



# **BUILDING CONSTRUCTION DEPARTMENT**

## **Schedule of Rates**

**Volume – I**

**(Edition – Tenth)**

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## **BUILDING CONSTRUCTION DEPARTMENT BIHAR**

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**BUILDING CONSTRUCTION DEPARTMENT  
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**RATE OF ITEMS**  
**VOLUME – I**

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**SUB HEAD : 0.1**

**BASIC RATES OF**

**HIRE CHARGE OF PLANT**

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**BASIC RATES - Contd.**  
**0.1 Hire Charges of Plants**

<b>Note:- These rates are exclusive of contractor's profit and over head: And are inclusive of wages for weekly day of rest</b>			
<b>Code No</b>	<b>Description</b>	<b>Unit</b>	<b>Rate Rs. As per 10th ed.</b>
0001	Hire charges of Coaltar Boiler 900 to 1400 litres	Per day	800.00
0002	Hire charges of Concrete Mixer 0.25 to 0.40 cum with Hopper	Per day	800.00
003	Hire charges of Diesel Road Roilei - 8 to 10 tonne	Per day	3000.00
004	Production cost of concrete by batch mix plant.	cum	350.00
005	Hire charges of Diesel Truck - 9 tonne	Per day	2000.00
006	Hire charges of Spraying machine including electric charges	Per day	250.00
007	Hire charges of Coltar Sprayer	Per day	300.00
008	Hire charges of Barber green , drying mixing and Asphalt Plant , with accessories .capacity 30/45tonne	Per day	7700.00
009	Pumping charges of concreteincluding Hire charges of pump, piping work & accessories etc.	cum	210.00
010	Hire charges of Derrick monkey rope	Per day	750.00
011	Hire charges of Pump set of capacity 4000 litres/hour.	Per day	700.00
012	Vibrator (Needle type 40mm)	Per day	370.00
013	Machine for rubbing of floors	Per day	300.00
014	Front end loader capacity 1.00 cum	Per day	6000.00
015	Hire and running charges of Tripod and Mechanical Winch machine complete with power unit and accessories	Per day	1900.00
016	Mastic Cooker	Per day	750.00
017	Hire and running charges of tipper	Per day	1700.00
018	Hire and running charges of loader	Per day	5000.00
019	Hire Grinder for mirror polish	Per day	250.00
020	Hydraulic Excavator (3D) with driver and fuel.	Per day	7000.00
021	Pin vibrator	Per day	325.00
022	Surface Vibrator	Per day	400.00
023	Hot Bitumen mixer 0.5 cum i/c hand cart	Per day	3500.00
024	Hire and running charges of hydraulic piling no «viih power unit etc. including complete accessories and shifting at site.	Per day	30000.00
025	Hire and running charges of light crane	Per day	3000.00
026	Hire and running charges of bentonite pump.	Per day	3500.00
027	Hire and running charges of vibrating pile driving hammer complete with power unit and accessories.	Per day	30000.00
028	Hire and running charges of crane 20 tonne capacity	Per day	7000.00
029	Carriage of concrete by transit mixer.	km/cum	30.00
030	Generator 250 KVA.	Per day	2500.00
031	Steam curing by using boiler /Heater	cum	500.00
032	Stressing Machine (jack with pump)	day	11500.00
033	Paint applicator	Per day	750.00
034	Cutting saw machine	Per day	1350.00
035	Strands Roller machinery for laying strands	Per day	3500.00
036	Bed master (Pulling strands)	Per day	3000.00
037	Mobile crane.	Per day	7500.00
038	Tractor with ripper attachment	Per day	1200.00
039	Tractor with trolley	Per day	1350.00
040	Aircompressor 250 cfm with two leads for pneumatic cutters/hammers	Per day	1600.00
041	Joint cutting machine with 2-3 blades	Per day	800.00
042	C.C.batch mix plant.	Per day	10000.00
043	Road sweeper	Per day	550.00
044	Cost of crane up to 40 tonne capacity	Per day	8000.00
045	Slip frompaver with sensor.	Per day	13000.00
046	Water tanker 5000 litre capacity	Per day	1200.00

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Code No	Description	Unit	Rate Rs. As per 10th ed.
047	Concrete joint cutting machine	Per day	900.00
048	Texturing machine	Per day	925.00
	Note:- Above hire-charges include cost of service of operating staff and supply of lubricating oil.		
	<b>NEW CODES</b>		
049	Dozer D-80-A 12	hour	1500.00
050	Motor Grader 3.35 metre blade	hour	2450.00
051	Hydraulic Excavator of 1 cum bucket	hour	1000.00
052	Front end loader 1 cum bucket capacity (incl POL)	hour	900.00
053	Tipper -5 Cum	tonne km	3.00
054	Vibratory roller 8 to 10 tonne	hour	600.00
055	Smooth Wheeled Roller 8 to 10 tonne	hour	300.00
056	Tandem Road Roller	hour	1200.00
057	Water Tanker 5 to 6 KL capacity	hour	150.00
058	Air compressor	hour	200.00
059	Wet Mix Plant 60 TPH	hour	800.00
060	Mechanical Broom Hydraulic	hour	360.00
061	Emulsion Pressure Distributor @ 1750 sqm per hour	hour	800.00
062	Hot mix Plant -120 TPH capacity	hour	15000.00
063	Hot mix Plant 100 TPH Capacity	hour	13000.00
064	Paver finisher Hydrostatic with sensor control 100 TPH	hour	1500.00
065	Paver finisher Mechanical 100 TPH	hour	800.00
066	Batching and Mixing Plant @ 75 cum per hour	hour	2400.00
67	Cost for crane upto 80 tonne capacity	day	15000.00
068	Concrete Paver finisher with 40 HP Motor and sensor	hour	3000.00
069	Generator 250 KVA	hour	350.00
070	Generator 100 KVA/125 KVA	hour	250.00
071	Truck 5.5 cum/ 10 tonnes	tonne km	3.00
72	Cost for crane having capacity 50MT	day	8500.00
075	Road sweeper (Mechanical Broom) @ 1250 sqm per hour	hour	350.00
076	Drum Type HMP of 60-90 TPH capacity @ 75 tonne per hour actual output	hour	12000.00
080	Hire and running charges of drill machine up to 400 mm dia cost of mobile oil, diesel consumption in ordinary soil and operator)(including	day	7500.00
0081	Pile integrity testing equipment	day	3000.00
0082	Excavation of diaphragm wall by mechanical grab	sqm	1300.00
0083	Hire charges of TATA 407 or equivalent for local shifting	day	1200.00
0084	Hire charges of diesel truck -9 tonne(without POL)	day	1500.00
0085	Using cost of Ultra Violet Radiation tube	hour	189.00
0086	Compressor,gun,rubber pipes& other accessories- hire charge of plant & machinery i/c necessary fuel	day	4000.00
0087	hire charges of Suction jeting machine 2200 PSI machine i/c POL and operator	day	36000.00
0088	Hire charges of Drill Machine upto 30 mm dia.	day	160.00
0089	Hire charges of sand blasting equipment	day	160.00
0090	Hire charges of compressor	day	420.00
0091	Welding charges of shear key to existing reinforcement.	each	5.00
0092	Hire charges of plant and machinery that can inject 350 kg/day.	day	200.00
0093	Hire Charges of Suction Jeting machine 1500 PSI machine i/c POL and operator	day	8000.00
	Note :- 1. Above hire - charges (from item code 0001 to 0083) include cost of services of operating staff, Cost of lubricating oil, diesel / Petrol/ Kerosene oil , other consumables for running the plant and machinery and excluding GST. 2. The hire charges of plant machinery on per day basis are for single shift of eight working hours.		

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**SUB HEAD : 0.2**

**BASIC RATES OF LABOUR**

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**BASIC RATES - Contd.**

**0.2 LABOUR**

**Note:- These rates are exclusive of contractor's profit and over heads and are inclusive of wages for weekly day of rest.**

Code No	Description	Unit	Rate As per Lab depts not no 1050/24-03-20 Rs.	Rate As per Lab depts not no 1443/28-03-18 Rs.
0100	Bandhani	per day	305.00	270.00
0101	Bhishti	per day	312.00	277.00
0102	Blacksmith 1st class	per day	388.00	342.00
0103	Blacksmith 2nd class	per day	345.00	305.00
0107	Bullockman with single bullock	per day	395.00	348.00
0111	Carpenter 1st class	per day	388.00	342.00
0112	Carpenter 2nd class	per day	345.00	305.00
0113	Chowkidar	per day	302.00	267.00
0114	Beldar	per day	287.00	254.00
0115	Coolie	per day	299.00	265.00
0116	Fitter (Grade 1)	per day	395.00	348.00
0117	Assistant Fitter or 2nd class Fitter	per day	345.00	305.00
0119	Glazier	per day	323.00	286.00
0122	Mason {For plaster of paris work} 1st class	per day	388.00	342.00
0123	Mason (for orick work) 1st class	per day	388.00	342.00
0124	Mason (for brick work) 2nd class	per day	345.00	305.00
0125	Mason (for plain stone work) 2nd class	per day	345.00	305.00
0126	Mason (for ornamental stone work) 1st class	per day	388.00	342.00
0127	Concrete mixer operator Gr 1	per day	367.00	323.00
0128	Mate	per day	305.00	270.00
0129	Mali	per day	364.00	322.00
0130	Mistry	per day	287.00	254.00
0131	Painter	per day	367.00	323.00
0132	Rock Excavator	per day	302.00	267.00
0133	Rock Breaker	per day	302.00	267.00
0134	Rock Hole Driller	per day	302.00	267.00
0135	Stone Chiseller	per day	305.00	270.00
0136	Sewerman	per day	305.00	270.00
0138	Sprayman (for bitumen, tar etc.)	per day	302.00	267.00
0139	Skilled Beldar (for floor rubbing etc.) / Grinder	per day	345.00	305.00
0141	White Washer	per day	364.00	322.00

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Code No	Description	Unit	Rate As per Lab depts no 1050/24-03-20 Rs.	Rate As per Lab depts no 1443/28-03-18 Rs.
0154	Nozzel man/ Gun man	per day	488.00	430.00
0155	Mason (average)	per day	345.00	305.00
0156	Carpenter (average)	per day	345.00	305.00
0157	Operator (Pile/Special machines)	per day	488.00	430.00
0158	Mechanic (Pile/ Assistant operator)	per day	444.00	392.00
0159	Skilled Torch Operator	per day	364.00	322.00
0160	Technician	per day	498.00	439.00
0161	Helper (Technician)	per day	287.00	254.00
0162	Labour for fabrication of uPVC extruded casement/ sliding windows and doors including drilling holes, fixing of fittings & hardwares, hire charges of drill machine and electricity charges etc.	per day	488.00	430.00
0163	Labour for installation of uPVC extruded casement/ sliding windows and doors	per day	345.00	305.00
0L01	Un Skilled labour	per day	287.00	254.00
0L02	Un Skilled labour	per day	287.00	254.00
0L03	Mistri	per day	287.00	254.00
0L04	Cleaner	per day	287.00	254.00
0L05	Helper	per day	287.00	254.00
0L06	Khalasi	per day	287.00	254.00
0L11	Electrician Gr-I	per day	367.00	323.00
0L11A	Electrician Gr-II	per day	341.00	301.00
0L12	Lineman/wireman	per day	333.00	294.00
0L13	Chargeman	per day	413.00	364.00
0L14	Fore man	per day	488.00	430.00
0L15	Welder Gr I	per day	434.00	383.00
0L19	Cheker	per day	349.00	308.00
0L20	Hammerman	per day	302.00	267.00
0L21	Tin smith	per day	395.00	348.00
0L22	Tin plate maker	per day	413.00	364.00
0L25	Tile layer	per day	305.00	270.00
0L26	Thatcher	per day	305.00	270.00
0L27	Plumber	per day	367.00	323.00
0L28	Grader	per day	349.00	308.00
0L29	Road binder	per day	323.00	286.00

Code No	Description	Unit	Rate As per Lab depts noti no 1050/24-03-20 Rs.	Rate As per Lab depts noti no 1443/28-03-18 Rs.
0L32	Stone layer	per day	341.00	301.00
0L34	Fire man	per day	305.00	270.00
0L36	Gas cutter	per day	364.00	320.00
0L37	Rigger	per day	349.00	308.00
0L38	Sarang	per day	413.00	364.00
0L39	Chipper cum riveitew	per day	364.00	320.00
0L40	Tractor operator	per day	413.00	364.00
0L43	Vibrator operator	per day	321.00	284.00
0L44	Pump driver Gr I	per day	367.00	323.00
0L46	Concrete mixture operator Gr I	per day	367.00	323.00
0L49	Truck Driver	per day	413.00	364.00
0L50	Car/Jeep Driver	per day	364.00	320.00
0L51	Crane Operator Gr 1	per day	488.00	430.00
0L52	Winch Operator	per day	367.00	323.00
0L53	Road Roller Driver	per day	498.00	439.00
0L56	Polisher	per day	305.00	270.00
0L70	Any Other category of semi skilled worker not mentioned above	per day	299.00	265.00
0L71	Any other category of skilled worker not mentioned above	per day	364.00	322.00
0L72	Highly skilled workers	per day	444.00	392.00
164	Security guard without gun (8 hours shift duty per day)	per day	444	-
165	Security guard with gun (8 hours shift duty per day)	per day	488	-

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**SUB HEAD : 0.3**  
**BASIC RATES OF BUILDING &**  
**ROAD WORK**

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### 0.3 MATERIALS FOR BUILDING WORK AND ROAD WORK ( INPUT RATE)

Note.- These rates are exclusive of contractor's profit, over heads, carriage and all octroi (Vat, GST and other taxes) but inclusive of Royalty

Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
0200	Plain ended valley gutters Sheets 6 mm thick (corrugated)	sqm	195.21	****
0204	Curved barge board	each	143.28	****
0205	Barge Board 2.44 metre long	each	334.90	****
0206	Barge Board 1.83 metre long	each	250.74	****
0207	Drop end for plain ended valley gutter One piece plain angular ridge 1.22 metres long	each	145.06	****
0208	Plain ended valley gutters Serrated or plain wing Adjustable Ridge 1.22 m long	pair	198.80	****
0209	Close fittings adjustable ridge 1.10 m long	pair	225.65	****
0210	Drop end for plain ended valley gutter North light adjustable ridge 1.22 mm long	pair	198.80	****
0211	Plain ended valley gutters Ridge finials	pair	102.08	****
0212	Plain ended valley gutters Unserrated adjustable ridge for hips	pair	198.80	****
0213	Plain ended valley gutters Roof light (1.82 metre long)	each	1074.56	****
0214	Apron flashing pieces	each	139.69	****
0215	Drop end for plain ended valley gutter Eaves filler pieces	each	102.08	****
0216	Drop end for plain ended valley gutter North light ventilator curves	each	245.37	****
0219	Drop end for plain ended valley gutter Expansion joint for North light curves	each	150.44	****
0220	Drop end for plain ended valley gutter Expansion joint for ridges	pair	281.18	****
0221	Drop end for plain ended valley gutter Louvers 'S' type (1.75 m)	each	118.21	****
0222	Seam bolts nuts 6mm dia and 25mm long	10 Nos	10.00	*
0223	Non asbestos Fibre (high impact poly propylene reinforced) cement corrugated sheet 6 mm thick	sqm	225.00	*
0224	Non asbestos Fibre (high impact poly propylene reinforced) cement close fitting adjustable ridge	metre	210.00	*
0225	Non asbestos Fibre (high impact poly propylene reinforced) cement corrugate serrated adjustable ridge	metre	210.00	*
0226	Non asbestos Fibre (high impact poly propylene reinforced) cement plain wing adjustable ridge	metre	210.00	*
0227	Non asbestos Fibre (high impact poly propylene reinforced) cement unserrated adjustable ridge for hips	metre	210.00	*
0228	Non asbestos Fibre (high impact poly propylene reinforced) cement corrugated apron piece	metre	200.00	*
0229	Non asbestos Fibre (high impact poly propylene reinforced) cement eaves filler piece	each	175.00	*
0230	Non asbestos Fibre (high impact poly propylene reinforced) cement north light curves	metre	280.00	*
0231	Non asbestos Fibre (high impact poly propylene reinforced) cement ventilator curves	each	310.00	*
0232	Non asbestos Fibre (high impact poly propylene reinforced) cement barge boards boards 6mm thick	metre	400.00	*

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Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
0233	Non asbestos Fibre (high impact poly propelene reinforced) cement ridge finial	pair	165.00	*
0234	Non asbestos Fibre (high impact poly propelene reinforced) cement special north light curves	each	555.00	*
0235	Non asbestos Fibre (high impact poly propelene reinforced) cement S type louvers	each	260.00	*
0236	Multi purpose fibre (high impact poly propelene reinforced) cement boards 6mm thick	sqm	210.00	*
0237	Multi purpose fibre (high impact poly propelene reinforced) cement boards 8mm thick	sqm	220.00	*
0238	6 mm thick heavy duty fiber cement board	sqm	470.00	*
0239	8mm thick heavy duty fiber cement board	sqm	300.00	*
0240	9 mm thick heavy duty fiber cement board	sqm	625.00	*
0241	12.5 mm thick Gypsum plaster board	sqm	170.00	*
0242	6 mm thick multipurpose cement bonded wood particle board conforming to IS : 14276	sqm	195.00	*
0243	8 mm thick multipurpose cement bonded wood particle board conforming to IS : 14276	sqm	215.00	*
0244	Factory made light weight composite non asbestos fibre reinforced aerated cement sandwiched wall/roof panel (50mm thick). The outer face on both sides of the panels will be non asbestos fibre cement board (minimum 4mm thick) confirming to IS 14862:2000	sqm	634.00	*
0245	Factory made light weight composite non asbestos fibre reinforced aerated cement sandwiched wall/roof panel (75mm thick). The outer face on both sides of the panels will be non asbestos fibre cement board (minimum 4mm thick) confirming to IS 14862:2000	sqm	789.00	*
0246	2mm thick sim pad	each	10.00	*
0247	5mm thick sim pad	each	15.00	*
0248	10mm thick sim pad	each	25.00	*
0285	Brick Aggregate (Single size) 63 mm nominal size	cum	1233.00	**
A	For Uraban Patna	cum	1315.00	**
B	For Purnea,Saharsa,Bhagalpur,Munger & Darabhaga	cum	1259.00	**
C	For other places	cum	1233.00	**
D	For Patna Rural	cum	1285.00	**
0286	Brick Aggregate (Single size) 50 mm nominal size	cum	1233.00	**
A	For Uraban Patna	cum	1315.00	**
B	For Purnea,Saharsa,Bhagalpur,Munger & Darabhaga	cum	1259.00	**
C	For other places	cum	1233.00	**
D	For Patna Rural	cum	1285.00	**
0287	Brick Aggregate (Single size) 40 mm nominal size	cum	1362.00	**
A	For Uraban Patna	cum	1463.00	**
B	For Purnea,Saharsa,Bhagalpur,Munger & Darabhaga	cum	1403.00	**

Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
C	For other places	cum	1362.00	**
D	For Patna Rural	cum	1419.00	**
0291	Stone Aggregate (Single size) 63 mm nominal size	cum	480.64	**
0292	Stone Aggregate (Single size) 50 mm nominal size.	cum	480.64	**
0293	Stone Aggregate (Single size) 40 turn nominal size	cum	494.15	**
0294	Stone Aggregate (Single size) 25 mm nominal size	cum	579.14	**
0295	Stone Aggregate (Single size) 20 mm nominal size	cum	604.91	**
0296	Stone Aggregate (Single size) 12.5 mm nominal size	cum	697.55	**
0297	Stone Aggregate (Single size) 10 mm nominal size	cum	668.80	**
0298	Stone Aggregate (Single size) 6 mm nominal size	cum	461.52	**
0302	Safeda bailies 125 mm diameter	metre	40.00	*
0303	Cowdung	cum	50.00	*
0304	Bajri	cum	1000.00	*
0305	Bamboo 25mm dia 2.5 meter long	score	400.00	*
0308	Bhusa	quintal	500.00	*
0309	Paving bitumen S-90 of approved quality	tonne	25614.00	*
0310	Bitumen emulsion (MS Packed)	tonne	41899.00	**
0312	Bitumen grade PMB- 40	tonne	32200.00	*
0313	Blown type petrolium bitumin of Penetration 85/25 of approved quality	tonne	34000.00	*
0314	Bitumen hot sealing compound Grade A	kilogram	28.00	*
0316	Bitumen hot sealing compound Bitumen solution primer of approved quality	litre	45.00	*
0317	Premoulded joint filler 12 mm thick	sqm	360.00	*
0318	Bitumen felt fibre base (vegetable or animal) :As per IS 7193 Grade I	sqm	70.00	*
0319	Bitumen felt as per IS 7193 Grade II	sqm	80.00	*
0322	Bitumen felt Type 3 grade I confirming to IS : 1322	sqm	70.00	*
0323	Separation Membrane of impermeable plastic sheeting 125 micron thick	sqm	12.00	*
0324	Coal tar	litre	30.00	*
0325	Blasting Material Blasting powder	kilogram	40.00	*
0326	Blasting Material Blasting fuse (fuse wire)	each	15.00	*
0328	White face insulating board: 12 mm thick	sqm	235.00	*
0332	Natural colour insulating board: 12 mm thick	sqm	210.00	*
0336	Flame retardant face insulating board: 12 mm thick	sqm	320.00	*
0339	Flame retardant face insulating board: Impregnated fibre board 12 mm thick	sqm	375.00	*
0341	Flat pressed 3 layer particle board (medium density) Grade I 12 mm thick	sqm	288.00	*

*[Handwritten signatures and initials]*

Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
0346	Extra for veneered particle board with Teak veneering on one side and commercial veneering on other side	sqm	230.00	*
0347	Extra for veneered particle board with Commercial veneering pn both sides	sqm	155.00	*
0348	Extra for veneered particle board with Teak veneering on both sides	sqm	500.00	*
0349	Curing compound	litre	38.00	*
0351	Integral crystalline slurry	kg	238.00	*
0352	Integral crystalline admixture	kg	272.00	*
0353	Crystalline mortar	kg	215.00	*
0354	Integral crystalline dry shake	kg	360.00	*
0355	Swellable type water stop tape	metre	365.00	*
0356	Primer for swellable type water stop tape	litre	1540.00	*
0357	Polymer modified adhesive mortar	kg	15.00	*
0362	Brick bats	cum	1017.00	**
A	For Uraban Patna	cum	1108.00	**
B	For Purnea,Saharsa,Bhagalpur,Munger & Darabhaga	cum	1063.00	**
C	For other places	cum	1017.00	**
D	For Patna Rural	cum	1062.00	**
0364	Wire brush	each	20.00	*
0365	Soft brush	each	20.00	*
0367	Portland Slag cement (P.S.C.)	tonne	4484.00	***
0367A	Patna	tonne	4688.00	***
0367B	Muzaffarpur	tonne	4664.00	***
0367C	Darbhanga	tonne	4568.00	***
0367D	Bhagalpur	tonne	4676.00	***
0367E	Munger	tonne	4500.00	***
0367F	Saharsa	tonne	4644.00	***
0367G	Purnea	tonne	4568.00	***
0367H	Gaya	tonne	4484.00	***
367 I	Saran	tonne	4612.00	***
0367	Portland pozaiona cement (P.P.C.)	tonne	3778.00	***
0367A	Patna	tonne	4296.00	***
0367B	Muzaffarpur	tonne	4148.00	***
0367C	Darbhanga	tonne	4148.00	***
0367D	Bhagalpur	tonne	4296.00	***
0367E	Munger	tonne	4256.00	***
0367F	Saharsa	tonne	4224.00	***
0367G	Purnea	tonne	4366.00	***

Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
0367H	Gaya	tonne	3778.00	***
367 I	Saran	tonne	4198.00	***
0367	Ordinary Portland cement (O.P.C.) Grade -43	tonne	4734.00	***
0367A	Patna	tonne	5000.00	***
0367B	Muzaffarpur	tonne	4922.00	***
0367C	Darbhanga	tonne	5000.00	***
0367D	Bhagalpur	tonne	4922.00	***
0367E	Munger	tonne	4922.00	***
0367F	Saharsa	tonne	5000.00	***
0367G	Purnea	tonne	5000.00	***
0367H	Gaya	tonne	4734.00	***
367 I	Saran	tonne	4914.00	***
0368	White cement	tonne	11200.00	*
0369	Plastic sheath, 1.25 mm thick for dowel bars	sqm	25.00	*
0370	Coal (Steam)	quintal	440.00	*
0371	Sealant primer	kg	130.00	*
0373	Cramp Gun metal 25x6x300 mm	each	80.00	*
0374	Pre moulded Joint filler, 25 mm thick for expansion joint.	sqm	400.00	*
0378	Brass butt hinges (Light/Ordinary type) 125x70x4 mm	ten	775.00	*
0379	Brass butt hinges (Light/Ordinary type) 100x70x4 mm	ten	625.00	*
0380	Brass butt hinges (Light/Ordinary type) 75x40x2.5 mm	ten	380.00	*
0381	Brass butt hinges (Light/Ordinary type) 50x40x2.5 mm	ten	155.00	*
0382	Brass butt hinges (heavy type) 125x85x5.5 mm(0.70kg)	ten	1309.00	*
0383	Brass butt hinges (heavy type; 100x85x5.5 mm(0.56kg)	ten	997.00	*
0384	Brass butt hinges (heavy type) 75x65x4.0 mm(0.20kg)	ten	838.00	*
0385	Brass parliamentary hinges 150x125x27x5 mm	ten	2610.00	*
0386	Brass parliamentary hinges 125x125x27x5 mm	ten	2300.00	*
0387	Brass parliamentary hinges 100x125x27x5 mm	ten	2090.00	*
0388	Brass parliamentary hinges 75x100x20x3.2 mm	ten	1870.00	*
0389	Brass single acting spring hinges 150 mm	each	425.00	*
0390	Brass single acting spring hinges 125 mm	each	285.00	*
0391	Brass single acting spring hinges 100 mm	each	250.00	*
0392	Brass double acting Spring Hinges 150mm	each	480.00	*
0393	Brass double acting Spring Hinges 125mm	each	400.00	*
0394	Brass double acting Spring Hinges 100mm	each	390.00	*
0400	Brass tower bolts (barrel type) 250x10 mm	each	257.00	*
0401	Brass tower bolts (barrel type) 200x10 mm	each	205.00	*
0402	Brass tower bolts (barrel type) 150x10 mm	each	154.00	*

*[Handwritten signatures and initials]*



Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
0403	Brass tower bolts (barrel type) 100x10 mm	each	103.00	*
0404	Brass flush bolts 250 mm	each	150.00	*
0405	Brass flush bolts 150 mm	each	130.00	*
0406	Brass flush bolts 100 mm	each	90.00	*
0408	Brass handles 125mm with plate 175x32 mm	each	144.00	*
0409	Brass handles 100mm with plate 150x32 mm	each	133.00	*
0410	Brass handles 75mm with plate 125x32 mm	each	103.00	*
0411	Brass door latch 300x16x5 mm (0.380 Kg)	each	185.00	*
0412	Brass door latch 250x16x5 mm (0.350 Kg)	each	175.00	*
0413	Brass mortice latch and lock 100x65 mm with 6 levers and a pair of brass lever handles	each	400.00	*
0414	Brass mortice latch 100x65 mm with a pair of brass level handles	each	310.00	*
0417	Brass 150mm floor door stopper (0.357 Kg)	each	160.00	*
0418	Brass hard drwn hooks and eyes 300mm	10 nos	600.00	*
0419	Brass hard drawn hooks and eyes 250 mm	ten	574.00	*
0420	Brass hard drawn hooks and eyes 200 mm	ten	510.00	*
0421	Brass hard drawn hooks and eyes 150 mm	ten	400.00	*
0422	Brass hard drawn hooks and eyes 100 mm	ten	345.00	*
0423	Brass casement window fastener	each	45.00	*
0424	Brass casement stays (straight peg type) 300 mm weighing not less than 0.33 kg	each	126.00	*
0425	Brass casement stays (straight peg type) 250 mm weighing not less than 0.28 kg	each	100.00	*
0426	Brass casement stays (straight peg type) 200 mm weighing not less than 0.24 kg	each	95.00	*
0427	Brass quadrant stays 300 mm	each	110.00	*
0428	Brass fanlight catch	each	170.00	*
0429	Brass fanlight pivot	ten	168.00	*
0430	Brass chain with hook for fan light catch	each	36.00	*
0431	Brass hasps and Staples (Safety type) 150 mm	ten	740.00	*
0432	Brass hasps and staples (safety type) 115 mm	ten	670.00	*
0433	Brass hasps and Staples (Safety type) 90 mm	ten	575.00	*
0438	Brass Night latch	each	610.00	*
0442	Brass helical Spring 150 mm	each	290.00	*
0443	Brass curtain rod 12 mm dia 1.25 mm thick	metre	81.32	****
0444	Brass curtain rod 20 mm dia 1.25 mm thick	metre	140.00	*
0445	Brass curtain rod 25 mm dia 1.25 mm thick	metre	190.00	*
0446	Brass brackets (curtain rods) 20 mm	each	45.00	*
0447	Brass cupboard knob or ward robe knob 50 mm	each	36.00	*

Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
0449	Brass screws 50 mm	cent	220.00	*
0450	Brass screws 40 mm	cent	170.00	*
0451	Brass screws 30 mm	cent	140.00	*
0452	Bras screws 25 mm	cent	100.00	*
0453	Brass screws 20 mm	cent	95.00	*
0454	Stainless steel SS grade 304 , curtain rod 20 mm dia 1.20mm thick	metre	125.00	*
0455	Stainless steel SS grade 304, curtain rod 25 mm dia 1.20mm thick	metre	170.00	*
0456	Stainless steel SS grade 304, brackets ( curtain rod) 20 mm dia 1.20mm thick	each	46.00	*
0457	Stainless steel SS grade 304, brackets ( curtain rod) 25 mm dia 1.20mm thick	each	55.00	*
0458	plastic sleeves for screw	each	2.00	*
0524	Chromium plated Brass butt hinges (heavy) type 75x65x4.0 mm weighing not less than 200gms	10Nos.	905.00	*
0525	Chromium plated Brass butt hinges (light / ordinary) type 125x70x4.0 mm	10 Nos.	805.00	*
0526	Chromium plated Brass butt hinges (light / ordinary) type 100x70x4.0 mm	10Nos.	690.00	*
0527	Chromium plated Brass butt hinges (light / ordinary) type 75x40x2.5 mm	10 Nos.	421.00	*
0528	Chromium plated Brass butt hinges (light / ordinary) type 50x40x2.5 mm	10 Nos.	180.00	*
0552	75mm SS fancy handles for kitchen cabinet	10 Nos.	255.00	*
0553	100mm SS fancy handles for kitchen cabinet	10 Nos	455.00	*
0554	125mm SS fancy handles for kitchen cabinet	10 Nos	640.00	*
0555	Chromium plated Brass handles 125mm with plate 175x32mm	each	160.00	*
0556	Chromium plated Brass handles 100mm with plate 150x32mm	each	140.00	*
0557	Chromium plated Brass handles 75mm with plate 125x32mm	each	125.00	*
0558	Chromium plated Brass mortice latch and lock 100mm x 65mm with 6 levers and apair of brass lever and a pair or brass handles	each	470.00	*
0568	Chromium plated Brass casement window fastner	each	90.00	*
0569	Chromium plated Brass casement stays (straight peg type) 300mm weighing not less than 0.33 Kg.	each	140.00	*
0570	Chromium plated Brass casement stays (straight peg type) 250mm weighing not less than 0.28 Kg.	each	120.00	*
0571	Chromium plated Brass casement stays (straight peg type) 200mm weighing not less than 0.24 Kg	each	100.00	*
0583	Chromium plated Brass Night latch	each	500.00	*
0584	Chromium plated Brass .Wardrobe Knob 50 mm	each	80.00	*
0585	Chromium plated Brass screws 50mm	100 Nos	300.00	*

*[Handwritten signatures and initials]*

Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
0586	Chromuim plated Brass screws 40mm	100 Nos	290.00	*
0587	Chromium plated Brass screws 30mm	100 Nos	240.00	*
0588	Chromium plated Brass screws 25mm	100 Nos	180.00	*
0589	Chromium plated Brass screws 20mm	100 Nos	160.00	*
0590	Chromium plated brass curtain rod 12 mm dia 1.25 mm thick	meter	185.00	*
0591	Chromium plated brass curtain rod 20 nm dia 1.25 mm thick	meter	260.00	*
0592	Chromiurr: plated brass curtain rod 25 mm dia 1.25 mm thick	meter	340.00	*
0593	C.P. Brass Extension Nipple (1/2"x2" size)	each	40.00	
0594	Brigh finish or black enameted mild steel butt hinges 125x65x2.12mm	10 Nos	135.00	*
0595	Brigh finish or black enameted mild steel butt hinges 100x58x1.90mm	10 Nos	80.00	*
0596	Brigh finish or black enameted mild steel butt hinges 75x47x1.70 mm	10 Nos	56.00	*
0597	Brigh finish or black enameted mild steel butt hinges 50x37x1.50 mm	10 Nos	49.00	*
0598	150x125x27x2.80 mm porliamentary hinges	10 Nos	358.19	****
0599	125x125x27x2.80 mm porliamentary hinges	10 Nos	322.37	****
0600	100x125x27x2.80 mm popliamentary hinges	10 Nos	214.91	****
0601	75x100x20x2.24 mm parliomentory hinges	10 Nos	170.82	****
0602	150 mm single acting spring hinges	each	103.32	****
0603	125 mm single acting spring hinges	each	89.55	****
0604	100 mm single acting spring hinges	each	71.65	****
0605	150 mm double acting spring hinges	each	125.37	****
0606	125 mm double acting spring hinges	each	101.95	****
0607	100 mm double acting spring hinges	each	64.73	****
0608	Nickel plated miid steel piano hinges 1 mm thick 25 mm wide	metre	39.00	*
0614	300x20x6 mm door latch	each	35.82	****
0615	250x20x6 mm door latch	each	28.94	****
0620	125 mm handles	each	6.89	****
0621	100 mm handles	each	5.51	****
0622	75 mm handles	each	4.13	****
0632	115 mm hasper & stopler ( safety type )	10 Nos	81.29	****
0633	90 mm hasper & stopler ( safety type )	10 Nos	63.37	****
0635	Brigh finish or black enameled mild steel screws 50 mm	100 Nos	75.00	*
0636	Oxidiged mild steel 45 mm screw	100 Nos	45.46	****
0637	Bright finish or black enameled mild steel screws 40 mm	100 Nos	60.00	*
0638	Bright finish or black enameled mild steel screws 30 mm	100 Nos	45.00	*
0639	Bright finish or black enameled mild steel screws 25 mm	100 Nos	36.00	*
0640	Bright finish or black enameled mild steel screws 20 mm	100 Nos	30.00	*

Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
0641	Bright finished or black enameled mild steel bolts and nuts 50 X 6mm	each	5.00	*
0642	Oxidised mild steel butt hinges 125x65x2.12mm	10 Nos	130.00	*
0643	Oxidised mild steel butt hinges 100x58x1.90mm	10 Nos	85.00	*
0644	Oxidised mild steel butt hinges 75x47x1.70mm	10 Nos	63.00	*
0645	Oxidised steel mild butt hinges 50x37x1.50mm	10 Nos	53.00	*
0646	Oxidised steel mild parliamentary hinges 150x125x27x2.80 mm	10 Nos	334.00	*
0647	Oxidised steel mild parliamentary hinges 125x125x27x2.80 mm	10 Nos	309.00	*
0648	Oxidised steel mild parliamentary hinges 100x125x27x2.80 mm	10 Nos	231.00	*
0649	Oxidised steel mild parliamentary hinges 75x100x20x2.24 mm	10 Nos	196.00	*
0650	Oxidised mild steel Single acting spring hinges 150mm	each	138.00	*
0651	Oxidised mild steel Single acting spring hinges 125 mm	each	118.00	*
0652	Oxidised mild steel Single acting spring hinges 100 mm	each	98.00	*
0653	Oxidised mild steel double acting spring hinges 150 mm	each	157.00	*
0654	Oxidised mild steel double acting spring hinges 125 mm	each	135.00	*
0655	Oxidised mild steel double acting spring hinges 100 mm	each	118.00	*
0656	Nickel plated mild steel piano, hinges 1 mm thick 35mm wide	metre	44.00	*
0660	Oxidised mild steel sliding door bolts 300x16mm	each	93.00	*
0661	Oxidised mild steel sliding door bolts 250x16mm	each	84.00	*
0662	Oxidised mild steel door latch 300x20x6 mm	each	49.00	*
0663	Oxidised mild steel door latch 250x20x6 mm	each	39.00	*
0664	Oxidised mild steel tower bolts (barrel type) 250x10 mm	each	43.00	*
0665	Oxidised mild steel lower bolts (barrel type) 200x10 mm	each	34.00	*
0666	Oxidised mild steel tower bolts (barrel type) 150x10 mm	each	29.00	*
0667	Oxidised mild steel tower bolts (barrel type) 100x10 mm	each	20.00	*
0668	Oxidised mild steel handles 125 mm	each	20.00	*
0669	Oxidised mild steel handles 100 mm	each	15.00	*
0670	Oxidised mild steel handles 75 mm	each	12.00	*
0679	Oxidised mild steel hasps and staples (safety type) 150 mm	10 Nos	128.00	*
0680	Oxidised mild steel hasps and staples (safety type) 115 mm	10 Nos	108.00	*
0681	Oxidised mild steel hasps and staples (safety type) 90 mm	10 Nos	79.00	*
0682	Oxidised mild steel screws 50 mm	100 Nos	76.00	*
0683	Oxidised mild steel screws 40 mm	100 Nos	62.00	*
0684	Oxidised mild steel screws 30 mm	100 Nos	49.00	*
0685	Oxidised mild steel screws 25 mm	100 Nos	36.00	*
0686	Oxidised mild steel screws 20 mm	100 Nos	32.00	*
0687	Anodised Aluminium butt hinges 125x75x4 mm	10 Nos	560.00	*
0688	Anodised Aluminium butt hinges 125x63x4 mm	10 Nos	393.00	*
0689	Anodised Aluminium butt hinges 100x75x4 mm	10 Nos	393.00	*

*[Handwritten signatures and initials]*

Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
0690	Anodised Aluminium butt hinges 100x63x3.2 mm	10 Nos	270.00	*
0691	Anodised Aluminium butt hinges 100x63x4 mm	10 Nos	324.00	*
0692	Anodised Aluminium butt hinges 75x63x4 mm	10 Nos	275.00	*
0693	Anodised Aluminium butt hinges 75x63x3.2 mm	10 Nos	226.00	*
0694	Anodised Aluminium butt hinges 75x45x3.2 mm	10 Nos	196.00	*
0695	Anodised Aluminium butt hinges 50x35x3.2 mm	10 Nos	99.20	****
0696	Anodised Aluminium silding door bolt 300x16 mm	each	147.00	*
0697	Anodised Aluminium silding door bolt 250x16 mm	each	128.00	*
0698	Anodised Aluminium tower bolt (barrel type)300x10 mm	10 Nos	580.00	*
0699	Anodised Aluminium tower bolt (barrel type)250x10 mm	10 Nos	481.00	*
0700	Anodised Aluminium tower bolt (barrel type)200x10 mm	10 Nos	383.00	*
0701	Anodised Aluminium tower bolt (barrel type) 150x10 mm	10 Nos	304.00	*
0702	Anodised Aluminium tower bolt (barrel type) 100x10 mm	ten	226.00	*
0703	Anodised Aluminium handles 125 mm with plate 175x32 mm	ten	324.00	*
0704	Anodised Aluminium nandies 100 mm with plate 150x32 mm	ten	275.00	*
0705	Anodised Aluminium handles 75 mm with plate 125x32 mm	ten	231.00	*
0706	Anodised Aluminium kicking plate 50cm long 100x3.15 mm	each	142.00	*
0713	Block Board Construction flush door with teak wood ply on both faces 35 mm thick	sqm	1800.00	*
0714	Block Board Construction flush door with teak wood ply on both faces 30 mm thick	sqm	1600.00	*
0715	Block Board Construction flush door with teak wood ply on both faces 25 mm thick	sqm	1400.00	*
0717	Block board construction flush door with Commercial ply on both faces 35 mm thick	sqm	950.00	*
0718	Block board construction flush door with Commercial ply on both faces 30 mm thick	sqm	900.00	*
0719	Block board construction flush door with Commercial ply on both faces 25 mm thick	sqm	890.00	*
0752	Block board construction flush door lipping 25 mm thick	sqm of	300.00	*
0753	Square vision Panel in Block board construction flush door	door area sqm of	130.00	*
0754	Circular Vision Panel in block board construction flush door	door area sqm of	135.00	*
0755	Decorative type Louvers in Block board construction flush door	door area sqm of	265.00	*
0757	Rebate cutting in Block board construction flush door	door area sqm of	70.00	*
0759	Decorative Plywood 4 mm	door area sqm	320.00	*
0761	Fuel Wood	quintal	500.00	*
0763	Glue	kilogram	75.00	*
0764	Calcium silicate base compound for jointing calcium silicate tiles	kilogram	26.00	*
0765	Hessian cloth	sqm	35.00	*
0768	Jali (cement concrete) 50mm thick	sqm	400.00	*
0769	Jali (cement concrete) 40mm thick	sqm	350.00	*

Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
0770	Jali (cement concrete) 25mm thick	sqm	275.00	*
0771	Kerosene oil	litre	50.00	*
0772	White cement based polymer modified self curing compound in powder form	kg	15.00	*
0773	Lime Unslaked lime	quintal	300.00	*
0775	Lime Dehradun white lime	quintal	600.00	*
0776	Lime Satna lime	quintal	370.00	*
0777	Dry hydrated lime (factory made)	quintal	290.00	*
0784	Marble dust / powder	cum	1130.00	*
0785	Marble chips upto 4mm and down size White & black	quintal	189.00	*
0786	Marble chips upto 4mm and down size Chocolate, grey or yellow	quintal	158.44	****
0787	Marble chips upto 4mm and down size Baroda green	quintal	158.44	****
0788	Marble chips Large size above 4mm. white & black	quintal	250.00	*
0801	Silicon and acrylic emulsion	litre	130.00	*
0802	Acrylic distemper 1st quality , having VOC content less than 50gm/litre	Kg	36.00	*
0803	Acrylic emulsion , having VOC content less than 50 gm/litre	litre	94.00	*
0804	Premium acrylic emulsion of interior grade, having VOC content less than 50 gm/litre	litre	220.00	*
0805	Synthetic enamel paint , having VOC (Volatile Organic Compound) content less than 150 gm/litre	litre	172.22	****
0806	Ready mixed pink or grey primer on wood work (hard and soft wood) having VOC content less than 50 gms/litre	litre	105.00	*
0807	Ready mixed red oxide zinc chromatic on steel/ iron work, having VOC content less than 250 gms/litre	litre	111.69	****
0808	Water thinnable cement primer for interior wall surface, having VOC content less than 50 gms/litre	litre	50.00	*
0809	Exterior Primer	kg	140.00	*
0810	Moorum	cum	159.97	**
0811	Mud (dry)	cum	165.00	*
0815	Dry Distemper	kilogram	30.00	*
0816	Oil bound washable distemper / Acrylic distemper	kilogram	50.00	*
0818	Linseed oil (double boiled)	litre	200.00	*
0820	Cement primer	litre	80.00	*
0821	Distemper primer	litre	70.00	*
0823	Pink primer (for wood)	litre	105.00	*
0824	White cement based putty	kg	13.00	*
0826	Aluminium paint	litre	150.00	*
0827	Acid proof paint (chocolate or black)	litre	225.00	*
0828	Anti-corrosive bituminous paint (black)	litre	100.00	*
0829	Black Japan	litre	90.00	*





Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
0830	Enamel paint	litre	165.00	*
0831	Floor enamel paint in all shades except green	litre	250.00	*
0833	Synthetic enamel paint black or chocolate shade	litre	170.00	*
0834	Synthetic enamel paint in ail shades except black or chocolate	litre	160.00	*
0835	Plastic emulsion paint	litre	200.00	*
0836	100% Premium acrylic dirt resistance, Silicone additives exterior paint	litre	270.00	*
0837	Acrylic Exterior Primer	litre	100.00	*
0845	Roofing paint for iron sheets in red colour	litre	120.00	*
0850	White lead	kilogram	170.00	*
0851	Water proofing cement paint Snowcem Plus	kilogram	38.00	*
0855	Wax polish (ready made)	kilogram	230.00	*
0856	Ordinary varnish	litre	100.00	*
0857	Superior copal varnish	litre	115.00	*
0858	Superior spar varnish	litre	115.00	*
0859	Oil type wood preservative	litre	130.00	*
0863	Polish Putty for wood work	kilogram	30.00	*
0865	Pigments Pig lead	kilogram	130.00	*
0868	Premixed super white gypsum plaster.	kg	6.00	*
0869	Plaster of Paris	kilogram	5.00	*
0870	Pigments Plug	each	10.00	*
0873	Copper pins 6 mm dia 7.5cm long	each	10.00	*
0874	Pigments black colour dark shade	kilogram	70.00	*
0875	Pigments Red chocolate orange buff or yellow (red oxide of iron ) light shade	kilogram	60.00	*
0876	Pigments green or blue medium shade	kilogram	56.00	*
0886	standard holdar bat clamps for sand cast iron or cast iron pipes 150mm dia	each	45.00	*
0966	sand cast iron plain shoe 150mm dia	each	285.00	*
0967	pigments plate -copper	kilogram	527.00	*
0969	Pulleys 25mm dia	each	48.00	*
0973	Rolling shutters and its parts Rolling shutter made of 80X1.25mm machine rolled laths	sqm	1400.00	*
0974	Rolling shutters and its parts Top cover for rolling shutters	metre	800.00	*
0975	Rolling shutters and its parts 27.5cm long wire spring grade No 2 for rolling Shutters	each	300.00	*
0976	Rolling shutters and its parts ball bearing for rolling shutters	each	260.00	*
0977	Extra for mechanical devices chain and cranked operation for operating rolling shutters Exceeding 10.00 sqm and upto 16.80 sqm area of door	sqm	800.00	*

Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
0978	Extra for mechanical devices chain and cranked operation for operating rolling shutters Exceeding 16.80 sqm area of door	sqm	800.00	*
0979	Royalty for good earth	cum	33.00	**
0980	Royalty for sludge	cum	0.00	**
0982	Sand Coarse sand Doriganj equivalent to Koilwar/Sone sand	cum	175.80	**
982A	Sand Coarse sand quarry at Koilwar/Sone		175.80	**
0983	Fine sand (zone IV)	cum	141.85	**
0992	Galvanised steel plain sheets	quintal	5000.00	*
0993	FY-1860 grade wire strands	quintal	5700.00	*
0994	Standard quality hard board sheet 3mm thick	sqm	135.00	*
0996	Sheets standard quality had board sheet 4.5mm thick	sqm	210.00	*
0999	Polish shellac	kilogram	300.00	*
1000	Oil/Fuel spirit	litre	48.00	*
<b>1003</b>	<b>Mild steel round bar above 12mm dia</b>	quintal	3950.00	**
1001	Spun yarn	kilogram	50.00	*
<b>1002</b>	<b>Mild steel round bar 12mm dia and below</b>	quintal	3950.00	**
<b>1004</b>	<b>Mild steel wire rod</b>	quintal	3950.00	**
1004A	5.5mm	quintal	3950.00	**
1004B	6.0mm	quintal	3930.00	**
1004C	6.5mm	quintal	3920.00	**
1004D	7.0mm	quintal	3900.00	**
1004E	8.00mm	quintal	3890.00	**
1004F	10.0mm	quintal	3950.00	**
1004G	12.0/12.7mm	quintal	3950.00	**
<b>1005</b>	<b>Steel T.M.T. Bars Fe 500</b>	quintal		**
1005A	TMTC-500-8mm	quintal	4000.00	**
1005B	TMTC-500-10mm	quintal	3900.00	**
1005C	TMTC-500-12mm	quintal	3850.00	**
1005D	TMT FE-500-16mm	quintal	3850.00	**
1005E	TMT FE-500-20mm	quintal	3850.00	**
1005F	TMT FE-500-25mm	quintal	3850.00	**
1005G	TMT FE-500-28mm	quintal	3850.00	**
1005H	TMT FE-500-32mm	quintal	3850.00	**
1005 I	TMT FE-500-36mm	quintal	3850.00	**
1006	Mild steel square bars	quintal	4500.00	*
<b>1007 A</b>	<b>STEEL JOIST (structural steel)</b>	quintal	3864.90	**
a	200X100	quintal	3864.90	**
b	225X110	quintal	3864.90	**
c	250X125	quintal	3864.90	**

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Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
d	300X140	quintal	3864.90	**
e	350X140	quintal	3864.90	**
f	400X140	quintal	3864.90	**
g	450X150	quintal	3864.90	**
h	500X180	quintal	3864.90	**
i	600X210	quintal	3864.90	**
<b>1007B</b>	<b>STEEL CHANNEL</b>	quintal	<b>3840.00</b>	<b>**</b>
a	75X40	quintal	3840.00	**
b	100X50	quintal	3840.00	**
c	125X65	quintal	3840.00	**
d	150X75	quintal	3840.00	**
e	175X75	quintal	3840.00	**
f	200X75	quintal	3870.00	**
g	250X82	quintal	3840.00	**
h	300X90	quintal	3840.00	**
i	400X100	quintal	3840.00	**
<b>1007C</b>	<b>STEEL ANGLES</b>	quintal		<b>**</b>
a	50x50x6	quintal	3820.00	**
b	60X60X6	quintal	3820.00	**
c	65X65X6	quintal	3820.00	**
d	75X75X6	quintal	3820.00	**
e	80X80X8/10/12	quintal	3820.00	**
f	90X90X6	quintal	3820.00	**
g	100X100X8/10/12	quintal	3820.00	**
h	110X110X8/10/12	quintal	3820.00	**
i	130X130X10/12	quintal	3820.00	**
j	150X150X12/16/20	quintal	3820.00	**
k	200X200X16/18/26	quintal	3820.00	**
1008	Flats upto 10mm in thickness	quintal	4500.00	*
1009	Flats exceeding 10mm in thickness	quintal	4600.00	*
1010	Mild steel plates	quintal	4800.00	*
1011	Steel glazed door,window/ ventilator, all members viz. F7D, F4B,K11 and K12B etc.	kg	54.00	*
1012	Pregalvanized high tensile steel confirming to IS:277-199	kg	90.00	*
1013	Mild steel sheets for tanks	quintal	4600.00	*
1015	Mild steel expanded metal 20x60 mm strands	sqm	280.00	*
1019	Mild steel hooks	each	32.00	*
1020	Mild steel rivets	quintal	5000.00	*
1021	Hard drawn steel wire fabric	sqm	430.00	*

Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
1022	Galvanised steel bolts and nuts 6mm dia. And 25mm long round head with slots	ten	38.00	*
1023	Galvanised steel J or L hooks 8mm dia.	Ten	120.00	*
1024	Galvanised steel bolts and nuts 10mm dia. and 125mm long	each	9.00	*
1025	Mild steel bolts 6mm dia and 25mm long with hexagonal head	ten	10.00	*
1027	Erection Bolts ( Minimum 04 nos for each element)	each	25.00	
1028	Straining bolts	each	80.00	*
1029	Galvanised steel L barbed wire	quintal	5500.00	*
1030	Galvanised steel turn buckles	each	25.00	*
1031	Galvanised steel bolts & nut 10mm dia 27cm long both sides threaded with 4 galvanised steel nuts	each	20.00	*
1032	Galvanised steel bolts 10mm dia 7cm long with nuts	each	6.00	*
1034	Bolts and nuts upto 300mm in length	quintal	4800.00	*
1035	Bolts and nuts above 300mm in length	quintal	5100.00	*
1036	Iron Pintels including welded pin	each	37.00	*
1143	Steel Beading	metre	27.00	*
1145	Aluminium Plain Strip edging 38x12x3 mm	metre	90.00	*
1149	Glass strips 4mm thick 40mm deep	metre	20.00	*
1151	Boundry stone top chisel dressed 15x15x90cm	each	80.00	*
1154	Through and bond stone	100 nos	5000.00	*
1157	Stone for masonry work	cum	1100.00	*
1158	Stone for pitching 15cm x 22.5cm	cum	600.00	*
1159	Stone dust	cum	119.10	**
1160	Red sand stone block	10 cudm	79.00	*
1161	White sand stone block	10 cudm	205.00	*
1163	White sand stone slab 75mm thick (un-dressed)	sqm	900.00	*
1164	Red sand stone slab 40mm thick (undressed)	sqm	200.00	*
1165	White sand stone slab 40mm thick (undressed)	sqm	200.00	*
1166	Red sand stone slab 30mm thick (undressed)	sqm	200.00	*
1168	Kota stone slab 20mm to 25mm thick (semi-polished)	sqm	280.00	*
1169	Kota stone slab 25mm thick (rough chiselled)	sqm	301.00	*
1174	Red sand stone slab 45/50mm thick (un-polished)	sqm	225.00	*
1175	White sand stone slab 45/50mm thick (undressed)	sqm	240.00	*
1177	Stone grit 6 mm and down size or pia sized grand	cum	800.00	*
1179	Crushed stone 2.36 mm to 12.5 mm size	cum	900.00	*
1182	Surkhi	cum	1605.00	**
A	Uraban Patna	cum	1733.00	**
B	For Purnia, Bhagalpur, Saharasa, Munger, Darabhanga	cum	1663.00	**
C	For other places	cum	1605.00	**

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Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
D	For Patna Rural	cum	1675.00	**
1186	Superior class teak wood such as Dandeli, Balarshah or Malabar in planks	10 cudm	1100.00	*
1187	First class teak wood in scantling	10 cudm	880.00	*
1188	First class teak wood in planks	10 cudm	850.00	*
1189	Second class teak wood in scantling	10 cudm	776.00	*
1190	Second class teak wood in planks	10 cudm	791.00	*
1191	Marandi wood in planks	10 cudm	440.00	*
1192	Marandi wood in scantling	10 cudm	431.00	*
1194	Second class deodar wood in planks	10 cudm	500.00	*
1196	First class kail wood in planks	10 cudm	300.00	*
1197	Second class kail wood in scantling	10 cudm	260.00	*
1198	Second clas's kail wood in planks	10 cudm	260.00	*
1199	Sal wood in scantling	10 cudm	600.00	*
1195	Local wood in scantling	10 cudm	309.39	****
1200	Kiln seasoned selected sheesham wood planks	10 cudm	650.00	*
1201	Precast terrazo tiles 22 mm thick (light shade)	sqm	285.00	*
1202	Precast terrazo tiles 22 mm thick (medium shade)	sqm	265.00	*
1203	Precast terrazo tiles 22 mm thick (dark shade)	sqm	245.00	*
1204	Precast heat resistant terrace tiles (size 300x300 mm) and 20 mm thick	sqm	409.00	*
1207	Washers Cadmium coated G.I. limpet washer	cent	21.00	*
1208	Washers Bitumen washer	cent	30.00	*
1209	Washers G.I. plain washer thick	cent	35.00	*
1210	Washers G.I. plain washer thin	cent	21.00	*
1211	Washers G.I. plain washer for seam bolts	cent	32.00	*
1213	Water proofing compound 'Impermo' of Snowcem India Ltd.	kilogram	35.00	*
1214	Welding By gas plant	cm	2.00	*
1215	Welding By electric plant	cm	2.00	*
1216	Whiting	quintal	600.00	*
1217	GI Wire mesh 100x100 mm	quintal	75.00	*
1218	Shear stud	each	50.00	*
1219	Wire nails	kilogram	58.00	*
1220	Wire mesh (Rabbit)	sqm	42.00	*
1221	20 mm dia holding down bolts	quintal	6100.00	*
1222	Mild steel sheets with bolts and nuts to rest on lintels	each	120.00	*
1223	Steel weld mesh	sqm	150.00	*
1224	Hard drawn steel wire	quintal	4800.00	*
1225	Mild steel flat strap fitting	quintal	4120.00	*

Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
1227	Chequered terrazo tiles 22mm thick (light shade)	sqm	275.00	*
1228	Chequered terrazo tiles 22mm thick (medium shade)	sqm	300.00	*
1229	Chequered terrazo tiles 22mm thick (dark shade)	sqm	260.00	*
1231	Extra for selected planks of second class teak wood	10 cudm	150.00	*
1234	Aluminium plain strip edging 57x12x3 mm	metre	135.00	*
1235	Oil / Fuel Diesel oil	litre	73.50	*
1237	Cutting marble or sand stone slab upto 50mm thick by mechanical device	metre	10.00	*
1238	Extra for selected planks of first class teak wood	10 cudm	150.00	*
1239	18 mm thick Flamed finish granite stone slab	sqm	1000.00	*
1240	18 mm thick Italian Marble stone slab,(slab area up to 0.5 sqm).	sqm	3209.00	*
1241	Oil / Fuel LPG (Commercial Cylinder)	kg	82.00	*
1242	Glass mosaic tiles (20 mm x 20 mm x 4 mm ).	sqm	2049.00	*
1243	Tile fixing chemical adhesive	kg	8.70	*
1244	Cement Polymer Grout Compound	kg	16.00	*
1245	Acid for cleaning tiles	litre	18.00	*
1246	Silicon based Joint Sealant for Tiles	kg	160.00	*
1247	Rubber base Adhesive	kg	223.00	*
1248	Epoxy based sealing Compound	kg	535.00	*
1249	Acrylic based sealing compound	kg	500.00	*
1250	Non woven reinforcement Tape	metre	0.14	*
1251	M-60 grade cementitious grout (Non Shrink)	kg	28.00	*
1252	Cementitious polymer base adhesive conforming to EOTA ETAG 004 (European Technical Approval)	kg	34.00	*
1253	Polypropylene mechanical fastener with plastic pin conforming to EOTA ETAG 014 (European Technical Approval) having dia 10mm & L=200mm	each	30.00	*
1254	Moisture cure Polyurethane Foam	750ml	600.00	*
1255	PVC Corner Bead of size 25mmx25mm fixed with glass fibre mesh (100mm x 100mm)	metre	90.00	*
1256	Cementitious polymer base coat conforming to EOTA ETAG 004 (European Technical Approval)	kg	40.00	*
1257	Fiberglass mesh with alkali-resistant coating having mass per unit area ?145 g/m2, mesh size: 3.9x4.0 mm ±10%	sqm	75.00	*
1301	Bleaching powder	quintal	1800.00	*
1304	Surface box for stop cock	each	125.00	*
1305	Surface box for sluice valve	each	210.00	*
1307	Surface box for water meter	each	250.00	*
1309	C.I. bracket for wash basin and sinks	pair	88.00	*
1313	8 mm dia C.P. Brass/ S.S. Jet with flexible tube upto 1 metre long with S.S. triangular plate for European type W.C.	each	200.00	*
1314	C.P. brass chain with 32 mm dia rubber plug	each	40.00	*

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Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
1315	C.P. brass chain with 40 mm dia rubber plug	each	40.00	*
1316	50mmx50mm hardwood plug		75.00	
1330	Clamps and M.S. stays including bolts and nuts for 100 mm pipe	each	67.50	*
1331	M.S. Holder bat clamp of approved design for 10 mm S.C.I.pipe	each	30.00	*
1332	M.S. Holder bat clamp of approved design for 75mm S.C.I.pipe	each	27.00	*
1334	Clamps and M.S. stays including bolts and nuts for 50 mm pipe	each	35.00	*
1335	Clamps and M.S. stays including bolts and nuts for 75 mm pipe	each	37.00	*
1336	Clearing eye with chain and lid 100 mm dia	each	44.00	*
1337	Clearing eye with chain and lid 150 mm dia	each	50.00	*
1339	Brass bib-cock 15 mm dia	each	210.00	*
1340	Brass bib-cock 20mm dia	each	225.00	*
1342	Brass stop-cock 15 mm dia	each	210.00	*
1343	Brass stop-cock 20 mm dia	each	225.00	*
1350	Mosquito proof coupling of approved design	each	30.00	*
1352	C.I. cover and frame 300x300 mm inside	each	477.00	*
1353	C.I. cover without frame 300x300 mm inside i/c cover of 4.50kg	each	477.00	*
1354	Rectangular cover 455x610 mm with frame (low duty)	each	1400.00	*
1355	Rectangular cover 455x610 mm without frame (low duty)	each	910.00	*
1356	500mm dia cover with frame (medium duty)	each	4400.00	*
1357	500mm dia cover without frame (medium duty)	each	2300.00	*
1360	C.I.mouth ,brass ferrule 15 mm dia	each	140.00	*
1361	C.I.mouth ,brass ferrule 20 mm dia	each	160.00	*
1362	C.I.mouth ,brass ferrule 20 mm dia	each	220.00	*
1363	Vitreous china foot rests 250x130x30 mm	pair	100.00	*
1364	C.I. grating 100x100 mm	each	40.22	*
1366	C.I. grating 150x150 mm	each	54.42	*
1367	C.I. grating 180x180 mm	each	65.00	*
1369	S.C.I. gully or nahani grating 100 mm dia	each	25.00	*
1373	Rubber insertions for 80 mm dia pipe joints	each	16.00	*
1374	Rubber insertions for 100 mm dia pipe joints	each	18.00	*
1375	Rubber insertions for 125 mm dia pipe joints	each	20.00	*
1376	Rubber insertions for 150 mm dia pipe joints	each	20.00	*
1377	Rubber insertions for 200 mm dia pipe joints	each	25.00	*
1378	Rubber insertions for 250 mm dia pipe joints	each	40.00	*
1379	Rubber insertions for 300 mm dia pipe joints	each	45.00	*
1380	Rubber insertions for 350 mm dia pipe joints	each	50.00	*
1381	Rubber insertions for 400 mm dia pipe joints	each	73.00	*
1382	Rubber insertions for 450 mm dia pipe joints	each	92.00	*

Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
1383	Rubber insertions for 500 mm dia pipe joints	each	110.00	*
1384	Rubber insertions for 600 mm dia pipe joints	each	125.00	*
1392	Mirror of superior make glass 60x45 cm	each	400.00	*
1396	Vitreous china pedestal for wash basin	each	900.00	*
1397	Pig lead	kilogram	176.00	*
1464	S & S.C.I. standard specials up to 300 mm dia (heavy class)	quintal	3600.00	*
1466	S & S.C.I. standard specials over 300 mm dia (heavy class)	quintal	3700.00	*
1468	Flanged C.I. standard specials up to 300 mm dia (heavy class)	quintal	5500.00	*
1470	Flanged C.I. standard specials over 300 mm dia (heavy class)	quintal	5500.00	*
1472	Casing pipe 100 mm dia	metre	335.00	*
1532	Flush pipe with union spreaders and clamps all in C.P. brass for single stall	each	270.00	*
1533	Flush pipe with union spreaders and clamps all in C.P. brass for double stall	each	400.00	*
1534	Flush pipe with union spreaders and clamps all in C.P. brass for range of three stall	each	520.00	*
1535	Flush pipe with union spreaders and clamps all in C.P. brass for range of four stall	each	600.00	*
1540	Flush pipe and spreaders G.I. for single set of one squatting plate urinal	each	175.00	*
1541	Flush pipe and spreaders G.I. for range of two squatting plates urinal	each	250.00	*
1542	Flush pipe and spreaders G.I. for range of three squatting plates urinal each	each	300.00	*
1543	Flush pipe and spreaders G.I. for range of four squatting plates urinal	each	390.00	*
1545	G.I. pipes 15 mm dia	metre	91.00	*
1546	G.I. pipes 20 mm dia	metre	120.00	*
1547	G.I. pipes 25 mm dia	metre	171.00	*
1548	G.I. pipes 32 mm dia	metre	215.00	*
1549	G.I. pipes 40 mm dia	metre	250.00	*
1550	G.I. pipes 50 mm dia	metre	310.00	*
1551	G.I. pipes 65 mm dia	metre	395.00	*
1552	G.I. pipes 80 mm dia	metre	505.00	*
1555	G.I. back (jam) nuts 25 mm dia	each	15.00	*
1559	G.I. back (jam) nuts 65 mm dia	each	25.00	*
1608	G.I. tees (equal) 25 mm	each	50.00	*
1612	G.I. tees (equal) 65 mm	each	452.00	*
1614	G.I. inlet connection	each	60.00	*
1616	S.C.I. soil, waste and vent single socketed pipe 1.80 metres long: 75mm dia	each	1050.00	*
1617	S.C.I. soil, waste and vent single socketed pipe 1.80 metres long: 100mm dia	each	1135.00	*
1618	S.C.I. soil, waste and vent single socketed pipe 1.80 metres long: 150mm dia	each	1750.00	*





Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
1620	S.C.I. plain bend 75 mm dia	each	210.00	*
1621	S.C.I. plain bend 100 mm dia	each	258.00	*
1622	S.C.I. plain bend 150 mm dia	each	460.00	*
1624	S.C.I. bend with access door 75 mm dia	each	240.00	*
1625	S.C.I. bend with access door 100 mm dia	each	300.00	*
1627	S.C.I. plain single equal junctions 75x75x75 mm dia	each	278.00	*
1628	S.C.I. plain single equal junctions 100x100x100 mm dia	each	360.00	*
1630	S.C.I. single equal junctions 75x75x75 mm dia with access door	each	320.00	*
1631	S.C.I. single equal junctions 100x100x100 mm dia with access door	each	405.00	*
1633	S.C.I. plain double equal junctions 75x75x75x75 mm dia	each	382.00	*
1634	S.C.I. plain double equal junctions 100x100x100x100 mm dia	each	590.00	*
1636	S.C.I. double equal junctions 75x75x75x75 mm dia with access door	each	500.00	*
1637	S.C.I. double equal junctions 100x100x100x100 mm dia with access door	each	715.00	*
1639	Slotted cowl (terminal guard) 75 mm dia	each	191.00	*
1640	Slotted cowl (terminal guard) 100 mm dia	each	239.00	*
1641	G.I. Union 15 mm nominal bore	each	30.00	*
1642	G.I. Union 20 mm nominal bore	each	49.00	*
1643	G.I. Union 25 mm nominal bore	each	108.00	*
1644	G.I. Union 32 mm nominal bore	each	141.00	*
1645	G.I. Union 40 mm nominal bore	each	192.00	*
1646	G.I. Union 50 mm nominal bore	each	249.00	*
1647	G.I. Union 65 mm nominal bore	each	504.00	*
1648	G.I. Union 80 mm nominal bore	each	563.00	*
1649	Polyethylene water storage tank with cover and suitable locking arrangement	pair litre	5.50	*
1653	Sand cast iron S&S plain single unequal junctions : 100x100x75 mm dia	each	494.00	*
1656	Sand cast iron S&S single unequal junctions: 100x100x75 mm dia with access door	each	550.00	*
1659	Sand cast iron S&S plain double unequal junctions : 100x100x75x75 mm dia	each	615.00	*
1662	Sand cast iron S&S double unequal junctions: 100x100x75x75 mm dia with access door	each	700.00	*
1666	Sand cast iron heel rest bend 75 mm dia	each	274.00	*
1667	Sand cast iron heel rest bend 100 mm dia	each	347.00	*
1669	S.C.I. single equal invert branch of required degree 75x75x75 mm dia	each	320.00	*
1670	S.C.I. single equal invert branch of required degree 100x100x100 mm dia	each	410.00	*
1672	S.C.I. double equal invert branch of required degree 75x75x75x75 mm dia	each	410.00	*

Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
1673	S.C.I. double equal invert branch of required degree 100x100x100x100 mm dia	each	550.00	*
1674	S.C.I. single unequal invert branch of required degree 100x100x75 mm dia	each	495.00	*
1677	S.C.I. double unequal invert branch of required degree 100x100x75x75 mm dia	each	570.00	*
1682	S.C.I. door pieces 75 mm dia	each	283.00	*
1683	S.C.I. door pieces 100 mm dia	each	475.00	*
1685	S.C.I. collar 75 mm dia	each	177.00	*
1686	S.C.I. collar 100 mm dia	each	246.00	*
1687	Unplasticised P.V.C. connection pipe with brass union 30 cm long 15 mm bore	each	30.00	*
1688	Unplasticised P.V.C. connection pipe with brass union 30 cm long 20 mm bore	each	35.00	*
1689	Unplasticised P.V.C. connection pipe with brass union 45 cm long 15 mm bore	each	35.00	*
1690	Unplasticised P.V.C. connection pipe with brass union 45 cm long 20 mm bore	each	48.00	*
1693	S.C.I. hand pump	each	670.00	*
1700	R.C.C. pipes NP2 class 100 mm dia	metre	200.00	*
1701	R.C.C. pipes NP2 class 150 mm dia	metre	212.00	*
1702	R.C.C. pipes NP2 class 250 mm dia	metre	350.00	*
1703	R.C.C. pipes NP2 class 300 mm dia	metre	445.00	*
1704	R.C.C. pipes NP2 class 450 mm dia	metre	750.00	*
1705	R.C.C. pipes NP2 class 500 mm dia	metre	925.00	*
1706	R.C.C. pipes NP2 class 600 mm dia	metre	1100.00	*
1707	R.C.C. pipes NP2 class 700 mm dia	metre	1485.00	*
1709	R.C.C. pipes NP2 class 800 mm dia	metre	1800.00	*
1710	R.C.C. pipes NP2 class 900 mm dia	metre	2500.00	*
1711	R.C.C. pipes NP2 class 1000 mm dia	metre	2900.00	*
1712	R.C.C. pipes NP2 class 1100 mm dia	metre	3200.00	*
1713	R.C.C. pipes NP2 class 1200 mm dia	metre	3510.00	*
1714	R.C.C. pipes NP2 class 100 mm dia	each	30.00	*
1715	R.C.C. pipes NP2 class 150 mm dia	each	35.00	*
1716	R.C.C. collars NP2 class 250 mm dia	each	50.00	*
1717	R.C.C. collars NP2 class 300 mm dia	each	55.00	*
1718	R.C.C. collars NP2 class 450 mm dia	each	100.00	*
1719	R.C.C. collars NP2 class 500 mm dia	each	115.00	*
1720	R.C.C. collars NP2 class 600 mm dia	each	140.00	*
1721	R.C.C. collars NP2 class 700 mm dia	each	150.00	*
1723	R.C.C. collars NP2 class 800 mm dia	each	200.00	*
1724	R.C.C. collars NP2 class 900 mm dia	each	235.00	*
1725	R.C.C. collars NP2 class 1000 mm dia	each	280.00	*

*[Handwritten signatures and initials]*



Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
1726	R.C.C. collars NP2 class 1100 mm dia	each	300.00	*
1727	R.C.C. collars NP2 class 1200 mm dia	each	350.00	*
1728	RCC pipe 450 mm dia NP-3 spigot	metre	1496.00	*
1729	RCC pipe 600 mm dia NP-3 spigot	metre	1995.00	*
1730	RCC pipe 900 mm dia NP-3 spigot	metre	3150.00	*
1731	RCC pipe 1000 mm dia NP-3 spigot	metre	3885.00	*
1732	RCC pipe 1200 mm dia NP-3 spigot	metre	5040.00	*
1733	RCC pipe 1800 mm dia NP-3 spigot	metre	9450.00	*
1734	RCC pipe 450 mm dia NP-4 spigot	metre	1733.00	*
1735	RCC pipe 600 mm dia NP-4 spigot	metre	2310.00	*
1736	RCC pipe 900 mm dia NP-4 spigot	metre	4494.00	*
1737	RCC pipe 1000 mm dia NP-4 spigot	metre	5565.00	*
1738	RCC pipe 1200 mm dia NP-4 spigot	metre	6510.00	*
1739	RCC pipe 1800 mm dia NP-4 spigot	metre	13650.00	*
1854	Stoneware pipes grade A (60 cm long) 100 mm dia	each	55.00	*
1855	Stoneware pipes grade A (60 cm long) 150 mm dia	each	100.00	*
1856	Stoneware pipes grade A (60 cm long) 200 mm dia	each	200.00	*
1857	Stoneware pipes grade A (60 cm long) 230 mm dia	each	250.00	*
1858	Stoneware pipes grade A (60 cm long) 250 mm dia	each	320.00	*
1859	Stoneware pipes grade A (60 cm long) 300 mm dia	each	478.00	*
1863	Fire clay kitchen sink: 600x450x250 mm	each	1283.00	*
1871	White vitreous china laboratory sink450x300x150 mm	each	1500.00	*
1872	White vitreous china laboratory sink600x450x200 mm	each	2500.00	*
1875	White plastic seat (solid)with lid C.P.brass hinges and rubber buffers	each	400.00	*
1876	Black plastic seat (solid) with lid C.P.brass hinges and rubber buffers	each	310.00	*
1878	Shower rose C.P.brass for 15 to 20 mm inlet 100 mm dia	each	100.00	*
1879	Shower rose C.P.brass for 15 to 20 mm inlet 150 mm dia	each	125.00	*
1880	Dismantled P or S trap scrap (approx wt 2kg)	kilogram	22.00	*
1881	Spun yarn	kilogram	50.00	*
1882	Strainer brass 40 mm dia 1.5 metre long	each	600.00	*
1885	15 mm C.P.brass tap	each	207.00	*
1889	C.P.brass toilet paper holder of standard size	each	225.00	*
1890	Centrifugally SCI(spun) S & S P or S trap	each	300.00	*
1891	C.I. trap for standard urinal with vent arm with operating and other couplings in C.P.brass: 50 mm dia	each	170.00	*
1893	C.I. trap for standard urinal with vent arm with operating and other couplings in C.P.brass: 80 mm dia	each	225.00	*
1895	C.P.brass trap40 mm dia	each	300.00	*
1896	100 mm S.C.I. trap with vent heel	each	320.00	*

Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
1897	100 mm S.C.I. trap with 100 mm inlet and 100 mm outlet	each	271.00	*
1898	100 mm S.C.I. trap with 100 mm inlet and 75 mm outlet	each	218.00	*
1900	S.W. gully trap P type 100x100 mm	each	100.00	*
1902	S.W. gully trap P type 150x100 mm	each	130.00	*
1904	S.W. gully trap P type 180x150 mm	each	225.00	*
1913	Vitreous china lipped front urinal	each	460.00	*
1915	Vitreous china squatting plate urinal	each	1053.00	*
1922	H.P. or L.P. ball valve with polythene floats: 15 mm dia	each	210.00	*
1923	H.P. or L.P. ball valve with polythene floats: 20 mm dia	each	235.00	*
1924	H.P. or L.P. ball valve with polythene floats: 25 mm dia	each	230.00	*
1926	20 mm dia Gunmetal gate valve with wheel	each	325.00	
1927	Brass full way valve with C.I. wheel (screwed end) 25 mm dia	each	350.00	*
1928	Brass full way valve with C.I. wheel (screwed end) 32 mm dia	each	410.00	*
1929	Brass full way valve with C.I. wheel (screwed end) 40 mm dia	each	480.00	*
1930	Brass full way valve with C.I. wheel (screwed end) 50 mm dia	each	620.00	*
1931	Brass full way valve with C.I. wheel (screwed end) 65 mm dia	each	1080.00	*
1932	Brass full way valve with C.I. wheel (screwed end) 80 mm dia	each	1620.00	*
1933	Gunmetal non-return valve-horizontal (screwed end) 25 mm dia	each	330.00	*
1934	Gunmetal non-return valve-horizontal (screwed end) 32 mm dia	each	450.00	*
1935	Gunmetal non-return valve-horizontal (screwed end) 40 mm dia	each	560.00	*
1936	Gunmetal non-return valve-horizontal (screwed end) 50 mm dia	each	820.00	*
1937	Gunmetal non-return valve-horizontal (screwed end) 65 mm dia	each	1490.00	*
1938	Gunmetal non-return valve-horizontal (screwed end) 80 mm dia	each	2120.00	*
1940	C.I.slucice valve (with caps) class I : 100 mm dia	each	2410.00	*
1941	C.I.slucice valve (with caps) class I : 125 mm dia	each	2600.00	*
1942	C.I.slucice valve (with caps) class I : 150 mm dia	each	3600.00	*
1943	C.I.slucice valve (with caps) class I : 200 mm dia	each	7500.00	*
1944	C.I.slucice valve (with caps) class I : 250 mm dia	each	10980.00	*
1945	C.I.slucice valve (with caps) class I : 300 mm dia	each	15500.00	*
1947	Vitreous china flat back wash basin 630x450 mm	each	725.00	*
1949	Vitreous china angle back wash basin 600x480 mm	each	725.00	*
1950	Vitreous china angle back wash basin 400x400 mm	each	425.00	*
1951	C.P. brass waste 32 mm	each	80.00	*
1952	C.P. brass waste 40 mm	each	95.00	*
1953	Vitreous china Indian type w.c. pan size 580 mm	each	450.00	*
1954	Vitreous china orrisa type w.c. pan size 580 mm	each	1200.00	*
1955	Vitreous china pedestal type water closet	each	1000.00	*
1956	Bolts and nuts 16 mm dia 60 mm long	each	11.00	*
1957	Bolts and nuts 16 mm dia 65 mm long	each	12.00	*
1958	Bolts and nuts 20 mm dia 65 mm long	each	15.00	*

*[Handwritten signatures and initials]*

Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
1959	Bolts and nuts 20 mm dia 70 mm long	each	17.00	*
1960	Bolts and nuts 20 mm dia 75 mm long	each	16.00	*
1961	Bolts and nuts 20 mm dia 80 mm long	each	18.00	*
1962	Bolts and nuts 24 mm dia 85 mm long	each	28.00	*
1963	Bolts and nuts 24 mm dia 90 mm long	each	32.00	*
1964	Bolts and nuts 27 mm dia 100 mm long	each	38.00	*
1965	White vitreous china dual purpose closet (Anglo Indian W.C.) suitable for use as squatting pan or European type water closet as per manufacturer's specifications	each	2500.00	*
1966	Floor mounted white vitreous china double trap syphonic WC with 10 litre cistern and all fittings & fixtures, seat cover etc	each	9500.00	*
1970	Vitreous china foot rests 250x125x25 mm	pair	100.00	*
1980	Fly ash	cum	0.00	*
1984	Brick Tiles (300mm x 150mm x 50mm)	thousand	6001.00	**
1986	Urban Patna	thousand	6261.00	**
A	For ,Bhagalpur,Sahasr, Darabhanga ,Muzaffarpur	thousand	6287.00	**
B	For Purnea	thousand	6574.00	**
C	For other places	thousand	6001.00	**
D	Common burnt clay modular bricks class designation 12.5	1000 nos	6261.00	**
2200	Carriage of Steam coal	tonne	120	*
2201	Carriage of Bricks	1000 nos	0	*
2202	Carriage of Stone aggregate below 40 mm nominal size	cum	0	*
2203	Carriage of Coarse sand	cum	0	*
2204	Carriage of Timber	cum	118.59	*
2205	Carriage of Steel	tonne	92.24	*
2206	Carriage of Stone aggregate 40 mm nominal size and above	cum	0	*
2207	Carriage of Brick tiles	1000 nos	0	*
2208	Carriage of Lime	cum	103.77	*
2209	Carriage of Cement	tonne	92.24	*
2211	Carriage of Tar / Bitumen	tonne	103.77	*
2215	Carriage of Soling stone & masonry stone	cum	122.08	*
2216	Carriage of Stone blocks white & red sand stone & kota stone slab	tonne	92.24	*
2224	Carriage of S.W. pipes 100 mm dia	100 metre	138.36	*
2225	Carriage of S.W. pipes 150 mm dia	100 metre	276.72	*
2226	Carriage of S.W. pipes 200 mm dia	100 metre	461.19	*
2228	Carriage of S.W. pipes 250 mm dia	100 metre	790.62	*
2229	Carriage of S.W. pipes 300 mm dia	100 metre	988.27	*
2241	Carriage of Good earth	cum	0	*
2242	Carriage of Dump manure by mechanical transport upto 5 km lead	cum	112.79	*



Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
2260	Carriage of Brick aggregate	cum	0	*
2261	Carriage of Fine sand	cum	0	*
2262	Carriage of Flyash	cum	0	*
2264	Carriage of Rubbish	cum	103.77	*
2265	Carriage of Moorum	cum	103.77	*
2266	Carriage of Surkhi	cum	103.77	*
2267	Carriage of Stone dust	cum	103.77	*
2268	Carriage of Marble dust and/or marble chips	cum	103.77	*
2271	Carriage of G.I. pipes below 100 mm dia	tonne	92.24	*
2272	Carriage of Stainless Steel pipes below 100 mm dia	tonne	92.24	*
2273	Carriage of A.C.sheet and accessories	tonne	92.24	*
2275	Carriage of R.C.C. pipes 100 mm dia	100 metre	226.82	*
2281	Carriage of R.C.C. pipes 150 mm dia	100 metre	378.03	*
2287	Carriage of R.C.C. pipes 250 mm dia	100 metre	873.84	*
2290	Carriage of R.C.C. pipes 300 mm dia	100 metre	1080.08	*
2299	Carriage of R.C.C. pipes 450 & 500 mm dia	100 metre	2520.19	*
2302	Carriage of G.I. sheet and accessories	tonne	92.24	*
2303	Carriage of R.C.C. pipes 600,700,750 & 800 mm dia	100 metre	3780.28	*
2308	Carriage of Plaster of paris	tonne	92.24	*
2309	Carriage of Cast Iron fittings	tonne	92.24	*
2311	Carriage of Red bajri	cum	103.77	*
2314	Carriage of Barbed wire	tonne	92.24	*
2317	Carriage of Sludge	cum	112.79	*
2319	Carriage of Spun iron S & S pipes 100 mm dia	100 metre	226.82	*
2320	Carriage of Spun iron S & S pipes 125 mm dia	100 metre	302.97	*
2321	Carriage of Spun iron S & S pipes 150 mm dia	100 metre	378.03	*
2322	Carriage of Spun iron S & S pipes 200 mm dia	100 metre	614.93	*
2323	Carriage of Spun iron S & S pipes 250 mm dia	100 metre	873.84	*
2324	Carriage of Spun iron S & S pipes 300 mm dia	100 metre	1080.08	*
2325	Carriage of Spun iron S & S pipes 350 mm dia	100 metre	1512.11	*
2326	Carriage of Spun iron S & S pipes 400 mm dia	100 metre	2061.97	*
2327	Carriage of Spun iron S & S pipes 450 mm dia	100 metre	2520.19	*
2328	Carriage of Spun iron S & S pipes 500 mm dia	100 metre	2520.19	*
2329	Carriage of Spun iron S & S pipes 600mm dia	100 metre	3780.28	*
2330	Carriage of C.I. pipes 500 mm dia	100 metre	2520.19	*
2331	Carriage of R.C.C. pipes 900 mm dia	100 metre	5670.42	*
2332	Carriage of R.C.C. pipes 1000 mm dia	100 metre	7560.57	*
2333	Carriage of R.C.C. pipes 1100 mm dia	100 metre	7560.57	*
2334	Carriage of R.C.C. pipes 1200 mm dia	100 metre	7560.57	*
2335	Carriage of sand	cum	0	*

*[Handwritten signatures and initials]*

Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
2336	Carriage of R.C.C. pipe above 1200 mm dia and upto 1800 mm dia	100 metre	7560.57	*
2341	Carriage of Pig lead	tonne	92.24	*
2342	Carriage of Solvent / Diesel.	quintel	10.38	*
2343	Carriage of Ductile Iron pipes (k7) 100 mm dia	100 metre	226.82	*
2344	Carriage of Cast iron pipes 150 mm dia	100 metre	378.03	*
2345	Carriage of Cast iron pipes 200 mm dia	100 metre	614.93	*
2346	Carriage of Cast iron pipes 250 mm dia	100 metre	873.84	*
2347	Carriage of Cast iron pipes 300 mm dia	100 metre	1080.08	*
2348	Carriage of Cast iron pipes 350 mm dia	100 metre	1512.11	*
2349	Carriage of Cast iron pipes 400 mm dia	100 metre	2061.97	*
2350	Carriage of Cast iron pipes 450 mm dia	100 metre	2520.19	*
2351	Carriage of Cast iron pipes 500 mm dia	100 metre	2520.19	*
2352	Carriage of Cast iron pipes 600 mm dia	100 metre	3780.28	*
2353	Carriage of Cast iron pipes 700 mm dia	100 metre	3780.28	*
2355	Carriage of Cast iron pipes 800 mm dia	100 metre	3780.28	*
2356	Carriage of Cast iron pipes 900 mm dia	100 metre	5670.42	*
2357	Carriage of Cast iron pipes 1000 mm dia	100 metre	7560.57	*
2358	Carriage of Bamboo Mat corrugated sheets and accessories		11500.00	*
2391	Strips-Aluminium fluted 3.15 mm thick and 150 mm wide	metre	278.00	*
2392	Strips-Aluminium fluted 3.15 mm thick and 200 mm wide metre	metre	370.00	*
2393	1 mm thick Stainless Steel Cover plate grade 304	Kg	275.00	*
2394	Coupler 16 mm dia	each	30.00	*
2395	Coupler 20 mm dia	each	39.00	*
2396	Coupler 25 mm dia	each	69.50	*
2397	Coupler 28 mm dia	each	80.00	*
2398	Coupler 32 mm dia	each	110.00	*
2399	Complete Roof Joint of 100 mm	metre	2800.00	*
2400	Complete Roof Joint of 150 mm	metre	3200.00	*
2401	Complete Roof Joint of 200 mm	metre	4000.00	*
2402	Epoxy adhesive	kg	150.00	*
2403	Floor Joint of 100 mm	metre	3100.00	*
2404	Floor Joint of 150 mm	metre	4000.00	*
2405	Floor Joint of 200 mm	metre	5400.00	*
2406	Float glass sheet of nominal thickness 4 mm (weighing not less than 10 kg/sqm)	sqm	300.00	*
2407	Float Glass sheet of nominal thickness 5.5mm (weighing not less than 13.50 kg/sqm)	sqm	500.00	*
2408	Float glass sheet of nominal thickness 8 mm (weight not less than 20.00 kg/sqm)	sqm	610.00	*
2409	Wall Joint of 100 mm	metre	2400.00	*

Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
2410	Wall Joint of 150 mm	metre	2800.00	*
2411	Wall Joint of 200 mm	metre	3400.00	*
2412	Ply wood 5 ply with commercial ply on both faces 6 mm thick	sqm	300.00	*
2413	12 mm commercial ply	sqm	500.00	*
2414	18 mm thick block board with commercial ply veneering on both side	sqm	760.00	*
2415	21mm thick clear toughened Laminated glass for fins with holes	sqm	6000.00	*
2447	Hollock bailies 125 mm diameter	metre	35.00	*
2449	Oxidised mild steel Pull bolt lock of size 85mmx42mm with screws bolts and washers complete	each	60.00	*
2451	Brass Cupboard lock 6 levers (best make of approved quality) 40 mm size	each	55.00	*
2452	Brass Cupboard lock 6 levers (best make of approved quality) 50 mm size	each	85.00	*
2453	Brass Cupboard lock 6 levers (best make of approved quality) 65 mm size	each	90.00	*
2454	Brass Cupboard lock 6 levers (best make of approved quality) 75 mm size	each	105.00	*
2455	Brass Hanging type door stopper 150 mm	each	75.00	*
2456	Hydraulic door closer tubular type aluminium die cast body with necessary accessories and screws complete	each	673.00	*
2459	Anodised Aluminium hanging type door stopper	each	19.00	*
2464	Anodised Aluminium pull bolt lock (locking bolt) of size 85x42 mm with screws, bolts, nuts and washers complete	each	46.00	*
2465	Anodised Aluminium Casement stay 250 mm	each	32.00	*
2466	Hollock wood in scantling	10 cud	350.00	*
2467	Chromium plated Brass Pull bolt lock (locking bolt) of size 85mm x 42mm with screws, bolts, nuts and washers complete	each	165.00	*
2468	Chromium Brass cupboard lock (Nickled) 40mm size	each	60.00	*
2469	Chromium Brass cupboard lock (Nickled) 50mm size	each	70.00	*
2470	Chromium Brass cupboard lock (Nickled) 65mm size	each	95.00	*
2471	Chromium Brass cupboard lock (Nickled) 75mm size	each	120.00	*
2480	PANELS Ply wood 5 ply with teak ply on both faces 9 mm thick	sqm	850.00	*
2481	Ply wood 5 ply with teak ply n one face and commercial ply on another face 9 mm thick	sqm	870.00	*
2483	Ply wood 7 ply with teak ply on one face and commercial ply on another face 9 mm thick	sqm	950.00	*
2484	Pre-laminated with decorative lamination on both side exterior Grade - I MDF Board 12 mm thick confirming to IS:14587	sqm	460.00	*
2485	Pre-laminated with decorative lamination on both side exterior Grade - I MDF Board 18 mm thick confirming to IS:14587	sqm	597.00	*
2486	Pre-laminated with decorative lamination one side and other side balancing lamination exterior Grade - I MDF Board 25 mm thick confirming to IS:14587	sqm	860.00	*
2487	Pre-laminated with decorative lamination one side and other side balancing lamination exterior Grade - I MDF Board 12 mm thick confirming to IS:14587	sqm	430.00	*

*[Handwritten signatures and initials]*



Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
2488	Pre-laminated with decorative lamination one side and other side balancing lamination exterior Grade - I MDF Board 18 mm thick confirming to IS:14587	sqm	565.00	*
2489	PVC edge bending tape 2.00 mm thick	metre	20.00	*
2491	Pre laminated both side solid foam uPVC profile (45x20mm)	metre	130.00	*
2492	Solid foam uPVC sheet 20mm thick pre laminated on both side	sqm	2090.00	*
2493	PVC edge beading	metre	31.00	*
2494	Expandable fastner with plastic sleeve	each	5.00	*
2500	Extra for selected planks of second class deodar wood	10 cud	110.00	*
2504	Kiln seasoning of timber	cum	750.00	*
2505	Hollock wood in planks	10 cud	390.00	*
2506	Carben Steel galvanised dash fastner (min 5 micron) of 10 mm dia double threaded 6.8 grade counter sunk head screw comprising of 10 mm dia polyamide PA 6 grade sleeve. Size 10 mm x 60 mm	10 cudm	260.00	*
2507	Carben Steel galvanised dash fastner (min 5 micron) of 10 mm dia double threaded 6.8 grade counter sunk head screw comprising of 10 mm dia polyamide PA 6 grade sleeve. Size 10 mm x 80 mm	10 nos	300.00	*
2508	Carben Steel galvanised dash fastner (min 5 micron) of 10 mm dia double threaded 6.8 grade counter sunk head screw comprising of 10 mm dia polyamide PA 6 grade sleeve. Size 10 mm x 120mm	10nos	365.00	*
2509	Carben Steel galvanised dash fastner (min 5 micron) of 10 mm dia double threaded 6.8 grade counter sunk head screw comprising of 10 mm dia polyamide PA 6 grade sleeve. Size 10 mm x 140 mm	10 nos	450.00	*
2510	Carben Steel galvanised dash fastner (min 5 micron) of 10 mm dia double threaded 6.8 grade counter sunk head screw comprising of 10 mm dia polyamide PA 6 grade sleeve. Size 10 mm x 160 mm	10 Nos	575.00	*
2602	Designation 100 A Brick	thousand	5001.00	**
2602A	Urban Patna	thousand	6261.00	**
2602B	Darbhanga	thousand	5285.00	**
2602C	Bhagalpur	thousand	5285.00	**
2602D	Munger	thousand	5285.00	**
2602E	Muzaffarpur	thousand	5285.00	**
2602F	Gaya	thousand	5001.00	**
2602G	Patna Rural	thousand	5215.00	**
2602H	Saran	thousand	5001.00	**
2602I	Saharsa	thousand	5429.00	**
2602J	Purnea	thousand	5715.00	**
2603	Designation 100 B Brick	thousand	4572.00	**
2603A	Urban Patna	thousand	5812.00	**
2603B	Darbhanga	thousand	4856.00	**
2603C	Bhagalpur	thousand	4856.00	**

Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
2603D	Munger	thousand	4856.00	**
2603E	Muzaffarpur	thousand	4856.00	**
2603F	Gaya	thousand	4572.00	**
2603G	Patna Rural	thousand	4767.00	**
2603H	Saran	thousand	4572.00	**
2603I	Saharsa	thousand	5001.00	**
2603J	Purnea	thousand	5285.00	**
2604	Weather/structural non sag elastomeric PU sealant (600ml Sausage) for joints in RCC/ Brick/ Stone/ wood/ Ceramic/ Gypsum/ Alluminium work complying to ASTM C920, DIN 18540-F & ISO 11600 incl all taxes	each	532.00	*
2605	Structural sealant - 6 mm x 12 mm	metre	30.00	*
2606	Spacer tape 6.4 mm thick x 6 mm wide	metre	20.00	*
2607	Weather Sealant - Non Staining (600 ml)	each	325.00	*
2608	Weather Sealant - Normal (300 ml)	each	98.00	*
2609	MS Brackets/Aluminium Alloy Brackets	kg	100.00	*
2610	Silicon Gasket in Kg (Above 50 g / m)	kg	465.00	*
2611	EPDM Gasket in Kg (Above 60 g / m)	kg	150.00	*
2612	Anchor Fastner - M10	each	10.00	*
2613	SS Bolt with washer of sizes for structural glazing / ACP Cladding	each	35.00	*
2614	SS Screws of sizes for structural glazing / ACP Cladding	each	3.00	*
2615	Protective Tape	metre	20.00	*
2616	GI flashing - 1.2 mm Thick	kg	59.00	*
2617	6 mm thick High performance glass	sqm	1000.00	*
2618	6 mm thick clear heat strengthened glass	sqm	650.00	*
2619	6 mm thick clear heat strengthened glass	each	128.00	*
2620	ARMS GS HD -TOP HUNG -20"-TYPE P-COUPLE	pair	1350.00	*
2621	Connection Block for vision glass panel	each	35.00	*
2622	Curtain wall striker for vision glass panel	each	85.00	*
2623	Adjustable Fastening Pawl for vision glass panel	each	35.00	*
2624	Corner drive	each	255.00	*
2625	Top wedge Block	each	120.00	*
2626	Glass wool Denisity 48 Kg / m3 with Black Glass Tissue (BGT)	sqm	250.00	*
2627	SS Screws - # 8 x 19	each	6.00	*
2628	Weather Sealant - DC 789	cartridge	120.00	*
2629	Cement Board	sqm	235.00	*
2630	Baker rod	metre	5.00	*
2631	4 mm thick ACP	sqm	1100.00	*
2632	Fire Stop	metre	480.00	*
2634	GI/Aluminium Sheet (0.8 mm thick)	kg	55.00	*





Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
2635	GI Screws of gauge 10, length 25 mm for fixing cement fibre board to C section	each	3.00	*
2636	GI Screws of gauge 10, length 45 mm for fixing cement fibre board to C section	each	3.00	*
2637	Vapour barrier	sqm	175.00	*
2640	Clear.toughned interlayed,non-wired fire resistant glass panes of minimum 11 mm thickness (120 minutes fire rating)	sqm	25000.00	*
2641	G.I U beading of 1.6 mm thick G.I sheet with ceramic tape.	metre	245.00	*
2642	Ceramic tape 5 x20 mm size	metre	410.00	*
2704	Aluminium strip 40 mm wide and 2 mm thick	kilogram	240.00	*
2708	Truf Paver (500 x 500 x 40 mm)	sqm	500.00	*
2709	Ceramic Tiles Pieces for Crazy Flooring	quintal	135.00	*
2710	White Marble Makrana second quality plain veined stone pieces for crazy flooring	quintal	150.00	*
2711	FS800H Grade Flooring Panel ( Size 600 mm x600 mm x32 mm)	each	750.00	*
2711'	Sheets Polyvinyl chloride sheet 1.5 mm thick	sqm	458.48	****
2712'	Sheets Polyvinyl chloride sheet 2.0 mm thick	sqm	635.80	****
2712	Zinc Electroplated Pedestals - 300 mm	each	140.00	*
2713	Zinc Electroplated Pedestals - 450 mm	each	200.00	*
2714	Zinc Electroplated Tube Stinger	each	66.00	*
2715	Machine Screw for Fixing	each	2.00	*
2717	Polyvinyl chloride tiles 1 5mm thick	sqm	522.96	****
2718	Polyvinyl chloride tiles 2.0mm thick	sqm	626.83	****
2723	Adhesive (rubber base)	ilogram	170.14	****
2736	Sheets Rubber tiles plain conforming to IS 809 1.5 mm thick	sqm	757.57	****
2737	Sheets Rubber tiles plain conforming to IS 809 2.0 mm .thick	sqm	875.77	****
2738	Sheets Rubber tiles LP stud conforming to IS 809 2.0 mm thick	sqm	757.57	****
2739	Sheets Rubber tiles LP stud conforming to IS 809 3.0 mm thick	sqm	1296.65	****
2740	Sheets Rubber tiles LP stud conforming to IS 809 4.0 mm thick	sqm	1719.31	****
2741	Sheets Anti static rubber tiles plain/LP stud conforming to BS : 2050 2.00 mm thick	sqm	1404.11	****
2742	Sheets. Rubber tiles plain/LP stud in skirting conforming to IS : 809 2.0mm thick	sqm	551.61	****
2750	8mm thick granite stone tiles (mirror polished of all shades)	sqm	700.00	*
2751	8mm thick marble tiles (polished) Raj Nagar	sqm	400.00	*
2901	Stone Aggregate (Single size) : 100 mm nominal size	cum	448.91	**
2902	Stone Aggregate (Single size) : 80 mm nominal size	cum	448.91	**
2903	Stone chippings/ screenings 4.75 mm nominal size	cum	251.35	**
2904	Stone chippings/ screenings 150 micron nominal size	cum	236.71	**
2908	Over burnt (Jhama) Brick Aggregate: 120 mm to 40 mm size	cum	1222.00	**
2909	Over burnt (Jhama) Brick Aggregate: 63 mm to 40 mm size	cum	1222.00	**
2910	Stone chippings/ screenings 12.5/ 13.2 mm nominal size	cum	697.55	**
2911	Stone chips/streining 10/11.2 mm nominal size	cum	668.80	**

Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
2914	Solvent	kilogram	25.00	*
2916	Paving Asphalt VG -10 of approved quality	tonne	24000.00	*
3002	Sheets Polyvinyl chloride sheet 400 micron thick	sqm	40.00	*
3004	Stoneware spouts 100mm dia 60 em long	each	40.00	*
3050	<b>GC Sheet</b>			
3050A	Galvanised steel corrugated sheets 0.63 mm thick	quintal	4,949.15	**
3050B	Galvanised steel corrugated sheets 0.50 mm thick	quintal	5,101.70	**
3050C	Gah-anised steel corrugated sheets 0.40 mm thick	quintal	6,588.81	**
3050D	Galvanised steel corrugated sheets 0.35 mm thick	quintal	6,855.59	**
3050E	Galvanised steel corrugated sheets 0.80 mm thick	quintal	6,311.44	**
3080	Gunmetal non-return valve-vertical (screwed end) 25 mm dia	each	350.00	*
3084	Gunmetal non-return valve-vertical (screwed end) 32 mm dia	each	500.00	*
3088	Gunmetal non-return valve-vertical (screwed end) 40 mm dia	each	700.00	*
3092	Gunmetal non-return valve-vertical (screwed end) 50 mm dia	each	900.00	*
3096	Gunmetal non-return valve-vertical (screwed end) 65 mm dia	each	1500.00	*
3213	Vitreous china Surgeon type wash basin of size 660x460 mm	each	1000.00	*
3214	Aluminium sheet 24 gauge	sqm	313.42	****
3228	600x120 mm glass shelf with anodised aluminium angle frame, C.P. brass brackets and guard rail of standard size	each	250.00	*
3229	Vitreous china flat back wash basin 550x400 mm	each	545.00	*
3300	Gunmetal non-return valve-vertical (screwed end) 80 mm dia	each	2500.00	*
3311	C.I.slucice valve (with caps) class II : 100 mm dia	each	2700.00	*
3314	C.I.slucice valve (with caps) class II : 125 mm dia	each	3200.00	*
3317	C.I.slucice valve (with caps) class II : 150 mm dia	each	4000.00	*
3320	C.I.slucice valve (with caps) class II : 200 mm dia	each	8900.00	*
3321	C.I.slucice valve (with caps) class II : 250 mm dia	each	14500.00	*
3326	C.I.slucice valve (with caps) class II : 300 mm dia	each	18200.00	*
3327	15 mm Battery Based Sensor Pillar Cock	each	5800.00	*
3617	CP Brass Union 40 mm dia	each	200.00	*
3620	C.C.I.(spun) socketed soil, waste and vent pipe 1.80 metres long :100 mm dia	each	1200.00	*
3621	C.C.I. (spun) socketed soil, waste and vent pipe 1.80 metres long :75 mm dia	each	1100.00	*
3624	S.C.I. S&S bends with access door 100 mm dia	each	300.00	*
3625	S.C.I. S&S bends with access door 75 mm dia	each	250.00	*
3628	S.C.I. S&S bend 100 mm dia	each	265.00	*
3629	S.C.I. S&S bend 75 mm dia	each	195.00	*
3634	S.C.I. S&S heel rest sanitary bend 100 mm dia	each	296.00	*
3635	S.C.I. S&S heel rest sanitary bend 75 mm dia	each	250.00	*
3640	S.C.I. S&S single equal junctions100x100x100 mm	each	472.00	*
3641	S.C.I. S&S single equal junctions 75x75x75 mm	each	330.00	*

*[Handwritten signatures]* 36 *[Handwritten signatures]*

Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
3644	S.C.I. S&S single equal junctions with access door 100x100x100 mm	each	495.00	*
3645	S.C.I. S&S single equal junctions with access door 75x75x75 mm	each	373.00	*
3650	S.C.I. S&S double equal junctions 100x100x100x100 mm	each	620.00	*
3651	S.C.I. S&S double equal junctions 75x75x75x75 mm	each	462.00	*
3654	S.C.I. S&S double equal junctions with access door 100x100x100x100 mm	each	615.00	*
3655	S.C.I. S&S double equal junctions with access door 75x75x75x75 mm	each	480.00	*
3660	S.C.I. S&S single unequal junctions 100x100x75 mm	each	570.00	*
3664	S.C.I. S&S single unequal junctions with access door 100x100x75 mm	each	640.00	*
3670	S.C.I. S&S double unequal junctions 100x100x75x75 mm	each	800.00	*
3674	S.C.I. S&S double unequal junctions with access door 100x100x75x75 mm	each	850.00	*
3681	S.C.I. S&S single equal invert branch of required degree 100x100x75x75 mm dia	each	425.00	*
3682	S.C.I. S&S single equal invert branch of required degree 75x75x75 mm dia	each	323.00	*
3685	S.C.I. S&S double equal invert branch of required degree 100x100x100x100 mm dia	each	530.00	*
3686	S.C.I. S&S double equal invert branch of required degree 75x75x75x75 mm dia	each	425.00	*
3690	S.C.I. S&S single unequal invert branch of required degree 100x100x75 mm dia	each	545.00	*
3695	S.C.I. S&S double unequal invert branch of required degree 100x100x75x75 mm dia	each	725.00	*
3699	S.C.I. S&S, 75 mm offset for 75 mm dia pipe	each	225.00	*
3707	S.C.I. S&S, 150 mm offset for 75 mm dia pipe	each	285.00	*
3708	S.C.I. S&S, 150 mm offset for 100 mm dia pipe	each	390.00	*
3712	S.C.I. S&S, 114 mm offset for 75 mm dia pipe	each	300.00	*
3713	S.C.I. S&S, 114 mm offset for 100 mm dia pipe	each	383.00	*
3716	S.C.I. S&S, 152 mm offset for 75 mm dia pipe	each	358.00	*
3717	S.C.I. S&S, 152 mm offset for 100 mm dia pipe	each	455.00	*
3728	S.C.I. S&S, door pieces 100 mm dia	each	400.00	*
3729	S.C.I. S&S, door pieces 75 mm dia	each	295.00	*
3733	S.C.I. S&S, Slotted Cowl (Terminal Guard) 100 mm	each	264.00	*
3734	S.C.I. S&S, Slotted Cowl (Terminal Guard) 75 mm	each	210.00	*
3738	S.C.I. S&S, Slotted collars 100 mm	each	279.00	*
3739	S.C.I. S&S, Slotted collars 75mm	each	170.00	*
3746	S.C.I. S&S, 75 mm offset for 75 mm dia pipe	each	218.00	*
3747	S.C.I. S&S, 75 mm offset for 100 mm dia pipe	each	363.00	*
3749	Vitreous china toilet paper holder of standard size	each	100.00	*
3860	560 mm dia cover with frame (Heavy duty)	each	9000.00	*

Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
3861	561 mm dia cover without frame (Heavy duty)	each	5000.00	*
3991	Galvanized iron (1.6 ± 0.2 mm) thick reinforcement for small series casement window/door frame, sash, mullion & small series sliding window frame	metre	66.00	*
3992	Galvanized iron (1.6 ± 0.2 mm) thick reinforcement for big series casement window/door frame, sash, mullion, big & small series sliding window frame	metre	71.00	*
3993	Galvanized iron (1.6 ± 0.2 mm) thick reinforcement for big series casement door sash	metre	97.00	*
3994	Galvanized iron (1.6 ± 0.2 mm) thick reinforcement for big series sliding window / door sash	metre	86.00	*
3995	G.I fasteners 100 x 8 mm	each	14.00	*
4001	Stainless steel (Grade-304)hollow section round/square tubes	kg	220.00	*
4002	Stainless steel bolts/square bar and plates	kg	115.00	*
4006	Pressed steel door frames (mild steel sheet 1.25mm) profile 'B'	metre	190.00	*
4007	Pressed steel door frames (mild steel sheet 1.25mm) profile 'C'	metre	210.00	*
4008	Pressed steel door frames (mild steel sheet 1.25mm) profile 'E'	metre	240.00	*
4009	Mild steel tubes, hot finished welded type	kilogram	57.00	*
4010	Mild steel tubes, hot finished seamless type	kilogram	67.00	*
4011	Mild steel tubes, electric resistant or induction butt welded	kilogram	47.00	*
4012	Circular C.I. Box for ceiling fan internal dia 140 mm, 73 mm height,toplid of 1.5mm thick MS sheet	each	52.00	*
4013	Pulleys 40 mm dia	each	30.00	*
4014	Steel doors and windows Ready made steel door with necessary hinges, lugs and glazing clips excluding other fittings and their fixing	sqm	1936.98	****
4201	Aluminium primer	litre	110.00	*
4202	Primers Red Oxide Zinc Chromate primer	litre	110.00	*
4203	Copper Acetate	kilogram	285.00	*
4204	Hydrochloric Acid	kilogram	33.00	*
4205	Copper Chloride	kilogram	270.00	*
4206	Copper Nitrate	kilogram	210.00	*
4207	Ammonium Chloride	kilogram	20.00	*
5001	Oil / Fuel Mobil oil	litre	315.00	*
5050	SS pipe 304 grades with press fit technology as per JIS 3448 Standard 48.60 mm outer dia	metre	650.00	*
5743	Coloured inter locking C.C. paver Block	sqm	480.00	*
6001	White marble slab Makrana second quality plain veined 18mm thick	sqm	1430.00	*
6007	Pink marble slab plain 18mm thick	sqm	645.00	*
6010	Udaypur green marble slab plain 18 mm thick	sqm	620.00	*
6019	Black zebra marble slab piain 18 mm thick	sqm	900.00	*

*[Handwritten signatures and initials]*

Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
6501	Local Sand (Fine)	cum	141.85	**
7001	Brass 100 mm mortice latch & lock with 6 levers with out pair of handles	each	210.00	*
7003	Pair of Anodised Aluminium lever handles for 100 mm mortice latch and lock	each	215.00	*
7004	Vitreous china flat back wash basin 450x300 mm	each	310.00	*
7005	Vitreous china 10 litres low level cistern without fittings	each	715.00	*
7006	Vitreous china 10 litres low level cistern with fittings	each	1240.00	*
7007	Cement Fly Ash Bricks as per IS 12894(2002) & IS 3425(I to IV) including carriage of sand	per 1000	5008.00	*****
7008	F.P.S.(non modular) clay fly ash bricks class designation 7.5	1,000nos	4800.00	*
7009	12.5 mm thick tapered edge gypsum plain borad	sqm	155.00	*
7010	Galvanised Steel ceiling section (size 80x26x0.50 mm)	metre	46.00	*
7011	Galvanised Steel perimetre Channel (Size 20x27x30x0.50 mm)	metre	22.00	*
7012	Galvanised Steel intermediate Channel (Size 15x45x15x0.90 mm)	metre	38.00	*
7013	Galvanised Steel angle hanger (Celling angle) (Size 25x10x0.50 mm)	metre	12.00	*
7014	Galvanised Steel connecting clips (2.64 mm dia and 230 mm long GI wire)	each	4.00	*
7015	Galvanised Steel soffit cleat (Size 27x37x25x0.60 mm)	each	3.00	*
7016	Joint filler	kilogram	26.00	*
7017	Joint finisher	kilogram	23.00	*
7018	Joint tape roll	roll	100.00	*
7019	Dash fastner	each	14.00	*
7020	All drive screws(for gypsum board )	100 Nos.	58.00	*
7021	Primer (for gypsum uoard )	litre	85.00	*
7022	Chloropyriphos 20 % E.C. Lindane 20% E.C.	litre	150.00	*
7023	Chromium plated orackets (Curtain rod)	each	7.00	*
7024	Acid proof cement	tonne	7800.00	*
7025	Self tapping pan head nickel coated mild steel screws of size 13 x 3.2 mm	1000 nos.	525.00	*
7026	Fibre joint tape 50 mm wide (90 metre) roll	each roll	165.00	*
7027	M.S. Butt hinges 125x90x4 mm	ten	105.00	*
7028	12.5 mm thick Fully Perforated gypsum board	sqm	410.00	*
7029	Galvanised wire mesh of average width of aperture 1.4 mm and romin31 dia. of wire 0.63 mm	sqm	250.00	*
7030	12.5 mm thick tapered edge gypsum fire resistant board	sqm	237.33	****
7031	12.5 mm thick tapered edge gypsum moisture resistant board	sqm	275.00	**
7032	Frosted glass sheet of nominal thickness 4mm (weighing not less than 10 kg/sqm)	sqm	460.00	*
7033	Nickle plated M.S. pipe 25 mm dia.	metre	76.00	*
7034	Nickle plated M.S. pipe 20 mm dia.	metre	72.00	*
7035	Nickle plated M.S. Brackets for curtain rod 20 mm	each	7.00	*

Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
7036	Nickle plated M.S. Brackets for curtain rod 25 mm	each	8.00	*
7040	Oxidised mild steel screws 35 mm	100 Nos.	48.00	*
7042	Mild steel conduit pipe (heavy type) ISI marked-20 mm dia.	metre	42.00	*
7043	Mild steel conduit pipe (heavy type) ISI marked-25 mm dia.	metre	54.00	*
7044	Rolling shutters of 80xO.90mm laths	sqm	1300.00	*
7045	Rolling shutters of 80x1.2mm laths	sqm	1375.00	*
7046	Top cover of Rolling shutters 0.90mm thick	metre	450.00	*
7047	Top cover of Rolling shutters 1.20mm thick	metre	560.00	*
7048	Rawl plug 50 mm (designation 10 no.)	each	25.00	*
7049	Teak wood lipping of size 25x3mm in pelmets	metre	14.00	*
7050	PU Primer	sqm	60.00	*
7051	40 mm (average) PU spray having 40-45 kg/m <sup>3</sup> density	sqm	400.00	*
7052	GI wire netting 3/4" x 24 G	sqm	26.00	*
7053	400 G polythene sheet	sqm	14.00	*
7055	Flat pressed 3 layer and graded particle board (medium density) Grade 1 conforming to IS : 3087 - 18 mm thick	sqm	480.00	*
7056	Aluminium Tee channel (heavy duty) with rollers and stop end	metre	100.00	*
7059	Aluminium hanging floor door stopper with twin rubber & stopper	each	40.00	*
7060	Hydraulic door closer tubular type Aluminium extruded section body - Gazel	each	560.00	*
7063	Oxidised M.S. casement stay (straight peg type) 300 mm not less than 0.33 kg.	each	35.00	*
7064	Oxidised M.S. casement stay (straight peg type) 250 mm not less than 0.28 kg.	each	30.00	*
7065	Oxidised M.S. casement stay (straight peg type) 200 mm not less than 0.24 kg.	each	25.00	*
	Extra for providing grided rolling shutters with 8mm dia. M.S.	sqm	500.00	*
7068	Chequerred precast cement concrete tiles 22mm thick using marble chips of size 6mm Light shade using white cement	sqm	400.00	*
7071	White marble Raj Nagar plain 18 mm thick upto 0.50 sqm area	sqm	600.00	*
7072	Wall mounted water closet	each	6000.00	*
7073	Adjustable Vetricious China Cistern with fittings	each	1900.00	*
7074	White Vetricious China Waterless Urinal of size 600x330x315	each	9650.00	*
7075	Cistern with fittings for Waterless Urinal	each	2290.00	*
7076	Battery based infrared sensor operated White vitreous urinalof appox size 610x390x370	each	4500.00	*
7077	Acid and alkali resistant tiles size 300x300mm 10mm thick	ten	520.00	*
7087	S.C.I. Tee 150 mm	each	570.00	*
7090	Expanded polystyrene type N - Normal	sqm	125.00	*
7091	Expanded polystyrene type SE	sqm	150.00	*
7095	Stainless steel kitchen sink - with drain board bowl depth 250 mm	each	2480.00	*
7096	Stainless steel kitchen sink - with drain board 510 x 1040 mm bowl depth 225 mm.	each	3000.00	*

*(Handwritten signatures and initials)*



Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
7097	Stainless steel kitchen sink - with drain board 510 x 1040 mm bowl depth 200 mm.	each	2800.00	*
7098	Stainless steel kitchen sink - with drain board 510 x 1040 mm bowl depth 178 mm.	each	2500.00	*
7101	Stainless steel kitchen sink - without drain board 610x510 mm bowl depth 200 mm	each	1800.00	*
7102	Stainless steel kitchen sink - without drain board 610x460 mm bowl depth 200 mm	each	1200.00	*
7103	Stainless steel kitchen sink - without drain board 470x420 mm bowl depth 178 mm	each	1050.00	*
7104	Coloured Orissa pattern W.C. pan 580x440 mm	each	1830.00	*
7105	Coloured Pedestal type W.C. pan 580x440 mm (European type)	each	860.00	*
7106	Coloured Vitreous china 10 lit. low level cistern	each	1050.00	*
7107	Coloured (other than black) solid P.V.C. seat in European W.C. pan	each	390.00	*
7112	Circular shape 450 mm dia Mirror with Plastic moulded frame	each	430.00	*
7113	Rectangular shape 453x357 mm Mirror with Plastic moulded frame	each	290.00	*
7114	Oval shape 450x350 mm (outer dimensions) Mirror with Plastic moulded frame	each	340.00	*
7115	Rectangular shape 1500x450 mm Mirror with Plastic moulded frame	each	670.00	*
7116	Hard board 6 mm thick	each	115.00	*
7117	Semi Rigid PVC waste pipe for sink and wash basin 32 mm dia with length not less than 700 mm i/c PVC waste fittings	each	25.00	*
7118	Semi Rigid PVC waste pipe for sink and wash basin 40 mm dia with length not less than 700 mm i/c PVC waste fittings	each	33.00	*
7119	Flexible (coil shaped) PVC waste pipe for sink and wash basin 32 mm dia with length not less than 700 mm i/c PVC waste fittings	each	35.00	*
7120	Flexible (coil shaped) PVC waste pipe for sink and wash basin 40 mm dia with length not less than 700 mm i/c PVC waste fittings	each	35.00	*
7121	Bottle Trap	each	620.00	*
7122	CP Brass Single lever telephonic wall mixer of approved make	each	4500.00	*
7123	Coloured High density polyethylene/ poly propylene 10 lit. (full flush) capacity controlled low level flushing cistern with fittings	each	550.00	*
7126	White Vitreous china 10 lit. (full flush) capacity controlled low level flushing cistern with all fittings	each	700.00	*
7127	Coloured Vitreous china 10 lit. (full flush) capacity controlled low level flushing cistern with all fittings	each	1150.00	*
7128	S.W. intercepting trap 100 mm dia	each	185.00	*
7129	S.W. intercepting trap 150 mm dia	each	240.00	*
7130	Rectangular shape 600x 450 mm precast R.C.C. manhole cover with frame - L.D. - 25	each	675.00	*
7131	Square shape 450x450 mm precast R.C.C. manhole cover with frame - L.D. - 25	each	575.00	*
7132	Circular shape 450 mm dia precast R.C.C. manhole cover with frame - L.D. - 25	each	575.00	*
7133	Rectangular shape 500x500 mm precast R.C.C. manhole cover with frame - M.D. - 10	each	670.00	*

Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
7134	Circular shape 500 mm dia precast R.C.C. manhole cover with frame - M.D. - 10	each	575.00	*
7135	Circular shape 560 mm dia precast R.C.C. manhole cover with frame - H.D. - 20	each	880.00	*
7136	Circular shape 560 mm dia precast R.C.C. manhole cover with frame - H.D. - 35	each	1170.00	*
7137	Factory made 35 mm thick shutters with laminated veneer lumber styles rails as per TADS I S : 1995 and panels of 12 mm thick plain Type I, medium density flat pressed three layer, graded particle board (FPT-I) as per I S:3087-1985 bonded with BWP type synthetic resin adhesive, as per IS : 848-1974	sqm	1620.00	*
7139	Factory made 35 mm thick shutters with laminated veneer lumber styles rails as per TADS IS : 1995 and panels of 12 mm thick both sides prelaminated Type -1, medium density flat pressed three layer, graded particle board (FPT-I) IS: 3087 marked bonded with BWP type synthetic resin adhesive as per IS : 848-1974 .	sqm	1720.00	*
7143	12 mm thick one side prelaminated Type - I, other side balancing lamination, medium density, flat pressed three layer, graded particle board (FPT-I) as per IS : 3087, bonded with BWP type synthetic resin as per IS : 848-1974 35 mm thick shutters	sqm	1910.00	*
7151	Sheet glass using 10 kg / sqm glass panes 30 mm thick shutters	sqm	1620.00	*
7154	Using galvanised wire gauge with average width of aperture 1.4 mm on both direction with wire of dia. 0.63 mm 35 mm thick shutters	sqm	1620.00	*
7155	Using galvanised wire gauge with average width of aperture 1.4 mm on both direction with wire of dia. 0.63 mm 30 mm thick shutters	sqm	1430.00	*
7157	Using galvanised wire gauge with average width of aperture 1.4 mm on both direction with wire of dia. 0.63 mm Laminated veneer lumber conforming to TAOS 15 : 1995 manufactured in factory in frames of door, windows	10 cudm	700.00	*
7178	Chemical ASTM C-type I	kg	105.00	*
7181	C.I. pile shoe	kilogram	48.00	*
7182	M.S. clamps for pile shoe	kilogram	43.00	*
7183	Bentonite	tonne	2960.00	*
7184	Oxidised M.S. safety chain (weighing not less than 450 gms) for each door	each	57.00	*
7187	C.I. grating 150 mm dia. (Weighing not less than 440 gm)	each	27.00	*
7188	U-PVC pipes (working pressure 4 kg/cm <sup>2</sup> ) Single socketed pipe 75 mm dia	metre	70.00	*
7189	U-PVC pipes (working pressure 4 kg/cm <sup>2</sup> ) Single socketed pipe 110 mm dia.	metre	130.00	*
7190	U-PVC pipes (working pressure 4 kg/cm <sup>2</sup> ) Rubber (Seal) Ring 75 mm dia .	metre	8.00	*
7191	U-PVC pipes (working pressure 4 kg/cm <sup>2</sup> ) Rubber (Seal ) Ring 110 mm dia .	metre	11.00	*
7192	UPVC coupler for UPVC drainage pipes 75 mm	each	18.00	*
7193	UPVC coupler for UPVC drainage pipes 110 mm	each	39.00	*
7194	UPVC pushfit coupler (single) 75 mm thick	each	18.00	*

*[Handwritten signatures and initials]*



Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
7195	UPVC pushfit coupler (single) 110 mm thick	each	32.00	*
7196	UPVC single equal Tee ( with door) 75x75x75 mm	each	46.00	*
7197	UPVC single equal Tee (with door) 110x110x110 mm	each	81.00	*
7198	UPVC single equal Tee ( with door) 75x75x75 mm	each	59.00	*
7199	UPVC single equal Tee ( with door) 110x110x110 mm	ecch	92.00	*
7208	UPVC bend 87.50 75 mm bend	each	35.00	*
7209	UPVC bend 87.50 110 mm bend	each	59.00	*
7212	UPVC plain shoe 75 mm	each	27.00	*
7213	UPVC plain shoe 110 mm	each	47.00	*
7214	UPVC pipe clip 75 mm bend	each	15.00	*
7215	UPVC pipe clip 110 mm bend	each	14.00	*
7231	Resin Bonded Glass wool 16 kg/m3, 50mm thick	sqm	100.00	*
7232	Resin Bonded Glass wool 24 kg/m3, 50mm thick	sqm	143.00	*
7233	Bitumen felt fibre base (vegetable or animal) Fibre glass tissue reinforced bitumen Felt Type 2 grade I conforming to IS : 7193	sqm	82.00	*
7236	Precast chequered cement tiles 22mm thick dark shade using ordinary cement	sqm	225.00	*
7237	Precast chequered cement tiles 22mm thick medium shade using 50% white cement, 50% ordinary cement	sqm	335.00	*
7238	High Albedo paint	kg	230.00	*
7239	Epoxy paint	litre	230.00	*
7240	Fire retardant paint	litre	260.00	*
7241	Melamine polish	litre	280.00	*
7244	Table rubbed polished stone 18mm thick (75x50 cm) Agaria marble stone - 18 mm thick	sqm	1620.00	*
7245	Table rubbed polished stone 18mm thick (75x50 cm) Granite stone 18 mm thick	sqm	1620.00	*
7246	Verticle load testing (INITIAL) of piles in accordance with IS : 2911 (part-IV) including installation of loading platform and prepration of pile head or construction of test cap and dismantling of test cap after test etc. complete as per specification & Upto 50 tonne capacity pile	per test	40000.00	*
7247	Verticle load testing (INITIAL) of piles in accordance with IS : 2911 (part-IV) including installation of loading platform and prepration of pile head or construction of test cap and dismantling of test cap after test etc. complete as per specification & Above 50 tonne & upto 100 tonne capacity pile:	per test	45000.00	*
7248	Verticle load testing (INITIAL) of piles in accordance with IS : 2911 (part-IV) including installation of loading platform and prepration of pile head or construction of test cap and dismantling of test cap after test etc. complete as per specification & Group of two more piles Upto 50 tonne capacity piles.	per test	50000.00	*
7249	Cyclic vertical load testing of piles in accordance with IS: 2911 IV part including preparation of pile head etc. for Single piles Upto 50 tonne capacity tonne	per test	15000.00	*

Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
7250	Cyclic vertical load testing of piles in accordance with IS: 2911 IV part including preparation of pile head etc. for Single piles Above 50 tonne capacity pile and upto 100 tonne capacity piles	per test	23000.00	*
7251	Cyclic vertical load testing of piles in accordance with IS : 2911 Part- IV) including preparation of pile head etc. for Group of two piles up to 50 tonne capacity each	per test	29500.00	*
7252	Lateral load testing of single pile in accordance with IS: 2911 Part - IV for determining safe allowable lateral load on pile. Upto 50 tonne capacity pile	per test	15000.00	*
7253	Lateral load testing of single pile in accordance with IS: 2911 Part - IV for determining safe allowable lateral load on pile. Above 50 tonne capacity pile and upto 100 tonne capacity piles	per test	23600.00	*
7254	Hard crete compound	litre	38.00	*
7255	Road marking paint (spirit based)	litre	115.00	*
7256	Superior quality road marking paint	litre	135.00	*
7257	C.P. Brass bibcock 15 mm	each	290.00	*
7258	C.P. Brass long nose bibcock 15 mm	each	430.00	*
7259	C.P. Brass long body bibcock 15 mm	each	385.00	*
7260	C.P. Brass stop cock (conceaed) 15 mm	each	430.00	*
7261	C.P. Brass angle valve 15 mm	each	375.00	*
7266	Pressed clay tiles	1000 nos.	8600.00	*
7267	Plain ceiling tiles (BWP type phenol formal dehyde synthetic resin bonded) (600x600x12mm)	each	115.00	*
7268	Semi perforated ceiling tiles (600x600x12mm)	each	107.00	*
7269	25 mm thick particle board	sqm	460.00	*
7270	30mm thick pre laminated flush door shutter	sqm	810.00	*
7271	Ilnd class teak wood lipping 25mm wide x 12mm thick	metre	29.00	*
7272	25 mm thick melamine faced prelaminated three layer particle board	sqm	900.00	*
7273	Resin Bonded Rockwool 48 kg/m3	sqm	120.00	*
7274	Glass wool 50 mm thick	sqm	238.00	
7280	Waste plastic additive	tonne	40000.00	*
7281	Chemical ASTM C-type II	kg	165.00	*
7295	Granite of any colour, 18 mm thick (slab area upto 0.50 sqm)	sqm	1600.00	*
7296	Granite of any colour, 30 mm thick (slab area upto 0.50 sqm)	sqm	1800.00	*
7297	Granite of any colour, 18 mm thick (slab area above 0.50sqm)	sqm	1800.00	*
7306	Aluminium T or L sections	kilogram	190.00	*
7307	For flush door shutters Extra for providing teak veneering on one side instead of commercial veneering	sqm	330.00	*
7309	Paving Asphalt of grade VG-30 of approved quality	tonne	39570.00	*
7312	Expandable fastner with plastic sleeve and M.S. screws. 25 mm long	each	10.00	*
7313	Expandable fastner with plastic sleeve and M.S. screws. 32 long	mm each	10.00	*
7314	Expandable fastner with plastic sleeve and M.S. screws. 40 long	mm each	13.00	*
7315	Expandable fastner with plastic sleeve and M.S. screws. 50 long	mm each	14.00	*

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Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
7318	Plasticizer/super plasticizer	kilogram	36.00	*
7319	Wall form panel 1250X500mm	each	860.00	*
7320	Tie bolt 12mm dia 100 mm length	each	38.00	*
7321	Tie bolt 12mm dia 150 mm length	each	48.00	*
7322	Tie bolt 20mm dia 150 mm length	each	57.00	*
7323	Tie bolt 20mm dia 225 mm length	each	67.00	*
7324	Spring coil 12mm	each	15.00	*
7325	Plastic cone 12mm dia	each	17.00	*
7326	Corner angle 45x45x5mm 1.50 m long	each	240.00	*
7327	100mm channel shoulder 2.5 m long	each	910.00	*
7328	Double clip (bridge clip)	each	76.00	*
7329	Single clip	each	59.00	*
7330	M.S. tube 40mm dia	metre	215.00	*
7331	Wall form panel 1250x450mm	each	860.00	*
7332	Corner angle 45x45x5 mm 2.50 m long	each	255.00	*
7333	Column clamp 450x1070 mm	each	965.00	*
7334	Prop 2 m ( 2-3.5m)	each	635.00	*
7335	Binding wire	kilogram	46.00	*
7336	Lock Bar (E 250) - 10 thick MS Plate	kg	76.00	
7338	Gun metal cramp	kilogram	315.00	*
7339	Stainless steel cramp	kilogram	290.00	*
7340	Stainless steel pin.	kg	182.00	*
7342	Adjustable span ESQ+SI (2.35-3.40)	each	1480.00	*
7343	Adjustable telescopic prop 3 m (2.00-3.75 m)	each	955.00	*
7344	Beam clamp 300-380mm (450-1070mm)	each set	355.00	*
7345	Prop 4m	each	910.00	*
7346	Double coupler	each	46.00	*
7347	Cadmium plated full threaded steel screws (30x4 mm dia.)	100 Nos.	27.00	*
7348	Aluminium Washer 2 mm thick 15 mm dia	100 Nos.	10.00	*
7349	12mm M.S. 'U' beading	metre	14.00	*
7350	M S tower bolt bright finished / black stone enamelled 250x10 mm .	each	31.69	****
7353	M S tower bolt bright finished / black stone enamelled 100x10 mm	each	22.04	****
7354	Plastic encapsulated M.S. foot rest 30x20x15 cm	each	110.00	*
7358	Flushing Cistern P.V.C. 10 lts capacity ( low level ) (White) ( with fittings, accessories and flush pipe)	each	575.00	*
7359	P.V.C. automatic flushing cistern 5 lts capacity	each	470.00	*
7361	P.V.C. automatic flushing cistern 10 lts capacity	each	510.00	*
7363	15 mm C.P. brass tap with elbow operation lever	each	430.00	*
7364	White glazed fire clay draining board 600x450x25 mm	each	525.00	*

Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
7366	Glass reinforced Gypsum ( GRG) board 12.5 mm thick	sqm	240.00	*
7367	Galvanised M.S. sheet 0.50mm thick pressed channel section of size 50x32mm	metre	57.00	*
7368	GFRG Panel of 124 mm thick	sqm	847.46	*
7369	Galvanised M.S. sheet 0.50mm thick pressed stud 48x34x36mm	metre	71.00	*
7375	G.I. flush pipe and C.P. brass spreader including C.P. connecting pipe Single lipped urinal	each	445.00	*
7376	G.I. flush pipe and C.P. brass spreader including C.P. connecting pipe Range of two lipped urinals	each	765.00	*
7377	G.I. flush pipe and C.P. brass spreader including C.P. connecting pipe Range of three lipped urinals	each	1050.00	*
7378	G.I. flush pipe and C.P. brass spreader including C.P. connecting pipe Range of four lipped urinals	each	1430.00	*
7379	White vitreous china clay half stall urinal flat back 580x380x350 mm or angle back 450x375x350 mm with waste fittings as per IS : 2556	each	865.00	*
7380	Precast R.C.C. grating with frame 500x450 mm horizontal grating	each	620.00	*
7381	Precast R.C.C. grating with frame 450x100 mm vertical grating	each	235.00	*
7382	Bitumen emulsion rapid setting (R.S.) confirming to IS : 8887	each	19000.00	*
7383	12 mm dia 50 mm long wedge type expanded zinc alloy dash fastener	each	7.00	*
7385	3 mm thick translucent white acrylic plastic sheet	sqm	550.00	*
7386	12 thick particle board ceiling tile	sqm	110.00	*
7387	Spigot for standard jointing	kilogram	43.00	*
7388	Dash hold fastener 12.5 mm dia, 40 mm long with 6 mm dia bolt	each	11.00	*
7389	Anodising 15 microns on aluminium sections	kilogram	38.00	*
7390	Neoprene / EPDM rubber gasket	meter	19.00	*
7391	Anodising 25 microns on aluminium sections	kg	48.00	*
7392	Power coating 50 microns on aluminium sections	kg	61.00	*
7393	Polyster powder coating 50 microns on aluminium sections	kg	67.00	*
7394	Double action hydraulic floor spring with stainless steel cover plate	each	1500.00	*
7395	6 mm dia. M.S. adjustable hangers including clips (upto 1.2 m length)	each	20.00	*
7396	Double action hydraulic floor spring with brass cover plate	each	1620.00	*
7397	Base Jack	each	145.00	*
7398	Challies	each	765.00	*
7399	cup locks	each	48.00	*
7400	15 mm PTMT bib cock	each	71.00	*
7401	15 mm PTMT bib cock with flange (fancy)	each	105.00	*
7402	15 mm PTMT bib cock long body with flange	each	116.00	*
7403	15 mm dia PTMT stop cock(male thread)	each	71.00	*
7405	20 mm dia. PTMT stop cock	each	97.00	*
7406	PTMT pillar cock	each	125.00	*

*[Handwritten signatures and initials]*

Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
7407	PTMT push cock 15 mm dia	each	62.00	*
7408	PTMT push cock 12 mm dia 20 mm BSP	each	57.00	*
7409	PTMT grating 100 mm dia	each	20.00	*
7410	PTMT Pillar cock (fancy) 15mm foam flow	each	138.00	*
7411	125 mm grating with waste hole	each	30.00	*
7412	Rectangular type with openable circular lid 150 mm size 18 mm high with 100 mm dia (110 gm)	each	118.00	*
7415	Double acting air valve 50 mm	each	3715.00	*
7416	Double acting air valve 80 mm	each	4525.00	*
7417	Double acting air valve 100 mm	each	5910.00	*
7418	Water meter (including testing charges) 80 mm	each	2030.00	*
7419	Water meter (including testing charges) 100 mm	each	3143.00	*
7420	Water meter (including testing charges) 150 mm	each	4765.00	*
7421	Water meter (including testing charges) 200 mm	each	5145.00	*
7422	Dirt box strainer 80 mm	each	2680.00	*
7423	Dirt box strainer 100 mm	each	4370.00	*
7424	Dirt box strainer 150 mm	each	5540.00	*
7425	Dirt box strainer 200 mm	each	7860.00	*
7426	Cat's eye	each	100.00	*
7427	Water stop Serrated with central bulb (225 mm wide, 8-11 mm thick)	metre	200.00	*
7428	Water stop Dumb bell with central bulb	metre	160.00	*
7429	Water stop Kicers	metre	185.00	*
7430	Wedge expansion hold fastner 1/4" or 6 mm	each	11.00	*
7431	Wedge expansion hold fastner 3/8" or 10 mm	each	11.00	*
7432	Wedge expansion hold fastner 1/2" or 12 mm	each	27.00	*
7439	8mm thick (mirror polished tiles machine cut edge) Raj Nagar white	sqm	500.00	*
7442	Wheel 75mm dia. 40mm wide	each	62.00	*
7443	Aluminium single cleat of size 30x32x3 mm	each	14.00	*
7444	Aluminium grip strip of size 50x12x2 mm	each	11.00	*
7445	25 mm prelaminate flush door both side decorative	sqm	800.00	*
7449	Aluminium U beading	kilogram	210.00	*
7451	Glass sheet (Pin headed) 4mm thick	sqm	305.00	*
7452	Raj Nagar plain- White Marble (table rubbed and polished 18mm thick slab area upto 0.50 sqm)	sqm	575.00	*
7453	Raj Nagar plain- White Marble (table rubbed and polished 18mm thick slab area more than 0.50 sqm)	sqm	690.00	*
7466	Second class deodar teak wood lipping 30mm width x 12mm	metre	24.00	*
7468	Veneered particle board with commercial veneering on both sides 12 mm thick	sqm	500.00	*

*(Handwritten signatures and initials)*

Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
7407	PTMT push cock 15 mm dia	each	62.00	*
7408	PTMT push cock 12 mm dia 20 mm BSP	each	57.00	*
7409	PTMT grating 100 mm dia	each	20.00	*
7410	PTMT Pillar cock (fancy) 15mm foam flow	each	138.00	*
7411	125 mm grating with waste hole	each	30.00	*
7412	Rectangular type with openable circular lid 150 mm size 18 mm high with 100 mm dia (110 gm)	each	118.00	*
7415	Double acting air valve 50 mm	each	3715.00	*
7416	Double acting air valve 80 mm	each	4525.00	*
7417	Double acting air valve 100 mm	each	5910.00	*
7418	Water meter (including testing charges) 80 mm	each	2030.00	*
7419	Water meter (including testing charges) 100 mm	each	3143.00	*
7420	Water meter (including testing charges) 150 mm	each	4765.00	*
7421	Water meter (including testing charges) 200 mm	each	5145.00	*
7422	Dirt box strainer 80 mm	each	2680.00	*
7423	Dirt box strainer 100 mm	each	4370.00	*
7424	Dirt box strainer 150 mm	each	5540.00	*
7425	Dirt box strainer 200 mm	each	7860.00	*
7426	Cat's eye	each	100.00	*
7427	Water stop Serrated with central bulb (225 mm wide, 8-11 mm thick)	metre	200.00	*
7428	Water stop Dumb bell with central bulb	metre	160.00	*
7429	Water stop Kicers	metre	185.00	*
7430	Wedge expansion hold fastner 1/4" or 6 mm	each	11.00	*
7431	Wedge expansion hold fastner 3/8" or 10 mm	each	11.00	*
7432	Wedge expansion hold fastner 1/2" or 12 mm	each	27.00	*
7439	8mm thick (mirror polished tiles machine cut edge) Raj Nagar white	sqm	500.00	*
7442	Wheel 75mm dia. 40mm wide	each	62.00	*
7443	Aluminium single cleat of size 30x32x3 mm	each	14.00	*
7444	Aluminium grip strip of size 50x12x2 mm	each	11.00	*
7445	25 mm prelaminated flush door both side decorative	sqm	800.00	*
7449	Aluminium U beading	kilogram	210.00	*
7451	Glass sheet (Pin headed) 4mm thick	sqm	305.00	*
7452	Raj Nagar plain- White Marble (table rubbed and polished 18mm thick slab area upto 0.50 sqm)	sqm	575.00	*
7453	Raj Nagar plain- White Marble (table rubbed and polished 18mm thick slab area more than 0.50 sqm)	sqm	690.00	*
7466	Second class deodar teak wood lipping 30mm width x 12mm	metre	24.00	*
7468	Veneered particle board with commercial veneering on both sides 12 mm thick	sqm	500.00	*
7477	Prelaminated particle board with one side decorative and other side balancing lamination, flat presed 3 layer & graded (medium density) Grade I. Type II conforming to IS : 12823 (exterior grade) 12 mm thick	sqm	540.00	*

*[Handwritten signatures and initials]*



Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
7478	Prelaminated particle board with one side decorative and other side balancing lamination, flat presed 3 layer & graded (medium density) Grade I. Type II conforming to IS : 12823 (exterior grade) 18 mm thick	sqm	650.00	*
7479	Prelaminated particle board with one side decorative and other side balancing lamination, flat presed 3 layer & graded (medium density) Grade I. Type II conforming to IS : 12823 (exterior grade) 25 mm thick	sqm	900.00	*
7480	Prelaminated particle board with both sides decorative lamination.flat pressed 3 layer & graded (medium density) Graefe I. Type II conforming to IS : 12823 (exterior grade) 12 mm thick	sqm	575.00	*
7485	Oxidised M.S. hinges finished with nickle plating 50mm (Over all width)	metre	40.00	*
7486	Oxidised M.S. hinges finished with nickle plating 65mm (Over all width)	metre	52.00	*
7491	PTMT - Waste Coupling 31/32 mm	each	34.00	*
7492	PTMT - Waste Coupling 38/40 mm	each	48.00	*
7493	PTMT - Bottle Trap 31/32 mm	each	210.00	*
7494	PTMT - Bottle Trap 38/40 mm	each	220.00	*
7495	PTMT - Ball Cock 15 mm Complete with Epoxy Coated Aluminium Rod & H.D. Ball	each	100.00	*
7496	PTMT - Ball Cock 20mm Complete with Epoxy Coated Aluminium Rod & H.D. Ball	each	135.00	*
7497	PTMT - Ball Cock25 mm Complete with Epoxy Coated Aluminium Rod & H.D. Ball	each	290.00	*
7498	PTMT - Ball Cock 40 mm Complete with Epoxy Coated Aluminium Rod & H.D. Ball	each	480.00	*
7499	PTMT - Ball Cock 50 mm Complete with Epoxy Coated Aluminium Rod & H.D. Ball	each	870.00	*
7500	PTMT - Angle Stop cock with Flange 15 mm	each	100.00	*
7501	PTMT - Swiveling shower 15 mm	each	70.00	*
7503	PTMT - Liquid Soap Container of 400 ml capacity	each	105.00	*
7504	PTMT - Towel Ring 215x200x37 mm	each	130.00	*
7505	PTMT - Towel Rail (450 mm)	each	135.00	*
7506	PTMT - Towel Rail (600 mm)	each	165.00	*
7507	PTMT - Shelf 450x124x36 mm	each	200.00	*
7508	PTMT - Urinal Spreader 15 mm	each	76.00	*
7509	PTMT - Soap Dish/Holder 138x102x75 mm	each	84.00	*
7512	PTMT - handle 125x34x24 mm	each	24.00	*
7513	PTMT - handle 150x34x24 mm	each	24.00	*
7514	PTMT - butt hinges 75x60x10 mm	each	33.00	*
7515	PTMT - butt hinges 100x75x10 mm	each	43.00	*
7516	PTMT - Tower bolt 152x42x18 mm	each	48.00	*
7517	PTMT - Tower bolt 202x42x18 mm	each	67.00	*

Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
7518	PTMT - door catcher 72x42 mm	each	24.00	*
7552	Coir Veneered board 4 mm thick	sqm	290.00	*
7553	Coir Veneered board 6 mm thick	sqm	385.00	*
7555	Coir Veneered board 12 mm thick	sqm	670.00	*
7556	Coir Veneered board 18 mm thick	sqm	1000.00	*
7621	Hubless centrifugally cast (spun) iron pipes as per IS 15905 - 100 mm dia (3000 mm length pipe)	metre	700.00	*
7622	Hubless centrifugally cast (spun) iron pipes as per IS 15905 - 75 mm dia (3000 mm length pipe)	metre	570.00	*
7623	Hubless centrifugally cast (spun) iron plain bend as per IS 15905 - 100 mm dia	each	230.00	*
7624	Hubless centrifugally cast (spun) iron plain bend as per IS 15905 - 75 mm dia	each	160.00	*
7625	Hubless centrifugally cast (spun) iron double equal plain junction as per IS 15905 - 100x100x100x100 mm dia	each	510.00	*
7626	Hubless centrifugally cast (spun) iron double equal plain junction as per IS 15905 - 75x75x75x75 mm dia	each	275.00	*
7627	Hubless centrifugally cast (spun) iron single equal plain junction as per IS 15905 - 100x100x100 mm dia	each	400.00	*
7628	Hubless centrifugally cast (spun) iron single equal plain junction as per IS 15905 - 75x75x75 mm dia	each	215.00	*
7629	Hubless centrifugally cast (spun) iron double unequal plain junction as per IS 15905 - 100x100x75x75 mm dia	each	400.00	*
7630	Hubless centrifugally cast (spun) iron single unequal plain junction as per IS 15905 - 100x100x75 mm dia	each	375.00	*
7631	Hubless centrifugally cast (spun) iron double equal plain invert branch as per IS 15905 - 100x100x100x100 mm dia	each	625.00	*
7632	Hubless centrifugally cast (spun) iron single equal plain invert branch as per IS 15905 - 100x100x100 mm dia	each	390.00	*
7633	Hubless centrifugally cast (spun) iron single equal plain invert branch as per IS 15905 - 75x75x75 mm dia	each	260.00	*
7634	Hubless centrifugally cast (spun) iron single unequal plain invert branch 45 degree as per IS 15905 - 100x100x75 mm dia	each	430.00	*
7635	Hubless centrifugally cast (spun) iron 65 mm offset with 100 mm dia pipe as per IS 15905	each	360.00	*
7636	Hubless centrifugally cast (spun) iron 65 mm offset with 75 mm dia pipe as per IS 15905	each	295.00	*
7637	Hubless centrifugally cast (spun) iron 130 mm offset with 100 mm dia pipe as per IS 15905	each	440.00	*
7638	Hubless centrifugally cast (spun) iron 130 mm offset with 75 mm dia pipe as per IS 15905	each	310.00	*
7639	Hubless centrifugally cast (spun) iron bend with access door - 100 mm dia as per IS 15905	each	365.00	*
7640	Hubless centrifugally cast (spun) iron bend with access door - 75 mm dia as per IS 15905	each	290.00	*
7641	Hubless centrifugally cast (spun) iron terminal guard (slotted cowl) - 100 mm dia as per IS 15905	each	270.00	*
7642	Hubless centrifugally cast (spun) iron trap with 100 mm inlet and 100 mm outlet as per IS 15905	each	540.00	*
7643	Hubless centrifugally cast (spun) iron trap with 100 mm inlet and 75 mm outlet as per IS 15905	each	385.00	*

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Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
7644	SS 304 grade shielded coupling with EPDM rubber gasket for 100 mm dia Hubless centrifugally cast (spun) iron	each	275.00	*
7645	SS 304 grade shielded coupling with EPDM rubber gasket for 75 mm dia Hubless centrifugally cast (spun) iron	each	250.00	*
7651	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 100 mm dia	metre	765.00	*
7652	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 150 mm dia	metre	1150.00	*
7653	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 200 mm dia	metre	1575.00	*
7654	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 250 mm dia	metre	2200.00	*
7655	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 300 mm dia	metre	2750.00	*
7656	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 350 mm dia	metre	3350.00	*
7657	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 400 mm dia	metre	4300.00	*
7658	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 450 mm dia	metre	5000.00	*
7659	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 500 mm dia	metre	6270.00	*
7660	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 600 mm dia	metre	7560.00	*
7661	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 700 mm dia	metre	10500.00	*
7662	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 750 mm dia	metre	11350.00	*
7663	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 800 mm dia	metre	11450.00	*
7664	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 900 mm dia	metre	13900.00	*
7665	Ductile Iron class K - 9 pipe Conforming to I.S. 8329 1000 mm dia	metre	15550.00	*
7666	Rubber Gaskets Conforming to I.S 5382 of S.B.R quality 100 mm dia	ench	29.00	*
7668	Rubber Gaskets Conforming to I.S 5382 of S.B.R quality 150mm dia	ench	36.00	*
7669	Rubber Gaskets Conforming to I.S 5382 of S.B.R quality 200mm dia	ench	63.00	*
7670	Rubber Gaskets Conforming to I.S 5382 of S.B.R quality 250mm dia	ench	74.00	*
7671	Rubber Gaskets Conforming to I.S 5382 of S.B.R quality 300 mm dia	ench	110.00	*
7672	Rubber Gaskets Conforming to I.S 5382 of S.B.R quality 350 mm dia	ench	126.00	*
7673	Rubber Gaskets Conforming to I.S 5382 of S.B.R quality 400 mm dia	ench	230.00	*
7674	Rubber Gaskets Conforming to I.S 5382 of S.B.R quality 450 mm dia	ench	270.00	*
7675	Rubber Gaskets Conforming to I.S 5382 of S.B.R quality 500 mm dia	ench	290.00	*
7676	Rubber Gaskets Conforming to I.S 5382 of S.B.R quality 600 mm dia	ench	365.00	*
7677	Rubber Gaskets Conforming to I.S 5382 of S.B.R quality 700 mm dia	ench	550.00	*
7678	Rubber Gaskets Conforming to I.S 5382 of S.B.R quality 750 mm dia	ench	660.00	*
7679	Rubber Gaskets Conforming to I.S 5382 of S.B.R quality 800 mm dia	ench	725.00	*
7680	Rubber Gaskets Conforming to I.S 5382 of S.B.R quality 900 mm dia	ench	960.00	*
7681	Rubber Gaskets Conforming to I.S 5382 of S.B.R quality 1000 mm dia	ench	1145.00	*

Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
7682	Ductile Iron K - 12 specials suitable for push on jointing upto 600 mm dia	quintal	12400.00	*
7683	Ductile Iron K - 12 specials suitable for push on jointing over 600 mm dia	quintal	17200.00	*
7684	Ductile Iron specials suitable for mechanical jointing as per I.S. 9523 - upto 600 mm dia	quintal	13050.00	*
7685	Ductile Iron Specials suitable for mechanical jointing as per I.S. 9523 over 600 mm dia	quintal	18750.00	*
7686	Ductile Iron Pipe Class K-9 flanges and welding 100 mm dia	metre	1100.00	*
7687	Ductile Iron Pipe Class K-9 flanges and welding 150 mm dia	metre	1650.00	*
7688	Ductile Iron Pipe Class K-9 flanges and welding 200 mm dia	metre	2075.00	*
7689	Ductile Iron Pipe Class K-9 flanges and welding 250 mm dia	metre	2950.00	*
7690	Ductile Iron Pipe Class K-9 flanges and welding 300 mm dia	metre	3790.00	*
7691	Ductile Iron Pipe Class K-9 flanges and welding 350 mm dia	metre	4780.00	*
7692	Ductile Iron Pipe Class K-9 flanges and welding 400mm dia	metre	6150.00	*
7693	Ductile Iron Pipe Class K-9 flanges and welding 450 mm dia	metre	6453.00	*
7694	Ductile Iron Pipe Class K-9 flanges and welding 500mm dia	metre	9180.00	*
7695	Ductile Iron Pipe Class K-9 flanges and welding 600mm dia	metre	12150.00	*
7696	Ductile Iron Pipe Class K-9 flanges and welding 700 mm dia	metre	14370.00	*
7697	S&S Centrifugally (Spun) C.I. Pipe class LA 100 mm dia	metre	857.00	*
7698	S&S Centrifugally (Spun) C.I. Pipe class LA 125mm dia	metre	1067.00	*
7699	S&S Centrifugally (Spun) C.I. Pipe class LA 150 mm dia	metre	1286.00	*
7700	S&S Centrifugally (Spun) C.I. Pipe class LA 200 mm dia	metre	2190.00	*
7701	S&S Centrifugally (Spun) C.I. Pipe class LA 250 mm dia	metre	2857.00	*
7702	S&S Centrifugally (Spun) C.I. Pipe class LA 300 mm dia	metre	3857.00	*
7703	S&S Centrifugally (Spun) C.I. Pipe class LA 350mm dia	metre	4619.00	*
7704	S&S Centrifugally (Spun) C.I. Pipe class LA 400mm dia	metre	6095.00	*
7705	S&S Centrifugally (Spun) C.I. Pipe class LA 450 mm dia	metre	7381.00	*
7706	S&S Centrifugally (Spun) C.I. Pipe class LA 500 mm dia	metre	8571.00	*
7707	S&S Centrifugally (Spun) C.I. Pipe class LA 600 mm dia	metre	11995.00	*
7708	S&S Centrifugally (Spun) C.I. Pipe Specials as per IS 1538 suitable for lead jointing up to 300 mm dia	quintal	5190.00	*
7709	S&S Centrifugally (Spun) C.I. Pipe Specials as per IS 1538 suitable for lead jointing over 300 mm dia	quintal	6200.00	*
7710	S&S Centrifugally (Spun) C.I. Pipe specials suitable for mechanical joint as per I.S. 13382 up to 300 mm dia	quintal	8571.00	*
7711	S&S Centrifugally (Spun) C.I. Pipe Specials suitable for mechanical joint as per IS 13382 over 300 mm dia	quintal	9048.00	*
7712	Screwed double flanged centrifugally cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 100 mm dia	metre	1310.00	*
7713	Screwed double flanged centrifugally cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 150 mm dia	metre	2048.00	*
7714	Screwed double flanged centrifugally cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 200 mm dia	metre	3238.00	*
7715	Screwed double flanged centrifugally cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 250 mm dia	metre	3905.00	*



Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
7716	Screwed double flanged centrifugally cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 300 mm dia	metre	4990.00	*
7717	Screwed double flanged centrifugally cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 350 mm dia	metre	6286.00	*
7718	Screwed double flanged centrifugally cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 400 mm dia	metre	8143.00	*
7719	Screwed double flanged centrifugally cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 450 mm dia	metre	10381.00	*
7720	Screwed double flanged centrifugally cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 500 mm dia	metre	12914.00	*
7721	Screwed double flanged centrifugally cast (spun) C.I. Pipe of Class B conforming to I.S. 1536, - 600 mm dia	metre	17905.00	*
7722	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 100 mm	metre	800.00	*
7723	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 150 mm	metre	1140.00	*
7724	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 200 mm	metre	1400.00	*
7725	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 250 mm	metre	1800.00	*
7726	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 300 mm	metre	2250.00	*
7727	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 350 mm	metre	2650.00	*
7728	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 400 mm	metre	3175.00	*
7729	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 450 mm	metre	3852.00	*
7730	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 500 mm	metre	4350.00	*
7731	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 600 mm	metre	5600.00	*
7732	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 700 mm	metre	7300.00	*
7733	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 800 mm	metre	9100.00	*
7734	Ductile Iron Class K- 7 pipe conforming to I.S. 8329 - 900 mm	metre	11800.00	*
7735	Ductile Iron Class K-7 pipe conforming to I.S. 8329-1000 mm dia	metre	12300.00	*
7736	Extruded burnt flyash clay sewer bricks conforming to I.S 4885	1000nos	5400.00	*
7737	Fly ash lime bricks (FALG Bricks) conforming to I.S. 12894 -1989	1000nos	4300.00	*
7738	Calcium Silicate Bricks machine moulded confirming to I.S. 4139	1000nos	5400.00	*
7739	Modified Bitumen Refinery produced CRMB - 55 packed	toone	39718.00	**
7741	Modified Bitumen Refinery produced CRMB - 60 packed	toone	39718.00	**
7742	Bitumen emulsion medium setting (M.S.) conforming to IS : 8887 packed	toone	41899.00	**
7743	M.S. pipe 150 mm dia casing pipe	metre	1126.00	*
7744	M.S. pipe 200 mm dia casing pipe	metre	1400.00	*
7745	PVC blind pipe 150 mm dia as per IS: 12818	metre	508.62	*
7746	PVC blind pipe 200 mm dia as per IS: 12818	metre	788.12	*
7747	M.S. cap 150 mm dia	each	150.00	*
7748	M.S. cap 200 mm dia	each	200.00	*
7749	M.S bail plug 150 mm dia	each	200.00	*
7750	M.S bail plug 200 mm dia	each	220.00	*
7751	PVC slotted pipe 150 mm dia as per IS: 12818	metre	550.00	*
7752	PVC slotted pipe 200 mm dia as per IS: 12818	metre	840.00	*

Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
7753	Boulder 50 mm to 200 mm	cum	850.00	*
7754	Gravel 5 mm to 10 mm	cum	850.00	*
7755	Gravel 1.5 mm to 2 mm	cum	850.00	*
7756	Gravel 3 mm to 6 mm	cum	850.00	*
7757	M.S. pipe 100 mm dia casing pipe	metre	800.00	*
7758	UPVC blind pipe 100 mm dia as per IS: 12818	metre	442.00	*
7759	UPVC slotted pipe 100 mm dia as per IS: 12818	metre	480.00	*
7760	M.S. cap 100 mm dia	each	135.00	*
7761	M.S. bail plug 100 mm dia	each	160.00	*
7762	Precast R.C.C. perforated slab	each	875.00	*
7763	Water supply tanker of 5000 litre capacity	each	900.00	*
7764	M.S. socket 100 mm dia	each	125.00	*
7765	M.S. socket 150 mm dia	each	205.00	*
7766	M.S. socket 200 mm dia	each	265.00	*
7767	Stone cleaning chemical approved by ASI	litre	295.00	*
7768	Water repellent chemical approved by ASI	litre	1200.00	*
7769	Stone surface strengthening chemical approved by ASI	litre	900.00	*
7770	Turpentine oil	litre	55.00	*
7771	Liquid Amonia 5%	litre	160.00	*
7772	Pea Gravel	cum	950.00	*
7773	Coloured inter locking C.C. paver Block	sqm	450.00	*
7774	Stone size 10x10x7.50cm	each	10.00	*
7775	Sodium pentachlorophenate	kilogram	550.00	*
7776	Concrete paver block of grade M-30 made of C&D waste (60mm thickness)	sqm	317.22	*
7800	Ceramic Glazed Tiles 1st Quality minimum thickness 5mm in all colours shades except Burgandy, Bottle Green, Black	sqm	212.00	*
7801	Ceramic Glazed Tiles 1st quality 300x300 mm in all shades & designs of White, Ivory, Fume Red Brown etc.	sqm	209.10	*
7802	Ceramic Glazed Tiles 1st quality 300x300 mm in all shades & designs except White, Ivory, Grey and Fume Red Brown etc.	sqm	260.00	*
7803	Ceramic Glazed Tiles 1st quality 300x300 or more in all shades designs White, Ivory, Grey and Fume Red Brown etc.	sqm	340.00	*
7804	Ceramic Glazed Tiles 1st quality 300x300 or more mm hi all shades designs except White, Ivory, Grey and Fume Red brown etc.	sqm	400.00	*
7805	Salem Stainless steel AISI - 304 (18/8) Orrisa pattern W.C. pan 724 mm X 578 mm	each	4500.00	*
7806	Salem Stainless steel AISI - 304 (18/8) Round basin 405 mm X355 mm	each	1500.00	*
7807	Salem Stainless steel AISI - 304 (18/8) Wash basin 530 mm X 345 mm each	each	2000.00	*
7808	Centrifugally cast (spun) iron S&S 100 mm inlet and 100 mm outlet	each	450.00	*

*[Handwritten signatures and initials]*

Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
7809	Centrifugally cast (spun) iron S&S 100 mm inlet and 75 mm outlet	each	500.00	*
7850	Agaria White marble slab plain 18 mm thick	each	1100.00	*
7857	P.T.M.T. Grating square slit 150 mm	each	66.75	*
7858	P.T.M.T. Urinal cock 15mm dia	each	106.50	*
7859	P.T.M.T. Bib cock with nozzle 15 mm	each	154.50	*
7861	P.T.M.T. Stop cock (concealed) 15 mm	each	133.50	*
7862	15 mm nominal bore and 30 cm length PVC connection pipe with P.T.M.T. Nuts	each	46.50	*
7863	15 mm nominal bore and 45 cm length PVC connection pipe with P.T.M.T. Nuts	each	57.00	*
7864	P.T.M.T. extension nipple 15 mm	each	30.00	*
7865	P.T.M.T. extension nipple 20 mm	each	54.00	*
7866	P.T.M.T. extension nipple 25 mm	each	78.00	*
7893	Tactile tile	sqm	1000.00	*
7895	Matt finished vitrified tile 100x100 x16 mm	sqm	1000.00	*
7896	Vitrified tile	sqm	500.00	*
7900	Modular common burnt clay bricks of class designation 7.5	1,000nos	4000.00	*
7901	Machine moulded perforated common burnt clay FPS (non modular) bricks of class designation 12.5	1,000nos	4700.00	*
7902	Machine moulded common burnt clay modular perforated bricks of class designation 12.5	1,000nos	5200.00	*
7903	Machine moulded common burnt clay FPS (non modular) bricks of class designation 12.5	1,000nos	5000.00	*
7904	Machine moulded common burnt clay tile bricks of class designation 12.5	1,000nos	4900.00	*
7911	Chemical Rust Remover	litre	210.00	*
7912	Hire charges of Drill machine upto 30 mm dia	day	160.00	*
7913	Epoxy	kg	585.00	*
7914	SBR Polymer	kg	190.00	*
7915	Woven PVC cloth	sqm	25.00	*
7916	Hire charges of sand blasting equipment	day	420.00	*
7917	Hire charges of compressure	day	645.00	*
7918	25mm thick cement concrete shotcrete(guniting) with compressor	sqm	105.00	*
7919	50mm thick cement concrete shotcrete(guniting) with compressor	sqm	160.00	*
7920	75mm thick cement concrete shotcrete(guniting) with compressor	sqm	266.00	*
7921	Adhesive chemical	ml	2.00	*
7922	Bit of drilling machine for Hole upto 30mm dia	each	500.00	*
7923	GI injection nipple 12mm dia, 75mm long	each	42.00	*
7924	Blowing compressed air for cleaning holes upto 30mm dia	each	10.00	*
7925	L shaped 100mm long, 10mm dia mild steel shear key	kg	67.00	*



Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
7926	Welding charges of shear key to existing reinforcement	each	2.00	*
7927	Acrylic Polymer chemical for cracks	kg	31.00	*
7928	Hire charges of Plant and machinery, it can inject - 350kg/day	day	100.00	*
7929	Shear loops (6mm dia GI wire rope) (For vertical joints) 6 nos on each side	each	192.00	*
7930	dowel tubes (Corrugated GI pipes 50 to 80mm dia) (For horizontal joints)	metre	120.00	*
7931	Hooks for lifting (Alloy steel) having 2.5 tonne capacity	each	250.00	*
7996	Factory made EPS light weight composite sandwiched wall/roof panel (50mm thick) having core material of EPS granule balls/beads (conforming to IS 4671:1984 and shall have density not less than 15kg per cum). The outer face on both sides of the panels will be non asbestos fiber cement board confirming to IS 14862:2000 or Calcium silicate board confirming to EN 14306:2009 of 5mm thick each.	sqm	735.25	*
7997	Factory made EPS light weight composite sandwiched wall/roof panel (60mm thick) having core material of EPS granule balls/beads (conforming to IS 4671:1984 and shall have density not less than 15kg per cum). The outer face on both sides of the panels will be non asbestos fiber cement board confirming to IS 14862:2000 or Calcium silicate board confirming to EN 14306:2009 of 5mm thick each.	sqm	845.00	*
7998	Factory made EPS light weight composite sandwiched wall/roof panel (75mm thick) having core material of EPS granule balls/beads (conforming to IS 4671:1984 and shall have density not less than 15kg per cum). The outer face on both sides of the panels will be non asbestos fiber cement board confirming to IS 14862:2000 or Calcium silicate board confirming to EN 14306:2009 of 5mm thick each.	sqm	1047.46	*
7999	Factory made EPS light weight composite sandwiched wall/roof panel (90mm thick) having core material of EPS granule balls/beads (conforming to IS 4671:1984 and shall have density not less than 15kg per cum). The outer face on both sides of the panels will be non asbestos fiber cement board confirming to IS 14862:2000 or Calcium silicate board confirming to EN 14306:2009 of 5mm thick each.	sqm	1268.00	*
8000	Factory made EPS light weight composite sandwiched wall/roof panel (100mm thick) having core material of EPS granule balls/beads (conforming to IS 4671:1984 and shall have density not less than 15kg per cum). The outer face on both sides of the panels will be non asbestos fiber cement board confirming to IS 14862:2000 or Calcium silicate board confirming to EN 14306:2009 of 5mm thick each.	sqm	1512.37	*
8001	24 mm thick Factory made shutters with styles, rails and panels of PVC extruded sections in white, grey or wooden finish	sqm	1085.93	*
8002	30 mm thick Factory made shutters with styles, rails and panels of PVC extruded sections in white, grey or wooden finish	sqm	1248.82	*
8003	Factory made PVC rigid foam panelled door shutter 30 mm thick	sqm	1547.45	*
8004	Factory made PVC rigid foam panelled shutters as per I S: 4020 i/c carriage	sqm	1547.45	*

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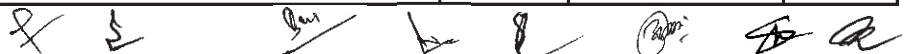
Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
8006	Factory made PVC rigid foam sheet 1 mm thick	sqm	155.80	*
8007	Factory made PVC rigid foam sheet 5 mm thick	sqm	632.00	*
8008	Factory made Prelaminated PVC rigid foam sheet 5 mm thick	sqm	752.00	*
8010	Factory made PVC Door frame 48x40x1.5 mm in white , grey or wooden finish	metre	125.79	*
8011	Factory made door frame PVC extruded sheet i/c carriage	metre	251.58	*
8012	Adhesive Solvent cement	litre	140.00	*
8013	Factory made EPS Core wallpanel /roof panel sandwiched between two Engineered welded wire fabric mesh of 3 mm dia G.I. wire mesh,with 50 mm pitch in both the directions, kept at 120-135 mm gap and interconnected by the zig zag G.I. wire of 3 mm dia at alternate row by welding.		1650.00	*
8014	Factory made door frame of size 50x47 mm with wall thickness 5mm made of single piece extruded profile	metre	298.74	*
8015	Expanded poly ethylene Foam sheet 4mm thick of Density 40kg/m3	sqm	18.00	*
8016	High Density expanded poly ethylene (EPE) Foam 1mm thick	sqm	8.50	*
8017	Fire rated door frame made with 1.6 mm thick G.I sheet (120 minutes fire rating)	metre	1000.00	*
8018	Fire rated door shutter made with 1.6 mm thick G.I sheet (120 minutes fire rating) including hinges ( without glass panels)	sqm	5000.00	*
8019	GI sheet 0.8 mm thick confirming to IS 277:1992	kg	75.00	*
8020	Factory made EPS Core wall panel /roof panel sandwiched between two Engineered welded wire fabric mesh of 3 mm dia G.I. wire mesh, with 50 mm pitch in both the directions, connected by G.I. wire of 3mm dia at alternate row by welding	sqm	600.00	*
8021	Bamboo wood Tile Flooring 14mm thick of minimum size 1800mm x 130mm	sqm	3470.00	*
8022	Bamboo wood Quarter Round 18mm thick of size 1900mm x 18mm	metre	112.00	*
8023	Bamboo wood door reducer 14mm thick of size 1900mm x 44mm	metre	255.00	*
8024	Bamboo wood Skirting 14mm thick of Size 1900mm x 85mm	sqm	300.00	*
8025	Bamboo wood Tile Wall Cladding 10mm thick of size 1900mm x 135mm	sqm	3385.00	*
8026	Bamboo wood T-mold 14mm thick of size 1900mm x 44mm	metre	250.00	*
8027	Bamboo wood Threshold 14mm thick of size 1900mm x 44mm	metre	255.00	*
8028	Bamboo wood shutter of doors	10cudm	1700.00	*
8029	Bamboo wood panelling (10mm thick)	10cudm	1680.00	*
8030	Superior class Bamboo wood door frame 65 mm thick,	10cudm	1675.00	*
8031	Aluminium sheets Grade 5052, 4 mm thick for wall panel/deck panel/ WRB panel/Kicker Panels/door closing panels ( for form work)	sqm	8500.00	*
8032	Aluminium sheets Grade 5052, 4 mm thick for Column Corners/ ( for form work) Internal Corner/	sqm	11500.00	*
8033	Aluminium sheets Grade 5052, 4 mm thick for ( for form work)	sqm	32000.00	*

Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
	<b>Accessories for aluminium form work</b>			*
8034	External corner 2050 mm	each	<b>1400.00</b>	*
8035	External corner 825 mm	each	<b>590.00</b>	*
8036	soldier tie 370mm	each	<b>290.00</b>	*
8037	Adjustable prop-2.0 x2.0 m	each	<b>1080.00</b>	*
8038	Pin-50	each	<b>15.00</b>	*
8039	Pin-127	each	<b>55.00</b>	*
8040	wedge	each	<b>14.00</b>	*
8041	wall tie-150 (355 mm )	each	<b>45.00</b>	*
8042	Polythene Sleeve 90 x 150mm	each	<b>3.00</b>	*
8043	Polythene Roll - 150mm Long.	each	<b>6.00</b>	*
8044	Vertical Soldier -1100mm	each	<b>365.00</b>	*
8045	Wall Attached Bracket 600x1000mm	each	<b>985.00</b>	*
8046	Allignment Pipe - 3.00 Mtr.	each	<b>995.00</b>	*
8047	Allignment Bracket	each	<b>475.00</b>	*
8048	Tie Rod for Bracket - 500mm	each	<b>115.00</b>	*
8049	Anchor Wing Nut Ø100 mm	each	<b>64.00</b>	*
8050	Debit Pin - 250mm	each	<b>60.00</b>	*
8051	PVC Pipe Ø20mm - 150mm long	each	<b>5.00</b>	*
8052	PVC Cone	each	<b>5.00</b>	*
8053	Bolt+Nut - 16 x 80 mm	each	<b>30.00</b>	*
8054	Flat Washer Ø16, 3mm thik	each	<b>5.00</b>	*
8055	Bolt+Nut - 16 x 30 mm	each	<b>18.00</b>	*
8056	Door spacer 45x45x5-1135mm Long	each	<b>360.00</b>	*
8057	Door spacer 45x45x5 - 985mm long	each	<b>315.00</b>	*
8100	Powder coated M.S. Butt Hinges 100x58x1.9mm	10 Nos	<b>123.00</b>	*
8101	SS ball bearing of size 100 x89x3mm	each	<b>450.00</b>	*
8116	Zinc alloy (white powder coated) 3D Hinges for uPVC door	each	<b>451.00</b>	*
8117	Zinc alloy (white powder coated) handles with zinc plated mild steel multi point locking having transmission gear, cylinder with keeps and one side key for uPVC casement door	each set	<b>2296.00</b>	*
8118	Zinc alloy (white powder coated) handles along with zinc plated mild steel multi point locking having transmission gear with keeps for uPVC sliding window	each set	<b>1394.00</b>	*
8119	Zinc alloy (white powder coated) handles with key along with zinc plated mild steel multi point locking having transmission gear with keeps for uPVC sliding door	each set	<b>1150.00</b>	*
8121	uPVC extruded (small series) casement window frame size 47x50mm	metre	<b>258.30</b>	*
8122	uPVC extruded (small series) casement window sash/window mullion size 47x68 mm	metre	<b>282.90</b>	*
8125	uPVC extruded glazing bead of appropriate dimension for small series casement window Sash	metre	<b>98.40</b>	*

*[Handwritten signatures and initials]*



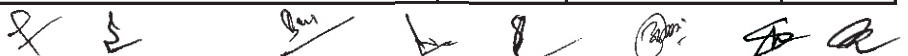
Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
8126	uPVC extruded (big series) casement window frame size 67x60 mm	metre	319.80	*
8127	uPVC extruded (big series) casement door frame size 67x64 mm	metre	360.80	*
8128	uPVC extruded (big series) casement window sash/window mullion/ door mullion size 67x80 mm	metre	426.40	*
8129	uPVC extruded (big series) casement door sash size 67x110 mm	metre	516.60	*
8130	uPVC extruded glazing bead of appropriate dimension for big series casement window/door sash	metre	123.00	*
8131	uPVC extruded glazing bead of appropriate dimension for small series sliding window sash	metre	60.00	*
8132	uPVC extruded glazing bead of appropriate dimension for big series of sliding window/ door sash	metre	85.00	*
8133	uPVC extruded (small series) 2 track sliding window frame size 52x 44 mm	metre	285.00	*
8134	uPVC extruded (big series) 2 track sliding window/door frame size 67x 50mm	metre	385.00	*
8135	uPVC extruded (small series) 3 track sliding window frame size 92x 44 mm	metre	380.00	*
8136	uPVC extruded (big series) 3 track sliding window/door frame size 116x45mm	metre	530.00	*
8137	uPVC extruded (small series) 2 track sliding window sash/3 track sliding window sash size 32x60mm	metre	265.00	*
8138	uPVC extruded (big series) 2 track sliding window sash size 46x62mm	metre	325.00	*
8139	uPVC extruded (big series) 3 track sliding window sash size 46x62mm	metre	325.00	*
8140	uPVC extruded interlock of appropriate dimension for small series sliding window sash	metre	80.00	*
8141	uPVC extruded interlock of appropriate dimension for big series sliding window/ door sash	metre	90.00	*
8142	uPVC extruded inline adaptor of appropriate dimension for big series sliding window/door sash	metre	90.00	*
8143	uPVC extruded 2 track sliding door sash/ 3 track sliding door sash (big series) size 46x82mm	metre	350.00	*
8144	Bamboo Mat corrugated sheets 3.5 to 4mm thick conforming to IS 15476:2004	sqm	2648.00	*
8145	Bamboo Mat Ridge cap 3.5 to 4mm thick conforming to IS 15476:2004	metre	2570.00	*
8146	3mm thick Bamboo Mat Board conforming to IS 13958:1994	sqm	1508.00	*
8147	4mm thick Bamboo Mat Board conforming to IS 13958:1994	sqm	1738.00	*
8148	6mm thick Bamboo Mat Board conforming to IS 13958:1994	sqm	2098.00	*
8149	9mm thick Bamboo Mat Board conforming to IS 13958:1994	sqm	2688.00	*
8150	12mm thick Bamboo Mat Board conforming to IS 13958:1994	sqm	3115.00	*
8200	APP modified Polymeric felt 1.5 mm thick	sqm	80.00	*
8201	APP modified Polymeric felt 2.0 mm thick	sqm	100.00	*
8203	A.P.P. modified 2 mm thick membrane reinforced with glass fibre matt.	sqm	126.67	*
8204	A.P.P. modified 3 mm thick membrane reinforced with glass fibre matt.	sqm	190.00	*



Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
8205	A.P.P. modified 3 mm thick membrane reinforced with polyester matt.	sqm	205.00	*
8206	Bitumen primer for bitumat membrane.	litre	80.00	*
8207	Geotextile 120 gsm membrane	sqm	45.00	*
8210	Stainless Steel 50mm long Screws	100 Nos.	270.00	*
8211	Stainless Steel 40mm long Screws	100 Nos.	215.00	*
8212	Stainless Steel 30mm long Screws	100. Nos.	190.00	*
8214	Stainless Steel 20mm long Screws	100 Nos.	125.00	*
8215	Stainless Steel 125x64x1.90mm Butt Hinge IS: 12817 marked	10 Nos.	265.00	*
8216	Stainless Steel 100x58x1.90mm Butt Hinge IS : 12817 marked	10 Nos.	235.00	*
8217	Stainless Steel 75x47x1.80mm Butt Hinge IS : 12817 marked	10 Nos.	160.00	*
8218	Stainless Steel 50x37x1.50mm Butt Hinge IS: 12817 marked	10 Nos.	135.00	*
8219	Stainless Steel 125x64x2.50mm Butt Hinge IS: 12817 marked	10 Nos.	350.00	*
8220	Stainless Steel 100x60x2.50mm Butt Hinge IS:12817 marked	10 Nos.	255.00	*
8221	Stainless Steel 75x60x2.50mm Butt Hinge IS: 12817 marked	10 Nos.	205.00	*
8222	M. S. heavy weight butt hinges 125x90x4.00mm (heavy weight) IS: 1341 marked	10 Nos.	210.00	*
8223	M. S. heavy weight butt hinges 100x75x3.50mm (heavy weight) IS: 1341 marked	10 Nos.	160.00	*
8224	M.S. heavy weigh butt hinges 75x60x3.10mm (heavy weight) IS: 1341 marked	10 Nos.	95.00	*
8225	M.S. heavy weight butt hinges 50x40x2.50mm (heavy weight) IS: 1341 marked	10 Nos.	80.00	*
8226	Concealed zinc coated hinges 19-20 mm thick with mounting plate	10 Nos.	420.00	*
8300	1216 mm PE-AL-PE Composite pressure pipe	metre	62.00	*
8301	1620 mm PE-AL-PE Composite pressure pipe	metre	78.00	*
8302	2025 mm PE-AL-PE Composite pressure pipe	metre	110.00	*
8303	2532 mm PE-AL-PE Composite pressure pipe	metre	157.00	*
8304	3240 mm PE-AL-PE Composite pressure pipe	metre	235.00	*
8305	4050 mm PE-AL-PE Composite pressure pipe	metre	330.00	*
8306	PPR Union 20 mm	each	48.00	*
8307	PPR Union 25 mm	each	97.00	*
8308	PPR Union 32 mm	each	137.20	*
8309	PPR Union 40 mm	each	184.80	*
8310	PPR Union 50 mm	each	352.80	*
8311	PPR Union 63 mm	each	483.60	*
8312	PPR Union 75 mm	each	933.00	*
8500	Water for jetting / blowback	1000 litre	1500.00	*
8501	Polymer modified cementation coating	kilogram	140.00	*
8502	Fibre glass cloth	sqm	25.00	*
8503	Fibre glass cloth	sqm	45.46	****
8504	Multi surface paint	litre	255.00	*

*[Handwritten signatures and initials]*

Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
8505	Acralyc exterior paint	litre	170.00	*
8506	Premium Acralyc exterior paint	litre	180.00	*
8507	Textured exterior paint	litre	240.00	*
8508	Primer for cement paint	litre	79.00	*
8509	Special Primer (C.W.)	litre	140.00	*
8510	Metal Primer (U.G.)	litre	90.00	*
8511	Fibre reinforced elastomeric liquid water proofing membrane	litre	198.69	*
8512	Cementitious water proofing coating with elastic polymers	kg	189.13	*
8513	Acrylic modified resin based texture	kg	36.00	*
8514	40 mm long S.S screws with plastic rawl plugs	each	40.00	*
8515	Galavanised MS 8 mm outer diameter M-6 dash fastener 50mm long	each	31.00	*
8516	ZMB 60/equivalent	kg	105.00	*
8517	ZMB thinner	litre	205.00	*
8518	Zycoprime / equivalent	litre	210.00	*
8519	Zycosil / equivalent	litre	1800.00	*
8520	Elastobar / equivalent	kg	300.00	*
8552	Mineral fibre beveled tegular edged ceiling tiles 595 x595mm,16 mm thick	sqm	830.00	*
8553	Mineral fibre beveled tegular edged ceiling tiles 595 x595mm,16 mm thick with bio-block conforming to ISO 5 (class 100) specifications.	sqm	920.00	*
8554	Mineral fiber beveled tegular edged ceiling tiles 595 x595mm,20 mm thick.	sqm	1040.00	*
8555	G.I main runner 15 x32 mm of 3000 mm length, 0.33 mm thick	each	185.00	*
8556	G.I cross-T 15 x32 mm of 1200 mm length, 0.33 mm thick	each	78.00	*
8557	G.I cross-T 15 x32 mm of 600 mm length, 0.33 mm thick	each	35.00	
8558	G.I hanger rod 6mm dia fully threaded upto 1000 mm length	each	26.00	*
8559	Stainless steel U Channel of size (50x25x2mm)	metre	160.00	*
8560	Non staining water resistant clear silicon	metre	65.00	*
8561	Extruded polystyrene rigid insulation board 50 mm thick	sqm	525.00	*
8562	Expanded Polystyrene insulation board 120 mm thick confirming to IS 4671-1984, Fire retardant property self-extinguishing type as per EN 13501-1	sqm	800.00	*
8563	15 mm thick, light weight, integral densified micro look edged,false ceiling tiles of size 595x595 mm.	sqm	720.00	*
8564	15 mm thick, light weight,fully perforated square/butt edge integral densified,false ceiling tiles of size 595x595 mm.	sqm	900.00	*
8565	Galavanised MS hanger rod 6 mm dia MS fully threaded up to 1000 mm length	each	26.00	*
8566	Powder coated steel section main-T ceiling sections 15x42x0.40 mm (3000 mm long)	each	235.00	*
8567	Galvanized mild steel perimeter wall angle 22x19x0.40 mm (3000 mm long)	each	115.00	*



Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
8568	Powder coated Galvanised Iron intermediate cross-T section 15x42x0.40 mm (1200 mm long)	each	95.00	*
8569	Powder coated Galvanized Iron intermediate cross-T section 15x42x0.40mm (600 mm long )	each	47.00	*
8570	GI Main T ceiling section 30x25x0.3 mm (3 metre long)	each	187.00	*
8571	GI Perimeter wall angle 25x25x0.4 mm (3 metre long)	each	157.00	*
8572	GI Intermediate cross T section 25x25x0.3 mm (1.2 metre long)	each	72.00	*
8573	GI Intermediate cross T section 25x25x0.3 mm (0.6 metre long)	each	34.00	*
8576	Crates made of Mesh type 10x12 (D=100 mm) Zinc coated. (Mesh wire diameter 3.00 mm).	sqm	190.00	*
8577	Crates made of Mesh type 10x12 (D=100 mm) Zn+PVC coated. Mesh wire diameter 2.70/3.70 mm (ID/OD).	sqm	220.00	*
8578	Crates made of Mesh type 10x12 (D=100 mm) Zn+10% Al alloy + PVC coated. Mesh wire diameter 2.70/3.70 mm (ID/OD).	sqm	290.00	*
8579	Cold form light gauge Steel C-section of thickness 0.75mm i/c zink coating/sliting etc.	kg	130.00	*
8580	Wastage of cold form light gauge steel	kg	17.00	*
8581	12 mm thick micro tegular edged semi perforated GRG (Glass Fibre Reinforced Gypsum) false celing tiles of Size 595x595 mm	sqm	510.00	*
8582	12 mm thick micro tegular edged fully perforated GRG (Glass Fibre Reinforced Gypsum) false celing tiles of Size 595x595 mm	sqm	600.00	*
8583	10 mm thick square edge fully perforated GRG(Glass Fibre Reinforced Gypsum) false celing tiles of Size 595x595 mm	sqm	750.00	*
8587	Galvanized iron intermediate cross-T section 15x32x0.33 mm (600 mm long)	each	35.00	*
8588	Galavanised MS hanger rod 6mm dia MS fully threaded up to 1000 mm length	each	26.00	*
8589	Calcium Silicate tegular edged ceiling tiles 595x595 mm and 15mm thick	sqm	685.00	*
8590	Galvanised Steel main Tee ceiling section Size 24x38x0.33 mm(3 metre long)	each	120.00	*
8591	Galvanised Steel perimeter wall Angle Size 24 x 24 x 0.40 mm (3.00 metre long)	each	65.00	*
8592	Galvanised Steel intermediate cross T section Size 24 x 25 x0.33 mm (1.2 metre long)	each	40.00	*
8593	Galvanised Steel intermediate cross T section Size 24 x 25 x0.33 mm ( 0.6 metre long)	each	20.00	*
8594	Galvanised Steel soffit cleat size 25x35x1.60 mm	each	4.00	*
8595	Wooden screws with plastic rawl plugs 35x8 mm	each	1.00	*
8596	Galvanised MS 8mm outer diameter M-6 dash fastener 25mm long	each	32.00	
8597	GI Metal Tile Clip in Plain Beveled edge global white colour tiles of size 600x600 mm and 0.5 mm thick	sqm	677.00	*
8598	GI Metal Tile Clip in Perforated Beveled edge global white colour tiles of size 600x600 mm and 0.5 mm thick	sqm	782.00	*
8599	GI Metal Tile Lay-in Plain Tegular edge global white color tiles of Size 595x595 mm and 0.5 mm thick	sqm	612.00	*

*[Handwritten signatures and initials]*

Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
8600	GI Metal Tile Lay-in Perforated Tegular edge global white color tiles of Size 595x595 mm and 0.5 mm thick	sqm	715.00	*
8601	PVC Laminated Gypsum Tiles (Square edge) of Size 595x595 mm and 12.5 mm thick	sqm	880.00	*
8602	Gypsum Tiles Fully Perforated Square edge of Size 595x595 mm and 12.5 mm thick	sqm	375.00	*
8604	Spring T-section 24x34x0.45 mm (3.00 meter long)	metre	190.00	*
8605	C Wall angle section 20x30x20x0.50 mm (3.00 meter long)	metre	95.00	*
8606	Main C Carrier Size 10x38x10x0.70 mm (3.00 meter long)	metre	115.00	*
8607	Spring T-connector	each	5.00	*
8608	C Carrier Connector	each	11.00	*
8609	C Suspension Clip	each	8.00	*
8610	Wire Coupling Clip	each	9.00	*
8611	Main T ceiling sections 24x38x0.3 mm (3 meter long)	each	115.00	*
8612	Perimeter Wall angle 21 x21 mm ( 3 meter long)	each	80.00	*
8613	Intermediate Cross Channel (1.2 mtrs)	each	35.00	*
8614	Intermediate Cross Channel (1.6 mtrs)	each	17.00	*
8615	Hanger rod 0.5 mm thick	each	8.00	*
8616	Adjustment clip	each	5.00	*
8617	Soffit Cleat	each	4.00	*
8618	Dash fastener 6 mm dia 50 mm long	each	8.00	*
8619	Galavanised MS L-shape level adjuster of size 85x25x2 mm	each	15.00	*
8620	Vitrified floor tiles 50x50 cm	sqm	490.00	*
8621	Vitrified floor tiles 60x60 cm	sqm	659.72	*
8622	Vitrified floor tiles 80x80 cm	sqm	850.00	*
8623	Vitrified floor tiles 1 00x1 00 cm	sqm	1390.00	*
8624	"Border tiles 200x75mm size	each	16.00	*
8625	Poly propylene- Random - Co - Polymer (PPR) pipes SDR 7.4 - 16 mm Outer dia	metre	35.82	****
8626	Poly propylene- Random - Co - Polymer (PPR) pipes SDR 7.4 - 20mm Outer dia	metre	43.27	*
8627	Poly propylene- Random - Co - Polymer (PPR) pipes SDR 7.4 - 25mm Outer dia	metre	66.80	*
8628	Poly propylene- Random - Co - Polymer (PPR) pipes SDR 7.4 - 32mm Outer dia	metre	107.47	*
8629	Poly propylene- Random - Co - Polymer (PPR) pipes SDR 7.4 - 40mm Outer dia	metre	161.07	*
8630	Poly propylene- Random - Co - Polymer (PPR) pipes SDR 7.4 - 50mm Outer dia	metre	252.22	*
8631	Poly propylene- Random - Co - Polymer (PPR) pipes SDR 7.4 - 63mm Outer dia	metre	281.73	*
8632	Poly propylene- Random - Co - Polymer (PPR) pipes SDR 7.4 - 75mm Outer dia	metre	418.18	*
8633	Poly propylene- Random - Co - Polymer (PPR) pipes SDR 7.4 - 90mm Outer dia	metre	597.63	*



Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
8634	Poly propylene- Random - Co - Polymer (PPR) pipes SDR -11- 110 mm Outer dia	metre	885.83	*
8635	Poly propylene- Random - Co - Polymer (PPR) pipes SDR-11 - 160mm Outer dia	metre	2557.30	*
8636	Chlorinated Polyvinyl - chloride (CPVC) pipe 15 mm outer dia	metre	48.55	*
8637	Chlorinated Polyvinyl - chloride (CPVC) pipe 20 mm outer dia	metre	77.80	*
8638	Chlorinated Polyvinyl - chloride (CPVC) pipe 25 mm outer dia	metre	113.60	*
8639	Chlorinated Polyvinyl - chloride (CPVC) pipe 32 mm outer dia	metre	163.65	*
8640	Chlorinated Polyvinyl - chloride (CPVC) pipe 40 mm outer dia	metre	228.70	*
8641	Chlorinated Polyvinyl - chloride (CPVC) pipe 50 mm outer dia	metre	375.25	*
8642	Chlorinated Polyvinyl - chloride (CPVC) pipe 62.5 mm inner dia	metre	793.30	*
8643	Chlorinated Polyvinyl - chloride (CPVC) pipe 75 mm inner dia	metre	1031.05	*
8644	Chlorinated Polyvinyl - chloride (CPVC) pipe 100 mm inner dia	metre	1466.75	*
8645	Chlorinated Polyvinyl - chloride (CPVC) pipe 150 mm inner dia	metre	3145.15	*
8646	Silicon sealant	cartridge	100.00	*
8647	Stainless steel screws 30mmx4mm	cent	32.00	*
8648	Hermetically sealed double glazed unit made with 6mm thick clear float glass both side having 12 mm air gap	sqm	2150.00	*
8649	Stainless steel (ss 304 grade) adjustable friction windows stay 205x19mm	each	172.00	*
8650	Stainless steel (ss 304 grade) adjustable friction window stay 255x19mm	each	222.00	*
8651	Stainless steel (ss 304 grade) adjustable friction window stay 355x19mm	each	195.00	*
8652	Stainless steel (ss 304 grade) adjustable friction window stay 510x19mm	each	525.00	*
8653	Stainless steel (ss 304 grade) adjustable friction window stay 710x19mm	each	900.00	*
8654	Masking tape	metre	1.95	*
8655	Autoclaved aerated cement (AAC) blocks.	cum	2364.97	**
8656	Gypsum panel 666x500x100 mm size	sqm	480.00	*
8657	Bonding laster for gypsum panel.	kg	25.00	*
8658A	Mechanised autoclaved fly ash lime bricks.	1000 nos	4434.53	****
8658	Precast C&D waste concrete block	1000nos	25150.00	
8659	Water proof ply 12 mm thick.	sqm	517.00	*
8660	Aluminium casement window fastener(anodised ac 15)	each	44.00	*
8661	A'uminium casement window fastener(powder coated).	each	47.00	*
8662	Aluminium casement window fastener (polyester powder coated).	each	46.00	*
8663	Aluminium round shpe handle (anodised ac" 15)	each	53.00	*
8664	Aluminium round shpe handle (powder coated)	each	56.00	*
8665	Aluminium round shape handle (polyester powder coated).	each	60.00	*
8666	Stainless steei ocrews 25mmx4mm	cent	38.00	*
8667	UV-stabilised 2 mm thick plain frp sheet.	sqm	430.00	*

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Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
8668	UV stabilised 2 mm thick corrugated frp sheet.	sqm	485.00	*
8669	Mangalore ridgetiles 20 mm thick	each	8.00	*
8670	Mangalore tiles 20 mm thick.	each	8.00	*
8671	Precoated galvanised iron profile sheet 0.50 mm TCT	sqm	350.00	*
8672	Precoated galvanised steel plain ridges 0.50 mm TCT and 500 -600 mm wide Precoated galvanised steel plain ridges 0.50 mm TCT and 500 -600 mm wide	metre	210.00	*
8673	Precoated galvanised steel flashings/aprons.	metre	210.00	*
8674	Precoated galvanised steel gutter	metre	420.00	*
8675	Precoated galvanised steel north light curves.	metre	230.00	*
8676	Precoated galvanised steel barge board	metre	215.00	*
8677	Precoated galvanised steel crimp curve	sqm	230.00	*
8678	1 mm thick 35 mm wide bright finished stainless steel paino hinges.	metre	42.00	*
8682	Epoxy Grout	kg	371.00	*
8683	Red sand stone gang saw cut 30 mm thick.	sqm	425.00	*
8684	White sand stone gang saw cut 30 mm thick.	sqm	560.00	*
8685	Delineator	each	300.00	*
8686	Precast c.c. kerb stone M-25	cum	5500.00	*
8687	Thermoplastic paint	kg	65.00	*
8688	glass beads	kg	70.00	*
8689	Interlocking c.c. paverblock (60 mm thick, m-30)	sqm	400.00	*
8690	High intensity retro-reflective sheet.	sqm	1300.00	*
8691	Punched tape concertina coil 600 m dia. 10m openable length (total length 90 m)	bundle	600.00	*
8692	RBT reinforced barbed wire.	metre	6.50	*
8693	Turn buckle and strengthening bolte	each set	40.00	*
8694	Precast pavement slab 450x450x50 mm (m-30).	each	135.00	*
8695	Chain link fabric fencing mesh of size 50x50xmm made of G.I wire of dia. 4mm, pvc coated to outer dia. 5mm.	sqm	280.00	*
8696	Chain lind fabric fencing mesh of size 25x25xmm made of G.I wireof dia. 3 mm.	sqm	300.00	*
8697	Chain link fencing mesh of size 25x25 mm made of g.i. wire of dia. 3 mm.	sqm	360.00	*
8698	Stainless steel cramps with nuts, bolts and washer for dry stone cladding.	each	100.00	*
8699	8 mm thick tapered edge calcium silicated board.	sqm	265.00	*
8700	10 mm thick calcium silicate board.	sqm	420.00	*
8701	SS pipe 304 grades with press fit technology as per JIS 3448 standard 48.60 mm outer dia	metre	610.00	*
8702	Coupling/Socket fittings for 15.88 mm outer dia SS pipe	each	59.00	*
8703	Telescopic drawer channels 300 mm long.	set	230.00	*



Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
8704	Stainless steel roller for sliding arrangement in racks/cupboards/cabinets shutter.	each	9.00	*
8705	50 mm x42mm x2 mm thick factory made door frame of pvc extruded sections in whiter, grey or wooden finish	metre	160.00	*
8706	25mm thick factory made pvc flush door shutter i/c carriage.	sqm	1700.00	*
8707	Factory made glass reinforced plastic door frame 90x45 mm i/c carriage.	metre	467.00	*
8708	30 mm thick factory made glass fiber reinforced plastic panel door shutter i/c carriage.	sqm	2326.00	*
8709	30 mm thick factory made solid PVC profile panelled door single piece extruded profile decorative finish (wood grain printed on both side)	sqm	2100.00	*
8710	Factory made solid PVC door frame 60x30xmm i/c carriage.	metre	315.00	*
8711	28 mm factory made solid pvc panel door shutter i/c carriage.	sqm	2050.00	*
8712	30 mm thick factory made solid PVC profile panelled door single piece extruded profile non decorative finish	sqm	2000.00	*
8713	Fiber glass reinforced plastic chajja.	sqm	3000.00	*
8714	Magnetic catcher triple strip horizontal type.	each	24.00	*
8715	Magnetic catcher double strip horizontal type.	each	18.00	*
8716	100 mm mortice lock with 6 levers for aluminium door.	each	375.00	*
8717	12.5 mm thick glass fibre reinforced gypsum board.	sqm	181.49	****
8719	2nd class teak wood lipping/moulded beading or taj beading of size,18x5mm	metre	28.00	*
8720	Ceiling sections 0.55 mm thick having a knurled web of 51.55 mm and two flanges of 26 mm each with lips of 10.55 mm.	metre	35.00	*
8721	Perimeter channel having one flange of 20 mm and another flange of 30 mm with thickness of 0.55 mm and web of length 27 mm.	metre	22.00	*
8722	Nylon sleeves & wooden screws (40mm)	each	2.00	*
8723	Counter sunk ribbed head screw 25 mm.	cent	68.00	*
8724	12 mm thick marine plywood conforming to is: 710	sqm	695.00	*
8725	12 mm thick fire retardant plywood conforming to is:5509.	sqm	850.00	*
8726	1.5 mm thick decorative laminated sheet	sqm	365.00	*
8727	1.0 mm thick decorative laminated sheet	sqm	280.00	*
8730	30 mm thick factory made glass fibre reinforced plastic flush door shutter i/c carriage.	sqm	2675.00	*
8731	High polymer modified quickset tile adhesive.	per kg	9.00	*
8732	Synthetic ployster triangular fibre of length 12 mm, effective diameter 10-40 microns and specific gravity of 1:34 to 1:40	kg	365.00	*
8733	Synthetic ployster triangular fibre of length 6 mm, effective diameter 10-40 microns and specific gravity of 1.34 to 1.40	kg	400.00	*
8734	P.V.C. Single piece extruded door frame of profile size 50 mm x 47 mm with wall thickness of 5 mm	metre	255.00	*
8735	35 mm thick factory made solid panel PVC door shutter of single piece extruded profile non decorative finished (Matt finished)	sqm	2150.00	*

*[Handwritten signatures and initials]*

Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
8736	35 mm thick factory made solid panel PVC door shutter of singlepiece extruded profile decorative finished (Wood grain finished)	sqm	2600.00	*
8737	Stainless steel wire guage (Grade-304) aperture 1.4 mm and 0.50 mm dia wire	sqm	400.00	*
8738	Factory made door frame fire rated ( 60 minutes) made with 16 SWG G.I. Sheet of section 143 mm x 57 mm duly filled with vermiculite based concrete mix	metre	1050.00	*
8739	Fire rated door shuttere made with 16 SWG G.I. sheet (60 minutes) without panel	sqm	4500.00	*
8740	Fire seal Putty	kg	295.00	*
8741	Clear fire resistant glass panes 6mm thick (60 minutes)	sqm	21500.00	*
8742	G.I. U beading of 16 SWG G.I. sheet (zinc coating >120gm/m <sup>2</sup> ) with ceramic tape of suitable thickness and fire resistant primer coating	metre	295.00	*
8743	Matrix Mineral Board	metre	68.00	*
8744	Panic Bar / latch (Double point)	each	5200.00	*
8745	65 mm x 55 mm x 2 mm thick Factory made door frame of PVCextruded section in white, grey or wooden finish	metre	355.00	*
8746	37 mm thick Factory made shutter with style, rails and panels of PVCextruded section in white or grey finish i/c carriage	sqm	2400.00	*
8747	75 mm x 53 mm x 2.0 mm thick Factory made door frame of PVCextruded section in white, grey or wooden finish	metre	400.00	*
8748	37 mm thick Factory made fusion welded shutter with style, rails and panels of PVC extruded section in wooden finish	sqm	2600.00	*
8749	Zinc alloy (white powder coated) touch lock with hook for wire mesh shutter	each	120.00	*
8750	Zinc alloy (white powder coated) casement handle for uPVC windows	each	130.00	*
8751	Zinc alloy (white powder coated) Touch Lock for UPVC windows	each	105.00	*
8752	Zinc alloy body with single nylon roller (weight bearing capacity to be 40 Kg) for uPVC sliding window	each	56.00	*
8753	Stainless Steel (SS - 304) with adjustable double nylon roller (weight bearing capacity to be 120 Kg) for uPVC sliding door/window	each	95.00	*
8754	Zinc alloy (white powder coated) casement lock for UPVC windows	each	115.00	*
8755	Stainless steel friction hinge of size 200 mm x 19 x 1.9 mm for UPVC windows	each	205.00	*
8756	Stainless steel friction hinge of size 250 mm x 19 x 1.9 mm for UPVC windows	each	230.00	*
8757	Stainless steel friction hinge of size 300 mm x 19 x 1.9 mm for UPVC windows	each	245.00	*
8758	Stainless steel friction hinge of size 350mm x 19 x 1.9 mm for UPVC windows	each	345.00	*
8759	Stainless steel friction hinge of size 400 mm x 19 x 1.9 mm for UPVC windows	each	365.00	*
8760	UPVC extruded profile casement window Frame (50 mm x 50 mm)	metre	159.75	****

Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
8760A	Of fire resistance both integrity and radiation control (EW 60) and minimum 20 minutes of insulation (EI 20)	sqm	22500.00	*
8761	UPVC extruded profile casement window sash (Style and Rail) (62 mm x34 mm)	metre	145.22	****
8761A	Scaffolding net made of high density polyethylene UV stabilized having density 100gm/ sqm.	sqm	21.50	*
8762	UPVC extruded profile casement window mullion (intermediate section)(66 mm x 50 mm)	metre	179.10	****
8763	UPVC extruded profile casement window 'T' profile (one vertical lengthin between two shutters) (24 mm x 34.5 mm)	metre	48.41	****
8764	UPVC extruded profile casement window glazing bead (12 mm x 18mm)	metre	48.41	****
8765	UPVC extruded profile casement window Frame ( 67 mm x 62 mm)	metre	227.52	****
8766	UPVC extruded profile casement Window Sash/Mullion ( 67 mm x 75mm) (Style,rail and intermediate section)	metre	256.55	****
8767	UPVC extruded profile casement window glazing bead (35 mm x 18mm)	metre	82.29	****
8768	UPVC extruded profile Two Track Sliding frame (67 mm x 52 mm)	metre	237.19	****
8769	UPVC extruded profile Sliding window Sash (60 mm x 44 mm)	metre	222.68	****
8770	UPVC extruded profile Sliding Interlock for Window (one vertical lengthin each shutter) (45.5 mm x 28 mm)	metre	48.41	****
8771	UPVC extruded profile Sliding Door Sash (80 mm x 44 mm)	metre	280.76	****
8772	Aluminium Track on bottom rail for uPVC window	metre	30.00	*
8773	Wool Pine for uPVC window	metre	20.00	*
8774	Aluminium Grill	metre	260.00	*
8775	Steel Galvanised tubular reinforcement for uPVC door/ window	metre	60.00	*
8776	Stainless steel dash fastener of 8 mm dia and 75 mm long bolt	each	15.00	*
8777	GI Fastener 100x8 mm	each	15.00	*
8778	Toughened glass 12 mm thickness	sqm	1747.00	*
8779	SS pipe 304 grades with press fit technology as per JIS 3448 standard 15.88 mm outer dia	metre	130.00	*
8780	SS pipe 304 grades with press fit technology as per JIS 3448 standard 22.22 mm outer dia	metre	243.00	*
8781	SS pipe 304 grades with press fit technology as per JIS 3448 standard 28.58 mm outer dia	metre	297.00	*
8782	SS pipe 304 grades with press fit technology as per JIS 3448 standard 34.00 mm outer dia	metre	423.00	*
8783	SS pipe 304 grades with press fit technology as per JIS 3448 standard 42.70 mm outer dia	metre	441.00	*
8784	8 mm thick Calcium silicate perforated tiles of size 595 x595 mm	sqm	833.00	*
8785	Interlocking C.C. paver block ( 80 mm thick, M-30)	sqm	470.00	*
8786	Coupling/Socket fittings for 22.22 mm outer dia SS pipe	each	63.00	*
8787	Coupling/Socket fittings for 28.58 mm outer dia SS pipe	each	89.00	*
8788	Coupling/Socket fittings for 34.00 mm outer dia SS pipe	each	131.00	*
8789	Coupling/Socket fittings for 42.70 mm outer dia SS pipe	each	158.00	*

*[Handwritten signatures and initials]*

Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
8790	Coupling/Socket fittings for 48.60 mm outer dia SS pipe	each	180.00	*
8791	Reducer for 22.22 mm X 15.88 mm outer Dia SS pipe	each	103.00	*
8792	Reducer for 28.58 mm X 15.88 mm outer Dia SS pipe	each	141.00	*
8793	Reducer for 28.58 mm X 22.22 mm outer Dia SS pipe	each	145.00	*
8794	Reducer for 34.00 mm X 15.88 mm outer Dia SS pipe	each	184.00	*
8795	Reducer for 34.00 mm X 22.22 mm outer Dia SS pipe	each	187.00	*
8796	Reducer for 34.00 mm X 28.58 mm outer Dia SS pipe	each	190.00	*
8797	Reducer for 42.70 mm X 15.88 mm outer Dia SS pipe	each	359.00	*
8798	Reducer for 42.70 mm X 22.22 mm outer Dia SS pipe	each	362.00	*
8799	Reducer for 42.70 mm X 28.58 mm outer Dia SS pipe	each	362.00	*
8800	Reducer for 42.70 mm X 34.00 mm outer Dia SS pipe	each	387.00	*
8801	Reducer for 48.60 mm X 15.88 mm outer Dia SS pipe	each	410.00	*
8802	Reducer for 48.60 mm X 22.22 mm outer Dia SS pipe	each	410.00	*
8803	Reducer for 48.60 mm X 28.58 mm outer Dia SS pipe	each	410.00	*
8804	Reducer for 48.60 mm X 34.00 mm outer Dia SS pipe	each	410.00	*
8805	Reducer for 48.60 mm X 42.70 mm outer Dia SS pipe	each	410.00	*
8806	Slip Coupling / Socket 15.88 mm outer dia SS pipe	each	47.00	*
8807	Slip Coupling / Socket 22.22 mm outer dia SS pipe	each	63.00	*
8808	Slip Coupling / Socket 28.58 mm outer dia SS pipe	each	89.00	*
8809	Slip Coupling / Socket 34.00 mm outer dia SS pipe	each	131.00	*
8810	Slip Coupling / Socket 42.70 mm outer dia SS pipe	each	158.00	*
8811	Slip Coupling / Socket 48.60 mm outer dia SS pipe	each	170.00	*
8812	Elbow 90o for 15.88 mm outer dia SS pipe	each	58.00	*
8813	Elbow 90o for 22.22 mm outer dia SS pipe	each	63.00	*
8814	Elbow 90o for 28.58 mm outer dia SS pipe	each	96.00	*
8815	Elbow 90o for 34.00 mm outer dia SS pipe	each	109.00	*
8816	Elbow 90o for 42.70 mm outer dia SS pipe	each	116.00	*
8817	Elbow 90o for 48.60 mm outer dia SS pipe	each	150.00	*
8818	Reducing Elbow 90o for 22.22 mm X 15.88 mm outer dia SS pipe	each	148.00	*
8819	Reducing Elbow 90o for 28.58 mm X 15.88 mm outer dia SS pipe	each	191.00	*
8820	Reducing Elbow 90o for 28.58 mm X 22.22 mm outer dia SS pipe	each	221.00	*
8821	Reducing Elbow 90o for 34.00 mm X 22.22 mm outer dia SS pipe	each	287.00	*
8822	Reducing Elbow 90o for 34.00 mm X 28.58 mm outer dia SS pipe	each	345.00	*
8823	Reducing Elbow 90o for 42.70 mm X 34.00 mm outer dia SS pipe	each	179.00	*
8824	Equal Tee for 15.88 mm outer dia SS pipe	each	159.00	*
8825	Equal Tee for 22.22 mm outer dia SS pipe	each	231.00	*
8826	Equal Tee for 28.58 mm outer dia SS pipe	each	273.00	*

Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
8827	Equal Tee for 34.00 mm outer dia SS pipe	each	437.00	*
8828	Equal Tee for 42.70 mm outer dia SS pipe	each	683.00	*
8829	Equal Tee for 48.60 mm outer dia SS pipe	each	887.00	*
8830	Reducing Tee for 22.22 mm X 15.88 mm outer dia SS pipe	each	179.00	*
8831	Reducing Tee for 28.58 mm X 15.88 mm outer dia SS pipe	each	273.00	*
8832	Reducing Tee for 28.58 mm X 22.22 mm outer dia SS pipe	each	273.00	*
8833	Reducing Tee for 34.00 mm X 15.88 mm outer dia SS pipe	each	437.00	*
8834	Reducing Tee for 34.00 mm X 22.22 mm outer dia SS pipe	each	437.00	*
8835	Reducing Tee for 34.00 mm X 28.58 mm outer dia SS pipe	each	437.00	*
8836	Reducing Tee for 42.70 mm X 15.88 mm outer dia SS pipe	each	683.00	*
8837	Reducing Tee for 42.70 mm X 22.22 mm outer dia SS pipe	each	683.00	*
8838	Reducing Tee for 42.70 mm X 28.58 mm outer dia SS pipe	each	683.00	*
8839	Reducing Tee for 42.70 mm X 34.00 mm outer dia SS pipe	each	683.00	*
8840	Reducing Tee for 48.60 mm X 15.88 mm outer dia SS pipe	each	887.00	*
8841	Reducing Tee for 48.60 mm X 22.22 mm outer dia SS pipe	each	887.00	*
8842	Reducing Tee for 48.60 mm X 28.58 mm outer dia SS pipe	each	887.00	*
8843	Reducing Tee for 48.60mm X 34.00 mm outer dia SS pipe	each	887.00	*
8844	Reducing Tee for 48.60mm X 42.70mm outer dia SS pipe	each	887.00	*
8845	Male thread Tee for 15.88 mm outer dia X 15 mm nominal dia threaded	each	179.00	*
8846	Male thread Tee for 22.22 mm outer dia X 15 mm nominal dia threaded	each	200.00	*
8847	Male thread Tee for 22.22 mm outer dia X 20 mm nominal dia threaded	each	205.00	*
8848	Male thread Tee for 28.58 mm outer dia X 15 mm nominal dia threaded	each	273.00	*
8849	Male thread Tee for 28.58 mm outer dia X 20 mm nominal dia threaded	each	273.00	*
8850	Male thread Tee for 28.58 mm outer dia X 20 mm nominal dia threaded	each	273.00	*
8851	Male thread Tee for 34.00 mm outer dia X 15 mm nominal dia	each	437.00	*
8852	Male thread Tee for 34.00 mm outer dia X 20 mm nominal dia threaded	each	437.00	*
8853	Male thread Tee for 34.00 mm outer dia X 25 mm nominal dia threaded	each	437.00	*
8854	Male thread Tee for 34.00 mm outer dia X 32 mm nominal dia threaded	each	437.00	*
8855	Male thread Tee for 42.70 mm outer dia X 15 mm nominal dia threaded	each	683.00	*
8856	Male thread Tee for 42.70 mm outer dia X 20 mm nominal dia threaded	each	683.00	*
8857	Male thread Tee for 42.70 mm outer dia X 25 mm nominal dia threaded	each	683.00	*
8858	Male thread Tee for 42.70 mm outer dia X 32 mm nominal dia threaded	each	683.00	*



Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
8859	Male thread Tee for 42.70 mm outer dia X 40 mm nominal dia threaded	each	683.00	*
8860	Male thread Tee for 48.60 mm outer dia X 15 mm nominal dia threaded	each	887.00	*
8861	Male thread Tee for 48.60 mm outer dia X 20 mm nominal dia threaded	each	887.00	*
8862	Male thread Tee for 48.60 mm outer dia X 25 mm nominal dia threaded	each	887.00	*
8863	Male thread Tee for 48.60 mm outer dia X 32 mm nominal dia threaded	each	887.00	*
8864	Male thread Tee for 48.60 mm outer dia X 40 mm nominal dia threaded	each	887.00	*
8865	Male thread Tee for 48.60 mm outer dia X 50 mm nominal dia threaded	each	887.00	*
8866	Female thread Tee for 15.88 mm outer dia X 15 mm nominal dia threaded	each	179.00	*
8867	Female thread Tee for 22.22 mm outer dia X 15 mm nominal dia threaded	each	200.00	*
8868	Female thread Tee for 22.22 mm outer dia X 20 mm nominal dia threaded	each	200.00	*
8869	Female thread Tee for 28.58 mm outer dia X 15 mm nominal dia threaded	each	273.00	*
8870	Female thread Tee for 28.58 mm outer dia X 20 mm nominal dia threaded	each	273.00	*
8871	Female thread Tee for 28.58 mm outer dia X 25 mm nominal dia threaded	each	273.00	*
8872	Female thread Tee for 34.00 mm outer dia X 15 mm nominal dia threaded	each	437.00	*
8873	Female thread Tee for 34.00 mm outer dia X 20 mm nominal dia threaded	each	437.00	*
8874	Female thread Tee for 34.00 mm outer dia X 25 mm nominal dia threaded	each	437.00	*
8875	Female thread Tee for 34.00 mm outer dia X 32 mm nominal dia threaded	each	437.00	*
8876	Female thread Tee for 42.70 mm outer dia X 15 mm nominal dia threaded	each	683.00	*
8877	Female thread Tee for 42.70 mm outer dia X 20 mm nominal dia threaded	each	683.00	*
8878	Female thread Tee for 42.70 mm outer dia X 25 mm nominal dia threaded	each	683.00	*
8879	Female thread Tee for 42.70 mm outer dia X 32 mm nominal dia threaded	each	683.00	*
8880	Female thread Tee for 42.70 mm outer dia X 40 mm nominal dia threaded	each	683.00	*
8881	Female thread Tee for 48.60 mm outer dia X 15 mm nominal dia threaded	each	887.00	*
8882	Female thread Tee for 48.60 mm outer dia X 20 mm nominal dia threaded	each	887.00	*
8883	Female thread Tee for 48.60 mm outer dia X 25 mm nominal dia threaded	each	887.00	*
8884	Female thread Tee for 48.60 mm outer dia X 32 mm nominal dia threaded	each	887.00	*



Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
8885	Female thread Tee for 48.60 mm outer dia X 40 mm nominal dia threaded	each	887.00	*
8886	Female thread Tee for 48.60 mm outer dia X 50 mm nominal dia threaded	each	887.00	*
8887	Female threaded Connector/Adapter for 15.88 mm outer dia X 15mm nominal threaded	each	190.00	*
8888	Female threaded Connector/Adapter for 22.22 mm outer dia X 15mm nominal threaded	each	230.00	*
8889	Female threaded Connector/Adapter for 22.22 mm outer dia X 20mm nominal threaded	each	237.00	*
8890	Female threaded Connector/Adapter for 28.58 mm outer dia X 15mm nominal threaded	each	277.00	*
8891	Female threaded Connector/Adapter for 28.58 mm outer dia X 20mm nominal threaded	each	286.00	*
8892	Female threaded Connector/Adapter for 28.58 mm outer dia X 25mm nominal threaded	each	337.00	*
8893	Female threaded Connector/Adapter for 34.00 mm outer dia X 25mm nominal threaded	each	409.00	*
8894	Female threaded Connector/Adapter for 34.00 mm outer dia X 32mm nominal threaded	each	538.00	*
8895	Female threaded Connector/Adapter for 42.70 mm outer dia X 32mm nominal threaded	each	576.00	*
8896	Female threaded Connector/Adapter for 42.70 mm outer dia X 40mm nominal threaded	each	681.00	*
8897	Female threaded Connector/Adapter for 48.60 mm outer dia X 40mm nominal threaded	each	838.00	*
8898	Female threaded Connector/Adapter for 48.60 mm outer dia X 50mm nominal threaded	each	965.00	*
8899	Male threaded Connector/Adapter for 15.88 mm outer dia X 15mm nominal threaded	each	193.00	*
8900	Male threaded Connector/Adapter for 22.22 mm outer dia X 15mm nominal threaded	each	227.00	*
8901	Male threaded Connector/Adapter for 22.22 mm outer dia X 20mm nominal threaded	each	248.00	*
8902	Male threaded Connector/Adapter for 28.58 mm outer dia X 20mm nominal threaded	each	313.00	*
8903	Male threaded Connector/Adapter for 28.58 mm outer dia X 25mm nominal threaded	each	320.00	*
8904	Male threaded Connector/Adapter for 34.00 mm outer dia X 25nominal dia threaded	each	461.00	*
8905	Male threaded Connector/Adapter for 34.00 mm outer dia X 32nominal dia threaded	each	565.00	*
8906	Male threaded Connector/Adapter for 42.70 mm outer dia X 32nominal dia threaded	each	649.00	*
8907	Male threaded Connector/Adapter for 42.70 mm outer dia X 40 nominal dia threaded	each	726.00	*
8908	Male threaded Connector/Adapter for 48.60 mm outer dia X 40	each	840.00	*
8909	Male threaded Connector/Adapter for 48.60 mm outer dia X 50 nominal dia threaded	each	1138.00	*
8910	Valve Connector for 15.88 mm outer dia X 15 mm nominal dia nominal dia threaded	each	234.00	*





Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
8911	Valve Connector for 22.22 mm outer dia X 15 mm nominal dia nominal dia threaded	each	276.00	*
8912	Valve Connector for 22.22 mm outer dia X 20 mm nominal dia nominal dia threaded	each	295.00	*
8913	Valve Connector for 28.58 mm outer dia X 25 mm nominal dia nominal dia threaded	each	424.00	*
8914	Valve Connector for 34.00 mm outer dia X 32 mm nominal dia nominal dia threaded	each	629.00	*
8915	Valve Connector for 42.70 mm outer dia X 40 mm nominal dia nominal dia threaded	each	875.00	*
8916	Valve Connector for 48.60 mm outer dia X 50 mm nominal dia nominal dia threaded	each	1176.00	*
8917	Female Threaded Elbow 90o for 15.88 mm outer dia X 15 mm nominal dia threaded	each	150.00	*
8918	Female Threaded Elbow 90o for 22.22 mm outer dia X 15 mm nominal dia threaded	each	191.00	*
8919	Female Threaded Elbow 90o for 22.22 mm outer dia X 20 mm nominal dia threaded	each	191.00	*
8920	Female Threaded Elbow 90o for 28.58 mm outer dia X 25 mm nominal dia threaded	each	205.00	*
8921	Female Threaded Elbow 90o for 34.00 mm outer dia X 32 mm nominal dia threaded	each	287.00	*
8922	Female Threaded Elbow 90o for 42.70 mm outer dia X 32 mm nominal dia threaded	each	478.00	*
8923	Female Threaded Elbow 90o for 42.70 mm outer dia X40 mm nominal dia threaded	each	478.00	*
8924	Female Threaded Elbow 90o for 48.60 mm outer dia X 40 mm nominal dia threaded	each	683.00	*
8925	Female Threaded Elbow 90o for 48.60 mm outer dia X 50 mm nominal dia threaded	each	683.00	*
8926	Male Threaded Elbow 90o for 15.88 mm outer dia X 15 mm nominal dia threaded	each	191.00	*
8927	Male Threaded Elbow 90o for 22.22 mm outer dia X 15 mm nominal dia threaded	each	205.00	*
8928	Male Threaded Elbow 90o for 22.22 mm outer dia X 20 mm nominal dia threaded	each	205.00	*
8929	Male Threaded Elbow 90o for 28.58 mm outer dia X 25 mm nominal dia threaded	each	205.00	*
8930	Male Threaded Elbow 90o for 34.00 mm outer dia X 25 mm nominal dia threaded	each	287.00	*
8931	Male Threaded Elbow 90o for 34.00 mm outer dia X 32 mm nominal dia threaded	each	287.00	*
8932	Male Threaded Elbow 90o for 42.70 mm outer dia X 32 mm nominal dia threaded	each	478.00	*
8933	Male Threaded Elbow 90o for 42.70 mm outer dia X40 mm nominal dia threaded	each	478.00	*
8934	Male Threaded Elbow 90o for 48.60 mm outer dia X 40 mm nominal dia threaded	each	683.00	*
8935	Male Threaded Elbow 90o for 48.60 mm outer dia X 50 mm nominal	each	683.00	*

Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
8936	Cap for 15.88 mm outer dia pipe	each	45.00	*
8937	Cap for 22.22 mm outer dia pipe	each	64.00	*
8938	Cap for 28.58 mm outer dia pipe	each	84.00	*
8939	Cap for 34.00 mm outer dia pipe	each	163.00	*
8940	Cap for 42.70 mm outer dia pipe	each	236.00	*
8941	Cap for 48.60 mm outer dia pipe	each	299.00	*
8942	Pipe Bridge for 15.88 mm outer dia pipe	each	214.00	*
8943	Pipe Bridge for 15.88 mm outer dia pipe	each	271.00	*
8944	Pipe Bridge for 28.58 mm outer dia pipe	each	407.00	*
8945	4 Point facade glass bracket	Nos	3318.00	*
8946	2 Point facade glass bracket	Nos	1659.00	*
8947	1 Point facade glass bracket	Nos	1300.00	*
8948	Flate head bolt	Nos	651.00	*
8949	400 fin plate at top	pair	5931.00	*
8953	Micro Silica	kg	32.00	*
8954	Stop end tubes for diaphragmwall 600 mm dia.	sqm	4.50	*
8955	Driving end tubes for diaphragm wall 600 mm dia.	sqm	72.00	*
8956	Bi-Axial Extruded GeoGrids of Minimum Tensile Strength 15 kN/m in the longitudinal and transverse direction	sqm	100.00	*
8957	Bi-Axial Extruded GeoGrids of Minimum Tensile Strength 20kN/m in the longitudinal and transverse direction	sqm	115.00	*
8958	Bi-Axial Extruded GeoGrids of Minimum Tensile Strength 30kN/m in the longitudinal and transverse direction	sqm	185.00	*
8959	Bi-Axial Extruded GeoGrids of Minimum Tensile Strength 40kN/m in the longitudinal and transverse direction	sqm	275.00	*
8960	Geosynthetic Drainage with two filtering nonwoven geotextiles having a "W" configuration as longitudinal parallel channels. Minimum thickness to be 7.2mm, with two filtering UV stabilized polypropylene nonwoven geotextile of minimum thickness of 0.75mm having pores of 150 micron and tensile strength of 8.0 kN/m and having plane flow capacity of 2.1 L / (m.s) at hydraulic gradient of 1.0 & 20 kPa pressure ,tensile strength of 18 kN/m , with mass per unit area of 740 gsm.	sqm	530.00	*
8961	Geosynthetic Drainage Composite having thermobonding a draining core - HDPE geonet comprises of two sets of parallel overlaid ribs integrally connected to have a rhomboidal shape with a polyethylene film and a nonwoven geotextile having mass per unit area 130 g/m <sup>2</sup> and tensile strength of 8.0 kN/m having in plane flow capacity of 0.7 L / (m.s) at hydraulic gradient of 1.0 & 20 kPa pressure and tensile strength of 13.5 kN/m , with mass per unit area of 830 gsm,	sqm	630.00	*
8962	Synthetic Geogrid having Ultimate tensile strength- 100 kN/m	sqm	220.00	*
8963	Synthetic Geogrid Ultimate tensile strength- 150 kN/m	sqm	230.00	*
8964	Synthetic Geogrid Ultimate tensile strength- 200 kN/m	sqm	320.00	*
8965	Synthetic Geogrid Ultimate tensile strength- 250 kN/m	sqm	355.00	*

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Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
8966	Synthetic Geogrid Ultimate tensile strength- 300kN/m	sqm	365.00	*
8967	Synthetic Geogrid Ultimate tensile strength- 350kN/m	sqm	370.00	*
8968	Synthetic Geogrid Ultimate tensile strength- 400kN/m	sqm	475.00	*
8969	Synthetic Geogrid Ultimate tensile strength- 500kN/m	sqm	535.00	*
8970	Synthetic Geogrid Ultimate tensile strength- 600kN/m	sqm	550.00	*
8971	Synthetic Geogrid Ultimate tensile strength- 700kN/m	sqm	685.00	*
8972	Synthetic Geogrid Ultimate tensile strength- 800kN/m	sqm	750.00	*
8973	Synthetic Geogrid Ultimate tensile strength- 900kN/m	sqm	900.00	*
8974	Synthetic Geogrid Ultimate tensile strength- 1000kN/m	sqm	1025.00	*
8975	Synthetic Geogrid Ultimate tensile strength- 1100kN/m	sqm	1000.00	*
8976	Synthetic Geogrid Ultimate tensile strength- 1200kN/m	sqm	1088.00	*
8977	Aluminium profile industrial troughed sheet of Alloy 31500/31000/ 40800, conforming to IS 1254, IS 737, IS 2676, 0.71 mm thick, the profile detail width 1044/920 mm, cover width 1000/875 mm	sqm	600.00	*
8978	Aluminium profile industrial troughed sheet of Alloy 31500/31000/ 40800, conforming to IS 1254, IS 737, IS 2676, 0.91 mm thick, the profile detail width 1044/920 mm, cover width 1000/875 mm	sqm	785.00	*
9001	C.P. Brass Centre Hole Basin Mixer With Cast Spout	each	1600.00	*
9977	Carriage	L.S.	2.00	*
9988	Carriage and sundries	L.S.	2.00	*
9999	Sundries	L.S.	2.00	*
0842	Ready mix paint for wood work	Per litre	182.36	****
0843	Ready mix paint for steel work	Per litre	182.36	****
0288	Brick Khoa	Per m3	1108.00	**
<b>1002</b>	<b>Mild steel round bar 12mm dia and below</b>	quintal	<b>3950.00</b>	**
1007	Structural steel	quintal	3864.00	**
0993	Plain A.C sheet standard quality(6mm thick)	sqm	177.26	****
8779	Paver Block			
A	M35 grade 60mm thick			
	White	sqm	487.64	**
	Red	sqm	496.33	**
	Yellow	sqm	511.91	**
B	M40 grade 80mm thick			
	White	sqm	559.60	**
	Red	sqm	574.24	**
	Yellow	sqm	592.76	**
8780	Kerb Stone Block M30 Grade of Size 375mm x 300mm	each	76.70	**



Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
	<b>Part-2 BASIC RATE OF MATERIALS RELATED TO FIRE FIGHTING BASED ON DSR -2019</b>			
	NOTE: These rates are exclusive of Contractor's profit, Overheads and Carriage and any taxes etc.			
	Fire Hydrant single outlet gunmetal NB inlet brass spindle 63mm female instantaneous/outlet with PVC blank cap and GI chain as per IS:5290 (ISI Marked)			
4201	Single head gunmetal hydrant valve	each	<b>4685.00</b>	*
	Short stainless steel branch pipe 63mm male instantaneous inlet male threaded outlet fitted with 15mm bore nose as per IS:903 (ISI Marked)			
4202	Single Head Stainless Steel Hydrant Valve	Each	<b>3547.00</b>	*
	Short gunmetal pipe 63mm male instantaneous inlet male threaded outlet fitted with 15mm bore nozzle as per IS:903 (ISI Marked)			
4203	Gunmetal short branch pipe	Each	<b>1758.00</b>	*
4204	Short stainless steel branch pipe	Each	<b>1189.00</b>	*
	FBC CI Body having two nos. gunmetal 63mm male instantaneous inlet coupling conforming to IS:903 fitted with non return valve flange outlet of 100mm dia complete with 25mm size gunmetal drain valve, two nos. rubber blank caps and chain			
4205	Two way gunmetal FBC connection	Each	<b>4002.00</b>	*
4206	Three way gunmetal FBC connection	Each	<b>6050.00</b>	*
4207	Four way gunmetal FBC connection	Each	<b>9462.00</b>	*
	Sythetic fibre circular woven jacketed rubber lined fire hose delivery having 38Kg. Per Cm. Sq. burst pressure, 28Kg. Per Cm. proof pressure, 14Kg. Per Cm. working pressure as per IS:636 (ISI Marked) Type A in 15 Meters length, 63mm dia duly copper via bounded two coupling pair of male female parts any duly instantaneous type, 63mm size as per IS:903 (ISI Marked)			
4208	RRL Hose with male female gunmetal coupling	Each	<b>3861.00</b>	*
4209	RRL Hose with male female stainless steel coupling	Each	<b>3292.00</b>	*
	19mm swinging hose reel complete reinforced braided thermoplastic red/black hose			*
4210	Swinging type hose reel complete with 19mm x 30 Mtrs. Thermoplastic hose Type-II	Each	<b>2043.00</b>	*
4211	Swinging type hose reel complete with 19mm x 40 Mtrs. Thermoplastic hose Type-II	Each	<b>3232.00</b>	*
4212	Hose reel drum	Each	<b>2350.00</b>	*
4213	25mm dia gun metal globe valve & nozzle.	Each	<b>691.00</b>	*
	Sprinkler operating at 68 <sup>0</sup> centigrade standard response, standard coverage 15mm BPST, K56 UL listed and FM approved			
4214	68 <sup>0</sup> centigrade Pendant Sprinkler	Each	<b>168.00</b>	*
4215	68 <sup>0</sup> centigrade Upright Sprinkler	Each	<b>168.00</b>	*



Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
4216	68° centigrade Sidewall Sprinkler	Each	240.00	*
4217	68° centigrade Concealed Sprinkler	Each	857.00	*
	Sprinkler flexible drops stainless steel complete with 15 NPT on reducer thread with maximum working pressure of 175 PSI test pressure of 875 PSI (Burst) with branch line (Inlet) 25mm NPT male thread to sprinkler head (Outlet) 15mm NPT female thread 1 No. reducer + 1 No. Nipple + 2 Side Brackets + 1 Center Bracket + 625 mm stockbar			
4218	700mm flexible drop	Each	795.00	*
4219	1000mm flexible drop	Each	945.00	*
4220	1200mm flexible drop	Each	1015.00	*
4221	1500mm flexible drop	Each	1137.50	*
4222	Water flow switch for 100mm dia pipe	Each	4945.00	*
4223	Water flow switch for 150mm dia pipe	Each	6083.00	*
	hydraulic alarm valve with water motor gong bell and constant pressure trim assembly complete as required			
4224	150mm dia hydraulic alarm valve with water motor gong	Each	34933.00	*
4225	100mm dia hydraulic alarm valve with water motor gong	Each	32517.00	*
4226	80mm dia hydraulic alarm valve with water motor gong	Each	30777.00	*
	Deluge valve with wet pilot basic trim assembly with test and alarm, drip and drain valve with water motor gong			
4227	150mm dia deluge valve	Each	84888.00	*
4228	100mm dia deluge valve	Each	68238.00	*
4229	80mm dia deluge valve	Each	60732.00	*
4230	50mm dia deluge valve	Each	60280.00	*
	Water curtain nozzle, 15mm dia BPST K-Factor as per design consideration			
4231	Water curtain nozzle, nickel chrome plated brass	Each	313.20	*
4232	Electric release trim assembly for deluge valve with two way solenoid valve, weather proof operation on 24 volts DC	Each	5382.00	*
4233	Adjustable rosette plate for 15mm dia (Powder Coated)	Each	80.00	*
	BUTTERFLY VALVE PN 1.6 rating			*
4234	40mm dia butterfly valve	Each	1948.00	*
4235	50mm dia butterfly valve	Each	1948.00	*
4236	65mm dia butterfly valve	Each	2150.00	*
4237	80mm dia butterfly valve	Each	2382.00	*
4238	100mm dia butterfly valve	Each	3305.00	*
4239	125mm dia butterfly valve	Each	4175.00	*
4240	150mm dia butterfly valve	Each	4803.00	*
4241	200mm dia butterfly valve	Each	9188.00	*
4242	250mm dia butterfly valve	Each	12912.00	*
4243	300mm dia butterfly valve	Each	16105.00	*
	MS pipe as per IS/1239 ISI MARKED C Class (heavy )			

Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
4244	25mm dia MS Pipe	m	118.00	*
4245	32mm dia MS Pipe	m	155.00	*
4246	40mm dia MS Pipe	m	180.00	*
4247	50mm dia MS Pipe	m	265.00	*
4248	65mm dia MS Pipe	m	350.00	*
4249	80mm dia MS Pipe	m	424.00	*
4250	100mm dia MS Pipe	m	634.00	*
4251	125mm dia MS Pipe	m	819.00	*
4252	150mm dia MS Pipe	m	938.00	*
4253	200mm dia MS Pipe (6.3 mm thick)	m	1426.00	*
4254	250mm dia MS Pipe (6.3 mm thick)	m	1798.00	*
4255	300mm dia MS Pipe (7.1 mm thick)	m	2106.00	*
	GI pipe as per IS/1239 ISI MARKED C Class (heavy)			
4256	25mm dia G.I. Pipe	m	171.00	*
4257	32mm dia G.I. Pipe	m	215.00	*
4258	40mm dia G.I. Pipe	m	250.00	*
4259	50mm dia G.I. Pipe	m	310.00	*
4260	65mm dia G.I. Pipe	m	395.00	*
4261	80mm dia G.I. Pipe	m	505.00	*
4262	100mm dia G.I. Pipe	m	714.00	*
4263	150mm dia G.I. Pipe	m	1066.00	*
	NON RETURN VALVE cast Iron double flange as per IS/5312 PN 1.6 rating complete with Bronze body & wedge Stainless Steel spindle, Gland packing, Rubber gasket			
4264	40mm dia Non Return Valve	Each	3311.00	*
4265	50mm dia Non Return Valve	Each	3311.00	*
4266	65mm dia Non Return Valve	Each	3785.00	*
4267	80mm dia Non Return Valve	Each	4366.00	*
4268	100mm dia Non Return Valve	Each	6607.00	*
4269	125mm dia Non Return Valve	Each	10290.00	*
4270	150mm dia Non Return Valve	Each	11718.00	*
4271	200mm dia Non Return Valve	Each	20013.00	*
4272	250mm dia Non Return Valve	Each	31946.00	*
4273	300mm dia Non Return Valve	Each	43392.00	*
	NON RISING cast Iron double flange SLUICE Valve as per ISI/14846 PN 1.6 rating complete with Bronze body & wedge Stainless Steel spindle, Gland packing, Rubber gasket			
4274	40mm DIA Sluice Valve	Each	3540.00	*
4275	50mm DIA Sluice Valve	Each	4532.00	*
4276	65mm DIA Sluice Valve	Each	5875.00	*

*[Handwritten signatures and initials]*



Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
4277	80mm DIA Sluice Valve	Each	6663.00	*
4278	100mm DIA Sluice Valve	Each	9324.00	*
4279	125mm DIA Sluice Valve	Each	12511.00	*
4280	150mm DIA Sluice Valve	Each	15461.00	*
4281	200mm DIA Sluice Valve	Each	27639.00	*
4282	250mm DIA Sluice Valve	Each	32913.00	*
4283	300mm DIA Sluice Valve	Each	47409.00	*
	Cast iron double flange strainer with stainless steel mesh, PN 1.6 rating complete with accessories as required.			
4284	80mm dia CIDF SS mesh Strainer	Each	2530.80	*
4285	100mm dia CIDF SS mesh Strainer	Each	3636.00	*
4286	150mm dia CIDF SS mesh Strainer	Each	6791.40	*
4287	200mm dia CIDF SS mesh Strainer	Each	14689.80	*
4288	250mm dia CIDF SS mesh Strainer	Each	18450.90	*
4289	300mm dia CIDF SS mesh Strainer	Each	25366.50	*
4290	25mm Air release valve as per IS:14845 ISI Marked	Each	1350.00	*
	electric driven main fire pump with motor, base plate coupling, coupling guard, foundation bolts and anti vibration pads			
4291	2850 lpm at 88 m Head	Each	331000.00	*
4292	2850 lpm at 70 m Head	Each	295000.00	*
4293	2850 lpm at 56 m Head	Each	294000.00	*
4294	2280 lpm at 88 m Head	Each	294000.00	*
4295	2280 lpm at 70 m Head	Each	268000.00	*
4296	2280 lpm at 56 m Head	Each	240000.00	*
4297	1620 lpm at 88 m Head	Each	268000.00	*
4298	1620 lpm at 70 m Head	Each	240000.00	*
4299	1620 lpm at 56 m Head	Each	204000.00	*
	diesel engine driven main fire pump, tank, exhaust, foundation bolts, anti vibration pads etc.			
4300	2850 lpm at 88 m Head	Each	505000.00	*
4301	2850 lpm at 70 m Head	Each	453700.00	*
4302	2850 lpm at 56 m Head	Each	451000.00	*
4303	2280 lpm at 88 m Head	Each	468000.00	*
4304	2280 lpm at 70 m Head	Each	450000.00	*
4305	2280 lpm at 56 m Head	Each	448000.00	*
4306	1620 lpm at 88 m Head	Each	463100.00	*
4307	1620 lpm at 70 m Head	Each	435000.00	*
4308	1620 lpm at 56 m Head	Each	375000.00	*
	electric driven pressurisation pump (Jockey pump)			*
4309	180 lpm at 88 m Head	Each	90000.00	*



Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
4310	180 lpm at 70 m Head	Each	72000.00	*
4311	180 lpm at 56 m Head	Each	56000.00	*
4312	300 lpm at 88 m Head	Each	120000.00	*
4313	300 lpm at 70 m Head	Each	90200.00	*
4314	300 lpm at 56 m Head	Each	81000.00	*
	electric driven pressurisation pump (Terrace pump)			*
4315	900 lpm at 35 m Head	Each	70909.00	*
4316	450 lpm at 35 m Head	Each	59091.00	*
4317	Air Vessel 250 mm	Each	12646.00	*
4318	Pressure switch	Each	986.00	*
4319	Orifice plate made of 6 mm. thick stainless steel with orifice of required size in between flange & landing valve of external and internal hydrant to reduce pressure to working pressure of 3.5 kg/cm <sup>2</sup>	Each	802.00	*
4320	Cost of Cement concrete foundation with 35x35x5 mm angle frame on edges duly plastered Cum with inertia blocks.	Cum	4500.00	*
	Cost of Control Panel			
4321	INCOMING			
	250A, 50kA 4 Pole MCCB, Ics=100% Icu rating Digital Voltmeter 0-500V with selector switch Digital Ammeter (0-250 A) with selector switch & CTs etc.			
	LED type RYB phase indicating lamps, ON, OFF, trip indicating lamps Set of Copper Bus Bar 300A			
	OUTGOING ( Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps)			
	Main Fire Pump 125 A, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 60 HP pump with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation.			
	Jockey Pump 63 A, 50kA TPN MCCB, Ics=100% Icu, with suitable HP fully automatic Star/Delta starter with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation.			

*[Handwritten signatures and initials]*

Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
	DIESEL ENGINE CONTROL Control for diesel engine comprising - Automatic/Manual selector switch & 3 attempts starting device, timers and relays as required, push buttons, start/stop in manual mode Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indication Battery charger suitable for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter All standard relays and accessories for automatic operation of diesel engine			
	System Controller Designing, Supply, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specification	Each	175000.00	*
	Incomings 400A, 50kA 4 Pole MCCB, Ics=100% Icu rating Digital Voltmeter 0-500V with selector switch Ammeter (0-400 A) with selector switch & CTs etc.			
	LED type RYB phase indicating lamps, ON, OFF, trip indicating lamps Set of Copper Bus Bar 500A			
	Outgoings ( Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps)			
	Main Fire Pump 200 A, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 75 hp pump with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation.			
	Jockey Pump 100 A, 50kA TPN MCCB, Ics=100% Icu, with suitable HP fully automatic Star/Delta starter with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation.			
	Diesel Engine Control Control for diesel engine comprising - Automatic/Manual selector switch & 3 attempt starting device, timers and relays as required, push buttons, start/stop in manual mode Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indication Battery charger suitable for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter All standard relays and accessories for automatic operation of diesel engine			

Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
4322	System Controller Designing, Supply, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specifications.	Each	<b>205000.00</b>	*
	Incomings 630A, 50kA 4 Pole MCCB, Ics=100% Icu rating Digital Voltmeter 0-500V with selector switch Ammeter (0-630 A) with selector switch & CTs etc.LED type RYB phase indicating lamps, ON, OFF, trip indicating lamps Set of Copper Bus Bar 800Amps			
	Outgoings			
	( Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps)			
	Main Fire Pump			
	250 A, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 100 hp pump with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation.			
	Jockey Pump			
	125 A, 50kA TPN MCCB, Ics=100% Icu, with Suitable HP fully automatic Star/Delta starter with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation.			
	Diesel Engine Control			
	Control for diesel engine comprising -			
	Automatic/Manual selector switch & 3 attempts starting device, timers and relays as required, push buttons, start/stop in manual mode			
	Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indication			
	Battery charger suitable for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter			
	All standard relays and accessories for automatic operation of diesel engine			
	System Controller			
4323	Designing, Supply, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specification	Each	<b>230000.00</b>	*



Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
	Incomings			
	400A, 50kA 4 Pole MCCB, Ics=100% Icu Rating Digital Voltmeter 0-500V with selector switch Ammeter (0-400 A) with selector switch & CTs etc. LED type RYB phase indicating lamps, ON, OFF, trip indicating lamps Set of Copper Bus Bar 500Amps			
	Outgoings			
	( Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps)			
	Main Fire Pumps			
	125 Amp, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 60 hp pump with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. - 2 sets			
	Jockey Pump			
	63 Amp, 50kA TPN MCCB, Ics=100% Icu, with Suitable HP fully automatic Star/Delta starter with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. - 2 sets			
	Diesel Engine Control			
	Control for diesel engine comprising -			
	Automatic/Manual selector switch & 3 attempts starting device, timers and relays as required, push buttons, start/stop in manual mode			
	Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indication			
	Battery charger suitable for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter			
	All standard relays and accessories for automatic operation of diesel engine			
	System Controller			
4324	Designing, Supply, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specification	Each	265000.00	*
	Incomings 630A, 50kA 4 Pole MCCB, Ics=100% Icu Rating Digital Voltmeter 0-500V with selector switch Ammeter (0-630 A) with selector switch & CTs etc. LED type RYB phase indicating lamps, ON, OFF, trip indicating lamps Set of Copper Bus Bar 800Amps			

Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
	Outgoings			
	( Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps)			
	Main Fire Pump			
	200 Amp, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 75 hp pump with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. - 2 sets			
	Jockey Pump			
	100 Amp, 50kA TPN MCCB, Ics=100% Icu, with Suitable HP fully automatic Star/Delta starter with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. - 2 sets			
	Diesel Engine Control			
	Control for diesel engine comprising -			
	Automatic/Manual selector switch & 3 attempts starting device, timers and relays as required, push buttons, start/stop in manual mode			
	Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indication			
	Battery charger suitable for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter			
	All standard relays and accessories for automatic operation of diesel engine			
	System Controller			
4325	Designing, Supply, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specification	Each	<b>320000.00</b>	*
	Incomings			
	800A, 50kA 4 Pole MCCB, Ics=100% Icu Rating Digital Voltmeter 0-500V with selector switch Ammeter (0-800 A) with selector switch & CTs etc LED type RYB phase indicating lamps, ON, OFF, trip indicating lamps Set of Copper Bus Bar 1000Amps			
	Outgoings			
	( Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps)			

*[Handwritten signatures and initials]*

Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
	Main Fire Pump			
	250 Amp, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 100 hp pump with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. - 2 sets			
	Jockey Pump			
	125 Amp, 50kA TPN MCCB, Ics=100% Icu, with Suitable HP fully automatic Star/Delta starter with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. - 2 sets			
	DIESEL ENGINE CONTROL			
	Control for diesel engine comprising -			
	Automatic/Manual selector switch & 3 attempts starting device, timers and relays as required, push buttons, start/stop in manual mode			
	Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indication			
	Battery charger suitable for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter			
	All standard relays and accessories for automatic operation of diesel engine			
	System Controller			
4326	Designing, Supply, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specification	Each	410000.00	*
4327	Basic cost of 4 mm thick Anti Corrosive Pipe Protection Bituminous Tape,	sq m	210.00	*
4328	Basic cost of anticorrosive Black paint	Litre	110.00	*
4329	Cost of 4 Nos. Nuts bolts and washers	Set	50.00	*
4330	Cost of 1 No. 3 mm thick rubber gasket	Each	70.00	*
4331	Cost of 1 No. MS flange as per IS drilling 16 mm thick LS	Set	200.00	*
4332	Cost of Welding rod	Job	40.00	*
4333	Cost of 40 mm dia Flange	Each	110.00	*
4334	Cost of 8 Nos. Nut bolt fastner and packing gaskets	Each	90.00	*
4335	Cost of Welding rod LS	Each	60.00	*
4336	Cost of 50 mm dia butterfly valve	Each	110.00	*
4337	Cost of 50mm dia Flange	Each	110.00	*
4338	Cost of 65 mm dia Flange	Each	110.00	*

Code No	Description	Unit	Present Approved rate inclusive Royalty	Remark
1	2	3	4	10
4339	Cost of 65 mm dia butterfly valve	Each	110.00	*
4340	Cost of 80 mm dia Flange	Each	220.00	*
4341	Cost of 8 Nos. Nut bolt fastner and packing gaskets	Each	180.00	*
4342	Cost of Welding rod LS	Each	90.00	*
4343	Cost of 100 mm dia Flange	Each	220.00	*
4344	Cost of 150 mm dia Flange	Each	220.00	*
4345	Cost of 200 mm dia Flange	Each	340.00	*
4346	Cost of 8 Nos. Nut bolt fastner and packing gaskets	Each	300.00	*
4347	Cost of Welding rod LS	Each	120.00	*
4348	Cost of 250 mm dia Flange	Each	340.00	*
4349	Cost of 300 mm dia Flange	Each	340.00	*
4350	Cost of packing gaskets	LS	50.00	*
4351	Cost of 125 mm dia Flange	Each	220.00	*
4352	Cost of 80 mm dia Flange	Each	110.00	*
4353	Cost of 100 mm dia Flange	Each	110.00	*
4354	Cost of 150 mm dia Flange	Each	110.00	*
4355	Cost of 25mm dia socket, union, nipples (Lumpsum)	each	210.00	*
4356	Cost of 25mm dia gunmetel gate valve	Each	770.00	*
4357	Cost of 250mm dia air vessel wit air release valve and 25mm dia gunmetel wheel valve for drainage	Each	14000.00	*
4358	Cost of 15mm dia MS Socket & teflon tape (Lumpsum)	Each	45.00	*
4359	Cot of teflon tape	Each	20.00	*
4360	25mm dia MS Socket	Each	45.00	*
4361	Cost of MS Socket 15mm dia	Each	35.00	*
4362	Cost of water flow switch	Each	6500.00	*
4363	Cost of Packing gaskets	LS	50.00	*
4364	Cost of 4 Nos. Nut Bolt fastner & packing gaskets	LS	90.00	*
4365	Cost of 12 Nos. Nut bolt fastner and packing gaskets	Each	450.00	*

Note:-

- 1 \* Rates based on DSR 2018.  
Since DSR 2018 has been prepared based on the material rate 1-10-2018. The WSPI on March 2020 is 121.1 and which is almost equal to WSPI of Sept. 2018 ie 120.9. Hence No enhancement has been done in basic rates.
- 2 \*\* Approved rate by State Level SOR committee vide It no 29- dt 16-04-2020
- 3 \*\*\* Approved rate of cement by State level SOR committee.
- 4 \*\*\*\* Present BSOR 2018 rates
- 5 \*\*\*\*\* Rate of fly ash brick has taken from RCD SOR effective from 01-04-2019







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**SUB HEAD : 0.4**  
**CAPACITY OF TRUCK**

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**TRUCK CAPACITY PER TRIP**

VIDE T.E.C.LETTER No 1115DATED 12.07.85

Sl. No	Materials	Truck Capacity		Net payable Volume or weight col 3*col 4
1	2	3	4	5
1	Lime,Moorum and building rubbish	6.00cum	1.00	6.00 cum
2	Earth	6.00cum	0.80	4.80 cum
3	Manure or sludge	6.00cum	0.92	5.52 cum
4	Excavated rocks(120 Lbs)	6.00cum	0.67	4.02 cum
5	Stone Metal	5.40cum	0.85	4.59 cum
6	Soling stone	5.00cum	0.85	4.25 cum
7	Boulder(90 Lbs to 120 Lbs)	6.00cum	0.8	4.80 cum
8	Bricks	2000Nos	1.00	2000 Nos
9	Tiles/Mangra/Mosaic	3200Nos	1.00	3200Nos
10	Bricks Tiles(300*150*50mm)	1760Nos	1.00	1760 Nos
11	Cement,Stone blocks ,G.I,C.I, A.C and C.C Pipe below 100 mm dia and other heavy materials	8.00Mt	1.00	8.00MT
12	Steel	8.00Mt	1.00	8.00MT
13	Timber	9.60 cum	1.00	9.60 cum
14	Tar,Bitumen	8.00M.T	1.00	8.00MT
15	Steam coal	8.00 MT	1.00	8.00MT
16	S.W.Pipe 60 cm,length			
(i)	100 mm dia	800No / 480M	1.00	800No / 480M
(ii)	150 mm dia	400 No / 240 M	1.00	400 No / 240 M
(iii)	200 mm dia	224 No / 134.40 M	1.00	224 No / 134.40 M
(iv)	230 mm dia	176 No / 105.60 M	1.00	176 No / 105.60 M
(v)	250 mm dia	140 No / 84 M	1.00	140 No / 84 M
(vi)	300 mm dia	112 No / 67.20 M	1.00	112 No / 67.20 M
(vii)	350 mm dia	80 No / 48 M	1.00	80 No / 48.20 M
(viii)	400 mm dia	56 No / 33.60 M	1.00	56 No / 33.60 M
(ix)	450 mm dia	44 No / 26.40 M	1.00	44 No / 26.40 M
(x)	500 mm dia	40 No / 24.00 M	1.00	40 No / 24.00 M
(xi)	600 mm dia	32 No / 19.20 M	1.00	32 No / 19.20 M
17	R.C.C pipe and A.C pipe			
(i)	100 mm dia	145 No*2M=290M	1.00	290.00M
(ii)	125 mm dia	100 No*2M=200M	1.00	200.00M
(iii)	150 mm dia	90 No*2M=180M	1.00	180.00M



Sl. No	Materials	Truck Capacity		Net payable Volume or weight col 3*col 4
1	2	3	4	5
(iv)	200 mm dia	40No*2.5M=100M	1.00	40No*2.5M=100M
(v)	250 mm dia	30No*2.50M=75M	1.00	75.00M
(vi)	300 mm dia	24 No*2.5=60M	1.00	60.00M
(vii)	350 mm dia	19No*2.5M=47.5M	1.00	47.50M
(viii)	400mm dia & 450mm dia	13No*2.5M=32.5M	1.00	32.50M
(ix)	500mm dia & 600mm dia	10No*2.5M=25.0M	1.00	25.00M
(x)	700mm dia & 800mm dia	6No*2.5M=15M	1.00	15.00M
(xi)	900mm dia & 1100mm dia	4No*2.5M=10M	1.00	10.00M
(xii)	1100mm dia & 1200mm dia	3No*2.5M=7.5M	1.00	7.50M
<b>18</b>	<b>G.I Crates 1*1.5*0.75 M</b>	80 No	1.00	80 No
<b>19</b>	<b>Bamboos</b>			
(i)	75 mm dia & 100 mm dia	280 No	1.00	280 No
(ii)	50 mm dia & 75 mm dia	300 No	1.00	300 No
<b>20</b>	<b>Empty bags of cement length</b>	3000 Nos	1.00	280 Nos
<b>21</b>	<b>Sal bullah Av 6M</b>			
(i)	100 mm dia	125 Nos	1.00	125 Nos
(ii)	125 mm dia	80 Nos	1.00	80 Nos
(iii)	150 mm dia	60 Nos	1.00	60 Nos
(iv)	175 mm dia	45 Nos	1.00	45 Nos
(v)	200 mm dia	25 Nos	1.00	25 Nos
(vi)	225 mm dia	20 Nos	1.00	20 Nos
<b>22</b>	<b>Stone chips and sand</b>	5.4 cum	0.92	5.00 cum
<b>23</b>	<b>Steel and C.I.Pipe 3.66 M</b>			
(i)	100 mm dia	80 No*3.66M=292.80M	1.00	292.8M
(ii)	125 mm dia	60 No*3.66M=219.60M	1.00	219.60M
(iii)	150 mm dia	50 No*3.66M=183.00M	1.00	183.00M
(iv)	200 mm dia	30 No*3.66M=109.80M	1.00	109.80M
(v)	250 mm dia	22 No*3.66M=80.52M	1.00	80.52M
(vi)	300 mm dia	17 No*3.66M=62.22M	1.00	62.22M
(vii)	350 mm dia	12 No*3.66M=43.92M	1.00	43.92M
(viii)	400 mm dia	9 No*3.66M=32.94M	1.00	32.94M
(ix)	500 mm dia	7 No*3.66M=25.62M	1.00	25.62M
(x)	600 mm dia	5 No*3.66M=18.30M	1.00	18.30M

*[Handwritten signatures and initials]*

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**SUB HEAD : 1.0**  
**CARRIAGE OF MATERIAL**

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**CARRIAGE OF MATERIALS(By Tipper)****(Cost of carriage is exclusive of GST and labour cess)**

Sr no.	Ref. to M.O.R.T Spec.	Description	Unit	Quantity	Rate Rs.	Cost Rs.	Remarks/ Input ref.
1.1		Loading and Unloading of Stone Boulder/ Stone aggregates/ Sand/ Kanker/ Moorum.	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			1 Min		
		ii) Loading by front end loader 1 cum bucket capacity @ 25 cum per hour			13 Min		
		iii) Maneuvering, reversing, dumping and turning for return			2 Min		
		iv) Waiting time, unforeseen contingencies etc			4 Min		
		Total			<b>20 Min</b>		
		<b>a) Machinery</b>					
		Tipper 5.5 tonnes capacity	hour	0.330	1043.0	344.19	P & M 048
		Front end-loader 1 cum bucket capacity @ 25 cum/hour	hour	0.330	1403.0	462.99	P & M 017
		<b>b) Overhead charges @.06 on( a)</b>				<b>48.43</b>	
		<b>c) Contractor's profit @ 0.1 on (a+b)</b>				<b>85.56</b>	
		Cost for 5.5 cum = a+b+c				941.17	
		<b>Rate per cum = (a+b+c)/ 5.5</b>				171.12	
	<b>Note</b>	Unloading will be by tipping.			say	<b>Rs.171.10</b>	
1.2		Loading and Unloading of Boulders by Manual Means					
		<b>Unit = cum</b>					
		<b>Taking output = 5.5 cum</b>					
		<b>a) Labour</b>					
		Mate	day	0.110	305.00	33.55	L-12
		Mazdoor for loading and unloading	day	0.750	287.00	215.25	L-13
		<b>b) Machinery</b>					
		Tipper 5.5 tonne capacity	hour	0.750	1043.0	782.25	P & M 048
		<b>c) Overhead charges @0.06 on( a+b)</b>				<b>61.86</b>	
		<b>d) Contractor's profit @ 0.1 on (a+b+c)</b>				<b>109.29</b>	
		Cost for 5.5 cum = a+b+c+d				1202.20	
	<b>Rate per cum = (a+b+c+d)/5.5</b>				218.58		
					say	<b>Rs.219.00</b>	
	<b>Note</b>	Unloading will be by tipping.					
1.3		Loading and Unloading of Cement or Steel by Manual Means and Stacking.					
		<b>Unit = tonne</b>					
		<b>Taking output = 10 tonnes</b>					
		<b>a) Labour</b>					
		Mate	day	0.080	305.00	24.40	L-12
	Mazdoor for loading and unloading	day	2.000	287.00	574.00	L-13	
	<b>b) Machinery</b>						

Sr no.	Ref. to M.O.R.T Spec.	Description	Unit	Quantity	Rate Rs.	Cost Rs.	Remarks/ Input ref.
		Truck 10 tonne capacity	hour	2.000	934.30	1868.60	P & M 048
		<b>c) Overhead charges @0.06 on( a+b)</b>				<b>148.02</b>	
		<b>d) Contractor's profit @ 0.1 on (a+b+c)</b>				<b>261.50</b>	
		Cost for 10 tonnes = a+b+c+d				2876.52	
		<b>Rate per tonnes = (a+b+c+d)/10</b>				287.65	
					say	<b>Rs.288.00</b>	
1.4		<b>Cost of Haulage Excluding Loading and Unloading</b>					
		Haulage of materials by tipper excluding cost of loading, unloading and stacking.					
		<b>Unit = t.km</b>					
		<b>Taking output 10 tonnes load and lead 10 km = 100 t.km</b>					
	(i)	<b>Surfaced Road</b>					
		Speed with load : 25 km / hour.					
		Speed while Returning empty :35 km / hour.					
		<b>a) Machinery.</b>					
		<b>Tipper 10 tonne capacity</b>					
		Time taken for onward haulage with load	hour	0.400	1043.0	417.20	
		Time taken for empty return trip.	hour	0.290	1043.0	302.47	
		<b>b) Overhead charges @0.06 on( a)</b>				<b>43.18</b>	
		<b>c) Contractor's profit @ 0.1 on (a+b)</b>				<b>76.29</b>	
		cost for 100 t km = a+b+c				839.14	
		<b>Rate per t.km = (a+b+c)/100</b>				8.39	
					say	<b>Rs.8.40</b>	
1.4	(ii)	<b>Unsurfaced Graveled Road</b>					
		Speed with load: 20 km / hour					
		Speed for empty return trip :30 km / hour					
		<b>a) Machinery</b>					
		<b>Tipper 10 tonnes capacity</b>					
		Time taken for onward haulage with load	hour	0.500	1043.0	521.50	
		Time taken for empty return trip	hour	0.330	1043.0	344.19	
		<b>b) Overhead charges @0.06 on( a)</b>				<b>51.94</b>	
		<b>c) Contractor's profit @ 0.1 on (a+b)</b>				<b>91.76</b>	
		Cost for 100 t .km = a+b+c				1009.39	
		<b>Rate per t.Km = (a+b+c)/100</b>				10.09	
					say	<b>Rs.10.10</b>	
1.4	(iii)	<b>Katcha Track and Track in River Bed/Nallah Bed and Choe Bed.</b>					
		Speed with load :10 km / hour					
		Speed while returning empty:15 km / hour					
		<b>a) Machinery</b>					
		<b>Tipper 10 tonnes capacity</b>					
		Time taken for onward haulage	hour	1.000	1043.0	1043.00	
		Time taken for empty return trip	hour	0.670	1043.0	698.81	
		<b>b) Overhead charges @0.06 on( a)</b>				<b>104.51</b>	
		<b>c) Contractor's profit @ 0.1 on (a+b)</b>				<b>184.63</b>	
		Cost for 100 t .km = a+b+c				2030.95	
		<b>Rate per t.Km = (a+b+c)/100</b>				20.31	
					say	<b>Rs.20.30</b>	

**CARRIAGE OF MATERIALS( By Tractor )**

Sr no.	Ref. to M.O.R.T Spec.	Description	Unit	Quantity	Rate Rs.	Cost Rs	Remarks/ Input ref.
1.1		Loading and Unloading of Stone Boulder/ Stone aggregates/Sand/ Kanker/ Moorum.	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 = 2.25 cum</b>					
		<b>Time required for</b>					
		i) Positioning of tipper at loading point		1 Min			
		ii) Loading by front end loader 1 cum bucket capacity @ 25 cum per hour		5 Min			
		<b>a) Labour</b>					
		Mate	day	0.030	305.00	9.15	L-12
		Mazdoor for loading and unloading	day	0.720	287.00	206.64	L-13
		<b>Total</b>		<b>6 Min</b>			
		<b>a) Machinery</b>					
		Tractor 3.6 tonnes capacity	hour	0.100	542.00	54.20	P & M 048
		Front end-loader 1 cum bucket capacity @ 25 cum/hour	hour	0.083	1403.0	116.45	P & M 017
		<b>c) Overhead charges @0.06 on( a+b)</b>				<b>23.19</b>	
		<b>d)Contractor's profit @ 0.1 on (a+b+c)</b>				<b>40.96</b>	
		Cost for 2.25 cum = a+b+c+d				450.59	
		<b>Rate per cum = (a+b+c+d)/2.25</b>				200.26	
						say	<b>Rs.200.00</b>
		<b>Note</b>	Unloading will be by tipping.				
1.2		Loading and Unloading of Boulders by Manual Means					
		<b>Unit = cum</b>					
		<b>Taking output =2.25cum</b>					
		<b>a) Labour</b>					
		Mate	day	0.050	305.00	15.25	L-12
		Mazdoor for loading and unloading	day	0.310	287.00	88.97	L-13
		<b>b) Machinery</b>					
		Tipper 3.6 tonne capacity	hour	0.310	542.00	168.02	
		<b>c) Overhead charges @0.06 on( a+b)</b>				<b>16.33</b>	
		<b>d)Contractor's profit @ 0.1 on (a+b+c)</b>				<b>28.86</b>	
		Cost for 2.25 cum = a+b+c+d				317.43	
		<b>Rate per cum = (a+b+c+d)/2.25</b>				141.08	
		<b>Note</b>	Unloading will be by tipping.			say	<b>Rs.141.00</b>
1.3		Loading and Unloading of Cement or Steel by Manual Means and Stacking.					
		<b>Unit = tonne</b>					
		<b>Taking output = 3.6 tonnes</b>					
		<b>a) Labour</b>					
		Mate	day	0.030	305.00	9.15	L-12
		Mazdoor for loading and unloading	day	0.720	287.00	206.64	L-13
		<b>b) Machinery</b>					
	Trractor of 3.6 tonnes capacity	hour	0.720	542.00	390.24		
	<b>c) Overhead charges @0.06 on( a+b)</b>				<b>36.36</b>		


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Sr no.	Ref. to M.O.R.T Spec.	Description	Unit	Quantity	Rate Rs.	Cost Rs	Remarks/ Input ref.
		<b>d) Contractor's profit @ 0.1 on (a+b+c)</b>				<b>64.24</b>	
		Cost for 10 tonnes = a+b+c+d				706.63	
		<b>Rate per tonnes = (a+b+c+d)/2.25</b>				196.29	
					<b>say</b>	<b><u>Rs.196.00</u></b>	
<b>1.4</b>		<b>Cost of Haulage Excluding Loading and Unloading</b>					
		<b>Haulage of materials by tipper excluding cost of loading, unloading and stacking.</b>					
		<b>Unit = t.km</b>					
		<b>Taking output 3.6 tonnes load and lead 10 km = 36 t.km</b>					
	<b>(i)</b>	<b>Surfaced Road</b>					
		Speed with load :15 km / hour.					
		Speed while Returning empty :25 km / hour.					
	<b>a)</b>	<b>Machinery.</b>					
		<b>Tractor 3.6 tonne capacity</b>					
		Time taken for onward haulage with load	hour	0.667	542.00	361.51	
		Time taken for empty return trip.	hour	0.400	542.00	216.80	
	<b>b)</b>	<b>Overhead charges @0.06 on( a)</b>				<b>34.70</b>	
	<b>c)</b>	<b>Contractor's profit @ 0.1 on (a+b)</b>				<b>61.30</b>	
		cost for 36 t km = a+b+c				674.31	
		<b>Rate per t.km = (a+b+c)/36</b>				18.73	
					<b>say</b>	<b><u>Rs.18.70</u></b>	
<b>1.4</b>	<b>(ii)</b>	<b>Unsurfaced Graveled Road</b>					
		Speed with load: 12 km / hour					
		Speed for empty return trip :20 km / hour					
	<b>a)</b>	<b>Machinery</b>					
		<b>Tractor 3.6 tonne capacity</b>					
		Time taken for onward haulage with load	hour	0.833	542.00	451.49	
		Time taken for empty return trip	hour	0.500	542.00	271.00	
	<b>b)</b>	<b>Overhead charges @0.06 on( a)</b>				<b>43.35</b>	
	<b>c)</b>	<b>Contractor's profit @ 0.1 on (a+b)</b>				<b>76.58</b>	
		cost for 36 t km = a+b+c				842.42	
		<b>Rate per t.km = (a+b+c)/36</b>				23.40	
					<b>say</b>	<b><u>Rs.23.40</u></b>	
<b>1.4</b>	<b>(iii)</b>	<b>Katcha Track and Track in River Bed/Nallah Bed and Choe Bed.</b>					
		Speed with load :10 km / hour					
		Speed while returning empty:15 km / hour					
	<b>a)</b>	<b>Machinery</b>					
		<b>Tractor 3.6 tonne capacity</b>					
		Time taken for onward haulage	hour	1.000	542.00	542.00	
		Time taken for empty return trip	hour	0.667	542.00	361.51	
	<b>b)</b>	<b>Overhead charges @0.06 on( a)</b>				<b>54.21</b>	
	<b>c)</b>	<b>Contractor's profit @ 0.1 on (a+b)</b>				<b>95.77</b>	
		cost for 36 t km = a+b+c				1053.50	
		<b>Rate per t.km = (a+b+c)/36</b>				29.26	
					<b>say</b>	<b><u>Rs.29.30</u></b>	

Note

वैसे स्थल जहाँ पर Truck एवं Tipper के द्वारा दुलाई किया जाना संभव नहीं है तथा Tractor से दुलाई Economical हो केवल वैसे ही स्थलों के लिए Tractor से दुलाई का प्रावधान किया जाय ।

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**SUB HEAD : 2.0**  
**EARTH WORK**

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BUILDING WORK - Contd.

