machinery</b>					
	Concrete mixer 0.4/0.28 cum capacity	hour	0.40			
	Generator 33 KVA	hour	0.40			
	<b>(d) Formwork @ 3% on (a+b+c)</b>		<b>3.00%</b>			
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate per cum = a+b+c+d+e+f</b>					
	<b>Case 2 : With Batching Plant, Transit Mixer and Concrete Pump (RCC M35) Design Mix</b>					
	<b>Unit: cum</b>					
	<b>Taking Output = 120 cum</b>					
	<b>a) Material</b>					
	Cement	tonne	50.64			
	Coarse sand	cum	54.00			
	20 mm Aggregate	cum	64.80			
	10 mm Aggregate	cum	43.20			
	<b>b) Labour</b>					
	Mate	day	-			
	Mason	day	3.00			
	Mazdoor (Unskilled)	day	18.84			
	<b>c) Machinery</b>					
	Batching Plant @ 20 cum/hour	hour	6.00			
	Generator 100 KVA	hour	6.00			
	Loader 1 cum capacity 1 cum	hour	6.00			
	Transit Mixer 4 cum capacity for lead upto 1 km.	hour	15.00			
	Transit Mixer 4 cum capacity lead beyond 1 Km, L - lead in Kilometer	t.km	300L			
	Concrete Pump	hour	6.00			
	Vibrator					
	<b>d) Formwork @ 3 per cent on cost of concrete i.e. cost of material, labour and machinery</b>		<b>3.00%</b>			
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>cost of 120 cum = a+b+c+d+e+f</b>					
	<b>Rate per cum (a+b+c+d+e+f)/120</b>					
	<b>Note :</b> Where ever concrete is carried out using batching plant, transit mixer, concrete pump, Admixtures @ 0.4 per cent of weight of cement may be added for achieving desired slump of concrete.					
	<b>NOTE :</b> Concrete used in any component or structure shall be specified by designation along with prescribed method of design of mix i.e., "Design Mix" or "Nominal Mix". For all items of concrete, only "Design Mix" shall be used, except where "Nominal Mix" concrete is permitted as per drawing or by the Engineer. "Nominal Mix" may be permitted only for minor bridges and culverts or other incidental construction where strength requirements are upto M 20 only. "Nominal Mix" may also be permitted for non-structural concrete or for screed below open foundations.					
	<b>Note : Water :</b> A provision for cost of water may be added at 1.2 kl / 1 cum (including curing purpose) keeping the site conditions					
	<b>Coarse Aggregate :</b> Single grade nominal size can also be used instead of graded metal, keeping the site conditions in view					
5	<b>Brick masonry work in cement mortar in foundation complete excluding pointing and plastering as per drawing and technical specifications Clauses 600, 1202 &amp; 1203 MORD / 1300 MORTH with Second Class Bricks &amp; Moulded Bricks</b>					
	Unit = cum					
	<b>I Brick masonry in 1:3 cement mortar</b>					
	<b>(a) Material</b>					
	Bricks	Nos.	512			
	Cement mortar 1:3 (Rate as per Sub-analysis)	cum	0.2			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	0.89			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	Mazdoor (Unskilled)	day	1.8			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate per cum = a+b+c+d</b>					
	<b>Sub-analysis</b>					
	<b>Cement mortar 1:3 (1 cement : 3 sand)</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Cement	t	0.48			
	Sand	cum	1.05			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.2			
	<b>Total material and labour = (a+b)</b>					
II	<b>Brick masonry in 1:4 cement mortar</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Bricks	Nos.	512			
	Cement mortar 1:4	cum	0.2			
	Rates as per sub-analysis					
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	0.89			
	Mazdoor (Unskilled)	day	1.8			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate per cum = a+b+c+d</b>					
	<b>Sub-analysis</b>					
	<b>Cement mortar 1:4 (1 cement : 4 sand)</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Cement	t	0.36			
	Sand	cum	1.05			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.2			
	<b>Total material and labour = (a+b)</b>					
III	<b>Brick masonry in cement-lime-mortar (1:0.5:4.5)</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Bricks	Nos.	512			
	Cement lime mortar rates as per sub-analysis	cum	0.20			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	0.89			
	Mazdoor (Unskilled)	day	1.80			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate per cum = a+b+c+d</b>					
	<b>Sub-analysis</b>					
	<b>Cement-lime-mortar 1:0.5:4.5 (1 cement: 0.5 lime putty : 4.5 sand)</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Cement	t	0.38			
	Lime putty	t	0.175			
	Sand	cum	1.05			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	3.05			
	<b>Total material and labour = (a+b)</b>					
	<b>Note : i.</b> To provide 512 Nos Bricks Traditional size 23 x 11 x 7 cms and 520 Nos Modular Bricks 19 x 9 x 9 cms					
	<b>ii.</b> Compressive strength of individual Brick shall not be less than 70 kg / cm <sup>2</sup>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
6	Stone masonry work in cement mortar in foundation complete as per drawing and technical specifications Clauses 702, 704, 1202 & 1203 MORD and 1405 MORTH.					
	Unit = cum					
I	<b>Coursed rubble masonry (1st sort)</b>					
(i)	<b>CRS 1st Sort in 1:3 cement mortar</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Stone for C.R. masonry 1st sort	cum	0.94			
	Through bond stone (7 nos 0.24 x 0.24 x 0.39 = 0.16 cum)	Nos.	0.16			
	Cement mortar (1:3) (Rate as in item 11.5 I)	cum	0.28			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason 1st Class	day	2.5			
	Mazdoor (Unskilled)	day	2.32			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = a+b+c+d</b>					
	<b>18.00%</b>					
(ii)	<b>CRS 1st Sort in 1:4 cement mortar</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Stone for C.R. masonry 1st sort	cum	0.94			
	Through bond stone (7 nos 0.24 x 0.24 x 0.39 = 0.16 cum)	Nos.	0.16			
	Cement mortar 1:4 (Rate as in item 11.5 II)	cum	0.28			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason 1st Class	day	2.5			
	Mazdoor (Unskilled)	day	2.32			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = a+b+c+d</b>					
	<b>18.00%</b>					
(iii)	<b>CRS First Sort in cement-lime-sand mortar (1:0.5:4.5)</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Stone for C.R. masonry 1st sort	cum	0.94			
	Through bond stone (7 nos 0.24 x 0.24 x 0.39 = 0.16 cum)	Nos.	0.16			
	Cement lime mortar (Rate as in item 11.5 III)	cum	0.28			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason 1st Class	day	2.5			
	Mazdoor (Unskilled)	day	2.32			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = a+b+c+d</b>					
	<b>18.00%</b>					
	<b>Note</b> : Quantity of required chips has not been provided for separately as it is assumed that the same will be available from dressing of stones.					
II	<b>Coursed rubble masonry (2nd sort)</b>					
(i)	<b>In 1:3 cement mortar</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Stone for C.R. masonry 2nd sort	cum	0.94			
	Through bond stone (7 nos 0.24 x 0.24 x 0.39 = 0.16 cum)	Nos.	0.16			
	Cement mortar (Rate as in item 11.5 I.)	cum	0.32			
	Water					
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	1.5			
	Mazdoor (Unskilled)	day	2.22			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = a+b+c+d</b>					
	<b>18.00%</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
(ii)	<b>CRS 2nd Sort in 1:4 cement mortar</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Stone for C.R. masonry 2nd sort	cum	0.94			
	Through bond stone (7 nos 0.24 x 0.24 x 0.39 = 0.16 cum)	Nos.	0.16			
	Cement mortar (Rate as in item 11.5 II)	cum	0.32			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	1.5			
	Mazdoor (Unskilled)	day	2.22			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = a+b+c+d</b>				<b>18.00%</b>	
(iii)	<b>CRS 2nd Sort in cement-lime-mortar (1:0.5:4.5)</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Stone for C.R. masonry 2nd sort	cum	0.94			
	Through bond stone (7 nos 0.24 x 0.24 x 0.39 = 0.16 cum)	Nos.	0.16			
	cement-lime-mortar (1:0.5:4.5) (Rate as in item 11.5 III)	cum	0.32			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	1.50			
	Mazdoor (Unskilled)	day	2.22			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = a+b+c+d</b>				<b>18.00%</b>	
III	<b>Random Rubble Masonry</b>					
(i)	<b>In 1:3 cement mortar</b>					
	Unit = cum					
	<b>(a) Material</b>					
	<b>CR Stone</b>	cum	0.44			
	Stone for R.R. masonry	cum	0.5			
	Through bond stone (7 nos 0.24 x 0.24 x 0.39 = 0.16 cum)	Nos.	0.16			
	Cement mortar (1:3) (Rate as in item 11.5 I)	cum	0.33			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	1.2			
	Mazdoor (Unskilled)	day	2			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = a+b+c+d</b>				<b>18.00%</b>	
(ii)	<b>RR Masonry in cement mortar 1:4</b>					
	Unit = cum					
	<b>(a) Material</b>					
	<b>CR Stone</b>	cum	0.44			
	Stone for R.R. masonry	cum	0.5			
	Through bond stone (7 nos 0.24 x 0.24 x 0.39 = 0.16 cum)	Nos.	0.16			
	Cement mortar (1:4) (Rate as in item 11.5 II)	cum	0.33			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	1.2			
	Mazdoor (Unskilled)	day	2			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = a+b+c+d</b>				<b>18.00%</b>	

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
(iii)	<b>RR Masonry in cement mortar 1:6</b>					
	Unit = cum					
	<b>(a) Material</b>					
	<b>CR Stone</b>	cum	0.44			
	Stone for R.R. masonry	cum	0.5			
	Through bond stone (7 nos 0.24 x 0.24 x 0.39 = 0.16 cum)	Nos.	0.16			
	Cement mortar (1:6) (Rate as in Sub Analysis)	cum	0.33			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	1.2			
	Mazdoor (Unskilled)	day	2			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>				18.00%	
	<b>Rate per cum = a+b+c+d</b>					
	<b>Sub Analysis :</b>					
	<b>Cement Mortar 1:6</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Cement	t	0.24			
	Sand	cum	1.05			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.2			
	<b>Total material and labour = (a+b)</b>					
(iv)	<b>RR Masonry in cement lime mortar (1:0.5:4.5)</b>					
	Unit = cum					
	<b>(a) Material</b>					
	<b>CR Stone</b>	cum	0.44			
	Stone for R.R. masonry	cum	0.5			
	Through bond stone (7 nos 0.24 x 0.24 x 0.39 = 0.16 cum)	Nos.	0.16			
	Cement lime mortar (Rate as in item 11.5 III)	cum	0.33			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	1.20			
	Mazdoor (Unskilled)	day	2.00			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>				18.00%	
	<b>Rate per cum = a+b+c+d</b>					
	<b>Note :</b> Quantity of required chips has not been provided for separately as it is assumed that the same will be available from dressing of stones					
7	<b>Supplying, fitting and placing HYSD bar reinforcement in foundation complete as per drawings and technical specifications Clauses 1000 and 1202 MORD &amp; 1100, 1600 MORTH for Bars below 36 mm dia including over laps and wastage, where they are not welded.</b>					
	Unit = t					
	<b>(a) Material</b>					
	HYSD bars including 5 per cent for overlaps and wastage	t	1.05			
	Binding wire	kg	6.00			
	<b>(b) Labour for cutting, bending, shifting to site, tying and placing in position</b>					
	Mate	day	-			
	Blacksmith	day	2.00			
	Mazdoor (Unskilled)	day	6.40			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>				18.00%	
	<b>Rate per t = a+b+c+d</b>					



S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>A</b> Supplying, fitting and placing HYSD bar reinforcement in foundation complete including wastage, as per drawings and technical specifications Clauses 1000 and 1202 MORD & 1100, 1600 MORTH for Bars 36 mm dia and above, where welding required to be done compulsorily.					
	Unit = t					
	<b>(a) Material</b>					
	HYSD bars including 2.5 per cent for wastage	t	1.025			
	Welding Electrodes @ 5 per joint (14 joints / ton)	each	70.000			
	Welding Charges (Hire charges of Welding Machine)	Hr	10.00			
	Binding wire	kg	6.00			
	<b>(b) Labour for cutting, bending, shifting to site, tying and placing in position</b>					
	Welder	day	2.50			
	Blacksmith	day	2.00			
	Mazdoor (Unskilled)	day	6.40			
	<b>(c) Overheads on (a+b)</b>					
	<b>(d) Contractor's profit on (a+b+c)</b>					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>				18.00%	
	<b>Rate per t = a+b+c+d</b>					
8	Supplying, fitting and placing TMT bar reinforcement in foundation complete as per drawings and technical specifications Clauses 1000 and 1202 MORD & 1100, 1600 MORTH for Bars below 36 mm dia including overlaps and wastage, where they are not welded.					
	Unit = t					
	<b>(a) Material</b>					
	TMT bars including 5 per cent for overlaps and wastage	t	1.05			
	Binding wire	kg	6.00			
	<b>(b) Labour for cutting, bending, shifting to site, tying and placing in position</b>					
	Mate	day	-			
	Blacksmith	day	2.00			
	Mazdoor (Unskilled)	day	6.40			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>				18.00%	
	<b>Rate per t = a+b+c+d</b>					
	<b>A</b> Supplying, fitting and placing TMT bar reinforcement in foundation complete including wastage, as per drawings and technical specifications Clauses 1000 and 1202 MORD & 1100, 1600 MORTH for Bars 36 mm dia and above, where welding required to be done compulsorily.					
	Unit = t					
	<b>(a) Material</b>					
	TMT bars including 2.5 per cent for wastage	t	1.025			
	Welding Electrodes @ 5 per joint (14 joints / ton)	each	70.000			
	Welding Charges (Hire charges of Welding Machine)	Hr	10.00			
	Binding wire	kg	6.00			
	<b>(b) Labour for cutting, bending, shifting to site, tying and placing in position</b>					
	Welder	day	2.50			
	Blacksmith	day	2.00			
	Mazdoor (Unskilled)	day	6.40			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>				18.00%	
	<b>Rate per t = a+b+c+d</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
9	<b>Supplying, fitting and placing MS bar reinforcement in foundation complete as per drawings and technical specifications Clauses 1000 and 1202 MORD &amp; 1100, 1600 MORTH for Bars below 36 mm dia including overlaps and wastage. where they are not welded.</b> Unit = t					
	<b>(a) Material</b>					
	MS bars including 5 per cent for overlaps and wastage	t	1.05			
	Binding wire	kg	6.00			
	<b>(b) Labour for cutting, bending, shifting to site, tying and placing in position</b>					
	Mate	day	-			
	Blacksmith	day	2.00			
	Mazdoor (Unskilled)	day	6.40			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per t = a+b+c+d</b>					
	<b>18.00%</b>					
	<b>WELL FOUNDATION</b>					
10	<b>Providing and Constructing Temporary Island 16 m diameter for Construction of Well Foundation for 8m dia. Well as per Tech. Specification 1203 MORTH.</b>					
	<b>A Assuming depth of water 1.0 m and height of island to be 1.25 m.</b>					
	<b>Unit = 1 No</b>					
	<b>Taking output = 1 No.</b>					
	<b>a) Material</b>					
	Earth (compacted)	cum	251.20			
	Sand bags	each	750.00			
	<b>b) Labour</b>					
	Mate	day	-			
	Mazdoor for filling sand bags, stitching and placing	day	15.40			
	<b>c) Machinery</b>					
	Crane with grab 1 cum capacity	hour	20.00			
	Consumables @ 2.5 per cent of (c) above					
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Rate per No. (a+b+c+d+e)</b>					
	<b>18.00%</b>					
	<b>Note :</b> It is assumed that earth will be available within the working space of crane with grab bucket.					
	<b>B Assuming depth of water 4.0 m and height of island 4.5 m.</b>					
	<b>Unit = 1No</b>					
	<b>Taking output = 1 No</b>					
	<b>a) Material</b>					
	Earth (compacted)	cum	904.32			
	Sand bags	each	6000.00			
	Wooden ballies 8" Dia and 9 m long	each	95.00			
	Wooden ballies 2" Dia for bracing	m	190.00			
	<b>b) Labour</b>					
	Mate	day	-			
	Mazdoor for piling 8" dia ballies for piling 8" dia ballies	day	23.60			
	Mazdoor for bracing with 2" dia ballies	day	12.00			
	Mazdoor for filling sand bags, stitching and placing	day	110.00			
	<b>c) Machinery</b>					
	Crane with grab 1 cum capacity	hour	50.00			
	Consumables and other arrangements for piling ballies @ 2.5 per cent of (a+b+c).					
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Rate per No. (a+b+c+d+e)</b>					
	<b>18.00%</b>					
	<b>Note :</b> For other well diameters rate can be worked out on the basis of cross-sectional area of well. The diameter of the island shall be in the conformity with clause 1203.2 of MoRTH specifications.					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>C Providing and constructing one span service road to reach island location from one pier location to another pier location as per Tech. Specification 1203 MORTH.</b>					
	Assuming span length 30 m, width of service road 10m and depth of water 1m					
	<b>Unit = 1 meter</b>					
	<b>Taking output = 30 metre</b>					
	<b>a) Material</b>					
	Earth	cum	450.00			
	Sand bags	each	300.00			
	<b>b) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled) for filling sand bags, stitching and placing	day	6.24			
	<b>c) Machinery</b>					
	Front end Loader 1 cum capacity	hour	27.00			
	Tipper 5.5 cum capacity	hour	28.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Cost for 30 m = (a+b+c+d+e)</b>					
	<b>Rate per m = (a+b+c+d+e)/30</b>					
11	<b>Providing and Laying Cutting Edge of Mild Steel weighing 40 kg per metre for Well Foundation complete as per Drawing and Technical Specification 1204, 1900 MORTH.</b>					
	<b>Unit = 1 MT</b>					
	<b>Taking output = 1 MT</b>					
	<b>a) Material</b>					
	Structural steel in plates, angles, etc including 5 per cent wastage	t	1.05			
	Nuts & bolts	Kg	20.00			
	<b>b) Labour</b>					
	(for cutting, bending, making holes, joining, welding and erecting in position)					
	Mate	day	-			
	Fitter	day	5.50			
	Blacksmith	day	5.50			
	Welder	day	5.50			
	Mazdoor (Unskilled)	day	17.82			
	Electrodes, cutting gas and other consumables @ 10 per cent of cost of (a) above					
	Handling loading and unloading on (a)					
	Hire charges of Welding machine on (a)					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per MT (a+b+c+d)</b>					
12	<b>Plain/Reinforced Cement Concrete, in Well Foundation complete as per Drawing and Technical Specification 1200, 1500 &amp; 1700 MORTH.</b>					
	<b>Unit = 1 cum</b>					
	<b>Taking output = 1 cum</b>					
	<b>A Well Curb</b>					
	<b>(i) RCC M20 Grade</b>					
	Same as per 4.C.(ii) Case I, except for formwork which shall be @ 20 per cent of the cost of concrete instead of 4 per cent.					
	<b>Case 1 : Using Concrete Mixer</b>					
	Per Cum Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d) formwork @ 20 per cent of the cost of concrete</b>					
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>					
	<b>Rate per m (a+b+c+d+e+f)</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>Case II : With Batching Plant, Transit Mixer and Concrete Pump as per 4.C.(ii) Case II</b>					
	Per Cum Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d) formwork @ 20 per cent of the cost of concrete</b>			<b>20.00%</b>		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate perm (a+b+c+d+e+f)</b>					
(ii)	<b>RCC M25 Grade</b>					
	Same as per 4.E except for formwork which shall be @ 20 per cent of the cost of concrete instead of 3.75 per cent.					
	<b>Case 1 : Using Concrete Mixer</b>					
	Per Cum Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d) formwork @ 20 per cent of the cost of concrete</b>			<b>20.00%</b>		
	<b>Water</b>					
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate perm (a+b+c+d+e+f)</b>					
	<b>Case II : With Batching Plant, Transit Mixer and Concrete Pump</b>					
	Per Cum Basic Cost of Labour, Material & Machinery (a+b+c) as in	cum	1.00			
	<b>d) formwork @ 20 per cent of the cost of concrete</b>			<b>20.00%</b>		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate perm (a+b+c+d+e+f)</b>					
(iii)	<b>RCC M35 Grade</b>					
	Same as for 4(H) except for formwork which shall be @ 20 per cent of the cost of concrete instead of 3.0 per cent.					
	<b>Case 1 : Using Concrete Mixer</b>					
	Per Cum Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d) formwork @ 20 per cent of the cost of concrete</b>			<b>20.00%</b>		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate perm (a+b+c+d+e+f)</b>					
	<b>Case II : With Batching Plant, Transit Mixer and Concrete Pump</b>					
	Per Cum Basic Cost of Labour, Material & Machinery (a+b+c) as in	cum	1.00			
	<b>d) formwork @ 20 per cent of the cost of concrete</b>			<b>20.00%</b>		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate perm (a+b+c+d+e+f)</b>					
	<b>Note : If curb concrete is carried out within steel liner, cost of formwork shall be excluded.</b>					
(B)	<b>Well staining</b>					
I	<b>PCC M15 Grade (Design Mix) using 40 mm Graded Metal</b>					
	Same as per 4 B(i) except for formwork which shall be @ 10 per cent of the cost of concrete instead of 4 per cent.					
	<b>Case 1 : Using Concrete Mixer</b>					
	Per Cum Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d) formwork @ 10 per cent of the cost of concrete</b>			<b>10.00%</b>		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate per m (a+b+c+d+e+f)</b>					
II	<b>PCC M20 Grade (Design Mix) using 40 mm Graded Metal</b>					
	Same as per 4 B(ii) except for formwork which shall be @ 10 per cent of the cost of concrete instead of 4 per cent.					
	<b>Case 1 : Using Concrete Mixer</b>					
	Per Cum Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d) formwork @ 10 per cent of the cost of concrete</b>			<b>10.00%</b>		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate per m (a+b+c+d+e+f)</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
III	<b>RCC M20 Grade (Design Mix) using 20 mm Graded Metal</b>					
	Same as per 4C (ii) except for formwork which shall be @ 10 per cent of the cost of concrete instead of 4 per cent.					
	<b>Case 1 : Using Concrete Mixer</b>					
	Per Cum Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d) formwork @ 10 per cent of the cost of concrete</b>			<b>10.00%</b>		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate perm (a+b+c+d+e+f)</b>					
	<b>Case II : With Batching Plant, Transit Mixer and Concrete Pump</b>					
	Per Cum Basic Cost of Labour, Material & Machinery (a+b+c) as per 4C (ii)	cum	1.00			
	<b>d) formwork @ 10 per cent of the cost of concrete</b>			<b>10.00%</b>		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate perm (a+b+c+d+e+f)</b>					
IV	<b>PCC M25 Grade Design Mix</b>					
	Same as per 4D except for formwork which shall be @ 10 per cent of the cost of concrete instead of 3.75%					
	<b>Case 1 : Using Concrete Mixer</b>					
	Per Cum Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d) formwork @ 10 per cent of the cost of concrete</b>			<b>10.00%</b>		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate perm (a+b+c+d+e+f)</b>					
	<b>Case II : With Batching Plant, Transit Mixer and Concrete Pump</b>					
	Per Cum Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d) formwork @ 10 per cent of the cost of concrete</b>			<b>10.00%</b>		
	<b>Water</b>					
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate perm (a+b+c+d+e+f)</b>					
V	<b>RCC M25 Grade Design Mix</b>					
	Same as per 4 E except for formwork which shall be @ 10 per cent of the cost of concrete instead of 3.75 %					
	<b>Case 1 : Using Concrete Mixer</b>					
	Per Cum Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d) formwork @ 10 per cent of the cost of concrete</b>			<b>10.00%</b>		
	<b>Water</b>					
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate perm (a+b+c+d+e+f)</b>					
	<b>Case II : With Batching Plant, Transit Mixer and Concrete Pump</b>					
	Per Cum Basic Cost of Labour, Material & Machinery (a+b+c) as in 4 E	cum	1.00			
	<b>d) formwork @ 10 per cent of the cost of concrete</b>			<b>10.00%</b>		
	<b>Water</b>					
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate perm (a+b+c+d+e+f)</b>					
VI	<b>PCC M30 Grade Design Mix</b>					
	Same as for 4 (F) except for formwork which shall be @ 10 per cent of the cost of concrete instead of 3.5 per cent.					
	<b>Case 1 : Using Concrete Mixer</b>					
	Per Cum Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d) formwork @ 10 per cent of the cost of concrete</b>			<b>10.00%</b>		
	<b>Water</b>					
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate perm (a+b+c+d+e+f)</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>Case II : With Batching Plant, Transit Mixer and Concrete Pump</b>					
	Per Cum Basic Cost of Labour, Material & Machinery (a+b+c) as in 4 F	cum	1.00			
	<b>d) formwork @ 10 per cent of the cost of concrete</b>			<b>10.00%</b>		
	<b>Water</b>					
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate perm (a+b+c+d+e+f)</b>					
VII	<b>RCC M30 Grade Design Mix</b>					
	Same as for 4(G) except for formwork which shall be @ 10 per cent of the cost of concrete instead of 3.5 per cent.					
	<b>Case 1 : Using Concrete Mixer</b>					
	Per Cum Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d) formwork @ 10 per cent of the cost of concrete</b>			<b>10.00%</b>		
	<b>Water</b>					
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate perm (a+b+c+d+e+f)</b>					
	<b>Case II : With Batching Plant, Transit Mixer and Concrete Pump</b>					
	Per Cum Basic Cost of Labour, Material & Machinery (a+b+c) as in 4G	cum	1.00			
	<b>d) formwork @ 10 per cent of the cost of concrete</b>			<b>10.00%</b>		
	<b>e) Overhead charges @ input on (a+b+c+d)</b>					
	<b>f) Contractor's profit @ input on (a+b+c+d+e)</b>					
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate perm (a+b+c+d+e+f)</b>					
VIII	<b>RCC M35 Grade</b>					
	Same as for 4 (H) except for formwork which shall be @ 10 per cent of the cost of concrete instead of 3 per cent.					
	<b>Case 1 : Using Concrete Mixer</b>					
	Per Cum Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d) formwork @ 10 per cent of the cost of concrete</b>			<b>10.00%</b>		
	<b>Water</b>					
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate perm (a+b+c+d+e+f)</b>					
	<b>Case II : With Batching Plant, Transit Mixer and Concrete Pump</b>					
	Per Cum Basic Cost of Labour, Material & Machinery (a+b+c) as in 4 H	cum	1.00			
	<b>d) formwork @ 10 per cent of the cost of concrete</b>			<b>10.00%</b>		
	<b>Water</b>					
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate perm (a+b+c+d+e+f)</b>					
IX	<b>RCC M40 Grade (Design Mix) using 20 mm Graded Metal Using Batching Plant, Transit Mixer and Concrete Pump</b>					
	<b>Unit = cum</b>					
	<b>Taking output = 120 cum</b>					
	<b>a) Material</b>					
	Cement	tonne	51.60			
	Coarse Sand	cum	54.00			
	20 mm Aggregate	cum	64.80			
	10 mm Aggregate	cum	43.20			
	Admixture	kg	206.00			
	<b>b) Labour</b>					
	Mate	day	-			
	Meson	day	3.00			
	Mazdoor (Unskilled)	day	18.84			
	<b>c) Machinery</b>					
	Batching Plant	hour	6.00			
	Generator 100 KVA	hour	6.00			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	Loader 1 cum capacity	hour	6.00			
	Transit Mixer 4 cum capacity for lead upto 1 km.	hour	15.00			
	Transit Mixer 4 cum capacity for lead beyond 1 km.	t.km	300xL			
	Concrete Pump	hour	6.00			
	<b>d) Formwork @ 10 per cent on cost of concrete i.e. cost of material, labour and machinery</b>		<b>10.00%</b>			
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	cost of 120 cum = a+b+c+d+e+f					
	<b>Rate per cum = (a+b+c+d+e+f)/120</b>					
(C)	<b>Bottom Plug</b>					
	Concrete to be placed using tremie pipe					
	<b>Note : 10% extra cement to be added where under water concreting is involved</b>					
(i)	<b>PCC Grade M20 Design Mix</b>					
	<b>Case 1 : Using Concrete Mixer</b>					
	<b>Unit = cum</b>					
	<b>Taking output = 15 cum</b>					
	<b>a) Material</b>					
	Cement	tonne	5.55			
	Coarse sand	cum	6.75			
	40 mm Aggregate	cum	5.40			
	20 mm Aggregate	cum	5.40			
	10 mm Aggregate	cum	2.70			
	Admixture	Kg	18.60			
	<b>b) Labour</b>					
	Mate	day	-			
	Mason	day	1.50			
	Mazdoor (Unskilled)	day	20.90			
	<b>c) Machinery</b>					
	Concrete mixer (cap. 0.40/0.28 cum)	hour	6.00			
	Generator 33 KVA	hour	6.00			
	Light Crane 3 tonnes capacity for handling tremie pipe	hour	6.00			
	Add 5 per cent of cost of material and labour towards cost of forming sump, protective bunds, chiselling and making arrangements for under water concreting with tremie pipe.					
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	cost of 15 cum = a+b+c+d+e					
	<b>Rate per cum = (a+b+c+d+e)/15</b>					
	<b>Case II : Using Batching Plant, Transit Mixer and Crane/concrete pump (PCC M20)</b>					
	<b>Unit ; cum</b>					
	<b>Taking Output = 120 cum</b>					
	<b>a) Material</b>					
	Cement	tonne	44.40			
	Coarse sand	cum	54.00			
	20 mm Aggregate	cum	64.80			
	10 mm Aggregate	cum	43.20			
	Admixture	Kg	148.80			
	<b>b) Labour</b>					
	Mate	day	-			
	Mason	day	3.00			
	Mazdoor (Unskilled)	day	18.88			
	<b>c) Machinery</b>					
	Batching Plant @ 20 cum/hour	hour	6.00			
	Generator 100 KVA	hour	6.00			
	Loader 1 cum capacity	hour	6.00			
	Transit Mixer 4 cum capacity for lead upto 1 km.	hour	15.00			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	Transit Mixer 4 cum capacity, lead beyond 1 Km, L - lead in Kilometer	t.km	300L			
	Concrete Pump	hour	6.00			
	Add 5 per cent of cost of material and labour towards cost of forming sump, protective bunds, chiselling and making arrangements for under water concreting with tremie pipe.					
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		18.00%			
	cost of 120 cum = a+b+c+d+e					
	<b>Rate per cum = (a+b+c+d+e)/120</b>					
(ii)	<b>PCC Grade M25 Design Mix</b>					
	<b>Case 1 : Using Concrete Mixer</b>					
	<b>Unit = cum</b>					
	<b>Taking output = 15 cum</b>					
	<b>a) Material</b>					
	Cement	tonne	5.99			
	Coarse sand	cum	6.75			
	40 mm Aggregate	cum	5.40			
	20 mm Aggregate	cum	5.40			
	10 mm Aggregate	cum	2.70			
	Admixture	Kg	21.60			
	<b>b) Labour</b>					
	Mate	day	-			
	Mason	day	1.50			
	Mazdoor (Unskilled)	day	20.90			
	<b>c) Machinery</b>					
	Concrete mixer (cap. 0.40/0.28 cum)	hour	6.00			
	Generator 33 KVA	hour	6.00			
	Light Crane of 3 tonnes capacity for handling tremie pipe	hour	6.00			
	Add 5 per cent of cost of material and labour towards cost of forming sump, protective bunds, chiselling and making arrangements for under water concreting with tremie pipe.					
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		18.00%			
	cost of 15 cum = a+b+c+d+e					
	<b>Rate per cum = (a+b+c+d+e)/15</b>					
	<b>Case II : Using Batching Plant, Transit Mixer and Crane/concrete pump (PCC M25)</b>					
	<b>Unit = cum</b>					
	<b>Taking output = 120 cum</b>					
	<b>a) Material</b>					
	Cement	tonne	47.88			
	Coarse sand	cum	54.00			
	40 mm Aggregate	cum	-			
	20 mm Aggregate	cum	64.80			
	10 mm Aggregate	cum	43.20			
	Admixture	Kg	172.80			
	<b>b) Labour</b>					
	Mate	day	-			
	Mason	day	3.00			
	Mazdoor (Unskilled)	day	18.88			
	<b>c) Machinery</b>					
	Batching Plant @ 20 cum/hour	hour	6.00			
	Generator 100 KVA	hour	6.00			
	Loader 1 cum capacity	hour	6.00			
	Transit Mixer 4 cum capacity for lead upto 1 km.	hour	15.00			
	Transit Mixer 4 cum capacity, lead beyond 1 Km, L - lead in Kilometer	tonne .km	300L			
	Concrete Pump	hour	6.00			



S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	Add 5 per cent of cost of material and labour towards cost of forming sump, protective bunds, chiselling and making arrangements for under water concreting with tremie pipe.					
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		18.00%			
	<b>cost of 120 cum = a+b+c+d+e</b>					
	<b>Rate per cum = (a+b+c+d+e)/120</b>					
(iii)	<b>PCC Grade M30 Design Mix</b>					
	<b>Case I : Using Concrete Mixer</b>					
	<b>Unit = 1 cum</b>					
	<b>Taking output = 15 cum</b>					
	<b>a) Material</b>					
	Cement	t	6.08			
	Coarse sand	cum	6.75			
	40 mm Aggregate	cum	5.40			
	20 mm Aggregate	cum	5.40			
	10 mm Aggregate	cum	2.70			
	Admixture	Kg	21.60			
	<b>b) Labour</b>					
	Mate	day	-			
	Mason	day	1.50			
	Mazdoor (Unskilled)	day	20.90			
	<b>c) Machinery</b>					
	Concrete mixer (cap. 0.40/0.28 cum)	hour	6.00			
	Generator 33 KVA	hour	6.00			
	Light Crane of 3 tonnes capacity for handling tremie pipe	hour	6.00			
	Add 5 per cent of cost of material and labour towards cost of forming sump, protective bunds, chiselling and making arrangements for under water concreting with tremie pipe.					
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		18.00%			
	<b>cost of 15 cum = a+b+c+d+e</b>					
	<b>Rate per cum = (a+b+c+d+e)/15</b>					
	<b>Case II : Using Batching Plant, Transit Mixer and Crane/concrete pump (PCC M30)</b>					
	<b>Unit = cum</b>					
	<b>Taking output = 120 cum</b>					
	<b>a) Material</b>					
	Cement	t	48.64			
	Coarse sand	cum	54.00			
	20 mm Aggregate	cum	64.80			
	10 mm Aggregate	cum	43.20			
	Admixture	Kg	172.80			
	<b>b) Labour</b>					
	Mate	day	-			
	Mason	day	3.00			
	Mazdoor (Unskilled)	day	18.88			
	<b>c) Machinery</b>					
	Batching Plant @ 20 cum/hour	hour	6.00			
	Generator 100 KVA	hour	6.00			
	Loader 1 cum capacity	hour	6.00			
	Transit Mixer 4 cum capacity for lead upto 1 km.	hour	15.00			
	Transit Mixer 4 cum capacity, lead beyond 1 Km, L - lead in Kilometer	tonne .km	300L			
	Concrete Pump	hour	6.00			
	Add 5 per cent of cost of material and labour towards cost of forming sump, protective bunds, chiselling and making arrangements for under water concreting with tremie pipe.					
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		18.00%			
	<b>cost of 120 cum = a+b+c+d+e</b>					
	<b>Rate per cum = (a+b+c+d+e)/120</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
(iv)	<b>PCC Grade M35 Design Mix</b>					
	<b>Case 1 : Using Concrete Mixer</b>					
	<b>Unit = 1 cum</b>					
	<b>Taking output = 15 cum</b>					
	<b>a) Material</b>					
	Cement	t	6.29			
	Coarse sand	cum	6.75			
	40 mm Aggregate	cum	5.40			
	20 mm Aggregate	cum	5.40			
	10 mm Aggregate	cum	2.70			
	Admixture	Kg	21.60			
	<b>b) Labour</b>					
	Mate	day	-			
	Mason	day	1.50			
	Mazdoor (Unskilled)	day	20.90			
	<b>c) Machinery</b>					
	Concrete mixer (cap. 0.40/0.28 cum)	hour	6.00			
	Generator 33 KVA	hour	6.00			
	Light Crane of 3 tonnes capacity for handling tremie pipe	hour	6.00			
	Add 5 per cent of cost of material and labour towards cost of forming sump, protective bunds, chiselling and making arrangements for under water concreting with tremie pipe.					
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>				18.00%	
	cost of 15 cum = a+b+c+d+e					
	<b>Rate per cum = (a+b+c+d+e)/15</b>					
	<b>Case II : Using Batching Plant, Transit Mixer and Crane/concrete pump (PCC M35)</b>					
	<b>Unit = cum</b>					
	<b>Taking output = 120 cum</b>					
	<b>a) Material</b>					
	Cement	t	50.28			
	Coarse sand	cum	54.00			
	20 mm Aggregate	cum	64.80			
	10 mm Aggregate	cum	43.20			
	Admixture	Kg	172.80			
	<b>b) Labour</b>					
	Mate	day				
	Mason	day	3.00			
	Mazdoor (Unskilled)	day	18.88			
	<b>c) Machinery</b>					
	Batching Plant @ 20 cum/hour	hour	6.00			
	Generator 100 KVA	hour	6.00			
	Loader 1 cum capacity	hour	6.00			
	Transit Mixer 4 cum capacity for lead upto 1 km.	hour	15.00			
	Transit Mixer 4 cum capacity, lead beyond 1 Km, L - lead in Kilometer	tonne .km	300L			
	Concrete Pump	hour	6.00			
	Add 5 per cent of cost of material and labour towards cost of forming sump, protective bunds, chiselling and making arrangements for under water concreting with tremie pipe.					
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>				18.00%	
	cost of 120 cum = a+b+c+d+e					
	<b>Rate per cum = (a+b+c+d+e)/120</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
(D)	<b>Intermediate plug</b>					
(i)	<b>Grade M20 PCC Design Mix</b>					
	Same as in bottom plug concrete, excluding cost of forming sump, protective bunds, chiseling etc.					
	<b>Case 1 : Using Concrete Mixer</b>					
	Per Cum Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate per cum = (a+b+c+d+e)</b>					
	<b>Case II : Using Batching Plant, Transit Mixer and Crane/concrete pump</b>					
	Per Cum Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate per cum = (a+b+c+d+e)</b>					
(ii)	<b>Grade M25 PCC Design Mix</b>					
	Same as in bottom plug concrete, excluding cost of forming sump, protective bunds, chiseling etc.					
	<b>Case 1 : Using Concrete Mixer</b>					
	Per Cum Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate per cum = (a+b+c+d+e)</b>					
	<b>Case II : Using Batching Plant, Transit Mixer and Crane/concrete pump</b>					
	Per Cum Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate per cum = (a+b+c+d+e)</b>					
(iii)	<b>Grade M30 PCC Design Mix</b>					
	Same as in bottom plug concrete, excluding cost of forming sump, protective bunds, chiseling etc.					
	<b>Case 1 : Using Concrete Mixer</b>					
	Per Cum Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate per cum = (a+b+c+d+e)</b>					
	<b>Case II : Using Batching Plant, Transit Mixer and Crane/concrete pump</b>					
	Per Cum Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate per cum = (a+b+c+d+e)</b>					
(E)	<b>Top plug</b>					
(i)	<b>Grade M15 PCC Design Mix</b>					
	Same as Item 4.B(i) excluding formwork					
	<b>Case 1 : Using Concrete Mixer</b>					
	Per Cum Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate per cum = (a+b+c+d+e)</b>					
(ii)	<b>Grade M20 PCC Design Mix</b>					
	Same as Item 4.B(ii) excluding formwork					
	<b>Case 1 : Using Concrete Mixer</b>					
	Per Cum Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate per cum = (a+b+c+d+e)</b>					
(iii)	<b>Grade M25 PCC Design Mix</b>					
	Same as Item 4(D) excluding formwork					
	<b>Case 1 : Using Concrete Mixer</b>					
	Per Cum Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate per cum = (a+b+c+d+e)</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>Case II : Using Batching Plant, Transit Mixer and Crane/concrete pump</b>					
	Per Cum Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate per cum = (a+b+c+d+e)</b>					
(iv)	<b>Grade M30 PCC Design Mix</b>					
	Same as Item 4(F) excluding formwork					
	<b>Case 1 : Using Concrete Mixer</b>					
	Per Cum Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate per cum = (a+b+c+d+e)</b>					
	<b>Case II : Using Batching Plant, Transit Mixer and Crane/concrete pump</b>					
	Per Cum Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate per cum = (a+b+c+d+e)</b>					
(F)	<b>Well cap</b>					
(i)	<b>RCC Grade M20 (Design Mix)</b>					
	<b>Case 1 : Using Concrete Mixer</b>					
	<b>Unit = cum</b>					
	<b>Taking output = 15 cum</b>					
	<b>a) Material</b>					
	Cement	t	5.12			
	Coarse sand	cum	6.75			
	20 mm Aggregate	cum	8.10			
	10 mm Aggregate	cum	5.40			
	<b>b) Labour</b>					
	Mate	day	-			
	Mason	day	1.50			
	Mazdoor (Unskilled)	day	20.86			
	<b>c) Machinery</b>					
	Concrete mixer (cap. 0.40/0.28 cum)	hour	6.00			
	Generator 33 KVA	hour	6.00			
	Form Work @ 4 per cent of a+b+c			<b>4.00%</b>		
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>cost of 15 cum = a+b+c+d+e</b>					
	<b>Rate per cum = (a+b+c+d+e)/15</b>					
	<b>Case II : Using Batching Plant, Transit Mixer and Concrete Pump (RCC M 20)</b>					
	<b>Unit = cum</b>					
	<b>Taking output = 120 cum</b>					
	<b>a) Material</b>					
	Cement	t	40.92			
	Coarse sand	cum	54.00			
	20 mm Aggregate	cum	64.80			
	10 mm Aggregate	cum	43.20			
	<b>b) Labour</b>					
	Mate	day	-			
	Mason	day	3.00			
	Mazdoor (Unskilled)	day	18.84			
	<b>c) Machinery</b>					
	Batching Plant @ 20 cum/hour	hour	6.00			
	Generator 100 KVA	hour	6.00			
	Loader (capacity 1 cum)	hour	6.00			
	Transit Mixer ( capacity 4.0 cu.m )					
	Transit Mixer 4 cum capacity for lead upto 1 km.	hour	15.00			
	Lead beyond 1 Km, L - lead in Kilometer	t.km	300L			
	Concrete Pump	hour	6.00			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	Formwork @ 4 per cent of (a+b+c)	cum	4.00%			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		18.00%			
	cost of 120 cum = a+b+c+d+e					
	<b>Rate per cum = (a+b+c+d+e)/120</b>					
(ii)	<b>RCC Grade M25 (Design Mix)</b>					
	<b>Case I : Using Concrete Mixer</b>					
	<b>Unit = cum</b>					
	<b>Taking output = 15 cum</b>					
	<b>a) Material</b>					
	Cement	t	6.05			
	Coarse sand	cum	6.75			
	20 mm Aggregate	cum	8.10			
	10 mm Aggregate	cum	5.40			
	<b>b) Labour</b>					
	Mate	day	-			
	Mason	day	1.50			
	Mazdoor (Unskilled)	day	20.86			
	<b>c) Machinery</b>					
	Concrete mixer (cap. 0.40/0.28 cum)	hour/cum	6.00			
	Generator 33 KVA	hour	6.00			
	Form Work of a+b+c		3.75%			
	<b>Centering Charges</b>	cum				
	Water					
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		18.00%			
	cost of 15 cum = a+b+c+d+e					
	<b>Rate per cum = (a+b+c+d+e)/15</b>					
	<b>Case II : Using Batching Plant, Transit Mixer and Concrete Pump (RCC M 25)</b>					
	<b>Unit = cum</b>					
	<b>Taking output = 120 cum</b>					
	<b>a) Material</b>					
	Cement	t	48.40			
	Coarse sand	cum	54.00			
	20 mm Aggregate	cum	64.80			
	10 mm Aggregate	cum	43.20			
	<b>b) Labour</b>					
	Mate	day	-			
	Mason	day	3.00			
	Mazdoor (Unskilled)	day	18.84			
	<b>c) Machinery</b>					
	Batching Plant @ 20 cum/hour	hour	6.00			
	Generator 100 KVA	hour	6.00			
	Loader (capacity 1 cum)	hour	6.00			
	Transit Mixer ( capacity 4.0 cu.m )					
	Transit Mixer 4 cum capacity for lead upto 1 km.	hour	15.00			
	Lead beyond 1 Km, L - lead in Kilometer	t.km	300L			
	Concrete Pump	hour	6.00			
	Formwork @ 3.75 per cent of ( a+b+c)	cum	3.75%			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		18.00%			
	cost of 120 cum = a+b+c+d+e					
	<b>Rate per cum = (a+b+c+d+e)/120</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
(iii)	<b>RCC Grade M30 (Design Mix)</b>					
	<b>Case 1 : Using Concrete Mixer</b>					
	<b>Unit = cum</b>					
	<b>Taking output = 15 cum</b>					
	<b>a) Material</b>					
	Cement	t	6.10			
	Coarse sand	cum	6.75			
	20 mm Aggregate	cum	8.10			
	10 mm Aggregate	cum	5.40			
	<b>b) Labour</b>					
	Mate	day	-			
	Mason	day	1.50			
	Mazdoor (Unskilled)	day	20.86			
	<b>c) Machinery</b>					
	Concrete mixer (cap. 0.40/0.28 cum)	hour	6.00			
	Generator 33 KVA	hour	6.00			
	Formwork @ 3.5 per cent of (a+b+c)	cum	3.50%			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		18.00%			
	cost of 15 cum = a+b+c+d+e					
	<b>Rate per cum = (a+b+c+d+e)/15</b>					
	<b>Case II : Using Batching Plant, Transit Mixer and Concrete Pump (RCC M 30)</b>					
	<b>Unit = cum</b>					
	<b>Taking output = 120 cum</b>					
	<b>a) Material</b>					
	Cement	t	48.79			
	Coarse sand	cum	54.00			
	20 mm Aggregate	cum	64.80			
	10 mm Aggregate	cum	43.20			
	<b>b) Labour</b>					
	Mate	day	-			
	Mason	day	3.00			
	Mazdoor (Unskilled)	day	18.84			
	<b>c) Machinery</b>					
	Batching Plant @ 20 cum/hour	hour	6.00			
	Generator 100 KVA	hour	6.00			
	Loader (capacity 1 cum)	hour	6.00			
	Transit Mixer ( capacity 4.0 cu.m )					
	Transit Mixer 4 cum capacity for lead upto 1 km.	hour	15.00			
	Lead beyond 1 Km, L - lead in Kilometer	t.km	300L			
	Concrete Pump	hour	6.00			
	Formwork @ 3.5 per cent of (a+b+c)	cum	3.50%			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		18.00%			
	cost of 120 cum = a+b+c+d+e					
	<b>Rate per cum = (a+b+c+d+e)/120</b>					
(iv)	<b>RCC Grade M35 (Design Mix)</b>					
	<b>Case 1 : Using Concrete Mixer</b>					
	<b>Unit = cum</b>					
	<b>Taking output = 15 cum</b>					
	<b>a) Material</b>					
	Cement	t	6.33			
	Coarse sand	cum	6.75			
	40 mm Aggregate	cum	8.10			
	20 mm Aggregate	cum	5.40			
	<b>b) Labour</b>					
	Mate	day	-			
	Mason	day	1.50			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	Mazdoor (Unskilled)	day	20.86			
	<b>c) Machinery</b>					
	Concrete mixer (cap. 0.40/0.28 cum)	hour	6.00			
	Generator 33 KVA	hour	6.00			
	Formwork @ 3 per cent of (a+b+c)	cum	3.00%			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		18.00%			
	cost of 15 cum = a+b+c+d+e					
	<b>Rate per cum = (a+b+c+d+e)/15</b>					
	<b>Case II : Using Batching Plant, Transit Mixer and Concrete Pump (RCC M 35)</b>					
	<b>Unit = cum</b>					
	<b>Taking output = 120 cum</b>					
	<b>a) Material</b>					
	Cement	t	50.64			
	Coarse sand	cum	54.00			
	20 mm Aggregate	cum	64.80			
	10 mm Aggregate	cum	43.20			
	<b>b) Labour</b>					
	Mate	day	-			
	Mason	day	3.00			
	Mazdoor (Unskilled)	day	18.84			
	<b>c) Machinery</b>					
	Batching Plant @ 20 cum/hour	hour	6.00			
	Generator 100 KVA	hour	6.00			
	Loader (capacity 1 cum)	hour	6.00			
	Transit Mixer ( capacity 4.0 cu.m ) :					
	Transit Mixer 4 cum capacity for lead upto 1 km.	hour	15.00			
	Lead beyond 1 Km, L - lead in Kilometer	t.km	300L			
	Concrete Pump	hour	6.00			
	Formwork of (a+b+c)	cum	3.00%			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		18.00%			
	cost of 120 cum = a+b+c+d+e					
	<b>Rate per cum = (a+b+c+d+e)/120</b>					
	<b>Note :</b> Where ever concrete is carried out using batching plant, transit mixer, concrete pump, Admixtures @ 0.4 per cent of weight of cement may be added for achieving desired slump of concrete.					
(v)	<b>RCC M40 Grade (Design Mix)</b>					
	<b>Using Batching Plant, Transit Mixer and Concrete Pump</b>					
	<b>Unit = cum</b>					
	<b>Taking output = 120 cum</b>					
	<b>a) Material</b>					
	Cement	t	52.20			
	Coarse Sand	cum	54.00			
	20 mm Aggregate	cum	64.80			
	10 mm Aggregate	cum	43.20			
	Admixture	kg	206.00			
	<b>b) Labour</b>					
	Mate	day	-			
	Mason	day	3.00			
	Mazdoor (Unskilled)	day	18.84			
	<b>c) Machinery</b>					
	Batching Plant	hour	6.00			
	Generator 100 KVA	hour	6.00			
	Loader 1 cum capacity	hour	6.00			
	Transit Mixer 4 cum capacity for lead upto 1 km.	hour	15.00			
	Transit Mixer 4 cum capacity for lead beyond 1 km.	t.km	300.L			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	Concrete Pump	hour	6.00			
	Formwork on cost of concrete i.e. cost of material, labour and machinery	cum	3.00%			
	<b>d) Overhead charges @ input on (a+b+c)</b>					
	<b>e) Contractor's profit @ input on (a+b+c+d)</b>					
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		18.00%			
	cost of 120 cum = a+b+c+d+e					
	<b>Rate per cum = (a+b+c+d+e)/120</b>					
13	<b>Sinking of 6 m external diameter well (other than pneumatic method of sinking) through all types of strata namely sandy soil, clayey soil and rock as shown against each case, complete as per drawing and technical specifications 1207 MORTH. Depth of sinking is reckoned from bed level.</b>					
	<b>Note : To arrive proportionate quantities keeping the cross sectional area &amp; depth (22/7xd2xh) for lesser diameter wells than 6m</b>					
	<b>Unit = Running Meter.</b>					
	<b>Taking output = 1 m</b>					
	<b>Diameter of well - 6 m.</b>					
	<b>(A) Sandy Soil</b>					
	<b>(i) Depth below bed level upto 3.0 M</b>					
	Rate of sinking = 0.50 m per hour.					
	<b>a) Labour</b>					
	Mate	day	-			
	Sinker ( skilled )	day	1.00			
	Sinking helper ( semi-skilled )	day	2.12			
	<b>b) Machinery</b>					
	Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories.	hour	2.00			
	Consumables in sinking @10 per cent of (b)			10.00%		
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per metre = (a+b+c+d)</b>					
	<b>(ii) Beyond 3m upto 10m depth</b>					
	Rate of sinking = 0.33 m per hour.					
	<b>a) Labour</b>					
	Mate	day	-			
	Sinker	day	1.25			
	Sinking helper ( semi-skilled )	day	2.65			
	<b>b) Machinery</b>					
	Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories	hour	3.00			
	Consumables in sinking @10 per cent of (b)			10.00%		
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per metre = (a+b+c+d)</b>					
	<b>(iii) Beyond 10m upto 20m</b>					
	a. Add 5 per cent for every additional meter depth of sinking over the rate of sinking for the previous meter					
	<b>(iv) Beyond 20m upto 30 m</b>					
	a. Add 7.5 per cent for every additional meter depth of sinking over the rate of sinking for the previous meter					
	b. Add 20 per cent of cost for Kentledge including supports, loading arrangement and Labour.					
	<b>(v) Beyond 30m upto 40 m</b>					
	a. Add 10 per cent for every additional meter depth of sinking over the rate of sinking for the previous meter					
	b. Add 20 per cent of cost for Kentledge including supports, loading arrangement and Labour.					



S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
(B)	<b>Clayey Soil ( 6m dia. Well )</b>					
	<b>Unit = Running Meter.</b>					
	<b>Taking output = 1 meter</b>					
(i)	<b>Depth below bed level upto 3.0 M</b>					
	Rate of sinking = 0.33 m per hour.					
	<b>a) Labour</b>					
	Mate	day	-			
	Sinker ( skilled )	day	1.50			
	Sinking helper ( semi-skilled )	day	2.40			
	<b>b) Machinery</b>					
	Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories	hour	3.00			
	Consumables in sinking @ 10 per cent of (b)			10.00%		
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per metre = (a+b+c+d)</b>					
(ii)	<b>Beyond 3m upto 10m depth</b>					
	Rate of sinking = 0.17 m per hour.					
	<b>a) Labour</b>					
	Mate	day	-			
	Sinker	day	3.00			
	Sinking helper ( semi-skilled )	day	4.80			
	<b>b) Machinery</b>					
	Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories.	hour	6.00			
	Air compressor with pneumatic chisel attachment for cutting hard clay.	hour	2.00			
	Consumables in sinking @ 10 per cent of (b)			10.00%		
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per metre = (a+b+c+d)</b>					
(iii)	<b>Beyond 10 m upto 20 m</b>					
	Add 5 per cent for every additional meter depth of sinking over the rate of sinking for the previous meter					
	Add for dewatering @ 5 per cent of cost, if required.					
(iv)	<b>Beyond 20m upto 30 m</b>					
	Add 7.5 per cent for every additional meter depth of sinking over the rate of sinking for the previous meter					
	Add 5 per cent of cost for dewatering of the cost, if required					
	Add 25 per cent of cost for Kentledge including supports, loading arrangement and Labour ).					
(v)	<b>Beyond 30m upto 40 m</b>					
	Add 10 per cent for every additional meter depth of sinking over the rate of sinking for the previous meter					
	Add 5 per cent of cost for dewatering, if required					
	Add 20 per cent of cost for Kentledge including supports, loading arrangement and Labour).					
(C)	<b>Soft Rock (6m dia well )</b>					
	<b>Unit = Running Meter.</b>					
	<b>Taking output = 1 m</b>					
	<b>Depth in Soft rock strata up to 3m</b>					
	Rate of sinking = 0.25 m per hour.					
	<b>a) Labour</b>					
	Mate	day	-			
	Sinker ( skilled )	day	3.00			
	Sinking helper ( semi-skilled )	day	20.92			
	Diver	day	0.50			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>b) Machinery</b>					
	Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories.	hour	4.00			
	Air compressor with pneumatic breakers	hour	3.50			
	Consumables in sinking @ 10 per cent of (b)		10.00%			
	Add for dewatering @ of 5 per cent of (a+b), if required					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		18.00%			
	<b>Rate per metre = (a+b+c+d)</b>					
(D)	<b>Hard Rock (6m dia well )</b>					
	<b>Unit = Running Meter</b>					
	<b>Taking output = 1 m</b>					
	<b>Depth in hard rock strata upto 3 m</b>					
	Rate of sinking = 0.17 m per hour.					
	<b>a) Material</b>					
	Gelatine 80 per cent	Kg	4.00			
	Electric Detonators	each	18.00			
	<b>b) Labour</b>					
	Mate	day	-			
	Driller	day	2.00			
	Blaster	day	0.25			
	Mazdoor (Unskilled)	day	13.56			
	Mazdoor (Skilled)	day	4.00			
	<b>c) Machinery</b>					
	Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories.	hour	6.00			
	Hire & running charges of compressor with pneumatic breaker/Jack hammer for drilling.	hour	2.00			
	Dewatering @ 5 per cent of cost of (b+c), if required.					
	Consumables in sinking @ 10 per cent of cost of (b).		10.00%			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		18.00%			
	<b>Rate per metre = (a+b+c+d+e)</b>					
14	<b>Sinking of 7 m external diameter well (other than pneumatic method of sinking) through all types of strata namely sandy soil, clayey soil and rock as shown against each case, complete as per drawing and technical specifications 1207 MORTH. Depth of sinking is reckoned from bed level.</b>					
	<b>Unit = Running Meter.</b>					
	<b>Taking output = 1 m</b>					
	<b>Diameter of well - 7 m.</b>					
(A)	<b>Sandy Soil</b>					
(i)	<b>Depth below bed level upto 3.0 M</b>					
	Rate of sinking = 0.30 m per hour.					
	<b>a) Labour</b>					
	Mate	day	-			
	Sinker ( skilled )	day	1.25			
	Sinking helper ( semi-skilled )	day	2.65			
	<b>b) Machinery</b>					
	Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories.	hour	3.25			
	Consumables in sinking @10 per cent of (b)		10.00%			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		18.00%			
	<b>Rate per metre = (a+b+c+d)</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
(ii)	<b>Beyond 3m upto 10m depth</b>					
	Rate of sinking = 0.22 m per hour.					
	<b>a) Labour</b>					
	Mate	day	-			
	Sinker	day	1.50			
	Sinking helper ( semi-skilled )	day	3.18			
	<b>b) Machinery</b>					
	Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories.	hour	4.50			
	Consumables in sinking @ 10 per cent of (b)			10.00%		
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per metre = (a+b+c+d)</b>					
(iii)	<b>Beyond 10m upto 20m</b>					
	a. Add 5 per cent for every additional meter depth of sinking over the rate of sinking for the previous meter					
(iv)	<b>Beyond 20m upto 30 m</b>					
	a. Add 7.5 per cent for every additional meter depth of sinking over the rate of sinking for the previous meter					
	b. Add 20 per cent of cost for Kentledge including supports, loading arrangement and Labour).					
(v)	<b>Beyond 30m upto 40 m</b>					
	a. Add 10 per cent for every additional meter depth of sinking over the rate of sinking for the previous meter					
	b. Add 20 per cent of cost for Kentledge including supports, loading arrangement, and Labour etc.					
(B)	<b>Clayey Soil ( 7m dia. Well )</b>					
	<b>Unit = Running Meter.</b>					
	<b>Taking output = 1 cum</b>					
(i)	<b>Depth below bed level upto 3.0 M</b>					
	Rate of sinking = 0.22 m per hour.					
	<b>a) Labour</b>					
	Mate	day	-			
	Sinker ( skilled )	day	1.50			
	Sinking helper ( semi-skilled )	day	3.18			
	<b>b) Machinery</b>					
	Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories.	hour	4.50			
	Consumables in sinking @ 10 per cent of (b)			10.00%		
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per metre = (a+b+c+d)</b>					
(ii)	<b>Beyond 3m upto 10m depth</b>					
	Rate of sinking = 0.17 m per hour.					
	<b>a) Labour</b>					
	Mate	day	-			
	Sinker	day	2.00			
	Sinking helper ( semi-skilled )	day	4.26			
	<b>b) Machinery</b>					
	Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories.	hour	6.00			
	Air compressor with pneumatic chisel attachment for cutting hard clay.	hour	3.25			
	Consumables in sinking @ 10 per cent of (b)			10.00%		
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per metre = (a+b+c+d)</b>					
(iii)	<b>Beyond 10 m upto 20 m</b>					
	a. Add 5 per cent for every additional meter depth of sinking over the rate of sinking for the previous meter					
	b. Add for dewatering @ 5 per cent of cost, if required.					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
(iv)	<b>Beyond 20m upto 30 m</b>					
	a. Add 7.5 per cent for every additional meter depth of sinking over the rate of sinking for the previous meter					
	b. Add 5 per cent of cost for dewatering on the cost, if					
	c. Add 25 per cent of cost for Kentledge including supports, loading arrangement and Labour ).					
(v)	<b>Beyond 30m upto 40 m</b>					
	a. Add 10 per cent for every additional meter depth of sinking over the rate of sinking for the previous meter					
	b. Add 5 per cent of cost for dewatering, if required					
	c. Add 20 per cent of cost for Kentledge including supports, loading arrangement and Labour).					
(C)	<b>Soft Rock ( 7m dia well )</b>					
	<b>Unit = Running Meter.</b>					
	<b>Taking output = 1 m</b>					
	<b>Depth in soft rock strata upto 3m</b>					
	Rate of sinking = 0.22 m per hour.					
	<b>a) Labour</b>					
	Mate	day	-			
	Sinker ( skilled )	day	4.00			
	Sinking helper ( semi-skilled )	day	10.58			
	Diver	day	0.75			
	<b>b) Machinery</b>					
	Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories.	hour	4.50			
	Air compressor with pneumatic breakers	hour	3.75			
	Consumables in sinking @ 10 per cent of (b)		<b>10.00%</b>			
	Add for dewatering @ of 5 per cent of (a+b), if required					
	<b>c) Overhead charges @ input on (a+b)</b>					
	<b>d) Contractor's profit @ input on (a+b+c)</b>					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate per metre = (a+b+c+d)</b>					
(D)	<b>Hard Rock ( 7m dia well )</b>					
	<b>Unit = Running Meter</b>					
	<b>Taking output = 1 m</b>					
	<b>Depth in Hard rock strata up to 3 m</b>					
	Rate of sinking = 0.17 m per hour.					
	<b>a) Material</b>					
	Gelatine 80 per cent	Kg	7.00			
	Electric Detonators	each	30.00			
	<b>b) Labour</b>					
	Mate	day	-			
	Driller	day	2.00			
	Blaster	day	0.25			
	Mazdoor (Unskilled)	day	19.60			
	Mazdoor (Skilled)	day	4.00			
	Diver	day	0.50			
	<b>c) Machinery</b>					
	Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories.	hour	6.00			
	Hire & running charges of compressor with pneumatic breaker/Jack hammer for drilling.	hour	2.00			
	Dewatering @ 5 per cent of cost of (b+c), if required.					
	Consumables in sinking @ 10 per cent of cost of (b).		<b>10.00%</b>			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate per metre = (a+b+c+d+e)</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
15	<b>Sinking of 8 m external diameter well (other than pneumatic method of sinking ) through all types of strata namely sandy soil, clayey soil and rock as shown against each case, complete as per drawing and technical specifications 1207 MORTH. Depth of sinking is reckoned from bed level.</b>					
	<b>Unit = Running Meter.</b>					
	<b>Taking output = 1 m</b>					
	<b>Diameter of well - 8 m.</b>					
	<b>A Sandy Soil</b>					
	<b>(i) Depth below bed level upto 3.0 M</b>					
	Rate of sinking @ 0.25 m/hour					
	<b>a) Labour</b>					
	Mate	day	-			
	Sinker ( skilled )	day	1.50			
	Sinking helper ( semi-skilled )	day	3.18			
	<b>b) Machinery</b>					
	Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories.	hour	4.00			
	Consumables in sinking @10 per cent of (b)		10.00%			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		18.00%			
	<b>Rate per metre = (a+b+c+d)</b>					
	<b>(ii) Beyond 3m upto 10m depth</b>					
	Rate of sinking @ 0.20 m/hour					
	<b>a) Labour</b>					
	Mate	day	-			
	Sinker	day	1.75			
	Sinking helper ( semi-skilled )	day	3.75			
	<b>b) Machinery</b>					
	Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories.	hour	5.00			
	Consumables in sinking @10 per cent of (b)		10.00%			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		18.00%			
	<b>Rate per metre = (a+b+c+d)</b>					
	<b>(iii) Beyond 10m upto 20m</b>					
	Add 5 per cent for every additional meter depth of sinking over the rate of sinking for the previous meter					
	<b>(iv) Beyond 20m upto 30 m</b>					
	<b>a.</b> Add 7.5 per cent for every additional meter depth of sinking over the rate of sinking for the previous meter					
	<b>b.</b> Add 20 per cent of cost for Kentledge including supports, loading arrangement and Labour.					
	<b>(v) Beyond 30m upto 40 m</b>					
	<b>a.</b> Add 10 per cent for every additional meter depth of sinking over the rate of sinking for the previous meter					
	<b>b.</b> Add 20 per cent of cost for Kentledge including supports, loading arrangement, and Labour etc.					
	<b>B Clayey Soil ( 8m dia. Well )</b>					
	<b>Unit = Running Meter.</b>					
	<b>Taking output = 1 meter</b>					
	<b>(i) Depth from bed level upto 3.0 M</b>					
	Rate of sinking @ 0.18 m/hour					
	<b>a) Labour</b>					
	Mate	day	-			
	Sinker ( skilled )	day	2.00			
	Sinking helper ( semi-skilled )	hour	3.72			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>b) Machinery</b>					
	Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories.	hour	5.50			
	Consumables in sinking @ 10 per cent of (b)		10.00%			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		18.00%			
	<b>Rate per metre = (a+b+c+d)</b>					
(ii)	<b>Beyond 3m upto 10m depth</b>					
	Rate of sinking @ 0.17 m/hour					
	<b>a) Labour</b>					
	Mate	day	-			
	Sinker	day	2.50			
	Sinking helper ( semi-skilled )	day	4.82			
	<b>b) Machinery</b>					
	Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories.	hour	6.00			
	Air compressor with pneumatic chisel attachment for cutting hard clay.	hour	3.50			
	Consumables in sinking @ 10 per cent of (b)		10.00%			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		18.00%			
	<b>Rate per metre = (a+b+c+d)</b>					
(iii)	<b>Beyond 10 m upto 20 m</b>					
	a. Add 5 per cent for every additional meter depth of sinking over the rate of sinking for the previous meter					
	b. Add for dewatering @ 5 per cent of cost, if required.					
(iv)	<b>Beyond 20m upto 30 m</b>					
	a. Add 7.5 per cent for every additional meter depth of sinking over the rate of sinking for the previous meter					
	b. Add 5 per cent of cost for dewatering on the cost, if					
	c. Add 25 per cent of cost for Kentledge including supports, loading arrangement and Labour ).					
(v)	<b>Beyond 30m upto 40 m</b>					
	a. Add 10 per cent for every additional meter depth of sinking over the rate of sinking for the previous meter					
	b. Add 5 per cent of cost for dewatering, if required					
	c. Add 20 per cent of cost for Kentledge including supports, loading arrangement and Labour).					
C	<b>Soft Rock ( 8m dia well )</b>					
	<b>Unit = Running Meter.</b>					
	<b>Taking output = 1 m</b>					
	<b>Depth in soft rock strata upto 3m</b>					
	Rate of sinking @ 0.20 m/hour					
	<b>a) Labour</b>					
	Mate	day	-			
	Sinker ( skilled )	day	4.00			
	Sinking helper ( semi-skilled )	day	12.68			
	Diver	day	1.00			
	<b>b) Machinery</b>					
	Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories.	hour	5.00			
	Air compressor with pneumatic breakers	hour	3.75			
	Consumables in sinking @ 10 per cent of (b)		10.00%			
	Add for dewatering @ of 5 per cent of (a+b), if required					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		18.00%			
	<b>Rate per metre = (a+b+c+d)</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>D Hard Rock ( 8m dia well )</b>					
	<b>Unit = Running Meter</b>					
	<b>Taking output = 1 m</b>					
	<b>Depth in hard rock strata upto 3 m</b>					
	Rate of sinking @ 0.17 m/hour					
	<b>a) Material</b>					
	Gelatine 80 per cent	Kg	8.00			
	Electric Detonators	each	32.00			
	<b>b) Labour</b>					
	Mate	day	-			
	Driller	day	2.00			
	Blaster	day	0.25			
	Mazdoor (Unskilled)	day	21.09			
	Mazdoor (Skilled)	day	4.00			
	<b>c) Machinery</b>					
	Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories.	hour	6.00			
	Hire & running charges of compressor with pneumatic breaker/Jack hammer for drilling.	hour	2.00			
	Dewatering @ 5 per cent of cost of (b+c), if required.					
	Consumables in sinking @ 10 per cent of cost of (b).			10.00%		
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per metre = (a+b+c+d+e)</b>					
16	<b>Sinking of 9 m external diameter well ( other than pneumatic method of sinking ) through all types of strata namely sandy soil, clayey soil and rock as shown against each case, complete as per drawing and technical specifications 1207 MORTH. Depth of sinking is reckoned from bed level.</b>					
	<b>Unit = Running Meter.</b>					
	<b>Taking output = 1 m</b>					
	<b>Diameter of well - 9 m.</b>					
	<b>A Sandy Soil</b>					
	<b>(i) Depth below bed level upto 3.0 M</b>					
	Rate of sinking @ 0.25 m/hour					
	<b>a) Labour</b>					
	Mate	day	-			
	Sinker ( skilled )	day	1.50			
	Sinking helper ( semi-skilled )	day	3.44			
	<b>b) Machinery</b>					
	Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories.	hour	4.00			
	Consumables in sinking @10 per cent of (b)			10.00%		
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per metre = (a+b+c+d)</b>					
	<b>(ii) Beyond 3m upto 10m depth</b>					
	Rate of sinking @ 0.18 m/hour					
	<b>a) Labour</b>					
	Mate	day	-			
	Sinker	day	1.75			
	Sinking helper ( semi-skilled )	day	4.27			
	<b>b) Machinery</b>					
	Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories.	hour	5.50			
	Consumables in sinking @10 per cent of (b)			10.00%		
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per metre = (a+b+c+d)</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>(iii) Beyond 10m upto 20m</b>					
	a. Add 5 per cent for every additional meter depth of sinking over the rate of sinking for the previous meter					
	<b>(iv) Beyond 20m upto 30 m</b>					
	a. Add 7.5 per cent for every additional meter depth of sinking over the rate of sinking for the previous meter					
	b. Add 20 per cent of cost for Kentledge including supports, loading arrangement and Labour.					
	<b>(v) Beyond 30m upto 40 m</b>					
	a. Add 10 per cent for every additional meter depth of sinking over the rate of sinking for the previous meter					
	b. Add 20 per cent of cost for Kentledge including supports, loading arrangement, and Labour etc.					
	<b>B Clayey Soil ( 9m dia. Well )</b>					
	<b>Unit = Running Meter.</b>					
	<b>Taking output = 1 cum</b>					
	<b>(i) Depth below bed level upto 3.0 M</b>					
	Rate of sinking 0.17 m / hour					
	<b>a) Labour</b>					
	Mate	day	-			
	Sinker ( skilled )	day	2.25			
	Sinking helper ( semi-skilled )	day	3.99			
	<b>b) Machinery</b>					
	Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories.	hour	5.75			
	Consumables in sinking @ 10 per cent of (b)		10.00%			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		18.00%			
	<b>Rate per metre = (a+b+c+d)</b>					
	<b>(ii) Beyond 3m upto 10m depth</b>					
	Rate of sinking 0.15 m / hour					
	<b>a) Labour</b>					
	Mate	day	-			
	Sinker	day	2.50			
	Sinking helper ( semi-skilled )	day	5.34			
	<b>b) Machinery</b>					
	Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories.	hour	6.50			
	Air compressor with pneumatic chisel attachment for cutting hard clay.	hour	3.75			
	Consumables in sinking @ 10 per cent of (b)		10.00%			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		18.00%			
	<b>Rate per metre = (a+b+c+d)</b>					
	<b>(iii) Beyond 10 m upto 20 m</b>					
	a. Add 5 per cent for every additional meter depth of sinking over the rate of sinking for the previous meter					
	b. Add for dewatering @ 5 per cent of cost, if required.					
	<b>(iv) Beyond 20m upto 30 m</b>					
	a. Add 7.5 per cent for every additional meter depth of sinking over the rate of sinking for the previous meter					
	b. Add 5 per cent of cost for dewatering on the cost, if					
	c. Add 25 per cent of cost for Kentledge including supports, loading arrangement and Labour ).					
	<b>(v) Beyond 30m upto 40 m</b>					
	a. Add 10 per cent for every additional meter depth of sinking over the rate of sinking for the previous meter					
	b. Add 5 per cent of cost for dewatering, if required					
	c. Add 20 per cent of cost for Kentledge including supports, loading arrangement and Labour).					



S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
C	<b>Soft Rock ( 9m dia well )</b>					
	<b>Unit = Running Meter.</b>					
	<b>Taking output = 1 m</b>					
	<b>Depth in soft rock strata up to 3m</b>					
	Rate of sinking 0.15 m / hour					
	<b>a) Labour</b>					
	Mate	day	-			
	Sinker ( skilled )	day	4.00			
	Sinking helper ( semi-skilled )	day	14.76			
	Diver	day	1.20			
	<b>b) Machinery</b>					
	Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories.	hour	6.50			
	Air compressor with pneumatic breakers	hour	4.00			
	Consumables in sinking @ 10 per cent of (b)			10.00%		
	Add for dewatering @ of 5 per cent of (a+b), if required					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per metre = (a+b+c+d)</b>					
D	<b>Hard Rock ( 9m dia well )</b>					
	<b>Unit = Running Meter</b>					
	<b>Taking output = 1 m</b>					
	<b>Depth in hard rock strata upto 3 m</b>					
	Rate of sinking 0.15 m / hour					
	<b>a) Material</b>					
	Gelatine 80 per cent	Kg	10.00			
	Electric Detonators	each	40.00			
	<b>b) Labour</b>					
	Mate	day	-			
	Driller	day	2.00			
	Blaster	day	0.25			
	Mazdoor (Unskilled)	day	23.17			
	Mazdoor (Skilled)	day	4.00			
	Diver	day	1.00			
	<b>c) Machinery</b>					
	Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories.	hour	7.00			
	Hire & running charges of compressor with pneumatic breaker/Jack hammer for drilling.	hour	2.50			
	Dewatering @ 5 per cent of cost of (b+c), if required.					
	Consumables in sinking @ 10 per cent of cost of (c).			10.00%		
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per metre = (a+b+c+d+e)</b>					
17	<b>Sinking of 10 m external diameter well (other than pneumatic method of sinking) through all types of strata namely sandy soil, clayey soil and rock as shown against each case, complete as per drawing and technical specifications 1207 MORTH. Depth of sinking is reckoned from bed level.</b>					
	<b>Unit = Running Meter</b>					
	<b>Taking output = 1 m</b>					
	Diameter of well - 10 m.					
A	<b>Sandy Soil</b>					
(i)	<b>Depth below bed level upto 3.0 M</b>					
	Rate of sinking 0.20 m / hour					
	<b>a) Labour</b>					
	Mate	day	-			
	Sinker ( skilled )	day	1.50			
	Sinking helper ( semi-skilled )	day	3.70			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>b) Machinery</b>					
	Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories.	hour	5.00			
	Consumables in sinking @10 per cent of (b)		10.00%			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		18.00%			
	<b>Rate per metre = (a+b+c+d)</b>					
(ii)	<b>Beyond 3m upto 10m depth</b>					
	Rate of sinking 0.17 m / hour					
	<b>a) Labour</b>					
	Mate	day	-			
	Sinker	day	2.00			
	Sinking helper ( semi-skilled )	day	4.56			
	<b>b) Machinery</b>					
	Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories.	hour	5.75			
	Consumables in sinking @10 per cent of (b)		10.00%			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		18.00%			
	<b>Rate per metre = (a+b+c+d)</b>					
(iii)	<b>Beyond 10m upto 20m</b>					
	Add 5 per cent for every additional meter depth of sinking over the rate of sinking for the previous meter					
(iv)	<b>Beyond 20m upto 30 m</b>					
	<b>a.</b> Add 7.5 per cent for every additional meter depth of sinking over the rate of sinking for the previous meter					
	<b>b.</b> Add 20 per cent of cost for Kentledge including supports, loading arrangement and Labour.					
(v)	<b>Beyond 30m upto 40 m</b>					
	<b>a.</b> Add 10 per cent for every additional meter depth of sinking over the rate of sinking for the previous meter					
	<b>b.</b> Add 20 per cent of cost for Kentledge including supports, loading arrangement, and Labour etc.					
<b>B</b>	<b>Clayey Soil (10m dia. Well )</b>					
	<b>Unit = Running Meter</b>					
	<b>Taking output = 1 cum</b>					
(i)	<b>Depth below bed level upto 3.0 M</b>					
	Rate of sinking 0.18m/hour.					
	<b>a) Labour</b>					
	Mate	day	-			
	Sinker ( skilled )	day	2.50			
	Sinking helper ( semi-skilled )	day	5.75			
	<b>b) Machinery</b>					
	Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories.	hour	6.00			
	Consumables in sinking @ 10 per cent of (b)		10.00%			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		18.00%			
	<b>Rate per metre = (a+b+c+d)</b>					
(ii)	<b>Beyond 3m upto 10m depth</b>					
	Rate of sinking 0.15m/hour.					
	<b>a) Labour</b>					
	Mate	day	-			
	Sinker	day	3.00			
	Sinking helper ( semi-skilled )	day	5.90			
	<b>b) Machinery</b>					
	<b>a.</b> Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories.	hour	6.00			
	<b>b.</b> Air compressor with pneumatic chisel attachment for cutting hard clay	hour	4.00			
	<b>c.</b> Consumables in sinking @ 10 per cent of (b)		10.00%			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		18.00%			
	<b>Rate per metre = (a+b+c+d)</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
(iii)	<b>Beyond 10 m upto 20 m</b>					
	a. Add 5 per cent for every additional meter depth of sinking over the rate of sinking for the previous meter					
	b. Add for dewatering @ 5 per cent of cost, if required.					
(iv)	<b>Beyond 20m upto 30 m</b>					
	a. Add 7.5 per cent for every additional meter depth of sinking over the rate of sinking for the previous meter					
	b. Add 5 per cent of cost for dewatering on the cost, if required					
	c. Add 25 per cent of cost for Kentledge including supports, loading arrangement and Labour ).					
(iv)	<b>Beyond 30m upto 40 m</b>					
	a. Add 10 per cent for every additional meter depth of sinking over the rate of sinking for the previous meter					
	b. Add 5 per cent of cost for dewatering, if required					
	c. Add 20 per cent of cost for Kentledge including supports, loading arrangement and Labour).					
<b>C</b>	<b>Soft Rock (10m dia well )</b>					
	<b>Unit = Running Meter.</b>					
	<b>Taking output = 1 m</b>					
	<b>Depth in soft rock strata upto 3m</b>					
	Rate of sinking 0.14m/hour.					
	<b>a) Labour</b>					
	Mate	day	-			
	Sinker ( skilled )	day	4.00			
	Sinking helper ( semi-skilled )	day	16.86			
	Diver	day	1.40			
	<b>b) Machinery</b>					
	Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories.	hour	7.00			
	Air compressor with pneumatic breakers	hour	4.25			
	Consumables in sinking @ 10 per cent of (b)		<b>10.00%</b>			
	Add for dewatering @ 5 per cent of cost, if required					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate per metre = (a+b+c+d)</b>					
<b>D</b>	<b>Hard Rock (10m dia well )</b>					
	<b>Unit = Running Meter.</b>					
	<b>Taking output = 1 m</b>					
	<b>Depth in hard rock strata upto 3 m</b>					
	Rate of sinking 0.12 m/ hour.					
	<b>a) Material</b>					
	Gelatine 80 per cent	Kg	11.00			
	Electric Detonators	each	44.00			
	<b>b) Labour</b>					
	Mate	day	-			
	Driller	day	2.00			
	Blaster	day	0.25			
	Mazdoor (Unskilled)	day	25.27			
	Mazdoor (Skilled)	day	4.00			
	<b>c) Machinery</b>					
	Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories.	hour	8.50			
	Hire & running charges of compressor with pneumatic breaker/Jack hammer or drill	hour	3.00			
	Dewatering @ 5 per cent of cost (c), if required.					
	Consumables in sinking @ 10 per cent of cost of (c).		<b>10.00%</b>			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate per metre = (a+b+c+d+e)</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
18	Sinking of 11 m external diameter well ( other than pneumatic method of sinking ) through all types of strata namely sandy soil, clayey soil and rock as shown against each case, complete as per drawing and technical specifications 1207 MORTH. Depth of sinking is reckoned from bed level.					
	<b>Unit = Running Meter</b>					
	<b>Taking output = 0.50 m</b>					
	<b>Diameter of well - 11 m.</b>					
	<b>A Sandy Soil</b>					
	<b>(i) Depth from bed level upto 3.0 M</b>					
	Rate of sinking @ 0.15 m/hour					
	<b>a) Labour</b>					
	Mate	day	-			
	Sinker ( skilled )	day	1.50			
	Sinking helper (semi-skilled)	day	3.51			
	<b>b) Machinery</b>					
	Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories.	hour	6.00			
	Consumables in sinking @10 per cent of (b)		10.00%			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		18.00%			
	<b>Cost for 0.5m = a+b+c+d</b>					
	<b>Rate per metre = (a+b+c+d)/0.50</b>					
	<b>(ii) Beyond 3m upto 10m depth</b>					
	Rate of sinking @ 0.13 m/hour					
	<b>a) Labour</b>					
	Mate	day	-			
	Sinker	day	2.00			
	Sinking helper (semi-skilled)	day	4.82			
	<b>b) Machinery</b>					
	Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories.	hour	4.00			
	Consumables in sinking @10 per cent of (b)		10.00%			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		18.00%			
	<b>Cost for 0.5m = a+b+c+d</b>					
	<b>Rate per metre = (a+b+c+d)/0.50</b>					
	<b>(iii) Beyond 10m upto 20m</b>					
	Add 5 per cent for every additional meter depth of sinking over the rate of sinking for the previous meter					
	<b>(iv) Beyond 20m upto 30 m</b>					
	<b>a.</b> Add 7.5 per cent for every additional meter depth of sinking over the rate of sinking for the previous meter					
	<b>b.</b> Add 20 per cent of cost for Kentledge including supports, loading arrangement and Labour.					
	<b>(v) Beyond 30m upto 40 m</b>					
	<b>a.</b> Add 10 per cent for every additional meter depth of sinking over the rate of sinking for the previous meter					
	<b>b.</b> Add 20 per cent of cost for Kentledge including supports, loading arrangement, and Labour etc.					
	<b>B Clayey Soil (11 m dia. Well )</b>					
	<b>Unit = Running Meter</b>					
	<b>Taking output = 0.50 meter</b>					
	<b>(i) Depth from bed level upto 3.0 M</b>					
	Rate of sinking @ 0.10 m/hour					
	<b>a) Labour</b>					
	Mate	day	-			
	Sinker ( skilled )	day	2.50			
	Sinking helper (semi-skilled)	day	4.26			
	<b>b) Machinery</b>					
	Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories.	hour	5.00			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	Consumables in sinking @ 10 per cent of (b)		10.00%			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		18.00%			
	<b>Cost for 0.5m = a+b+c+d</b>					
	<b>Rate per metre = (a+b+c+d)/0.50</b>					
(ii)	<b>Beyond 3m upto 10m depth</b>					
	Rate of sinking @ 0.08 m/hour					
	<b>a) Labour</b>					
	Mate	day	-			
	Sinker	day	3.50			
	Sinking helper (semi-skilled)	day	6.18			
	<b>b) Machinery</b>					
	Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories.	hour	6.00			
	Air compressor with pneumatic chisel attachment for cutting hard clay	hour	4.25			
	Consumables in sinking @ 10 per cent of (b)		10.00%			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		18.00%			
	<b>Cost for 0.5m = a+b+c+d</b>					
	<b>Rate per metre = (a+b+c+d)/0.50</b>					
(iii)	<b>Beyond 10 m upto 20 m</b>					
	a. Add 5 per cent for every additional meter depth of sinking over the rate of sinking for the previous meter					
	b. Add for dewatering @ 5 per cent of cost, if required.					
(iv)	<b>Beyond 20m upto 30 m</b>					
	a. Add 7.5 per cent for every additional meter depth of sinking over the rate of sinking for the previous meter					
	b. Add 5 per cent of cost for dewatering on the cost, if					
	c. Add 25 per cent of cost for Kentledge including supports, loading arrangement and Labour ).					
(v)	<b>Beyond 30m upto 40 m</b>					
	a. Add 10 per cent for every additional meter depth of sinking over the rate of sinking for the previous meter					
	b. Add 5 per cent of cost for dewatering, if required					
	c. Add 20 per cent of cost for Kentledge including supports, loading arrangement and Labour).					
<b>C</b>	<b>Soft Rock (11m dia well )</b>					
	<b>Unit = Running Meter.</b>					
	<b>Taking output = 0.50 m</b>					
	<b>Depth in soft rock strata upto 3m</b>					
	Rate of sinking @ 0.06 m/hour					
	<b>a) Labour</b>					
	Mate	day	-			
	Sinker ( skilled )	day	4.25			
	Sinking helper (semi-skilled)	day	18.95			
	Diver	day	1.50			
	<b>b) Machinery</b>					
	Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories.	hour	8.00			
	Air compressor with pneumatic breakers	hour	4.50			
	Consumables in sinking @ 10 per cent of (b)		10.00%			
	Add for dewatering @ 5 per cent of cost, if required					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		18.00%			
	<b>Cost for 0.5m = a+b+c+d</b>					
	<b>Rate per metre = (a+b+c+d)/0.50</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>D Hard Rock (11m dia well )</b>					
	<b>Unit = Running Meter.</b>					
	<b>Taking output = 0.50 m</b>					
	<b>Depth in hard rock upto 3 m</b>					
	Rate of sinking @ 0.05 m/hour					
	<b>a) Material</b>					
	Gelatine 80 per cent	Kg	12.00			
	Electric Detonators	each	48.00			
	<b>b) Labour</b>					
	Mate	day	-			
	Driller	day	2.00			
	Blaster	day	0.25			
	Mazdoor (Unskilled)	day	27.35			
	Mazdoor (Skilled)	day	4.00			
	<b>c) Machinery</b>					
	Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories.	hour	10.00			
	Hire & running charges of compressor with pneumatic breaker/Jack hammer or drill	hour	3.50			
	Dewatering @ 5 per cent of cost (c), if required.					
	Consumables in sinking @ 10 per cent of cost of (c).				10.00%	
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>				18.00%	
	<b>Cost for 0.5m = a+b+c+d</b>					
	<b>Rate per metre = (a+b+c+d)/0.50</b>					
19	<b>Sinking of 12 m external diameter well ( other than pneumatic method of sinking ) through all types of strata namely sandy soil, clayey soil and rock as shown against each case, complete as per drawing and technical specifications 1207 MORTH. Depth of sinking is reckoned from bed level.</b>					
	<b>Unit = Running Meter</b>					
	<b>Taking output = 0.25 m</b>					
	Diameter of well - 12 m.					
	<b>A Sandy Soil</b>					
	<b>(i) Depth below bed level upto 3.0 M</b>					
	Rate of sinking @ 0.05 m/hour					
	<b>a) Labour</b>					
	Mate	day	-			
	Sinker ( skilled )	day	1.75			
	Sinking helper (semi-skilled)	day	4.22			
	<b>b) Machinery</b>					
	Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories.	hour	6.00			
	Consumables in sinking @10 per cent of (b)				10.00%	
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>				18.00%	
	<b>Cost for 0.25m = a+b+c+d</b>					
	<b>Rate per metre = (a+b+c+d)/0.25</b>					
	<b>(ii) Beyond 3m upto 10m depth</b>					
	Rate of sinking @ 0.038 m/hour					
	<b>a) Labour</b>					
	Mate	day	-			
	Sinker	day	2.50			
	Sinking helper (semi-skilled)	day	5.12			
	<b>b) Machinery</b>					
	Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories.	hour	6.50			
	Consumables in sinking @10 per cent of (b)				10.00%	
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>				18.00%	
	<b>Cost for 0.25m = a+b+c+d</b>					
	<b>Rate per metre = (a+b+c+d)/0.25</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	(iii) <b>Beyond 10m upto 20m</b>					
	a. Add 5 per cent for every additional meter depth of sinking over the rate of sinking for the previous meter					
	(iv) <b>Beyond 20m upto 30 m</b>					
	a. Add 7.5 per cent for every additional meter depth of sinking over the rate of sinking for the previous meter					
	b. Add 20 per cent of cost for Kentledge including supports, loading arrangement and Labour.					
	(v) <b>Beyond 30m upto 40 m</b>					
	a. Add 10 per cent for every additional meter depth of sinking over the rate of sinking for the previous meter					
	b. Add 20 per cent of cost for Kentledge including supports, loading arrangement, and Labour etc.					
	<b>B Clayey Soil (12 m dia. Well )</b>					
	<b>Unit = Running Meter.</b>					
	<b>Taking output = 0.25 meter.</b>					
	(i) <b>Depth below bed level upto 3.0 M</b>					
	Rate of sinking @ 0.04 m/hour					
	<b>a) Labour</b>					
	Mate	day	-			
	Sinker ( skilled )	day	3.00			
	Sinking helper (semi-skilled)	day	4.80			
	<b>b) Machinery</b>					
	Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories.	hour	6.25			
	Consumables in sinking @ 10 per cent of (b)		10.00%			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		18.00%			
	<b>Cost for 0.25m = a+b+c+d</b>					
	<b>Rate per metre = (a+b+c+d)/0.25</b>					
	(ii) <b>Beyond 3m upto 10m depth</b>					
	Rate of sinking @ 0.03 m/hour					
	<b>a) Labour</b>					
	Mate	day	-			
	Sinker	day	3.75			
	Sinking helper (semi-skilled)	day	6.48			
	<b>b) Machinery</b>					
	Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories.	hour	8.33			
	Air compressor with pneumatic chisel attachment for cutting hard clay.	hour	4.50			
	Consumables in sinking @ 10 per cent of (b)		10.00%			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		18.00%			
	<b>Cost for 0.25m = a+b+c+d</b>					
	<b>Rate per metre = (a+b+c+d)/0.25</b>					
	(iii) <b>Beyond 10 m upto 20 m</b>					
	a. Add 5 per cent for every additional meter depth of sinking over the rate of sinking for the previous meter					
	b. Add for dewatering @ 5 per cent of cost, if required.					
	(iv) <b>Beyond 20m upto 30 m</b>					
	a. Add 7.5 per cent for every additional meter depth of sinking over the rate of sinking for the previous meter					
	b. Add 5 per cent of cost for dewatering on the cost, if required					
	c. Add 25 per cent of cost for Kentledge including supports, loading arrangement and Labour ).					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
(v)	<b>Beyond 30m upto 40 m</b>					
	a. Add 10 per cent for every additional meter depth of sinking over the rate of sinking for the previous meter					
	b. Add 5 per cent of cost for dewatering, if required					
	c. Add 20 per cent of cost for Kentledge including supports, loading arrangement and Labour).					
C	<b>Soft Rock (12m dia well )</b>					
	<b>Unit = Running Meter</b>					
	<b>Taking output = 0.25 m</b>					
	<b>Depth in soft rock strata upto 3m</b>					
	Rate of sinking @ 0.025 m/hour					
	<b>a) Labour</b>					
	Mate	day	-			
	Sinker ( skilled )	day	4.50			
	Sinking helper (semi-skilled)	day	21.06			
	Diver	day	1.75			
	<b>b) Machinery</b>					
	Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories.	hour	10.00			
	Air compressor with pneumatic chisel attachment for cutting hard clay.	hour	4.75			
	Consumables in sinking @ 10 per cent of (b)				10.00%	
	Add for dewatering @ 5 per cent, if required					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>				18.00%	
	<b>Cost for 0.25m = a+b+c+d</b>					
	<b>Rate per metre = (a+b+c+d)/0.25</b>					
D	<b>Hard Rock (12m dia well )</b>					
	<b>Unit = Running Meter</b>					
	<b>Taking output = 0.25 m</b>					
	<b>Depth in hard rock strata upto 3 m</b>					
	Rate of sinking @ 0.020 m/hour					
	<b>a) Material</b>					
	Gelatine80 per cent	Kg	14.00			
	Electric detonator	each	56.00			
	<b>b) Labour</b>					
	Mate	day	-			
	Driller	day	2.00			
	Blaster	day	0.25			
	Mazdoor (Unskilled)	day	29.44			
	Mazdoor (Skilled)	day	4.50			
	<b>c) Machinery</b>					
	Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories.	hour	12.50			
	Hire & running charges of compressor with pneumatic breaker / Jack hammer or drill	hour	4.00			
	Dewatering @ 5 per cent, if required.					
	Consumables in sinking @ 10 per cent of (c).				10.00%	
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>				18.00%	
	<b>Cost for 0.25m = a+b+c+d+e</b>					
	<b>Rate per metre = (a+b+c+d+e)/0.25</b>					