**2.0 Earth Work**

Code No.	Description	Unit	Rate Rs.
2.1	Earth work in surface excavation not exceeding 30 cm in depth but exceeding 1.5 m in width as well as 10 sqm on plan including disposal of excavated earth upto 50 m and lift upto 1.5 m disposed soil to be leveled and neatly dressed :		
2.1.1	All Kinds of soil	100sqm	4611.70
2.2	Earth work in rough excavation , banking excavated earth in layer not exceeding 20 cm in depth , breaking clods watering , rolling each layer with 1/2 tonne roller or wooden or steel rammers and rolling every 3rd and top-most layer with power roller of minimum 8 tonnes and dressing up in embankments for roads, flood banks , marginal banks and guide banks or filling up ground depressions. lead upto 50 m and lift upto 1.5 m.		
2.2.1	All Kinds of soil	cum	386.60
2.3	Banking excavated earth in layers not exceeding 20 cm in depth, breaking clods, watering .rolling each layer with 1/2 tonne roller, or wooden or steel rammers, and rolling every 3rd and top-most layer with power roller of minimum 8 tonnes and dressing up ; in embankments for roads, flood banks, marginal banks, and guide banks etc . lead upto 50 m and lift upto 1.5 m.		
2.3.1	All Kinds of soil	cum	224.00
2.4	Deduct for not rolling with power roller of minimum 8 tonnes for banking excavated earth in layers not exceeding 20 cm in depth.	cum	5.50
2.5	Deduct for not watering the excavated earth for banking.	cum	16.70
2.6	Earth work in excavation over areas ( exceeding 30 cm in depth. 1.5 m in width as well es 10 sqm on plan) including disposal of excavated earth , lead upto 50 m and lift upto 1.5 m; disposed earth to be levelled and neatly dressed.		
2.6.1	AH Kinds of soil	cum	314.90
2.7	Earth work in excavation over areas (exceeding 30 cm in depth, 1.5 in width as well as 10 sqm on plan ) including disosal of excavated earth, lead upto 50 m and lift upto 1.5 m , disposed earth to be levelled and neatly dressed :		
2.7.1	Ordinary rock	cum	468.00
2.7.2	Hard rock (requiring blasting )	cum	703.60
2.7.3	Hard rock (blasting prohibited)	cum	1132.00
2.8	Earth work in excavation in foundation trenches or drains(not exceeding 1.5 m in width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m . including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.		
2.8.1	All Kinds of soil	cum	360.70
2.9	Excavation work in foundation trenches or drains not exceeding 1.5 m in width or 10 sq.m on plan including dressing of sides and ramming of bottoms lift upto 1,5m, including getting cut the excavated soil and disposal of surplus excavated sois as directed, within a lead of 50 m .		
2.9.1	Ordinary rock	cum	568.60
2.9.2	Hard rock (requiring blasting)	cum	690.40
2.9.3	Hard rock (Blasting Prohibited)	cum	1168.10





Code No.	Description	Unit	Rate Rs.
2.10	Excavating trenches of required width for pipes cables, etc, including excavation for sockets, and dressing of sides, ramming of bottoms, depth upto 1.5 m including getting out the excavated soil , and then returning the soil as required , in layers not exceeding 20 cm in depth including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed , within a lead of 50 m.		
2.10.1	All kinds of soil.		
2.10.1.1	Pipes, cables etc, not exceeding 80 mm dia.	m	225.50
2.10.1.2	Pipes, cables etc. exceeding 80 mm dia . But not exceeding 300mm dia.	m	368.30
2.10.1.3	Pipes , cables etc. exceeding 300m dia.	m	574.90
2.11	"Extra for excavating trenches for pipes, cables etc.in all kinds of soil for depth exceeding 1.5 m , but not exceeding 3 m.(Rate is over corresponding basic item for depth upto 1.5 meter.)	metre	126.10
2.12	*Extra for excavating trenches for pipes, cables etc.in all kinds of soil exceeding 3 m in depth , but not exceeding 4.5 m.(Rate is over corresponding basic item for depth upto 1.5 meater.)	m	316.50
2.13.	Excavating trenches of required width for pipes cables, etc, including excavation for sockets, depth upto 1.5 m including getting out the excavated materials , returning the soil as required in layers not exceeding 20 cm in depth including consolidating each deposited layer by ramming, watering, etc. stacking serviceable material for measurements and disposed ' of unserviceable material as directed, within a lead of 50 m:		
2.13.1	Ordinary rock :		
2.13.1.1	Pipes, cables etc. not exceeding 80 mm dia	m	328.00
2.13.1.2	Pipes, cables etc exceeding 80 mm dia but not exceeding 300 mm dia	m length of pipe	812.20
2.13.1.3	Pipes, cables etc exceeding 300 mm dia	m length of pipe	1203.10
2.13.2	Hard rock (requiring blasting)		
2.13.2.1	Pipes, cables etc. not exceeding 80 mm dia.	m length of pipe	389.90
2.13.2.2	Pipes, cablets etc. exceeding 80 mm dia, but not exceeding 300 mm dia.	m length of pipe	965.40
2.13.2.3	Pipes, cables tec. Exceeding 300 mm dia.	m length of pipe	1127.90
2.13.3	Hard rock (blasting prohibited)		
2.13.3.1	Pipe, cables etc. not exceeding 80 mm dia.	m length of pipe	612.30
2.13.3.2	Pipes, cables etc. exceeding 80 mm dia. But not exceeding 300 mm dia.	m length of pipe	1515.00
2.13.3.3	Pipes, cables etc. exceeding 300 mm dia.	m length of pipe	1744.90
2.14	Extra for excavating trenches for pipes, cables, etc.in ordinary/hard rock exceeding 1.5 m in depth but not exceeding 3 m.(Rate is over corresponding basic item for depth upto 1.5 metre.)	m length of pipe	108.30
2.15	Extra for excavating trenches for pipes, cables, etc.in ordinary/hard rock exceeding 3m in depth but not exceeding 4.5 m. (Rate is over corresponding basic item. For depth upto 1.5 metre.)	m length of pipe	275.40
2.16	Close timbering in trenches including strutting. Shoring and packing cavities (wherever required) complete. (Measurements to be taken of the face area timbered):		
2.16.1	Depth not exceeding 1.5 m.	sqm	119.40
2.16.2	Depth exceeding 1.5 m but not exceeding 3 m.	sqm	124.60

Code No.	Description		Unit	Rate Rs.
	2.16.3	Depth exceeding 3m but not exceeding 4.5 m	sqm	137.50
	2.17	Close timbering in case of shafts, wells, cesspits, manholes and the like including strutting, shoring and packing cavities (wherever required) complete (Measurements to be taken of the face area timbered):		
	2.17.1	Depth not exceeding 1.5 m.	sqm	125.90
	2.17.2	Depth exceeding 1.5 m but not exceeding 3 m	sqm	138.80
	2.17.3	Depth exceeding 3 m but not exceeding 4.5 m	sqm	152.30
2.18	Close timbering over areas including strutting, shoring and packing, cavities (wherever required) etc. complete (Measurements to be taken of the face area timbered):			
	2.18.1	Depth not exceeding 1.5 m.	sqm	108.20
	2.18.2	Depth exceeding 1.5 m but not exceeding 3 m	sqm	115.20
	2.18.3	Depth exceeding 3 m but not exceeding 4.5 m.	sqm	122.80
2.19	Extra for planking, strutting and packing materials for cavities (in close timbering) if required to be left permanently in position (Face area of timber permanently left to be measured)		sqm	1593.10
2.20	Open timbering in trenches including strutting and shoring complete (Measurements to be taken of the face area timbered).			
	2.20.1	Depth not exceeding 1.5 m.	sqm	61.40
	2.20.2	Depth exceeding 1.5 m but not exceeding 3 m	sqm	65.30
	2.20.3	Depth exceeding 3 m but not exceeding 4. m.	sqm	71.40
2.21	Open timbering in case of shafts, wells, cesspits, manholes and the like including strutting and shoring complete (measurements to be taken of the face area timbered):			
	2.21.1	Depth not exceeding 1.5 m	sqm	52.70
	2.21.2	Depth exceeding 1.5 m but not exceeding 3 m	sqm	58.70
	2.21.3	Depth exceeding 3 m but not exceeding 4.5 m	sqm	66.50
2.22	Open timbering over areas including strutting, shoring and use and waste of raking shores, complete (Measurements to be taken of the face area timbered)			
	2.22.1	Depth not exceeding 1.5	sqm	36.50
	2.22.2	Depth exceeding 1.5 m but not exceeding 3 m	sqm	40.80
	2.22.3	Depth exceeding 3 m but not exceeding 4.5 m	sqm	47.50
2.23	Extra for planking and strutting in open timbering if required to be left permanently in position (face area of the timber permanently left to be measured).		sqm	817.90
2.24	Extra rates for quantities of works, executed:			
	2.24.1	In or under water and/or liquid mud, including pumping out water as required		
		Extra due to slow progress and dewatering: 20% of the rate of item		
		(20% of the rate of the item. The extra percentage in rate is applicable in respect of each item but limited to quantities of work executed in	metre depth	20.00%
	2.24.2	In or under foul position, including pumping out water as required		
		(25% of the rate of the item. This pertains to only such. Pumping of water as is envisaged at the time of tendering and don't include those that covered under contractual risk)	metre depth	25.00%

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Code No.	Description	Unit	Rate Rs.
2.25	Pumping out water caused by springs, tidal or river seepage, broken water mains or drains and the like.	Kl	102.60
2.25(a)	Excavating, supplying and filling of local earth (including royalty but excluding carriage cost) by mechanical transport upto a lead of 3km also including ramming and watering of the earth in layers not exceeding 20 cm in trenches, plinth, sides of foundation etc. complete. If local earth is available at more than 3 km lead the actual lead must be approved by competent authority. carriage of material will be paid separately and calculated after deducting initial lead.	cum	389.6
2.26	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth: consolidating each deposited layer by ramming and watering lead	cum	116.50
2.27	Extra for every additional lift of 1.5 m or part thereof in :		
2.27.1	Ali kinds of soil.	cum	46.30
2.27.2	Ordinary or hard rock	cum	83.10
2.28	Supplying and Filling in plinth with local sand and under floors including, watering, ramming consolidating and dressing complete.	cum	281.40
2.29	Surface dressing of the ground including removing vegetation and inequalities not exceeding 15 cm deep and disposal of rubbish, lead upto 50 m and lift upto 1.5 m		
2.29.1	All kinds of soil.	100sqm	1272.50
2,30	Ploughing the existing ground to a depth of 15 cm to 25 cm and watering the same:		
2.30.1	All kinds of soil.	100sqm	1264.70
2.31	Excavating holes upto 0.5 cum including getting out the excavated soil, then returning the soil as required in layer not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering etc, disposing of surplus excavated soil; as directed within a lead of 50 m and lift upto 1.5m:		
2.31.1	All kinds of soil.	hole	112.90
2.31.2	Ordinary rock	hole	175.90
2.31.3	Hard rock(requiring blasting)	hole	210.70
2.31.4	Hard rock (blasting prohibited)	hole	590.10
2.32	Clearing jungle including uprooting of rank vegetation ,grass, brush wood, trees and saplings of girth upto 30 cm measured at a height of 1 m above ground level and removal of rubbish upto a distance of 50 m outside the periphery of the area cleared.	100sqm	654.70
2.33	Clearing grass and removal of the rubbish upto a distance of 50 m outside the periphery of the area cleared.	100sqm	335.30
2.34	Felling trees of the girth (measured at a height of 1 m above ground level) including cutting of trunks and branches removing the roots and stacking of serviceable material and disposal of unserviceable material:		
2.34.1	Beyond 30cm girth upto and including 60 cm girth	Each tree	202.00
2.34.2	Beyond 60 cm girth upto and including 120 cm girth	Each tree	890.60
2.34.3	Beyond 120 cm girth upto and including 240 cm girth	Each tree	4109.60
2.34.4	Above 240 cm girth	Each tree	8248.10
2.35	Supplying chemical emulsion in sealed containers including delivery as specified.		
2.35.1	Chlorpyriphos/Lindone emulsifiable concentrate of 20%	litre	200.80

Code No.	Description	Unit	Rate Rs.
2.37.	Diluting and injecting chemical emulsion for POSTCONSTRUCTIONAL anti-termites' treatment(including the cost of chemical emulsion)		
2.37.1	Along external wall where the apron is not provided using chemical imulsion @ 7.5 liters / sqm of the vertical surface of the substructure to a depth of 300 mm including excavation channel along the wall & rodding etc. complete:		
2.37.1.1	With chlorpyriphos/Lindone E.C. 20% with 1% concentration	metre	38.90
2.37.2	Along the external wall below concrete or masonry apron using chemical emulsion @ 2.55 litres per linear metre including drilling and plugging holes etc.		
2.37.2.1	With chlorpyriphos E.C. 20% with 1% concentration	metre	47.50
2.37.3	Treatment of soil under existing floors using chemical emulsion @ one litre per hole, 300 mm apart including drilling and plugging 12 mm diameter holes with cement mortar 1:2 (1 cement: 2 coarse sand) to match the existing floor.		
2.37.3.1	With Chlorpyriphos EC 20% with 1% concentration	sqm	233.10
2.37.4	Treatment of existing masonry using chemical emulsion@ one litre per hole at 300 mm interval including drilling holes at 45 degree and plugging them with cement mortar 1:2(1 cement:2 coarse sand) to the full depth of the hole.		
2.37.4.1	With chlorpyriphos EC 20% with 1% concentration	metre	52.70
2.37.5	Treatment at points of contact ot wood work by chemical emulsion chlordane. (in oil or kerosene based solution)@ 0.5 litres per hole by drilling 6 mm dia holes at downward angle of 45 degree at 150 mm centre to centre and sealing the same.	metre	268.90
2.38	Deduct for disposed soil not levelled and neatly dressed.	cum	35.30
2.39	Supply and stacking of Fly ash conforming to IRC- 58 at site, excluding carriage,loading , unloading & stacking up to any lead (measured stacks will be reduced by20% for payment).	cum	10.00
2.40	Filling with available fly ash and earth (excluding rock) in trenches or embankment in layers (each layer should not exceed 15 cm), with intermediate layer of compacted earth (Soil density of 98%) after every four layers of compacted depth of fly ash, sides & top layer of filling shall be done with earth having total minimum compacted thickness 30 cm or as decided by Engineer – in-charge, including compacting each layer by rolling/ramming and watering , all complete as per drawing and direction of Engineer -in - charge.	cum	116.50

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**SUB HEAD : 3.0**  
**MORTARS**

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**BUILDING WORK - Contd.**

**3.0 Mortars**

Code No.	Description	Unit	Rate Rs.
2103	Lime mortar 1:1:1 (1 lime putty:1Surkhi:1 coarse sand)	cum	2291.20
2144	Lime mortar 1:1:2(1 lime putty:1 surkhi:2coarse sand)	cum	1887.10
2104	Lime mortar 1:2(1 lime putty:2 surkhi)	cum	3026.60
2145	Lime mortar 1:3(1 lime putty:3 surkhi)	cum	2988.40
2146	Lime mortar 1:3(1 lime putty :3 coarse sand)	cum	1335.90
2110	<b>Cement Mortar 1:1 (1 cement : 1 fine sand).</b>	cum	5162.10
2111	Cement mortar 1:2 (1 cement :2 coarse sand )	cum	3632.80
2112	Cement mortar 1:3(1 cement:3 coarse sand)	cum	2868.30
2113	Cement mortar 1:4(1 cement:4 coarse sand)	cum	2267.50
2114	Cement mortar1:5(1 cement:5 coarse sand)	cum	1943.90
2115	Cement mortar 1:6(1 cement:6 coarse sand)	cum	1666.60
2128	White cement mortar 1:2 (1 White cement :2 marble dust)	cum	9197.10
2128A	Cement mortar 1:2 (1 cement : 2 marble dust).	cum	4647.90
2125	Cement lime mortar 1:1:3(1 cement :1 lime putty:3 coarse sand)	cum	3074.90
2126	Cement lime mortar 1:1:6 (1 cement:1 lime putty:6 coarse sand)	cum	2158.60

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**SUB HEAD : 4.0**  
**CONCRETE WORK**

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BUILDING WORK - Contd.  
**4.0 Concrete work**

Code No.	Description	Unit	Rate Rs.
4.1	Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering-all work upto plinth level.		
4.1.1	1:1:2 ( 1 cement: 1 coarse sand:2 graded stone aggregate 20 mm nominal size)	cum	5652.80
4.1.2	1:1.5:3(1 Cement :1.5 coarse sand:3 graded stone aggregate 20 mm nominal size)	cum	4380.40
4.1.3	1:2:4(1 Cement: 2 coarse sand:4 graded stone aggregate 20 mm nominal size)	cum	3953.40
4.1.4	1:2:4 (1 Cement: 2 coarse sand : 4 graded stone aggregate 40 mm nominal size)	cum	3832.50
4.1.5	1:3:6 (1 Cement: 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)	cum	3387.10
4.1.6	1:3:6 (1 Cement; 3 coarse sand :6 graded stone aggregate 40 mm nominal size)	cum	3229.90
4.1.8	1.4.8 (1 Cement :4 coarse sand :8 graded stone agregate 40 mm nominal size)	cum	2923.70
4.1.10	1:5:10(1 Cement :5 coarse sand:10 graded stone aggregate 40 mm nominal size)	cum	2678.80
4.1.11	1:2:3½:9 (1 ordinary portland cement : 2 Fly ash : 3½ coarse sand (zone-III) : 9 graded stone aggregate 40 mm nominal size)	cum	2920.80
4.1.12	1:2½:4:11 (1 ordinary portland cement : 2½ Fly ash : 4 coarse sand (zone-III) :11 graded stone aggregate 40 mm nominal size)	cum	2655.50
4.2	Providing and laying cement concrete in retaining walls, return walls, walls (any thickness) including attached pilasters, columns,piers, abutments, pillars, post.struts, buttresses, string or lacing courses, parapets, coping,bed blocks, anchor blocks, plin window sills, fillets etc. upt floor five level excluding the cost of centring,shuttering and finishing:		
4.2.1	1:1:2 (1 Cement:1 coarse sand : 2 graded stone aggregate 20 mm nominal size)	cum	6753.40
4.2.2	1:1.5:3(1 Cement: 1:5 coarse sand : 3 graded stone aggregate 20 mm nominal size)	cum	5475.60
4.2.3	1:2:4 (1 Cement :2 coarse sand :4 graded stone aggregate 20 mm nominal size)	cum	5017.80
4.2.4	1:2:4(1 Cement :2 coarse sand :4 graded stone aggregate 40 mm nominal size)	cum	4896.80
4.2.5	1:3:6 (1 Cement: 3 coarse sand: 6 graded stone aggregate 20 mm nominal size)	cum	4451.50
4.2.6	1:3:6 (1 Cement :3 coarse sand:6 graded stone aggregate 40 mm nominal size)	cum	4294.20
4.3	Centring and shuttering including strutting,propping etc. and removal or form work for		

Code No.	Description	Unit	Rate Rs.
4.3.1	Foundations,footings, bases Columns	sqm	202.60
4.3.2	Retaining walls,return walls, walls (any thickness) including attached pilasters, buttresses, plinth and string courses fillets etc.	sqm	576.90
4.3.3	Columns, piers.abutments, pillars,posts and struts	sqm	470.50
4.4	Providing and faying cement concrete in kerbs, steps and the like at or near ground level excluding the cost of centring, shuttering and finishing.		
4.4.1	1:2:4 (1 Cement :2 coarse sand :4 grade stone aggregate 20 mm nominal size)	cum	3953.40
4.4.2	1:3:6 (1 Cement:3 coarse sand:6 graded stone aggregate 20 mm nominal size)	cum	3387.10
4.4.3	1:1½:3 (1 Cement: 1½ coarse sand(zone-III) : 3 graded stone aggregate 20 mm nominal size)	cum	4380.4
4.5	Providing and fixing up to floor five level precast cement concrete string or lacing courses, copings, bed plates, anchor blocks, plain window sills, shelves, louvers, steps, stair cases, etc. including hoisting and setting in position with cement mortar 1:3 (1 cement : 3 coarse sand), cost of required centering, shuttering complete.		
4.5.1	1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size).	cum	5247.90
4.5.2	<b>1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size).</b>	cum	4820.90
4.5.3	<b>1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size).</b>	cum	4243.90
4.6	Providing and fixing at or near ground level precast cement concrete in kerbs, edgings etc. as per approved pattern and setting in position with cement mortar 1:3 (1 cement : 3 coarse sand), including the cost of required centering, shuttering complete.		
4.6.1	1:2:4 ( 1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size).	cum	3662.90
4.7	Providing and fixing up to floor five level precast cement concrete solid block,including hoisting and setting in position with cement mortar 1:3 (1 cement : 3 coarse sand), cost of required centering, shuttering complete.		
4.7.1	1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size).	cum	7126.10
4.8	Providing and fixing up to floor five level precast cement concrete hollow block,including hoisting and setting in position with cement mortar 1:3 (1 cement : 3 coarse sand), cost of required centering, shuttering complete.		
4.8.1	1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mmnominal size).	cum	6717.70
4.10	Providing and laying damp-proof Course 40 mm thick with cement concrete 1:2:4(1 cement:2:2 coarse sand :4 graded stone aggregate 20mm nominal size)	sqm	206.19

Code No.	Description	Unit	Rate Rs.
4.11	Providing and laying damp-proof Course 50 mm thick with cement concrete 1:2:4(1cement:2:2 coarse sand :4 graded stone aggregate 20mm nominal size)	sqm	<b>240.50</b>
4.12	Extra for providing and mixing water proofing material in cement concrete work in the proportion recommended by the manufacturers.	per 50 kg cement	<b>56.57</b>
4.13	Applying a coat of residual petroleum bitumen of grade of VG-10 of approved quality using 1.7 kg. per square metre on damp proof course after cleaning the surface with brushes and finally with a piece of cloth lightly soaked in kerosene oil.	sqm	<b>89.30</b>
4.14	Extra for concrete work in superstructure above floor V level for each four floors of part thereof.	cum	<b>600.10</b>
4.15	Extra for laying concrete in or under water and/or liquid mud including cost of pumping or bailing out water and removing slush etc. complete (The quantity will be calculated by multiplying the depth measured from the sub-soil water level upto centre of gravity of concrete under sub-soil water level with quantity of concrete in cum executed under sub-soil water. The depth of centre of gravity shall be reckoned correct to 0.1 m. 0.05 m or more shall be taken as 0.1 m and less than 0.05 m ignored.)	cum per m depth	<b>449.30</b>
4.16	Extra for laying concrete in or under foul positions.	cum	<b>175.60</b>
4.16A	Extra for using 12.5/10 mm nominal size graded/single size stone aggregate instead of 20 mm nominal size graded stone aggregate in cement concrete/reinforced cement concrete 1:2:4(1 cement:2 coarse sand:4 graded stone aggregate 20 mm nominal size)	cum	<b>57.30</b>
<b>4.17</b>	Making plinth protection 50 mm thick of cement concrete 1:3:6 (1 cement :3 coarse sand : 6 graded stone aggregate 20 mm nominal size) over 75 mm thick bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including finishing the top smooth.	sqm	<b>430.60</b>
<b>4.18</b>	Extra for addition of synthetic Polyester triangular fibre of length 12mm, effective diameter 10-40 microns and specific gravity of 1.34 to 1.40 in cement concrete/ RCC/ Flooring/ water retaining structures by using 125gms of synthetic Polyester triangular fibre for 50 Kg cement used as per directions of Engineer-in-Charge.	per 50 kg cement	<b>61.00</b>
4.19	Providing and laying in position ready mixed plain cement concrete, using fly ash and cement content as per approved design mix and manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for plain cement concrete work, including pumping of R.M.C. from transit mixer to site of laying and curing, excluding the cost of centering, shuttering and finishing, including cost of curing, admixtures in recommended proportions as per IS : 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer-in-charge.		

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Code No.	Description	Unit	Rate Rs.
	Note : (1) Excess/less cement used than specified in this item is payable/ recoverable separately. (2) Fly ash conforming to grade I of IS 3812 (Part-1) only be used as part replacement of OPC as per IS : 456. Uniform blending with cement is to be ensured in accordance with clauses 5.2 and 5.2.1 of IS: 456 -2000 in the items of BMC and RMC.		
4.19.1	All works upto plinth level		
4.19.1.1	M-15 grade plain cement concrete (cement content considered @ 240 kg/cum)	cum	4680.50
4.19.1.2	M-10 grade plain cement concrete (cement content considered @ 220 kg/cum)	cum	4673.60
4.19.2	All works above plinth and upto floor V level:		
4.19.2.1	M-15 grade plain cement concrete (cement content considered @ 240 kg/cum)	cum	5553.00
4.19.2.2	M-10 grade plain cement concrete (cement content considered @ 220 kg/cum)	cum	5425.70
4.20	Providing and laying in position ready mixed plain cement concrete, with cement content as per approved design mix and manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for plain cement concrete work, including pumping of R.M.C. from transit mixer to site of laying and curing, excluding the cost of centering, shuttering and finishing, including cost of curing, admixtures in recommended proportions as per IS : 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer-in-charge. Note : 1) Excess/less cement used than specified in this item is payable/ recoverable separately.		
4.20.1	All works upto plinth level :		
4.20.1.1	M-15 grade plain cement concrete (cement content considered @ 240 kg/cum)	cum	4824.40
4.20.1.2	M-10 grade plain cement concrete (cement content considered @ 220 kg/cum)	cum	4697.10
4.20.2	All works above plinth and upto floor V level :		
4.20.2.1	M-15 grade plain cement concrete. (cement content considered @ 240 kg. /cum)	cum	5175.10
4.20.2.2	M-10grade plain cement concrete. (cement content considered @ 220 kg. /cum)	cum	5047.80

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**SUB HEAD : 5.0**  
**REINFORCED CEMENT**  
**CONCRETE**

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## BUILDING WORK - Contd.

**5.0 Reinforced Cement Concrete**

Code No.	Description	Unit	Rate Rs.
5.1	Providing and laying in position specified grade of reinforced cement concrete excluding the cost of centring, shuttering, finishing and reinforcement-All work upto plinth level		
5.1.1	1:1:2 (1 cement:1 coarse sand:2 graded stone aggregate 20mm nominal size)	cum	5910.70
5.1.2	1:1:5:3(1 cement: 1.5 coarse sand:3 graded stone aggregate 20 mm nominal size)	cum	4630.90
5.1.3	1:2:4 (1 cement:2 coarse sand:4 graded stone aggregate 20 mm nominal size)	cum	4173.00
5.2	Reinforced cement concrete work in wall (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts, etc. upto floor five level excluding cost of centring, shuttering, finishing and reinforcement.		
5.2.1	1:1:2 (1 cement: 1 coarse sand: 2 graded stone aggregate 20 mm nominal size)	cum	6834.90
5.2.2	1:1:5:3(1 cement: 1.5 coarse sand:3 graded stone aggregate 20mm nominal size)	cum	5555.20
5.2.3	1:2:4(1 cement :2 coarse sand:4 graded stone aggregate 20 mm nominal size)	cum	5097.30
5.3	Reinforced cement concrete work in beams, suspended floors, roofs having slope upto 15°, landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases upto floor five level excluding the cost of centring, shuttering, finishing and reinforcement with 1:2:4(1 cement:2 coarse sand:4 graded stone aggregate 20 mm nominal size).	cum	5209.00
5.4	Providing and laying upto floor five level reinforced cement concrete in kerbs, steps and the like excluding the cost of centring, shuttering, finishing and reinforcement with 1:2:4(1 cement:2 coarse sand:4 graded stone aggregate 20mm nominal size).	cum	4843.80
5.5	Reinforced cement concrete work in arches, arches, domes, vaults, shells, folded plate and roofs having slope more than 15° upto floor five level excluding the cost of centring. Shuttering. Finishing and reinforcement with 1:2:4(1 cement:2 coarse sand :4 graded stone aggregate 20mm nominal size)	cum	5530.50
5.6	Reinforced cement concrete work in chimneys shafts, upto floor five level excluding the cost of centring, shuttering, finishing and reinforcement with 1:2:4(1 cement:2 coarse sand:4 graded stone aggregate 20 mm nominal size)	cum	5201.30
5.7	Reinforced cement concrete work in well-steining excluding the cost of centring, shuttering, finishing and reinforcement with 1:2:4 (1 cement:2 coarse sand:4 graded stone aggregate 20 mm nominal size)	cum	3985.40
5.8	Reinforced cement concrete work in Vertical and Horizontal fins individually or forming box louvers, fascias and eaves boards upto floor five level excluding the cost of centring, shuttering, finishing and reinforcement with 1:1.5:3 (1 cement:1.5 coarse sand: 3 graded stone aggregate 20mm nominal size)	cum	5144.40

Code No.	Description	Unit	Rate Rs.
5.9	Centring and shuttering including strutting,propping etc. and removal of form for.		
5.9.1	Foundations, footings, bases of columns etc. for mass concrete.	sqm	203.00
5.9.2	Walls (any thickness) including attached pilasters. Butteresses, plinth and string courses etc.	sqm	356.40
5.9.3	Suspended floors, roofs, landings, balconies and access platform.	sqm	412.20
5.9.4	Shelves (Cost in situ)	sqm	412.30
5.9.5	Lintels, beams, plinth bams, girders, bressumers and cantilevers.	sqm	362.90
5.9.6	Columns,Pillars, Piers, Abutments, Posts and Struts	sqm	470.60
5.9.7	Stairs,(excluding landings) except spiral-staircases.	sqm	424.60
5.9.8	Spiral staircases (including landing)	sqm	380.80
5.9.9	Arches,domes,vaults upto 6m span	sqm	1085.20
5.9.10	Extra for arches,domes, vaults exceeding 6 m span	sqm	551.80
5.9.11	Chimneys and shafts	sqm	576.90
5.9.12	Well steining	sqm	276.80
5.9.13	Vertical and horizontal fins individually or forming box louvers band, facias and eaves boards	sqm	619.90
5.9.14	Extra for shuttering in circular work (20% of respective centring and shuttering items)	sqm	20.20
5.9.15	Small lintels not exceeding 1.5 m clear span, mouldings as in cornices, window sills, string, courses, bands, copings, bed plates, anchor blocks and the like.	sqm	215.70
5.9.16	Edges of slabs and breaks in floors and walls-		
5.9.16.1	Under 20 cms wide	m	126.80
5.9.16.2	Above 20cm wide	sqm	557.60
5.9.17	Cornices and mouldings	sqm	612.80
5.9.18	Small surfaces such as cantilever ends,brackets and ends of steps, caps and bases to pilasters and columns and the like	sqm	517.20
5.9.19	Weather shade,Chajjas, corbels etc. including edges	sqm	531.20
5.9.20	Suspended floors, roofs, landings, balconies and access platform with water proofply 12 mm thick.	sqm	508.60
5.9.21	Lintels, beams, plinth beams, girders, bressumers and cantilevers with water proof ply 12 mm thick.	sqm	486.70
5.10	Providing and fixing tie bolt, spring coil and plastic cone in wall shuttering complete as per the direction of engineer-in charge		
5.10.1	12 mm dia & 100 mm length	sets	140.80
5.10.2	12 mm dia & 150 mm length	sets	154.20
5.10.3	20 mm dia & 150mm length	sets	166.20
5.10.4	20 mm dia & 225 mm length	sets	179.60

Code No.	Description	Unit	Rate Rs.
5.11	Extra for additional height in centring, shuttering wherever required with adequate bracing, propping etc. including cost of de-shuttering and de centring at all levels over a height of 3.5 m ,for every additional height of 1 metre or part thereof (Plan area to be measured)		
5.11.1	Suspended floors, roots, laning, beams and balconies (Plan area to be measured)	sqm	164.10
5.12	Providing, hoisting and fixing up to floor five level precast reinforced cement concrete work in string courses, bands, copings, bed plates, anchor blocks, plain window sills and the like, including the cost of required centering, shuttering but excluding cost of reinforcement, with 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size).	cum	5425.30
5.13	Providing, hoisting and fixing up to floor five level precast reinforced cement concrete in small lintels not exceeding 1.5 m clear span up to floor five level,including the cost of required centering, shuttering but excluding the cost of reinforcement, with 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size).	cum	7906.30
5.14	Providing, hoisting and fixing up to floor five level precast reinforced cement concrete in mouldings as in cornices, windows sills etc. including setting in cement mortar 1:3 (1 cement : 3 coarse sand) cost of required centering, shuttering but excluding the cost of reinforcement, with 1:1.5:3(1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size).	cum	8988.30
5.15	Providing, hoisting and fixing up to floor five level precast reinforced cement concrete in lintels, beams and bressumers including setting in cement mortar 1:3 (1 cement : 3 coarse sand), cost of required centering and shuttering but excluding the cost of reinforcement with, 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size).	cum	7388.40
5.16	Providing, hoisting and fixing up to floor five level precast reinforced cement concrete in shelves including setting in cement mortar 1:3 (1 cement : 3 coarsesand), cost of required centering, shuttering and finishing with neat cement punning on exposed surfaces but excluding the cost of reinforcement, with 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 12.5 mm nominal size).	cum	11713.60
5.17	Providing, hoisting and fixing up to floor five level precast reinforced cement concrete in vertical & horizontal fins individually or forming box louvers setting in cement mortar 1:2 (1 cement : 2 coarse sand), including the cost of required centering, shuttering but excluding the cost of reinforcement, with 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size).	cum	6234.80
5.18	Providing,precast cement concrete Jali 1:2:4(1 cement:2 coarse sand:4 stone aggregate 6mm nominal size) reinforced with 1.6 mm dia mild steel wire including roughening cleaning, fixing and finishing in cement mortar 1:3 (1 cement:3 fine sand) etc.complete excluding plastering of the jambs, sills and soffits.		
5.18.1	50 mm thick	sqm	1030.00
5.18.2	40 mm thick	sqm	907.20
5.18.3	25mm thick	cum	806.80

*[Handwritten signatures and initials]*

Code No.	Description	Unit	Rate Rs.
5.19	Encasing rolled steel sections, in beams and columns, with cement concrete 1:1.5:3 (1 cement : 1.5 coarse sand : 3graded stone aggregate 12.5 mm nominal size),including centering and shuttering complete but excluding cost of reinforcement.	cum	8195.00
5.20	Encasing rolled steel section in grillages with cement concrete 1:1.5:3 (1 cement : 1.5 coarse sand (zone-III): 3 graded stone aggregate 20 mm nominal size, including centering and shuttering but, excluding cost of expanded metal and hangers.	cum	4972.60
5.21	Extra for providing and fixing expanded metal mesh of size 20x60mm and strands 3.25 mm wide 1:6 mm thich weighing 3.64 kg. er sqm for encasing of roiled steel sections in beams, columns and grillages excluding cost of hangers	sqm	423.20
5.22	Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete.		
5.22.1	Mild steel 6.00 mm dia	kg	69.10
5.22.1A	Mild steel 5.5 mm dia	kg	69.10
5.22.1B	Mild steel 6.0 mm dia	kg	68.90
5.22.1C	Mild steel 6.5 mm dia	kg	68.70
5.22.1D	Mild steel 7.0 mm dia	kg	68.40
5.22.1E	Mild steel 8.0 mm dia	kg	68.30
5.22.1F	Mild steel 10.0 mm dia	kg	69.10
5.22.1G	Mild steel 12.0/12.7 mm dia	kg	69.10
5.22.7	Thermo-Mechanically Treated bars (FE-500) 20mm dia.	kg	68.50
5.22.7A	Thermo-Mechanically Treated bars TMTC-500-8mm dia.	kg	70.60
5.22.7B	Thermo-Mechanically Treated bars TMTC-500-10mm dia.	kg	69.20
5.22.7C	Thermo-Mechanically Treated bars TMTC-500-12mm dia.	kg	67.60
5.22.7D	Thermo-Mechanically Treated bars TMT Fe-500-16mm dia.	kg	68.50
5.22.7E	Thermo-Mechanically Treated bars TMT Fe-500-20mm dia.	kg	68.50
5.22.7F	Thermo-Mechanically Treated bars TMT Fe-500-25mm dia.	kg	68.50
5.22.7G	Thermo-Mechanically Treated bars TMT Fe-500-28mm dia.	kg	68.50
5.22.7H	Thermo-Mechanically Treated bars TMT Fe-500-32mm dia.	kg	68.50
5.22.7 I	Hard drawn steel wire fabric	kg	87.70
5.23	Extra for RCC work in superstructure above floor V level for each four floors or part thereof.	cum	600.10
5.23A	Smooth finishing of the exposed surface of R.C.C. work with 6 mm thick cement mortar 1:3 (1 Cement : 3 fine sand).	sqm	120.70
5.24	Extra for rendering smooth the top of suspended floors, landings and staircases (treads and risers) with cement mortar 1:2(1 cement:2 coarse sand) including a floating coat of neat cement and protecting the surface with a layer of 7.5cm of earth laid over 15 mm of fine sand in case of suspended floor and bricks laid in mud mortar in case of landings and steps including subsequent removal and cleaning of the same.	sqm	72.80



Code No.	Description	Unit	Rate Rs.
5.25	Providing and fixing in position copper plate as per design for expansion joints.	kg	717.60
5.26	Providing and filling in position, blown bitumen in expansion joints.	100m(Length) x1cm(Wide)x1 cm(Depth)	568.60
5.27	Providing and filling in position bitumen mix filler of Proportion 80 kg of hot bitumen, 1 kg, of cement and 0.25 cubicmetre of coarse sand for expansion joints,	100m(Length) x1cm(Wide)x1 cm(Depth)	153.25
5.28	Providing and fixing in position 12 mm thick bitumen impregnated fibre board conforming to IS: 1838 including cost of primer, sealing compound grade A in expansion joints.	100m(Length) x1cm(Depth)	528.70
5.29	Providing and fixing sheet covering over expansion joints with iron screws as per design to match the colour/shade of wall treatment,		
5.29.1	Non -Asbestos Fibre cement board 6 mm thick as per IS:14862		
5.29.1.1	150 mm wide	m	136.50
5.29.1.2	200mm wide	m	183.40
5.29.2	Aluminium fluted strips 3.15 mm thick		
5.29.2.1	150 mm wide.	m	439.10
5.29.2.2	200 mm wide	m	582.90
5.30	Add for plaster drip course/groove in plastered surface or moulding to R.C.C. projections.	m	32.10
5.31	Extra for laying reinforced cement concrete in or under water and/or liquid mud including cost of pumping or bailing out water and removing slush etc. complete.(Rate same as per item No, 4.29) <b>Note:-</b> The quantity will be calculated by multiplying the depth measured from the subsoil water level upto the centre of gravity of the R.C.C. under subsoil water with the quantity of R.C.C. in cubic metre executed under subsoil water. The depth of centre of gravity shall be reconed correct to 0.1 m. 0.05 m or more shall be taken as 0.1 and less than 0.05 m ignored. No extra payment shall be made for placing reinforcement or centering & shuttering under subsoil water conditions.	cum	449.30
5.32	Extra for laying reinforced cement concrete in or under foul positions.	cum	175.60
5.33A	Providing and laying in position machine batched, machine mixed and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete structural elements, excluding the cost of centring, shuttering finishing and reinforcement, M-20 grade reinforced cement concrete		
5.33A.1	All work upto plinth level	cum	4689.20
5.33A.2	All works above plinth level upto floor V level		
5.33A.2.1	Walls columns, pillars, posts and struts	cum	5194.80
5.33A.2.2	Beams, plinth beams, girders, bressumers, cantilevers, Suspended floors lintels roofs and staircases including spiral staircases, shelves etc.	cum	5553.60

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Code No.	Description	Unit	Rate Rs.
<b>5.33B</b>	Add or deduct for providing richer or leaner mixes respectively at all floor levels.		
<b>5.33B.1</b>	Providing M-25 grade R.C.C. instead of M-20 grade R.C.C.	cum	165.30
<b>5.33B.2</b>	Providing M-30 grade R.C.C. instead of M-20 grade R.C.C.	cum	226.50
<b>5.33B.3</b>	Providing M-35 grade R.C.C. instead of M-20 grade R.C.C.	cum	275.52
<b>5.33B.4</b>	Providing M-15grade R.C.C instead of M-20 grade R.C.C.	cum	385.70
5.33	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cementcontent as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and including retard setting of concrete, improve workability without impairing strength and admixtures in recommended proportions as per IS: 9103 to accelerate, reinforcement, durability as per direction of Engineer-in-charge. Note:- Cement content considered in this item is @ 330 kg/ cum. Excess or less cement used as per design mix is payable or recoverable separately.		
5.33.1	All works up to plinth level	cum	4952.60
5.33 .2:	All work above Plinth level upto floor V Level.	cum	5704.70
5.34	Add or deduct for providing richer or leaner mixes respectively at all floor levels.		
5.34.1 :	Providing M-30 grade concrete by using 340kg /m3 of Cement per cum of concrete instead of M-25 grade B.M.C./RMC	cum	66
5.34.2	Providing M-35 grade concrete by using 350kg /m3 of Cement per cum of concrete instead of M-25 grade B.M.C./RMC	cum	132.20
5.34.3	Providing M-40 grade concrete by using 360kg /m3 of Cement per cum of concrete instead of M-25 grade B.M.C./RMC	cum	195.00
5.35	Add for using extra cement in the items of design mix over and above the specified cement content there in.	quintel	612.3
5.37.1	Providing and laying in position ready mixed concrete manufactured in fully automatic batching plant and transported to site of work in transit mixer for a lead up to 10kms having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying , excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS : 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in - charge. M-25 grade Reinforced cement concrete by using 330 kg of cement per cum of concrete. All works up to Plinth level	cum	5354
5.37.2	All works above Plinth level up to floor five level.	cum	6424.30
5.38	Extra for R.C.C/ B.M.C/ R.M.C. work above floor V level for each four floors or part thereof.	cum	281.00



Code No.	Description	Unit	Rate Rs.
5.40	Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using fly ash and cement content as per approved design mix, and manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work, including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering, finishing and reinforcement, including cost of admixtures in recommended proportions as per IS : 9103 to accelerate / retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in - charge. NOTE- (1) Cement content considered in this item is @ 330 kg/cum. Excess/ less cement used as per design mix is payable/ recoverable separately. (2) Fly ash conforming to grade I of IS 3812 (Part-1) only be used as part replacement of OPC as per IS : 456. Uniform blending with cement to be ensured in accordance with clauses 5.2 and 5.2.1 of IS:456 -2000 in the items of BMC and RMC.		
	<b>5.40.1</b> All works up to Plinth level	<b>cum</b>	<b>5253.20</b>
	<b>5.40.2</b> All works above plinth & up to floor V level.	<b>cum</b>	<b>6005.30</b>
5.41	Supplying and applying pre tested and approved water based concrete curing compound to concrete/ masonry surface, all as per manufacturer's specification and direction of Engineer-in-charge.		
5.41.1	Non pigmented wet curing compound.	<b>sqm</b>	<b>115.10</b>
5.41.2	Pigmented wet curing compound.		<b>131.10</b>
5.42/ 5.51	Providing and fixing tapered / parallel threaded couplers conforming to IS code on Reinforcement Couplers for Mechanical Splices of Bars for Concrete Reinforcement – Specification, to reinforcement bars including threading, enlargement at connection by forging, protecting the prepared reinforcement bars and related operations as required to complete the works as per direction of Engineer-in-Charge . (The length of the bars in which coupler is to be provided should not be less than 4 metre, no deduction for labour and binding wire saved for not providing lap length shall be made).		
5.42.1/ 5.51.1	Coupler for 16 mm diameter reinforcement bar.	<b>each</b>	<b>97.80</b>
5.42.2/5.51.2	Coupler for 20 mm diameter reinforcement bar.	<b>each</b>	<b>135.30</b>
5.42.3/ 5.51.3	Coupler for 25 mm diameter reinforcement bar.	<b>each</b>	<b>195.50</b>
5.42.4/ 5.51.4	Coupler for 28 mm diameter reinforcement bar.	<b>each</b>	<b>228.50</b>
5.42.5/ 5.51.5	Coupler for 32 mm diameter reinforcement bar.	<b>each</b>	<b>275.70</b>
<b>5.43</b>	Providing and fixing in position Stainless steel Grade 304 plate-1.0 mm thick as per design for expansion joints.		
5.43.1/ 5.52.1	200 mm wide.	<b>metre</b>	<b>657.70</b>
5.43.2/ 5.52.2	300 mm wide.	<b>metre</b>	<b>952.00</b>

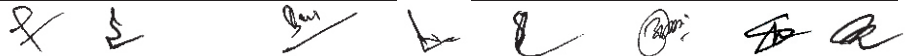
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Code No.	Description	Unit	Rate Rs.
<b>5.44</b>	Providing and fixing of expansion joint system related with floor location as per drawings and direction of Engineer-In-Charge. The joints system will be of extruded aluminum base members, self aligning / self centering arrangement and support plates etc. as per ASTM B221-02. The system shall be such that it provides floor to floor /floor to wall expansion control system for various vertical localtion in load application areas that accommodates multi directional seismic movement without stress to it's components. System shall consist of metal profiles with a universal aluminum base member designed to accommodate various project conditions and finish floor treatments. The cover plate shall be designed of width and thickness required to satisfy projects movement and loading requirements and secured to base members by utilizing manufacturer's pre-engineered self-centering arrangement that freely rotates / moves in all directions. The Self – centering arrangement shall exhibit circular sphere ends that lock and slide inside the corresponding aluminum extrusion cavity to allow freedom of movement and flexure in all directions including vertical displacement. Provision of Moisture Barrier Membrane in the Joint System to have watertight joint is mandatory requirement all as per the manufactures design and as approved by Engineer -in-Charge .(Material shall confirm to ASTM 6063).		
5.44.1	Floor Joint of 100 mm gap.	metre	5470.20
5.44.2	Floor Joint of 150 mm gap.	metre	6724.50
5.44.3	Floor Joint of 200 mm gap.	metre	8647.80
<b>5.45</b>	Providing and fixing of expansion joint system related with wall joint (internal/external) location as per drawings and direction of Engineer-In-Charge. The joints shall be of extruded aluminum base members, self aligning / centering arrangement and support plates as per ASTM B221-02. The material shall be such that it provides an Expansion Joints System suitable for vertical wall to wall/ wall to corner application, both new and existing construction in office Buildings & complexes with no slipping down tendency amongst the components of the Joint System. The Joint System shall utilize light weight aluminum profiles exhibiting minimal exposed aluminum surfaces mechanically snap locking the multicellular to facilitate movement. (Material shall confirm to ASTM 6063).		
5.45.1	Wall Joint of 100 mm gap.	metre	4533.70
5.45.2	Wall Joint of 150 mm gap.	metre	5119.00
5.45.3	Wall Joint of 200 mm gap.	metre	5972.00
<b>5.46</b>	Providing and fixing of expansion joint system of approved make and manufactures for various roof locations as per approved drawings and direction of Engineer-In-Charge. The joints shall be of extruded aluminum base members with, self aligning and self centering arrangement support plates asper ASTM B221-02. The system shall be such that it provides watertight roof to roof/roof to corner joint cover expansion control system that is capable of accommodating multidirectional seismic movement without stress to its components. System shall consist of metal profile that incorporates a universal aluminum base member designed to accommodate various project conditions and roof treatments. The cover plate shall be designed of		

Code No.	Description	Unit	Rate Rs.
	width and thickness required to satisfy movement and loading requirements and secured to base members by utilizing manufacturer's preengineered self-centering arrangement that freely rotates / moves in all directions. The Self centering arrangement shall exhibit circular sphere ends that lock and slide inside the corresponding aluminum extrusion cavity to allow freedom of movement and flexure in all directions including vertical displacement. The Joint System shall resist damage or deterioration from the impact of falling ice, exposure to UV, airborne contaminants and occasional foot traffic from maintenance personnel. Provision of Moisture Barrier Membrane in the Joint System to have water tight joint is mandatory requirement. Material shall conform to ASTM 6063.		
5.46.1	Roof Joint of 100 mm gap.	metre	5068.80
5.46.2	Roof Joint of 150 mm gap.	metre	5654.20
5.46.3	Roof Joint of 200 mm gap.	metre	6774.70
<b>5.47</b>	Providing and fixing in position factory made precast RCC M-40 doors and windows frames having excellent smooth finish as per IS: 6523 with reinforcement of 3 Nos, 6 mm dia main bars tied with 3 mm M.S stirrups placed @ 200 mm C/C and 6 numbers high strength polymer blocks of required size for fixing hinges including providing 6 no specially designed M.S. galvanised sleeves for accomodating 6 mm dia fully threaded bolts for fixing hold fast on vertical members, providing suitable arrangement for receiving sliding door bolts and tower bolt etc all complete, as per the direction of Engineer in charge. (The cost of hold fast and cc block of 1:3:6 mix is also included in the item.) The frame shall be measured in running meter correct to two places of decimal.		
5.47.1	Door frame 125 mm x 60 mm.	metre	506.50
5.47.2	Door frame 100 mm x 60 mm.	metre	472.90
5.47.3	Door frame 85 mm x 60 mm.	metre	445.90
<b>5.48</b>	Providing and laying Reinforced cement concrete for construction of piers,abutments, portal frames, pier caps and bearing pedestals and seismic arresters over pier/ abutment caps at all locations with specified grade using Ordinary Portland Cement (conforming to strength requirement of IS:8112) including the cost of steel centering and shuttering etc. complete including testing of materials etc. for casting pier & pier cap in one/two stage, necessary tools, plants, machinery and all related operations as required to complete the work as per drawings and Specifications with all leads, lifts and depths true to level and position but excluding the cost of providing reinforcement. Reinforcement shall be measured and paid separately. Cement content considered in this item is 480 kg/cum. Excess/less cement used as per design mix is payable/recoverable separately.		
<b>5.48.1</b>	Reinforced Cement Concrete M50.	cum	5315.5
<b>5.48.2</b>	Reinforced Cement Concrete M60.	cum	6735.8
<b>5.48.3</b>	Extra for using M50/M60 grade self-compacting Reinforced Cement Concrete.	cum	674

*[Handwritten signatures and initials]*

Code No.	Description	Unit	Rate Rs.
5.49	Constructing cast-in situ RCC diaphragm wall by providing and laying machine batched, machine mixed, self compacting, ready mix reinforced cement concrete, tramie controlled, of M 30 grade using minimum 400 kg. cement per cum of concrete including providing and mixing required admixtures in recommended proportions as per IS : 9103, as approved by the Engineer-in-charge, for achieving 150- 200mm slump, for diaphragm wall having thickness as per approved structural design not exceeding 600 mm, in pannels of required depth and lengths as per approved drawing, including constructing necessary guide walls as required and as specified including boring in all kinds of soils and rocks, including working in or under water and / or liquid mud, in foul conditions and pumping or bailing out of water and removing slush, including disposal of earth/ rock / slush etc. for all leads and all lifts, including preparing, providing and re-circulating bentonite slurry in the trench as and when required for all depths, including agitating bentonite slurry during trenching etc., providing and fixing stop ends or form tubes, upto the required depth of diaphragm wall including extracting the same after casting, including chipping off the bentonite adulterated concrete or unsound concrete up to the cut off level for obtaining the sound concrete, dressing undulations on the exposed face of diaphragm wall after excavation by chipping / chiseling etc. including filling the depression/ cavities with sound concrete etc. complete and as directed by the Engineer-in-charge, including providing recess for bearing plates and fixing insert boxes for inclined rock anchors etc. complete as per the specifications and approved design and as directed by the Engineer-in-charge, .but excluding the cost of reinforcement and inserts. (rates include cost of all inputs of labour, material and T & P, cost of handling, lifting & placing in position the reinforcement cage in the trench, including the additional cost of welding the reinforcement bars etc. involved in the work and all other incidental expenditure for completing the work as directed by the Engineer-in-charge), However, the actual area of the diaphragm wall, correct to two places of decimal, from design bottom level to the design cut off level (including portion anchored in the rock upto the design bottom level) only shall be measured for payment.		
5.49.1	Excess/less cement used for design mix including the extra cement required for under water concreting is payable / recoverable separately.	cum	12620.4



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**SUB HEAD : 6.0**  
**BRICK WORK**

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## BUILDING WORK - Contd.