S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
20	<b>Sinking of Twin D Type well (other than pneumatic method of sinking) through all types of strata namely sandy soil, clayey soil and rock as shown against each case, complete as per drawing and technical specifications 1207 MORTH. Depth of sinking is reckoned from bed level.</b>					
	<b>Unit = Running Meter</b>					
	<b>Taking output = 1 m</b>					
	<b>Dimensions of well.</b>					
	Overall length = 12 m					
	Overall width = 6 m					
	<b>A Sandy Soil</b>					
	<b>(i) Depth from bed level upto 3.0 M</b>					
	Rate of sinking @ 0.18 m/hour					
	<b>a) Labour</b>					
	Mate	day	-			
	Sinker ( skilled )	day	1.25			
	Sinking helper (semi-skilled)	day	3.95			
	<b>b) Machinery</b>					
	Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories.	hour	5.50			
	Consumables in sinking @10 per cent of (b)			10.00%		
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per metre = (a+b+c+d)</b>					
	<b>(ii) Beyond 3m upto 10m depth</b>					
	Rate of sinking @ 0.17 m/hour					
	<b>a) Labour</b>					
	Mate	day	-			
	Sinker	day	1.50			
	Sinking helper (semi-skilled)	day	4.30			
	<b>b) Machinery</b>					
	Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories.	hour	5.88			
	Consumables in sinking @10 per cent of (b)			10.00%		
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per metre = (a+b+c+d)</b>					
	<b>(iii) Beyond 10m upto 20m</b>					
	Add 5 per cent for every additional meter depth of sinking over the rate of sinking for the previous meter					
	<b>(iv) Beyond 20m upto 30 m</b>					
	<b>a.</b> Add 7.5 per cent for every additional meter depth of sinking over the rate of sinking for the previous meter					
	<b>b.</b> Add 20 per cent of cost for Kentledge including supports, loading arrangement and Labour.					
	<b>(v) Beyond 30m upto 40 m</b>					
	<b>a.</b> Add 10 per cent for every additional meter depth of sinking over the rate of sinking for the previous meter					
	<b>b.</b> Add 20 per cent of cost for Kentledge including supports, loading arrangement, and Labour etc.					
	<b>B Clayey Soil (Twin D Type Well )</b>					
	<b>Unit = Running Meter</b>					
	<b>Taking output = 1 meter</b>					
	<b>(i) Depth below bed level upto 3.0 M</b>					
	Rate of sinking @ 0.16 m/hour					
	<b>a) Labour</b>					
	Mate	day	-			
	Sinker ( skilled )	day	2.50			
	Sinking helper (semi-skilled)	day	4.26			
	<b>b) Machinery</b>					
	Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories.	hour	6.25			
	Consumables in sinking @ 10 per cent of (b)			10.00%		
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per metre = (a+b+c+d)</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
(ii)	<b>Beyond 3m upto 10m depth</b>					
	Rate of sinking @ 0.15 m/hour					
	<b>a) Labour</b>					
	Mate	day	-			
	Sinker	day	3.25			
	Sinking helper (semi-skilled)	day	6.45			
	<b>b) Machinery</b>					
	Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories.	hour	6.67			
	Air compressor with pneumatic chisel attachment for cutting hard clay.	hour	4.50			
	Consumables in sinking @ 10 per cent of (b)			<b>10.00%</b>		
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate per metre = (a+b+c+d)</b>					
(iii)	<b>Beyond 10 m upto 20 m</b>					
	a. Add 5 per cent for every additional meter depth of sinking over the rate of sinking for the previous meter					
	b. Add for dewatering @ 5 per cent of cost, if required.					
(iv)	<b>Beyond 20m upto 30 m</b>					
	a. Add 7.5 per cent for every additional meter depth of sinking over the rate of sinking for the previous meter					
	b. Add 5 per cent of cost for dewatering on the cost, if					
	c. Add 25 per cent of cost for Kentledge including supports, loading arrangement and Labour ).					
(v)	<b>Beyond 30m upto 40 m</b>					
	a. Add 10 per cent for every additional meter depth of sinking over the rate of sinking for the previous meter					
	b. Add 5 per cent of cost for dewatering, if required					
	c. Add 20 per cent of cost for Kentledge including supports, loading arrangement and Labour).					
<b>C</b>	<b>Soft Rock (Twin D Type Well )</b>					
	<b>Unit = Running Meter</b>					
	<b>Taking output = 1 m</b>					
	<b>Depth in soft rock strata upto 3m</b>					
	Rate of sinking @ 0.12 m/hour					
	<b>a) Labour</b>					
	Mate	day	-			
	Sinker ( skilled )	day	4.50			
	Sinking helper (semi-skilled)	day	15.86			
	Diver	day	1.50			
	<b>b) Machinery</b>					
	Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories.	hour	8.33			
	Air compressor with pneumatic breakers	hour	6.00			
	Consumables in sinking @ 10 per cent of (b)			<b>10.00%</b>		
	Add for dewatering @ 5 per cent, if required					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate per metre = (a+b+c+d)</b>					
<b>D</b>	<b>Hard Rock (Twin D Type Well )</b>					
	<b>Unit = Running Meter</b>					
	<b>Taking output = 1 m</b>					
	<b>Depth in hard rock strata upto 3 m</b>					
	Rate of sinking @ 0.10 m/hour					
	<b>a) Material</b>					
	Geletine80 per cent	Kg	10.00			
	Electric detonators	each	40.00			
	<b>b) Labour</b>					
	Mate	day	-			
	Driller	day	2.00			
	Blaster	day	0.25			
	Mazdoor (Unskilled)	day	26.34			
	Mazdoor (Skilled)	day	4.25			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>c) Machinery</b>					
	Hire & running charges of crane with grab bucket of 0.75 cum capacity and accessories.	hour	10.00			
	Hire & running charges of compressor with pneumatic breaker/Jack hammer or drill	hour	3.00			
	Dewatering @ 5 per cent of cost of (b+c), if required.					
	Consumables in sinking @ 10 per cent of (b).		10.00%			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		18.00%			
	<b>Rate per metre = (a+b+c+d+e)</b>					
21	<b>Pneumatic sinking of wells with equipment of approved design, drawing and specifications worked by competent and trained personnel and comprising of compression and decompression chambers, reducers, two air locks separately for men and plant &amp; materials, arrangement for supply of fresh air to working chambers, check valves, exhaust valves, shafts made from steel plates of riveted construction not less than 6 mm thick to withstand an air pressure of 0.50 MPa, controlled blasting of hard rock where required, staircases and 1 m wide landing platforms with railing, arrangement for compression and decompression, electric lighting of 50 V maximum, proper rooms for rest and medical examinations and compliance with safety precautions as per IS:4138, all as per clause 1207.6 of MoRTH Specifications.</b>					
	<b>Unit - 1 cum</b>					
	<b>Taking output = 5 cum</b>					
	<b>a) Material</b>					
	M35 grade RCC corbel provided for supporting of equipment (Dimensions as per ground conditions). Rate may be adopted vide Item 4 (H)	Cum	8.00			
	HYSB bar reinforcement in corbel	t	0.48			
	<b>Blasting material</b>					
	Gelatine 80 per cent	Kg	1.50			
	Electric detonators	each	6.00			
	<b>b) Labour</b>					
	Medical Officer	day	0.50			
	Para medical personnel	day	1.00			
	Mate	day	-			
	Driller	day	1.00			
	Blaster	day	0.50			
	Mazdoor unskilled (for cutting, blasting, cleaning, removal of Material etc.)	day	31.86			
	Mazdoor (Skilled) (for fixation and removal of adopter for air lock, carrying out mechanical and electrical operations and repairs and other skilled jobs.)	day	10.00			
	Diver	day	4.00			
	<b>c) Machinery</b>					
	<b>(i) Induction, denudation and erection of plant and equipment including all components and accessories for pneumatic method of well sinking.</b>	hour	6.00			
	Induction and denudation	L.S				
	Erection at site and commissioning	L.S				
	Usage of plant and equipment for pneumatic method of well sinking	hour	6.00			
	Air compressor 250 cfm, 2 nos.	hour	12.00			
	Hire and running charges of crane of 15 tonne capacity	hour	6.00			
	Motorised barge of 20 tonne capacity	hour	6.00			
	Boat to carry at least 20 persons	hour	6.00			
	Electric generating set 33 KVA	hour	6.00			
	Tipper 10 tonne capacity	hour	6.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		18.00%			
	<b>Cost for 5 cum = a+b+c+d+e (see notes below)</b>					
	<b>Rate per cum = (a+b+c+d+e)/5</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>Note : 1.</b> The cost of induction, denudation and erection of equipment shall be divided by the total quantity of pneumatic sinking for all the wells of a particular bridge to arrive at the per cum rate on account of this item.					
	<b>2.</b> Cost of pneumatic sinking per cum of individual wells will be added to the cost indicated at (1) above to arrive at the final rate of pneumatic sinking per cum.					
	<b>3.</b> The cost of induction and denudation will depend upon the distance involved for shifting of equipment which may be assessed in individual cases as per actual ground conditions at the time of making of cost estimates.					
	<b>4.</b> In case pneumatic sinking is involved on a dry bed, the provision of barge and boat may be omitted.					
	<b>5.</b> The necessity and dimensions of the corbel will be as per actual ground conditions.					
	<b>6.</b> Small equipments like welding sets, pumps, vibrators, pneumatic tools, portable lamps, fire extinguishers, hose pipes etc., have not been included as the same are covered as items of minor T&P under overhead charges.					
	<b>7.</b> Depth of sinking shall be restricted to 30 m.					
22	<b>Sand Filling in Wells complete as per Drawing and Technical Specifications 1207 MORTH.</b>					
	<b>Unit = 1 cum</b>					
	<b>Taking output = 1 cum</b>					
	<b>a) Material</b>					
	Sand (assuming 20 per cent voids )	cum	1.00			
	<b>b) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.31			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per cum (a+b+c+d)</b>					
23	<b>Providing Steel Liner 10 mm thick for Curbs and 6 mm thick for Staining of Wells including Fabricating and Setting out as per Detailed Drawing as per Tech. Specifications 1200 &amp; 1900 MORTH.</b>					
	<b>Unit = 1 MT</b>					
	<b>Taking output = 1 MT</b>					
	<b>a) Material</b>					
	i) Structural steel including 5 per cent wastage	t	1.05			
	<b>b) Labour</b>					
	Mate	day	-			
	Fitter	day	6.00			
	Blacksmith	day	5.00			
	Welder	day	5.00			
	Mazdoor (Unskilled)	day	11.24			
	Electrodes, cutting gas and other consumables @ 5 per cent on cost a (a) above.					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate for per MT (a+b+c+d)</b>					
24	<b>Bored cast-in-situ M35 grade R.C.C. Pile excluding Reinforcement complete as per Drawing and Technical Specifications in Section 1100 &amp; 1700 MORTH and removal of excavated earth with all lifts and lead upto 1000 m.</b>					
	<b>Pile diameter-750 mm</b>					
	<b>Unit = meter</b>					
	<b>Taking output = 15 m</b>					
	<b>a) Materials</b>					
	PCC Grade M35	cum	6.62			
	Rate for concrete may be adopted same as for bottom plug vide item no. 12( C ) (IV)					
	Concrete to be cast with a tremie pipe 200mm dia.					
	<b>b) Machinery( for boring and construction )</b>					
	Hire and running charges of hydraulic piling rig with power unit and complete accessories including shifting from one bore location to another.	hour	6.00			
	Hire and running charges of Bentonite pump	hour	6.00			
	Hire and running charges of light crane for lowering reinforcement cage	hour	0.50			
	Loader 1 cum bucket capacity.	hour	0.30			
	Tipper 5.5 cum capacity for disposal of muck from pile bore hole	hour	0.30			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	Bentonite	kg	300.00			
	<b>c) Labour</b>					
	Mate/Supervisor	day	-			
	Mazdoor (Unskilled)	day	3.64			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Cost for 15 m = a+b+c+d+d+e</b>					
	<b>Rate per metre (a+b+c+d+e)/15</b>					
25	<b>Bored cast-in-situ M35 grade R.C.C. Pile excluding Reinforcement complete as per Drawing and Technical Specifications in Section 1100, 1600 &amp; 1700 MORTH and removal of excavated earth with all lifts and lead upto 1000 m.</b>					
	<b>Pile diameter-1000 mm</b>					
	<b>Unit = meter</b>					
	<b>Taking output = 10 m</b>					
	<b>a) Materials</b>					
	PCC Grade M35	cum	7.85			
	<b>Rate for concrete may be adopted same as for bottom plug vide item no. 12 ( C ) (IV)</b>					
	Concrete to be cast with a tremie pipe 200mm dia.					
	<b>b) Machinery( for boring and construction )</b>					
	Hire and running charges of hydraulic piling rig with power unit and complete accessories including shifting from one bore location to another	hour	6.00			
	Hire and running charges of Bentonite pump	hour	6.00			
	Hire and running charges of light crane for lowering reinforcement cage	hour	0.50			
	Loader 1 cum bucket capacity.	hour	0.40			
	Tipper 5.5 cum capacity for disposal of muck from pile bore hole	hour	0.40			
	Bentonite	kg	350.00			
	<b>c) Labour</b>					
	Mate/Supervisor	day	-			
	Mazdoor (Unskilled)	day	4.16			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Cost for 10 m = a+b+c+d+d+e</b>					
	<b>Rate per metre (a+b+c+d+e)/10</b>					
26	<b>Bored cast-in-situ M35 grade R.C.C. Pile excluding Reinforcement complete as per Drawing and Technical Specifications in Section 1100 &amp; 1700 MORTH and removal of excavated earth with all lifts and lead upto 1000 m.</b>					
	<b>Pile diameter-1200 mm</b>					
	<b>Unit = meter</b>					
	<b>Taking output = 9 m</b>					
	<b>a) Materials</b>					
	PCC Grade M35	cum	10.17			
	<b>Rate for concrete may be adopted same as for bottom plug vide item no. 12( C ) (IV)</b>					
	Concrete to be cast with a tremie pipe 200mm dia.					
	<b>b) Machinery( for boring and construction )</b>					
	Hire and running charges of hydraulic piling rig with power unit and complete accessories including shifting from one bore location to another	hour	6.00			
	Hire and running charges of Bentonite pump	hour	6.00			
	Hire and running charges of light crane for lowering reinforcement cage	hour	0.50			
	Loader 1 cum bucket capacity.	hour	0.50			
	Tipper 5.5 cum capacity for disposal of muck from pile bore hole	hour	0.50			
	Bentonite	kg	385.00			
	<b>c) Labour</b>					
	Mate/Supervisor	day	-			
	Mazdoor (Unskilled)	day	4.68			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Cost for 9 m = a+b+c+d+d+e</b>					
	<b>Rate per metre (a+b+c+d+e)/9</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
27	<b>Driven cast-in-place vertical M35 grade R.C.C. Pile excluding Reinforcement complete as per Drawing and &amp; Technical Specification in Section 1100 &amp; 1700 MORTH</b>					
	<b>Pile diameter - 750 mm</b>					
	<b>Unit = Running meter</b>					
	<b>Taking output = 40 metre</b>					
	<b>a) Materials</b>					
	PCC Grade M35	cum	17.66			
	Rate for concrete may be adopted same as for bottom plug vide item no. 12( C ) (IV)					
	<b>b) Materials Pile shoes</b>					
	i) C.I. shoes for the pile	Kg	160.00			
	ii) M.S. clamps for shoe @ 35 Kg per pile of 15 m	Kg	70.00			
	iii) Steel helmet and cushion block on top of casing head during driving	Kg	50.00			
	<b>c) Machinery</b>					
	Hire and running charges of piling rig Including double acting pile driving hammer complete with power unit and accessories.	hour	6.00			
	Hiring and running charges for light crane 5 tonnes lifting capacity for lowering reinforcement and handling steel	hour	0.50			
	<b>d) Labour</b>					
	Mate/Supervisor	day	-			
	Mazdoor (Unskilled)	day	3.12			
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 40 m = a+b+c+d+e</b>					
	<b>Rate per metre (a+b+c+d+e)/40</b>					
	<b>Note : 1.</b> The quantity of concrete required to be removed above the designed top level of concrete, if any, will be provided for in the rate analysis.					
	<b>2.</b> In case steel lining is included in the design for driven cast-in-situ pile and is planned to be retained, the same may be included in the rate analysis. In case the temporary steel casing used during casting is planned to be removed, an additional cost @ 0.50 per cent of cost of concrete may be provided to cover its usage.					
28	<b>Driven cast-in-place vertical M35 grade R.C.C. Pile excluding Reinforcement complete as per Drawing and &amp; Technical Specification in Section 1100 &amp; 1700 MORTH</b>					
	<b>Pile diameter - 1000 mm</b>					
	<b>Unit = Running meter</b>					
	<b>Taking output = 30 metre</b>					
	<b>a) Materials</b>					
	PCC Grade M35	cum	23.55			
	Rate for concrete may be adopted same as for bottom plug vide item no. 12( C ) (IV)					
	<b>b) Materials Pile shoes</b>					
	i) C.I. shoes for the pile	Kg	160.00			
	ii) M.S. clamps for shoe @ 35 Kg per pile of 15 m	Kg	70.00			
	iii) Steel helmet and cushion block on top of casing head during driving	Kg	50.00			
	<b>c) Machinery</b>					
	Hire and running charges of piling rig Including double acting pile driving hammer complete with power unit and accessories.	hour	6.00			
	Hiring and running charges for light crane 5 tonnes lifting capacity for lowering reinforcement and handling steel casing.	hour	0.50			
	Hire and running charges for light crane for lowering reinforcement cage.	hour	0.50			
	<b>d) Labour</b>					
	Mate/Supervisor	day	-			
	Mazdoor (Unskilled)	day	4.16			
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 30 m = a+b+c+d+e</b>					
	<b>Rate per metre (a+b+c+d+e)/30</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>Note : 1.</b> The quantity of concrete required to be removed above the designed top level of concrete, if any, will be provided for in the rate analysis.					
	<b>2.</b> In case steel lining is included in the design for driven cast-in-situ pile and is planned to be retained, the same may be included in the rate analysis. In case the temporary steel casing used during casting is planned to be removed, an additional cost @ 0.50 per cent of cost of concrete may be provided to cover its usage.					
29	<b>Driven cast-in-place vertical M35 grade R.C.C. Pile excluding Reinforcement complete as per Drawing and &amp; Technical Specification in Section 1100 &amp; 1700 MORTH</b>					
	<b>Pile diameter - 1200 mm</b>					
	<b>Unit = Running meter</b>					
	<b>Taking output = 20 metre</b>					
	<b>a) Materials</b>					
	PCC Grade M35	cum	22.61			
	<b>Rate for concrete may be adopted same as for bottom plug vide item no. 12( C ) (IV)</b>					
	<b>b) Materials Pile shoes</b>					
	i) C.I. shoes for the pile	Kg	160.00			
	ii) M.S. clamps for shoe @ 35 Kg per pile of 15 m	Kg	70.00			
	iii) Steel helmet on top of casing head during driving	Kg	50.00			
	<b>c) Machinery</b>					
	Hire and running charges of piling rig Including double acting pile driving hammer complete with power unit and accessories.	hour	6.00			
	Hiring and running charges for light crane 5 tonnes lifting capacity for lowering reinforcement and handling steel casing.	hour	0.50			
	<b>d) Labour</b>					
	Mate/Supervisor	day	-			
	Mazdoor (Unskilled)	day	4.68			
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>					
	<b>Cost for 20 m = a+b+c+d+e</b>					
	<b>Rate per metre (a+b+c+d+e)/20</b>					
	<b>Note : 1.</b> The quantity of concrete required to be removed above the designed top level of concrete, if any, will be provided for in the rate analysis.					
	<b>2.</b> In case steel lining is included in the design for driven cast-in-situ pile and is planned to be retained, the same may be included in the rate analysis. In case the temporary steel casing used during casting is planned to be removed, an additional cost @ 0.50 per cent of cost of concrete may be provided to cover its usage.					
30	<b>Driven precast vertical M35 grade R.C.C. Piles excluding Reinforcement complete as per Drawing and &amp; Technical Specification in Section 1100 &amp; 1700 MORTH</b>					
	<b>Pile Diameter = 500 mm</b>					
	<b>Unit = Running Meter</b>					
	<b>Taking output = 60 m</b>					
	<b>a) Materials</b>					
	RCC Grade M35	cum	11.78			
	Rate for concrete may be adopted same as for bottom plug vide item no. 12( F ) (IV)					
	<b>b ) Material Pile shoes</b>					
	a) C.I Shoes	Kg	240.00			
	b) M.S. shoes	Kg	105.00			
	c) Steel helmet and cushion block on top of pile head during driving.	Kg	30.00			
	<b>c) Machinery</b>					
	Crane20 t capacity	hour	6.00			
	Vibrating Pile driving hammer complete with power unit and accessories.	hour	6.00			
	<b>d) Labour</b>					
	Mate/Supervisor	day	-			
	Mazdoor (Unskilled)	day	3.12			
	Add 1 per cent of (a+b+c) for carriage of piles from casting yard to work site and stacking, and other imponderables during					
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>					
	<b>Cost for 60 m = a+b+c+d+e+f</b>					
	<b>Rate per metre (a+b+c+d+e+f)/60</b>					



S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>Note :</b> The quantity of concrete required to be removed above the designed top level of concrete, if any, will be provided for in the rate analysis.					
31	<b>Driven precast vertical M35 grade R.C.C. Piles excluding Reinforcement complete as per Drawing and &amp; Technical Specification in Section 1100 &amp; 1700 MORTH</b>					
	<b>Pile Diameter = 750 mm</b>					
	<b>Unit = Running Meter</b>					
	<b>Taking output = 50 m</b>					
	<b>a) Materials</b>					
	RCC Grade M35	cum	22.08			
	Rate for concrete may be adopted same as for bottom plug vide item no. 12( F ) (IV)					
	<b>b ) Material Pile shoes</b>					
	a) C.I. shoes	Kg	160.00			
	b) M.S. shoes	Kg	70.00			
	c) Steel helmet and cushion block on top of pile head during driving.	Kg	40.00			
	<b>c) Machinery</b>					
	Crane 40 T capacity	hour	6.00			
	Vibrating Pile driving hammer complete with power unit and accessories.	hour	6.00			
	<b>d) Labour</b>					
	Mate/Supervisor	day	-			
	Mazdoor (Unskilled)	day	4.16			
	Add 1 per cent of (a+b+c) for carriage of piles from casting yard to work site and stacking, and other imponderables during					
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>					
	<b>Cost for 50 m = a+b+c+d+e+f</b>					
	<b>Rate per metre (a+b+c+d+e+f)/50</b>					
	<b>18.00%</b>					
	<b>Note :</b> The quantity of concrete required to be removed above the designed top level of concrete, if any, will be provided for in the rate analysis.					
32	<b>Driven precast vertical M35 grade R.C.C. Piles excluding Reinforcement complete as per Drawing and &amp; Technical Specification in Section 1100 &amp; 1700 MORTH</b>					
	<b>Pile Diameter = 1000 mm</b>					
	<b>Unit = Running Meter</b>					
	<b>Taking output = 40 m</b>					
	<b>a) Materials</b>					
	RCC Grade M35	cum	31.40			
	Rate for concrete may be adopted same as for bottom plug vide item no. 12( F ) (IV)					
	<b>b ) Material Pile shoes</b>					
	a) C.I. shoes for the pile	Kg	160.00			
	b) M.S. shoes @ 35 Kg per pile of 15 m	Kg	70.00			
	c) Steel helmet and cushion block on top of pile head during driving.	Kg	50.00			
	<b>c) Machinery</b>					
	Crane 50 t capacity.	hour	6.00			
	Vibrating Pile driving hammer complete with power unit and accessories.	hour	6.00			
	<b>d) Labour</b>					
	Mate/Supervisor	day	-			
	Mazdoor (Unskilled)	day	5.20			
	Add 1 per cent of (a+b+c) for carriage of piles from casting yard to work site and stacking, and other imponderables during					
	<b>e) Overhead charges @ input on (b+c+d)</b>					
	<b>f) Contractor's profit @ input on (b+c+d+e)</b>					
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>					
	<b>Cost for 40 m = a+b+c+d+e+f</b>					
	<b>Rate per metre (a+b+c+d+e+f)/40</b>					
	<b>18.00%</b>					
	<b>Note :</b> The quantity of concrete required to be removed above the designed top level of concrete, if any, will be provided for in the rate analysis.					



S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
33	Driven precast vertical M35 grade R.C.C. Piles excluding Reinforcement complete as per Drawing and & Technical Specification in Section 1100 & 1700 MORTH					
	Size of pile - 300 mm x 300 mm					
	Unit = Running Meter					
	Taking output = 60 m					
	<b>a) Materials</b>					
	RCC Grade M-35					
	Rate for concrete may be adopted same as for bottom plug vide item no. 12( F ) (IV)	cum	5.40			
	<b>b ) Material Pile shoes</b>					
	a) C I shoes	kg	240.00			
	b) M. S shoes	kg	105.00			
	c) Steel helmet and cushion block on top of pile head during driving.	Kg	30.00			
	<b>c) Machinery</b>					
	Crane 10 tonne capacity	hour	6.00			
	Vibrating Pile driving hammer complete with power unit and accessories.	hour	6.00			
	<b>d ) Labour</b>					
	Mate/Supervisor	day	-			
	Mazdoor (Unskilled)	day	3.12			
	Add 1 per cent of (a+b+c) for carriage of piles from casting yard to work site and stacking, and other imponderables during installation.					
	<b>e) Overhead charges @ input on (b+c+d)</b>					
	<b>f) Contractor's profit @ input on (b+c+d+e)</b>					
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	Cost for 60 m = a+b+c+d+e+f					
	Rate per metre (a+b+c+d+e+f)/60					
	<b>Note :</b> The quantity of concrete required to be removed above the designed top level of concrete, if any, will be provided for in the rate analysis.					
34	Driven precast vertical M35 grade R.C.C. Piles excluding Reinforcement complete as per Drawing and & Technical Specification in Section 1100 & 1700 MORTH					
	Size of pile - 500 mm x 500 mm					
	Unit = Running Meter					
	Taking output = 50 m					
	<b>a) Materials</b>					
	RCC Grade M-35					
	Rate for concrete may be adopted same as for bottom plug vide item no. 12( F ) (IV)	cum	12.50			
	<b>b ) Material Pile shoes</b>					
	a) C I shoes	kg	160.00			
	b) M. S shoes	kg	70.00			
	c) Steel helmet and cushion block on top of pile head during driving.	Kg	30.00			
	<b>c) Machinery</b>					
	Crane 20 tonne capacity	hour	6.00			
	Vibrating Pile driving hammer complete with power unit and accessories.	hour	6.00			
	<b>d ) Labour</b>					
	Mate/Supervisor	day	-			
	Mazdoor (Unskilled)	day	4.16			
	Add 1 per cent of (a+b+c) for carriage of piles from casting yard to work site and stacking, and other imponderables during					
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	Cost for 50 m = a+b+c+d+e+f					
	Rate per metre (a+b+c+d+e+f)/50					
	<b>Note :</b> The quantity of concrete required to be removed above the designed top level of concrete, if any, will be provided for in the rate analysis.					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
35	<b>Driven precast vertical M35 grade R.C.C. Piles excluding Reinforcement complete as per Drawing and &amp; Technical Specification in Section 1100 &amp; 1700 MORTH</b>					
	<b>Size of pile - 750 mm x 750 mm</b>					
	<b>Unit = Running Meter</b>					
	<b>Taking output = 40 m</b>					
	<b>a) Materials</b>					
	RCC Grade M-35					
	Rate for concrete may be adopted same as for bottom plug vide item no. 12( F ) (IV)	cum	22.50			
	<b>b ) Material</b>					
	Pile shoes					
	a) C I shoes	kg	160.00			
	b) M. S shoes	kg	70.00			
	c) Steel helmet and cushion block on top of pile head during driving.	Kg	30.00			
	<b>c) Machinery</b>					
	Crane 20 tonne capacity	hour	6.00			
	Vibrating Pile driving hammer complete with power unit and accessories.	hour	6.00			
	<b>d ) Labour</b>					
	Mate/Supervisor	day	0.18			
	Mazdoor (Unskilled)	day	4.50			
	Add 1 per cent of (a+b+c) for carriage of piles from casting yard to work site and stacking, and other imponderables during installation.			1.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Cost for 40 m = a+b+c+d+e+f</b>					
	<b>Rate per metre (a+b+c+d+e+f)/40</b>					
	<b>Note :</b> The quantity of concrete required to be removed above the designed top level of concrete, if any, will be provided for in the rate analysis.					
36	<b>Driven Vertical Steel Piles complete as per Drawing and &amp; Technical Specification in Section 1100 &amp; 1900 MORTH</b>					
	Section of the pile - H Section steel column 400 x 250 mm (ISHB Series)					
	<b>Unit = Running Meter</b>					
	<b>Taking output = 70 m</b>					
	<b>a) Materials</b>					
	Structural steel including 5 per cent wastage @ 82.20 kg/m	t	6.04			
	<b>b) Machinery</b>					
	Crane 10 T capacity	hour	6.00			
	Vibrating Pile driving hammer complete with power unit and other accessories.	hour	6.00			
	<b>c) Labour</b>					
	Mate/Supervisor	day	-			
	Mazdoor (Unskilled)	day	3.12			
	Add 0.5 per cent of (a+b+c) for providing steel helmet on top of pile head during driving, stacking of piles at site, providing anti-corrosion treatment and other imponderables during installation.			0.50%		
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Cost for 70 m = a+b+c+d+e</b>					
	<b>Rate per metre (a+b+c+d+e)/70</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
37	<b>Driven Vertical Steel Piles complete as per Drawing and &amp; Technical Specification 1108 &amp; Section 1100 &amp; 1900 MORTH</b>					
	Section of the pile - H Section steel column 450 x 250 mm (ISHB Series)					
	<b>Unit = Running Meter</b>					
	<b>Taking output = 60 m</b>					
	<b>a) Materials</b>					
	Structural steel including 5 per cent wastage @92.50 kg/m	tonne	5.83			
	<b>b) Machinery</b>					
	Crane 10 T capacity	hour	6.00			
	Vibrating Pile driving hammer complete with power unit and accessories.	hour	6.00			
	<b>c) Labour</b>					
	Mate/Supervisor	day	-			
	Mazdoor (Unskilled)	day	3.64			
	Add 0.5 per cent of (a+b+c) for providing steel helmet and cushion block on top of pile head during driving, stacking of piles at site, providing anti-corrosive treatment and other imponderables during installation.		<b>0.50%</b>			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 60 m = a+b+c+d+e</b>					
	<b>Rate per metre (a+b+c+d+e)/60</b>					
38	<b>Pile Load Test on single Vertical Pile in accordance with IS:2911(Part-IV) and as per Tech Specification 1113 MORTH</b>					
	<b>Unit = 1 MT</b>					
	<b>Taking output = 1 MT</b>					
	a) Initial and routine load test	t	1.00			
	b) Lateral load test	t	1.00			
	<b>Note</b> : Although, this item is incidental to work and is not required to be included in BOQ of contract, the same is required to be added in the estimate to assess cost of work.					
39	<b>Cement Concrete for Reinforced Concrete in Pile Cap complete as per Drawing and Technical Specifications in Section 1100, 1500 &amp; 1700 MORTH</b>					
	<b>A. RCC Grade M20 (Design Mix)</b>					
	<b>Unit = cum</b>					
	<b>Taking output = 15 cum</b>					
	<b>(i) Using Concrete Mixer</b>					
	<b>a) Material</b>					
	Cement	t	5.12			
	Coarse sand	cum	6.75			
	20 mm Aggregate	cum	8.10			
	10 mm Aggregate	cum	5.40			
	<b>b) Labour</b>					
	Mate	day	-			
	Mason	day	1.50			
	Mazdoor (Unskilled) for concreting	day	20.90			
	Mazdoor (Unskilled) for breaking pile head, bending bars, cleaning etc.	day	1.00			
	<b>c) Machinery</b>					
	Concrete mixer (cap. 0.40/0.28 cum)	hour	6.00			
	Generator (capacity 33 KVA)	hour	6.00			
	Formwork @ 4 per cent on cost of concrete i.e. cost of a) Material, b) Labour and c) Machinery	cum				
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 15 cum = a+b+c+d+e</b>					
	<b>Rate per metre (a+b+c+d+e)/15</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
(ii)	<b>RCC M 20 Design Mix Using Batching Plant, Transit Mixer and Concrete Pump</b>					
	<b>a) Material</b>					
	Cement	t	5.12			
	Coarse sand	cum	6.75			
	20 mm Aggregate	cum	8.10			
	10 mm Aggregate	cum	5.40			
	<b>b) Labour</b>					
	Mate	day	-			
	Mason	day	0.38			
	Mazdoor (Unskilled) for concreting	day	2.66			
	Mazdoor (Unskilled) for breaking pile head, bending bars, cleaning etc.	day	1.00			
	<b>c) Machinery</b>					
	Batching Plant @ 20 cum/hour	hour	0.75			
	Generator 100 KVA	hour	0.75			
	Loader (capacity 1 cum)	hour	0.75			
	Transit Mixer ( capacity 4.0 cu.m )					
	Lead upto 1 Km	hour	2.00			
	Lead beyond 1 Km, L - lead in Kilometer	t.km	37.5L			
	Concrete Pump	hour	0.75			
	Formwork @ 4 per cent on cost of concrete i.e. cost of a) Material, b) Labour and c) Machinery	cum	4.00%			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		18.00%			
	Cost for 15 cum = a+b+c+d+e					
	<b>Rate per metre (a+b+c+d+e)/15</b>					
	<b>Note :</b> The value of a, b and c may be taken as applicable i.e. either using concrete mixer or batching plant.					
B	<b>RCC Grade M25 Design Mix</b>					
	<b>Unit = cum</b>					
	<b>Taking output = 15 cum</b>					
(i)	<b>Using Concrete Mixer</b>					
	<b>a) Material</b>					
	Cement	t	5.99			
	Coarse sand	cum	6.75			
	20 mm Aggregate	cum	8.10			
	10 mm Aggregate	cum	5.40			
	<b>b) Labour</b>					
	Mate	day	-			
	Mason	day	1.50			
	Mazdoor (Unskilled) for concreting	day	20.90			
	Mazdoor (Unskilled) for breaking pile head, bending bars, cleaning etc.	day	1.00			
	<b>c) Machinery</b>					
	Concrete mixer (cap. 0.40/0.28 cum)	hour	6.00			
	Generator (capacity 33 KVA)	hour	6.00			
	Formwork @ 4 per cent on cost of concrete i.e. cost of a) Material, b) Labour and c) Machinery	cum	4.00%			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		18.00%			
	Cost for 15 cum = a+b+c+d+e					
	<b>Rate per metre (a+b+c+d+e)/15</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
(ii)	<b>RCC M 25 Design Mix Using Batching Plant, Transit Mixer and Concrete Pump</b>					
	<b>a) Material</b>					
	Cement	t	5.99			
	Coarse sand	cum	6.75			
	20 mm Aggregate	cum	8.10			
	10 mm Aggregate	cum	5.40			
	<b>b) Labour</b>					
	Mate	day	-			
	Mason	day	0.38			
	Mazdoor (Unskilled) for concreting	day	2.66			
	Mazdoor (Unskilled) for breaking pile head, bending bars, cleaning etc.	day	1.00			
	<b>c) Machinery</b>					
	Batching Plant @ 20 cum/hour	hour	0.75			
	Generator 125 KVA	hour	0.75			
	Loader (capacity 1 cum)	hour	0.75			
	Transit Mixer ( capacity 4.0 cu.m )					
	Lead upto 1 Km	hour	2.00			
	Lead beyond 1 Km, L - lead in Kilometer	t.km	37.5L			
	Concrete Pump	hour	0.75			
	Formwork @ 4 per cent on cost of concrete i.e. cost of a) Material, b) Labour and c) Machinery	cum	4.00%			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		18.00%			
	<b>Cost for 15 cum = a+b+c+d+e</b>					
	<b>Rate per metre (a+b+c+d+e)/15</b>					
	<b>Note :</b> The value of a, b and c may be taken as applicable i.e. either using concrete mixer or batching plant.					
<b>C</b>	<b>RCC Grade M30 Design Mix</b>					
	<b>Unit = cum</b>					
	<b>Taking output = 15 cum</b>					
(i)	<b>Using Concrete Mixer</b>					
	<b>a) Material</b>					
	Cement	t	6.10			
	Coarse sand	cum	6.75			
	20 mm Aggregate	cum	8.10			
	10 mm Aggregate	cum	5.40			
	<b>b) Labour</b>					
	Mate	day	-			
	Mason	day	1.50			
	Mazdoor (Unskilled) for concreting	day	20.90			
	Mazdoor (Unskilled) for breaking pile head, bending bars, cleaning etc.	day	1.00			
	<b>c) Machinery</b>					
	Concrete mixer (cap. 0.40/0.28 cum)	hour	6.00			
	Generator (capacity 33 KVA)	hour	6.00			
	Formwork @ 4 per cent on cost of concrete i.e. cost of a) Material, b) Labour and c) Machinery	cum	4.00%			
	<b>d) Overhead charges @ input on (a+b+c)</b>					
	<b>e) Contractor's profit @ input on (a+b+c+d)</b>					
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		18.00%			
	<b>Cost for 15 cum = a+b+c+d+e</b>					
	<b>Rate per metre (a+b+c+d+e)/15</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
(ii)	<b>RCC M 30 Design Mix Using Batching Plant, Transit Mixer and Concrete Pump</b>					
	<b>a) Material</b>					
	Cement	t	6.10			
	Coarse sand	cum	6.75			
	20 mm Aggregate	cum	8.10			
	10 mm Aggregate	cum	5.40			
	<b>b) Labour</b>					
	Mate	day	-			
	Mason	day	0.38			
	Mazdoor (Unskilled) for concreting	day	2.66			
	Mazdoor (Unskilled) for breaking pile head, bending bars, cleaning etc.	day	1.00			
	<b>c) Machinery</b>					
	Batching Plant @ 20 cum/hour	hour	0.75			
	Generator 100 KVA	hour	0.75			
	Loader (capacity 1 cum)	hour	0.75			
	Transit Mixer ( capacity 4.0 cu.m )					
	Lead upto 1 Km	hour	2.00			
	Lead beyond 1 Km, L - lead in Kilometer	tonne	37.5L			
	Concrete Pump	hour	0.75			
	Formwork @ 4 per cent on cost of concrete i.e. cost of Material, b) Labour and c) Machinery	a) cum	4.00%			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		18.00%			
	<b>Cost for 15 cum = a+b+c+d+e</b>					
	<b>Rate per metre (a+b+c+d+e)/15</b>					
	<b>Note</b> : The value of a, b and c may be taken as applicable i.e. either using concrete mixer or batching plant.					
D	<b>RCC Grade M35 Design Mix</b>					
	<b>Unit = cum</b>					
	<b>Taking output = 15 cum</b>					
(i)	<b>Using Concrete Mixer</b>					
	<b>a) Material</b>					
	Cement	t	6.33			
	Coarse sand	cum	6.75			
	20 mm Aggregate	cum	8.10			
	10 mm Aggregate	cum	5.40			
	<b>b) Labour</b>					
	Mate	day	-			
	Mason	day	1.50			
	Mazdoor (Unskilled)	day	2.90			
	Mazdoor (Unskilled) for breaking pile head, bending bars, cleaning etc.	day	1.00			
	<b>c) Machinery</b>					
	Concrete mixer (cap. 0.40/0.28 cum)	hour	6.00			
	Generator (capacity 33 KVA)	hour	6.00			
	Formwork @ 4 per cent on cost of concrete i.e. cost of Material, b) Labour and c) Machinery	a) cum	4.00%			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		18.00%			
	<b>Cost for 15 cum = a+b+c+d+e</b>					
	<b>Rate per metre (a+b+c+d+e)/15</b>					
(ii)	<b>RCC M 35 Design Mix Using Batching Plant, Transit Mixer and Concrete Pump</b>					
	<b>a) Material</b>					
	Cement	t	6.33			
	Coarse sand	cum	6.75			
	20 mm Aggregate	cum	8.10			
	10 mm Aggregate	cum	5.40			
	<b>b) Labour</b>					
	Mate	day	-			
	Mason	day	0.38			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	Mazdoor (Unskilled) for concreting	day	2.66			
	Mazdoor (Unskilled) for breaking pile head, bending bars, cleaning etc.	day	1.00			
	<b>c) Machinery</b>					
	Batching Plant @ 20 cum/hour	hour	0.75			
	Generator 125 KVA	hour	0.75			
	Loader (capacity 1 cum)	hour	0.75			
	Transit Mixer ( capacity 4.0 cu.m )					
	Lead upto 1 Km	hour	2.00			
	Lead beyond 1 Km, L - lead in Kilometer	t.km	37.5L			
	Concrete Pump	hour	0.75			
	Formwork @ 4 per cent on cost of concrete i.e. cost of Material, b) Labour and c) Machinery	a) cum	4.00%			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		18.00%			
	Cost for 15 cum = a+b+c+d+e					
	Rate per metre (a+b+c+d+e)/15					
40	<b>Leveling Course for Pile cap</b>					
	<b>Providing and laying of PCC M15 (Design Mix) leveling course 100mm thick below the pile cap.</b>					
	<b>Unit = cum</b>					
	<b>Taking output = 15 cum</b>					
	<b>a) Material</b>					
	Cement	t	4.13			
	Coarse sand	cum	6.75			
	40 mm aggregate	cum	8.10			
	20 mm Aggregate	cum	4.05			
	10 mm Aggregate	cum	1.35			
	<b>b) Labour</b>					
	Mate	day	-			
	Mason	day	1.50			
	Mazdoor (Unskilled)	day	20.86			
	<b>c) Machinery</b>					
	Concrete mixer (cap. 0.40/0.28 cum)	hour	6.00			
	Generator 33 KVA	hour	6.00			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		18.00%			
	Cost for 15 cum = a+b+c+d+e					
	Rate per metre (a+b+c+d+e)/15					

**General Note :**

The provisions towards Mate is included in the provision towards unskilled Mazdoor.

**Andhra Pradesh Standard Data**

**I. Roads and Bridges**

**Chapter - 12**

**SUBSTRUCTURE**

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
1	<b>Brick masonry work in cement mortar in substructure complete excepting pointing and plastering, as per drawing and technical specification Clauses 602, 603, 604, 1202 &amp; 1204 MORD and 1300 &amp; 2200 MORTH</b>					
	<b>I In 1:3 cement mortar</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Bricks 1st class traditional size 23 x 11 x 7 cm	Nos.	512			
	Cement mortar (Rate as in item 11.5 I)	cum	0.200			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason 1st Class	day	0.270			
	Mason 2nd Class	day	0.620			
	Mazdoor (Unskilled)	day	1.800			
	Add for scaffolding @ 5 per cent of cost of materials and labour (a+b)					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate per cum = a+b+c+d</b>					
	<b>II In 1:4 Cement mortar</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Bricks 1st class traditional size 23 x 11 x 7 cm	Nos.	512			
	Cement mortar (Rate as in item 11.5 II)	cum	0.200			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason 1st Class	day	0.270			
	Mason 2nd Class	day	0.620			
	Mazdoor (Unskilled)	day	1.800			
	Add for scaffolding @ 5 per cent of cost of materials and labour (a+b)					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate per cum = a+b+c+d</b>					
	<b>III In 1:5 cement mortar</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Bricks 1st class traditional size 23 x 11 x 7 cm	Nos.	512			
	Cement mortar	cum	0.200			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason 1st Class	day	0.270			
	Mason 2nd Class	day	0.620			
	Mazdoor (Unskilled)	day	1.800			
	Add for scaffolding @ 5 per cent of cost of materials and labour (a+b)					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate per cum = a+b+c+d</b>					
	<b>Sub-analysis</b>					
	<b>Cement mortar 1:5 (1 cement, 5 sand)</b>					
	<b>(a) Material</b>					
	Cement	t	0.288			
	Sand	cum	1.050			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.200			
	<b>Total material and labour = (a+b)</b>					



S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
IV	<b>In cement lime mortar (1:0.5:4.5)</b> Unit = cum					
	<b>(a) Material</b>					
	Bricks 1st class traditional size 23 x 11 x 7 cm	Nos.	512			
	Cement lime mortar (Rate as in item 11.5 III)	cum	0.200			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason 1st Class	day	0.620			
	Mazdoor (Unskilled)	day	1.800			
	Add for scaffolding @ 5 per cent of cost of materials and labour (a+b)					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate per cum = a+b+c+d</b>					
V	<b>In 1:5 cement mortar (with Modular Bricks)</b> Unit = cum					
	<b>(a) Material</b>					
	Bricks 1st class Modular size 19 x 9 x 9 cm	Nos.	520			
	Cement mortar	cum	0.200			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason 1st Class	day	0.270			
	Mason 2nd Class	day	0.620			
	Mazdoor (Unskilled)	day	1.800			
	Add for scaffolding @ 5 per cent of cost of materials and labour (a+b)					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate per cum = a+b+c+d</b>					
	<b>Note : 1.</b> The compressive strength of any individual Brick shall not be less than 70 Kg/cm <sup>2</sup>					
	<b>2.</b> When Mortar mix is changed as CM 1:3 & 1:4 proportionate quantity of cement has to be substituted. No change in other data.					
2	<b>Pointing with cement mortar (1:3) on brickwork as per drawing and technical specification Clauses 613.3 and 1204 MORD and 1300 &amp; 2200 MORTH</b> Unit = 10 sqm					
	Taking output = 10 sqm					
	<b>(a) Material</b>					
	Cement mortar 1.3 (Rate as in item 11.5. I)	cum	0.030			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason 1st Class	day	0.500			
	Mason 2nd Class	day	-			
	Mazdoor (Unskilled)	day	0.740			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate per 10 sqm = (a+b+c+d)</b>					
	<b>Note :</b> Scaffolding is already included in item 12.1					
3	<b>A Plastering with cement mortar (1:4), 15 mm thick on brickwork in substructure as per technical specification Clauses 613.4 &amp; 1204 MORD</b> Unit = 10 sqm					
	Taking output = 10 sqm					
	<b>(a) Material</b>					
	Cement mortar 1:4 (Rate as in item 11.5 II)	cum	0.190			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason 1st Class	day	0.600			
	Mazdoor (Unskilled)	day	0.960			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate per 10 sqm = (a+b+c+d)</b>					
	<b>Note : 1.</b> Scaffolding is already included in item 12.1					
	<b>2.</b> Though cement mortar of leaner mix has been included in item 12.1, for cement plaster mix of 1:4 has been proposed for better finishing					
	<b>3.</b> If cement plaster 12 mm or 18 mm thick is required elsewhere only the quantity of cement mortar may be changed on prorata basis without any change in the labour.					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
B	Plastering with cement mortar (1:3), on brickwork in substructure as per technical specification Section 1300 & 2200 MORTH Unit = 10 sqm Taking output = 10 sqm					
	<b>(a) Material</b>					
	Cement mortar 1:3 (Rate as in item 11.5 II )	cum	0.144			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason 1st Class	day	0.500			
	Mazdoor (Unskilled)	day	0.540			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per 10 sqm = (a+b+c+d)</b>					
	<b>Note : 1.</b> Scaffolding is already included in item 12.1					
C	Plastering with cement mortar (1:5), on brickwork in substructure as per technical specification 1300 & 2200 MORTH Unit = 10 sqm Taking output = 10 sqm					
	<b>(a) Material</b>					
	Cement mortar 1:5 (Rate as in item 11.5 II )	cum	0.144			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason 1st Class	day	0.500			
	Mazdoor (Unskilled)	day	0.540			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per 10 sqm = (a+b+c+d)</b>					
	<b>Note : 1.</b> Scaffolding is already included in item 12.1					
4	Stone masonry in cement mortar for substructure complete as per drawing & technical specification Clauses 702, 704, 1202 & 1204 MORD and 1400 & 2200 MORTH					
I	<b>Coursed rubble masonry (1st sort)</b>					
(i)	<b>In 1:3 cement mortar</b> Unit = cum					
	<b>(a) Material</b>					
	Stone for CR masonry 1st sort	cum	0.940			
	Through and bond stone (7 no x 0.24 x 0.24 m x 0.39 m = 0.16 cum)	Nos.	0.160			
	Cement mortar (Rate as in item 11.5. I)	cum	0.280			
	<b>(b) Labour</b>					
	Mate	day				
	Mason 1st Class	day	2.500			
	Mason 2nd Class	day				
	Mazdoor (Unskilled)	day	2.320			
	Add for scaffolding @ 5 per cent of cost of material (a) and labour (b) (a+b)					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = a+b+c+d</b>					
	<b>(ii) In 1:4 cement mortar</b> Unit = cum					
	<b>(a) Material</b>					
	Stone for CR masonry 1st sort	cum	0.940			
	Through and bond stone (7 no x 0.24 x 0.24 m x 0.39 m = 0.16 cum)	Nos.	0.160			
	Cement mortar (Rate as in item 11.5.II)	cum	0.280			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason 1st Class	day	2.500			
	Mazdoor (Unskilled)	day	2.320			
	Add for scaffolding @ 5 per cent of cost of material (a) and labour (b) 5% on (a+b)					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = a+b+c+d</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
(iii)	<b>In cement mortar (1:5)</b> Unit = cum					
	<b>(a) Material</b>					
	Stone for CR masonry 1st sort	cum	0.940			
	Through and bond stone (7 no x 0.24 x 0.24 m x 0.39 m = 0.16 cum)	Nos.	0.160			
	Spalls / blasted rubbles	cum	-			
	Cement mortar (Rate same as in item 12.1 III)	cum	0.280			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason 1st Class	day	2.500			
	Mazdoor (Unskilled)	day	2.320			
	As for scaffolding @ 5% on (a+b)					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = a+b+c+d</b>			<b>18.00%</b>		
(iv)	<b>In cement lime mortar (1:0.5:4.5)</b> Unit = cum					
	<b>(a) Material</b>					
	Stone for CR masonry 1st sort	cum	0.940			
	Through and bond stone (7 no x 0.24 x 0.24 m x 0.39 m = 0.16 cum)	Nos.	0.160			
	Cement lime mortar (Rate as in item 11.5. III)	cum	0.280			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason 1st Class	day	2.500			
	Mazdoor (Unskilled)	day	2.320			
	Add for scaffolding @ 5% of (a) and (b)					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = a+b+c+d</b>			<b>18.00%</b>		
II	<b>Coursed Rubble masonry (2nd sort)</b>					
(i)	<b>In cement mortar (1:3)</b> Unit = cum					
	<b>(a) Material</b>					
	Stone for CR masonry 2nd sort	cum	0.940			
	Through and bond stone (7 no x 0.24 x 0.24 m x 0.39 m = 0.16 cum)	Nos.	0.160			
	Spalls/blasted rubbles	cum	-			
	Cement mortar (Rate as in item 11.5 I)	cum	0.320			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason 1st Class	day	1.500			
	Mason 2nd Class	day	-			
	Mazdoor (Unskilled)	day	2.220			
	Add for scaffolding @ 5 per cent of cost of material (a) and labour (b)					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = a+b+c+d</b>			<b>18.00%</b>		
(ii)	<b>In 1:4 cement mortar</b> Unit = cum					
	<b>(a) Material</b>					
	Stone for CR masonry 2nd sort	cum	0.940			
	Through and bond stone (7 no x 0.24 x 0.24 m x 0.39 m = 0.16 cum)	Nos.	0.160			
	Spalls/blasted rubbles	cum	-			
	Cement mortar (Rate same as in item 11.5 II)	cum	0.320			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason 1st Class	day	1.500			
	Mason 2nd Class	day	-			
	Mazdoor (Unskilled)	day	2.220			
	Add for scaffolding @ 5 per cent of cost of material (a) and labour (b)					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = a+b+c+d</b>			<b>18.00%</b>		

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
(iii)	<b>In cement mortar (1:5)</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Stone for CR masonry 2nd sort	cum	0.940			
	Through and bond stone (7 no x 0.24 x 0.24 m x 0.39 m = 0.16 cum)	Nos.	0.160			
	Spalls/blasted rubbles	cum	-			
	Cement mortar (Rate same as in item 12.1 III)	cum	0.320			
	<b>(b) Labour</b>					
	Mate	day				
	Mason 1st Class	day	1.500			
	Mason 2nd Class	day	-			
	Mazdoor (Unskilled)	day	2.220			
	Add for scaffolding @ 5 per cent on (a+b)					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = a+b+c+d</b>			<b>18.00%</b>		
(iv)	<b>In cement lime mortar (1:0.5:4.5)</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Stone for CR masonry 2nd sort	cum	0.940			
	Through and bond stone (7 no x 0.24 x 0.24 m x 0.39 m = 0.16 cum)	Nos.	0.160			
	Spalls/blasted rubbles	cum	-			
	Cement lime mortar (Rate as in item 11.5 III)	cum	0.320			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason 1st Class	day	1.500			
	Mazdoor (Unskilled)	day	2.220			
	Add for scaffolding @ 5 per cent on (a+b)					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = a+b+c+d</b>			<b>18.00%</b>		
III	<b>Random rubble masonry</b>					
(i)	<b>In cement mortar (1:3)</b>					
	Unit = cum					
	<b>(a) Material</b>					
	<b>Coursed Rubble Stone</b>	cum	0.440			
	Stone for RR masonry	cum	0.500			
	Through and bond stone (7 no x 0.24 x 0.24 m x 0.39 m = 0.16 cum)	Nos.	0.160			
	Cement mortar (Rate as in item 11.5 I)	cum	0.330			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason 1st Class	day	1.200			
	Mason 2nd Class	day	-			
	Mazdoor (Unskilled)	day	2.000			
	Add for scaffolding @ 5 per cent of cost of material (a) and labour (b)					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = a+b+c+d</b>			<b>18.00%</b>		
(ii)	<b>In 1:4 cement mortar</b>					
	Unit = cum					
	<b>(a) Material</b>					
	<b>Coursed Rubble Stone</b>	cum	0.440			
	Stone for RR masonry	cum	0.500			
	Through and bond stone (7 no x 0.24 x 0.24 m x 0.39 m = 0.16 cum)	Nos.	0.160			
	Cement mortar (Rate same as in item 11.5 II)	cum	0.330			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason 1st Class	day	1.200			
	Mason 2nd Class	day	-			
	Mazdoor (Unskilled)	day	2.000			
	Add for scaffolding @ 5 per cent of cost of material (a) and labour (b) 5% on (a+b)					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = a+b+c+d</b>			<b>18.00%</b>		

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
(iii)	<b>In cement mortar (1:5)</b> Unit = cum					
	<b>(a) Material</b>					
	<b>Coursed Rubble Stone</b>	cum	0.440			
	Stone for RR masonry	cum	0.500			
	Through and bond stone (7 no x 0.24 x 0.24 m x 0.39 m = 0.16 cum)	Nos.	0.160			
	Cement mortar (Rate same as in item 12.1 III)	cum	0.330			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason 1st Class	day	1.200			
	Mason 2nd Class	day	-			
	Mazdoor (Unskilled)	day	2.000			
	Add for scaffolding @ 5 per cent on (a+b)					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = a+b+c+d</b>			18.00%		
IV	<b>Ashlar masonry ( first sort ) Tech. Specification 1405.5 MORTH</b> <b>Plain ashlar</b> Unit = cum					
	<b>Taking output = 1 cum</b>					
	<b>a) Material</b>					
	Stone	cum	1.110			
	Through and bond stone (7no.x0.24mx0.24mx0.39m = 0.16 cu.m)	each	7.000			
	Cement mortar 1:3 (Rate as in Item 11.5 I)	cum	0.280			
	<b>b) Labour for masonry work</b>					
	Mate	day	-			
	Mason	day	2.500			
	Mazdoor (Unskilled)	day	2.700			
	Add for scaffolding @ 5 per cent of cost of a) Material and b) Labour					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum (a+b+c+d)</b>			18.00%		
	<b>Note :</b> The labour already considered in the cement mortar have been taken into account while providing these categories in the stone masonry works.					
5	<b>Plain/reinforced cement concrete in substructure complete as per drawings and technical specification Clauses 802, 804, 805, 806, 807, 1202 and 1204 MORD and 1500, 1700 &amp;</b> <b>Note :</b> Water for concrete : A provision for cost of water may be added at 1.2 kl / 1 cum (including curing purpose) keeping the site conditions <b>Coarse Aggregate :</b> Single grade nominal size can also be used instead of graded metal, keeping the site conditions in view <b>For height upto 5 m</b> Unit = cum					
I	<b>P.C.C grade M 15</b>					
i	<b>Nominal mix (1:2.5:5) using CC Mixer (MORD)</b> Unit = cum					
	<b>(a) Material</b>					
	Cement	t	0.275			
	Coarse sand	cum	0.480			
	40 mm aggregate	cum	0.480			
	20 mm aggregate	cum	0.240			
	10 mm aggregate	cum	0.080			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	0.100			
	Mazdoor (Unskilled)	day	1.390			
	<b>(c) Machinery</b>					
	Concrete mixer 0.4/0.28 cum capacity	hour	0.400			
	<b>(d) Formwork @ 10% on cost of material, labour and machinery (a+b+c)</b>					
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = a+b+c+d+e+f</b>			18.00%		

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
(ii)	<b>Nominal mix 1:2.5:5 (Hand mixing) (MORD)</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Cement	t	0.275			
	Coarse sand	cum	0.480			
	40 mm aggregate	cum	0.540			
	20 mm aggregate	cum	0.270			
	10 mm aggregate	cum	0.090			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	0.100			
	Mazdoor (Unskilled)	day	2.360			
	<b>(c) Formwork @ 10% on (a+b)</b>					
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = a+b+c+d+e</b>					
II	<b>P.C.C. grade M 20 - Height upto 5m</b>					
(i)	<b>Nominal mix (1:2:4) using CC Mixer (MORD)</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Cement	t	0.330			
	Coarse sand	cum	0.450			
	40 mm aggregate	cum	0.360			
	20 mm aggregate	cum	0.360			
	10 mm aggregate	cum	0.180			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	0.100			
	Mason 2nd Class	day	-			
	Mazdoor (Unskilled)	day	1.390			
	<b>(c) Machinery</b>					
	Concrete mixer 0.4/0.28 cum capacity	hour	0.400			
	Generator 63 KVA	hour	0.400			
	Vibrator					
	<b>(d) Formwork @ 10% on cost of material, labour and machinery (a+b+c)</b>					
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = a+b+c+d+e+f</b>					
(a)	<b>Height 5m to 10m</b>					
	<b>Case I : Using concrete Mixer</b>					
	<b>Per Cum Basic Cost of Labour, Material &amp; Machinery (a+b+c) of above Item (excluding Form Work)</b>	cum	1.000			
	<b>d) formwork</b>					
	Add on cost of material, labour and machinery (a+b+c) for					
	Add on cost of material, Labour and machinery excluding formwork to cater for extra lift					
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>					
	<b>Rate perm (a+b+c+d+e+f)</b>					
(ii)	<b>Nominal mix 1:2:4 (Hand mixed) (MORD)</b>					
(a)	<b>Height upto 5m</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Cement	t	0.330			
	Sand	cum	0.450			
	40 mm aggregate	cum	0.360			
	20 mm aggregate	cum	0.360			
	10 mm aggregate	cum	0.180			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	0.100			
	Mazdoor (Unskilled)	day	2.360			
	<b>(c) Formwork @ 10% out of material and labour (a+b)</b>					
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = a+b+c+d+e</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
(b)	<b>Height 5m to 10m</b>					
	<b>Per Cum Basic Cost of Labour, Material &amp; Machinery (a+b+c) of item (a) above (excluding Form Work)</b>	cum	1.000			
	<b>d) formwork</b>					
	Add on cost of material, labour and machinery (a+b+c) for Formwork			<b>10.00%</b>		
	Add on cost of material, Labour and machinery excluding formwork to cater for extra lift			<b>2.00%</b>		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate perm (a+b+c+d+e+f)</b>					
III	<b>PCC Grade M15 (Design Mix) (MORTH):</b>					
(i)	<b>For height upto 5 m</b>					
	<b>Case I : Using Concrete mixer :</b>					
	<b>Rate per Cum</b>					
	<b>Per Cum Basic Cost of Labour, Material &amp; Machinery (a+b+c) of Chapter 11. 4(B)(i) of Chapter 11, excluding formwork.</b>	cum	1.000			
	<b>d) formwork</b>					
	Add on cost of material, labour and machinery (a+b+c) for Formwork			<b>10.00%</b>		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate perm (a+b+c+d+e+f)</b>					
III	<b>PCC Grade M20 (Design Mix) (MORTH) :</b>					
(ii)	<b>For height upto 5 m</b>					
	<b>Case I : Using Concrete mixer :</b>					
	<b>Rate per Cum</b>					
	<b>Per Cum Basic Cost of Labour, Material &amp; Machinery (a+b+c) of Chapter 11.4(B)(ii) of Chapter 11, excluding formwork.</b>	cum	1.000			
	<b>d) formwork</b>					
	Add on cost of material, labour and machinery (a+b+c) for Formwork			<b>10.00%</b>		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate perm (a+b+c+d+e+f)</b>					
III	<b>PCC Grade M25 (Design Mix) (MORTH):</b>					
(iii)	<b>(i) For height upto 5 m</b>					
	<b>i Case I : Using Concrete mixer :</b>					
	<b>Rate per Cum</b>					
	<b>Per Cum Basic Cost of Labour, Material &amp; Machinery (a+b+c) of Chapter 11.4 (D) Case I excluding formwork.</b>	cum	1.000			
	<b>d) formwork</b>					
	Add on cost of material, labour and machinery (a+b+c) for Formwork			<b>10.00%</b>		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate perm (a+b+c+d+e+f)</b>					
	<b>Case II : With Batching Plant, Transit Mixer and Concrete Pump</b>					
	<b>Per Cum Basic Cost of Labour, Material &amp; Machinery (a+b+c) of Chapter 11.4 (D) Case II excluding formwork.</b>	cum	1.000			
	<b>d) formwork</b>					
	Add on cost of material, labour and machinery (a+b+c) for Formwork			<b>10.00%</b>		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate perm (a+b+c+d+e+f)</b>					
(ii)	<b>Height 5m to 10m</b>					
	<b>Case I : Using concrete Mixer</b>					
	<b>Per Cum Basic Cost of Labour, Material &amp; Machinery (a+b+c) of Chapter 11.4 (D) Case I excluding formwork.</b>	cum	1.000			
	<b>d) formwork</b>					
	Add on cost of material, labour and machinery (a+b+c) for Formwork			<b>12.00%</b>		
	Add on cost of material, Labour and machinery excluding formwork to cater for extra lift			<b>2.00%</b>		

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>		18.00%			
	<b>Rate perm (a+b+c+d+e+f)</b>					



S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>Case II : With Batching Plant, Transit Mixer and Concrete Pump</b>					
	<b>Per Cum Basic Cost of Labour, Material &amp; Machinery (a+b+c) of Chapter 11. 4 (D) Case II excluding formwork.</b>	cum	1.000			
	<b>d) formwork</b>					
	Add on cost of material, labour and machinery (a+b+c) for Formwork			<b>12.00%</b>		
	Add on cost of material, Labour and machinery excluding formwork to cater for extra lift			<b>2.00%</b>		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate perm (a+b+c+d+e+f)</b>					
(iii)	<b>Height above 10m</b>					
	<b>Case I : Using concrete Mixer</b>					
	<b>Per Cum Basic Cost of Labour, Material &amp; Machinery (a+b+c) of Chapter 11. 4(D) Case I excluding formwork.</b>	cum	1.000			
	<b>d) formwork</b>					
	Add on cost of material, labour and machinery (a+b+c) for Formwork			<b>15.00%</b>		
	Add on cost of material, Labour and machinery excluding formwork to cater for extra lift			<b>4.00%</b>		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate perm (a+b+c+d+e+f)</b>					
	<b>Case II : With Batching Plant, Transit Mixer and Concrete Pump</b>					
	<b>Per Cum Basic Cost of Labour, Material &amp; Machinery (a+b+c) of Item 4 (D) Case II excluding formwork.</b>	cum	1.000			
	<b>d) formwork</b>					
	Add on cost of material, labour and machinery (a+b+c) for Formwork			<b>15.00%</b>		
	Add on cost of material, Labour and machinery excluding formwork to cater for extra lift			<b>4.00%</b>		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate perm (a+b+c+d+e+f)</b>					
IV D	<b>PCC Grade M30 (Design Mix) (MORTH):</b>					
(i)	<b>Height upto 5m</b>					
	<b>Case I : Using concrete Mixer</b>					
	<b>Per Cum Basic Cost of Labour, Material &amp; Machinery (a+b+c) of Chapter 11.4 (F) Case I excluding formwork.</b>	cum	1.00			
	<b>d) formwork</b>					
	Add on cost of material, labour and machinery (a+b+c) for Formwork			<b>10.00%</b>		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate perm (a+b+c+d+e+f)</b>					
	<b>Case II : With Batching Plant, Transit Mixer and Concrete Pump</b>					
	<b>Per Cum Basic Cost of Labour, Material &amp; Machinery (a+b+c) of Chapter 11.4 (F) Case II excluding formwork.</b>	cum	1.00			
	<b>d) formwork</b>					
	Add on cost of material, labour and machinery (a+b+c) for Formwork			<b>10.00%</b>		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate perm (a+b+c+d+e+f)</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
(ii)	<b>Height 5m to 10m</b>					
	<b>Case I : Using concrete Mixer</b>					
	Per Cum Basic Cost of Labour, Material & Machinery (a+b+c) of Chapter 11.4 (F) Case I excluding formwork.	cum	1.00			
	<b>d) formwork</b>					
	Add on cost of material, labour and machinery (a+b+c) for Formwork			12.00%		
	Add on cost of material, Labour and machinery excluding formwork to cater for extra lift			2.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate perm (a+b+c+d+e+f)</b>					
	<b>Case II : With Batching Plant, Transit Mixer and Concrete</b>					
	Per Cum Basic Cost of Labour, Material & Machinery (a+b+c) of Chapter 11.4 (F) Case II excluding formwork.	cum	1.00			
	<b>d) formwork</b>					
	Add on cost of material, labour and machinery (a+b+c) for Formwork			12.00%		
	Add on cost of material, Labour and machinery excluding formwork to cater for extra lift			2.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate perm (a+b+c+d+e+f)</b>					
(iii)	<b>Height above 10m</b>					
	<b>Case I : Using concrete Mixer</b>					
	Per Cum Basic Cost of Labour, Material & Machinery (a+b+c) of Chapter 11.4 (F) Case I excluding formwork.	cum	1.00			
	<b>d) formwork</b>					
	Add on cost of material, labour and machinery (a+b+c) for			15.00%		
	Add on cost of material, Labour and machinery excluding formwork to cater for extra lift			4.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate perm (a+b+c+d+e+f)</b>					
	<b>Case II : With Batching Plant, Transit Mixer and Concrete</b>					
	Per Cum Basic Cost of Labour, Material & Machinery (a+b+c) of Chapter 11. 4 (F) Case II excluding formwork.	cum	1.00			
	<b>d) formwork</b>					
	Add on cost of material, labour and machinery (a+b+c) for Formwork			15.00%		
	Add on cost of material, Labour and machinery excluding formwork to cater for extra lift			4.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate perm (a+b+c+d+e+f)</b>					
V	<b>R.C.C grade M 20 (Nominal Mix) (MORD):</b>					
	Unit = cum					
(i)	<b>Height upto 5m</b>					
	<b>Case I : Using concrete Mixer</b>					
	<b>(a) Material</b>					
	Cement	t	0.330			
	Coarse sand	cum	0.450			
	20 mm aggregate	cum	0.540			
	10 mm aggregate	cum	0.360			
	<b>(b) Labour</b>					
	Mate	day				
	Mason (1st Class)	day	0.100			
	Mason 2nd Class	day	-			
	Mazdoor (Unskilled)	day	1.390			
	<b>(c) Machinery</b>					
	Concrete mixer 0.4/0.28 cum capacity	hour	0.400			
	Generator 33 KVA	hour	0.400			
	<b>(d) Formwork @ 10% on (a+b+c)</b>			10.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per cum = a+b+c+d+e+f</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
(ii)	<b>Height 5m to 10m</b>					
	<b>Case I : Using concrete Mixer</b>					
	<b>Per Cum Basic Cost of Labour, Material &amp; Machinery (a+b+c) of Item V(A)(i) above excluding formwork.</b>	cum	1.00			
	<b>d) formwork</b>					
	Add on cost of material, labour and machinery (a+b+c) for Formwork			<b>12.00%</b>		
	Add on cost of material, Labour and machinery excluding formwork to cater for extra lift			<b>2.00%</b>		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate perm (a+b+c+d+e+f)</b>					
(iii)	<b>Height above 10m</b>					
	<b>Case I : Using concrete Mixer</b>					
	<b>Per Cum Basic Cost of Labour, Material &amp; Machinery (a+b+c) of Item V(A)(i) above excluding formwork.</b>	cum	1.00			
	<b>d) formwork</b>					
	Add on cost of material, labour and machinery (a+b+c) for			<b>15.00%</b>		
	Add on cost of material, Labour and machinery excluding formwork to cater for extra lift			<b>4.00%</b>		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate perm (a+b+c+d+e+f)</b>					
V	<b>R.C.C grade M 20 (Design Mix) (MORTH):</b>					
	Unit = cum					
(i)	<b>Height upto 5m</b>					
	<b>Case I : Using concrete Mixer</b>					
	<b>(a) Material</b>					
	Cement	t	0.347			
	Coarse sand	cum	0.45			
	20 mm aggregate	cum	0.54			
	10 mm aggregate	cum	0.36			
	<b>(b) Labour</b>					
	Mate	day	0.06			
	Mason (1st Class)	day	0.10			
	Mason 2nd Class	day				
	Mazdoor (Unskilled)	day	1.33			
	<b>(c) Machinery</b>					
	Concrete mixer 0.4/0.28 cum capacity	hour	0.40			
	Generator 33 KVA	hour	0.40			
	<b>(d) Formwork @ 10% on (a+b+c)</b>			<b>10.00%</b>		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate per cum = a+b+c+d+e+f</b>					
	<b>Case II : With Batching Plant, Transit Mixer and Concrete</b>					
	<b>Per Cum Basic Cost of Labour, Material &amp; Machinery (a+b+c) of Chapter 11.4 (c)(ii) Case II excluding formwork.</b>	cum	1.00			
	<b>d) formwork</b>					
	Add on cost of material, labour and machinery (a+b+c) for Formwork			<b>10.00%</b>		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>					
	<b>Rate perm (a+b+c+d+e+f)</b>					
(ii)	<b>Height 5m to 10m</b>					
	<b>Case I : Using concrete Mixer</b>					
	<b>Per Cum Basic Cost of Labour, Material &amp; Machinery (a+b+c) of Item V(B)(i) Case I excluding formwork.</b>	cum	1.00			
	<b>d) formwork</b>					
	Add on cost of material, labour and machinery (a+b+c) for			<b>12.00%</b>		
	Add on cost of material, Labour and machinery excluding formwork to cater for extra lift			<b>2.00%</b>		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate perm (a+b+c+d+e+f)</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>Case II : With Batching Plant, Transit Mixer and Concrete Pump</b>					
	Per Cum Basic Cost of Labour, Material & Machinery (a+b+c) of Chapter 11.4 (C) (ii) Case II excluding formwork.	cum	1.00			
	<b>d) formwork</b>					
	Add on cost of material, labour and machinery (a+b+c) for			<b>12.00%</b>		
	Add on cost of material, Labour and machinery excluding formwork to cater for extra lift			<b>2.00%</b>		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate perm (a+b+c+d+e+f)</b>					
(iii)	<b>Height above 10m</b>					
	<b>Case I : Using concrete Mixer</b>					
	Per Cum Basic Cost of Labour, Material & Machinery (a+b+c) of Item V (B) (i) Case I excluding formwork.	cum	1.00			
	<b>d) formwork</b>					
	Add on cost of material, labour and machinery (a+b+c) for			<b>15.00%</b>		
	Add on cost of material, Labour and machinery excluding formwork to cater for extra lift			<b>4.00%</b>		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate perm (a+b+c+d+e+f)</b>					
	<b>Case II : With Batching Plant, Transit Mixer and Concrete</b>					
	Per Cum Basic Cost of Labour, Material & Machinery (a+b+c) of Chapter 11.4 (C) (ii) Case II excluding formwork.	cum	1.00			
	<b>d) formwork</b>					
	Add on cost of material, labour and machinery (a+b+c) for Formwork			<b>15.00%</b>		
	Add on cost of material, Labour and machinery excluding formwork to cater for extra lift			<b>4.00%</b>		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate perm (a+b+c+d+e+f)</b>					
VI	<b>R.C.C. grade M 25 (Design Mix)</b>					
	Unit = cum					
(i)	<b>Height upto 5m</b>					
	<b>Case I : Using concrete Mixer</b>					
	<b>(a) Material</b>					
	Cement	t	0.403			
	Coarse sand	cum	0.450			
	20 mm aggregate	cum	0.540			
	10 mm aggregate	cum	0.360			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	0.10			
	Mazdoor (Unskilled)	day	1.39			
	<b>(c) Machinery</b>					
	Concrete mixer 0.4/0.28 cum capacity	hour	0.40			
	Generator 33 KVA	hour	0.40			
	Vibrator	hour				
	<b>(d) Formwork @ 10% on (a+b+c)</b>			<b>10.00%</b>		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate per cum = a+b+c+d+e+f</b>					
	<b>Case II : With Batching Plant, Transit Mixer and Concrete Pump</b>					
	Per Cum Basic Cost of Labour, Material & Machinery (a+b+c) of Chapter 11.4 (E) Case II excluding of Formwork	cum	1			
	<b>d) formwork</b>					
	Add on cost of material, labour and machinery (a+b+c) for Formwork			<b>10.00%</b>		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate perm (a+b+c+d+e+f)</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
(ii)	<b>Height 5m to 10m</b>					
	<b>Case I : Using concrete Mixer</b>					
	<b>Per Cum Basic Cost of Labour, Material &amp; Machinery (a+b+c) of Item VI (i) Case I excluding of Formwork</b>	cum	1			
	<b>d) formwork</b>					
	Add on cost of material, labour and machinery (a+b+c) for Formwork			11.80%		
	Add on cost of material, Labour and machinery excluding formwork to cater for extra lift			1.80%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate perm (a+b+c+d+e+f)</b>					
	<b>Case II : With Batching Plant, Transit Mixer and Concrete Pump</b>					
	<b>Per Cum Basic Cost of Labour, Material &amp; Machinery (a+b+c) of Chapter 11.4 (E) Case II excluding of Formwork</b>	cum	1			
	<b>d) formwork</b>					
	Add on cost of material, labour and machinery (a+b+c) for Formwork			11.80%		
	Add on cost of material, Labour and machinery excluding formwork to cater for extra lift			1.80%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate perm (a+b+c+d+e+f)</b>					
(iii)	<b>Height above 10m</b>					
	<b>Case I : Using concrete Mixer</b>					
	<b>Per Cum Basic Cost of Labour, Material &amp; Machinery (a+b+c) of Item VI (i) Case I excluding of Formwork</b>	cum	1			
	<b>d) formwork</b>					
	Add on cost of material, labour and machinery (a+b+c) for Formwork			15.00%		
	Add on cost of material, Labour and machinery excluding formwork to cater for extra lift			4.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate perm (a+b+c+d+e+f)</b>					
	<b>Note in MORD : 1.</b> The cost of form work has been increased, for more height, to account for cost of side support to form work.					
	<b>2.</b> Extra expenditure on structures which are more than 5m height is to cater for cost involve for approaching the work spot by providing ramp for use by labour.					
	<b>Case II : With Batching Plant, Transit Mixer and Concrete Pump</b>					
	<b>Per Cum Basic Cost of Labour, Material &amp; Machinery (a+b+c) of Chapter 11.4 (E) Case II excluding of Formwork</b>	cum	1			
	<b>d) formwork</b>					
	Add on cost of material, labour and machinery (a+b+c) for Formwork			15.00%		
	Add on cost of material, Labour and machinery excluding formwork to cater for extra lift			4.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate perm (a+b+c+d+e+f)</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
VII	<b>RCC Grade M30 (Design Mix)</b>					
(i)	<b>Height upto 5m</b>					
	<b>Case I : Using concrete Mixer</b>					
	<b>Per Cum Basic Cost of Labour, Material &amp; Machinery (a+b+c) of Chapter 11.4(G) Case I excluding of d) formwork</b>	cum	1			
	Add on cost of material, labour and machinery (a+b+c) for Formwork			10.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate perm (a+b+c+d+e+f)</b>					
	<b>Case II : With Batching Plant, Transit Mixer and Concrete</b>					
	<b>Per Cum Basic Cost of Labour, Material &amp; Machinery (a+b+c) of Chapter 11.4(G) Case II excluding of Formwork d) formwork</b>	cum	1			
	Add on cost of material, labour and machinery (a+b+c) for Formwork			10.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate perm (a+b+c+d+e+f)</b>					
(ii)	<b>Height 5m to 10m</b>					
	<b>Case I : Using concrete Mixer</b>					
	<b>Per Cum Basic Cost of Labour, Material &amp; Machinery (a+b+c) of Chapter 11.4(G) Case I excluding of Formwork d) formwork</b>	cum	1			
	Add on cost of material, labour and machinery (a+b+c) for Formwork			11.50%		
	Add on cost of material, Labour and machinery excluding formwork to cater for extra lift			1.60%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate perm (a+b+c+d+e+f)</b>					
	<b>Case II : With Batching Plant, Transit Mixer and Concrete</b>					
	<b>Per Cum Basic Cost of Labour, Material &amp; Machinery (a+b+c) of Chapter 11.4(G) Case II d) formwork</b>	cum	1			
	Add on cost of material, labour and machinery (a+b+c) for Formwork			11.50%		
	Add on cost of material, Labour and machinery excluding formwork to cater for extra lift			1.60%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate perm (a+b+c+d+e+f)</b>					
(iii)	<b>Height above 10m</b>					
	<b>Case I : Using concrete Mixer</b>					
	<b>Per Cum Basic Cost of Labour, Material &amp; Machinery (a+b+c) of Chapter 11.4 (G) Case I excluding of Formwork d) formwork</b>	cum	1			
	Add on cost of material, labour and machinery (a+b+c) for Formwork			14.00%		
	Add on cost of material, Labour and machinery excluding formwork to cater for extra lift			3.50%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate perm (a+b+c+d+e+f)</b>					
	<b>Case II : With Batching Plant, Transit Mixer and Concrete Pump</b>					
	<b>Per Cum Basic Cost of Labour, Material &amp; Machinery (a+b+c) of Chapter 11.4(G) Case II excluding of Formwork d) formwork</b>	cum	1			
	Add on cost of material, labour and machinery (a+b+c) for Formwork			14.00%		
	Add on cost of material, Labour and machinery excluding formwork to cater for extra lift			3.50%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate perm (a+b+c+d+e+f)</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
VIII	<b>RCC Grade M35</b>					
(i)	<b>Height upto 5m</b>					
	<b>Case I : Using concrete Mixer</b>					
	<b>Per Cum Basic Cost of Labour, Material &amp; Machinery (a+b+c) of Chapter 11.4(H) Case I excluding of Formwork</b>	cum	1			
	<b>d) formwork</b>					
	Add on cost of material, labour and machinery (a+b+c) for Formwork			10.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate perm (a+b+c+d+e+f)</b>					
	<b>Case II : With Batching Plant, Transit Mixer and Concrete Pump</b>					
	<b>Per Cum Basic Cost of Labour, Material &amp; Machinery (a+b+c) of Chapter 11.4(H) Case II excluding of Formwork</b>	cum	1.000			
	<b>d) formwork</b>					
	Add on cost of material, labour and machinery (a+b+c) for Formwork			10.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate perm (a+b+c+d+e+f)</b>					
(ii)	<b>Height 5m to 10m</b>					
	<b>Case I : Using concrete Mixer</b>					
	<b>Per Cum Basic Cost of Labour, Material &amp; Machinery (a+b+c) of Chapter 11.4(H) Case I excluding of Formwork</b>	cum	1			
	<b>d) formwork</b>					
	Add on cost of material, labour and machinery (a+b+c) for Formwork			11.00%		
	Add on cost of material, Labour and machinery excluding formwork to cater for extra lift			1.40%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate perm (a+b+c+d+e+f)</b>					
	<b>Case II : With Batching Plant, Transit Mixer and Concrete Pump</b>					
	<b>Per Cum Basic Cost of Labour, Material &amp; Machinery (a+b+c) of Chapter 11.4(H) Case II excluding of Formwork</b>	cum	1.000			
	<b>d) formwork</b>					
	Add on cost of material, labour and machinery (a+b+c) for Formwork			11.00%		
	Add on cost of material, Labour and machinery excluding formwork to cater for extra lift			1.40%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate perm (a+b+c+d+e+f)</b>					
(iii)	<b>Height above 10m</b>					
	<b>Case I : Using concrete Mixer</b>					
	<b>Per Cum Basic Cost of Labour, Material &amp; Machinery (a+b+c) of Chapter 11.4(H) Case I excluding of Formwork</b>	cum	1			
	<b>d) formwork</b>					
	Add on cost of material, labour and machinery (a+b+c) for Formwork			13.00%		
	Add on cost of material, Labour and machinery excluding formwork to cater for extra lift			3.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate perm (a+b+c+d+e+f)</b>					
	<b>Case II : With Batching Plant, Transit Mixer and Concrete Pump</b>					
	<b>Per Cum Basic Cost of Labour, Material &amp; Machinery (a+b+c) of Chapter 11.4(H) Case II excluding of Formwork</b>	cum	1.000			
	<b>d) formwork</b>					
	Add on cost of material, labour and machinery (a+b+c) for Formwork			13.00%		
	Add on cost of material, Labour and machinery excluding formwork to cater for extra lift			3.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate perm (a+b+c+d+e+f)</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>Note in MORTH</b> : The basic components of this analysis are the same as those of items 13.8 (A to H). The only changes are as under:					
	<b>a)</b> Ramps/Stairs: Extra expenditure on structures which are more than 5 m high @ 2 per cent of cost for height upto 10 m and 4 per cent for heights above 10 m will be involved for approaching the work spot by providing higher ramp/stair case for use by the working parties.					
	<b>b)</b> The above mentioned percentages have been suitably modified for different categories as cost for various categories varies, whereas effort for access for same height will be similar. As the cost of richer concrete is comparatively more, the percentage to be added has been reduced to maintain the same cost for extra efforts.					
6	<b>Supplying, fitting and placing HYSD bar reinforcement (Fe 415) in substructure complete as per drawings and technical specification Clauses 1002, 1005, 1010 &amp; 1202 MORD / Sections 1600 &amp; 2200 MORTH for Bars below 36 mm dia including over laps and wastage, where they are not welded.</b>					
	Unit = t					
	<b>(a) Material</b>					
	HYSD bars including 5 per cent overlaps and wastage	t	1.050			
	Binding wire	kg	6.000			
	<b>(b) Labour for cutting, bending, shifting to site, tying, and placing in position</b>					
	Mate	day	-			
	Blacksmith	day	2.000			
	Mazdoor (Unskilled)	day	6.840			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
				18.00%		
	<b>Rate per t = a+b+c+d</b>					
A	<b>Supplying, fitting and placing HYSD bar reinforcement (Fe 415) in substructure complete including wastage, as per drawings and technical specification Clauses 1002, 1005, 1010 &amp; 1202 MORD / Sections 1600 &amp; 2200 MORTH for Bars 36 mm dia and above, where welding required to be done compulsorily.</b>					
	Unit = t					
	<b>(a) Material</b>					
	HYSD bars including 2.5 per cent for wastage	t	1.025			
	Welding Electrodes @ 5 per joint (14 joints / ton)	each	70.000			
	Welding Charges (Hire charges of Welding Machine)	Hr	10.00			
	Binding wire	kg	6.00			
	<b>(b) Labour for cutting, bending, shifting to site, tying, and placing in position</b>					
	Welder	day	2.50			
	Blacksmith/Bar Bender	day	2.000			
	Mazdoor (Unskilled)	day	6.840			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
				18.00%		
	<b>Rate per t = a+b+c+d</b>					
7	<b>Supplying, fitting and placing TMT bar reinforcement (Fe 415) in substructure complete as per drawings and technical specification Clauses 1002, 1005, 1010 &amp; 1202 MORD / Sections 1600 &amp; 2200 MORTH for Bars below 36 mm dia including over laps and wastage, where they are not welded.</b>					
	Unit = t					
	<b>(a) Material</b>					
	TMT bars including 5 per cent overlaps and wastage	t	1.050			
	Binding wire	kg	6.000			
	<b>(b) Labour for cutting, bending, shifting to site, tying, and placing in position</b>					
	Mate	day	-			
	Blacksmith/Bar Bender	day	2.000			
	Mazdoor (Unskilled)	day	6.840			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
				18.00%		
	<b>Rate per t = a+b+c+d</b>					



S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
A	Supplying, fitting and placing TMT bar reinforcement (Fe 415) in substructure complete including wastage, as per drawings and technical specification Clauses 1002, 1005, 1010 & 1202 MORD / Sections 1600 & 2200 MORTH for Bars 36 mm dia and above, where welding required to be done compulsorily.					
	Unit = t					
	<b>(a) Material</b>					
	TMT bars including 2.5 per cent for wastage	t	1.025			
	Welding Electrodes @ 5 per joint (14 joints / ton)	each	70.000			
	Welding Charges (Hire charges of Welding Machine)	Hr	10.00			
	Binding wire	kg	6.00			
	<b>(b) Labour for cutting, bending, shifting to site, tying, and placing in position</b>					
	Welder	day	2.50			
	Blacksmith/Bar Bender	day	2.000			
	Mazdoor (Unskilled)	day	6.840			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate per t = a+b+c+d</b>					
8	Supplying, fitting and placing with MS bar reinforcement in substructure complete as per drawings and technical specification Clauses 1002, 1005, 1010 & 1202 MORD / Sections 1600 & 2200 MORTH for Bars below 36 mm dia including over laps and wastage, where they are not welded.					
	Unit = t					
	<b>(a) Material</b>					
	MS bars including 5 per cent overlaps and wastage	t	1.050			
	Binding wire	kg	6.000			
	<b>(b) Labour for cutting, bending, shifting to site, tying, and placing in position</b>					
	Mate	day				
	Blacksmith	day	1.500			
	Mazdoor (Unskilled)	day	5.780			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate per t = a+b+c+d</b>					
9	Providing weep holes in brick masonry/stone masonry, plain/reinforced concrete abutment, wing wall, return wall with 100 mm dia AC pipe extending through the full width of the structures with slope of 1(V):20(H) towards drawing face complete as per drawing and technical specification Clauses 614, 709, 1204.3.7 MORD / 2706 & 2200 MORTH.					
	Unit = Nos					
	Taking output = 30 Nos					
	<b>(a) Material</b>					
	AC pipe 100 mm dia including wastage @ 5 per cent. Average length of weep hole is taken as one metre for the purpose of	m	31.500			
	MS clamps	Nos.	30.000			
	Collar for AC pipe (average taking 10% of above pipe rate)		<b>10.00%</b>			
	Cement mortar 1:3 (For rate refer to item 11.5 I)	cum	0.050			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason 1st Class	day	0.500			
	Mazdoor (Unskilled)	day	0.280			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 30 Nos = (a+b+c+d)</b>					
	<b>Rate per No = (a+b+c+d)/30</b>					
	<b>Note in MORTH : 1.</b> In case of stone masonry, the size of the weep hole shall be 150 mm x 80 mm or circular with 150 mm diameter.					
	<b>2.</b> For structure in stone masonry, the weep holes shall be deemed to be included in the item of stone masonry work and shall not be paid separately.					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
10	<b>Backfilling behind abutment, wing wall and return wall complete as per drawings &amp; technical specification Clause 1204.3.8 MORD / 710.14 of IRC, 78 &amp; 2200 MORTH</b>					
	Unit = cum					
	Taking output = 10 cum					
	<b>I Granular material</b>					
	<b>(a) Material</b>					
	Granular material	cum	12.000			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	7.280			
	<b>(c) Machinery</b>					
	Plate compactor / power rammer	hour	2.500			
	Water Tanker	hour	0.050			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 10 cum of granular backfill = a+b+c+d+e</b>					
	<b>Rate per cum = (a+b+c+d+e)/10</b>					
	<b>II Sandy material</b>					
	Unit = cum					
	Taking output = 10 cum					
	<b>(a) Material</b>					
	Sand	cum	12.000			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	7.280			
	<b>(c) Machinery</b>					
	Plate compactor/power rammer	hour	2.500			
	Water Tanker	hour	0.060			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 10 cum of granular backfill = a+b+c+d+e</b>					
	<b>Rate per cum = (a+b+c+d+e)/10</b>					
11	<b>Providing and laying filter media with granular crushed aggregates as per specification to a thickness of not less than 600 mm with smaller size towards the soil and bigger size towards the wall and providing over the entire surface behind abutment, wing wall, return wall to the full height, compacted to firm condition complete as per drawing and technical specification Clause 1204.3.8 MORD / 710.14 of IRC, 78 &amp; 2200 MORTH</b>					
	Unit = cum					
	Taking output = 10 cum					
	<b>(a) Material</b>					
	Filter media as per specification	cum	12.000			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	7.320			
	Mazdoor (Skilled)	day	1.000			
	<b>c) Machinery</b>					
	Water Tanker of 6 KL capacity	hour	0.060			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 10 cum of granular backfill = a+b+c+d+e</b>					
	<b>Rate per cum = (a+b+c+d+e)/10</b>					
	<b>Note</b> : Suitable Grade of Filter media shall be proposed as per Specification in said IRC.					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
12	<b>Supplying, fitting and fixing in position true to line and level electrometric bearing conforming to IRC:83 (Part-II) Section IX complete, including all accessories as per drawings and technical specification Clause 1207.1 MORD</b>					
	Unit = cubic centimeter					
	Considering an electrometric bearing of size 500 x 400 x 96 mm for this analysis,					
	Overall volume = 19200 cu.cm					
	Volume of 6 Nos 488x388x4 mm size reinforcing steel plates = 4545cu.cm.					
	Hence volume of elastomer = 14655 cu. cm.					
	<b>a) Labour</b>					
	Mate	day				
	Mazdoor (Unskilled)	day	1.060			
	Mazdoor Skilled	day	0.500			
	<b>b) Material</b>					
	Electrometric bearing assembly consisting of 7 internal layers of elastomer bonded to 6 nos. internal reinforcing steel laminates by the process of vulcanisation, complete with all components as per drawing and technical specification	Nos.	1.000			
	Add for anchorage bolts if required and consumables @ 1 per cent on (a+b)			1.00%		
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			18.00%		
	Cost for 19200 cu.cm. of elastomeric bearing = a+b+c+d					
	<b>Rate per cu.cm of elastomeric bearing =</b>					
	<b>Note :</b> For such type of manufactured item, the overhead cost is taken as 30 per cent instead of 20 per cent					
i	<b>Supplying, fitting and fixing in position true to line and level cast steel rocker bearing conforming to IRC: 83(Pt.-1) section IX and clause 2003 of MoRTH specifications complete including all accessories as per drawing and Technical Specifications 2000, 1000 &amp; 2200 MoRTH.</b>					
	Unit: one tonne capacity					
	Considering a 250 tonne capacity bearing for this analysis					
	<b>a) Labour</b>					
	Mate	day				
	Mazdoor (Skilled)	day	0.500			
	Mazdoor (Unskilled)	day	1.060			
	<b>b) Material</b>					
	Cast steel rocker bearing assembly of 250 tonne design load capacity duly painted complete with all its components as per drawing and specifications	each.	1.000			
	Add 1 per cent of cost of bearing assembly for foundation anchorage bolts, lifting arrangements, grease and other consumables.					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			18.00%		
	cost for 250 tonnes capacity bearing = a+b+c+d					
	<b>Rate per tonne capacity = (a+b+c+d)/250</b>					
ii	<b>Supplying, fitting and fixing in position true to line and level forged steel roller bearing conforming to IRC: 83(Pt.-1) section IX and clause 2003 of MoRTH specifications complete including all accessories as per drawing and Technical Specifications 2000, 1000 &amp; 2200 MoRTH.</b>					
	Unit: one tonne capacity					
	Considering a 250 tonne capacity bearing for this analysis					
	<b>a) Labour</b>					
	Mate	day				
	Mazdoor (Unskilled)	day	1.060			
	Mazdoor (Skilled)	day	0.500			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>b) Material</b>					
	Forged steel roller bearing of 250 tonne design load capacity duly painted complete with all its components as per drawing and specifications	each.	1.000			
	Add 1 per cent of cost of bearing assembly for foundation anchorage bolts, lifting arrangements, grease and other consumables.					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	cost for 250 tonnes capacity bearing = a+b+c+d					
	<b>Rate per tonne capacity = (a+b+c+d)/250</b>					
iii	<b>Supplying, fitting and fixing in position true to line and level sliding plate bearing with PTFE surface sliding on stainless steel complete including all accessories as per drawing and Technical Specifications and BS: 5400, section 9.1 &amp; 9.2 (for PTFE) and clause 2004 of MoRTH Specifications &amp; Sections 2000 &amp; 2200 MORTH</b>					
	Unit: one tonne capacity					
	Considering a 80 tonne capacity bearing for this analysis					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.060			
	Mazdoor (Skilled)	day	0.500			
	<b>b) Material</b>					
	PTFE sliding plate bearing assembly of 80 tonnes design load capacity duly painted complete with all its components as per drawing and Technical Specifications	each.	1.000			
	Add 1% for foundation anchorage bolts and consumables.					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	cost for 80 tonnes capacity bearing = a+b+c+d					
	<b>Rate per tonne capacity = (a+b+c+d)/80</b>					
iv	<b>Supplying, fitting and fixing in position true to line and level elastomeric bearing conforming to IRC: 83 (Part-II) section IX and clause 2005 of MoRTH specifications complete including all accessories as per drawing and Technical Specifications 2000 &amp; 2200 MORTH</b>					
	Unit: one cubic centimeter					
	Considering an elastomeric bearing of size 500 x 400 x 96 mm for this analysis.					
	Overall volume - 19200 cu.cm					
	Volume of 6 nos. 488 x 388 x 4 mm size reinforcing steel plates = 4545 cu.cm.					
	Hence volume of elastometer = 14655 cu.cm.					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.06			
	Mazdoor (Skilled)	day	0.50			
	<b>b) Material</b>					
	Elastomeric bearing assembly consisting of 7 layers of elastomer bonded to 6 nos. internal reinforcing steel laminates by the process of vulcanisation, complete with all components as per drawing and Technical Specifications.	each.	1.00			
	Add 1 per cent of cost of bearing assembly for foundation anchorage bolts and consumables.					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	cost for 19200cc of elastomeric bearing = a+b+c+d					
	<b>Rate per cc of elastomeric bearing = (a+b+c+d)/19200</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
v	Supplying, fitting and fixing in position true to line and level sliding plate bearing with stainless steel plate sliding on stainless steel plate with mild steel matrix complete including all accessories as per drawing and Technical Specifications 2000, & 2200 MORTH.					
	Unit: one tonne capacity					
	Considering the sliding bearing of 80 tonnes design capacity for this analysis.					
	<b>a) Labour</b>					
	Mate	day				
	Mazdoor (Unskilled)	day	0.790			
	Mazdoor (Skilled)	day	0.350			
	<b>b) Material</b>					
	Supply of sliding plate bearing of 80 tonne design capacity complete as per drawings and Technical Specifications.	each.	1.000			
	Add 1 per cent of cost of bearing assembly for foundation anchorage bolts and consumables.					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	cost for 80 tonnes of capacity bearing = a+b+c+d					
	<b>Rate per tonne capacity = (a+b+c+d)/80</b>					
vi	Supplying, fitting and fixing in position true to line and level POT-PTFE bearing consisting of a metal piston supported by a disc or unreinforced elastomer confined within a metal cylinder, sealing rings, dust seals, PTFE surface sliding against stainless steel mating surface, complete assembly to be of cast steel/fabricated structural steel, metal and elastomer elements to be as per IRC: 83 part-I & II respectively and other parts conforming to BS: 5400, section 9.1 & 9.2 and clause 2006 of MoRTH Specifications complete as per drawing and approved Technical Specifications 2000, & 2200 MORTH.					
	Unit: one tonne capacity					
	Considering a Pot bearing assembly of 250 tonne capacity for this analysis.					
	<b>a) Labour</b>					
	Mate	day				
	Mazdoor (Unskilled)	day	1.580			
	Mazdoor (Skilled)	day	0.500			
	<b>b) Material</b>					
	Pot type bearing assembly consisting of a metal piston supported by a disc, PTFE pads providing sliding surfaces against stainless steel mating together with cast steel assemblies/fabricated structural steel assemblies duly painted with all components as per clause 2006 and complete as per drawings and Technical Specifications.	each.	1.000			
	Add 1 per cent of cost of bearing assembly for foundation anchorage bolts and consumables.					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	cost for 250 tonnes capacity bearing = a+b+c+d					
	<b>Rate per tonne capacity = (a+b+c+d)/250</b>					
13	Providing PCC M-20 architectural coping on the top of wing wall, return wall etc. complete as per drawing and technical specification Clauses 615, 710 and 1204.3.11 MORD					
	Unit = Running m					
	Taking output = 1 m					
	Assume wall thickness = 345 mm					
	Projection of the coping will be 25 mm wide on both side of the wall = 345 + 50 = 395 mm					
	Quantity = 1 x 0.395 x 0.150 = 0.059					
	<b>PCC M-20 Grade (1:2:4) Nominal Mix</b>					
	As per item No. 12.5 (II)(i) including Overheads & Contractor's Profit	cum	0.059			
	Add 10% extra of cost of (a) being architectural coping					
	Cost of 1 m = a					
	<b>Rate per m = a</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
14	Providing pressure relief pipes 100 mm dia in bottom slab of box cell on a filter media base of 500 mm x 500 mm as per drawing and technical specification Clause 1205.5.7 MORD					
	Unit = Nos					
	<b>(a) Material</b>					
	AC pipe 100 mm dia i/c wastage of 5 per cent 600 mm long upto the bottom of leveling course	m	0.630			
	Filter media base with stone aggregate as per specifications 0.5 m x 0.5 m area 1 m deep	cum	0.250			
	<b>(b) Labour</b>					
	Mate	day				
	Mason 1st Class	day	0.016			
	Mazdoor (Unskilled)	day	0.831			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate per No = (a+b+c+d)</b>					

**General Note :**

The provisions towards Mate is included in the provision towards unskilled Mazdoor.