**6.0 Brick Work (A)**

Code No.	Description	Unit	Rate Rs.
6.1A	Brick work with bricks of class designation 100A in foundations and plinth in :		
6.1.12/1	Cement mortar 1 :4 (1 cement: 4 coarse sand )	cum	5048.20
6.1.14A	Cement mortar 1:6 (1 cement: 6 coarse sand )	cum	4849.20
6.3A	Extra for Brick work in superstructure above plinth level upto floor V cum	cum	791.80
6.4A	Extra for brick work in superstructure above floor V level for each four floors or part there of.	cum	600.10
6.11A	Extra for forming cavity 5cm to 7.5cm wide in cavity wall with necessary weep and vent holes including use of cores and cast of providing and fixing bitumensttc coted m.s. toles 300mmlong of 25mmx3mmsection at not less than 3 tiles per sqm as per approved design.	sqm	109.00
6.12A	Providing half brick masonry with bricks of class designation 100A in cement mortar 1:3 (1 cement: 3 coarse sand ) in superstructure for closing cavity 5 to 7.5 cm wide in cavity wall complete with 10cmm/11.4cm wide bitumen felt type 3 grade 1 .	per m	207.10
6.13A	Brick work 7cm thick with brick of class designation 100A cement mortar 1:3 (1 cement: 3 coarse sand) in super structure	sqm	479.00
6.15A	Brick work in plain arches in superstructure including centring and shuttering complete for span upto 6 metres with bricks of class designation 100A in cement mortar 1:3(1 cement:3 coarse sand )	cum	8250.00
6.16A	Brick work in gauged arches in superstructure in cement mortar 1:3 (1 cement:3 coarse sand) including centring and shutierring complete. Span upto 6 metres with	cum	9984.90
6.17A	Extra for additionalcost of centring for arches exceeding 6 mspan including all shuttering , Bolting , wedging and removal(Area of the soffit to be measured ) .	sqm	561.80
6.18A	Half brick masonry with bricks of class designation 100A in foundations and plinth in :		
6.18.3A	Cement mortar 1:3 (1 cement: 3 coarse sand)	sqm	623.40
6.18.4A	Cement mortar 1:4 (1 cement: 4 coarse send)	sqm	601.10
6.19A	Extra for half Brick masonry in superstructure above pinth level upto floor V level.	sqm	84.30
6.20A	Extra for half brick masonry in superstructure. Above floor V level for every four floors or part there of	sqm	75.40
6.21A	Extra for providing and placing in position 2 Nos, 6 mm dia , MS bars at every third course of half brick masonry (with F. P. S. bricks)	sqm	76.30
6.23A	Tile brick masonry with tile bricks of class desgnation 100 in foundation and plinth in :		
6.23.7A	Cement mortar 1:4 (1 cement :4 coarse sand)	cum	8838.20
6.23.8A	Cement mortar 1.6 (1 cement :6 coarse sand)	cum	8519.80



Code No.	Description	Unit	Rate Rs.
6.24A	Extra for tile bricks masonry with tile bricks of class designation 100A in superstructure from plinth level upto floor five level.	cum	787.00
6.25A	Extra for tile brick masonry with tile bricks of class designation 100A in superstructure above floor five level for every four floor or part thereof,	cum	600.10
6.29A	Tile brick masonry with bricks of class designation 100 in plain arch work superstructure in cement mortar 1:4 (1 cement: 4 coarse sand)	cum	11914.80
6.30A	Tile brick masonry with tile bricks of class designation 100A in gauged arch work in superstructure in cement mortar 1:4 (1 cement: 4 coarse sand) including centring and shuttering complete.	cum	13540.60
6.31A	Tile brick masonry work 5 cm thick with tile bricks of class designation 100A in cement mortar 1:3 (1 cement: 3 coarse sand) in superstructure.	sqm	543.00
6.32A	Honey-comb brick work 10/11.4 cm thick with bricks of class designation 100A in cement mortar 1:4 (1 cement: 4 coarse sand)	sqm	436.80
6.39A	Extra for brick work in under water mud or liquid mud including cost of pumping or bailing out water - slush etc	cum	449.30
6.41A	Brick work with selected bricks of class designation 100A in exposed brick work including making horizontal and vertical grooves 10mm wide 12mm deep complete from ground level up to plinth level in cement mortar 1:6 (1 cement: 6 coarse sand)	cum	4947.90
6.45A	Extra for exposed brick work in superstructure above plinth level and upto floor level. $0.75 \times 1.5 = 1.13$	cum	1003.70
6.47A	Providing 250mm wide brick drain in cement mortar (1:6) with av. 150mm clear depth and 250mm apron including cost of E/W. involved with 75mm cement concrete (1:4:8) over one brick designation 100-A flat soling in proper grade and slope at the base. the drain duly plastered in CM. (1:3) with punning over exposed surface all complete as per building specification and direction of E/I,	Per m	1082.80
6.48A	Providing 150mm wide brick drain in cement mortar (1:6) with av. 150mm clear depth and 125mm apron concrete (1: 4:8), over one brick designation 100-A flat soling in proper grade and slope at the base, the drain duly plastered in CM. (1:3) with punning over exposed surface all complete as per building specification and direction of E/I,	Per m	578.30
6.38	Providing and laying <b>Autoclaved aerated cement blocks masonry</b> with 100 mm thick AAC blocks in super structure above plinth level up to floor V level in cement mortar 1:4 (1 cement : 4 coarse sand). The rate includes providing and placing in position 2 Nos 6 mm dia M.S. bars at every third course of masonry work.	cum	5675.40
6.40	Providing and laying Gypsum panel partitions 100 mm thick with water proof Gypsum panels of size 666x500x100 mm, made of calcite phosphor Gypsum fixed with tongue and groove, jointed with bonding plaster as per manufacturers specifications in superstructure above plinth level up to floor V level. Gypsum blocks will have a minimum compressive strength of 9.3 kg/cm <sup>2</sup>	sqm	793.80
6.41	Extra for Gypsum panel partitions in superstructure above floor V level for every four floors or part thereof.	sqm	69.20
6.44	Brick edging 7cm wide 11.4 cm deep to plinth protection with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 including grouting with cement mortar 1:4 (1 cement : 4 fine sand).	metre	43.00

Code No.	Description	Unit	Rate Rs.
6.47	Providing and laying <b>autoclaved aerated cement blocks</b> masonry with 150mm/230mm/300 mm thick AAC blocks in super structure above plinth level up to floor V level with RCC band at sill level and lintel level with approved block laying polymer modified adhesive mortar all complete as per direction of Engineer-in-Charge. (The payment of RCC band and reinforcement shall be made for seperately).	cum	5177.50

### **6.0 Brick work(B)**

6.1B	Brick work with bricks of class designation 100B in foundations and plinth in :		
6.1.12B	Cement mortar 1.:4 (1 cement: 4 coarse sand )	cum	4760.20
6.1.14B	Cement mortar 1:6 (1 cement: 6 coarse sand )	cum	4561.20
6.3B	Extra for Brick work in superstructure above plinth level upto floor V cum	cum	755.00
6.4B	Extra for brick work in superstructure above floor V level for each four floors or part thereof.	cum	600.10
6.11B	Extra for forming cavity 5cm to 7.5cm wide in cavity wall with necessary weep and vent holes including use of cores and cast of providing and fixing bitumanstic coted m.s. toles 300mm long of 25mm x 3mm section at not less than 3 tiles per sqm as per approved design.	sqm	106.00
6.12B	Providing half brick masonry with bricks of class designation 100B in cement mortar 1:3 (1 cement: 3 coarse sand ) in supersturcture for closing cavity 5 to 7.5 cm wide bitumen felt type 3 grade 1 .	m	206.90
6.13B	Brick work 7cm thick with brick of class designation 100B cement mortar 1:3 (1 cement: 3 coarse sand) in super structure	sqm	456.20
6.15B	Brick work in plain arches in superstructure including centring and shuttering complete for span upto 6 metres with bricks of class designation 100B in cement mortar 1:3(1 cement: 3 coarse sand )	cum	7930.90
6.16B	Brick work in gauged arches in superstructure in cement mortar 1:3 (1 cement:3 coarse sand) including centring and shuttering complete. Span upto 6 metres with	cum	9640.60
6.17B	Extra for additionalcost of centring for arches exceeding 6 mspan ' including allshuttering . Bolting , wedging and removai_ (Area of the soffit to be measured ) .	sqm	561.80
6.18B	Half brick masonry with bricks of class designation 100B in foundations and plinth in :		
6.18.3B	Cement mortar 1:3 (1 cement: 3 coarse sand )	sqm	588.80
6.18.4B	Cement mortar 1:4(1 cement: 4 coarse send )	sqm	566.50
6.19B	Extra for half Brick masonry in superstructure above pinth level upto floor V level.	sqm	84.30
6.20B	Extra for half brick masonry in supersructure. Above floor V level for every four floors or part there of	sqm	69.20

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Code No.	Description	Unit	Rate Rs.
6.21B	Extra for providing and placing in position 2 Nos, 6 mm dia , MS bars at every third course of half brick masonry (with F. P. S. bricks)	sqm	76.00
6.23B	Tile brick masonry with tile bricks of class designation 100 in foundation and plinth in :		
6.23.7B	Cement mortar 1:4 (1 cement :4 coarse sand)	cum	8830.70
6.23.8B	Cement mortar 1:6 (1 cement :6 coarse sand)	cum	8512.30
6.24B	Extra for tile bricks masonry with tile bricks of class designation 100B in superstructure from plinth level upto floor five level.	cum	787.00
6.25B	Extra for tile brick masonry with tile bricks of class designation 100B in superstructure above floor five level for every four floor or part thereof.	cum	600.10
6.29B	Tile brick masonry with bricks of class designation 100 in plain arch work superstructure in cement mortar 1 :4 (1 cement: 4 coarse sand ) including centring and shuttering complete.	cum	11898.80
6.30B	Tile brick masonry with tile bricks of class designation 100B in gauded arch work in superstructure in cement mortar 1:4 ( 1 cement: 4 coarse sand ) including centring and shuttering complete.	cum	13555.60
6.31B	Tile brick masonry work 5 cm thick with tile bricks of class designation 100B in cement mortar 1:3 (1 cement: 3 coarse sand ) in superstructure ,	sqm	590.00
6.32B	Honey- comb brick work 10/11.4 cm thick with bricks of class designation 100B in cement mortar 1:4 (1 cement: 4 coarse sand )	sqm	402.70
6.39B	Extra for brick work in or under water mud or liquid mud including cost of pumping or bailing out water — slush etc	cum	449.30
6.41 B	Brick work with selected bricks of class designation 100B in exposed brick work including making horizontal and vertical grooves 10mm wide 12mm deep complete from ground level up to plinth level in cement mortars 1:6(1 cement: 6 coarse sand)	cum	4637.40
6.45B	Extra for exposed brick work in superstructure above plinth level and upto floor level. $0.75 \times 1.5 = 1.13$	cum	976.70
6.46B	Brick work with clay flyash bricks of class designation 100B in superstructure above plinth level upto floor five level in .		
6.46B.1	3 Cement mortar 1:4 (1 cement: 4 coarse sand )	cum	5501.30
6.46.14B	Cement mortar 1:6 (1 cement: 6 coarse sand )	cum	5302.40

### 6.0 FLY ASH Brick work(C)

6.1C	Brick work with fly ash bricks as per IS 12894(2002) & IS 3495 in foundations and plinth in :		
6.1.12C	Cement mortar 1.:4 (1 cement: 4 coarse sand )	cum	5048.30
6.1.14C	Cement mortar 1:6 (1 cement: 6 coarse sand )	cum	4853.80
6.3C	Extra for Brick work in superstructure above plinth level upto floor V cum	cum	791.80



Code No.	Description	Unit	Rate Rs.
6.4C	Extra for brick work in superstructure above floor V level for each four floors or part thereof.	cum	600.10
6.45	Half brick masonry with non modular fly ash bricks of class designation 10, conforming IS :12894, in superstructure above plinth and upto floor V level.		
6.45.1	Cement mortar 1 : 3 (1 cement : 3 coarse sand)	sqm	708.30
6.45.2	Cement mortar 1 : 4 (1 cement : 4 coarse sand)	sqm	686.00

### 6.0 Brick work with lime mortar(D)

6.1D	Brick work with bricks of class designation 100A in foundations and plinth in :		
6.1.12D	Lime mortar (1:1:1) (1 limeputty: 1shukhi:1coarse sand )	cum	5151.10
6.1.14D	lime mortar mortar 1:1:2(1 limeputty: 1 surkhi:2 coarse sand ) Details of cost for 1 cum	cum	5692.80

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**SUB HEAD : 7.0**  
**STONE WORK**

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BUILDING WORK - Contd.

**7.0 Stone work**

Code No.	Description	Unit	Rate Rs.
A7.1	Dressing of sand stone for ashlar cyclopean-	10cudm	65.30
A7.2	Dressing of sand stone for moulded work	10cudm	135.40
A7.3	Dressing of sand stone for ashlar puncheol ordinary work	10cudm	55.35
A7.4	Dressing of sand stone m arch dome's or circular moulded work	10cudm	164.00
A7.5	Dressing of sand stone for ashlar moulded and currvd colonic	10cudm	223.10
A7.6	Dressing of sand stone-----	sqm	644.30
A7.7	Fixing charges for stone work including pointing	10cudm	65.60
A7.8	Fixing charges for stone in veneer work .	sqm	759.80
7.1	Random rubble masonry with hard stone in fourdation and plinth including leveling up with cement concrete 1:6:12 (1 cement: 6 coarse sand : 12 graded stone aggregate 20 mm nominal size ) at plinth level with .		
7.1.1	Cement mortar 1:6 (1 cement: 6 coarse sand )	cum	4218.70
7.2	Extra for random rubble masonry with hard stone in spuerstructure above plinth level and upto floor five level, including leveling up with cement concreter 1:6:12 ( 1 cement: 6 coarse sand : 12 graded . stone aggregate 20 mm nomiinal size ) at window sills , ceiling level and the like .	cum	803.00
7.3	Extra for random rubble masonry with hard stone in superstructure above floor V levei for every four floors or part therof .	cum	768.00
7.4	Extra for random rubble masonry with hard stone in .		
7.4.1	Square or rectangular pillars	cum	375.70
7.4.2	Circular pillars	cum	1269.60
7.5	Extra for random rubble masonry with hard stone curved on plan for ad mean radius not exceeding 6 m .	cum	500.20
7.6	Coursed rubble masonry (fist sort) with hard stone in foundation and plinth with .		
7.6.1	Cement mortar 1:6(1 cement: 6 coarse sand )	cum	4947.70
7.7	Coursed rubble masonry (second sort) with hard stone in foundation & plinth with		
7.7.1	Cement mortar 1:6 (1 cement: 6 coarse sand )	cum	4601.60
7.8	Extra for coursed rubble masonry with hard stone (first or second sort) in superstructue above plinth level and upto floor five level .	cum	919.20
7.9	Extra for coursed rubble masonry with hard stone (first or second sort} in superstructure above floor V level for every four floor's or part thereof.	cum	768.00
7.10	Extra for coursed rubble masonry with hard stone (first or second sort) in :		
7.10.1	Square or rectangular pillars	cum	417.30
7.10.2	Circular pillars	cum	1434.10
7.11	Extra for coursed rubble masnory with hard stone (first or second sort) curved on plan for a mean radius not exceeding 6 m .	cum	531.50

Code No.	Description	Unit	Rate Rs.
7.12	Stone work in plain ashlar in super structure upto floor five level in cement mortar 1:6(1 cement: 6 coarse sand ) including pointing with cement mortar 1 2 (1 white cement: 2 stone dust) with an admixture of pigment matching the stone shade .		
7.12.1	Red sand stone	cum	32585.70
7.12.2	White sand stone	cum	54462.80
7.13	Stone work plain ashlar in arches in cement mortar 1:3 (1 cement: 3 coarse sand ) including centring, shuttering and pointing with white cement mortar 1:2(1 white cement: 2 stone dust) with an admixture of pigment matching the stone shade .		
7.13.1	Red sand stone	cum	37760.10
7.13.2	White sand stone	cum	56678.30
7.14	Stone work plain ashlar in domes in cement mortar 1:3 {1 cement: 3 coarse sand ) including centring, shuttering and pointing with white cement mortar 1:2(1 white cement: 2 stone dust} with an admixture of pigment matching the stone shade .		
7.14.1	Red sand stone	cum	49436.80
7.14.2	White sand stone	cum	71904.00
7.15	Stone work ashlar punched (ordinary) in superstructure upto floor five level in cement mortar 1:6(1 white cement: 6 coarse sand ) including pointing with cement mortar 1:2(1 cement: 2 stone dust) with an admixture of pigment matching the stone shade . '		
7.15.1	Red sand stone	cum	31254.90
7.15.2	White sand stone	cum	59127.30
7.16	Extra for stone work , plain ashlar or ashlar punched above floor V for every four floors or part thereof.	cum	768.00
7.17	Extra for plain ashlar or ashlar punched in :		
7.17.1	Square or rectangular pillars	cum	923.20
7.19	Extra for additional cost of centring for arches exceeding 6m span including all strutting , bolting, wedging etc , and removal (area of soffit to be measured).	sqm	561.80
7.2	Stone work sunk or moulded or sunk and moulded upto floor five level in cement mortar 1:6 (1 cement: 6 coarse sand ) including pointing with white cement mortar 1:2 (1 cement: 2 stone dust) with an admixture of pigment matching the stone shade:		
7.20.1	Red sand stone	cum	48194.70
7.20.2	White sand stone	cum	62320.00
7.21	Extra for stone work sunk or moulded or sunk and moulded or carved in :		
7.21.1	Triangular or Square or rectangular pillars	cum	3130.80
7.21.2	Circular or polygonal pillars	cum	8870.50
7.22	Extra for stone work sunk or moulded in cornices .	metre per cm grith	131.50

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Code No.	Description	Unit	Rate Rs.
7.23	Stone work (machine cut edge) for wall lining etc. (vener work ) over 12 mm thick bed of cement lime mortar 1:1:6 (1 cement: 1 lime putty : 6 fine sand ) including pointing in white cement mortar 1:2(1 white cement: 2 stone dust) with an admixture of pigment matching the stone shade: (To be secured to the backing by means of cramps which shall be paid for seperately)		
7.23.1	Red sand stone- exposed face fine dressed with rough backing		
7.23.1.1	70 mm thick	0.1 sqm	2963.60
7.23.1.2	60 mm thick	0.1sqm	2818.90
7.23.1.3	50 mm thick	0.1 sqm	2674.50
7.23.1.4	40 mm thick	0.1 sqm	2529.50
7.23.2	White sand stone		
7.23.2.1	70 mm thick	0.1sqm	2963.60
7.23.2.2	60 mm thick	0.1sqm	2818.90
7.23.2.3	50 mm thick	0.1sqm	2674.50
7.23.2.4	40 mm thick	0.1sqm	2529.10
7.24	Extra for stone work (vener work ) curved on plan with a mean radius not exceeding 6 m .	cum	2400.30
7.25	Providing and fixing gun metal cramps of required shape for anchoring stone wall lining to the backing or securing adjacent stones in stone wall lining in cement mortar 1:2 (1 cement: 2 fine sand) including making the necessary chases.		
7.25.1	25x6 mm - 30 long	each cramp	117.30
7.26	Providing and fixing stone dowels 10x5x2.50 cm cut to double wedge shape as per design in cement mortar 1:2 (1 cement: 2 fine sand ) including making the necessary chases .	dowel	43.40
7.27	Providing and fixing copper pins 7.5 cm long 6 mm diameter for securing adjacent stones in stone wall lining in cement mortar 1:2 (1 cement: 2 fine sand ) including making the necessary chases .	copper pin	30.50
7.29	Providing and fixing horizontal chajja of stone 400 mm thick and upto 80 cm projection in cement mortar 1:4(1 cement: 4 coarse sand) including pointing in white cement mortar 1:2 (1 white cement: 2 stone dust) with an admixture of pigment matching the stone shade.		
7.29.1	Red sand stone	sqm	901.80
7.29.2	White sand stone	sqm	901.80
7.30	30 mm red sand stone sun-shade (chisel-dressed) supported on red sand stone brackets, fixed in walls with cement mortar 1:4 (1 cement: 4 coarse sand ) including finishing complete.	sqm	1117.00
7.31	Providing and fixing red sand stone brackets 55x22.5x45 cm sunk and moulded including providing and fixing with 4 Nos. gun metal cramp 25x6 mm. 30 cm long and dowel bars 7.5 cm long 6 mm dia as per design.	bracket	3197.10

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Code No.	Description	Unit	Rate Rs.
7.32	Stone work , plain in copings , cornices, string courses and plinth courses, in cement mortar 1: 6 (1 cement: 6 coarse sand ) including pointing with white cement mortar 1:2 (1 white cement: 2 stone dust) with an admixture of pigment matching the stone shade .		
7.32.1	Red sand stone	cum	43467.60
7.32.2	White sand stone	cum	65344.70
7.38	Providing and fixing stone jali 40 mm thick throughout(without sunking or moulding in jali slab) in cement mortar 1:3(1 cement: 3 coarse sand ) including pointing in white cement mortar 1:2 (1 white cement: 2 stone dust) with an admixture of pigment, matching the stone shade, jali slab without any chamfers etc.		
7.38.1	Red sand stone	sqm	9629.70
7.38.2	White sand stone	sqm	9629.70
7.36	Wall lining butch work with Dholpur stone 40 mm thick rough taching on the exppsed surface with stone strips of minimum length 230 mm and required with including embedding every lenth layer and bottom most layer in masonry or concrete after making necessary chases of size 75 x 75 mm and by providing layer or 75 mm thick strips i/c 12 mm thick bed of cement mortar 1:3 (1 cement: 3 coarse sand ) i/c ruled pointing in cement mortar 1:2 (1 white cement: 2 stone dust) with an admixture of pigment to match the shade of stone complete as per direction of Enginneer-in-charge.	sqm	1769.30
7.37	Stone work ( machine cut edges veneer work) for wall lining upto 10 m height, backing filled with a grout of 12 mm thick cement mortar 1:3 (1 Cement : 3 coarse sand) and jointed with Cement mortar 1:2 (1 cement : 2 stone dust), including rubbing and polishing complete. (To be secured to the backing and the sides by means of cramps and pins which shall be paid for separately)		
7.37.1	Kota stone slabs exposed face dressed and rubbed.		
7.37.1.1	25 mm thick	sqm	1857.40
7.37.1.A	Dressing of sand stone in veneer work	sqm	2508.10
7.37.1.B	Dressing of sand stone in ashlar punched (ordinary work )	sqm	1910.20
7.38	Stone tile work for wall lining upto 10.0m height with special adhesive like araldite or equivalent over 12 mm thick bed of cement mortar 1:3 (1 cement: 3 coarse sand ) including pointing in-white cement with an admixture of pigment to match the stone shade .		
7.38.1	8 mm thick (mirror polished and machine cut edge )		
7.38.1.1	Granite black stone	sqm	1861.40
7.38.1.2	Raj Nagar plain white marble / Udaipur green marble / Zebra black marbleGranite black stone	sqm	1587.20
7.39	<b>Extra for stone work for wall lining on exterior walls of height more than 10 m from ground level for every additional height of 3 m or part there of.</b>	sqm	98.60

Code No.	Description	Unit	Rate Rs.
7.40	Providing and fixing dry cladding upto 10 metre heights with 30 mm thick gang saw cut stone with (machine cut edges) of uniform colour and size upto 1mx1m, fixed to structural steel frame work and / or with the help of cramps, pins etc. and sealing the joints with approved weather sealant as per Architectural drawing and direction of Engineer-in-Charge. (The steel frame work, stainless steel cramps and pins etc. shall be paid for separately.)		
7.40.1	Red sand stone	sqm	2729.80
7.40.2	White sand stone	sqm	2991.70
7.41	Providing and fixing structural steel frame (for dry cladding with 30 mm thick gang saw cut with machine cut edges sand stone) on walls at all heights using M.S. square / rectangular tube in the required pattern as per architectural drawing, including cost of cutting, bending, welding etc. The frame work shall be fixed to the wall with the help of MS brackets / lugs of angle iron / flats etc. which shall be welded to the frame and embedded in brick wall with cement concrete block 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) of size 300x230x300 mm, including cost of necessary centring and shuttering and with approved expansion hold fasteners on CC/RCC surface, including drilling necessary holes. Approved cramps / pins etc. shall be welded to the frame work to support stone cladding, the steel work will be given a priming coat of Zinc primer as approved by Engineer-in-Charge and painted with two or more coats of epoxy paint (Shop drawings shall be submitted by the contractor to the Engineer-in-Charge for approval before execution). The frame work shall be fixed in true horizontal & vertical lines/planes. (Only structural steel frame work shall be measured for the purpose of payment, stainless steel cramps shall be paid for separately and nothing extra shall be paid.)	Per Kg	147.00
7.42	Providing and fixing adjustable stainless steel cramps of approved quality, required shape and size, adjustable with stainless steel nuts, bolts and washer (total weight not less than 260 gms), for dry stone cladding fixed on frame work at suitable location, including making necessary recesses in stone slab, drilling required holes etc complete as per direction of the Engineer-in-charge.	Each	237.90

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**SUB HEAD : 8.0**  
**MARBLE & GRANITE WORKS**

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BUILDING WORK - Contd.

**8.0 Marble & Granite Works**

Code No.	Description	Unit	Rate Rs.
A8.1	Dressing of Marble for steps, jambs, walls, pillars and other plain work	10cudm	212.30
A8.2	Dressing of marble for moulded jambs and heads, straight mouldings and plain arces or domes.	10cudm	339.00
A8.3	Dressing of marble in moulded arches or domes and circular mouldings.	10cudm	729.60
A8.4	Dressing of marble veneer work	sqm	929.10
A8.5	Labour for fixing marble in veneer work 2.5 cm to 5 cm thick.	sqm	1343.30
8.1	Marble work gang saw cut (polished and machine cut) of thickness 18mm for wall lining (veneer work) in cement mortar 1:3 (1 cement :3 coarse sand) including pointing with white cement mortar 1:2(1 white cement:2 marble dust) with an admixture of pigment to match the marble shade:(To be secured to the backing by means of cramps, which shall be paid for separately)		
8.1.1	White Marble-Raj Nagar Plain/Udaipur green marble/ Zebra block marble		
8.1.1.1	Area of slab upto 0.50 sqm	sqm	2793.30
8.1.1.2	Area of slab over 0.50 sqm	sqm	2973.40
8.2	Providing and fixing 18 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut for kitchen platforms, vanity counters, window sills, facias and similar locations, of required size,approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups,including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels.		
8.2.1	Rajnagar plain white marble /Udaipur green marble/ Zebra block marble		
8.2.1.1	Area of slab upto 0.50 sqm	sqm	2411.90
8.2.1.2	Area of slab over 0.50 sqm	sqm	2573.50
8.2.2	Granite of any colour and shade		
8.2.2.1	Area of slab upto 0.50 sqm	sqm	3863.90
8.2.2.2	Area of slab over 0.50 sqm	sqm	4028.50
8.3	Providing edge moulding to 18 mm thick marble stone counters, vanities etc., including machine polishing to edge to give high gloss finish etc. complete as per design approved by Engineer-in-Charge.		
8.3.1	Marble work	m	147.80
8.3.2	Granite work	m	249.30



Code No.	Description	Unit	Rate Rs.
8.4	Extra for fixing marble/granite stone over and above coresponding basic item, in facia and drops of width upto 150 mm with epoxy resin based (Araldite or equivalent) adhesive including cleaning etc. complete.	m	263.40
8.5	Extra for providing opening of required size & shape for wash basins/kitchen sink in kitchen platform. Vanity counters and similar location in marble/granite/stone work including necessary holes for pillar taps etc. including rubbing,moulding and polishing of cut edges etc. complete.	Each	402.20
8.6	Mirror polishing on marble work/stone work where ever required to give high gloss finish complete.	sqm	216.10
8.7	Providing and fixing cramps of required size & shape in RCC/ CC / Brick masonry backing with cement mortar 1:2 ( 1 cement :2 coarse sand), including drilling necessary hole in stones and embedding the cramp in the hole (fastener to be paid separately).		
8.7.1	Gunmetal cramps	Per Kg	625.60
8.7.2	Stainless steel cramps	Per Kg	610.10
8.8	Providing and fixing expansion hold fasteners on CC/R.C.C. surface backing including drilling necessary holes and the cost of bolt etc complete.		
8.8.1	wedge expansion type		
8.8.1.1	Fastner with-threaded dia. 1/4" or 6mm	Each	26.20
8.8.1.2	Fashtner with threaded dia. 3/8" or 10 mm	Each	26.60
8.8.1.3	Fastner with threaded dia. 1/2" or 12mm	Each	48.30
8.9	Stone tile (polished) work for wall lining over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and cement slurry @ 3.3 kg/ sqm including pointing in white cement complete.		
8.9.1	8 mm thick		
8.9.1.1	Raj nagar plain white marble / Udaipur green marble / Zebra black marble	sqm	1648.40
8.9.1.2	Granite of any colour and shade	sqm	2059.80
8.10	Providing and fixing stone slab with table rubbed, edges rounded and polished, of size 75x50 cm deep and 1.8 cm thick, fixed in urinal partitions by cutting a chase of appropriate width with chase cutter and embedding the stone in the chase with epoxy grout or with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone finished smooth.aggregate 6 mm nominal size) as per direction of Engineer-in-Charge and		
8.10.1	White Agaria Marble Stone	sqm	3216.90
8.10.2	Granite Stone of approved shade	sqm	3216.9

Code No.	Description	Unit	Rate Rs.
8.11	Providing and fixing machine cut, mirror / eggshell polished , Marble stone work for wall lining (vener work) including dado, skirting, risers of steps etc., in required design and pattern wherever required,stones of different finished surface texture, on 12 mm (average) thick cement mortar 1:3 (1 cement :3 coarse sand) laid and jointed with white cement slurry @ 3.3 kg/sqm including pointing with white cement slurry admixed with pigment of matching shade, including rubbing, curing, polishing etc. all complete as per Architectural drawings, and as directed by the Engineer-in-Charge.		
8.11.1	18 mm thick Italian Marble stone slab,Perlato, Rosso verona, Fire Red or Dark Emperadore etc.	sqm	7178.50
8.12	Providing and laying flamed finish Granite stone flooring in required design and patterns, in linear as well as curvilinear portions of the building all complete as per the architectural drawings with 18 mm thick stone slab over 20mm(avearage) thick base of cement mortar 1:4(1 cement : 4 coarse sand) laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade including rubbing , curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge :		
a.)	Flamed finish granite stone slab Jet Black, Cherry Red, Elite Brown, Cat Eye or equivalent.	sqm	2114.00
8.13	Providing and laying Polished Granite stone flooring in required design and patterns, in linear as well as curvilinear portions of the building all complete as per the architectural drawings with 18 mm thick stone slab over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade including rubbing , curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge.		
8.13.1	Polished Granite stone slab jet Black, Cherry Red, Elite Brown, Cat Eye or equivalent.	sqm	3273.30
8.14	Stone work (machine cut edges) for wall lining etc. (vener work) upto 10 metre height, backing filled with a grout of average 12 mm thick cement mortar 1:3 (1 cement : 3 coarse sand) including pointing in white cement mortar 1:2 (1 white cement : 2 stone dust) with an admixture of pigment matching the stone shade : (To be secured to the backing and the sides by means of cramps and pins which shall be paid for separately) :		
8.14.1	Red sand stone - exposed face fine dressed with rough backing		
8.14.1.1	70 mm thick	sqm	2869.40
8.14.1.2	60 mm thick	sqm	2724.70
8.14.1.3	50 mm thick	sqm	2580.30



Code No.	Description	Unit	Rate Rs.
8.14.1.4	40 mm thick	sqm	2435.20
8.14.1.5	30 mm thick	sqm	2290.40
8.14.2	<b>Red sand stone - Exposed face machine cut and table rubbed with rough backing</b>		
8.14.2.1	70 mm thick	sqm	3731.40
8.14.2.2	60 mm thick	sqm	3586.60
8.14.2.3	50 mm thick	sqm	3442.20
8.14.2.4	40 mm thick	sqm	3297.20
8.14.2.5	30 mm thick	sqm	3152.40
8.14.3	<b>White sand stone - exposed face fine dressed with rough backing .</b>		
8.14.3.1	70 mm thick	sqm	4442.70
8.14.3.2	60 mm thick	sqm	4073.30
8.14.3.3	50 mm thick	sqm	3704.70
8.14.3.4	40 mm thick	sqm	3333.50
8.14.3.5	30 mm thick	sqm	2964.60
8.14.4	<b>White sand stone - Exposed face machine cut and table rubbed with rough backing.</b>		
8.14.4.1	70 mm thick	sqm	5304.70
8.14.4.2	60 mm thick	sqm	4935.30
8.14.4.3	50 mm thick	sqm	4566.70
8.14.4.4	40 mm thick	sqm	4195.40
8.14.4.5	30 mm thick	sqm	3826.50
8.14.5	<b>Gang saw cut stone</b>		
8.14.5.1	30mm thick White sand stone	sqm	1790.00
8.14.5.2	30mm thick White sand stone	sqm	1600.30
8.15	<b>Providing and fixing stainless steel cramps of required size and shape for anchoring stone wall lining to the backing or securing adjacent stones in stone wall lining in cement mortar 1:2 (1 cement : 2 coarse sand), including making the necessary chases in stone and holes in walls wherever required.</b>	Per Kg	610.10
8.16	<b>Providing and fixing copper pins 7.5 cm long 6 mm diameter for securing adjacent stones in stone wall lining in cement mortar 1:2 (1 cement : 2 coarse sand), including making the necessary chases.</b>	each pin	33.80

*[Handwritten signatures and initials]*

Code No.	Description	Unit	Rate Rs.
8.17	Wall lining butch work upto 10m height with Dholpur stone 40 mm thick rough facing on the exposed surface with stone strips of minimum length 300 mm and required width, including embedding every tenth layer and bottom most layer in masonry or concrete after making necessary chases of size 75x75 mm and by providing layer of 75 mm thick strips i/c 12 mm thick bed of cement mortar 1:3 (1 Cement : 3 coarse sand) i/c ruled pointing in cement mortar 1:2 (1 white cement : 2 stone dust) with an admixture of pigment to match the shade of stone complete as per direction of Engineer-in-charge.	sqm	1671.10
8.18	Stone work (machine cut edges Veneer work) for wall lining upto 10 m height, backing filled with a grout of 12 mm thick cement mortar 1:3 (1 Cement : 3 coarse sand) and jointed with Cement mortar 1:2 (1 cement : 2 stone dust), including rubbing and polishing complete. (To be secured to the backing and the sides by means of cramps and pins which shall be paid for separately).		
8.18.1	Kota stone slabs exposed face dressed and rubbed.		
8.18.1.1	25 mm thick	sqm	1786.90
8.19	Extra for stone work for wall lining on exterior walls of height more than 10 m from ground level for every additional height of 3 m or part there of.	sqm	98.60
8.20	Providing and fixing dry cladding upto 10 metre heights with 30mm thick gang saw cut stone with (machine cut edges) of uniform colour and size upto 1mx1m, fixed to structural steel frame work and/ or with the help of cramps, pins etc. and sealing the joints with approved weather sealant as per Architectural drawing and direction of Engineer-in-charge. (The steel frame work, stainless steel cramps and pins etc. shall be paid for separately).		
8.20.1	Red sand stone - 30mm thick gang saw cut stone	sqm	1639.00
8.20.2	White sand stone - 30mm thick gang saw cut stone	sqm	1828.70
8.21	Providing and fixing structural steel frame (for dry cladding with 30 mm thick gang saw cut with machine cut edges sand stone) on walls at all heights using M.S. square/ rectangular tube in the required pattern as per architectural drawing, including cost of cutting, bending, welding etc. The frame work shall be fixed to the wall with the help of M.S. brackets/ lugs of angle iron/ flats etc. which shall be welded to the frame and embedded in brick wall with cement concrete block 1:2:4 (1 cement :2 coarse sand :4 graded stone aggregate 20 mm nominal size) of size 300x230x300 mm, including cost of necessary centring and shuttering and with approved expansion hold fasteners on CC/RCC surface, including drilling necessary holes. Approved cramps/ pins etc. shall be welded to the frame work to support stone cladding, the steel work will be given a priming coat of Zinc primer as approved by	Per Kg	138.30





Code No.	Description	Unit	Rate Rs.
	Engineer-in-charge and painted with two or more coats of epoxy paint (Shop drawings shall be submitted by the contractor to the Engineer-in-charge for approval before execution). The frame work shall be fixed in true horizontal & vertical lines/planes. (Only structural steel frame work shall be measured for the purpose of payment, stainless steel cramps shall be paid for separately and nothing extra shall be paid).		
8.22	Providing and fixing adjustable stainless steel cramps of approved quality, required shape and size, adjustable with stainless steel nuts, bolts and washer (total weight not less than 260 gms), for dry stone cladding fixed on frame work at suitable location, including making necessary recesses in stone slab, drilling required holes etc complete as per direction of the Engineer-in-charge.	each	237.90
8.23	Providing 50x50x50 mm 2nd class teak wood plugs including cutting brick work and fixing in cement mortar 1:3 (1 cement : 3 fine sand) and making good the walls etc.	each	24.40
8.24	Providing and fixing expandable fasteners of specified size with necessary plastic sleeves and galvanised M.S. screws including drilling holes in masonry work / CC/ R.C.C. and making good etc. complete.		
8.24.1	25 mm long	each	18.90
8.24.2	32 mm long	each	20.30
8.24.3	40 mm long	each	20.30
8.24.4	50 mm long	each	25.70
8.25	Providing and fixing 2nd class teak wood plain lining tongued and grooved, including wooden plugs complete with necessary screws and priming coat on unexposed surface.		
8.25.1	40 mm thick	sqm	5907.20
8.25.2	25 mm thick	sqm	3827.20
8.25.3	20 mm thick	sqm	3046.80
8.25.4	12 mm thick	sqm	1985.20
8.26	Providing and fixing in wall lining flat pressed three layer (medium density) particle board or graded wood Pre-laminated one side decorative lamination and other side balancing lamination Grade I, Type II, IS : 12823 marked, including priming coat on unexposed arrangement and screws etc. complete :		
8.26.1	12 mm thick	sqm	1141.50
8.26.2	18 mm thick	sqm	1303.40
8.26.3	25 mm thick	sqm	1671.30

Code No.	Description	Unit	Rate Rs.
8.27	Providing and fixing specified wood frame work consisting of battens 50x25mm fixed with rawl plug and drilling necessary holes for rawl plug etc. including priming coat complete.		
8.27.1	Kiln seasoned and chemically treated hollock wood	cum	145079.30
8.28	Providing and fixing plywood 4 mm thick, one side decorative veneer conforming to IS: 1328 (type-1), for plain lining / cladding with necessary screws, including priming coat on unexposed surface with :		
8.28.1	Decorative veneer facings of approved manufacture	sqm	1098.90
8.29	Providing and fixing 4mm thick coir veneer board, ISI marked IS : 14842, plain lining with necessary screws, priming coat on unexposed surface etc., complete.	sqm	1049.30
8.30	Providing and fixing skirting with Pre-laminated (one side decorative and other side balancing lamination) flat pressed 3 layer or graded particle board (medium density) Grade I, Type II, IS :12823 marked, with necessary fixing arrangements and screws, including drilling necessary holes for rawl plugs etc. and priming coat on unexposed surface complete :		
8.30.1	18 mm thick	sqm	1763.10
8.30.2	25 mm thick	sqm	2131.00
8.31	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in- Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.	sqm	790.40
8.32	Designing, fabricating, testing, installing and fixing in position Curtain Wall with Aluminium Composite Panel Cladding, with open grooves for linear as well as curvilinear portions of the building , for all heights and all levels etc. including: (a) Structural analysis & design and preparation of shop drawings for pressure equalisation or rain screen principle as required, proper drainage of water to make it watertight including checking of all the structural and functional design. (b) Providing, fabricating and supplying and fixing panels of aluminium composite panel cladding in pan shape in metallic colour of approved shades made out of 4mm thick aluminium composite panel material consisting of 3mm thick FR grade mineral core sandwiched between two Aluminium sheets (each 0.5mm thick). The aluminium composite panel cladding sheet shall be coil coated, with Kynar 500 based PVDF / Lumiflon based fluoropolymer resin coating of approved colour and shade on face # 1 and polymer (Service) coating on face # 2 as specified using stainless steel screws, nuts, bolts, washers, cleats, weather silicone sealant, backer rods etc.		

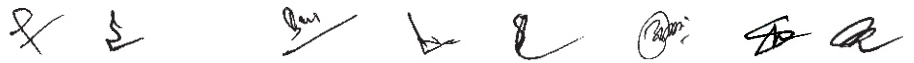









Code No.	Description	Unit	Rate Rs.
	<p>(c) The fastening brackets of Aluminium alloy 6005 T5 / MS with Hot Dip Galvanised with serrations and serrated washers to arrest the wind load movement, fasteners, SS 316 Pins and anchor bolts of approved make in SS 316, Nylon separators to prevent bi-metallic contacts all complete required to perform as per specification and drawing The item includes cost of all material &amp; labour component, the cost of all mock ups at site, cost of all samples of the individual components for testing in an approved laboratory, field tests on the assembled working curtain wall with aluminium composite panel cladding, cleaning and protection of the curtain wall with aluminium composite panel cladding till the handing over of the building for occupation. Base frame work for ACP cladding is payable under the relevant aluminium item.s The Contractor shall provide curtain wall with aluminium composite panel cladding, having all the performance characteristics all complete, as per the Architectural drawings, as per item description, as specified, as per the approved shop drawings and as directed by the Engineer-in-Charge. However, for the purpose of payment, only the actual area on the external face of the curtain wall with Aluminum Composite Panel Cladding (including width of groove) shall be measured in sqm. up to two decimal places.</p>	sqm	4309.60



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**SUB HEAD : 9.0**  
**WOOD WORK & PVC WORK**

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## BUILDING WORK - Contd.

**9.0 Wood Work & PVC Work**

Code No.	Description	Unit	Rate Rs.
9.1	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length ( hold fast lugs or dash fastener shall be paid for separately).		
9.1.1	Second class teak wood	cum	119737.90
9.1.2	Sal wood	cum	94881.90
9.1.3	Kiln seasoned and chemically treated hollock wood.	cum	61301.20
9.1.4	Local wood	cum	53840.20
9.2	Providing laminated veneer lumber conforming to IS:14616 and TAD - 15: 2001( Part B) in factory made frames of doors, windows, clerestory windows and other frames, wrought framed and fixing in position with hold fast lugs or with dash fasteners of required dia & length ( hold fast lugs or dash fastener shall be paid for separately).	cum	106607.90
9.3	Providing wood work in frames of false ceiling, partitions etc. sawn and fixed in position :		
9.3.1	Sal wood	cum	90770.80
9.3.2	Kiln seasoned and chemically treated hollock wood.	cum	56991.30
9.4	Extra for additional labour for circular works,such as in frames of fan light.		
9.4.1	Second Class teakwood-	cum	11974.70
9.4.2	Sal wood-	cum	9488.20
9.4.3	Klin seasoned and and chemically treated hollock wood.	cum	6130.30
9.5	Providing and fixing panelled or panelled and glazed shutters for doors, windows and clerestory windows, including ISI marked M.S.pressed butt hinges bright finished of required size with necessary screws, excluding panelling which will be paid for separately, all complete as per direction of Engineerin-charge.		
9.5.1	Second Class teak wood-		
9.5.1.1	35 mm thick	sqm	3128.30
9.5.1.2	30 mm thick	sqm	2784.80
9.5.2	Kiln seasoned and chemically treated hollock wood.		
9.5.2.1	35 mm thick	sqm	1896.50
9.5.2.2	30 mm thick	sqm	1723.60
9.5.3	Kiln seasoned selected planks of sheesham wood.		
9.5.3.1	35 mm thick	sqm	2706.60
9.5.3.2	30 mm thick	sqm	2404.50

Code No.	Description	Unit	Rate Rs.
9.6	Providing and fixing 35 mm thick factory made laminated veneer lumber door shutter conforming to IS : 14616 and TADS 15:2001 (Part B), including ISI marked M.S.pressed butt hinges bright finished of required size with necessary screws, all complete as per directions of Engineer-in-Charge and panelling with panels of:		
9.6.1	12 mm thick plain grade - 1, medium density flat pressed three layer particle board FPT - I or graded wood particle board FPT-I, IS :3087 marked, bonded with BWP type synthetic resin adhesive as per IS : 848 :	sqm	2488.80
9.6.2	12 mm thick pre-laminated particle board (decorative lamination on both sides) grade - 1, medium density flat pressed, three layer particle board FPT - I or graded wood particle board FPT - I, conforming to IS : 3087, bonded with BWP type synthetic resin adhesive as per IS : 848 and prelaminated conforming to IS : 12823, Grade 1, Type - II marked :	sqm	2622.60
9.6.3	12 mm thick prelaminated (with decorative lamination on one side and balancing lamination on other side) particle board Grade -1 medium density flat pressed, three layer and graded (FPT-1) conforming to IS :3087 bonded with BWP type synthetic resin adhesive as per IS :848 and prelamination conforming to IS :12823 Grade-1 Type II	sqm	2876.80
9.7	Providing and fixing panelling or panelling and glazing in panelled or panelled and glazed shutters for doors, windows and clerestory windows (Area of opening for panel inserts excluding portion inside grooves or rebates to be measured). Panelling for panelled or panelled and glazed shutters 25 mm to 40 mm thick:		
9.7.1	<b>Second class teak wood</b>	sqm	2537.90
9.7.2	<b>Klin seasoned and chemically treated hollock wood for 40,35,30,25mm thick shutters</b>	sqm	1545.20
9.7.3	<b>Ply wood 5 ply, 9 mm thick.</b>		
9.7.3.1	<b>Decorative plywood both side decorative veneer (Type - I) conforming to IS 1328 BWR type.</b>	sqm	1852.10
9.7.3.2	<b>Decorative plywood one side decorative veneer and commercial veneer on other face (Type 1) conforming to IS 1328 BWR Type</b>	sqm	1884.50
9.7.4	<b>Ply wood 7 ply, 9 mm thick.</b>		
9.7.4.1	<b>Decorative plywood one side decorative veneer and commercial veneer on other face (Type 1) conforming to IS 1328 BWR Type</b>	sqm	2014.30
9.7.5	<b>Particle Board 12 mm thick.</b>		
9.7.5.1	<b>Plain particle board flat pressed, 3 layer or graded wood particle board medium density Grade I, IS : 3087 marked</b>	sqm	940.70

Code No.	Description	Unit	Rate Rs.
9.7.5.2	Veneered flat pressed three layer or graded wood particle board with commercial veneering on both sides conforming to IS :3097, grade I	sqm	1284.50
9.7.5.3	Pre-laminated particle board with decorative lamination on one side and balancing lamination on other side, Grade I, Type II, IS : 12823 marked	sqm	1349.40
9.7.5.4	Pre-laminated particle board with decorative lamination on both sides, Grade I, Type II, IS :12823 marked	sqm	1406.10
9.7.6	Coir Veneer Board (conforming to IS 14842 )		
9.7.6.1	12 mm thick.	sqm	1560.20
9.7.7	Float glass panes.		
9.7.7.1	4 mm thick glass pane.	sqm	1181.30
9.7.7.2	5.5 mm thick glass pane.	sqm	1505.60
9.7.8	Fly proof stainless steel grade 304 wire gauge with 0.5 mm dia wire and 1.4 mm wide aperture with matching wood beading	sqm	1072.60
9.9	Providing and fixing glazed shutters for doors, windows and clerestory windows using 4 mm thick float glass panes including ISI marked M.S. pressed butt hinges bright finished of required size with necessary screws.		
9.9.1	<b>Second class teak wood</b>		
9.9.1.1	35 mm thick	sqm	3761.20
9.9.1.2	30 mm thick	sqm	3368.60
9.9.2	<b>Kiln seasoned and chemically treated hollock wood</b>		
9.9.2.1	35 mm thick	sqm	2358.80
9.9.2.2	30 mm thick	sqm	2161.20
9.9.3	<b>Kiln seasoned selected planks of sheesham wood</b>		
9.9.3.1	35 mm thick	sqm	3281.60
9.9.3.2	30 mm thick	sqm	2955.20
9.10	Providing and fixing factory made laminated veneer lumber glazed shutter conforming to IS: 14616 and TADS 15:2001 (Part B), using 4 mm thick float glass panes for doors, windows and clerestory windows, including ISI marked M.S. pressed butt hinges bright finished of required size with necessary screws, all as per directions of Engineer-in-charge.		
9.10.1	30 mm thick shutters	sqm	2488.80
9.11	Extra for providing heavy sheet float glass panes instead of ordinary float glass in glazed doors, windows and clerestory window shutters. (Area of opening for glass panes excluding portion inside rebate shall be measured).		
9.11.1	5.5 mm thick instead of 4 mm thick	sqm	267.60





Code No.	Description	Unit	Rate Rs.
9.12	Extra for providing frosted glass panes 4 mm thick instead of ordinary float glass panes 4 mm thick in doors, windows and clerestory window shutters. (Area of opening for glass panes excluding portion inside rebate shall be measured).	sqm	214.10
9.13	Deduct for providing pin headed glass panes instead of ordinary float glass panes weighing 4 mm thick in doors, windows and clerestory window shutters (Area of opening for glass panes excluding portion inside rebate shall be measured).	sqm	6.70
9.14	Extra for providing ISI marked Stainless Steel butt hinges instead of M.S. pressed butt hinges bright finished of required size with necessary screws. (Shutter area to be measured).	sqm	126.50
9.15	Deduct for not providing hinges in doors, windows and clerestory window shutters with		
9.15.1	Stainless steel butt hinges with stainless steel screws.		
9.15.1.1	For 2nd class teak wood and other class of wood shutters.	sqm	181.60
9.15.2	ISI marked M.S. pressed butt hinges bright finished of required size with necessary screws.		
9.15.2.1	For 2nd class teak wood and other class of wood shutters.	sqm	55.10
9.16	Providing and fixing 25 mm thick shutters for cup board etc. :		
9.16.1	Panelled or panelled & glazed shutters :		
9.16.1.1	Second class teak wood including ISI marked anodised aluminium butt hinges with necessary screws	sqm	3105.60
9.16.1.2	Second class teak wood including ISI marked nickel plated bright finished M.S. piano hinges with necessary screws	sqm	3247.90
9.16.2	Glazed shutters:		
9.16.2.1	Second class teak wood including ISI marked anodised aluminium butt hinges with necessary screws	sqm	3053.60
9.16.2.2	Second class teak wood including ISI marked nickel plated bright finished M.S. piano hinges with necessary screws	sqm	3092.10
9.17	Providing and fixing flat pressed 3 layer particle board medium density exterior grade (Grade I) or graded wood particle board IS : 3087 marked, to frame, backing or studding with screws etc. complete (Frames, backing or studding to be paid separately) :		
9.17.1	12 mm thick	sqm	534.20
9.17.2	18 mm thick	sqm	806.40
9.18	Providing and fixing Pre-laminated flat pressed 3 layer (medium density) particle board or graded wood particle board IS : 3087 marked, with one side decorative and other side balancing lamination Grade I, Type II exterior grade IS : 12823 marked, in shelves with screws and fittings wherever required, edges to be painted with polyurethane primer (fittings to be paid separately).		