**Andhra Pradesh Standard Data**

**I. Roads and Bridges**

**Chapter - 13**

**SUPERSTRUCTURE**

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
1	<b>Providing and laying reinforced cement concrete in superstructure as per drawing and technical specifications Clauses 800, 1205.4 and 1205.5 MORD / Sections 1500, 1600 &amp; 1700 MORTH</b>					
	<b>Note : 1. Water for CC works :</b> A provision for cost of water may be added at 1.2 kl / 1 cum (including curing purpose) keeping the site conditions					
	<b>2. Coarse aggregate :</b> Single grade nominal size can also be used instead of graded metal, keeping the site conditions in view.					
I (A)	<b>R.C.C grade M 20 (MORD)</b>					
(i)	<b>For nominal mix 1:2:4 (Using Concrete Mixture)</b>					
	<b>Height upto 5m</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Cement	t	0.33			
	Coarse sand	cum	0.45			
	20 mm aggregate	cum	0.54			
	10 mm aggregate	cum	0.36			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	0.10			
	Mazdoor (Unskilled)	day	1.39			
	<b>(c) Machinery</b>					
	Concrete mixer 0.4/0.28 cum capacity	hr / cum	0.40			
	<b>d) Add for formwork and staging</b>					
	Height upto 5 m @ 20% of (a+b+c)				20.00%	
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>				18.00%	
	<b>Rate per cum = a+b+c+d+e+f</b>					
ii	<b>Height 5m to 10m</b>					
	<b>Per Cum Basic Cost of Labour, Material &amp; Machinery (a+b+c) of Item 1(A)(i), excluding of Formwork</b>	cum	1			
	<b>d) formwork</b>					
	Add on cost of material, labour and machinery (a+b+c) for Formwork				25.00%	
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>				18.00%	
	<b>Rate perm (a+b+c+d+e+f)</b>					
iii	<b>Height above 10m</b>					
	<b>Per Cum Basic Cost of Labour, Material &amp; Machinery (a+b+c) of Item 1(A)(i). excluding of Formwork</b>	cum	1			
	<b>d) formwork</b>					
	Add on cost of material, labour and machinery (a+b+c) for Formwork				30.00%	
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>				18.00%	
	<b>Rate perm (a+b+c+d+e+f)</b>					
(B)	<b>For design mix RCC M 20 Using Concrete Mixer</b>					
	<b>(a) Material</b>					
	Cement	t	0.341			
	Coarse sand	cum	0.45			
	20 mm aggregate	cum	0.54			
	10 mm aggregate	cum	0.36			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	0.10			
	Mazdoor (Unskilled)	day	1.39			
	<b>c) Machinery</b>					
	Concrete mixer 0.4/0.28 cum capacity	hr / cum	0.40			
	Generator 33 KVA	hour	0.40			
	<b>Total (a+b+c)</b>					
	<b>d) For formwork and staging add the following percentage of (a+b+c):</b>					
	Height upto 5 m @ 20 per cent			20.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per cum = a+b+c+d+e+f</b>					
	<b>Note : 1. Height from 5 m to 10 m @ 25 %(MORD)</b>					
	<b>2. Height above 10 m @ 30 per cent (MORD)</b>					
	<b>RCC M 20 Design Mix (Using Concrete Mixture) (MORTH)</b>					
	<b>I Case I : (I) For solid slab super-structure (MORTH)</b>					
	<b>For formwork and staging add the following:</b>					
	<b>(i) Height upto 5m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c) for cum	cum	1.00			
	<b>d) Formwork and staging of (a+b+c)</b>			20.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
	<b>(ii) Height 5m to 10m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c) for cum	cum	1.00			
	<b>d) Formwork and staging of (a+b+c)</b>			25.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
	<b>(iii) Height above 10m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c) for cum	cum	1.00			
	<b>d) Formwork and staging of (a+b+c)</b>			30.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
	<b>II For T-beam &amp; slab</b>					
	<b>(i) Height upto 5m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c) for cum	cum	1.00			
	<b>d) Formwork and staging of (a+b+c)</b>			25.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
	<b>(ii) Height 5m to 10m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c) for cum	cum	1.00			
	<b>d) Formwork and staging of (a+b+c)</b>			30.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
	<b>(iii) Height above 10m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c) for cum	cum	1.00			
	<b>d) Formwork and staging of (a+b+c)</b>			35.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
	<b>Case II : Using Batching Plant, Transit Mixer and Concrete Pump (RCC M20) Design Mix</b>					
	<b>Unit = cum</b>					
	<b>Taking output = 1 cum</b>					
	<b>a) Material</b>					
	Cement	t.km	0.341			
	Coarse sand	cum	0.45			
	20 mm Aggregate	cum	0.54			
	10 mm Aggregate	cum	0.36			



S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>b) Labour</b>					
	Mate	day	-			
	Mason	day	0.024			
	Mazdoor (Unskilled)	day	0.157			
	<b>c) Machinery</b>					
	Batching Plant @ 20 cum/hour	hour	0.05			
	Generator 100 KVA	hour	0.05			
	Loader	hour	0.05			
	Transit Mixer ( capacity 4.0 cu.m ) :					
	Transit Mixer 4 cum capacity lead upto1 Km	hour	0.125			
	Lead beyond 1 Km, L - lead in Kilometer	t.km	2.5 L			
	Concrete Pump	hour	0.05			
	<b>Basic Cost of Labour, Material &amp; Machinery (a+b+c)</b>	cum	1.00			
	<b>For formwork and staging add the following:</b>					
	<b>I For solid slab super-structure</b>					
	<b>(i) Height upto 5m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d) Formwork and staging of (a+b+c)</b>			<b>20.00%</b>		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
	<b>(ii) Height 5m to 10m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d) Formwork and staging of (a+b+c)</b>			<b>25.00%</b>		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
	<b>(iii) Height above 10m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d) Formwork and staging of (a+b+c)</b>			<b>30.00%</b>		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
	<b>II For T-beam &amp; slab</b>					
	<b>(i) Height upto 5m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d) Formwork and staging of (a+b+c)</b>			<b>25.00%</b>		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
	<b>(ii) Height 5m to 10m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d) Formwork and staging of (a+b+c)</b>			<b>30.00%</b>		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
	<b>(iii) Height above 10m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d) Formwork and staging of (a+b+c)</b>			<b>35.00%</b>		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
	<b>II R.C.C M 25 Grade (Design Mix)</b>					
	Unit =cum					
	<b>A Case I : Using Concrete Mixer.</b>					
	<b>(a) Material</b>					
	Cement	t	0.40			
	Coarse sand	cum	0.45			
	20 mm aggregate	cum	0.54			
	10 mm aggregate	cum	0.36			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	0.10			
	Mazdoor (Unskilled)	day	1.39			
	<b>(c) Machinery</b>					
	Concrete mixer 0.4/0.28 cum capacity	hour/ cum	0.40			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	Generator 33 KVA	hour	0.40			
	d) For formwork and staging refer to sub-item I (B) case I above					
	(I) For solid slab super-structure					
	(II) For T-beam & slab					
	e&f) Overheads & Contractors Profit		18.00%			
	<b>Rate per cum = a+b+c+d+e+f</b>					
	<b>Note :</b> This analysis will hold good for concrete of nominal mix 1:1½:3 also					
B	<b>Case II : Using Batching Plant, Transit Mixer and Concrete Pump (RCC M25) Design Mix (MORTH)</b>					
	Unit = cum					
	Taking output = 1 cum					
	<b>a) Material</b>					
	Cement	t	0.400			
	Coarse sand	cum	0.450			
	20 mm Aggregate	cum	0.540			
	10 mm Aggregate	cum	0.360			
	<b>b) Labour</b>					
	Mate	day	-			
	Mason	day	0.024			
	Mazdoor (Unskilled)	day	0.157			
	<b>c) Machinery</b>					
	Batching Plant @ 20 cum/hour	hour	0.05			
	Generator 100 KVA	hour	0.05			
	Loader	hour	0.05			
	Transit Mixer ( capacity 4.0 cu.m )					
	Transit Mixer 4 cum capacity lead upto1 Km	hour	0.125			
	Lead beyond 1 Km, L - lead in Kilometer	t.km	2.5 L			
	Concrete Pump	hour	0.05			
	<b>Basic Cost of Labour, Material &amp; Machinery (a+b+c)</b>	cum	1.00			
	(I) For solid slab super-structure					
(i)	<b>Height upto 5m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d) Formwork and staging of (a+b+c)</b>			20.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
(ii)	<b>Height 5m to 10m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d) Formwork and staging of (a+b+c)</b>			25.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
(iii)	<b>Height above 10m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d) Formwork and staging of (a+b+c)</b>			30.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
	(II) For T-beam & slab					
(i)	<b>Height upto 5m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d) Formwork and staging of (a+b+c)</b>			25.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
(ii)	<b>Height 5m to 10m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d) Formwork and staging of (a+b+c)</b>			30.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
(iii)	<b>Height above 10m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d) Formwork and staging of (a+b+c)</b>			35.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	Rate per cum = (a+b+c+d+e+f)					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
III	<b>R.C.C. Grade M 30 Design Mix</b>					
	Unit =cum					
	<b>Case 1: Using Concrete Mixer</b>					
	<b>(a) Material</b>					
	Cement	t	0.407			
	Coarse sand	cum	0.45			
	20 mm aggregate	cum	0.54			
	10 mm aggregate	cum	0.36			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	0.10			
	Mazdoor (Unskilled)	day	1.39			
	<b>(c) Machinery</b>					
	Concrete mixer 0.4/0.28 cum capacity	hour	0.40			
	Generator 33 KVA	hour	0.40			
	<b>d) For formwork and stagings refer to sub-item (d) of I (II) above</b>					
	<b>(I) For solid slab super-structure</b>					
	<b>(i) Height upto 5m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d) Formwork and staging of (a+b+c)</b>					
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
	<b>(ii) Height 5m to 10m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d) Formwork and staging of (a+b+c)</b>					
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
	<b>(iii) Height above 10m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d) Formwork and staging of (a+b+c)</b>					
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
	<b>(II) For T-beam &amp; slab</b>					
	<b>(i) Height upto 5m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d) Formwork and staging of (a+b+c)</b>					
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
	<b>(ii) Height 5m to 10m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d) Formwork and staging of (a+b+c)</b>					
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
	<b>(iii) Height above 10m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d) Formwork and staging of (a+b+c)</b>					
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
C	<b>Case II : Using Batching Plant, Transit Mixer and Concrete Pump (RCC M30) Design Mix (MORTH)</b>					
	Unit = cum					
	Taking output = 120 cum					
	<b>a) Material</b>					
	Cement	t	0.407			
	Coarse sand	cum	0.46			
	20 mm Aggregate	cum	0.54			
	10 mm Aggregate	cum	0.36			
	<b>b) Labour</b>					
	Mate	day	-			
	Mason	day	0.024			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	Mazdoor (Unskilled)	day	0.157			
	<b>c) Machinery</b>					
	Batching Plant @ 20 cum/hour	hour	0.05			
	Generator 100 KVA	hour	0.05			
	Loader	hour	0.05			
	Transit Mixer ( capacity 4.0 cu.m )					
	Transit Mixer 4 cum capacity lead upto1 Km	hour	0.125			
	Lead beyond 1 Km, L - lead in Kilometer	t.km	300L			
	Concrete Pump	hour	0.05			
	<b>Basic Cost of Labour, Material &amp; Machinery (a+b+c)</b>					
	<b>Rate per cum = (a+b+c)</b>					
	<b>(I) For solid slab super-structure</b>					
	<b>(i) Height upto 5m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d) Formwork and staging of (a+b+c)</b>			<b>20.00%</b>		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
	<b>(ii) Height 5m to 10m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d) Formwork and staging of (a+b+c)</b>			<b>25.00%</b>		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
	<b>(iii) Height above 10m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d) Formwork and staging of (a+b+c)</b>			<b>30.00%</b>		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
	<b>II For T-beam &amp; slab</b>					
	<b>(i) Height upto 5m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d) Formwork and staging of (a+b+c)</b>			<b>25.00%</b>		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
	<b>(ii) Height 5m to 10m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d) Formwork and staging of (a+b+c)</b>			<b>30.00%</b>		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
	<b>(iii) Height above 10m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum	1.00			
	<b>d) Formwork and staging of (a+b+c)</b>			<b>35.00%</b>		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
	<b>Note :</b> Quantity of cement provided for various components of the superstructure is for estimating purpose only. Actual quantity of cement will be as per approved mix design. Similarly quantity for coarse and fine aggregates is for estimating purpose and the exact quantity shall be as per the mix design.					
	Use of Design mix in place of nominal mix of concrete of M20 and higher grades shall be preferred. Nominal mix of grades M20 is to be used with adequate supervision and quality control requirements. Technical Specification Clause 803 MORD.					
	<b>D RCC/PSC Grade M35 Design Mix (MORTH)</b>					
	<b>Case I : Using Concrete Mixer.</b>					
	<b>Unit = 1 cum</b>					
	<b>Taking output = 1 cum</b>					
	<b>a) Material</b>					
	Cement	tonne	0.422			
	Coarse sand	cum	0.45			
	20 mm Aggregate	cum	0.54			
	10 mm Aggregate	cum	0.36			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>b) Labour</b>					
	Mate	day	-			
	Mason	day	0.10			
	Mazdoor (Unskilled)	day	1.39			
	<b>c) Machinery</b>					
	Concrete mixer (cap. 0.40/0.28 cum)	hour	0.40			
	Generator 33 KVA	hour	0.40			
	<b>Basic Cost of Labour, Material &amp; Machinery (a+b+c)</b>					
	<b>For formwork and staging add the following :</b>					
	<b>I For solid slab super-structure</b>					
	<b>(i) Height upto 5m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum				
	<b>d) Formwork and staging of (a+b+c)</b>				18.00%	
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>				18.00%	
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
	<b>(ii) Height 5m to 10m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum				
	<b>d) Formwork and staging of (a+b+c)</b>				23.00%	
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>				18.00%	
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
	<b>(iii) Height above 10m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum				
	<b>d) Formwork and staging of (a+b+c)</b>				28.00%	
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>				18.00%	
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
	<b>II For T-beam &amp; slab</b>					
	<b>(i) Height upto 5m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum				
	<b>d) Formwork and staging of (a+b+c)</b>				23.00%	
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>				18.00%	
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
	<b>(ii) Height 5m to 10m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum				
	<b>d) Formwork and staging of (a+b+c)</b>				28.00%	
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>				18.00%	
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
	<b>(iii) Height above 10m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum				
	<b>d) Formwork and staging of (a+b+c)</b>				33.00%	
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>				18.00%	
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
	<b>III For box girder and balanced cantilever</b>					
	<b>(i) Height upto 5m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum				
	<b>d) Formwork and staging of (a+b+c)</b>				38.00%	
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>				18.00%	
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
	<b>(ii) Height 5m to 10m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum				
	<b>d) Formwork and staging of (a+b+c)</b>				48.00%	
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>				18.00%	
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
	<b>(iii) Height above 10m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum				
	<b>d) Formwork and staging of (a+b+c)</b>				58.00%	
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>				18.00%	
	<b>Rate per cum = (a+b+c+d+e+f)</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>Case II : Using Batching Plant, Transit Mixer and Concrete Pump (RCC/PSC M35)</b>					
	<b>Unit = cum</b>					
	<b>Taking output = 1 cum</b>					
	<b>a) Material</b>					
	Cement	t	0.422			
	Coarse sand	cum	0.45			
	20 mm Aggregate	cum	0.54			
	10 mm Aggregate	cum	0.36			
	<b>b) Labour</b>					
	Mate	day	-			
	Mason	day	0.024			
	Mazdoor (Unskilled)	day	0.157			
	<b>c) Machinery</b>					
	Batching Plant @ 20 cum/hour	hour	0.05			
	Generator 100 KVA	hour	0.05			
	Loader	hour	0.05			
	Transit Mixer ( capacity 4.0 cu.m )					
	Transit Mixer 4 cum capacity lead upto1 Km	hour	0.125			
	Lead beyond 1 Km, L - lead in Kilometer	tkm	2.5 L			
	Concrete Pump	hour	0.05			
	<b>Basic Cost of Labour, Material &amp; Machinery (a+b+c)</b>					
	<b>For formwork and staging add the following :</b>					
I	<b>For solid slab super-structure</b>					
(i)	<b>Height upto 5m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum				
	<b>d) Formwork and staging of (a+b+c)</b>			18.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
(ii)	<b>Height 5m to 10m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum				
	<b>d) Formwork and staging of (a+b+c)</b>			23.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
(iii)	<b>Height above 10m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum				
	<b>d) Formwork and staging of (a+b+c)</b>			28.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
II	<b>For T-beam &amp; slab</b>					
(i)	<b>Height upto 5m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum				
	<b>d) Formwork and staging of (a+b+c)</b>			23.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
(ii)	<b>Height 5m to 10m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum				
	<b>d) Formwork and staging of (a+b+c)</b>			28.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
(iii)	<b>Height above 10m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum				
	<b>d) Formwork and staging of (a+b+c)</b>			33.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
III	<b>For box girder and balanced cantilever</b>					
(i)	<b>Height upto 5m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum				
	<b>d) Formwork and staging of (a+b+c)</b>			38.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	(ii) Height 5m to 10m					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum				
	d) Formwork and staging of (a+b+c)			48.00%		
	e&f) Overheads & Contractors Profit			18.00%		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
	(iii) Height above 10m					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum				
	d) Formwork and staging of (a+b+c)			58.00%		
	e&f) Overheads & Contractors Profit			18.00%		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
E	<b>PSC Grade M-40 Design Mix (MORTH)</b>					
	Case I : Using concrete mixer.					
	Unit = 1 cum					
	Taking output = 1 cum					
	<b>a) Material</b>					
	Cement	t	0.43			
	Coarse sand	cum	0.45			
	20 mm Aggregate	cum	0.54			
	10 mm Aggregate	cum	0.36			
	Admixture @ 0.4 per cent of cement	kg	1.72			
	<b>b) Labour</b>					
	Mate	day	-			
	Mason	day	0.133			
	Mazdoor (Unskilled)	day	1.53			
	<b>c) Machinery</b>					
	Concrete mixer (cap. 0.40/0.28 cum)	hour	0.40			
	Generator 33 KVA	hour	0.40			
	<b>Basic Cost of Labour, Material &amp; Machinery (a+b+c)</b>					
	<b>For formwork and staging add the following :</b>					
I	<b>For solid slab super-structure</b>					
(i)	Height upto 5m					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum				
	d) Formwork and staging of (a+b+c)			20.00%		
	e&f) Overheads & Contractors Profit			18.00%		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
	(ii) Height 5m to 10m					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum				
	d) Formwork and staging of (a+b+c)			25.00%		
	e&f) Overheads & Contractors Profit			18.00%		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
	(iii) Height above 10m					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum				
	d) Formwork and staging of (a+b+c)			30.00%		
	e&f) Overheads & Contractors Profit			18.00%		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
II	<b>For T-beam &amp; slab</b>					
(i)	Height upto 5m					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum				
	d) Formwork and staging of (a+b+c)			25.00%		
	e&f) Overheads & Contractors Profit			18.00%		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
	(ii) Height 5m to 10m					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum				
	d) Formwork and staging of (a+b+c)			30.00%		
	e&f) Overheads & Contractors Profit			18.00%		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
	(iii) Height above 10m					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum				
	d) Formwork and staging of (a+b+c)			35.00%		
	e&f) Overheads & Contractors Profit			18.00%		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					



S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>Case II : Using Batching Plant, Transit Mixer and Concrete Pump (PSC Grade M-40) (Design Mix)</b>					
	<b>Unit = cum</b>					
	<b>Taking output = 1 cum</b>					
	<b>a) Material</b>					
	Cement	t	0.430			
	Coarse sand	cum	0.45			
	20 mm Aggregate	cum	0.54			
	10 mm Aggregate	cum	0.36			
	Admixture @ 0.4 per cent of cement	kg	1.72			
	<b>b) Labour</b>					
	Mate	day	-			
	Mason	day	0.029			
	Mazdoor (Unskilled)	day	0.175			
	<b>c) Machinery</b>					
	Batching Plant @ 20 cum/hour	hour	0.05			
	Generator 100 KVA	hour	0.05			
	Loader	hour	0.05			
	Transit Mixer ( capacity 4.0 cu.m )					
	Transit Mixer 4 cum capacity lead upto1 Km	hour	0.125			
	Lead beyond 1 Km, L - lead in Kilometer	tkm	2.5L			
	Concrete Pump	hour	0.05			
	<b>Basic Cost of Labour, Material &amp; Machinery (a+b+c)</b>					
	<b>For formwork and staging add the following :</b>					
	<b>I For solid / voided slab super-structure</b>					
	<b>(i) Height upto 5m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum				
	<b>d) Formwork and staging of (a+b+c)</b>			18.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
	<b>(ii) Height 5m to 10m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum				
	<b>d) Formwork and staging of (a+b+c)</b>			23.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
	<b>(iii) Height above 10m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum				
	<b>d) Formwork and staging of (a+b+c)</b>			28.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
	<b>II For T-beam &amp; slab</b>					
	<b>(i) Height upto 5m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum				
	<b>d) Formwork and staging of (a+b+c)</b>			23.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
	<b>(ii) Height 5m to 10m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum				
	<b>d) Formwork and staging of (a+b+c)</b>			28.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
	<b>(iii) Height above 10m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum				
	<b>d) Formwork and staging of (a+b+c)</b>			33.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
III	<b>For cast-in-situ box girder, segment construction and balanced cantilever</b>					
(i)	<b>Height upto 5m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum				
	<b>d) Formwork and staging of (a+b+c)</b>			38.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
(ii)	<b>Height 5m to 10m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum				
	<b>d) Formwork and staging of (a+b+c)</b>			48.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
(iii)	<b>Height above 10m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum				
	<b>d) Formwork and staging of (a+b+c)</b>			58.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
F	<b>PSC Grade M-45 (Design Mix)</b>					
	Using Batching Plant, Transit Mixer and Concrete Pump					
	<b>Unit = 1 cum</b>					
	<b>Taking output = 1 cum</b>					
	<b>a) Material</b>					
	Cement	t	0.465			
	Coarse sand	cum	0.450			
	20 mm Aggregate	cum	0.540			
	10 mm Aggregate	cum	0.360			
	Admixture @ 0.4 per cent of cement	kg	1.860			
	<b>b) Labour</b>					
	Mate	day	-			
	Mason	day	0.029			
	Mazdoor (Unskilled)	day	0.174			
	<b>c) Machinery</b>					
	Batching Plant @ 20 cum/hour	hour	0.050			
	Generator 100 KVA	hour	0.050			
	Loader	hour	0.050			
	Transit Mixer ( capacity 4.0 cu.m )					
	Transit Mixer 4 cum capacity lead upto1 Km	hour	0.125			
	Lead beyond 1 Km, L - lead in Kilometer	tkm	2.5 L			
	Concrete Pump	hour	0.050			
	<b>Basic Cost of Labour, Material &amp; Machinery (a+b+c)</b>					
	<b>For formwork and staging add the following :</b>					
I	<b>For solid / voided slab super-structure</b>					
(i)	<b>Height upto 5m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)					
	<b>d) Formwork and staging of (a+b+c)</b>			16.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
(ii)	<b>Height 5m to 10m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)					
	<b>d) Formwork and staging of (a+b+c)</b>			21.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
(iii)	<b>Height above 10m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)					
	<b>d) Formwork and staging of (a+b+c)</b>			26.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
II	For T-beam & slab including launching of precast girders by launching truss upto 40 m span					
(i)	Height upto 5m					
	Basic Cost of Labour, Material & Machinery (a+b+c)					
	d) Formwork and staging of (a+b+c)			21.00%		
	e&f) Overheads & Contractors Profit			18.00%		
	Rate per cum = (a+b+c+d+e+f)					
(ii)	Height 5m to 10m					
	Basic Cost of Labour, Material & Machinery (a+b+c)					
	d) Formwork and staging of (a+b+c)			26.00%		
	e&f) Overheads & Contractors Profit			18.00%		
	Rate per cum = (a+b+c+d+e+f)					
(iii)	Height above 10m					
	Basic Cost of Labour, Material & Machinery (a+b+c)					
	d) Formwork and staging of (a+b+c)			31.00%		
	e&f) Overheads & Contractors Profit			18.00%		
	Rate per cum = (a+b+c+d+e+f)					
III	For cast-in-situ box girder, segmental construction and balanced cantilever					
(i)	Height upto 5m					
	Basic Cost of Labour, Material & Machinery (a+b+c)					
	d) Formwork and staging of (a+b+c)			36.00%		
	e&f) Overheads & Contractors Profit			18.00%		
	Rate per cum = (a+b+c+d+e+f)					
(ii)	Height 5m to 10m					
	Basic Cost of Labour, Material & Machinery (a+b+c)					
	d) Formwork and staging of (a+b+c)			46.00%		
	e&f) Overheads & Contractors Profit			18.00%		
	Rate per cum = (a+b+c+d+e+f)					
(iii)	Height above 10m					
	Basic Cost of Labour, Material & Machinery (a+b+c)					
	d) Formwork and staging of (a+b+c)			56.00%		
	e&f) Overheads & Contractors Profit			18.00%		
	Rate per cum = (a+b+c+d+e+f)					
G	PSC Grade M-50 Design Mix (MORTH)					
	Using Batching Plant, Transit Mixer and Concrete					
	Unit = 1 cum					
	Taking output = 1 cum					
	a) Material					
	Cement	t	0.49			
	Coarse sand	cum	0.45			
	20 mm Aggregate	cum	0.54			
	10 mm Aggregate	cum	0.36			
	Admixture @ 0.4 per cent of cement	kg	1.96			
	b) Labour					
	Mate	day				
	Mason	day	0.029			
	Mazdoor (Unskilled)	day	0.174			
	c) Machinery					
	Batching Plant @ 20 cum/hour	hour	0.05			
	Generator 100 KVA	hour	0.05			
	Loader	hour	0.05			
	Transit Mixer ( capacity 4.0 cu.m )					
	Transit Mixer 4 cum capacity lead upto1 Km	hour	0.125			
	Lead beyond 1 Km, L - lead in Kilometer	tkm	2.5 L			
	Concrete Pump	hour	0.05			
	Basic Cost of Labour, Material & Machinery (a+b+c)					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>For formwork and staging add the following:</b>					
III	<b>For cast-in-situ box girder, segmental construction balanced cantilever</b>					
(i)	<b>Height upto 5m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum				
	<b>d) Formwork and staging of (a+b+c)</b>			35.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
(ii)	<b>Height 5m to 10m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum				
	<b>d) Formwork and staging of (a+b+c)</b>			45.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
(iii)	<b>Height above 10m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum				
	<b>d) Formwork and staging of (a+b+c)</b>			55.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
H	<b>PSC Grade M- 55 MORTH</b>					
	<b>Using Batching Plant, Transit Mixer and Concrete Pump</b>					
	<b>Unit = 1 cum</b>					
	<b>Taking output = 1 cum</b>					
	<b>a) Material</b>					
	Cement	t	0.529			
	Coarse sand	cum	0.450			
	20 mm Aggregate	cum	0.540			
	10 mm Aggregate	cum	0.360			
	Admixture @ 0.4 per cent of cement	kg	2.120			
	<b>b) Labour</b>					
	Mate	day				
	Mason	day	0.029			
	Mazdoor (Unskilled)	day	0.174			
	<b>c) Machinery</b>					
	Batching Plant @ 20 cum/hour	hour	0.05			
	Generator 100 KVA	hour	0.05			
	Loader	hour	0.05			
	Transit Mixer ( capacity 4.0 cu.m )					
	Transit Mixer 4 cum capacity lead upto1 Km	hour	0.125			
	Lead beyond 1 Km, L - lead in Kilometer	tkm	2.5 L			
	Concrete Pump	hour	0.05			
	<b>Basic Cost of Labour, Material &amp; Machinery (a+b+c)</b>					
	<b>For formwork and staging add the following:</b>					
III	<b>For cast-in-situ box girder, segmental construction and balanced cantilever</b>					
(i)	<b>Height upto 5m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum				
	<b>d) Formwork and staging of (a+b+c)</b>			35.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
(ii)	<b>Height 5m to 10m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum				
	<b>d) Formwork and staging of (a+b+c)</b>			45.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					
(iii)	<b>Height above 10m</b>					
	Basic Cost of Labour, Material & Machinery (a+b+c)	cum				
	<b>d) Formwork and staging of (a+b+c)</b>			55.00%		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per cum = (a+b+c+d+e+f)</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>Note in MORTH : 1.</b> Where ever concrete is carried out using batching plant, transit mixer, concrete pump, admixers conforming IS: 9103 @ 0.4 per cent of weight of cement may be added for achieving desired slump of concrete.					
	<b>2.</b> Cement provided for various components of the super structure is for estimating purpose only. Actual quantity of cement will be as per approved mix design. Similarly, the provision for coarse and fine aggregates is for estimating purpose and the exact quantity shall be as per the mix design.					
	<b>3.</b> The items like needle and surface vibrators are part of minor T & P which is already covered under the overhead charges. As such these items have not been added separately in the rate analysis.					
2	<b>(i) Supplying, fitting, and placing HYSD bar reinforcement in superstructure complete as per drawing and technical specifications Clauses 1002, 1010 and 1202 MORD / 1600 MORTH, for Bars below 36 mm dia including over laps and wastage, where they are not welded.</b>					
	Unit = t					
	<b>(a) Material</b>					
	HYSD bars including 5 per cent for laps and wastage	t	1.05			
	Binding wire	kg	8.00			
	<b>(b) Labour for cutting, bending, tying and placing in position</b>					
	Mate	day	-			
	Blacksmith/ Rod Binder	day	3.00			
	Mazdoor (Unskilled)	day	8.44			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>				18.00%	
	<b>Rate per t = a+b+c+d</b>					
	<b>(ii) Supplying, fitting, and placing HYSD bar reinforcement in superstructure complete including wastage, as per drawing and technical specifications Clauses 1002, 1010 and 1202 MORD / 1600 MORTH, for Bars 36 mm dia and above, where welding required to be done compulsorily.</b>					
	Unit = t					
	<b>(a) Material</b>					
	HYSD bars including 2.5 per cent for wastage	t	1.025			
	Welding Electrodes @ 5 per joint (14 joints / ton)	each	70.000			
	Welding Charges (Hire charges of Welding Machine)	Hr	10.00			
	Binding wire	kg	8.00			
	<b>(b) Labour for cutting, bending, tying and placing in position</b>					
	Welder	day	2.50			
	Blacksmith/ Rod Binder	day	3.00			
	Mazdoor (Unskilled)	day	8.44			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>				18.00%	
	<b>Rate per t = a+b+c+d</b>					
3	<b>(i) Supplying, fitting, and placing TMT bar reinforcement in superstructure complete as per drawing and technical specifications Clauses 1002, 1010 and 1202 MORD / 1600 MORTH for Bars below 36 mm dia including over laps and wastage, where they are not welded.</b>					
	Unit = t					
	<b>(a) Material</b>					
	TMT bars including 5 per cent for laps and wastage	t	1.05			
	Binding wire	kg	8.00			
	<b>(b) Labour for cutting, bending, tying and placing in position</b>					
	Mate	day				
	Blacksmith/ Rod Binder	day	3.00			
	Mazdoor (Unskilled)	day	8.44			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>				18.00%	
	<b>Rate per t = a+b+c+d</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	(ii) <b>Supplying, fitting, and placing TMT bar reinforcement in superstructure complete including wastage, as per drawing and technical specifications Clauses 1002, 1010 and 1202 MORD / 1600 MORTH for Bars 36 mm dia and above, where welding required to be done compulsorily.</b>					
	Unit = t					
	<b>(a) Material</b>					
	TMT bars including 2.5 per cent for wastage	t	1.025			
	Welding Electrodes @ 5 per joint (14 joints / ton)	each	70.000			
	Welding Charges (Hire charges of Welding Machine)	Hr	10.00			
	Binding wire	kg	8.00			
	<b>(b) Labour for cutting, bending, tying and placing in position</b>					
	Welder	day	2.50			
	Blacksmith/ Rod Binder	day	3.00			
	Mazdoor (Unskilled)	day	8.44			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per t = a+b+c+d</b>			<b>18.00%</b>		
4	i <b>Supplying, fitting, and placing MS bar reinforcement in superstructure complete as per drawing and technical specifications Clauses 1002, 1010 and 1202, for Bars below 36 mm dia including over laps and wastage, where they are not welded.</b>					
	Unit = t					
	<b>(a) Material</b>					
	MS bars including 5 per cent for laps and wastage	t	1.05			
	Binding wire	kg	8.00			
	<b>(b) Labour for cutting, bending, tying and placing in position</b>					
	Mate	day				
	Blacksmith/ Rod Binder	day	3.00			
	Mazdoor (Unskilled)	day	8.44			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per t = a+b+c+d</b>			<b>18.00%</b>		
	ii <b>High tensile steel wires/strands including all accessories for stressing, stressing operations and grouting complete as per drawing and Technical Specifications in section 1800 MORTH</b>					
	Unit = 1 MT					
	<b>Taking output = 0.377 MT</b>					
	Details of cost for 12T13 strand 40 m long cable (weight =					
	<b>a) Material</b>					
	H.T. Strand @ 9.42 kg/m including 2 per cent for wastage and extra length for jacking	t	0.39			
	Sheathing duct ID 66 mm along with 5 per cent extra length 40 x 1.05 = 42 m.	m	42.00			
	Tube anchorage set complete with bearing plate, permanent wedges etc	each	2.00			
	Cement for grouting including 3 per cent wastage @ 3.00 kg/m = 3 x 1.03 x 40 = 123.60 kg (say, = 125 kg)	t	0.125			
	Add 0.50 per cent cost of material for Spacers, Insulation tape and miscellaneous items					
	<b>b) Labour</b>					
	<b>i) For making and fixing cables, anchorages</b>					
	Mate	day	-			
	Blacksmith	day	1.00			
	Mazdoor (Unskilled)	day	3.16			
	<b>ii) For prestressing</b>					
	Mate/Supervisor	day	-			
	Prestressing operator / Fitter	day	0.25			
	Mazdoor (Unskilled)	day	1.05			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>iii) For grouting</b>					
	Mate/Supervisor	day	-			
	Mason	day	0.25			
	Mazdoor (Unskilled)	day	1.05			
	<b>c) Machinery</b>					
	Stressing jack with pump	hour	2.50			
	Grouting pump with agitator	hour	1.00			
	Generator 33 KVA.	hour	3.50			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>				<b>18.00%</b>	
	Cost for 0.377 MT (a+b+c+d+e)					
	<b>Rate per MT = (a+b+c+d+e)/0.377</b>					
	<b>Note</b> : Cost of HT steel shall be taken for delivery at site. Hence carriage has not been considered.					
5	<b>(i) Providing and laying cement concrete wearing course M 30 grade including reinforcement complete as per drawing and technical specifications Clauses 800 and 1206.3 MORD and 2702 MORTH</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Cement	t	0.407			
	Sand	cum	0.45			
	20 mm aggregate	cum	0.54			
	10 mm aggregate	cum	0.36			
	HYSD bar reinforcement including binding wire (Rate as per item 13.2) except OH & CP	t	0.075			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	0.10			
	Mazdoor (Unskilled)	day	1.39			
	Mazdoor (Unskilled) for cleaning deck slab concrete	day	0.15			
	<b>(c) Machinery</b>					
	Concrete mixer 0.4/0.28 cum capacity	hour	0.40			
	Generator 33 KVA.	hour	0.40			
	<b>(d) Formwork @ 3% of cost of concrete</b>				<b>3.00%</b>	
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>				<b>18.00%</b>	
	<b>Rate per cum = a+b+c+d+e+f</b>					
	<b>(ii) Providing and laying cement concrete wearing course M 25 grade including reinforcement complete as per drawing and technical specifications Clauses 800 and 1206.3 MORD</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Cement	t	0.400			
	Sand	cum	0.45			
	20 mm aggregate	cum	0.54			
	10 mm aggregate	cum	0.36			
	HYSD bar reinforcement including binding wire (Rate as per item 13.2) except OH & CP	t	0.075			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	0.10			
	Mazdoor (Unskilled)	day	1.39			
	Mazdoor (Unskilled) for cleaning deck slab concrete	day	0.15			
	<b>(c) Machinery</b>					
	Concrete mixer 0.4/0.28 cum capacity	hour	0.40			
	Generator 33 KVA.	hour	0.40			
	<b>(d) Formwork @ 3% of cost of concrete</b>				<b>3.00%</b>	
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>				<b>18.00%</b>	
	<b>Rate per cum = a+b+c+d+e+f</b>					



S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
6	<b>Mastic Asphalt</b>					
	Providing and laying 12 mm thick mastic asphalt wearing course on top of deck slab excluding prime coat with paving grade bitumen meeting the requirements given in table 500-29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine grained hard stone chipping of 9.5 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 100 deg. C, protruding 1 mm to 4 mm over mastic surface, all complete as per clause 515 & 2702 MORTH.					
	<b>Unit = sqm</b>					
	<b>Taking output = 72.46 sqm (2 tonnes)(0.869 cum) assuming a density of 2.3 tonnes/cum.</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	11.49			
	Mazdoor (Skilled)	day	1.25			
	<b>b) Machinery</b>					
	Mechanical broom @ 1250 sqm per hour	hour	0.06			
	Air compressor 250 cfm	hour	0.06			
	Mastic cooker 1 tonne capacity	hour	6.00			
	Bitumen boiler 1500 litres capacity	hour	6.00			
	Tractor for towing and positioning of mastic cooker and bitumen boiler	hour	1.00			
	<b>c) Material</b>					
	Base mastic (without coarse aggregates) = 60 per cent					
	Coarse aggregate(3.35mm to 9.5 mm size) = 40 %					
	Proportion of material required for mastic asphalt with coarse aggregates (based on mix design done by CRRRI for a specific case)					
	<b>i) Bitumen 80/100 or 60/70 or 30/40 @ 10.2 per cent by weight of mix. <math>2 \times 10.2/100 = 0.204</math></b>	t	0.204			
	<b>ii) Crusher stone dust @ 31.9 per cent by weight of mix = <math>2 \times 31.9/100 = 0.638</math> tonnes = <math>0.638/1.625 = 0.39</math></b>	cum	0.39			
	<b>iii) Lime stone dust filler with calcium carbonate content not less than 80 per cent by weight @ 17.92 per cent by weight of mix = <math>2 \times 17.92/100 = 0.36</math></b>	t	0.36			
	<b>iv) Coarse aggregates 9.5 mm to 3.35 mm size @ 40 per cent by weight of mix = <math>2 \times 40/100 = 0.8</math> MT = <math>0.8/1.456 = 0.55</math></b>	cum	0.55			
	<b>v) Pre-coated stone chips of 9.5 mm nominal size for skid resistance = <math>72.46 \times 0.005/10 = 0.036</math></b>	cum	0.036			
	<b>vi) Bitumen for coating of chips @ 2 per cent by weight = <math>0.036 \times 1.456 \times 2/100 = 0.001048</math>MT = 1.05kg</b>	kg	1.05			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Cost for 72.46 sqm = a+b+c+d+e</b>					
	<b>Rate per sqm = (a+b+c+d+e)/72.46</b>					
	<b>18.00%</b>					
	<b>Note : 1.</b> The rates for 6 mm or any other thickness may be worked out on pro-rata basis.					
	<b>2.</b> Where tack coat is required to be provided before laying mastic asphalt, the same is required to be measured and paid separately.					
	<b>3.</b> The quantities of binder, filler and aggregates are for estimating purpose. Exact quantities shall be as per mix design.					
	<b>4.</b> This rate analysis is based on design made by CRRRI for a specific case and is meant for estimating purposes only. Actual design is required to be done for each case.					
	<b>5.</b> The quantity of bitumen works out 17 per cent of the mastic asphalt blocks without aggregates and falls within the standards laid down by MoRTH Specifications.					



S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks	
1	2	3	4	5	6	7	
7	i	<b>Construction of R.C.C. railing of M 25 grade in cast-in-situ with 20 mm nominal size aggregate, true to line and grade, tolerance of vertical railing post not to exceed 1 in 500, centre-to-centre spacing between vertical posts not to exceed 2000 mm as per drawing and technical specifications Clauses 800, 900 and 1208.3 MORD.</b>					
		Unit = Running m					
		Taking output = 4x12 m					
		Span = 48 m					
		<b>(a) M 25 grade R.C.C.</b>					
		No. of vertical posts = (6+1) 4 = 28 nos					
		Cross-sectional area of vertical post = 0.25x0.275 = 0.069 sqm					
		Concrete in vertical posts = 0.069x28x1.00 = 1.932 cum					
		Hand rail in 3 tiers = 3x48 = 144 m					
		Cross-sectional area = 0.17x0.175 = 0.03 sqm					
		Concrete in hand rails = 0.03 x 144 = 4.32 cum					
		Total concrete = 1.932+4.32 = 6.252 cum					cum 6.252
		<b>(b) HYSD bar reinforcement (Rate as per item 13.2)</b>					t 1.36
		<b>c&amp;d) Overheads &amp; Contractors Profit</b>					18.00%
		<b>Cost for 48 m = (a+b+c+d)</b>					
		<b>Rate per m = (a+b+c+d)/48</b>					
		<b>Sub Analysis for Rate of Concrete</b>					
		<b>(a) Material</b>					
		Cement	t	0.40			
		Coarse sand	cum	0.45			
		20 mm aggregate	cum	0.54			
		10 mm aggregate	cum	0.36			
		<b>(b) Labour</b>					
		Mate	day				
		Mason (1st Class)	day	0.12			
		Mazdoor (Unskilled)	day	2.09			
		<b>(c) Machinery</b>					
		Concrete mixer 0.4/0.28 cum capacity	hour	0.40			
		<b>Formwork @ 12%</b>					12.00%
		<b>Total (a+b+c+d)</b>					
		<b>Note : 1.</b> 48 m length is the total linear length adding both sides of 2x12 m span					
		<b>2.</b> Quantities of material have been adopted from standard plans of MORTH vide drawing No SD/202					
	ii	<b>Construction of precast RCC railing of M30 Grade, aggregate size not exceeding 12 mm, true to line and grade, tolerance of vertical RCC post not to exceed 1 in 500, centre to centre spacing between vertical post not to exceed 2000 mm, leaving adequate space between vertical post for expansion, complete as per approved drawings and technical specifications, in sections 1500, 1600, 1700 &amp; 2703 MORTH.</b>					
		Unit = 1 RM					
		Taking output = 2 x 24 m span = 48 m					
		<b>a) Material</b>					
		Cement concrete M30 Grade Refer relevant item of concrete in Item 14.1(C) by using batching plant, excluding formwork i.e. per cum basic cost (a+b+c)	cum	4.092			
		No. of vertical posts = (12 + 2)2 = 28 Nos., External area of vertical post 0.25x0.275 = 0.069sqm, Concrete in Vertical posts = 0.069 x 28 = 1.932 cum, Hand rail in 3 tiers = 3 x 24 = 72 m, External area = 0.170 x 0.175 = 0.03 sqm, Concrete in hand rails = 0.03 x 72 = 2.16 cum, Total Concrete = 1.932 + 2.16 = 4.092 cum. (Refer MoRTH SD / 202).					
		Add 5 per cent of above cost for form work for casting in casting yard.	cum	5.00%			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	HYSD bar reinforcement Rate as per item No 14.2 (Excluding OH & CP) Refer MoRTH SD / 202.	t	0.865			
	Add 5 per cent of (a) for handling and fixing of precast panels in position		5.00%			
	<b>b&amp;c) Overheads &amp; Contractors Profit</b>		18.00%			
	<b>Rate for 48 m (a+b+c)</b>					
	<b>Rate per metre (a+b+c)/48</b>					
	<b>Note : 1.</b> Quantities of material have been adopted from standard plans of MoRTH vide drawing no. SD/202.					
	<b>2.</b> 48 m length is the total linear length adding both sides of 24 m span.					
iii	<b>Construction of RCC railing of M30 Grade in-situ with 20 mm nominal size aggregate, true to line and grade, tolerance of vertical RCC post not to exceed 1 in 500, centre to centre spacing between vertical post not to exceed 2000 mm, leaving adequate space between vertical post for expansion, complete as per approved drawings and technical specifications in sections 1500, 1600, 1700 &amp; 2703 MORTH.</b>					
	<b>Unit = 1 RM</b>					
	<b>Taking output = 2 x 24 m span = 48 m.</b>					
	<b>a) Material</b>					
	Cement concrete M30 Grade Refer relevant item of concrete in Item 14.1(C) by using batching plant, excluding formwork i.e. per cum basic cost (a+b+c)	cum	4.092			
	No. of vertical posts = $(12 + 2)2 = 28$ Nos., External area of vertical post $0.25 \times 0.275 = 0.069$ sqm, Concrete in vehicle posts = $0.069 \times 28 = 1.932$ cum, Hand rail in 3 tiers = $3 \times 24 = 72$ m, External area = $0.170 \times 0.175 = 0.03$ sqm, Concrete in hand rails = $0.03 \times 72 = 2.16$ cum, Total Concrete = $1.932 + 2.16 = 4.092$ cum. (Refer MoRTH SD / 202).					
	Add 12 per cent of above cost for form work.	cum	10.00%			
	HYSD bar reinforcement Rate as per item No 14.2 (Excluding OH & CP) refer MoRTH SD / 202.	t	0.865			
	<b>b&amp;c) Overheads &amp; Contractors Profit</b>		18.00%			
	<b>Cost for 48 m (a+b+c)</b>					
	<b>Rate per metre (a+b+c)/48</b>					
	<b>Note : 1.</b> Quantities of material have been adopted from standard plans of MoRTH vide drawing no. SD/202.					
	<b>2.</b> 48 m length is the total linear length adding both sides of 24 m span.					
8	<b>Providing fitting and fixing mild steel railing complete as per drawing and technical specifications Clause 1208.2 MORD / 1900 &amp; 2703 MORTH.</b>					
	Unit = Running m					
	Taking output = 100 m (2 x 50 m span)					
	<b>(a) Material</b>					
	IS MC 100= $2.806 \times 1.05 = 2.946$ t	t	2.946			
	MS Flats = $0.964 \times 1.05 = 1.012$ t	t	1.01			
	MS bars = $0.17 \times 1.05 = 0.18$ t	t	0.18			
	MS bolts, nuts and washers	kg	150.00			
	<b>(b) Labour</b>					
	Mate	day	-			
	Blacksmith	day	30.00			
	Mazdoor (Unskilled)	day	42.80			
	<b>(c) Add 5 per cent of (a) for painting one shop coat with red oxide primer and three coats of synthetic enamel paint and consumables to safeguard against weathering and corrosion.</b>		5.00%			
	<b>(d) Add for cost of concrete for fixing vertical post in the preformed recess @ 1 per cent of (a)</b>		1.00%			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	(e) Add for electricity charges, welding and drilling equipment, electrodes and other consumables @ 1 per cent of (a)		1.00%			
	f&g) Overheads & Contractors Profit		18.00%			
	<b>Cost for 100 m = (a+b+c+d+e+f+g)</b>					
	<b>Rate per m = (a+b+c+d+e+f+g)/100</b>					
	<b>Note :</b> A typical drawing for MS railing has been followed for estimate purpose. Rate may be worked out as per design to be followed					
9	<b>Providing and fixing in position pipe railing consisting of IS Rolled steel joist posts designation IS MB 100 (100x75) at 2.5 m interval and three rows of 50 mm dia steel pipes (light) including fixing in position on bridge deck complete as per drawing and Technical Specifications Clause 1208.2 MORD</b>					
	Unit = Running m					
	Taking output = 2 x 10 m = 20 m					
	<b>(a) Material</b>					
	Steel posts IS MB 100 (100 x 75)	t	0.13			
	5 x 2 x 11.5 x 1.1 x 1.05 = 130 kg					
	50 mm dia steel pipes light quality with ISI mark	m	60.00			
	20 x 3 = 60 m					
	M.S Bolts, nuts and washers	kg	50.00			
	Add @ 5 per cent of (a) for painting one shop coat with red oxide primer and three coats of synthetic enamel paint and consumables		5.00%			
	Add for electricity charges, welding and drilling equipment, electrodes and other consumables @ 1% of (a)		1.00%			
	<b>(b) Labour</b>					
	Mate	day	-			
	Blacksmith	day	6.00			
	Mazdoor (Unskilled)	day	8.56			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		18.00%			
	<b>Cost for 20 m steel railing = a+b+c+d</b>					
	<b>Rate per metre = (a+b+c+d)/20</b>					
10	<b>Brick masonry work in cement mortar 1:3 in parapet excluding pointing and plastering as per drawing and technical specifications Clauses 600, 900 and 1208.4 MORD</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Bricks (Modular Bricks 19 x 9 x 9 cms)	Nos.	520.00			
	Cement mortar (Rate as in item 11.5 I)	cum	0.20			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason 1st Class	day	0.89			
	Mazdoor (Unskilled)	day	1.80			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		18.00%			
	<b>Rate per cum = a+b+c+d</b>					
11	<b>Drainage spouts complete as per drawing and technical specifications Clause 1209 MORD &amp; 2705 MORTH</b>					
	Unit = 1 No					
	<b>(a) Material</b>					
	Corrosion resistant structural steel grating including 5 per cent wastage	kg	4.00			
	G I pipe 100 mm dia	m	6.00			
	GI bolt 10 mm Dia	each	6.00			
	Galvanised MS flat clamp	each	2.00			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>(b) Labour</b>					
	<b>For fabrication</b>					
	Mate	day	-			
	Blacksmith, Welder etc. (Skilled)	day	0.02			
	Mazdoor (Unskilled)	day	0.04			
	<b>For fixing in position</b>					
	Mate	day	-			
	Mason (1st Class)	day	0.01			
	Mazdoor (Unskilled)	day	0.21			
	Add @ 5 per cent of cost of material and labour (a+b) for electrodes, gas cutting, sealant, anti-corrosive bituminous paint, mild steel grating etc.					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per m = a+b+c+d</b>					
	<b>Note in MORTH :</b> 1. In case of viaducts in urban areas, the drainage spouts should be connected with suitably located pipelines to discharge the surface run-off to drains provided at ground level.					
	2. In case of bridges, sufficient length of G.I Pipe shall be provided to ensure that there is no splashing of water from the drainage spout on the structure.					
12	<b>P.C.C. M 15 ordinary grade (1:2.5:5) leveling course below approach slab complete as per drawing and technical specifications Clauses 800 and 1211 MORD &amp; 2700 MORTH</b>					
	<b>(i) Nominal mix (1:2.5:5) / PCC M 15 using Concrete Mixture</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Cement	t	0.275			
	Coarse sand	cum	0.48			
	40 mm aggregate	cum	0.54			
	20 mm aggregate	cum	0.27			
	10 mm aggregate	cum	0.09			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	0.10			
	Mazdoor (Unskilled)	day	1.39			
	<b>c) Machinery</b>					
	Concrete mixer 0.4/0.28 cum capacity	hour	0.40			
	Generator 33 KVA.	hour	0.40			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = a+b+c+d+e+f</b>					
	<b>(ii) Nominal mix 1:2.5:5 (Hand mixing) MORD</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Cement	t	0.275			
	Coarse sand	cum	0.48			
	40 mm aggregate	cum	0.54			
	20 mm aggregate	cum	0.27			
	10 mm aggregate	cum	0.09			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	0.10			
	Mazdoor (Unskilled)	day	2.36			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = a+b+c+d</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
13	<b>i Reinforced Cement Concrete M 25 grade approach slab including reinforcement and formwork complete as per drawing and technical specifications Clauses 800 and 1211 MORD / 1500, 1600, 1700 &amp; 2704 MORTH</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Reinforced cement concrete M 25 grade					
	Rate as per Item 11 (i)	cum	1.00			
	HYSR reinforcement					
	Rate per item 2	t	0.05			
	<b>Rate per cum = (a)</b>					
	<b>ii Reinforced cement concrete approach slab including reinforcement and formwork complete as per drawing and Technical specification 1500, 1600, 1700 &amp; 2704 MORTH</b>					
	Unit = 1 cum					
	Taking output = 1 cum					
	<b>a) Material</b>					
	Cement concrete M30 Grade Refer relevant item of concrete in item 1(III) by using batching plant, excluding formwork i.e. per cum basic cost (a+b+c) (Excluding OH & CP)	cum	1.00			
	Form Work : Refer relevant item of concrete in item No. 1(III) except that <b>form work</b> may be added at the rate of 2 per cent of cost against 3.5 per cent provided in the foundation concrete.	cum	2.00%			
	HYSR bar reinforcement Rate as per item No 2 (Excluding OH&CP)	t	0.05			
	<b>b&amp;c) Overheads &amp; Contractors Profit</b>		18.00%			
	<b>Rate per cum (a+b+c)</b>					
	<b>Note</b> : The grade of reinforced cement concrete may be adopted as M30 for severe conditions and M25 for moderate conditions.					
14	<b>Providing and laying of an electrometric slab seal expansion joint complete as per approved drawing and approved specifications to be installed by manufacturer/supplier or their authorised representative ensuring compliance to the manufacturer's instruction for installation and as per Technical Specification Clause 1207.2.5 MORD / 2606 MORTH</b>					
	(i) Unit = Running m					
	Taking output = 12.00 m					
	<b>(a) Material</b>					
	Supply of electrometric slab seal expansion joint assembly manufactured by using chloroprene elastomer for elastomeric slab unit conforming to Clause 915.1 of IRC:83 (Part II) complete as per approved drawings and specifications.	m	12.00			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.00			
	Mazdoor (skilled)	day	0.56			
	Add 5 per cent of cost of material for anchorage reinforcement, welding and other incidentals.		5.00%			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		18.00%			
	<b>Rate per m = (a+b+c+d)/ 12</b>					
	(ii) Unit = Running m					
	Taking output = 7.5 m					
	<b>(a) Material</b>					
	Supply of elastomeric slab seal expansion joint assembly manufactured by using chloroprene elastomer for elastomeric slab unit conforming to Clause 915.1 of IRC:83 (Part II) complete as per approved drawings and specifications.	m	7.50			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>(b) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.74			
	Mazdoor (skilled)	day	0.40			
	Add 5 per cent of cost of material for anchorage reinforcement, welding and other incidentals.			5.00%		
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Rate per m = (a+b+c+d)/7.5</b>					
15	<b>Providing and laying of compression seal joint consisting of steel armoured nosing at two edges of the joint gap suitably anchored to the deck concrete and a preformed chloroprene elastomer or closed cell foam joint sealer compressed and formed into the joint gap with special adhesive binder to cater for a horizontal movement upto 40mm and vertical movement of 3 mm as per drawing and Technical Specification Clause 1207.2.4 / 2600 MORTH</b>					
	<b>(a) Unit = Running m</b>					
	Taking output = 12m					
	<b>(a) Material</b>					
	Galvanised angle section 100 mm x 100 mm of 12 mm thickness weldable structural steel as per IS:2062, 2 Nos. of 12m length each @ 17.7 kg/m and 5% wastage.	kg	446.00			
	Add 5 per cent of cost of above for structural steel for welding and other incidentals.			5.00%		
	Preformed continuous chloroprene elastomer or closed cell foam sealing element with high tear strength, vulcanised in a single operation for the full length of a joint to ensure water tightness.	m	12.00			
	Add 1 per cent of cost of sealing element for lubricant-cum-adhesive and other consumables.			1.00%		
	<b>(b) Labour</b>					
	Mate	day				
	Mazdoor (Skilled)	day	0.64			
	Mazdoor (Unskilled)	day	0.30			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Cost for 12 m = a+b+c+d</b>					
	<b>Rate per m = (a+b+c+d)/ 12</b>					
	<b>(b) Unit = Running m</b>					
	Taking output = 7.5 m					
	<b>(a) Material</b>					
	Galvanised angle section 100 mm x 100 mm of 12 mm thickness weldable structural steel as per IS:2062, 2 Nos. of 7.5 m length each @ 17.7 kg/m and 5 per cent wastage.	kg	293.00			
	Add 5 per cent of cost of above for structural steel for welding and other incidentals.			5.00%		
	Preformed continuous chloroprene elastomer or closed cell foam sealing element with high tear strength, vulcanised in a single operation for the full length of a joint to ensure water tightness.	m	7.50			
	Add 1 per cent of cost of sealing element for lubricant-cum-adhesive and other consumables.			1.00%		
	<b>(b) Labour</b>					
	Mate	day				
	Mazdoor (Skilled)	day	0.224			
	Mazdoor (Unskilled)	day	0.40			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			18.00%		
	<b>Cost for 7.5 m = a+b+c+d</b>					
	<b>Rate per m = (a+b+c+d)/7.5</b>					
	<b>Note : 1. The installation shall be done by the manufacturer or his authorised representative to the satisfaction of the Engineer.</b>					
	<b>2. The concreting for joining the expansion joint assembly with the deck has not been included in this analysis as the same is catered for in the quantities of R.C.C deck</b>					
	<b>3. The anchoring bars of the expansion joint assembly shall be welded to the main reinforcement of the deck.</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>Buried Joint</b>					
16	<b>Providing and laying a buried expansion joint, covered with 12 mm thick, 200 mm wide galvanised weldable structural steel plate as per IS:2062, placed symmetrical to centre line of the joint, resting freely over the top surface of the deck concrete, welding of 8 mm dia, 100 mm long galvanised nails spaced 300 mm c/c along the centre line of the plate, as per Technical Specification Clause 1207.2.3 MORD / 2604 MORTH.</b>					
	a Unit = Running m					
	Taking output = 12 m					
	<b>(a) Material</b>					
	Galvanised M.S. plate 200 mm wide 12 mm thick @ 94.20 kg/sqm including 5 per cent wastage.	kg	237.50			
	Add 1 per cent of cost of steel plate for cutting, welding, consumables and galvanised nails.			1.00%		
	<b>(b) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	0.22			
	Mazdoor (Unskilled)	day	0.40			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			18.00%		
	Cost for 12 m = a+b+c+d					
	<b>Rate per m = (a+b+c+d)/ 12</b>					
	b Unit = Running m					
	Taking output = 7.5 m					
	<b>(a) Material</b>					
	Galvanised M.S. plate 200 mm wide 12 mm thick @ 94.20 kg/sqm including 5 per cent wastage.	kg	150.00			
	Add 1 per cent of cost of steel plate for cutting, welding, consumables and galvanised nails.			1.00%		
	<b>(b) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	0.16			
	Mazdoor (Unskilled)	day	0.25			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			18.00%		
	Cost for 7.5 m = a+b+c+d					
	<b>Rate per m = (a+b+c+d)/ 7.5</b>					
	<b>NOTE :</b> Guidelines laid down vide the MoRTH circular No. RW/NH-34059/1/96-S&R dated 30.11.2000 and subsequent corrigendum dated 25.01.2001 may be referred for expansion joints.					
17	<b>Filler Joint</b>					
	(I) <b>Providing and fixing 2 mm thick corrugated copper plate in expansion joint as per drawing and technical specifications Clause 1207.2.2 MORD</b>					
	(A) Unit = Running m					
	Taking output = 7.5 m					
	<b>(a) Material</b>					
	Copper plate - 7.5 m long x 250 mm wide	kg	34.00			
	Area = 7.5 x 0.25 = 1.875 sqm					
	Weight = 1.875 x 0.002 x 8900 = 33.4 kg.					
	Wastage @ 2.5% = 0.83 kg.					
	Total weight = 34 kg					
	<b>(b) Labour</b>					
	<b>For cutting, bending, carrying and fixing etc.</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.35			
	Mazdoor (Skilled)	day	0.37			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			18.00%		
	Cost for 7.5 m = a+b+c+d					
	<b>Rate per m = (a+b+c+d)/7.5</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>(B) Providing &amp; fixing 2 mm thick corrugated copper plate in expansion joint complete as per drawing &amp; Technical Specification 2605 MORTH.</b>					
	Unit = Running m					
	Taking output = 12 m					
	<b>(a) Material</b>					
	Copper plate - 12 m long x 250 mm wide	kg	55.00			
	Area = 12 x 0.25 = 1.875 sqm					
	Weight = 3 x 0.002 x 8900 = 53.4 kg					
	Wastage @ 2.5% = 1.33 kg/54.73 kg say = 55 kg.					
	Total weight = 108.4 kg					
	<b>(b) Labour</b>					
	<b>For cutting, bending, carrying and fixing etc.</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.54			
	Mazdoor (Skilled)	day	0.50			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 12 m = a+b+c+d					
	Rate per m = (a+b+c+d)/ 12					
	<b>(II) (A) Providing and fixing 20 mm thick compressible fiber board in expansion joint complete as per drawing and technical specifications MORD</b>					
	Unit = Running m					
	Taking output = 7.5 m					
	<b>(a) Material</b>					
	<b>20 mm thick compressible fiber board 250 mm deep</b>	sqm	1.875			
	Area = 7.5 x 0.25 = 1.875 sqm					
	<b>(b) Labour</b>					
	<b>For carrying, placing and fixing</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.11			
	Mazdoor (Skilled)	day	0.1			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 7.5 m = a+b+c+d					
	Rate per m = (a+b+c+d)/7.5					
	<b>(B) Providing and fixing 20 mm thick compressible fiber board in expansion joint complete as per drawing and technical specifications 2605 MORTH</b>					
	Unit = Running m					
	Taking output = 12 m					
	<b>(a) Material</b>					
	<b>20 mm thick compressible fiber board 250 mm deep</b>	sqm	3.00			
	Area = 12 x 0.25 = 3.00 sqm					
	<b>(b) Labour</b>					
	<b>For carrying, placing and fixing</b>					
	Mate	day				
	Mazdoor (Unskilled)	day	0.1			
	Mazdoor (Skilled)	day	0.108			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 12 m = a+b+c+d					
	Rate per m = (a+b+c+d)/ 12					
	<b>(III) (A) Providing and fixing in position 20 mm thick premoulded joint filler in expansion joint for fixed ends of simply supported spans, covered with sealant complete as per drawing and technical specifications MORD</b>					
	Unit = Running m					
	Taking output = 7.5 m					
	<b>(a) Material</b>					
	Premoulded joint filler 20 mm thick and 300 mm deep	sqm	2.25			



S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>(b) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.14			
	Mazdoor (Skilled)	day	0.07			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 7.5 m = a+b+c+d					
	Rate per m = (a+b+c+d)/7.5					
	<b>(B) Providing and fixing in position 20 mm thick premoulded joint filler in expansion joint for fixed ends of simply supported spans not exceeding 10 m to cater for a horizontal movement upto 20 mm, covered with sealant complete as per drawing and technical specifications MORTH</b>					
	Unit = Running m					
	Taking output = 12 m					
	<b>(a) Material</b>					
	Premoulded joint filler 20 mm thick and 300 mm deep	sqm	3.6			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.21			
	Mazdoor (Skilled)	day	0.1			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 12 m = a+b+c+d					
	Rate per m = (a+b+c+d)/ 12					
	<b>(IV) Providing and filling joint sealing compound as per drawings and technical specifications with coarse sand and 6 per cent bitumen by weight MORD</b>					
	Unit = Running m					
	Taking output = 7.5 m					
	00 mm wide x 10 mm deep recess					
	<b>(a) Material</b>					
	Sand	cum	0.008			
	Volume = 7.5 x 0.1 x 0.01 = 0.008 cum					
	Weight = 0.008 x 1400 = 11.2 kg					
	Bitumen-11.2 x 0.06 = 0.672 kg	t	0.0007			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	0.52			
	Mazdoor (Unskilled)	day	0.10			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 7.5 m = a+b+c+d					
	Rate per m = ((a+b+c+d)/7.5) or ((a+b+c+d)/ 12)					
	<b>(B) Providing and filling joint sealing compound as per drawings and technical specifications with coarse sand and 6 per cent bitumen by weight MORTH</b>					
	Unit = Running m					
	Taking output = 12 m					
	00 mm wide x 10 mm deep recess					
	<b>(a) Material</b>					
	Sand	cum	0.012			
	Volume = 12 x 0.1 x 0.01 = 0.012 cum					
	Weight = 0.012 x 1400 = 16.8 kg					
	Bitumen-16.8 x 0.06 = 1.008 kg	t	0.001			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	0.12			
	Mazdoor (Unskilled)	day	0.5			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 12 m = a+b+c+d					
	Rate per m = (a+b+c+d)/ 12					
	<b>Note :</b> For arriving at the final rate for filler joints per m length and per cm depth of joint filling compound, the rates of Sr. Nos (i), (ii), (iii) and (iv) shall be added.					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
18	<b>Asphaltic Plug joint</b>					
	Providing and laying of asphaltic plug joint to provide for horizontal movement of 25 mm and vertical movement of 25 mm, depth of joint varying from 75 mm to 100 mm, width varying from 500 mm to 750 mm (in traffic direction), covered with a closure plate of 200mm x 6mm of weldable structural steel conforming to IS: 2062, asphaltic plug to consist of polymer modified bitumen binder, carefully selected single size aggregate of 12.5 mm nominal size and a heat resistant foam caulking / backer rod, all as per approved drawings and specifications 2600 MORTH.					
	Unit = Running meter					
	Taking output = 12 m					
	<b>a) Labour</b>					
	Mate	day				
	Mazdoor (unskilled)	day	1.052			
	Mazdoor (Skilled) / Mason	day	0.30			
	<b>b) Material</b>					
	Crushed stone aggregate 12.5 mm nominal size	cum	0.75			
	Polymer modified bitumen	kg	77.50			
	Galvanised structural steel plate 200 mm wide,6 mm thick, 12 m long (2.4 sqm) @ 47.10 kg/sqm including 5 per cent	kg	113.00			
	Add 1 per cent for welding and foam caulking/backer rod and other incidentals.			1.00%		
	<b>c) Machinery</b>					
	Mastic cooker 1 tonne capacity	hour	1.00			
	Smooth 3-wheeled steel roller 8-10 capacity	hour	0.50			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>			18.00%		
	Cost for 12 m asphalt plug joint = (a+b+c+d+e)					
	Rate per m = (a+b+c+d+e)/12					
	Note : The nominal size of aggregates shall be 12.5 mm for depth of joint upto 75 mm and 20 mm for joints of depth more					
19	<b>Strip Seal Expansion Joint</b>					
	Providing and laying of a strip seal expansion joint catering to maximum horizontal movement upto 70 mm, complete as per approved drawings and standard specifications 2607 MORTH to be installed by the manufacturer / supplier or their authorised representative ensuring compliance to the manufacturer's instructions for installation.					
	Unit = Running meter					
	Taking output = 12 m					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.00			
	Mazdoor (Skilled)	day	0.30			
	<b>b) Material</b>					
	Supply of complete assembly of strip seal expansion joint comprising of edge beams, anchorage, strip seal element and complete accessories as per approved specifications and drawings.	m	12.00			
	Add 5 per cent of cost of material for anchorage reinforcement, welding and other incidentals.			5.00%		
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			18.00%		
	Cost for 12 m = (a+b+c+d)					
	Rate per m = (a+b+c+d)/12					
	Note : 1. The installation shall be done by the manufacturer or his authorised representative to the satisfaction of the Engineer.					
	2. The concreting for joining the expansion joint assembly with the deck has not been included in this analysis as the same is catered in the quantities of RCC deck.					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
20	<b>Modular Strip / Box Seal Joint</b>					
	<b>Providing and laying of a modular strip Box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140mm, complete as per approved drawings and standard specifications 2600 MORTH to be installed by the manufacturer / supplier or their authorised representative ensuring compliance to the manufacturer's instructions for installation.</b>					
	<b>Unit = Running meter</b>					
	<b>Taking output = 12 m</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.00			
	Mazdoor (Skilled)	day	0.46			
	<b>b) Material</b>					
	Supply of a modular strip/box seal joint assembly comprising of edge beams, central beam, 2 modules chloroprene seal, anchorage elements, support and control system, all steel sections protected against corrosion and installed by the manufacturer or his authorised representative.	m	12.00			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 12 m Modular strip/box seal joint = (a+b+c+d)</b>					
	<b>Rate per m = (a+b+c+d)/12</b>					
	<b>Note : 1.</b> The installation shall be done by the manufacturer or his authorised representative to the satisfaction of the Engineer.					
	<b>2.</b> The concreting for joining the expansion joint assembly with the deck has not been included in this analysis as the same is catered in the quantities of RCC deck.					
	<b>3.</b> The anchoring bars of the expansion joint assembly shall be welded to the main reinforcement of the deck.					
21	<b>Modular Strip / Box Seal Joint</b>					
	<b>Providing and laying of a modular strip box seal expansion joint catering to a horizontal movement beyond 140mm and upto 210mm, complete as per approved drawings and standard specifications 2600 MORTH to be installed by the manufacturer / supplier or their authorised representative ensuring compliance to the manufacturer's instructions for installation.</b>					
	<b>Unit = Running meter</b>					
	<b>Taking output = 12 m</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.25			
	Mazdoor (Skilled)	day	0.57			
	<b>b) Material</b>					
	Supply of a modular box/box seal joint assembly containing 3 modules/cells and comprising of edge beams, two central beams, chloroprene seal, anchorage elements, support and control system, all steel sections protected against corrosion and installed by the manufacturer or his authorised representative.	m	12.00			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 12 m Modular strip/box seal joint = (a+b+c+d)</b>					
	<b>Rate per m = (a+b+c+d)/12</b>					
	<b>Note : 1.</b> The installation shall be done by the manufacturer or his authorised representative to the satisfaction of the Engineer.					
	<b>2.</b> The concreting for joining the expansion joint assembly with the deck has not been included in this analysis as the same is catered in the quantities of RCC deck.					
	<b>3.</b> The anchoring bars of the expansion joint assembly shall be welded to the main reinforcement of the deck.					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
22	<b>Providing anti-corrosive treatment to HYSD reinforcement with Fusion Bonded Epoxy Coating (FBEC)</b>					
	<b>Unit = 1 MT</b>					
	<b>Taking output = 1 MT</b>					
	To be taken as per the prevailing market rates.					
	<b>Note :</b> Contractors generally do not have expertise for this item . The job is therefore, got done from specialised firms who have the expertise in the field of construction chemicals. The prevailing rate in the market is required to be ascertained from the market and added in the cost estimate. Detailed guidelines in this regard have been issued by MoRTH vide their circular no. RW/NH-34041/44/91-S&R dated 21.3.2000.					
23	<b>Precast - pretensioned Girders</b>					
	<b>Providing, precasting, transportation and placing in position precast pretensioned concrete girders as per drawing and technical specifications in sections 1800 &amp; 2300 MORTH</b>					
	<b>Unit = 1 cum</b>					
	<b>Taking output = 1 cum</b>					
	Grade of concrete - M40					
	<b>a) Material</b>					
	Cement	t	0.47			
	Coarse sand	cum	0.45			
	20 mm Aggregate	cum	0.54			
	10 mm Aggregate	cum	0.36			
	Admixture @ 0.4 per cent of cement	Kg	1.88			
	HYSD steel .	t	0.10			
	HT strand with 5 per cent as wastage and extra length for anchoring	t	0.06			
	LDO for steam curing	Litre	37.00			
	Add consumables such as binding wire, foam, packing tape, shuttering oil, HDPE pipe for unbonding of strand, bolt & nuts etc @ 1 per cent of material cost		<b>1.00%</b>			
	<b>b) Labour</b>					
	<b>(i) Cutting, bending, making reinforcement cage, placing in position, binding etc. complete</b>					
	<b>Taking quantity of steel 100 Kg/cum of concrete including laps and wastage</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	0.41			
	Mazdoor (Unskilled)	day	1.40			
	<b>(ii) Cable cutting and threading in position including binding by insulation tape with HDPE pipes etc., prestressing and cutting of extra length of HT strand after de-stressing.</b>					
	<b>Taking quantity of HT strand 60 Kg/cum</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	0.16			
	Mazdoor (Unskilled)	day	0.50			
	<b>(iii) Erection and dismantling of shuttering</b>					
	<b>Taking shuttering area 10 sqm/cum of concrete</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	1.12			
	Mazdoor (Unskilled)	day	2.00			
	<b>(iv) Concreting by Batching plant and stationary concrete pump</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	0.08			
	Mazdoor (Unskilled)	day	0.60			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>(v) Steam curing and manual curing</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.36			
	<b>(vi) Handling of precast girder, stacking in stockyard and again loading in trailer</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.26			
	<b>(vii) Placement of girders in position over pier caps including placement of sand jacks, channel, leveling</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	0.07			
	Mazdoor (Unskilled)	day	0.24			
	<b>c) Machinery</b>					
	<b>i) At casting yard</b>					
	Generator 100 KVA	hour	0.05			
	Batching Plant @ 20 cum/hour	hour	0.05			
	Transit Mixer 4 cum capacity	hour	0.10			
	Concrete Pump stationary	hour	0.05			
	Crane 35 tonne capacity	hour	0.10			
	Trailer 30 tonne capacity	hour	0.10			
	Loader	hour	0.05			
	<b>ii) For transportation and placement at site</b>					
	Crane 35 tonne capacity	hour	0.15			
	Trailer 30 tonne capacity for transporting to site. (L - Lead in Kilometer)	t.km	2.5xL			
	Trailer 30 tonne capacity during placement.	hour	0.15			
	Cost of formwork, steam curing arrangement, pretensioning arrangement etc @ 5 per cent of cost material, labour and machinery		5.00%			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		18.00%			
	<b>Rate per cum = (a+b+c+d+e)</b>					
24	<b>Providing and fixing Helical pipes in voided concrete slabs as per Tech Specification in Section 1700 &amp; 1800 MORTH.</b>					
	<b>Unit = 1 RM</b>					
	<b>Taking output = 1 RM</b>					
	<b>a) Material</b>					
	Helical pipes 600mm diameter	metre	1.00			
	Tie rods 20mm diameter	each	1.00			
	Consumables for sealing joints etc. @ 5%of cost of material					
	<b>b) Labour</b>					
	Mate	day	-			
	Fitter	day	0.05			
	Mazdoor (Unskilled)	day	0.21			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		18.00%			
	<b>Rate per cum (a+b+c+d)</b>					
25	<b>Crash Barriers</b>					
	The rate analysis for rigid crash barrier in reinforced cement concrete, semi-rigid crash barrier with metal beam and flexible crash barrier with wire ropes have been made and included in chapter-8 on Traffic and Transportation as per Specification 800 MORTH.					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
26	<b>Painting on concrete surface</b>					
	Providing and applying 2 coats of water based cement paint to unplastered concrete surface after cleaning the surface of dirt, dust, oil, grease, efflorescence and applying paint @ of 1 litre for 2 sqm as per Tech Specification 800 MORTH.					
	<b>Unit = sqm</b>					
	<b>Taking output = 10 sqm</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Painter	day	0.25			
	Mazdoor (Skilled)	day	0.26			
	<b>b) Material</b>					
	Water based paint of approved quality for cement concrete surface	L	5.00			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 10 sqm (a+b+c+d)</b>					
	<b>Rate per sqm (a+b+c+d)/10</b>					
27	<b>Stone masonry in cement mortar 1:3 for parapet complete as per drawing and technical specifications Clauses 700 and 1208.4 MORD</b>					
	I. Random rubble masonry					
	Rate same as in Chapter 12.4 III (i)	cum				
	II. Coursed rubble masonry (1st sort)					
	Rate same as in Chapter 12.4 I (i)	cum				
28	<b>Pointing with cement mortar (1:3) on brickwork in parapet as per technical specifications Clauses 613.3 and 1208.4 MORD</b>					
	Rate same as in Chapter 12.2	sqm				
29	<b>Plastering with cement mortar (1:3) 15 mm thick on brickwork in parapet as per technical specifications Clauses 613.4 and 1208.4 MORD</b>					
	Rate same as in Chapter 12.3	sqm				
30	<b>Providing and laying parapet with PCC M 15 as per drawing &amp; technical specifications Clauses 800 and 1208.4 MORD</b>					
	I. Nominal mix 1:2.5:5 (Hand mixing)					
	Rate same as in item 12.5 I (ii)	cum				
	II. Nominal mix (1:2.5:5)					
	Rate same as in item 12.5 I (i)	cum				
31	<b>Providing bituminous wearing coat comprising of 20 mm thick premix carpet with 5 mm thick seal coat Type B for culverts as per drawing and technical specifications Clauses 1206.2 and 500 MORD</b>					
	i. Rate for wearing coat as per item No. 5.9 of Chapter 5					
	ii. Rate for seal coat Type B as per item No. 5.12 of Chapter 5					
	<b>Note</b> : This type of wearing coat may be adopted where a cushion is provided over the culvert and the adjoining road pavement is continued over it.					
32	<b>Providing bituminous wearing coat comprising of 50 mm thick bituminous macadam overlaid by 20 mm thick premix carpet with 5 mm thick seal coat Type B as per Tech Specification 1200 MORD</b>					
	i. Rate for BM layer may be analysed as per item No 5.3 of Chapter 5	cum				
	ii. Rate of 20 mm premix carpet wearing course as per item No.5.9 of Chapter 5	sqm				
	iii. Rate of seal coat Type B as per item No. 5.12 of Chapter 5	sqm				

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
33	<b>Brickwork in arches in cement mortar 1:4 complete including centering and shuttering excluding pointing and plastering as per drawing and technical specifications Clauses 606 and 1205.1 MORD</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Brick 1st class (23 x 11 x 7 cms Traditional Bricks)	Nos.	512.00			
	Cement mortar (1:4) (Rate same as for item 11.5 II)	cum	0.20			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.80			
	Mason (1st Class)	day	0.89			
	<b>(c) Add for centering and shuttering @ 110% of (a+b)</b>					
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = a+b+c+d+e</b>					
	<b>18.00%</b>					
	<b>Note : 1.</b> In case cement mortar 1:3 is used, rate as in item 11.5 I. will hold good.					
	<b>2.</b> Quantity of bricks for arches will be about 10 per cent more than that for ordinary brickwork .					
	<b>3.</b> In case special arch bricks are used, the quantity of bricks per cum shall be taken as 580 Nos.					
	<b>4.</b> Rates for spandrel walls shall be taken same as for brickwork in substructure.					
	<b>5.</b> Rate for spandrel filling will depend on the filling material adopted					
	<b>6.</b> Compressive strength of Bricks shall be not less than 72 kg /cm <sup>2</sup>					
34	<b>Coursed rubble stone masonry arch (1st sort) in cement mortar (1:4) complete including centering etc. complete as per drawing and technical specifications Clauses 706 and 1205.1 MORD</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Stone for CR masonry 1st sort	cum	0.94			
	Through and bond stone (7 Nos 0.24x0.24x0.39 =	Nos.	0.16			
	Cement mortar (Rate as in item 11.5 II)	cum	0.30			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	1.50			
	Mazdoor (Unskilled)	day	1.62			
	<b>(c) Add for centering and shuttering @ 100 % of (a+b)</b>					
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>18.00%</b>					
	<b>Rate per cum = a+b+c+d+e</b>					
	<b>Note : 1.</b> In case cement mortar 1:3 is used, rate for the same shall be as per item 11.5 I.					
	<b>2.</b> The addition for centering and shuttering at (c) above is for arch above 6 m span. For lesser span length the addition shall be 80 per cent for span above 4 m length and 50 per cent for spans less than 4 m.					
35	<b>Providing &amp; Laying reinforced cement concrete arch complete including centering and shuttering excluding reinforcement as per drawings and technical specifications Clauses 800, 900 and 1205.1 MORD</b>					
	Unit = cum					
I	<b>RCC grade M20 (1:2.4) nominal mix</b>					
	<b>(a) Material</b>					
	Cement	t	0.33			
	Coarse sand	cum	0.45			
	20 mm aggregate	cum	0.54			
	10 mm aggregate	cum	0.36			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	0.20			
	Mazdoor (Unskilled)	day	2.15			
	Bhisti	day	-			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>(c) Machinery</b>					
	Concrete mixer 0.4/0.28 cum capacity	hour	0.40			
	<b>(d) Add for cost of centering and shuttering @ 50 per cent of (a+b) per sqm of surface of arch soffit</b>					
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate per cum = a+b+c+d+e+f</b>					
II	<b>RCC Grade M 25 (Design Mix)</b>					
	<b>(a) Material</b>					
	Cement	t	0.40			
	Coarse sand	cum	0.45			
	20 mm aggregate	cum	0.54			
	10 mm aggregate	cum	0.36			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	0.20			
	Mazdoor (Unskilled)	day	2.15			
	Bhisti	day	-			
	<b>(c) Machinery</b>					
	Concrete mixer 0.4/0.28 cum capacity	hour	0.40			
	<b>(d) Add for cost of centering and shuttering @ 45 % of cost of (a+b) per sqm of surface of arch soffit</b>					
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate per cum = a+b+c+d+e+f</b>					
	<b>Note :</b> The additional cost of centering and shuttering @ 50 / 45 per cent of cost of material and labour shall hold good for arch spans of 6 m and above. For lesser length of spans, the corresponding additional cost can be taken as 40 per cent for spans above 4 m length and 30 per cent for spans less than 4m.					
36	<b>Providing steel R.S.Js/built-up steel sections including cutting, welding/riveting, hoisting, fixing in position for composite girders with shear connectors complete with painting as per drawing and technical specifications Clause 1205.6 MORD</b>					
	<b>A Steel section</b>					
	Unit = quintal					
	Taking output for a typical 6 m long built up section comprising of of R.S.Js, with connecting plates with shear connectors					
	<b>(a) Material</b>					
	R.S.Js 350 m x 200 mm @ 56.9 kg/m					
	6.0 m x 56.9 kg = 341.4 kg					
	Add 5 per cent for wastage = 17.87 kg					
	Total = 358.47 kg					
	25 cm wide x 12 mm thick plate					
	4x6x8.25 = 565.25 kg					
	Wastage 5 per cent = 28.3 kg					
	Total = 593.54 kg					
	Add shear connectors @ 10% = 59 kg					
	Total = 358.47 +593.5+59 = 1011 kg					
	Steel fabricated section	q	10.11			
	Rivets 22 mm dia = 240 Nos					
	Wastage @ 5 per cent = 12 Nos					
	Total = 252 Nos					
	Quantity of riveting @ 1.8 kg per 10 rivets = 45.35 kg	q	0.454			
	Add 5% of cost of material for painting one shop coat with red oxide primer and three coats of synthetic enamel and consumables		<b>5.00%</b>			
	<b>(b) Labour</b>					
	Fitter	day	6.00			
	Blacksmith	day	6.00			
	Mazdoor (Unskilled)	day	12.00			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 10.11 q = a+b+c+d</b>					
	<b>Rate per quintal = (a+b+c+d)/10.11</b>					



S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>Note : 1.</b> In case of welded section, welding charges per cm length of welding shall substitute cost of riveting					
	<b>2.</b> Shear connectors should always be welded to the top flange					
	<b>3.</b> The analysis of R.C.C. deck slab for the composite girder to be adopted from the item 13.1 of concrete superstructure					
	<b>4.</b> In the analysis of deck slab for composite girder superstructure, the component of formwork for the same shall be 20 per cent of cost of materials, labour and machinery for deck slab.					
	<b>5.</b> For spans upto 6 m with height above 5 m extra labour of mazdoor @ 3.0 days per quintal may be added					
	<b>6.</b> For higher span lengths of different heights following additional labour for erection of steel girders on pier/abutment caps may be provided:					
	<b>Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	0.06			
	Mazdoor (Unskilled)	day	0.25			
	<b>However, it is preferable to analyse the cost of erection of composite girder type of superstructure for required span range and height range with a project - specific methodology.</b>					
	<b>7.</b> The provision of 10 per cent for shear connectors in the typical case is tentative. The quantity shall be worked out as per design.					
	<b>8.</b> The cost of painting can also be analysed in detail in accordance with item 10.6 of Chapter 10					

**General Note :**

The provisions towards Mate is included in the provision towards unskilled Mazdoor.

**Andhra Pradesh Standard Data**  
**I. Roads and Bridges**  
**Chapter - 14**  
**PROTECTION WORKS**

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
1	Providing and laying boulder apron for bed protection with stone boulders of minimum size and weight as per Table 1300.1, no fragment weighing less than 25 / 40 kg laid dry complete as per drawing and technical specifications Clause 1301 MORD / 2503 MORTH					
	Unit = cum					
	<b>(a) Material</b>					
	Stone boulder (25 kg / 40 Kg minimum)	cum	1.00			
	Stone spalls	cum	0.20			
	<b>(b) Labour</b>					
	Mate	day				
	Mason 1st Class	day	0.35			
	Mazdoor (Unskilled)	day	0.79			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = a+b+c+d</b>			<b>18.00%</b>		
	<b>Note : 1.</b> Nominal excavation required for preparation of bed has been taken into account while making provisions for labour.					
	<b>2.</b> Same data is hold good for stone boulders 25 kg / 40 kg only rate may be substituted.					
(i)	<b>Jeddy Stone Dry Packing for Aprons and Revetments</b> <b>Section 1300 MORD</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Jeddy Stone (Including small stone for wedging)	cum	1.20			
	<b>(b) Labour</b>					
	Mason 1st Class	day	0.35			
	Mazdoor (Unskilled)	day	1.05			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = a+b+c+d</b>			<b>18.00%</b>		
(ii)	<b>Removing old revetment and repacking with old stones</b>					
	Unit = cum					
	Rate as per Item 1(i) above for labour component only	cum	1.00			
	<b>Extra labour for removing old revetment including stacking</b>					
	Mazdoor (Unskilled)	day	0.20			
	<b>Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum</b>			<b>18.00%</b>		
2	Providing and laying of boulder apron laid in wire crates with 4 mm dia GI wire conforming to IS:280 and IS:4826 in 100 mm x 100 mm mesh (woven diagonally) including 10 per cent extra for laps and joints laid with stone boulders weighing not less than 25 / 40 kg each as per drawing and technical specifications Clause 1301 MORD / 2503 MORTH					
	Unit = cum					
	Taking output = 3 m x 1.5 m x 1.25 m = 5.63 cum					
	<b>(a) Material</b>					
	Stone boulder (25 kg minimum) (MORTH - 40 kg)	cum	5.63			
	Stone spalls	cum	1.13			
	GI wires 4 mm dia @ 32 kg/10 sqm	kg	64.00			
	<b>(or)</b>					
	4mm GI wire crates woven in mesh size of 100 mm x 100 mm.	sqm	22.00			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	1.50			
	Mazdoor (Unskilled)	day	3.18			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	Add for labour for weaving the wire crates @ 2 per cent of cost of GI wire					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		18.00%			
	Cost for 5.63 cum = a+b+c+d					
	<b>Rate per cum = (a+b+c+d)/5.63</b>					
	<b>Note : 1.</b> Nominal cost of trimming for preparation of bed has been included in the cost of labour					
	<b>2.</b> The analysis will by & large hold good for gabions					
	<b>3.</b> Readymade woven wire crate rolls have been considered in the rate analysis. In case readymade rolls are not available, GI wire 4mm dia. @ 32 kg per 10 sqm may be provided. In that case 2 per cent of the cost of GI wire may be added for weaving the wire crates.					
3	<b>Providing and laying of apron with cement concrete blocks of size as per Table 1300.1 cast-in-situ and made with nominal mix of M-15 grade cement concrete with a minimum 250 kgs of cement per cum, as per IRC 21-2000, as per drawing and technical specifications Clause 1301 MORD / 2503 MORTH</b>					
	Unit = cum					
	<b>(a) Concrete grade M 15</b>					
	(Rate as per item No 11.4 II (i))	cum	1.00			
	Deduct cost of cement	kg	25.00			
	Add 2 per cent of cost to account for excavation for preparation of bed, nominal surface reinforcement and filling of granular material in recesses between blocks.		2.00%			
	<b>Rate per cum = (a)</b>					
	<b>Note :</b> The weight of CC Blocks shall be equivalent to the weight of stone required to mean design velocity as per specifications.					
4	<b>Single bamboo palasiding / walling of whole 2nd class bamboo (Jati or Bethua) 75mm dia and closely packed &amp; driven including fitting fixing with half bamboo kamis horizontally in three rows with cane or tying with wire complete and struts 1.5 m apart longitudinally and providing brush wood as per drawing and technical specifications Clause 1302.5 MORD</b>					
A	Driven at least 900 mm below ground and 1200 mm above ground					
	Unit = Running metre					
	Taking Output = 3.00 metre					
	<b>(a) Material</b>					
	2nd Class Bamboo 65mm to 75mm dia, (1.2m to 3.0m)	nos.	15.00			
	Binding Wire	kg	0.15			
	Brush Wood (LS Rs.10.00)	LS				
	<b>(b) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.04			
	<b>(c) Sundries (LS Rs.5.00)</b>	LS				
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		18.00%			
	Cost for 3 metre = a+b+c+d+e					
	<b>Rate per metre = (a+b+c+d+e) / 3.00</b>					
B	Driven at least 900 mm below ground and 900 mm above ground on average					
	<b>(a) Material</b>					
	2nd Class Bamboo 65 mm to 75 mm dia, (1.8 m-2.5 m) long	nos.	14.00			
	Binding Wire	kg	0.15			
	Brush Wood (LS Rs.10.00)	LS				
	<b>(b) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.04			
	<b>(c) Sundries</b>	LS				
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		18.00%			
	Cost for 3 metre = a+b+c+d+e					
	<b>Rate per metre = (a+b+c+d+e) / 3.00</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
5	<b>Providing and laying pitching on slopes laid over prepared filter media as per drawing and technical specifications Clause 1302 MORD / 2504 MORTH</b>					
	<b>I Stone/Boulder</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Stone boulder (25 kg minimum) /(MORTH - 40 kg)	cum	1.00			
	Stone spalls of minimum 25 mm size	cum	0.20			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason 1st Class	day	0.35			
	Mazdoor (Unskilled)	day	0.79			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = (a+b+c+d)</b>				<b>18.00%</b>	
	<b>II Cement concrete blocks of size as per Table 1300.2 cast in cement concrete of grade M 15</b>					
	<b>(a) Concrete grade M 15</b>					
	(Rate as per item No. 11.4 II (I) except that the size of aggregate shall be 20 mm & down	cum	1.00			
	Add 2 per cent of cost to account for surface reinforcement and filling of granular material in recesses between blocks				<b>2.00%</b>	
	<b>Rate per cum = (a)</b>					
	<b>III Brick pitching set in cement mortar 1:4 (MORD)</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Bricks	Nos.	500.00			
	Cement mortar 1:4 (Rate as in item 11.5 II)	cum	0.20			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason 1st Class	day	0.80			
	Mazdoor (Unskilled)	day	1.90			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = (a+b+c+d)</b>				<b>18.00%</b>	
6	<b>Providing and laying filter material underneath pitching in slopes complete as per drawing and technical specifications Clause 1302 MORD / 2504 MORTH</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Graded stone aggregate of required size - <b>passing through 22.4 mm Sieve</b>	cum	1.20			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	0.25			
	Mazdoor (Unskilled)	day	1.05			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = (a+b+c+d)</b>				<b>18.00%</b>	
	<b>Note : Labour cost includes labour required for trimming of slope to proper profile and preparation of bed.</b>					
7	<b>(i) Quarry Rubbish Backing for Revetments as per APSS</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Quarry Rubbish	cum	1.1			
	<b>(b) Labour</b>					
	Mazdoor (Unskilled)	day	0.7			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = (a+b+c+d)</b>				<b>18.00%</b>	

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>(ii) Gravel Backing for Revetments as per APSS</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Gravel	cum	1.16			
	<b>(b) Labour</b>					
	Mazdoor (Unskilled)	day	1.1			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = (a+b+c+d)</b>					
8	<b>I Providing and laying flooring laid over cement concrete bedding with M 10 grade complete as per drawing and technical specification Clause 1303 MORD</b>					
	<b>i Rubble stone laid in cement mortar 1:3</b>					
	Unit = cum					
	<b>(a) Material</b>					
	(i) Cement mortar (1:3) (For rate refer to item 6 (III) (i) of Chapter 11	cum	0.33			
	(ii) Add for cement concrete bedding (M 10) nominal mix) (For rate refer to item 4 (I) (i) or (ii) of Chapter 11	cum				
	Quantity shall be adopted as per design.					
	Add 1 per cent of cost to account for excavation for preparation of bed					
	(iii) Stone for rubble flooring 150 mm thick	cum	1.00			
	(iv) Stone spalls	cum	0.20			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason 1st Class	day	0.50			
	Mazdoor (Unskilled)	day	1.58			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = (a+b+c+d)</b>					
	<b>Note :</b> Quantity of cement mortar is inclusive of mortar for laying and filling of joints.					
	<b>ii Providing and laying flooring laid over cement concrete bedding with M 15 grade complete as per drawing and technical specification Clause 2505 MORTH</b>					
	<b>Rubble stone laid in cement mortar 1:3</b>					
	Unit = cum					
	<b>(a) Material</b>					
	(i) Cement mortar (1:3) (For rate refer to item 6 (III) (i) of Chapter 11	cum	0.33			
	<b>b) Add for cement concrete bedding (M15 Nominal mix) vide 5 (I) (i) of Chapter 12 excluding OH &amp; CP . Quantity shall be adopted as per design (Assume Rubble stone Flooring thickness 300mm and cement concrete bedding thickness 100mm)</b>	cum	0.33			
	Add 1 per cent of cost to account for excavation for preparation of bed					
	(iii) Stone for rubble flooring 150 mm thick	cum	1.00			
	(iv) Stone spalls	cum	0.20			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason 1st Class	day	0.50			
	Mazdoor (Unskilled)	day	1.58			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Rate per cum = (a+b+c+d)</b>					
	<b>Note :</b> Quantity of cement mortar is inclusive of mortar for laying and filling of joints.					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>II Cement concrete blocks grade M 15 as per Specification 1300 MORD</b>					
	Cement concrete blocks grade M 15 with 20 mm Graded metal as per sizes in Table 1300.2	cum	1.00			
	Add for Cement Concrete bedding (Quantity shall be as per design)		1.00%			
	Add 1 per cent of cost to account for excavation for preparation of bed		1.00%			
	<b>Rate per cum</b>					
	<b>ii Cement concrete blocks grade M 15 as per Specification 2505 MORTH</b>					
	Cement concrete blocks grade M 15 with 20 mm Graded metal as per sizes in Table 1300.2	cum	1.00			
	<b>b) Add for cement concrete bedding (M15 Nominal mix) vide 5 (I) (i) of Chapter 12 excluding OH &amp; CP. Quantity shall be adopted as per design (Assume Cement Concrete Blocks thickness 300mm and cement concrete bedding thickness 100mm)</b>	cum	0.33			
	Add 1 per cent of cost to account for excavation for preparation of bed		1.00%			
	<b>Rate per cum</b>					
	<b>III Brick on edge laid in cement mortar (1:3) for Flooring on road sides 150 mm thick and each layer shall be bedded on 25 mm thick CM 1:5 &amp; Joints filled with CM 1:3 as per Technical Specifications Clause 1303 - MORD</b>					
	Unit=cum					
	<b>(a) Material</b>					
	Bricks	Nos	500.00			
	Cement mortar (1:3)	cum	0.15			
	Cement mortar bedding (1:5)	cum	0.25			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason 1st Class	day	0.80			
	Mazdoor (Unskilled)	day	1.90			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		18.00%			
	<b>Rate per cum = (a+b+c+d)</b>					
8	<b>Providing and laying of dry rubble flooring complete as per drawings and technical specifications Clause 1303.3 MORD / 2506 MORTH</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Stone for rubble flooring 150 mm thick	cum	1.00			
	Stone spalls	cum	0.20			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason 1st Class	day	0.50			
	Mazdoor (Unskilled)	day	1.60			
	Add 1 per cent of (b) for trimming and preparation of base					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		18.00%			
	<b>Rate per cum = (a+b+c+d)</b>					
9	<b>Providing and laying curtain walls complete as per drawing and technical specification Clause 1304 MORD / 2507 MORTH</b>					
	Unit = cum					
	<b>I Brick masonry in cement mortar (1:4)</b>					
	(Rate same as in chapter 11)	cum	1.00			
	<b>II (i) Coursed rubble masonry (2nd sort) in cement mortar (1:4)</b>					
	(Rate same as in chapter 12)	cum	1.00			
	<b>(ii) Coursed rubble masonry (1st sort) in cement mortar (1:3)</b>	cum	1.00			
	(Rate same as in chapter 12)					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
III	(i) Cement concrete grade M 10 (Rate same as in chapter 11)	cum	1.00			
	(ii) Cement concrete grade M 15 (Rate same as in chapter 11)	cum	1.00			
	<b>Note</b> : Other items like excavation for foundation, filling behind wall, filter media, weep holes, etc. shall be added separately as per approved design.					
10	<b>Construction of flexible apron 1 m thick comprising of loose stone boulders weighing not less than 25 kg / 40 Kg as per requirement beyond curtain wall as per Tech Specification in Section 1300 MORD / 2507 MORTH.</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Stone boulder (MORTH - 40 kg)	cum	1.00			
	Stone spalls	cum	0.20			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason 1st Class	day	0.25			
	Mazdoor (Unskilled)	day	1.05			
	Add: 1 per cent of cost of (a+b) for trimming and preparation of bed					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>				18.00%	
	<b>Rate per cum = (a+b+c+d)</b>					
11	<b>Construction of toe walls for protection of slopes as per drawing and technical specifications Clause 1302.5 MORD</b>					
I	<b>Random rubble masonry in case of stone pitching laid with cement mortar (1:5)</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Stone for RR masonry	cum	0.94			
	Through and bond stone (7 no x 0.24 x 0.24 m x 0.39 m = 0.16 cum)	Nos.	0.16			
	Cement mortar (Rate same as in item 12.1 III)	cum	0.33			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason 1st Class	day	1.20			
	Mazdoor (Unskilled)	day	2.00			
	Add for scaffolding @ 5 per cent on (a+b)					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>				18.00%	
	<b>Rate per cum = (a+b+c+d)</b>					
	<b>Note</b> : For height less than 3 m, dry rubble masonry can also be used. In that case, the sub-item of cement mortar may be omitted in the analysis.					
II	<b>Brick masonry in cement mortar 1:4 in case of brick pitching</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Traditional Bricks (23 x 11 x 7 cms)	Nos.	512.00			
	Cement mortar 1:4 (Rate as per Sub analysis)	cum	0.20			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	0.80			
	Mazdoor (Unskilled)	day	1.89			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>				18.00%	
	<b>Rate per cum = (a+b+c+d)</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>Sub-analysis</b>					
	<b>Cement mortar 1:4 (1 cement : 4 sand)</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Cement	t	0.36			
	Sand	cum	1.05			
	<b>(b) Labour</b>					
	Mate	day				
	Mazdoor (Unskilled)	day	0.20			
	<b>Total material and labour = (a+b)</b>					
III	<b>Cement concrete grade M 10 in case of concrete block pitching</b>					
	Unit = cum					
(i)	<b>P.C.C grade M 10 - Machine Mixed</b>					
	<b>Nominal mix 1:3:6</b>					
	Unit = cum					
	<b>(a) Material</b>					
	Cement	t	0.220			
	Coarse sand	cum	0.45			
	40 mm aggregate	cum	0.570			
	20 mm aggregate	cum	0.280			
	10 mm aggregate	cum	0.050			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mason (1st Class)	day	0.10			
	Mazdoor (Unskilled)	day	1.39			
	<b>(c) Machinery</b>					
	Mechanical concrete mixer 0.4/0.28 cum capacity fitted with water measuring device and preferably also with load cell.	hour	0.40			
	<b>(d) Formwork @ 4% on cost of material, labour and machinery (a+b+c)</b>					
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>				18.00%	
	<b>Rate per cum = a+b+c+d+e+f</b>					
12	<b>Toe protection Tech Specification 2504.4 MORTH</b>					
	A toe wall for toe protection can either be in dry rubble masonry in case of dry rubble pitching or pitching with stones in wire crates or it can be in PCC M15 nominal mix if cement concrete block have been used for pitching. Rates for toe wall can be adopted from respective clauses depending upon approved design. The rate for excavation for foundation, dry rubble masonry and PCC M15 have been analysed and given in respective chapters.					
13	<b>Single bamboo spur and palisading of whole 2nd class bamboo (jati or Bethua) 65 mm to 75 mm dia and closely packed &amp; driven, including fitting, fixing with half bamboo kamis horizontally in three rows with cane or tying wire complete and struts 1500 mm apart longitudinally and providing brush wood as per drawing and technical specifications Clause 1302.5 MORD</b>					
i	Driven at least 900 mm below ground and 1800 mm above ground on average					
	Unit = Running metre					
	Taking output = 3.00 metre					
	<b>(a) Material</b>					
	2nd class bamboo (65 mm to 75 mm dia 3 m long)	Nos	18.00			
	Binding wire	Kg.	0.15			
	Brush Wood (LS Rs.10.00)	LS	LS			
	<b>(b) Labour</b>					
	Mate	day				
	Mazdoor (Unskilled)	day	1.04			
	<b>(c) Sundries</b>					
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>				18.00%	
	<b>Cost for 3 metre = a+b+c+d+e</b>					
	<b>Rate per metre = (a+b+c+d+e)/3</b>					



S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	ii Driven at least 900 mm below ground and 900 mm above ground on average					
	Unit = Running metre					
	Taking output = 3.00 metre					
	<b>(a) Material</b>					
	2nd class bamboo (65 mm to 75 mm dia 2 m long)	Nos	14.00			
	Binding wire	Kg.	0.15			
	Brush Wood (LS Rs.10.00)	LS	LS			
	<b>(b) Labour</b>					
	Mate	day				
	Mazdoor (Unskilled)	day	1.04			
	<b>(c) Sundries</b>	LS				
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>					
	Cost for 3 metre = a+b+c+d+e					
	Rate per metre = (a+b+c+d+e)/3					
14	<b>Single bamboo spur and palisading of whole 1st class bamboo (Bholuka or Barua) 85 mm to 100 mm dia. Closely packed &amp; driven including fitting, fixing with half 2nd class bamboo (jati or Bethua) horizontally in three rows with cane or tying wire complete and struts 1500 mm apart longitudinally and providing brush wood in the spur as per drawings and technical specifications (MORD Suggestive)</b>					
	i Driven at least 900 mm below ground and 1800 mm above ground					
	Unit = Running metre					
	Taking output = 3.00 metre					
	<b>(a) Material</b>					
	1st class bamboo (85 mm - 100 mm dia) 3.0 long	Nos	15.00			
	2nd class bamboo (85-100 mm dia 3.0 long)	Nos	2.00			
	Binding wire	Kg.	0.15			
	Brush Wood (LS Rs.10.00)	LS				
	<b>(b) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.25			
	<b>(c) Sundries</b>	LS				
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>					
	Cost for 3 metre = a+b+c+d+e					
	Rate per metre = (a+b+c+d+e)/3					
	ii Driven at least 900 mm below ground and 900 mm above ground on average					
	Unit = Running metre					
	Taking output = 3.00 metre					
	<b>(a) Material</b>					
	1st class bamboo (85-100 m dia, 2.0m long)	Nos	10.00			
	2nd class bamboo (85-100 mm dia, 2.0 m long)	Nos	1.50			
	Binding wire	Kg.	0.15			
	Brush Wood (LS Rs.10.00)	LS	LS			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.04			
	<b>(c) Sundries</b>	LS				
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>					
	Cost for 3 metre = a+b+c+d+e					
	Rate per metre = (a+b+c+d+e)/3					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	iii Driven at least 600 mm below ground and 1200 mm above ground on average.					
	Unit = Running metre					
	Taking output = 3.00 metre					
	<b>(a) Material</b>					
	1st class bamboo (85-100 m dia, 2.0m long)	Nos	9.00			
	2nd class bamboo (85-100 mm dia, 2 m long)	Nos	1.50			
	Binding wire	Kg.	0.15			
	Brush Wood (LS Rs.10.00)	LS	LS			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.04			
	<b>(c) Sundries</b>	LS				
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>					
	Cost for 3 metre = a+b+c+d+e		18.00%			
	<b>Rate per metre = (a+b+c+d+e)/3</b>					
15	<b>Bamboo spur 'A' type with whole bamboo 85mm-100mm dia, placed 230 mm centre to centre driven 900 mm below ground and 1200 mm to 1500 mm above ground tied with 2nd class bamboo (jati or Bethua) on either side at 450 mm apart horizontally with galvanised wire etc. complete as per drawings and technical specifications (MORD Suggestive)</b>					
	i <b>2nd class bamboo (jati or Bethua) 65mm-75mm dia</b>					
	Unit= Running metre					
	Taking output = 3.00 metre					
	<b>(a) Material</b>					
	2nd class bamboo (65mm-75mm dia, 2.5 m long)	Nos	14.00			
	2nd class bamboo (65mm-75mm dia, 3 m long)	Nos	4.00			
	Binding wire	Kg.	0.75			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.04			
	<b>(c) Sundries</b>	LS				
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>					
	Cost for 3 metre = a+b+c+d+e		18.00%			
	<b>Rate per metre = (a+b+c+d+e)/3</b>					
	ii <b>1st class bamboo (Bholuka or Barua ) 85 mm to 100 mm dia</b>					
	Unit = Running metre					
	Taking output = 3.00 metre					
	<b>(a) Material</b>					
	1st class bamboo (85-100 mm dia, 2.5 m long)	Nos	7.00			
	2nd class bamboo (85-100 mm dia, 2.5 m long)	Nos	4.00			
	Binding wire	Kg.	1.00			
	Brush Wood (LS Rs.10.00)	LS				
	<b>(b) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.46			
	<b>(c) Sundries</b>	LS				
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>					
	Cost for 3 metre = a+b+c+d+e		18.00%			
	<b>Rate per metre = (a+b+c+d+e)/3</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
16	Providing 'A' type single spur with 1st class bamboo (Bholuka or Barua) 85 mm to 100 mm dia. Driven closely placed 3m to 4m above ground and 1200 mm to 1500 mm below ground tied with cane or coir string, half 2nd class bamboo (jati or Bethua) horizontally on both face placed not more than one metre apart including whole bamboo struts inside one metre apart and 2 nos. of purling at top and bottom fitted with vertical struts at 1500 mm apart and filling with brushwood or jungle wood inside the spur complete as per drawing and technical specifications (MORD Suggestive)					
	Unit= Running metre					
	Taking output = 3.00 metre					
	<b>(a) Material</b>					
	1st class bamboo (85-100 mm dia, 4.5-5.5 m long)	Nos	15.00			
	2nd class bamboo (85-100 mm dia, 3.0 m long)	Nos	6.00			
	Binding wire	Kg.	2.00			
	Brush wood (LS Rs.10.00)	LS				
	<b>(b) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.56			
	<b>(c) Sundries</b>	LS				
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>					
	Cost for 3 metre = a+b+c+d+e		18.00%			
	Rate per metre = (a+b+c+d+e)/3					
17	Providing close bamboo toe walling consisting of 65mm to 75mm dia bamboos of length ranging from 1.2 m to 3m driven at 150 mm centre to centre and provided with three horizontal split bamboo runner fixed with nails. All bamboos to be duly protected by coal tar painting.					
	Unit = Running Metre					
	Taking output = 10.00 running metre					
	<b>(a) Material</b>					
	2nd class bamboo (65mm-75mm dia and average 2.1 m length)	Nos	67.00			
	2nd class bamboo (65mm-75mm dia and 3 m length)	Nos	6.00			
	Coal tar	kg	10.00			
	<b>(b) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.56			
	<b>(c) Sundries</b>	LS				
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>					
	Cost for 3 metre = a+b+c+d+e		18.00%			
	Rate per metre = (a+b+c+d+e)/3					
18	Double timber spur with two rows at 800 mm c/c apart of 1st class local wood piles with timber of Azar/Nahar/Nageswar / Zarul wood 150 mm to 200 mm dia driven 2000 mm minimum below ground and 3600 mm above ground average placed at 800 mm belts, bracings etc. of 100 mm x 75 mm size 1st class local wood longitudinally & crosswise at ends fitted with 10 mm dia bolts and nuts etc. including coal tarring of timber members and cost of necessary bamboo staging etc. as directed by the Engineer as per drawing and technical specifications (MORD Suggestive)					
	Unit =RM					
	Taking output = 4.00 RM					
	<b>(a) Material</b>					
	1st class local wood piles 150-200 mm dia, 6m long	Nos	68.00			
	1st class local wood (100 mm x 75 mm) for collar, bracing and belt	cum	0.404			
	Nuts and Bolts	Kg	10.00			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	1st Class Bamboo	Nos	5.00			
	2nd class bamboo	Nos	5.00			
	Coir rope	LS				
	Coal tar	LS				
	<b>(b) Labour</b>					
	Carpenter 1st Class	Nos	1.20			
	Mate	Nos	-			
	Mazdoor (Unskilled)	Nos	31.20			
	<b>(c) Sundries</b>	LS				
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>					
	<b>Cost for 4 Rm = a+b+c+d+e</b>					
	<b>Rate per metre = (a+b+c+d+e)/4</b>					
19	<b>Supplying and filling up hollows of the timber spur to an average height of 3600 mm above ground with jungle wood branches as per drawing and technical specifications as directed by the Engineer. (MORD Suggestive)</b>					
	Unit = RM					
	Taking output = 20.00 RM					
	<b>(a) Labour</b>					
	Mazdoor (Unskilled)	day	5.00			
	<b>(b) Sundries</b>	LS				
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Cost for 20 RM = (a+b+c+d)</b>					
	<b>Rate per metre = (a+b+c+d)/20</b>					
20	<b>Geotextile Filter</b>					
	Laying of a geotextile filter between pitching and embankment slopes on which pitching is laid to prevent escape of the embankment material through the voids of the stone pitching/cement concrete blocks as well as to allow free movement of water without creating any uplift head on the pitching as per Tech Specifications in Section 700 & 2504 MORTH					
	<b>Unit = sqm</b>					
	<b>Taking output = 10 sqm.</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.30			
	Mazdoor (Skilled)	day	0.12			
	<b>b) Material</b>					
	Permeable synthetic geotextile including 5 per cent for overlap and wastage	sqm	11.00			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>Cost for 10 sqm = a+b+c+d</b>					
	<b>Rate per sqm = (a+b+c+d)/10</b>					
21	<b>Gabian Structure for Retaining Earth</b>					
	Providing and construction of a gabian structure for retaining earth with segments of wire crates of size 7 m x 3 m x 0.6 m each divided into 1.5 m compartments by cross netting, made from 4 mm galvanised steel wire @ 32 kg per 10 sqm having minimum tensile strength of 300 Mpa conforming to IS:280 and galvanizing coating conforming to IS:4826, woven into mesh with double twist, mesh size not exceeding 100 x 100 mm, filled with boulders with least dimension of 200 mm, all loose ends to be tied with 4 mm galvanised steel wire as per Tech Specifications 2503.3 MORTH					
	<b>Unit = cum</b>					
	<b>Taking output = 7 x 3 x 0.6 = 12.60 cum</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	5.00			
	Mazdoor (Skilled)	day	2.28			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>b) Material</b>					
	Galvanised steel wire crates of mesh size 100 mm x 100 mm woven with 4mm dia. GI wire in rolls of required size.	sqm	61.00			
	Stone boulders with least dimension of 200 mm	cum	12.60			
	Stone spalls of minimum size 25 mm	cum	2.52			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 12.60 cum (a+b+c+d)</b>					
	<b>Rate per cum (a+b+c+d)/12.60</b>					
	<b>Note</b> : Readymade woven wire crate rolls have been considered in the rate analysis. In case readymade rolls are not available, GI wire 4mm dia. @ 32 kg per 10 sqm may be provided. In that case 2 per cent of the cost of GI wire may be added for weaving the wire crates.					
22	<b>Gabian Structure for Erosion Control, River Training Works and Protection works</b>					
	Providing and constructing gabian structures for erosion control, river training works and protection works with wire crates of size 2 m x 1 m x 0.3 m each divided into 1m compartments by cross netting, made from 4 mm galvanised steel wire @ 32 kg per 10 sqm having minimum tensile strength of 300 Mpa conforming to IS:280 and galvanizing coating conforming to IS:4826, woven into mesh with double twist, mesh size not exceeding 100 mm x 100 mm, filled with boulders with least dimension of 200 mm, all loose ends to be securely tied with 4 mm galvanised steel wire as per Tech Specifications 2503.3 MORTH.					
	<b>Unit = cum</b>					
	<b>Taking output = 2 x 1 x 0.3 x 10 Nos. = 6.00 cum</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	2.50			
	Mazdoor (Skilled)	day	1.14			
	<b>b) Material</b>					
	Galvanised steel wire crates of mesh size 100 mm x 100 mm woven with 4mm dia. GI wire in rolls of required size to cover 6.00 cum.	sqm	65.00			
	Stone boulders with least dimension of 200 mm	cum	6.00			
	Stone spalls of minimum size 25 mm	cum	1.20			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 6.00 cum (a+b+c+d)</b>					
	<b>Rate per cum (a+b+c+d)/6.00</b>					
	<b>Note</b> : Readymade woven wire crate rolls have been considered in the rate analysis. In case readymade rolls are not available, GI wire 4mm dia. @ 32 kg per 10 sqm may be provided. In that case 2 per cent of the cost of GI wire may be added for weaving the wire crates.					

**General Note :**

The provisions towards Mate is included in the provision towards unskilled Mazdoor.

**Andhra Pradesh Standard Data**

**I. Roads and Bridges**

**Chapter - 15**

**MAINTENANCE OF ROADS**

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
1	<b>Restoration of Rain Cuts</b>					
	Restoration of rain cuts with soil, moorum gravel or a mixture of these, clearing the loose soil, benching for 300mm width laying fresh material in layers not exceeding 250 mm and compaction with plate compactor or power rammer to restore the original alignment, level and slopes as per drawings and technical specifications Clause 1902 MORD / 3002 MORTH					
	<b>A Manual Means</b>					
	Unit = cum					
	Taking output = 10 cum					
	<b>(a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	6.240			
	<b>(b) Machinery</b>					
	Plate compactor	hour	3.000			
	<b>(c) Materials</b>					
	Compensation for earth Taken from private land	cum	7.500			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Cost for 10 cum = a+b+c+d</b>					
	<b>Rate per cum = a+b+c+d/10</b>					
	<b>B Mechanical Means including conveyance of earth from 1000 M load</b>					
	Unit = cum					
	Taking output = 50 cum					
	<b>(a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	10.400			
	<b>(b) Machinery</b>					
	Hydraulic Excavator 0.9 cum bucket capacity @ 60 cum/h	hour	0.830			
	<b>OR</b>					
	Hydraulic Excavator 1 cum bucket capacity @ 60 cum/h	hour	0.650			
	Tipper 5.5 cum, 10 t capacity	hour	2.270			
	Plate compactor 3.5 cum / hour capacity	hour	15.000			
	<b>(c) Materials</b>					
	Compensation for earth Taken from private land	cum	37.500			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Cost for 50 cum = a+b+c+d+e</b>					
	<b>Rate per cum a+b+c+d+e/50</b>					
	<b>Note :</b> Only 75% of fresh material has been provided as 25% can be retrieved from site from earth i.e. flown down the slop in the form of slurry and deposited at the foot of rain cuts.					
2	<b>Maintenance of Earthen shoulder (filling with fresh selected soil)</b>					
	(i) Making up loss of material/irregularities on shoulders to the design level by adding fresh approved selected soil and compacting it with appropriate equipment at OMC upto a lead of 1000 m as per technical specification Clause 1903 MORD / 3003 MORTH					
	Unit = sqm					
	Taking output = 100 sqm					
	Assuming average thickness of filling to be 150 mm					
	Quality of fresh material = 15 cum					
	<b>(a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	4.680			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>(b) Machinery</b>					
	Hydraulic Excavator 0.9 cum / 1.00 cum bucket capacity @ 60 cum/h	hour	0.250			
	Tipper 5.5 cum	hour	0.680			
	Plate compactor @ 25 sqm per hour	hour	4.000			
	<b>(c) Materials</b>					
	Compensation of earth	cum	15.000			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 100 sqm = a+b+c+d+e					
	Rate per sqm = (a+b+c+d+e)/100					
(II)	<b>Maintenance of Earthen shoulder (stripping of excess soil)</b>					
	Stripping excess soil from the shoulder surface to achieve the approved level and compacting with plate compactor at OMC as per drawings and Technical Specification Clause 1903 MORD / 3003 MORTH					
	Unit = sqm					
	Taking output = 100 sqm					
	Assuming height of stripping as 75 mm					
	Quantity of earth cutting involved = 7.5 cum					
	<b>(a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	2.600			
	<b>(b) Machinery</b>					
	Plate compactor @ 25 sqm per hour	hour	4.000			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 100 sqm = a+b+c+d					
	Rate per sqm = a+b+c+d/100					
	<b>Note</b> : Earth stripped from earthen shoulders to be used as shoulders or dumped on the side slopes locally for disposal.					
3	<b>Maintenance of bituminous surface road</b>					
(i)	Repair to pot holes by removal of failed material, trimming the sides to vertical and leveling the bottom, cleaning the same with compressed air or any appropriate method filled with 75mm B.M, applying bitumen emulsion prime coat at the bottom and bitumen emulsion tack coat on sides and on bottom as per technical specifications Clauses 502 and 503 and 1904 MORD.					
	Unit = cum					
	Taking output = $187.5 \times 0.075 = 14.06 \text{ cum} = (30.94 \text{ Tonne})$					
	(5% area of one km)					
	<b>(a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	20.800			
	<b>(b) Machinery</b>					
	Jack hammer 25 kg with tractor	hour	4.000			
	Compressor 210 cfm with tractor	hour	2.000			
	Emulsion pressure distributor	hour	4.000			
	Mixall 6/10 t capacity	hour	4.000			
	Three wheeled 80-100 kN Static Roller	hour	4.000			
	<b>(c) Materials</b>					
	Primer with bitumen emulsion @ 9 kg/10 sqm $187.5 \times 9 = 168.75 \text{ kg}$ .	Tonne	0.168			
	Tack coat with bitumen emulsion @ 3.0 ka/ 10 sam Bottom = 187.5					
	Sides = 28.27	Tonne	0.064			
	Total = 215.77					
	Bitumen for BM @ 3.5% by weight of mix = $30.94 \times 3.5 / 100 = 1.082$	Tonne	1.082			
	Weight of mix (BM) $14.06 \text{ cum} = (30.94 \text{ tonne})$					
	Weight of Bitumen = 1.082					
	Weight of aggregate $30.94 - 1.082 = 29.86$					
	Taking density of aggregate 1.5 t per cum					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	Volume of aggregate $29.86 / 1.5 = 19.90$ cum					
	Grading (1) (40 mm nominal size)					
	37.5 - 25 mm 15%	cum	2.985			
	25 - 10 mm 45%	cum	8.955			
	10 - 5 mm 25%	cum	4.975			
	5 mm and below 15%	cum	2.985			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 14.06 cum = a+b+c+d+e					
	<b>Rate per cum = a+b+c+d+e/14.06</b>					
(ii)	<b>Patch repair on already filled pot holes with 75 mm BM with 20 mm premix carpet and seal coat Type B as per drawings and technical specification Clause 1904.2 MORD</b>					
	Unit = sqm					
	Taking output = 200 sqm					
	<b>(a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	16.640			
	<b>(b) Machinery</b>					
	Mixall 6/10 tonne	hour	2.000			
	Bitumen pressure distributor	hour	2.000			
	Three wheeled 80-100 kN Static Roller	hour	4.000			
	<b>(c) Materials</b>					
	Bitumen for pre-mix carpet @ 14.60 kg/10 sqm $200 \times 14.60 / 10 = 292$ kg	tonne	0.292			
	Bitumen for tack coat @ 2kg per 10sqm $200 \times 2 / 10 = 40$ kg	tonne	0.040			
	Bitumen for seal coat @ 6.8 kg per 10 sqm	tonne	0.136			
	Crushed stone aggregate 13.2 mm to 5.6 mm @ 0.27 cum per 10 sqm = $200 \times 0.27 / 10 = 5.4$ cum	cum	5.400			
	Crushed sand passing 2.36 mm sieve and retained on 180 micron sieve @ 0.06 cum per 10 sqm $200 \times 0.06 / 10 = 1.20$ cum	cum	1.200			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost of 200 sqm = a+b+c+d+e					
	<b>Rate/sqm = a+b+c+d+e/200</b>					
(iii)	<b>Repair to pot holes and removal of loose material, trimming of sides, cleaning of surface by providing tack coat, 20 mm thick pre-mix carpet and seal coat type B specification Clause 1904.2 MORD</b>					
	Unit = sqm					
	Taking output = 200 sqm					
	<b>(a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	20.800			
	<b>(b) Machinery</b>					
	Air compressor 210 cfm with tractor	hour	2.000			
	Bitumen pressure distributor	hour	2.000			
	Mixall 6/10t capacity	hour	2.000			
	Three wheeled 80-100 kN Static Roller	hour	4.000			
	<b>(c) Materials</b>					
	Bitumen for tack coat @ 3kg per 10 sqm $200 \times 3 / 10 = 60$ kg	t	0.064			
	Bitumen for pre-mix carpet @ 14.60 kg per 10 sqm = $200 \times 14.6 / 10 = 292$ kg	t	0.292			
	Bitumen for seal coat @ 6.8 kg per 10 sqm = $200 \times 6.8 / 10 = 136$ kg	t	0.136			
	Crushed stone aggregate 13.2 mm to 5.6 mm @ 0.27 cum per 10 sqm = $200 \times 0.27 / 10 = 5.4$ cum	cum	5.400			
	Crushed sand passing 2.36 mm sieve and retained on 180 micron sieve @ 0.06 cum per 10 sqm $200 \times 0.06 / 10 = 1.20$ cum	cum	1.200			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 200 sqm = a+b+c+d+e					
	<b>Rate per sqm = a+b+c+d+e/200</b>					



S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
(iv)	Repair to pot holes and removal of loose material, trimming of sides, cleaning of surface by providing tack coat with bitumen emulsion, 20 mm thick pre-mix carpet using cationic bitumen emulsion and seal coat type B with bitumen emulsion as per Technical Specification Clauses 1904.2, 503 and 508.2 MORD					
	Unit = sqm					
	Taking output = 200 sqm					
	<b>(a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	16.640			
	<b>(b) Machinery</b>					
	Concrete mixer 0.4 / 0.28 cum capacity	hour	2.500			
	Air compressor 210 CFM with tractor	hour	2.000			
	Emulsion pressure distributor	hour	2.000			
	Three wheeled 80-100 kN Static Roller	hour	4.000			
	<b>(c) Materials</b>					
	Emulsion for tack coat @ 3 kg per 10 sqm 200 x 3 / 10 = 60 kg	tonne	0.060			
	Emulsion for premix carpet @ 21.50 kg per 10 sqm 200 x 21.50 / 10 = 430 kg	tonn	0.430			
	Emulsion for seal coat @ 10 kg per 10 sqm = 200 x 10 / 10 = 200 kg	tonn	0.200			
	Crushed stone aggregate 13.2 mm to 5.6 mm @ 0.27 cum per 10 sqm= 200x0.27/10=5.4cum	cum	5.400			
	Crushed sand passing 2.36 mm sieve and retained on 180 micron sieve @ 0.06 cum per 10 sqm = 200 x 0.06 / 10 = 1.20	cum	1.200			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 200 sqm = a+b+c+d+e					
	Rate per sqm = a+b+c+d+e/200					
4	<b>Filling Pot-holes and Patch Repairs with open-Graded Premix surfacing, 20mm.</b>					
	Removal of all failed material, trimming of completed excavation to provide firm vertical faces, cleaning of surface, painting of tack coat on the sides and base of excavation as per clause 503, back filling the pot holes with hot bituminous material as per clause 511, compacting, trimming and finishing the surface to form a smooth continuous surface, all as per clause 3004.2 MORTH					
	<b>Unit = Sqm</b>					
	<b>Taking out put = 10250 sqm (205 cum)(405 tonne)</b>					
	<b>a) Labour</b>					
	Mate	Day	-			
	Mazdoor (Unskilled)	Day	90.000			
	Mazdoor skilled	Day	7.760			
	<b>b) Machinery</b>					
	Air compressor 250 cfm	hour	6.000			
	HMP 100-110 TPH Capacity	hour	6.000			
	Tipper 10 tonnes capacity	hour	45.000			
	Smooth wheeled roller 8-10 tonnes	hour	12.000			
	<b>c) Material</b>					
	Crushed stone aggregates nominal size 13.2mm	cum	184.500			
	Crushed stone aggregates nominal size 11.2mm	cum	92.250			
	Bitumen 80/100	tonne	14.970			
	Bitumen emulsion for tack coat including vertical sides of pot hole.	tonne	2.460			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 10250 sqm = a+b+c+d+e					
	Rate per sqm = (a+b+c+d+e)/10250					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
5	<b>Filling Pot-holes and Patch Repairs with Bituminous concrete, 40mm.</b>					
	Removal of all failed material, trimming of completed excavation to provide firm vertical faces, cleaning of surface, painting of tack coat on the sides and base of excavation as per clause 503, back filling the pot holes with hot bituminous material as per clause 504, compacting, trimming and finishing the surface to form a smooth continuous surface, all as per clause 3004.2 MORTH					
	<b>Unit = Sqm</b>					
	<b>Taking out put = 4900 sqm (196 cum)(450 Tonnes)</b>					
	<b>a) Labour</b>					
	Mate	Day	-			
	Mazdoor (Unskilled)	Day	70.000			
	Mazdoor skilled	Day	5.920			
	<b>b) Machinery</b>					
	Air compressor 250 cfm	hour	6.000			
	HMP 100-110 TPH Capacity	hour	6.000			
	Tipper 10 tonnes capacity	hour	45.000			
	Smooth wheeled roller 8-10 tonnes	hour	12.000			
	<b>c) Material</b>					
	i) Bitumen	tonne	22.500			
	ii) Bitumen emulsion for tack coat .	tonne	1.180			
	iii) Aggregates					
	<b>Grading I - 19mm(Nominal size)</b>					
	20-10mm 35 per cent	cum	99.750			
	10-5 mm 23 per cent	cum	65.550			
	5mm and below40 per cent	cum	114.000			
	Add 5 per cent for wastage					
	or					
	<b>Grading-II 13mm (Nominal size)</b>					
	13.2-10 mm 30 per cent	cum	85.500			
	10-5 mm 25 per cent	cum	71.250			
	5 mm and Below43 per cent	cum	122.550			
	Filler 2 per cent (Cement)	tonne	9.000			
	Add 5 per cent for wastage					
	Any one of the above alternatives of aggregate i.e. 19mm or 13mm nominal size may be adopted as per approved design.					
	<b>(i) for grading I Material</b>					
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost for 4900 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/4900</b>					
	<b>(ii) for grading II Material</b>					
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	Cost for 4900 sqm = a+b+c+d+e					
	<b>Rate per sqm = (a+b+c+d+e)/4900</b>					
	<b>Note :</b> For detailed working of quantities of aggregates, refer item 5.8 of chapter 5					
6	<b>Crack Filling</b>					
	Filling of crack using slow - curing bitumen emulsion and applying crusher dust in case cracks are wider than 3mm as per Tech. specification 3004.3.3 MORTH					
	<b>Unit = Running Meter</b>					
	<b>Taking out put = 500m</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.040			
	<b>b) Material</b>					
	Slow-curing bitumen emulsion	Kg	33.000			
	Stone crusher dust	cum	0.020			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	Cost for 500sqm = a+b+c+d					
	<b>Rate per meter = (a+b+c+d+e)/500</b>					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
7	<b>Dusting</b>					
	Applying crusher dust to areas of road where bleeding of excess bitumen has occurred as per Tech. specification 3004.4 MORTH.					
	Unit = Sqm					
	Taking output = 3500 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	2.080			
	<b>b) Material</b>					
	Stone crusher dust finer than 3mm with not more than 10 per cent passing 0.075 sieve.	cum	6.250			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			18.00%		
	Cost for 3500sqm = a+b+c+d					
	Rate per meter = (a+b+c+d)/3500					
8	<b>A Fog Seal as per Specification 3004.3.2 MORTH</b>					
	Data as in Chapter 5	sqm				
	<b>B Crack Prevention courses as per Specification 3004.3.4 MORTH</b>					
	(i) Stress Absorbing Membrane (SAM) crack width less than 6 mm	sqm				
	(ii) Stress Absorbing Membrane (SAM) with crack width 6 mm to 9 mm	sqm				
	(iii) Stress Absorbing Membrane (SAM) crack width above 9 mm and cracked area above 50 per cent	sqm				
	(iv) Bitumen Impregnated Geotextile	sqm				
	Data as in Chapter 5					
	<b>(C) Slurry Seal</b>					
	(i) 5 mm thickness	sqm				
	(ii) 3 mm thickness	sqm				
	(iii) 1.5 mm thickness	sqm				
	Data as in Chapter 5					
	<b>(D) Surface Dressing for maintenance works.</b>					
	(i) 19 mm nominal chipping size	sqm				
	(ii) 13 mm nominal size chipping	sqm				
	Data as in Chapter 5					
9	<b>Repair of Joint Grooves with Epoxy Mortar</b>					
	Repair of spalled joint grooves of contraction joints, longitudinal joints and expansion joints in concrete pavements using epoxy mortar or epoxy concrete as per Tech. specification 3005.1 MORTH					
	Unit = running metre					
	Taking output = 10 metres					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.540			
	Chiseller	day	0.500			
	<b>b) Material</b>					
	Epoxy primer	kg	2.500			
	Epoxy compound with accessories for preparing epoxy mortar	kg	10.000			
	<b>c) Machinery</b>					
	Air compressor 250 cfm for cleaning	hour	0.050			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>			18.00%		
	Cost for 10 metres = a+b+c+d+e					
	Rate per metre = (a+b+c+d+e)/10					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
10	<b>Repair of old Joints Sealant</b>					
	Removal of existing sealant and re sealing of contraction, longitudinal or expansion joints in concrete pavement with fresh sealant material as per Tech. specification 3005.2 MORTH					
	<b>Unit = running metre</b>					
	<b>Taking output = 10 metres</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.540			
	<b>b) Material</b>					
	Primer	kg	0.250			
	Sealant	kg	1.000			
	<b>c) Machinery</b>					
	Air compressor 250 cfm for cleaning	hour	0.050			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 10 metres = a+b+c+d+e					
	<b>Rate per metre = (a+b+c+d+e)/10</b>					
11	<b>Hill Side Drain Clearance as per Specification 3000 MORTH</b>					
	Removal of earth from the choked hill side drain and disposing it on the valley side manually					
	<b>Unit = running metre</b>					
	<b>Taking output = 10 metres</b>					
	Assuming muck causing choking of drain to be 0.2 cum per metre, quantity of earth to be removed for 10 metres = 2 cum					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.080			
	<b>b&amp;c) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 10 metres = a+b+c					
	<b>Rate per metre = (a+b+c)/10</b>					
12	<b>Land Slide Clearance in soil</b>					
	Clearance of land slides in soil and ordinary rock by a bulldozer D 80 A-12, 180 HP and disposal of the same on the valley side as per Tech. specification 3000 MORTH					
	<b>Unit = cum</b>					
	<b>Taking output = 100 cum</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.040			
	<b>b) Machinery</b>					
	Dozer 180 HP @ 60 cum per hour	hour	1.670			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 100 cum = a+b+c+d					
	<b>Rate per cum = (a+b+c+d)/100</b>					
	<b>Note</b> : Land Slide clearance involves pushing of loose earth slid on the road surface from hill face on the valley side. Since no cutting of original ground is involved, the output of dozer has been taken as 60 cum per hour for soil, ordinary rock and blasted hard rock. However, if there are objection to disposing of earth on valley side, additional resources for its disposal shall be considered as per site conditions.					
13	<b>Landslide Clearance in Hard Rock Requiring Blasting</b>					
	Clearing of land slide in hard rock requiring blasting for 50 per cent of the boulders and disposal of the same on the valley side as per Tech. specification 3000 MORTH.					
	<b>Unit = cum</b>					
	<b>Taking output = 100 cum</b>					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.590			
	Driller	day	0.750			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	Blaster	day	0.070			
	<b>b) Machinery</b>					
	Dozer D 80 A-12,180 HP @ 60 cum per hour	hour	1.670			
	Air compressor 250 cfm with two jack hammer	hour	2.500			
	<b>c) Materials</b>					
	Gelatine 80 per cent @ 35 kg per 100 cum	kg	17.500			
	Electric Detonators @ 1 Detonator for 2 Gelatine sticks of 125 gms each	each	70.000			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 100 cum = a+b+c+d+e					
	Rate per cum = (a+b+c+d+e)/100					
	<b>Note</b> : Credit for the rock if found acceptable as construction material shall be afforded					
<b>14</b>	<b>Maintenance of Gravel Road</b>					
	Maintenance of gravel road including making up the loss of profile, rectifying corrugated surface, filling up of depressions, pot holes and erosion gullies by adding fresh material and compacting it with appropriate equipment or to strip excess of material from the road surface as per drawings and technical specification Clause 1905 MORD					
	<b>For grading I Material compacting with Smooth Wheel Roller 80-100 kN</b>					
	Unit = sqm					
	Taking out put @ 5% of the area in one km. as affected: = 1000 x 3.75x0.05 / 100 = 187.5 Sqm					
	Quantity = 187.5 x 0.15 = 28.12 cum					
	a) Rate as per item 4.1 of Chapter 4	cum	28.120			
	b) Add 50% for extra efforts involved as maintenance is to be done in small reaches		50%			
	Cost of 187.5 Sqm = a+b					
	Rate per sqm = a+b/187.5					
	<b>Note</b> : The cost of 25% retrieved material may be deducted from rates.					
<b>15</b>	<b>Maintenance of WBM Road</b>					
	Maintenance of WBM road including filling up of pot holes, ruts and rectifying corrugated surface, damaged edges and raveling as per technical specification Clause 1906 MORD.					
	<b>For grading III Material compacting with Smooth Wheel Roller 80-100 kN</b>					
	Unit = Sqm					
	Output - Taking affected area @ 5% in 1 km					
	Quantity 187.5 x 0.075 = 14.06 cum					
	a) Rate as per item 4.7(3) of Chapter 4	cum	14.060			
	b) Add 50% for extra efforts involved as maintenance is to be done in small reaches		50%			
	Cost of 187.5 Sqm = a+b					
	Rate of per sqm a+b/187.5					
	<b>Note</b> : The cost of 25% retrieved material may be deducted from rates.					
<b>16</b>	<b>Maintenance of Drains</b>					
	The maintenance of drains include erosion, repair, clearing, cleaning, reshaping, regarding, deepening of side drains as well as catch water drains as per technical specification Clause 1907 MORD.					
	Unit - Per Metre					
	Taking output one km = 1000 metre					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	8.320			
	<b>b&amp;c) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 1000 metre = a+b+c					
	Rate per Metre = a+b+c/1000					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
17	<b>Maintenance of Culverts</b>					
	(I) Maintenance of Hume pipe Culvert by way of Clearing, Cleaning, Erosion repair, repairs to cracks, parapet wall and protection work as per drawing and technical specification Clause 1908 MORD.					
	Unit = One No. Hume pipe (1000 mm dia)					
	Taking output = One No.H.P. Culvert					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	1.100			
	Mason 2nd Class	day	1.400			
	<b>b) Material</b>					
	Cement, Sand, Brick, Boulder etc.	L.S	LS			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for one No. Hume pipe culvert = a+b+c+d					
	Rate per hume pipe Culvert = a+b+c+d					
	(II) <b>Maintenance of Culverts Slab type</b>					
	Maintenance of Slab type Culverts by way of clearing, Cleaning, Erosion repair, repairs to cracks, parapet walls and Protection works as per drawing and technical specification Clause 1908 MORD					
	Unit = One No. Culvert (2 m span)					
	Taking output = one No. Slab Culvert					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	4.200			
	Mason 2nd Class	day	1.000			
	<b>b) Material</b>					
	Cement, Sand, Brick, Boulder etc.	L.S	LS			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for One Slab Culverts =a+b+c+d					
	Rate per Culvert = a+b+c+d					
18	<b>Maintenance of Causeway</b>					
	Maintenance of Causeway by way of minor Surface repairs, replacing Guide Posts, repair of flood gauges, removal of debris, providing boulders and protection work and painting as per technical specification Clause 1909 MORD					
	Unit = One metre					
	Taking output = 50 metre causeway					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	2.400			
	Mason 1st Class/Painter 1st Class	day	4.000			
	<b>b) Material</b>					
	Supply of cement, paint, sand, aggregate, boulder etc. (LS Rs.350.00)	LS	LS			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for 50 metre = a+b+c+d					
	Rate per metre = a+b+c+d/50					
19	<b>Maintenance of Road Signs</b>					
	Maintenance of road signs by way of cleaning and repainting of mandatory / regulatory / cautionary / informatory and place identifications sign board as per drawings and technical specification Clause 1910 MORD					
	Unit = 1 km					
	All types of signs in one Km					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	2.090			
	Painter 1st Class	day	0.125			
	<b>b) Material</b>					
	Synthetic Enamel Paint, Engineering grade tape, welding machine etc. (LS Rs.300)	LS	LS			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	Cost for one Km = a+b+c+d					
	Rate per km = a+b+c+d					

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
20	<b>Maintenance of steel and RCC Railing</b>					
i	Repair of steel railing to bring it to original shape cleaning and repainting as per drawing and technical specification Clause 1911MORD					
	<b>Steel Railing</b>					
	Unit = Running metre					
	Taking output = 10 metre					
	It is assumed that damage is to the extent of 10%					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.324			
	Painter 1st Class	day	0.100			
	Blacksmith	day	0.200			
	<b>b) Material</b>					
	Mild steel (structural steel)	t	0.039			
	ISMC = 0.029T					
	MS plate = 0.01					
	Nuts and bolts	t	0.001			
	<b>c) Machinery</b>					
	Welding set (LS Rs.100.00)	LS	LS			
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>					
	<b>Cost for 10 metre = a+b+c+d+e</b>					
	<b>Rate per metre = a+b+c+d+e/10</b>					
	<b>18.00%</b>					
ii	Repair of RCC railing to bring it to the original shape, cleaning and repainting as per drawings and technical specification Clause 1911 MORD					
	<b>RCC Railing</b>					
	Unit = running metre					
	Taking output = 1 metre					
	It is assumed that damage is to the extent of 10%					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.212			
	Mason 1st Class	day	0.100			
	<b>b) Material</b>					
	M 30 grade cement concrete					
	Rate as per item no. 13.1 (III) of Chapter 13	cum	0.100			
	Steel bars reinforcement					
	Rate as per item no.13.2 of Chapter 13	t	0.013			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>					
	<b>18.00%</b>					
	<b>Rate per metre = a+b+c+d+e</b>					
21	<b>Maintenance of 200 metre and km stones</b>					
	Maintenance of 200 metre and km stone by way of refitting of tilted stones repairing with cement mortar, cleaning, repairing and lettering on 200 metre km stone and 5 <sup>th</sup> km stone as per drawing and technical specification Clause 1912 MORD					
	Unit = 1 km					
	Assuming 1 km stone, 4 nos 200 metre stone and 1/5 <sup>th</sup> 5km stone					
i	<b>Painting two coats with synthetic enamel paint</b>					
	200 m stone 4 nos = 0.760 sqm.					
	One km stone = 0.815 sqm.					
	5th km stone 1x1/5 = 0.320 sqm.					
	Total = 1.895 sqm.					
	As per item No. 10.5 of chapter 10	sqm	1.895			
ii	<b>Printing letters and figures of any shade with synthetic enamel paint of any approved colour to give an even shade</b>					
	200 m stone 4 Nos. = 40 per cm height per letter					
	One no km stone = 120 per cm height per letter					
	5th km stones 1/5 <sup>th</sup> = 60 per cm height per letter					
	Total = 220 per cm height per letter					
	Rate as per item no 10.1 of chapter 10	per cm	220.000			

S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.524			
	Mason 1st Class	day	0.100			
	<b>b) Material</b>					
	Cement, sand, aggregates etc.	LS	LS			
	(LS = Rs.100.00)					
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Rate per/km = (i+ii+a+b+c+d)</b>					
22	<b>Cutting of branches of trees shrubs and trimming of grass and weeds</b>					
	<b>i Cutting of branches of trees and shrubs from the road way or with in R.O.W including disposal of wood and leaves to suitable location as per technical specification Clause 1914 MORD</b>					
	Unit = one tree					
	Taking output = 10 trees of 900 mm average girth					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Skilled)	day	1.120			
	Mazdoor (Unskilled)	day	2.000			
	<b>b&amp;c) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 10 trees = (a+b+c)</b>					
	<b>Rate per tree = (a+b+c)/10</b>					
	<b>ii Cutting of shrubs from the road way or with in R.O.W and disposal of shrubs to suitable locations as per technical specifications Clause 1914 MORD</b>					
	Unit=Each					
	Taking output = 100 nos shrubs					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	2.080			
	<b>b&amp;c) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 100 shrubs = a+b+c</b>					
	<b>Rate per shrub = a+b+c/100</b>					
	<b>iii Trimming of grass and weeds from the shoulders/berms and disposing off the same to suitable locations as per technical specifications Clause 1914 MORD</b>					
	Unit = sqm					
	Taking output = 1500 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	10.400			
	<b>b&amp;c) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 1500 sqm = a+b+c</b>					
	<b>Rate per sqm = a+b+c/1500</b>					
23	<b>White washing of parapet walls of CD work and tree trunks</b>					
	White washing two coats on parapet walls and tree trunks including preparation of surface by cleaning scraping etc. as per technical specifications Clause 1915 MORD					
	Unit = sqm					
	Taking output = 9 sqm					
	<b>a) Labour</b>					
	Mate	day	-			
	Mazdoor (Unskilled)	day	0.153			
	White washer	day	0.143			
	<b>b) Material</b>					
	Lime	quintal	0.045			
	Fevicol adhesive	kg	0.100			
	Indigo	kg	0.013			
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>			
	<b>Cost for 9 sqm = a+b+c+d</b>					
	<b>Rate per sqm = a+b+c+d/9</b>					



S. No	Description	Unit	Quantity	Rate Rs.	Amount Rs.	Remarks
1	2	3	4	5	6	7
24	<b>Periodical Renewal to existing bituminous surface</b>					
	<b>I Open graded Premix carpet 20 mm thick</b>					
	Unit = sqm					
	<b>(i) Tack coat</b>					
	With bituminous Emulsion (RS-1)					
	Rates as in Chapter 5	sqm				
	<b>(ii) Pre-mix carpet using bituminous (penetration grade modified bitumen) binder</b>					
	Rates as in Chapter 5	sqm				
	as relevant					
	Or					
	<b>(iii) Premix carpet using bitumen Emulsion</b>					
	Rates as in Chapter 5	sqm				
	<b>(iv) Seal coat Type A, B or C</b>					
	Rates as in Chapter 5					
	<b>II Surface dressing single coat/first coat or 2nd coat</b>					
	Rates as in Chapter 5	sqm				

**General Note :**

The provisions towards Mate is included in the provision towards unskilled Mazdoor.

**Andhra Pradesh Standard Data**

**I. Roads and Bridges**

**CHAPTER - 16**

**GEOSYNTHETICS AND REINFORCED EARTH**

S. No	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
1	2	3	4	5	6
1	<b>Sub-Surface Drain with Geotextiles</b>				
	Construction of sub surface drain 200 mm dia using geotextiles treated with carbon black with physical properties as given in clause 702.2.3 formed in to a stable network and a planar geocomposite structure, joints wrapped with geotextile to prevent ingress of soil, all as per clause 702 MORTH and approved drawings including excavation and backfilling				
	<b>Unit = Running metre</b>				
	<b>Taking output = one metre</b>				
	<b>a) Labour</b>				
	Mate	day	-		
	Mazdoor skilled	day	0.250		
	Mazdoor (Unskilled)	day	0.540		
	<b>b) Material</b>				
	Geonets, geomembrane and geotextile to make planar geocomposite stable network for sub surface drain including wrapping of joints with 160 mm over lapping with geotextile .				
	Geonets	sqm	1.000		
	Geomembrane	sqm	1.000		
	Geotextile	sqm	2.000		
	Add 2 per cent cost of material for miscellaneous items like synthetic cord				
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			18.00%	
	<b>Rate per metre = a+b+c+d</b>				
	Note : Surplus excavated material to be used at site. Hence separate cost for disposal not added.				
2	<b>Narrow Filter Sub-Surface Drain as per Specification 702.4</b>				
	Construction of a narrow filter sub- surface drain consisting of porous or perforated pipe laid in narrow trench surrounded by a geotextile filter fabric, with a minimum of 450 mm overlap of fabric and installed as per clause 702.3 and 309.3.5 including excavation and backfilling				
	<b>Unit = Running metre length</b>				
	<b>Taking output = one metre</b>				
	<b>a) Labour</b>				
	Mate	day	-		
	Mazdoor skilled	day	0.250		
	Mazdoor (Unskilled)	day	0.540		
	<b>b) Material</b>				
	Perforated geosynthetic pipe 150 mm dia	M	1.000		
	Geotextile filter fabric	sqm	1.250		
	Add 2 per cent cost of material for miscellaneous item like synthetic cord				
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			18.00%	
	<b>Rate per metre = a+b+c+d</b>				
	Note : Surplus excavated material to be used at site. Hence separate cost for disposal not added.				

S. No	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
1	2	3	4	5	6
3	<b>Laying Paving Fabric Beneath a Pavement Overlay as per Specification 703</b>				
	Providing and laying paving fabric with physical requirements as per table 704-2 over a tack coat of paving grade Bitumen 80-100 penetration, laid at the rate of 1 kg per sqm over thoroughly cleaned and repaired surface to provide a water resistant membrane and crack retarding layer. Paving fabric to be free of wrinkling and folding and to be laid before cooling of tack coat, brooming and rolling of surface with pneumatic roller to maximize paving fabric contact with pavement surface				
	<b>Unit = sqm</b>				
	<b>Taking output = 2800 sqm</b>				
	<b>a) Labour</b>				
	Mate	day	-		
	Mazdoor (Unskilled)	day	20.800		
	<b>b) Machinery</b>				
	Road sweeper 1250 sqm per hour	hour	2.240		
	Pneumatic roller 14 tonnes 2000 sqm per hour	hour	1.400		
	Bitumen pressure distributor 1750 sqm per hour	hour	1.680		
	<b>c) Material</b>				
	Paving Fabric	sqm	2940.000		
	Paving Bitumen 80-100	tonne	2.800		
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>	
	<b>Cost for 2800 sqm = a+b+c+d+e</b>				
	<b>Rate per sqm =(a+b+c+d+e)/2800</b>				
4	<b>Laying Boulder Apron in Crates of Synthetic Geogrids as per Specification 704</b>				
	Providing, preparing and laying of geogrid crated apron 1 m x 5 m, 600 mm thick including excavation and backfilling with baffles at 1 metre interval, made with geogrids having characteristics as per clause 704.2 MORTH, joining sides with connectors/ring staples, top corners to be tie tensioned, placing of suitable cross interval ties in layers of 300 mm connecting opposite side with lateral braces and tied with polymer braids to avoid bulging, constructed as per clause 704.3. filled with stone with minimum size of 200 mm and specific gravity not less than 2.65, packed with stone spalls, keyed to the foundation recess in case of sloping ground and laid over a layer of geotextile to prevent migration of fines, all as per clause 704 and laid as per clause 2503.3 and approved design.				
	<b>Unit = cum</b>				
	<b>Taking output = 3.00 cum</b>				
	<b>a) Labour</b>				
	Mate	day	-		
	Mazdoor skilled	day	0.500		
	Mazdoor (Unskilled)	day	1.560		
	<b>b) Material</b>				
	Geo grids	sqm	21.000		
	Connectors/ Staples	each	50.000		
	Polymer braids	M	20.000		
	Stones with minimum size of 200 mm	cum	3.450		
	Stones spall for filling voids	cum	0.450		
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>	
	<b>Cost for 3 cum = a+b+c+d</b>				
	<b>Rate per cum = (a+b+c+d)/ 3</b>				

S. No	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
1	2	3	4	5	6
5	<b>Reinforced Earth Structures as per Specification 3100 MORTH</b>				
	Reinforced earth Structures have four main components as under:				
	a) Excavation for foundation, foundation concrete and cement concrete grooved seating in the foundation for facing elements (facia material).				
	b) Facia material and its placement.				
	c) Assembling, joining with facing elements and laying of the reinforcing elements.				
	d) Earth fill with granular material which is to be retained by the wall.				
	<b>Each component is analysed separately as under:</b> considering Average height of wall = 8 m.				
6	<b>(i) Assembling, joining and laying of reinforcing elements as per Specification 3102 MORTH</b>				
	<b>A With reinforcing element of steel / Aluminum strips / polymeric strips.</b>				
	<b>Unit = Running Metre</b>				
	<b>Taking Output = 450 m</b>				
	<b>a) Labour</b>				
	Mate	day	-		
	Mazdoor (Unskilled)	day	6.360		
	Mazdoor skilled	day	3.000		
	<b>b) Material</b>				
	@ Reinforcement strips 60 mm wide 5 mm thick as per clause 3102.				
	1.Galvanised carbon steel strips	M	450		
	or				
	2.Copper Strips	M	450		
	or				
	3.Aluminium Strips	M	450		
	or				
	4.Stainless steel strips	M	450		
	or				
	5.Glass reinforced polymer/fiber reinforced polymer/polymeric strips	M	450		
	@ Any one of the above alternative may be adopted as per approved				
	Add 10 per cent of the cost of reinforcing strip towards accessories like tie-strips, nuts and bolts and loops/lugs for joining reinforcing elements with the facia panels, overlaps, heat bonding or extension.				
	<b>I Galvanised carbon steel strips</b>				
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			18.00%	
	Cost of 450 m = a+b+c+d				
	<b>Rate per metre =(a+b+c+d)/450</b>				
	<b>II Copper Strips</b>				
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			18.00%	
	Cost of 450 m = a+b+c+d				
	<b>Rate per metre =(a+b+c+d)/450</b>				
	<b>III Aluminum Strips</b>				
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			18.00%	
	Cost of 450 m = a+b+c+d				
	<b>Rate per metre =(a+b+c+d)/450</b>				
	<b>IV Stainless steel strips</b>				
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			18.00%	
	Cost of 450 m = a+b+c+d				
	<b>Rate per metre =(a+b+c+d)/450</b>				
	<b>V Glass reinforced polymer/fiber reinforced polymer/polymeric strips</b>				
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			18.00%	
	Cost of 450 m = a+b+c+d				
	<b>Rate per metre =(a+b+c+d)/450</b>				

S. No	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
1	2	3	4	5	6
	<b>B With reinforcing elements of synthetic geogrids</b>				
	<b>Unit = sqm</b>				
	<b>Taking output = 300 sqm</b>				
	<b>a) Labour</b>				
	Mate	day	-		
	Mazdoor (Unskilled)	day	6.360		
	Mazdoor skilled	day	3.000		
	<b>b) Material</b>				
	Synthetic Geogrids as per clause 3102.8 and approved design and specifications.	sqm	300.000		
	Add 10 per cent of the cost of reinforcing elements (synthetic geogrids) for accessories like tie-strips, nuts and bolts and loops/lugs for joining reinforcing elements with the fascia panels, overlaps and other protective elements for synthetic geogrids.				
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			18.00%	
	<b>Cost of 300 sqm of Synthetic geogrids = a+b+c+d</b>				
	<b>Rate per sqm = (a+b+c+d)/ 300</b>				
	<b>(ii) Facing elements of RCC as per Specification 3104 MORTH</b>				
	<b>Unit = sqm</b>				
	<b>Taking output = 75 sqm</b>				
	<b>a) Labour</b>				
	Mate	day	-		
	Mazdoor (Unskilled)	day	3.180		
	Mazdoor skilled	day	1.500		
	<b>b) Machinery</b>				
	Light crane with lifting capacity upto 3 tonne	hour	6.000		
	<b>c) Material</b>				
	Pre-cast RCC M-35 facing elements of size as per design and 18 cm thick for 75 sqm. (Refer Chapter 12)	cu.m	13.500		
	HYSD steel @ 5 kg / sqm (Refer Chapter 12)	t	0.380		
	Add 2 per cent of cost of fascia panels, for all necessary temporary form work, scaffolding and provision of loops/lugs for lifting of panels and joining the reinforcing elements.				
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>			18.00%	
	<b>Cost for 75 sqm = a+b+c+d+e</b>				
	<b>Rate per sqm = (a+b+c+d+e)/ 75</b>				
	<b>Note : 1.</b> The specification and construction details to be adopted shall be as per section 3100 of MoRTH Specification.				
	<b>2.</b> Drainage arrangement shall be made as per approved design and drawings.				
	<b>3.</b> The quantity of filler media shall be calculated as per approved design and specifications and shall be priced separately. The rate for same to be adopted from chapter 15.				
	<b>4.</b> Excavation for foundation including foundation concrete and groove in the foundation for seating of bottom most fascia panel and capping beam to be calculated as per design and priced separately. The rates for excavation and foundation concrete shall be taken from the chapter 12 & 13 in bridge section.				
	<b>5.</b> The earth fill to be retained is not included in this analysis. The same is to be worked out and provided separately complete as per clause 305.				
	<b>6.</b> For compaction of Earthwork, attention is invited to clause 3105.5 of MoRTH Specification.				
	<b>7.</b> Length of reinforcing strips will vary with the height of wall and will be as per approved design and drawings.				
	<b>8.</b> The type of reinforcing elements to be adopted shall be as per approved design and specifications.				
	<b>9.</b> The market rate for supply of reinforcing elements and their accessories are to be ascertained from reputed firms in the field of earth reinforcement.				

S. No	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
1	2	3	4	5	6
	<b>10.</b> The earth fill material shall be clean, free draining, granular with high friction and low cohesion, non-corrosive, coarse grained with not 10 per cent of particles passing 75 micron sieve, free of any deleterious matter, chlorides, salts, acids, alkalies, mineral oil, fungus and microbes and shall be of specified PH value.				
	<b>11.</b> Capping beam is to be priced separately as per approved design. The rate for cement concrete shall be taken from the chapter of sub-structure in bridge section.				
	<b>12.</b> The cost of reinforced earth retaining wall shall include following:				
	(i) Excavation for foundation including backfilling.				
	(ii) Foundation concrete as per approved design.				
	(iii) Cost of facial panels and their erection .				
	(iv) Cost of reinforcing elements including their fixing and joining with the facial panels.				
	(v) Drainage arrangement including filter media as per approved design and drawings.				
	<b>13.</b> The compacted earth filling to be retained shall form part of embankment.				

**General Note :**

The provisions towards Mate is included in the provision towards unskilled Mazdoor.

**Andhra Pradesh Standard Data**

**I. Roads and Bridges**

**CHAPTER - 17**

**HORTICULTURE**

S. No	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
1	2	3	4	5	6
<b>1</b>	<b>Spreading of Sludge Farm Yard Manure or/and good Earth as per Specification 307 MORTH</b>				
	Spreading of sludge farm yard manure or/ and good earth in required thickness (cost of sludge, farm yard manure or/and good earth to be paid for separately)				
	<b>Unit = cum</b>				
	<b>Taking output = 15 cum</b>				
	<b>a) Labour</b>				
	Mate	day	-		
	Mazdoor (Unskilled)	day	1.040		
	<b>b&amp;c) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>		
	<b>Cost for 15 cum= a+b+c</b>				
	<b>Rate per cum = (a+b+c)/15</b>				
<b>2</b>	<b>Grassing with ' Doobs' Grass as per Specification 307 MORTH</b>				
	Grassing with 'Doobs' grass including watering and maintenance of the lawn for 30 days or more till the grass forms a thick lawn free from weeds and fit for moving including supplying good earth if				
	<b>Unit = sqm</b>				
	<b>Taking output = 100 sqm</b>				
	<b>(i) In rows 15 cm apart in either direction</b>				
	<b>a) Labour</b>				
	Mate	day	0.170		
	Mazdoor (Unskilled) for grassing	day	0.920		
	Mazdoor (Unskilled) for maintenance for 30 days	day	1.000		
	<b>b) Machinery</b>				
	Water tanker6 KL capacity	hour	0.500		
	<b>c) Material</b>				
	Doob grass	kg	100.000		
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>		
	<b>Cost for 100 sqm = a+b+c+d+e</b>				
	<b>Rate per sqm= (a+b+c+d+e)/100</b>				
	<b>(ii) In rows 7.5 cm apart in either direction</b>				
	<b>a) Labour</b>				
	Mate	day	-		
	Mazdoor (Unskilled) for grassing.	day	1.470		
	Mazdoor (Unskilled) for maintenance for 30 days	day	1.000		
	<b>b) Machinery</b>				
	Water tanker6 KL capacity	hour	0.750		
	<b>c) Material</b>				
	Doob grass	kg	200.000		
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>		
	<b>Cost for 100 sqm = a+b+c+d+e</b>				
	<b>Rate per sqm = (a+b+c+d+e)/100</b>				
	<b>NOTE : In the case of horticulture one mate has been provided for every 10 mazdoors as maintenance of grass and plants require more care.</b>				

S. No	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
1	2	3	4	5	6
3	<b>Making Lawns including Ploughing and Dragging with 'Swagha' Breaking of Clod as per Specification 307 MORTH</b>				
	Making lawns including ploughing and breaking of clod, removal of rubbish, dressing and supplying doobs grass roots and planting at 15 cm apart, including supplying and spreading of farm yard manure at rate of 0.18 cum per 100 sqm				
	<b>Unit = sqm</b>				
	<b>Taking output = 100 sqm</b>				
	<b>a) Labour</b>				
	Mate	day	-		
	Mazdoor (Unskilled) for preparation of ground	day	0.650		
	Mali for fetching doobs grass roots and grassing at 15 cm apart	day	1.000		
	<b>b) Machinery</b>				
	Water tanker6 KL capacity	hour	0.500		
	Tractor with tiller	hour	0.010		
	<b>c) Material</b>				
	Supply of farm yard manure at site of work	cum	0.180		
	Fine grass	kg	100.000		
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>	
	<b>Cost for 100 sqm = a+b+c+d+e</b>				
	<b>Rate per sqm = (a+b+c+d+e)/100</b>				
4	<b>Maintenance of Lawns or Turfing of Slopes as per Specification 307 MORTH</b>				
	Maintenance of lawns or Turfing of slopes (rough grassing) for a period of one year including watering etc				
	<b>Unit = sqm</b>				
	<b>Taking output = 100 sqm</b>				
	<b>a) Labour</b>				
	Mali	day	10.000		
	<b>b) Machinery</b>				
	Water tanker6 KL capacity	hour	15.000		
	<b>c) Material</b>				
	Cost of water	KL	90.000		
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>	
	<b>Cost for 100 sqm = a+b+c+d+e</b>				
	<b>Rate per sqm = (a+b+c+d+e)/100</b>				
5	<b>Turfing Lawns with Fine Grassing including Ploughing, Dressing as per Specification 307 MORTH</b>				
	Turfing lawns with fine grassing including ploughing, dressing including breaking of clods, removal of rubbish, dressing and supplying doobs grass roots at 10 cm apart, including supplying and spreading of farm yard manure at rate of 0.6 cum per 100 sqm				
	<b>Unit = sqm</b>				
	<b>Taking output = 100 sqm</b>				
	<b>a) Labour</b>				
	Mate	day	-		
	Mazdoor (Unskilled) for preparation of ground	day	1.250		
	Mali for fetching doobs grass roots hedges and grassing at 10 cm apart	day	1.500		
	<b>b) Machinery</b>				
	Water tanker6 KL capacity	hour	0.500		
	Tractor with tiller	hour	0.010		
	<b>c) Material</b>				
	Supply of farm yard manure at site of work @ 0.6 cum per 100sqm	cum	0.600		
	Fine grass	kg	100.000		
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>	
	<b>Cost for 100 sqm = a+b+c+d+e</b>				
	<b>Rate per sqm = (a+b+c+d+e)/100</b>				



S. No	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
1	2	3	4	5	6
6	<b>Maintenance of Lawns with Fine Grassing for the First Year as per Specification 307 MORTH</b>				
	Maintenance of lawns with fine grassing for the first year including watering etc				
	<b>Unit = sqm</b>				
	<b>Taking output = 100 sqm</b>				
	<b>a) Labour</b>				
	Mali	day	10.000		
	<b>b) Machinery</b>				
	Water tanker6 KL capacity	hour	20.000		
	<b>c) Material</b>				
	Cost of water	KL	60.000		
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>			18.00%	
	Cost for 100 sqm = a+b+c+d+e				
	Rate per sqm = (a+b+c+d+e)/100				
7	<b>Planting and Maintaining of Permanent Hedges as per Specification 307 MORTH</b>				
	<b>(a) Planting permanent hedges including digging of trenches</b>				
	Planting permanent hedges including digging of trenches, 60 cm wide and 45 cm deep, refilling the excavated earth mixed with farmyard manure, supplied at the rate of 4.65 cum per 100 metres and supplying and planting hedge plants at 30 cm apart				
	<b>Unit = Running metre</b>				
	<b>Taking output = 100metre</b>				
	<b>a) Labour</b>				
	Mate	day	-		
	Mazdoor (Unskilled) for digging of trench 60 cm wide and 45 cm deep	day	10.000		
	Mazdoor (Unskilled) for refilling the excavated earth mixed with cow dung, preparation of ground and digging of plant, from the nursery carriage to site and planting in position	day	5.400		
	<b>b) Machinery</b>				
	Water tanker6 KL capacity	hour	0.500		
	<b>c) Material</b>				
	Cost of hedge plants 2 rows at 30 cm apart	each	2x340		
	Supply of farm yard manure at site of work	cum	4.670		
	Pesticide	kg	0.250		
	Cost of water	KL	3.000		
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>			18.00%	
	Cost for 100 metres = a+b+c+d+e				
	Rate per metre = (a+b+c+d+e)/100				
	<b>(b) Maintenance of hedge for one year</b>				
	<b>Unit = Running metre</b>				
	<b>Taking output = 100 m</b>				
	<b>a) Labour</b>				
	Mate	day	-		
	Mazdoor (Unskilled)	day	33.000		
	<b>b) Machinery</b>				
	Water tanker6 KL capacity	hour	5.000		
	<b>c) Material</b>				
	Manure sludge/Farm yard manure	cum	2.000		
	Pesticide	kg	0.500		
	Cost of water	KL	30.000		
	Cost of hedge plants @ 10 per cent casualty	each	68.000		
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>			18.00%	
	Cost for 100 metres = a+b+c+d+e				
	Rate per metre = (a+b+c+d+e)/100				

S. No	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
1	2	3	4	5	6
8	<b>Planting and Maintaining of Flowering Plants and Shrubs as per Specification 307 MORTH</b>				
	<b>(a) Planting flowering plants and shrubs in central verge</b>				
	Unit = Running metres 200 plants and 800 shrubs in two rows in one km length of road where width of verge is 3m and above.				
	<b>Taking output = 1000 metres</b>				
	<b>a) Labour</b>				
	Mate	day	-		
	Mazdoor (Unskilled)	day	13.200		
	<b>b) Machinery</b>				
	Water tanker 6 KL capacity	hour	6.000		
	<b>c) Material</b>				
	Plants	each	200.000		
	Shrubs	each	800.000		
	Manure sludge/Farm yard manure	cum	63.640		
	Pesticide	kg	0.500		
	Cost of water	KL	36.000		
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>		
	<b>Rate per Km = (a+b+c+d+e)</b>				
	<b>(b) Maintenance of flowering plants and shrubs in central verge for one year</b>				
	Unit = km				
	<b>Taking output = one km</b>				
	<b>a) Labour</b>				
	Mate	day	-		
	Mazdoor (Unskilled)	day	401.000		
	<b>b) Machinery</b>				
	Water tanker 6 KL capacity	hour	90.000		
	<b>c) Material</b>				
	Manure Sludge / farm yard manure at site	cum	10.000		
	Cost of water	KL	180.000		
	Replacement of casualties @ 10 per cent				
	Plants	each	20.000		
	Shrubs	each	80.000		
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>		
	<b>Rate per Km for one year = (a+b+c+d+e)</b>				
9	<b>Planting of Trees and their Maintenance for one Year as per Specification 307 MORTH</b>				
	Planting of trees by the road side (Avenue trees) in 0.60 m dia holes, 1 m deep dug in the ground, mixing the soil with decayed farm yard/sludge manure, planting the saplings, backfilling the trench, watering, fixing the tree guard and maintaining the plants for one year				
	<b>Unit = Each</b>				
	<b>Taking output = 10 trees</b>				
	<b>a) Labour</b>				
	Mate	day	-		
	Mazdoor (Unskilled) for planting	day	3.700		
	Mazdoor (Unskilled) for maintenance for one year	day	15.000		
	<b>b) Machinery</b>				
	Water tanker 6 KL capacity	hour	2.000		
	<b>c) Material</b>				
	Sapling 2 m high 25 mm dia	each	10.000		
	Farm yard manure	cum	0.940		
	Pesticide	kg	0.500		
	Cost of water	KL	12.000		
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>		
	<b>Cost for 10 trees = a+b+c+d+e</b>				
	<b>Rate per trees = (a+b+c+d+e)/10</b>				

S. No	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
1	2	3	4	5	6
10	<b>Renovation Lawns including, Weeding, Forking the Ground, Top Dressing with Forked Soil as per Specification 308 MORTH</b>				
	Renovation lawns including, weeding, forking the ground, top dressing with forked soil, watering and maintenance the lawns, for 30 days or more, till the grass forms a thick lawn, free from weeds, and fit for moving and disposal of rubbish as directed, including supplying good earth, if needed but excluding the cost of well decayed farm yard manure				
	<b>Unit = sqm</b>				
	<b>Taking output = 100 sqm</b>				
	<b>a) Labour</b>				
	Mate	day	-		
	Mazdoor (Unskilled)	day	3.120		
	<b>b) Machinery</b>				
	Water tanker 6 KL capacity	hour	0.500		
	<b>c) Material</b>				
	Cost of water	KL	3.000		
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>				
	<b>Cost for 100 sqm = a+b+c+d+e</b>				
	<b>Rate per sqm = (a+b+c+d+e)</b>				
11	<b>Supply at Site Well Decayed Farm Yard Manure as per Specification 308.2 MORTH</b>				
	Supply at site of work well decayed farm yard manure, from any available source, approved by the engineer in charge including screening and stacking				
	<b>Unit = cum</b>				
	<b>Taking output = one cum</b>				
	<b>a) Material</b>				
	<b>a) Cost of well decayed farm yard manure duly screened, loading, carriage, unloading and stacking at site</b>	cum	1.000		
	<b>b&amp;c) Overheads &amp; Contractors Profit</b>				
	<b>Rate per cum = (a+b+c)</b>				
12	<b>Supply at Site of Work/ Store-Deoiled Neem Cake as per Specification 308.2 MORTH</b>				
	Supply at site of work/ store-deoiled neem cake duly packed in used gunny bags				
	<b>Unit = quintal</b>				
	<b>Taking output = one quintal</b>				
	<b>a) Cost, carriage, loading, unloading and stacking in store/site</b>	quintal	1.000		
	<b>b&amp;c) Overheads &amp; Contractors Profit</b>				
	<b>Rate per quintal = a+b+c</b>				
13	<b>Supplying Sludge as per Specification 308.2 MORTH</b>				
	Supplying sludge duly stacked at site/ store				
	<b>Unit = cum</b>				
	<b>Taking output = one cum</b>				
	<b>a) Cost of sludge including carriage, loading, unloading and stacking at site</b>	cum	1.000		
	<b>b&amp;c) Overheads &amp; Contractors Profit</b>				
	<b>Rate per cum = a+b+c</b>				

S. No	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
1	2	3	4	5	6
14	<b>Half Brick Circular Tree Guard, in 2nd Class Brick, internal diameter 1.25 metres, and height 1.2 metres, above ground and 0.20 metre below ground</b>				
	Half brick circular tree guard, in 2nd class brick, internal diameter 1.25 metres, and height 1.2 metres, above ground and 0.20 metre below ground, bottom two courses laid dry, and top three courses in cement mortar 1:6 (1 cement 6 sand) and the intermediate courses being in dry honey comb masonry, as per design complete				
	<b>Unit = Each</b>				
	<b>Taking output = one tree guard</b>				
	<b>a) Labour</b>				
	Mate	day	-		
	Mason	day	0.250		
	Mazdoor (Unskilled)	day	0.300		
	<b>b) Material</b>				
	Brick 2nd class including carriage	each	230.000		
	Cement mortar 1:6	cum	0.025		
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>	
	<b>Rate per tree Guard = a+b+c+d</b>				
15	<b>Edging with 2nd Class Bricks, Laid Dry Lengthwise</b>				
	Edging with 2nd class bricks, laid dry lengthwise, including excavation, refilling, consolidation, with a hand packing and spreading nearly surplus earth within a lead of 50 metres				
	<b>Unit = Metre</b>				
	<b>Taking output= 10 metres</b>				
	<b>a) Labour</b>				
	Mate	day	-		
	Mason	day	0.050		
	Mazdoor (Unskilled)	day	0.052		
	<b>b) Material</b>				
	Brick 2nd class including carriage	each	50.000		
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>	
	<b>Cost for 10 metre = a+b+c+d</b>				
	<b>Rate per metre = (a+b+c+d)/10</b>				
16	<b>Making Tree Guard 53 cm dia and 1.3 m High as per Design from Empty Bitumen Drums</b>				
	Making tree guard 53 cm dia and 1.3 m high as per design from empty bitumen drum, slit suitably to permit sun and air, (supplied by the department at stock issue rate) including providing and fixing 2 nos MS sheet rings 50 x 0.5 mm with rivets, complete in all respect				
	<b>Unit = Each</b>				
	<b>Taking output = one tree guard</b>				
	<b>a) Labour</b>				
	Mate	day	-		
	Blacksmith	day	0.150		
	Mazdoor (Unskilled)	day	0.090		
	<b>b) Material</b>				
	Empty bitumen drum	each	1.000		
	MS sheet 50 x 0.5 mm	kg	0.650		
	Rivets 6 mm dia and 10 mm in length	each	22.000		
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>	
	<b>Rate for each tree guard = a+b+c+d</b>				

S. No	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
1	2	3	4	5	6
17	<b>Making Tree Guard 53 cm dia and 2 Metre High as per Design from Empty Bitumen Drums</b>				
	Making tree guard 53 cm dia and 2 metres high as per design from empty bitumen drums, slit suitably to permit sun and air, (supplied by the department at stock issue rate) including providing and fixing four legs 40 cm long of 30 x 3 mm MS riveted to tree guard and providing and fixing 2 nos MS sheet rings 50 x 0.5 mm with rivets complete in all respects				
	<b>Unit = Each</b>				
	<b>Taking output = one tree guard</b>				
	<b>a) Labour</b>				
	Mate		-		
	Blacksmith	day	0.200		
	Mazdoor (Unskilled)		0.240		
	<b>b) Material</b>				
	Empty bitumen drum	each	1.500		
	MS sheet 50 x 0.5 mm	kg	0.650		
	Rivets 6 mm dia and 10 mm in length	each	50.000		
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>		
	<b>Rate for each tree guard = a+b+c+d</b>				
18	<b>Wrought Iron and Mild Steel Welded Work</b>				
	Wrought iron and mild steel welded work (using angles, square bars, tees and channel grills, grating frames, gates and tree guards of any size and design etc. including cost of screens and welding rods or bolts and nuts complete fixed in position but without the cost of excavation and concrete for fixing which will be paid separately				
	<b>Unit = quintal</b>				
	<b>Taking output = one quintal</b>				
	<b>a) Labour</b>				
	Mate	day	-		
	Blacksmith/ welder for cutting to design and shape and jointing	day	2.000		
	Mazdoor (Unskilled) for fixing and helper for Blacksmith/welder	day	2.950		
	<b>b) Material</b>				
	Angle, tees, channels etc	quint	1.050		
	Deduct the cost of scrap	quint	0.050		
	Add 5 per cent of cost of material for welding rods and other welding accessories				
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>		
	<b>Rate per quintal = a+b+c+d</b>				
19	<b>Tree Guard with MS Iron</b>				
	Providing and fixing MS iron tree guard 60 cm dia and 2 metre high above ground level formed of 4 Nos (25 x 6 mm) and 8 Nos (25 x 3 mm) vertical MS riveted to 3 Nos (25 x 6 mm) iron rings in two halves, bolted together with 8 mm dia and 30 mm long bolts including painting two coats with paint of approved brand over a coat of priming, complete in all respects.				
	<b>Unit = Each</b>				
	<b>Taking output = one tree guard</b>				
	<b>a) Labour</b>				
	Mate	day	-		
	Blacksmith	day	0.250		
	Mazdoor (Unskilled)	day	0.300		
	<b>b) Material</b>				
	MS iron 25 x 6 mm	kg	19.200		
	MS iron 25 x 3 mm	kg	9.600		
	Add 5 per cent of cost of material for riveting, bolting and welding accessories				
	<b>c) Machinery</b>				
	Tractor-trolley	hour	0.040		
	<b>d) Painting</b>				
	Painting two coats including priming	sqm	1.770		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>		
	<b>Rate per tree guard =a+b+c+d+e+f</b>				
	1 The items of excavation and concreting to be measured and paid separately as per design .				
	2 . Rate of painting may be adopted from the chapter as Traffic signs.				

S. No	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
1	2	3	4	5	6
20	<b>Tree Guard with MS Angle Iron and Steel Wire</b>				
	Providing and fixing tree guard 0.60 metre square, 2.00 metre high fabricated with MS angle iron 30 x 30 x 3 mm, MS iron 25 x 3 mm and steel wire 3 mm dia welded and fabricated as per design in two halves bolted together				
	<b>Unit = Each</b>				
	<b>Taking output = one</b>				
	<b>a) Labour</b>				
	Mate	day	-		
	Blacksmith	day	0.250		
	Welder	day	0.250		
	Mazdoor (Unskilled)	day	0.300		
	<b>b) Material</b>				
	MS angle 30 x 30 x 3 mm	kg	13.500		
	MS iron 25 x 3 mm	kg	18.000		
	Steel wire 3 mm dia	kg	6.000		
	Add 5 per cent of cost of material for riveting, bolting and welding accessories				
	<b>c) Machinery</b>				
	Tractor-trolley	hour	0.040		
	<b>d) Painting</b>				
	Painting two coats including priming	sqm	1.500		
	<b>e&amp;f) Overheads &amp; Contractors Profit</b>				
	<b>Rate per tree guard = a+b+c+d+e+f</b>			<b>18.00%</b>	
21	<b>Compensatory Afforestation</b>				
	Planting trees as compensatory afforestation at the rate of 290 trees per hectare at a spacing of 6 m by grubbing and leveling the ground upto a depth of 150 mm, digging holes 0.9 m dia, 1 m deep, mixing farm yard/sludge manure with soil, planting of sapling 2 m high with 25 cm dia stem, backfilling the hole and watering				
	<b>Unit = Hectare</b>				
	<b>Taking output = one hectare</b>				
	<b>a) Labour</b>				
	<b>i) Planting</b>				
	Mate	day	-		
	Mazdoor (Unskilled)	day	27.500		
	<b>ii) For Maintenance for one year</b>				
	Mate	day	-		
	Mazdoor (Unskilled)	day	50.500		
	<b>b) Machinery</b>				
	Dozer 80 HP @ 1000 sqm/hour	hour	10.000		
	Water tanker 6 KL capacity (for planting)	hour	3.000		
	Water tanker 6 KL capacity (for maintenance)	hour	25.000		
	<b>c) Material</b>				
	Sapling 1 to 1.5 m high 2 cm dia stem	each	290.000		
	Add 10 per cent of sapling	each	29.000		
	Decayed farm yard/sludge manure (planting)	cum	60.900		
	Decayed farm yard/sludge manure (maintenance)	cum	4.000		
	Pesticides for planting	kg	0.500		
	Pesticides for maintenance	kg	1.500		
	Cost of water	KL	18.000		
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>				
	<b>Rate per hectare = a+b+c+d+e</b>			<b>18.00%</b>	
	Cost of fencing to be provided as per size of plot and approved design, measured and paid separately				

**General Note :**

The provisions towards Mate is included in the provision towards unskilled Mazdoor.

**Andhra Pradesh Standard Data**

**I. Roads and Bridges**

**CHAPTER - 18**

**REPAIR AND REHABILITATION**

S. No	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
1	2	3	4	5	6
1	<b>Removal of existing cement concrete wearing coat including its disposal complete as per Technical Specification 2809 MORTH without causing any detrimental effect to any part of the bridge structure and removal of dismantled material with all lifts and lead upto 1000 m</b>				
	<b>Unit = Sq m ( Thickness 75 mm)</b>				
	<b>Taking output = 10 sqm</b>				
	<b>a) Labour</b>				
	Mate	day	-		
	Mazdoor (Unskilled)	day	1.06		
	<b>b) Machinery</b>				
	Air Compressor 250 cfm with pneumatic breaker/jack hammer along with accessories.	hour	1.00		
	Tractor-trolley.	hour	0.50		
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>	
	<b>Cost for 10 sqm = (a+d+c+d)</b>				
	<b>Rate per sqm = (a+b+c+d)/10</b>				
2	<b>Removal of existing asphaltic wearing coat comprising of 50 mm thick asphaltic concert laid over 12 mm thick mastic asphalt including disposal with all lift and lead upto 1000 m as per Technical Specification 2809 MORTH.</b>				
	<b>Unit = Sq m</b>				
	<b>Taking output = 10 sqm</b>				
	<b>a) Labour</b>				
	Mate	day	-		
	Mazdoor (Unskilled)	day	0.78		
	<b>b) Machinery</b>				
	Air Compressor 250 cfm with pneumatic breaker.	hour	0.75		
	Tractor-trolley.	hour	0.40		
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>	
	<b>Cost for 10 sqm = (a+d+c+d)</b>				
	<b>Rate per sqm = (a+b+c+d)/10</b>				
3	<b>Guniting concrete surface with cement mortar applied with compressor after cleaning surface and spraying with epoxy complete as per Technical Specification 2807 MORTH</b>				
	<b>Unit = Sq m</b>				
	<b>Taking output = 1 sqm</b>				
	Assuming thickness 25 mm				
	<b>a) Material</b>				
	Cement	kg	16.00		
	Graded sand	cum	0.04		
	Wire mesh 50mm x 50mm size of 3mm wire	kg	2.00		
	Epoxy	kg	0.67		
	Accelerator compound for guniting @ 4 % of weight of cement	kg	0.64		
	Add 2 per cent of cost of material for miscellaneous consumables like nozzles, wire brush, cotton waste etc.				
	<b>b) Labour</b>				
	Mate	day	-		
	Mason	day	0.04		
	Mazdoor (Unskilled)	day	0.15		
	<b>c) Machinery</b>				
	Compressor with guniting equipment along with accessories	hour	0.10		
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>	
	<b>Rate per sqm = (a+b+c+d+e)</b>				

S. No	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
1	2	3	4	5	6
4	Providing and inserting nipples with approved fixing compound after drilling holes for grouting as per Technical Specifications 2800 MORTH including subsequent cutting/removal and sealing of the hole as necessary of nipples after completion of grouting with Cement/Epoxy Unit = Number Taking output = 1 No.				
	a) Material				
	Nipples	each	1.00		
	Cement, fixing compound and consumables @ 15% of cost of nipple				
	b) Labour				
	Mate	day	-		
	Mazdoor (Skilled) labour for drilling	day	0.08		
	Mazdoor (Skilled) labour for fixing nipple and sealing inlets	day	0.08		
	Mazdoor (Unskilled) for cutting and removing of nipples	day	0.05		
	Add 10 per cent of labour cost for drilling holes etc				
	c&d) Overheads & Contractors Profit		18.00%		
	<b>Rate per No. = (a+b+c+d)</b>				
5	Sealing of cracks/porous concrete by injection process through nipples/Grouting complete as per Technical Specification 2806 MORTH.				
	A Cement Grout				
	Unit = kg				
	Taking output = 1 kg				
	a) Material				
	Cement including 10 per cent wastage	kg	1.10		
	Admixtures (anti shrinkage compound) @ 20 % of cost of cement				
	b) Labour				
	Mate	day	-		
	Mazdoor (Skilled)	day	0.10		
	Mazdoor (Unskilled)	day	0.18		
	c) Machinery				
	Grout pump with agitator and accessories	hour	0.10		
	d&e) Overheads & Contractors Profit		18.00%		
	<b>Rate per kg = (a+b+c+d+e)</b>				
	B Cement Mortar (1:1) Grouting				
	Unit = kg				
	Taking output = 1 kg				
	a) Material				
	Cement including 10 per cent wastage	kg	0.55		
	Sand including 10 per cent wastage	kg	0.55		
	Admixtures (anti shrinkage compound) @ 20 % of cost of cement				
	b) Labour				
	Mate	day	-		
	Mazdoor (Skilled)	day	0.10		
	Mazdoor (Unskilled)	day	0.18		
	c) Machinery				
	Grout pump with agitator and accessories	hour	0.10		
	d&e) Overheads & Contractors Profit		18.00%		
	<b>Rate per kg = (a+b+c+d+e)</b>				
6	Patching of damaged concrete surface with polymer concrete and curing compounds, initiator and promoter, available in present formulations, to be applied as per instructions of manufacturer and as approved by the Engineer as per Technical Specification 2800 MORTH. Unit = sqm Taking output = 10 sqm for an average thickness of 25mm.				
	a) Labour				
	Mate	day	-		
	Mazdoor (Skilled)	day	0.75		
	Mazdoor (Unskilled)	day	0.81		



S. No	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
1	2	3	4	5	6
	<b>b) Material</b>				
	Pre-packed polymer concrete based on epoxy system complete with curing compound, initiator and promoter including 5 per cent wastage.	kg	315.00		
	<b>c) Machinery</b>				
	Grout pump with agitator and accessories	hour	2.00		
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>		
	<b>Cost for 10 sqm = a+b+c+d+e</b>				
	<b>Rate per sqm = (a+b+c+d+e)/10</b>				
	<b>Note :</b> This item is a proprietary item available in market as pre-packed polymer concrete and is required to be applied as per instructions of the manufacturer.				
7	<b>Sealing of crack / porous concrete with Epoxy Grout by injection through nipples complete as per clause 2803.1 MORTH</b>				
	<b>Unit = kg</b>				
	<b>Taking output = 1 kg</b>				
	<b>a) Material</b>				
	Epoxy including 10 per cent wastage	kg	1.10		
	<b>b) Labour</b>				
	Mate	day	-		
	Mazdoor (Skilled)	day	0.10		
	Mazdoor (Unskilled)	day	0.18		
	<b>c) Machinery</b>				
	Epoxy Injection gun	hour	0.10		
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>		
	<b>Rate per kg = (a+b+c+d+e)</b>				
8	<b>Applying epoxy mortar over leached, honey combed and spalled concrete surface and exposed steel reinforcement complete as per Technical Specification 2804 MORTH.</b>				
	<b>Unit = sqm</b>				
	<b>Taking output = 10 sqm</b>				
	Assume average 10mm thickness of epoxy mortar				
	<b>a) Material</b>				
	Epoxy resin-hardener mix for prime coat	kg	2.50		
	Epoxy mortar	kg	2.20		
	Epoxy resin -hardener mix for seal coat.	kg	2.00		
	Add 3 per cent cost of material for other consumables like acetone etc and to cover wastage.				
	<b>b) Labour</b>				
	Mate	day	-		
	Mazdoor (Skilled)	day	0.50		
	Mazdoor (Unskilled)	day	0.54		
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>		<b>18.00%</b>		
	<b>Cost for 10 sqm = a+b+c+d</b>				
	<b>Rate per sqm = (a+b+c+d)/10</b>				
9	<b>Removal of defective concrete, cleaning the surface thoroughly, applying the shot Crete mixture mechanically with compressed air under pressure, comprising of cement, sand, coarse aggregates, water and quick setting compound in the proportion as per clause 2807.1., sand and coarse aggregates conforming to IS: 383 and table 1 of IS: 9012 respectively, water cement ratio ranging from 0.35 to 0.50, density of gunite not less than 2000 kg/cum, strength not less than 25 Mpa and workmanship conforming to clause 2807.6 MORTH</b>				
	<b>unit: sqm</b>				
	<b>Taking output = 10 sqm, 40 mm average thickness.</b>				
	<b>a) Labour</b>				
	Mate	day	-		
	Mazdoor (Unskilled)	day	0.54		
	Mazdoor (Skilled)	day	0.50		

S. No	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
1	2	3	4	5	6
	<b>b) Machinery</b>				
	Air compressor 250 cfm	hour	1.00		
	Shotcreteing equipment	hour	1.00		
	water tanker 6 KL capacity	hour	0.02		
	<b>c) Material</b>				
	Cement	kg	120.00		
	Sand	cum	0.15		
	Coarse aggregate of size 4.75mm	cum	0.15		
	Quick setting compound	kg	2.50		
	Water	KL	0.10		
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>	
	Cost for 10 sqm = a+b+c+d+e				
	<b>Rate per sqm = (a+b+c+d+e)/10</b>				
10	<b>Applying pre-packed cement based polymer mortar of strength 45 Mpa at 28 days for replacement of spalled concrete as per Unit = sqm</b>				
	<b>Taking output = 10 sqm</b>				
	Assumed thickness - 10 mm				
	<b>a) Material</b>				
	Acrylic polymer bonding coat	Litre	1.40		
	pre-packed cement based polymer mortar of strength 45 Mpa at 28 days	kg	12.00		
	Add 3 per cent of (a) above for wastage.				
	<b>b) Labour</b>				
	Mate	day	-		
	Mazdoor (Skilled)	day	0.50		
	Mazdoor (Unskilled)	day	0.54		
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>	
	Cost for 10 sqm = a+b+c+d				
	<b>Rate per sqm = (a+b+c+d)/10</b>				
11	<b>Epoxy bonding of new concrete to old concrete as per Technical Specification 2805 MORTH.</b>				
	<b>Unit = sqm</b>				
	<b>Taking output = 10 sqm</b>				
	<b>a) Material</b>				
	Epoxy resin with pot life not less than 60-90 minutes and satisfying testing as per clause 2803.9	kg	8.00		
	Add 3 per cent of (a) above for wastage.				
	<b>b) Labour</b>				
	Mate	day	-		
	Mazdoor (Skilled)	day	0.50		
	Mazdoor (Unskilled)	day	0.54		
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>	
	Cost for 10 sqm = a+b+c+d				
	<b>Rate per sqm = (a+b+c+d)/10</b>				
12	<b>Providing external prestressing with high tensile steel wires/strands including drilling for passage of prestressing steel, all accessories for stressing and stressing operation and grouting complete as per drawing and Technical Specification 2810 MORTH.</b>				
	<b>Span assumed: 25 m</b>				
	<b>No. of cables: 4 no.</b>				
	<b>No. of anchorages : 8 no.</b>				
	<b>Unit = MT</b>				
	<b>Taking output = 1 MT</b>				
	Assume 12.7mm dia. Strand in 12T13 system. Weight-9.42 kg/m of cable.				
	<b>a) Material</b>				
	HTS strand including 5 per cent wastage and extra length for jacking	t	1.05		
	HDPE pipes 75mm dia including 5 per cent wastage	m	112.00		
	Cement for grouting	kg	400.00		

S. No	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
1	2	3	4	5	6
	Tube anchorage set complete with bearing plate, permanent wedges etc	each	8.00		
	Epoxy	kg	6.00		
	MS plates for deviator (where deviator blocks are not provided)	t	2.10		
	Add 20 per cent cost of material for other materials like lead sheet, sleeves, deviator fixtures etc.				
	<b>b) Labour</b>				
	<b>i) For making holes in the structure .</b>				
	Mate	day	-		
	Mazdoor (Semi-skilled)	day	3.00		
	Mazdoor (Unskilled)	day	3.24		
	<b>ii) For making and fixing anchorages for cables and placement of cables .</b>				
	Mate	day	-		
	Blacksmith	day	3.00		
	Mazdoor (Unskilled)	day	8.44		
	<b>iii) For prestressing</b>				
	Mate/Supervisor	day	-		
	Fitter	day	0.70		
	Mazdoor (Unskilled)	day	2.78		
	<b>iv) For grouting</b>				
	Mate/Supervisor	day	-		
	Mason	day	0.70		
	Mazdoor (Unskilled)	day	2.78		
	<b>c) Machinery</b>				
	Stressing jack with pump	hour	4.00		
	Grouting pump with agitator	hour	1.35		
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>				
	<b>Rate per MT = (a+b+c+d+e)</b>			18.00%	
13	<b>Providing external prestressing with high tensile steel wires/strands including drilling for passage of prestressing steel, all accessories for stressing and stressing operation and grouting complete as per drawing and Technical Specification 2810 MORTH.</b>				
	<b>Span assumed: 50 m</b>				
	<b>No. of cables: 4 no.</b>				
	<b>No. of anchorages : 8 no.</b>				
	<b>Unit = MT</b>				
	<b>Taking output = 3.10 MT</b>				
	Assume 12.7mm dia. Strand in 19T13 system. Weight-14.73 kg/m of cable.				
	<b>a) Material</b>				
	HTS strand including 5 per cent wastage and extra length for jacking	t	3.10		
	HDPE pipes 90mm dia including 5 per cent wastage	m	224.00		
	Cement for grouting	t	1.01		
	Tube anchorage set complete with bearing plate, permanent wedges etc	each	8.00		
	Epoxy	kg	10.00		
	MS plates for deviator (where deviator blocks are not provided)	t	7.00		
	Add 20 per cent cost of material for other materials like lead sheet, sleeves, deviator fixtures etc.				
	<b>b) Labour</b>				
	<b>i) For making holes in the structure .</b>				
	Mate	day	-		
	Mazdoor (Semi-skilled)	day	8.00		
	Mazdoor (Unskilled)	day	8.08		
	<b>ii) For making and fixing anchorages for cables and placement of cables .</b>				
	Mate	day	-		
	Blacksmith	day	7.00		
	Mazdoor (Unskilled)	day	26.28		

S. No	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
1	2	3	4	5	6
	<b>iii) For prestressing</b>				
	Mate/Supervisor	day	-		
	Fitter	day	1.00		
	Mazdoor (Unskilled)	day	4.20		
	<b>iv) For grouting</b>				
	Mate/Supervisor	day	-		
	Mason	day	1.50		
	Mazdoor (Unskilled)	day	5.26		
	<b>c) Machinery</b>				
	Stressing jack with pump	hour	7.00		
	Grouting pump with agitator	hour	3.00		
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>				
	<b>Cost for 3.10 MT = a+b+c+d+e</b>				
	<b>Rate per MT = (a+b+c+d+e)/3.10</b>				
14	<b>Providing external prestressing with high tensile steel wires/strands including drilling for passage of prestressing steel, all accessories for stressing and stressing operation and grouting complete as per drawing and Technical Specification 2810 MORTH</b>				
	<b>Span assumed: 100 m</b>				
	<b>No. of cables: 6 no.</b>				
	<b>No. of anchorages : 12 no.</b>				
	<b>Unit = MT</b>				
	<b>Taking output = 9.28 MT</b>				
	Assume 12.7mm dia. Strand in 19T13 system. Weight-14.73 kg/m of cable.				
	<b>a) Material</b>				
	HTS strand including 5 per cent wastage and extra length for jacking	t	9.28		
	HDPE pipes 90 mm dia including 5 per cent wastage	m	672.00		
	Cement for grouting	t	3.04		
	Tube anchorage set complete with bearing plate, permanent wedges etc	each	12.00		
	Epoxy	kg	14.00		
	MS plates for deviator (where deviator blocks are not provided)	t	20.00		
	Add 20 per cent cost of material for other materials like lead sheet, sleeves, deviator fixtures etc.				
	<b>b) Labour</b>				
	<b>i) For making holes in the structure .</b>				
	Mate	day	-		
	Mazdoor (Semi-skilled)	day	18.00		
	Mazdoor (Unskilled)	day	26.72		
	<b>ii) For making and fixing anchorages for cables and placement of cables .</b>				
	Mate	day	-		
	Blacksmith	day	20.00		
	Mazdoor (Unskilled)	day	84.00		
	<b>iii) For prestressing</b>				
	Mate/Supervisor	day	-		
	Fitter	day	1.50		
	Mazdoor (Unskilled)	day	6.30		
	<b>iv) For grouting</b>				
	Mate/Supervisor	day	-		
	Mason	day	5.00		
	Mazdoor (Unskilled)	day	21.00		
	<b>c) Machinery</b>				
	Stressing jack with pump	hour	10.00		
	Grouting pump with agitator	hour	10.00		
	<b>d&amp;e) Overheads &amp; Contractors Profit</b>				
	<b>Cost for 9.28 MT = a+b+c+d+e</b>				
	<b>Rate per MT = (a+b+c+d+e)/9.28</b>				

S. No	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
1	2	3	4	5	6
15	<b>Replacement of Bearings complete as per Technical Specification 2808 MORTH</b>				
	<b>Unit = No</b>				
	<b>Taking output = 3 No.</b>				
	Lifting of superstructure span by jacking up from below i.e. by placing the jacks on pier/abutment caps for span length of 30m.				
	<b>a) Lifting of span</b>				
	i) Hire charges for jack of 40 tonne lifting capacity.	Day	3.00		
	Mate	day	-		
	Mazdoor (Skilled)	day	4.00		
	Mazdoor (Unskilled)	day	12.64		
	v) Wooden packing	cum	0.15		
	<b>b) Replacement of bearing</b>				
	Cost of bearing.	each	3.00		
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>	
	Cost of repair of 3 bearings = a+b+c+d				
	<b>Rate of repair per bearing = (a+b+c+d)/3</b>				
	<b>Note :</b> The work entails replacement of all the bearings on one side of the span.				
16	<b>Rectification of Bearings as per Technical Specifications 2808 MORTH</b>				
	<b>Unit = 1 No</b>				
	<b>Taking output = 3 No.</b>				
	<b>a) Lifting of superstructure span by jacking up from below i.e. by placing the jacks on pier/abutment caps for span length of 30m.</b>				
	i) Hire charges for jack of 40 tonne lifting capacity.	each	3.00		
	ii) Mate	day	-		
	iii) Mazdoor (Skilled)	day	4.00		
	iv) Mazdoor (Unskilled)	day	12.64		
	v) Wooden packing	cum	0.15		
	<b>b) Cost of parts to be replaced for 3 bearings.</b>	each	3.00		
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>	
	Cost of repair of 3 bearings = a+b+c+d				
	<b>Rate of repair per bearing = (a+b+c+d)/3</b>				
	<b>Note :</b> The rectification of 3 bearings included in this analysis are on the same side of the span.				
17	<b>Replacement of Expansion Joints complete as per drawings</b>				
	<b>Unit -1 RM</b>				
	<b>Taking output = 12 RM</b>				
	<b>a) Material</b>				
	Epoxy for bonding new concrete to old concrete @ 0.8 kg/sqm	kg	9.60		
	M-30 grade cement concrete excluding OH & CP (Rate as per Chapter 14	cum	3.60		
	<b>b) Labour</b>				
	Removal of old expansion joint including breaking of concrete, cutting of lugs and shifting of broken material etc.				
	Mate	day	-		
	Mazdoor (Unskilled)	day	6.26		
	Mazdoor (Skilled)	day	0.50		
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>	
	Cost for replacement of 12 RM = a+b+c+d				
	<b>Rate per RM = (a+b+c+d)/12</b>				
	<b>Note :</b> The rate for the installation of new expansion joints may be taken from the chapter on superstructure. Broken concrete will have to be replaced which has been included in this analysis.				

S. No	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
1	2	3	4	5	6
18	<b>Replacement of Damaged Concrete Railing.</b>				
	<b>Unit = RM</b>				
	<b>Taking output = 10 RM</b>				
	<b>a) Labour</b>				
	Labour for dismantling old railing and disposal of dismantled material.				
	Mate	day	-		
	Mazdoor (Unskilled)	day	5.20		
	<b>b) Machinery</b>				
	Tractor-trolley for disposal of dismantled material	hour	1.00		
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>	
	<b>Cost for 10 m = a+b+c+d</b>				
	<b>Rate per metre = (a+b+c+d)/10</b>				
	<b>Note :</b> The rate for the provision of new railing may be adopted from the chapter on superstructure.				
19	<b>Replacement of Crash Barrier.</b>				
	<b>Unit = RM</b>				
	<b>Taking output = 10 M</b>				
	<b>a) Labour</b>				
	Labour for dismantling old railing and disposal of dismantled material.				
	Mate	day	-		
	Mazdoor (Unskilled)	day	10.40		
	<b>b) Machinery</b>				
	Tractor-trolley for disposal of dismantled material	hour	1.00		
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>	
	<b>Cost for 10 m = a+b+c+d</b>				
	<b>Rate per metre = (a+b+c+d)/10</b>				
	<b>Note :</b> The rate for the construction of new crash barrier may be adopted from chapter 8 on Traffic and Transportation.				
20	<b>Replacement of Damaged Mild Steel Railing</b>				
	<b>Unit = RM</b>				
	<b>Taking output = 10 M</b>				
	<b>a) Labour</b>				
	Labour for dismantling old railing and disposal of dismantled material.				
	Mate	day	-		
	Mazdoor (Unskilled)	day	4.16		
	<b>b) Machinery</b>				
	Tractor-trolley for disposal of dismantled material	hour	1.00		
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>	
	<b>Cost for 10 m = a+b+c+d</b>				
	<b>Rate per metre = (a+b+c+d)/10</b>				
21	<b>Repair of Crash Barrier</b>				
	Repair of concrete crash barrier with cement concert of M-30 grade by cutting and trimming the damaged portion to a regular shape, cleaning the area to be repaired thoroughly, applying cement concert after erection of proper form work.				
	<b>Unit = Running meter.</b>				
	<b>Taking output = 10 M.</b>				
	It is assumed that damage is to the extent of 10 per cent of the volume of concrete .This will require 0.30 cum of concrete.				
	<b>a) Manpower</b>				
	Mate	day	-		
	Mazdoor (Unskilled)	day	1.04		
	For dismantling and trimming the surface to a regular shape and removal of damaged material.				
	<b>b) Material</b>				
	M-30 grade cement concrete excluding OH & CP (Rate as per Chapter 14)	cum	0.30		
	This may be priced based on the rate given the chapter of superstructure.				
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>	
	<b>Cost for 10 m = a+b+c+d</b>				
	<b>Rate per m = (a+b+c+d)/10</b>				

S. No	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
1	2	3	4	5	6
<b>22</b>	<b>Repair of RCC Railing</b>				
	Carrying out repair of RCC M30 railing to bring it to the original shape.				
	<b>Unit = Running meter.</b>				
	<b>Taking output = 10 M.</b>				
	It is assumed that damage is to the extent of 10 per cent .				
	<b>a) Material</b>				
	M-30 grade cement concrete excluding OH & CP (Rate as per Chapter 14	cum	0.10		
	HYSD bar reinforcement Rate as per Chapter 14 (Excluding OH & CP)	t	0.01		
	<b>b) Labour</b>				
	Mate	day	-		
	Mazdoor (Unskilled)	day	0.216		
	For dismantling and trimming the surface to a regular shape and removal of damaged material.				
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>	
	<b>Cost for 10 m = a+b+c+d</b>				
	<b>Rate per m = (a+b+c+d)/10</b>				
<b>23</b>	<b>Repair of Steel Railing</b>				
	Repair of steel railing to bring it to the original shape. It is assumed that the damage to the steel railing is to the extent of 10 %.				
	<b>Unit = Running meter.</b>				
	<b>Taking output = 10 M.</b>				
	<b>a) Material</b>				
	Mild steel ISMC series	kg	29.00		
	Flat iron	kg	10.00		
	MS Bolt and nuts	kg	1.00		
	Add 5 per cent of cost of material for painting.				
	<b>b) Labour</b>				
	Mate	day	-		
	Mazdoor (Skilled)	day	0.20		
	Mazdoor (Unskilled)	day	0.216		
	<b>c&amp;d) Overheads &amp; Contractors Profit</b>			<b>18.00%</b>	
	<b>Cost of repair for 10m = a+b+c+d</b>				
	<b>Rate of meter = (a+b+c+d)/10</b>				

**General Note :**

The provisions towards Mate is included in the provision towards unskilled Mazdoor.