Code No.	Description		Unit	Rate Rs.
	9.18.2	18 mm thick	sqm	1075.00
	9.18.3	25 mm thick	sqm	1430.30
9.20	Providing and fixing ISI marked flush door shutters conforming to IS : 2202 (Part I) decorative type, core of block board construction with frame of 1 st class hard wood and well matched teak 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters.			
	9.20.1	35 mm thick including stainless steel butt hinges with necessary screws-	sqm	2811.50
	9.20.2	30 mm thick including stainless steel butt hinges with necessary screws-	sqm	2544.00
	9.20.3	25 mm thick (for cupboard) including ISI marked nickel plated bright finished M.S. Piano hinges IS : 3818 marked with necessary screws	sqm	2252.30
9.21	Providing and fixing ISI marked flush door shutters conforming to IS : 2202 (Part I) non-decorative type, core of block board construction with frame of 1 st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters:			
	9.21.1	35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws	sqm	1674.30
	9.21.2	30 mm thick including ISI marked Stainless Steel butt hinges with necessary screws	sqm	1607.40
	9.21.3	25 mm thick (for cupboard) including ISI marked nickel plated bright finished M.S. piano hinges with necessary screws	sqm	1569.90
9.22	Extra for Providing and fixing flush doors with decorative veneering instead of non decorative ISI marked flush door shutters conforming to I.S. 2202 (part I).			
	9.22.1	On one side only	sqm	441.50
9.23	Extra for providing lipping with 2nd class teak wood battens 25 mm minimum depth on all edges of shutters (overall area of door shutter to be measured)		sqm	401.40
9.23A	Providing and fixing 25 mm thick shutters for cupboards etc.including black enamelled M.S. butt hinges with necessary screws :			
	9.23A.1	Panelled or panelled and glazed shutters		
	9.23A.1.	Second class teak wood	sqm	2886.00
	9.23A.2	Glazed shutters		
	9.23A.2.1	Second class teak wood	sqm	3075.00
9.24	Extra for providing vision panel not exceeding 0.1 sqm in all type of flush doors (cost of glas excluded)			
	9.24.1	Rectangular or Square	sqm	173.90
	9.24.2	Circular	sqm	180.60

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Code No.	Description	Unit	Rate Rs.
<b>9.25</b>	Extra if louvers (not exceeding 0.2 sqm) are provided in flush door shutters (overall area of door shutters to be measured)		
9.25.1	Decorative type door	sqm	354.60
<b>9.26</b>	Extra for cutting rebate in flush door shutters {total area of the shutter to be measured)	sqm	93.70
<b>9.27</b>	Providing and fixing wire gauge shutters using stainless steel grade 304 wire gauge with wire of dia 0.5 mm and average width of aperture 1.4 mm in both directions for doors, windows and clerestory windows with necessary screws:		
9.27.1	35 mm thick shutters		
9.27.1.1	With ISI marked M.S. pressed butt hinges bright finished of required size		
9.27.1.1.1	Second class teak wood	sqm	3547.60
9.27.1.1.2	Kiln seasoned and chemically treated hollock wood	sqm	2305.90
9.27.1.1.3	Kiln seasoned selected class of shesham wood	sqm	3122.60
9.27.1.2	With ISI marked stainless steel butt hinges of required size		
9.27.1.2.1	Second class teak wood	sqm	6809.90
9.27.1.2.2	Kiln seasoned and chemically treated hollock wood	sqm	2432.30
9.27.1.2.3	Kiln seasoned selected class of sheesham wood	sqm	3249.00
9.27.2	30 mm thick shutters		
9.27.2.1	With ISI marked M.S. pressed butt hinges bright finished of required size		
9.27.2.1.1	Second class teak wood	sqm	3129.30
9.27.2.1.2	Kiln seasoned and chemically treated hollock wood	sqm	2068.10
9.27.2.1.3	Kiln seasoned selected class of sheesham wood	sqm	2762.20
9.27.2.2	With ISI marked stainless steel butt hinges of required size		
9.27.2.2.1	Second class teak wood	sqm	3255.80
9.27.2.2.2	Kiln seasoned and chemically treated hollock wood	sqm	2194.40
9.27.2.2.3	Kiln seasoned selected class of sheesham wood	sqm	2891.90
<b>9.31</b>	Providing and fixing wire gauge laminated veneer lumber shutters conforming to IS : 14616, and as per TADS 15 :2001 (Part B) using galvanised wire gauge with average width of aperture 1.4 mm in both directions with wire of dia 0.63 mm as per IS :1568 for doors, windows and clerestory windows, including ISI marked M.S. pressed butt hinges bright finished of required size with necessary screws, as per directions of Engineer-in-charge:		
9.31.1	35 mm thick shutters	sqm	2485.80
9.31.2	30 mm thick shutters	sqm	2231.60

Code No.	Description	Unit	Rate Rs.
9.32	Providing 50x50x50 mm 2nd class teak wood plugs including cutting brick work and fixing in cement mortar 1:3 (1 cement: 3 coarse sand)	Each	24.40
9.33	Providing and fixing expandable fasteners of specified size with necessary plastic sleeves and galvanised M.S. screws including drilling holes in masonry work / C.C / R.C.C. and making good etc. complete.		
9.33.1	25mm long	each	18.90
9.33.2	32 mm long	each	20.30
9.33.3	40 mm long	each	24.35
9.33.4	50 mm long	each	25.70
9.34	Providing and fixing 2nd class teak wood plain lining tongued and grooved, including wooden plugs complete with necessary screws and priming coat on unexposed surface.		
9.34.1	40 mm thick	sqm	5907.20
9.34.2	25 mm thick	sqm	3827.20
9.34.3	20 mm thick	sqm	3094.50
9.34.4	12 mm thick	sqm	1985.20
9.35	Providing and fixing in wall lining flat pressed three layer (medium density) particle board or graded wood Pre-laminated one side decorative lamination and other side balancing lamination Grade I, Type II, IS : 12823 marked, including priming coat on unexposed surface, with necessary fixing arrangement and screws etc. complete :		
9.35.1	12 mm thick	sqm	1141.50
9.35.2	18 mm thick	sqm	1303.40
9.35.3	25 mm thick	sqm	1671.30
9.36	Providing and fixing specified wood frame work consisting of battens 50x25 mm fixed with rawl plug and drilling necessary holes for rawl plug etc. including priming coat complete.		
9.36.1	Kiln seasoned and chemically treated hollock wood	cum	145078.80
9.37	Providing and fixing plywood 4 mm thick, one side decorative veneer conforming to IS: 1328 (type-1),for plain lining / cladding with necessary screws, including priming coat on unexposed surface with :		
9.37.1	Decorative veneer facings of approved manufacture	sqm	1084.10
9.38	Providing and fixing 4 mm thick coir veneer board, ISI marked IS : 14842, plain lining with necessary screws, priming coat on unexposed surface etc., complete.	sqm	1055.20

Code No.	Description	Unit	Rate Rs.
<b>9.39</b>	Providing and fixing skirting with Pre-laminated (one side decorative and other side balancing lamination) flat pressed 3 layer or graded particle board (medium density) Grade I, Type II, IS :12823 marked, with necessary fixing arrangements and screws, including drilling necessary holes for rawl plugs etc. and priming coat on unexposed surface complete :		
9.39.1	18 mm thick	<b>sqm</b>	<b>1763.10</b>
9.39.2	25 mm thick	<b>sqm</b>	<b>2134.20</b>
<b>9.40</b>	Providing and fixing wooden moulded beading to door and window frames with iron screws, plugs and priming coat on unexposed surface etc. complete:		
<b>9.40.1</b>	2nd class teak wood		
<b>9.40.1.1</b>	50x12mm	<b>m</b>	<b>133.60</b>
<b>9.40.1.2</b>	50x20mm	<b>m</b>	<b>180.80</b>
<b>9.40.2</b>	Hollock wood		
<b>9.40.2.1</b>	50x12mm	<b>m</b>	<b>98.20</b>
<b>9.40.2.2</b>	50x20mm	<b>m</b>	<b>121.80</b>
<b>9.41</b>	Providing and fixing plain jaffri of 35x10 mm laths placed 35 mm apart (frames to be paid separately),including fixing 50x12 mm beading complete with :		
<b>9.41.1</b>	Second class teak wood	<b>sqm</b>	<b>2074.30</b>
<b>9.42</b>	Providing and fixing 18 mm thick, 150 mm wide pelmet of flat pressed 3 layer or graded wood particle board medium density grade I, IS : 3087 marked, including top cover of 6 mm commercial ply wood conforming to IS: 303 BWR grade, nickel plated M.S. pipe 20 mm dia ( heavy type ) curtain rod with nickel plated brackets, including fixing with 25x3 mm M.S. flat 10 cm long fixed to pelmet with hollock wood cleats of size 100 mm x 40 mm x 40 mm on both inner side of pelmet and rawl plugs 75 mm long etc. all complete.	<b>sqm</b>	<b>399.90</b>
<b>9.43</b>	Providing and fixing 18 mm thick, 150 mm wide pelmet of coir veneer board ISI marked IS : 14842, including top cover of 6 mm coir veneer board, nickle plated M.S. Pipe 20 mm dia. (heavy type) curtain rod with nickel plated brackets, including fixing with 25x3 mm M.S. Flat 10 cm long fixed to pelmet with hollock wood cleats of size 100 mm x 40 mm x 40 mm on both inner side of pelmet and rawl plugs 75 mm long etc. all complete	<b>m</b>	<b>526.60</b>
<b>9.44</b>	Extra for using veneered particle board conforming to IS: 3097 Grade I, in item of pelmet 18 mm thick 150 mm wide.		
<b>9.44.1</b>	Commercial veneered on both sides.	<b>m</b>	<b>33.20</b>
<b>9.44.2</b>	Particle board with decorative veneering on both sides	<b>m</b>	<b>107.00</b>
<b>9.45</b>	Providing and fixing teak wood lipping of size 25x3 mm in pelmet.	<b>m</b>	<b>35.00</b>

Code No.	Description	Unit	Rate Rs.
<b>9.46</b>	Providing and fixing curtain rods of 1.25 mm thick chromium plated brass plate, with two chromium plated brass brackets fixed with C.P. brass screws and wooden plugs, etc., wherever necessary complete:		
	9.46.1	12 mm dia	<b>m</b> <b>294.50</b>
	9.46.2	20 mm dia metre	<b>m</b> <b>394.90</b>
	<b>9.76.3</b>	25 mm dia metre	<b>m</b> <b>501.90</b>
<b>9.47</b>	Providing and fixing nickel plated M.S. pipe curtain rods with nickel plated brackets:		
	<b>9.47.1</b>	20mm dia (heavy type)	<b>m</b> <b>155.70</b>
	<b>9.79A.2</b>	25 mm dia (heavy type)	<b>m</b> <b>162.40</b>
<b>9.48</b>	Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete.		
	<b>9.48.1</b>	Fixed to steel windows by welding	<b>kg</b> <b>116.90</b>
	<b>9.48.2</b>	Fixed to openings/ wooden frames with rawl plugs screws	<b>kg</b> <b>135.10</b>
<b>9.49</b>	Providing and fixing expanded metal 20x60 mm strands 3.25 mm wide and 1.6 mm thick for windows etc. including 62 x19 mm beading of II nd class teak wood and priming coat with approved steel primer all complete.	<b>sqm</b>	<b>1067.59</b>
<b>9.50</b>	Providing and fixing hard drawn steel wire fabric 75x25 mm mesh of weight not less than 7.75 Kg per sqm to window frames etc. including 62x19 mm beading of second class teak wood and priming coat with approved steel primer all complete.	<b>sqm</b>	<b>1275.40</b>
<b>9.51</b>	Providing and fixing fly proof galvanized M.S. wire gauge to windows and clerestory windows using wire gauge with average width of aperture 1.4 mm in both directions with wire of dia 0.63 mm all complete.		
	<b>9.51.1</b>	With second class teak wood beading 62x19 mm	<b>sqm</b> <b>978.80</b>
	<b>9.51.2</b>	with mild steel U beading	<b>sqm</b> <b>626.60</b>
<b>9.52</b>	Deduct for fixing 75x25 mm hard drawn steel wire fabric of weight not less than 7.75 kg per sqm in panelled and glazed door and window shutter instead of glass sheet 4 mm thick.	<b>sqm</b>	<b>173.90</b>
<b>9.53</b>	Providing 40x5 mm flat iron hold fast 40 cm long including fixing to frame with 10 mm diameter bolts,nuts and wooden plugs and embeddings in cement concrete block 30x10x15 cm 1:3:6 mix (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)	<b>Each</b>	<b>123.20</b>
<b>9.54</b>	Providing beams including hoisting, fixing in position and applying wood preservative for the unexposed surfaces,etc. complete with:		
	<b>9.54.1</b>	Sal wood	<b>cum</b> <b>88244.60</b>
	<b>9.88.3</b>	Hollock wood	<b>cum</b> <b>54120.60</b>



Code No.	Description	Unit	Rate Rs.
<b>9.55</b>	Providing and fixing ISI marked M.S. pressed butt hinges bright finished with necessary screws etc. complete:		
<b>9.55.1</b>	125x65x2.12 mm	each	36.70
<b>9.55.2</b>	100x58x1.90 mm	each	27.80
<b>9.55.3</b>	75x47x1.70 mm	each	21.50
<b>9.55.4</b>	50x37x1.5mm	each	12.10
<b>9.56</b>	Providing and fixing ISI marked, IS : 1341, M.S. heavy weight butt hinges with necessary screws etc. complete :		
<b>9.56.1</b>	125x90x4.00 mm	each	46.80
<b>9.56.2</b>	100x75x3.50 mm	each	38.50
<b>9.56.3</b>	75x60x3.10 mm	each	26.70
<b>9.56.4</b>	50x40x2.50 mm	each	16.20
<b>9.57</b>	Providing and fixing ISI marked oxidised M.S. pressed butt hinges with necessary screws etc. complete.		
<b>9.57.1</b>	125x65x2.12 mm	each	36.40
<b>9.57.2</b>	100x58x1.90 mm	each	28.70
<b>9.57.3</b>	75x47x1.70 mm	each	22.80
<b>9.57.4</b>	50x37x1.50 mm	each	12.70
<b>9.58</b>	Providing and fixing ISI marked oxidised M.S. pressed Parliamentary hinges with necessary screws etc. complete:		
<b>9.58.1</b>	150x125x27x2.80 mm	each	63.90
<b>9.58.2</b>	125x125x27x2.80 mm	each	60.50
<b>9.58.3</b>	100x125x27x2.80 mm	each	50.10
<b>9.58.4</b>	75x100x20x2.24 mm	each	42.70
<b>9.59</b>	Providing and fixing ISI marked oxidised M.S. single acting spring hinges with necessary screws etc. complete:		
<b>9.59.1</b>	150 mm	each	219.60
<b>9.59.2</b>	125 mm	each	192.90
<b>9.59.3</b>	100 mm	each	164.60
<b>9.60</b>	Providing and fixing oxidised M.S. double acting spring hinges with necessary screws etc. complete.		
<b>9.60.1</b>	150 mm	each	245.10
<b>9.60.2</b>	125 mm	each	215.60
<b>9.60.3</b>	100 mm	each	191.40
<b>9.61</b>	Providing M.S. Piano hinges ISI marked IS : 3818 finished with nickel plating and fixing with necessary screws etc., complete.		
<b>9.61.1</b>	Overall width 35 mm	m	175.80
<b>9.61.2</b>	Overall width 50 mm	m	170.40
<b>9.61.3</b>	Overall width 65 mm	m	186.50

Code No.	Description	Unit	Rate Rs.
9.62	Providing and fixing ISI marked oxidised M.S. sliding door bolts with nuts and screws etc. complete :		
	9.62.1 300x16 mm	Each	172.10
	9.62.2 250x16 mm	Each	158.80
9.63	Providing and fixing ISI marked oxidised M.S. tower bolt black finish, (Barrel type) with necessary screws etc. complete:		
	9.63.1 250x10 mm	each	69.70
	9.63.2 200x10 mm	each	56.10
	9.63.3 150x10 mm	each	48.10
9.63.4 100x10 mm	each	35.10	
9.64	Providing and fixing ISI marked 85x42mm oxidised M.S. pull bolt lock conforming to IS : 7534 with necessary screws bolts, nut and washers etc. complete.	each	93.50
9.65	Providing and fixing ISI marked oxidised MS door latches conforming to IS : 5930 with screws etc.complete.		
	9.65.1 300x20x6 mm	each	76.40
	9.65.2 250x20x6 mm	each	63.00
9.66	Providing and fixing ISI marked oxidised M.S. handles conforming to IS :4992 with necessary screws etc. complete:		
	9.66.1 125 mm	each	32.20
	9.66.2 100 mm	each	25.30
	9.66.3 75 mm	each	21.20
9.67	Providing and fixing oxidised M.S. hasp and staple (safety type) conforming to IS : 363 with necessary screws etc. complete:		
	9.67.1 150 mm	each	25.20
	9.67.2 115 mm	each	22.00
	9.67.3 90 mm	each	18.10
9.68	Providing and fixing oxidised M.S. casement stays (straight peg type) with necessary screws etc.complete.		
	9.68.1 300 mm weighing not less than 200 gms	each	54.30
	9.68.2 250 mm weighing not less than 150 gms	each	46.90
	9.68.3 200 mm weighing not less than 120 gms	each	40.20
9.69	Providing and fixing oxidised M.S. Safety chain with necessary fixtures for doors, ( weighting not less than 450 gms).	each	84.00
9.70	Providing and fixing IS : 12817 marked stainless steel butt hinges with stainless steel screws etc.complete:		
	9.70.1 125x64x1.90 mm	each	75.00
	9.70.2 100X58X1.90 mm	each	65.10
	9.70.3 75x47x1.80 mm	each	47.10
	9.70.4 50x37x1.50 mm	each	28.70



Code No.	Description	Unit	Rate Rs.
9.71	Providing and fixing IS : 12817 marked stainless steel butt hinges (heavy weight) with stainless steel screws etc. complete:		
	9.71.1 125x64x2.50 mm	each	86.40
	9.71.2 100x60x2.50 mm	each	67.80
	9.71.3 75x50x2.50 mm	each	53.10
9.72	Providing and fixing bright finished brass butt hinges with necessary screws etc. complete:		
	9.72.1 125x85x5.5 mm (heavy type)	each	216.70
	9.72.2 125x70x4 mm (ordinary type)	each	145.20
	9.72.3 100x85x5.5 mm (heavy type)	each	163.40
	9.72.4 100x70x4 mm (ordinary type)	each	113.70
	9.72.5 75x65x4 mm (heavy type)	each	135.20
	9.72.6 75x40x2.5 mm (ordinary type)	each	73.90
9.73	Providing and fixing bright finished brass parliamentary hinges with necessary screws etc. complete:		
	9.73.1 150x125x27x5mm	each	380.80
	9.73.2 125x125x27x5mm	each	339.30
	9.73.3 100x125x27x5mm	each	311.20
9.74	Providing and fixing bright finished brass tower bolts (barrel type) with necessary screws etc. complete:		
	9.74.1 250x10mm	each	369.00
	9.74.2 200x10mm	each	295.20
	9.74.3 150x10mm	each	226.90
9.75	Providing and fixing bright finished brass door latch with necessary screws etc. complete:		
	9.75.1 300x16x5mm	each	266.80
	9.137.2 250x16x5mm	each	253.40
9.76	Providing and fixing bright finished brass 100 mm mortice latch and lock with 6 levers and a pair of lever handles of approved quality with necessary screws etc. complete.	each	633.20
9.77	Providing and fixing bright finished brass 100 mm mortice latch with one dead bolt and a pair of lever handles of approved quality with necessary screws etc. complete	each	512.80
9.78	Providing and fixing bright finished brass night latch of approved quality including necessary screws etc. complete.	each	914.10

Code No.	Description		Unit	Rate Rs.
9.79	Providing and fixing special quality bright finished brass cupboard or ward robe locks with four levers of approved quality including necessary screws etc. complete.			
	9.79.1	40 mm	each	171.60
	9.79.2	50 mm	each	211.70
	9.79.3	65 mm	each	218.40
	9.79.4	75 mm	each	238.50
9.80	Providing and fixing 50 mm bright finished brass cup board or wardrobe knob of approved quality with		each	56.20
9.81	Providing and fixing bright finished brass handles with screws etc. complete:			
	9.81.1	125 mm	each	201.90
	9.81.2	100 mm	each	186.70
	9.81.3	75 mm	each	146.50
9.82	Providing and fixing bright finished brass hanging type floor door stopper with necessary screws, etc.		each	105.30
9.83	Providing and fixing aluminium die cast body tubular type universal hydraulic door closer (having brand logo with ISI, IS : 3564, embossed on the body, door weight upto 35 kg and door width upto 700 mm), with necessary accessories and screws etc. complete.		each	958.80
9.84	Providing and fixing aluminium extruded section body tubular type universal hydraulic door closer (having brand logo with ISI, IS : 3564, embossed on the body, door weight upto 36 kg to 80 kg and door width from 701 mm to 1000 mm), with double speed adjustment with necessary accessories and screws etc. complete.		each	806.90
9.85	Providing and fixing bright finished brass casement window fastener with necessary screws etc. complete.		each	71.00
9.86	Providing and fixing bright finished brass casement stays (straight peg type) with necessary screws etc. complete:			
	9.86.1	300 mm weighing not less than 330 gms	each	181.50
	9.86.2	250 mm weighing not less than 280 gms	each	144.60
	9.86.3	200 mm weighing not less than 240 gms	each	137.90
9.87	Providing and fixing bright finished brass hasp and staple (safety type) with necessary screws etc. complete:			
	9.87.1	150 mm	each	114.40
	9.87.2	115 mm	each	103.20
	9.87.3	90 mm	each	90.50
9.88	Providing and fixing chromium plated brass 100 mm mortice latch and lock with 6 levers and a pair of lever handles of approved quality with necessary screws etc. complete.		each	726.80
9.89	Providing and fixing chromium plated brass night latch of approved quality including necessary screws etc. complete.		each	767.00










Code No.	Description	Unit	Rate Rs.
<b>9.90</b>	Providing and fixing special quality chromium plated brass cupboard locks with six levers of approved quality including necessary screws etc. complete.		
	<b>9.90.1</b> Size 40 mm	each	178.30
	<b>9.90.2</b> Size 50 mm	each	191.60
	<b>9.90.3</b> Size 65 mm	each	225.10
	<b>9.90.4</b> Size 75 mm	each	258.50
<b>9.91</b>	Providing and fixing chromium plated brass 50 mm cupboard or wardrobe knobs with nuts complete.	each	115.00
<b>9.92</b>	Providing and fixing chromium plated brass handles with necessary screws etc. complete:		
	<b>9.92.1</b> 125 mm	each	223.30
	<b>9.92.2</b> 100 mm	each	196.00
	<b>9.92.3</b> 75 mm	each	176.00
<b>9.93</b>	Providing and fixing chromium plated brass casement window fastener with necessary screws etc. complete.	each	135.50
<b>9.94</b>	Providing and fixing chromium plated brass casement stays (straight peg type) with necessary screws etc. complete :		
	<b>9.94.1</b> 300 mm weighing not less than 330 gms	each	202.40
	<b>9.94.2</b> 250 mm weighing not less than 280 gms	each	175.60
	<b>9.94.3</b> 200 mm weighing not less than 240 gms	each	148.90
<b>9.95</b>	Providing and fixing ISI marked aluminium butt hinges anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade with necessary screws etc. complete :		
	<b>9.95.1</b> 125x75x4 mm	each	126.80
	<b>9.95.2</b> 125x63x4 mm	each	104.40
	<b>9.95.3</b> 100x75x4 mm	each	95.10
	<b>9.95.4</b> 100x63x4 mm	each	85.80
	<b>9.95.5</b> 100x63x3.2 mm	each	78.60
	<b>9.95.6</b> 75x63x4 mm	each	67.30
	<b>9.95.7</b> 75x63x3.2 mm	each	60.70
	<b>9.95.8</b> 75x45x3.2 mm	each	56.70
<b>9.96</b>	Providing and fixing aluminium sliding door bolts, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868), transparent or dyed to required colour or shade, with nuts and screws etc. complete:		
	<b>9.96.1</b> 300x16 mm	each	233.70
	<b>9.96.2</b> 250x16 mm	each	208.30

Code No.	Description	Unit	Rate Rs.
<b>9.97</b>	Providing and fixing aluminium tower bolts, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868 ), transparent or dyed to required colour or shade, with necessary screws etc. complete:		
<b>9.97.1</b>	300x10 mm	<b>each</b>	<b>111.00</b>
<b>9.97.2</b>	250x10 mm	<b>each</b>	<b>97.70</b>
<b>9.97.3</b>	200x10 mm	<b>each</b>	<b>84.20</b>
<b>9.97.4</b>	150x10 mm	<b>each</b>	<b>71.20</b>
<b>9.97.5</b>	100x10 mm	<b>each</b>	<b>54.40</b>
<b>9.98</b>	Providing and fixing aluminium pull bolt lock, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868), transparent or dyed to required colour and shade, with necessary screws bolts, nut and washers etc. complete.	<b>each</b>	<b>74.80</b>
<b>9.99</b>	Providing and fixing 50 cm long aluminium kicking plate of size 100x3.15 mm, anodised (anodic coating not less than grade AC 10 as per IS :1868), transparent or dyed to required colour or shade, with necessary screws etc. complete.	<b>each</b>	<b>206.60</b>
<b>9.100</b>	Providing and fixing aluminium handles, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade, with necessary screws etc. complete:		
<b>9.100.1</b>	125 mm	<b>each</b>	<b>56.80</b>
<b>9.100.2</b>	100 mm	<b>each</b>	<b>50.00</b>
<b>9.100.3</b>	75 mm	<b>each</b>	<b>43.10</b>
<b>9.101</b>	Providing and fixing aluminium hanging floor door stopper, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour and shade, with necessary screws etc. complete.		
<b>9.101.1</b>	Single rubber stopper	<b>each</b>	<b>32.50</b>
<b>9.101.2</b>	Twin rubber stopper	<b>each</b>	<b>60.60</b>
<b>9.102</b>	Providing and fixing aluminium casement stays, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour and shade, with necessary screws etc. complete.	<b>each</b>	<b>57.90</b>
<b>9.103</b>	Providing and fixing bright finished brass 100 mm mortice latch and lock, ISI marked, with six levers and a pair of anodised (anodic coating not less than grade AC 10 as per IS : 1868) aluminium lever handles of approved quality with necessary screws etc. complete .	<b>each</b>	<b>669.00</b>
<b>9.104</b>	Providing and fixing aluminium tee channels (heavy duty) with rollers & stop end in pelmets as curtain rod.	<b>m</b>	<b>139.40</b>

Code No.	Description	Unit	Rate Rs.
<b>9.105</b>	Providing and fixing partition upto ceiling height consisting of G.I. frame and required board, including providing and fixing of frame work made of special section power pressed/ roll form G.I. sheet with zinc coating of 120 gms/ sqm(both side inclusive), consisting of floor and ceiling channel 50 mm wide having equal flanges of 32 mm and 0.50 mm thick, fixed to the floor and ceiling at the spacing of 610 mm centre to centre with dash fastener of 12.5 mm dia meter 50 mm length or suitable anchor fastener or metal screws with nylon plugs and the studs 48 mm wide having one flange of 34 mm and other flange 36 mm and 0.50 mm thick fixed vertically within flanges of floor and ceiling channel and placed at a spacing of 610 mm centre to centre by 6 mm dia bolts and nuts, including fixing of studs along both ends of partition fixed flush to wall with suitable anchor fastener or metal screws with nylon plugs at spacing of 450 mm centre to centre, and fixing of boards to both side of frame work by 25 mm long dry wall screws on studs, floor and ceiling channels at the spacing of 300 mm centre to centre. The boards are to be fixed to the frame work with joints staggered to avoid through cracks, M.S. fixing channel of 99 mm width (0.9 mm thick having two flanges of 9.5 mm each) to be provided at the horizontal joints of two boards, fixed to the studs using metal to metal flat head screws, including jointing and finishing to a flush finish with recommended jointing compound, jointing tape, angle beads at corners (25 mm x 25 mm x 0.5 mm), joint finisher and two coats of primer suitable for board as per manufacture's specification and direction of engineer in charge all complete.		
<b>9.105.1</b>	75 mm overall thickness partition with 12.5 mm thick double skin fire rated board conforming to IS:2095: part I	<b>sqm</b>	<b>1394.50</b>
<b>9.105.2</b>	75 mm overall thickness partition with 12.5 mm thick double skin tapered edged plain Gypsum board conforming to IS: 2095: part I	<b>sqm</b>	<b>1238.20</b>
<b>9.105.3</b>	66 mm overall thickness Partition with 8 mm thick double skin Calcium Silicate Board made with Calcareous & Siliceous materials reinforced with cellulose fiber manufactured through autoclaving process with Compressive Strength 225 kg/sq cm, Bending Strength 100 kg/ sq cm	<b>sqm</b>	<b>1461.60</b>
<b>9.105.4</b>	66 mm overall thickness partition using 8 mm thick double skin non- asbestos multipurpose cement board reinforced with cellulose fibre manufactured through autoclaving process (High pressure steam cured) as per IS: 14862 with suitable fibre cement screws	<b>sqm</b>	<b>1341.20</b>
<b>9.106</b>	Providing and fixing PTMT handles with necessary screws etc. complete.		
<b>9.106.1</b>	125x34x24 mm weighing not less than 23 gms	<b>each</b>	<b>37.50</b>
<b>9.106.2</b>	150x34x24 mm weighing not less than 26 gms	<b>each</b>	<b>37.50</b>

Code No.	Description	Unit	Rate Rs.
9.107	Providing and fixing PTMT Butt hinges with necessary screws etc. complete.		
9.107.1	75x60x10 mm fitted with 5.5 mm dia M.S. Bright Bar Rod weighing not less than 34 gms	each	58.20
9.107.2	100x75x10 mm fitted with 5.5 mm dia MS Bright Bar Rod weighing not less than 53 gms	each	74.60
9.108	Providing and fixing PTMT Tower Bolts with 12 mm one piece rod inside and necessary screws etc.,		
9.108.1	152x42x18 mm weighing not less than 60 gms	each	72.30
9.108.2	202x42x18 mm weighing not less than 78 gms	each	99.80
9.109	Providing and fixing PTMT door catcher of length 72 mm and dia. of 42 mm with suitable washers weighing not less than 33 gms.	each	35.40
9.110	Providing and fixing Bamboo jaffery/ fencing consisting of superior quality 25 mm dia (Average) half cut bamboo placed vertically and fixed together with three numbers horizontal running members of hallock wood in scantling of section 50X25 mm, fixed with nails and G.I wire on existing support, complete as per direction of Engineer-in-Charge.	sqm	479.80
9.111	Providing and fixing wooden moulded corner beading of triangular shape to the junction of panelling etc. with iron screws, plugs and priming coat on unexposed surface etc. complete 2nd class teak wood.		
9.111.1	50x50 mm (base and height)	m	228.50
9.112	Providing and fixing 2nd class teak wood lipping / moulded beading or taj beading of size 18X5 mm fixed with wooden adhesive of approved quality and screws / nails on the edges of the Pre-laminated particle board as per direction of Engineer-in-Charge.	m	58.60
9.113	Providing and fixing bright finished 100 mm mortice lock with 6 levers without pair of handles of approved quality for aluminium door, with necessary screws etc complete as per direction of Engineer-in-charge.	each	568.70
9.114	Providing and fixing magnetic catcher of approved quality in cupboard / ward robe shutters, including fixing with necessary screws etc. complete .		
9.114.1	Triple strip vertical type	each	39.10
9.114.2	Double strip (horizontal type)	each	31.00
9.115	Providing and fixing powder coated telescopic drawer channels 300 mm long with necessary screws etc. complete as per directions of Engineer-in-charge.	each set	339.70
9.116	Providing and fixing sliding arrangement in racks/ cupboards/cabinets shutter by with stainless steel rollers to run inside C or E aluminium channel section (The payment of C or E channel shall be made separately)	each	14.80



Code No.	Description	Unit	Rate Rs.
<b>9.117</b>	Providing and fixing factory made uPVC door frame made of uPVC extruded sections having an overall dimension as below (tolerance $\pm 1$ mm), with wall thickness 2.0 mm ( $\pm 0.2$ mm), corners of the door frame to be Jointed with galvanized brackets and stainless steel screws, joints mitred and plastic welded. The hinge side vertical of the frames reinforced by galvanized M.S. tube of size 19 X 19 mm and 1 mm ( $\pm 0.1$ mm) wall thickness and 3 nos. stainless steel hinges fixed to the frame complete as per manufacturer's specification and direction of Engineer-in-charge		
<b>9.117.1</b>	Extruded section profile size 48x40 mm	m	196.20
<b>9.117.2</b>	Extruded section profile size 42x50 mm	m	241.90
<b>9.118</b>	Providing and fixing to existing door frames.		
<b>9.118.1</b>	24 mm thick factory made PVC door shutters made of styles and rails of a uPVC hollow section of size 59x24 mm and wall thickness 2 mm ( $\pm 0.2$ mm) with inbuilt edging on both sides. The styles and rails mitred and joint at the corners by means of M.S. galvanised/plastic brackets of size 75x220 mm having wall thickness 1.0 mm and stainless steel screws. The styles of the shutter reinforced by inserting galvanised M.S. tube of size 20x20 mm and 1 mm ( $\pm 0.1$ mm) wall thickness. The lock rail made up of 'H' section, a uPVC hollow section of size 100x24 mm and 2 mm ( $\pm 0.2$ mm) wall thickness, fixed to the shutter styles by means of plastic/galvanised M.S. 'U' cleats. The shutter frame filled with a uPVC multichambered single panel of size not less than 620 mm, having over all thickness of 20 mm and 1 mm ( $\pm 0.1$ mm) wall thickness. The panels filled vertically and tie bar at two places by inserting horizontally 6 mm galvanised M.S. rod and fastened with nuts and washers, complete as per manufacturer's specification and direction of Engineer-in-charge. (For W.C. and bathroom door shutter).	sqm	1617.90
<b>9.118.2</b>	30 mm thick factory made Polyvinyl Chloride (PVC) door shutter made of styles and rails of a uPVC hollow section of size 60x30 mm and wall thickness 2 mm ( $\pm 0.2$ mm), with inbuilt decorative moulding edging on one side. The styles and rails mitred and joint at the corners by means of M.S. galvanised/plastic brackets of size 75x220 mm having wall thickness 1.0 mm and stainless steel screws. The styles of the shutter reinforced by inserting galvanised M.S. tube of size 25x20 mm and 1 mm ( $\pm 0.1$ mm) wall thickness. The lock rail made up of 'H' section, a uPVC hollow section of size 100x30 mm and 2 mm ( $\pm 0.2$ mm) wall thickness fixed to the shutter styles by means of plastic/ galvanised M.S. 'U' cleats. The shutter frame filled with a uPVC multi-chambered single panel of size not less	sqm	1835.80

Code No.	Description	Unit	Rate Rs.
	than 620 mm, having over all thickness of 20 mm and 1 mm ( $\pm 0.1$ mm) wall thickness . The panels filled vertically and tie bar at two places by inserting horizontally 6 mm galvanised M.S. rod and fastened with nuts and washers, complete as per manufacturer's specification and direction of Engineer-incharge.		
9.118.3	25 mm thick PVC flush door shutters made out of a one piece Multi chamber extruded PVC section of the size of 762mm X 25 mm or less as per requirement with an average wall thickness of 1 mm ( $\pm 0.3$ mm). PVC foam end cap of size 23x10 mm are provided on both vertical edges to ensure the overall thickness of 25 mm. An M.S. tube having dimensions 19 mm x 19 mm and 1.0 mm ( $\pm 0.1$ mm) is inserted along the hinge side of the door. Core of the door shutter should be filled with High Density Polyurethane foam. The Top & Bottom edges of the shutter are covered with an end-cap of the size 25mm X 11 mm. Door shutter shall be reinforced with special polymeric reinforcements as per manufacturer's specification and direction of Engineer-in-charge to take up necessary hardware and fixtures. Stickers indicating the locations of hardware will be pasted at appropriate places.	sqm	2439.50
9.119	Providing and fixing factory made P.V.C. door frame of size 50x47 mm with a wall thickness of 5 mm,made out of extruded 5 mm rigid PVC foam sheet, mitred at corners and joined with 2 Nos. of 150 mm long brackets of 15x15 mm M.S. square tube, the vertical door frame profiles to be reinforced with 19x19 mm M.S. square tube of 19 gauge, EPDM rubber gasket weather seal to be provided through out the frame. The door frame to be fixed to the wall using M.S. screws of 65/100 mm size, complete as per manufacturer's specification and direction of Engineer-in-Charge.	m	366.10
9.120	Providing and fixing factory made panel PVC door shutter consisting of frame made out of M.S. tubes of 19 gauge thickness and size of 19 mm x 19 mm for styles and 15x15 mm for top & bottom rails. M.S.frame shall have a coat of steel primers of approved make and manufacture . M.S. frame covered with 5 mm thick heat moulded PVC 'C' channel of size 30 mm thickness, 70 mm width out of which 50 mm shall be flat and 20 mm shall be tapered in 45 degree angle on both side forming styles and 5 mm thick,95 mm wide PVC sheet out of which 75 mm shall be flat and 20 mm shall be tapered in 45 degree on the inner side to form top and bottom rail and 115 mm wide PVC sheet out of which 75 mm shall be flat and 20 mm shall be tapered on both sides to form lock rail. Top, bottom and lock rails shall be provided both side of the panel. 10 mm (5 mm x 2 ) thick, 20 mm wide cross PVC sheet be provided as gap insert for top rail & bottom rail. paneling of 5 mm thick both side PVC sheet to be fitted in the M.S. frame welded/sealed to the styles & rails with 7 mm (5 mm+2 mm) thick x 15 mm wide PVC sheet beading on inner side, and joined		



Code No.	Description	Unit	Rate Rs.
	together with solvent cement adhesive. An additional 5 mm thick PVC strip of 20 mm width is to be stuck on the interior side of the 'C' Channel using PVC solvent adhesive etc. complete as per direction of Engineer-in-charge, manufacturer's specification & drawing.		
<b>9.120.1</b>	30 mm thick plain PVC door shutters	<b>sqm</b>	<b>2280.60</b>
<b>9.120.2</b>	30 mm thick pre laminated PVC door shutters	<b>sqm</b>	<b>2280.60</b>
<b>9.121</b>	Providing and fixing Fiber Glass Reinforced plastic (FRP) Door Frames of cross-section 90 mm x 45 mm having single rebate of 32 mm x 15 mm to receive shutter of 30 mm thickness. The laminate shall be moulded with fire resistant grade unsaturated polyester resin and chopped mat . Door frame laminate shall be 2 mm thick and shall be filled with suitable wooden block in all the three legs. The frame shall be covered with fiber glass from all sides. M.S. stay shall be provided at the bottom to steady the frame.	<b>m</b>	<b>654.40</b>
<b>9.122</b>	Providing and fixing to existing door frames.		
<b>9.122.1</b>	30 mm thick Glass Fibre Reinforced Plastic (FRP) panelled door shutter of required colour and approved brand and manufacture, made with fire - retardant grade unsaturated polyester resin, moulded to 3 mm thick FRP laminate for forming hollow rails and styles, with wooden frame and suitable blocks of seasoned wood inside at required places for fixing of fittings, cast monolithically with 5 mm thick FRP laminate for panels conforming to IS: 14856, including fixing to frames.	<b>sqm</b>	<b>3322.20</b>
<b>9.122.2</b>	30 mm thick Fiber glass Reinforced Plastic (F.R.P.) flush door shutter in different plain and wood finish made with fire retardant grade unsaturated polyester resin, moulded to 3 mm thick FRP laminate all around, with suitable wooden blocks inside at required places for fixing of fittings and polyurethane foam (PUF) / Polystyrene foam to be used as filler material throughout the hollow panel, casted monolithically with testing parameters of F.R.P. laminate conforming to table - 3 of IS: 14856, complete as per direction of Engineer-in-charge.	<b>sqm</b>	<b>3789.20</b>
<b>9.123</b>	Providing and fixing factory made door frame (single rebate) made out of single piece extruded solid PVC foam profile with homogenous fine cellular structure having smooth outer integral skin having 62 mm width & 32 mm thickness, frame will be mitred & Jointed with self driven self tapping screws of size 38 mm x 4 mm & PVC solvent cement , including fixing the frame to wall with suitable dia & length	<b>m</b>	<b>451.00</b>

*[Handwritten signatures and initials]*

Code No.	Description	Unit	Rate Rs.
9.124	Providing and fixing factory made 30 mm thick door shutter made of solid PVC foam profile. The styles & rails shall be of size 75 mm x 30 mm having wall thickness 5 mm. The styles, top & bottom rails shall have one side wall thickness of 15 mm integrally extruded on the hinge side of the profile for better screw holding power. The styles and rails shall be reinforced with M.S. tubes of size 33 mm x 17 mm x 1mm, painted with primer, all four corners of reinforcement to be welded or sealed. Solid PVC extruded bidding (push fit type) will be set inside the styles and the rails with a cavity, to receive single piece extruded 5 mm PVC sheet as panel. The styles and rails will be mitred cut and joint with the help of PVC solvent cement & self driven self tapping screws. Single piece extruded solid PVC lock rail of size 100 mm x 30 mm with wall thickness 5 mm & 15 mm integrally extruded in the middle of the lock rail & fixed with styles with the help of PVC solvent cement & self driven self tapping screws of size 100 mm x 8mm complete as per manufacturer's specifications and direction of Engineer-in-charge.		
9.124.1	Non decorative finish	sqm	2886.10
9.124.2	Decorative finish (both side wood grained finish)	sqm	3019.90
9.125	Providing and fixing PVC rigid foam sheet 1 mm thick on existing door shutters (bathroom and W.C.doors) using synthetic rubber based adhesive.	sqm	819.20
9.126	Providing and fixing 12 mm thick panelling or panelling and glazing in panelled or panelled and glazed shutters for doors, windows and clerestory windows (area of opening for panel inserts excluding portion inside grooves or rebates to be measured). Panelling for panelled or panelled and glazed shutters 25 mm to 40 mm thick.		
9.126.1	Marine plywood conforming to IS : 710	sqm	1576.80
9.126.2	Fire retardant plywood conforming to IS : 5509	sqm	1824.50
9.127	Providing & Fixing decorative high pressure laminated sheet of plain wood grain in gloss / matt / suede finish with high density protective surface layer and reverse side of adhesive bonding quality conforming to IS : 2046 Type S, including cost of adhesive of approved quality.		
9.127.1	1.5 mm thick	sqm	759.70
9.127.2	1.0 mm thick	sqm	634.60
9.128	Providing and fixing factory made Fiber glass Reinforced plastics (F.R.P.) chajja 4 mm thick of required colour, size and design made by Resin Transfer Moulding (RTM) Machine Technology, resulting in void free compact laminate in single piece, having smooth gradual slope curvature for easy drainage of water and duly reinforced by 2 nos vertically and 1 nos horizontally 50x2 mm thick M.S. flat with 12 mm in built hole for grouting on the existing wall along with the 50 mm flanges duly inserted and sealed in the wall complete in one single piece casted monolithically, including all necessary fittings. The FRP Chajja should be manufactured using unsaturated Polyester resin as	sqm	4851.30


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Code No.	Description	Unit	Rate Rs.
	per IS : 6746, duly reinforced with fibre glass chopped strand mat (CSM) as per IS : 11551 complete with protective Gel coat U/V coating on Top for complete resistance from the extreme of temperature, weather & sunlight.		
9.129	Providing and fixing cup board shutters 25 mm thick, with Pre-laminated flat pressed three layer particle board or graded wood particle board IS : 12823 marked, exterior grade (Grade I Type II), having one side decorative lamination and other side balancing lamination, including IInd class teak wood lipping of 25 mm wide x12 mm thick with necessary screws and bright finished stainless steel piano hinges, complete as per direction of the Engineer-in-Charge.	sqm	1720.90
9.130	Providing and fixing cup board shutters with 25 mm thick veneered particle board IS : 3097 marked, exterior grade (Grade I), of approved make including IInd class teak wood lipping of 25 mm wide x 12mm thick with necessary screws and bright finished stainless steel piano hinges, complete as per direction of Engineer-in-Charge.		
9.130.1	With decorative veneering on one side and commercial veneering on other side	sqm	1439.90
9.130.2	With non decorative veneering on both sides	sqm	1339.60
9.131	Providing and fixing factory made shutters of pre-laminated particle board flat pressed three layer or graded wood particle board with one side decorative finish and other side balancing lamination conforming to IS : 12823 Grade I Type II, of approved design, and edges sealed with water resistant paint and lipped with aluminium 'U' type edge beading all-round the shutter, including fixing with angle cleat, grip strip, cadmium plated steel screws, including fixing of aluminium hinges 100x63x4mm etc. complete as per architectural drawing and direction of Engineer-in-Charge (Cost of 'U'beading and hinges will be paid for separately).		
9.131.1	25 mm thick	sqm	1422.20
9.132	Providing and fixing aluminum U beading of required size to Pre laminated / flush door shutter, including fixing etc. complete as per direction of Engineer-in-Charge.	Per Kg	517.80
9.133	Providing and fixing, in position concealed G.I. section for wall paneling using board of required thickness fixed on the 'W' profile (0.55 mm thick ) having a knurled web of 51.55 mm and two flanges of 26 mm each with lips of 10.55 mm, placed @ 610 mm C/C in perimeter channel having one flange of 20 mm and another flange of 30 mm with thickness of 0.55 mm and web of length 27 mm. Perimeter channel is fixed on the floor and the ceiling with the nylon sleeves @ 610 mm C/C with fully threaded self-tapping dry wall screws. Board is fixed to the 'W' profile with 25 mm countersunk ribbed head screws @ 200 mm C/C., all complete as per the drawing & directions of engineer-incharge, the joints of the boards are finished with specially formulated jointing compound and 48 mm wide jointing tape to provide seamless finish.		

Code No.	Description	Unit	Rate Rs.
9.133.1	Tapered edge calcium silicate board made with calcareous & siliceous materials reinforced with cellulose fiber manufactured through autoclaving process to give stable crystalline structure with compressive strength 225 kg/sqcm, Bending strength 100 kg/sqcm.		
9.133.1.1	10 mm thick	sqm	1111.60
9.133.2	Non-asbestos multipurpose cement board reinforced with cellulose fibre manufactured through autoclaving process (high pressure steam cured) as per IS :14862 with suitable fibre cement screw		
9.133.2.1	8 mm thick	sqm	817.10
9.133.3	Gypsum board conforming to IS: 2095 Part - I		
9.133.3.1	12.5 mm thick	sqm	760.40
9.134	Providing and fixing wire gauge shutters using stainless steel grade 304 wire gauge with wire of dia 0.5 mm and average width of aperture 1.4 mm in both directions for doors, windows and clerestory windows with necessary screws:		
9.134.1	35 mm thick shutters		
9.134.1.1	with ISI marked M.S. pressed butt hinges bright finished of required size		
9.134.1.1.1	Second class teak wood	sqm	3674.80
9.134.1.1.2	Kiln seasoned and chemically treated hollock wood	sqm	2436.70
9.134.1.1.3	Kiln seasoned selected class of sheesham wood	sqm	3253.60
9.134.1.2	With ISI marked stainless steel butt hinges of required size		
9.134.1.2.1	Second class teak wood	sqm	3805.10
9.134.1.2.2	Kiln seasoned and chemically treated hollock wood	sqm	2563.40
9.134.1.2.3	Kiln seasoned selected class of sheesham wood	sqm	3380.00
9.134.2	30 mm thick shutters	sqm	
9.134.2.1	with ISI marked M.S. pressed butt hinges bright finished of required size		
9.134.2.1.1	Second class teak wood	sqm	3260.30
9.134.2.1.2	Kiln seasoned and chemically treated hollock wood	sqm	2199.00
9.134.2.1.3	Kiln seasoned selected class of sheesham wood	sqm	2896.50
9.134.2.2	With ISI marked stainless steel butt hinges of required size		
9.134.2.2.1	Second class teak wood	sqm	3386.80
9.134.2.2.2	Kiln seasoned and chemically treated hollock wood	sqm	2325.40
9.134.2.2.3	Kiln seasoned selected class of sheesham wood	sqm	3022.90

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Code No.	Description	Unit	Rate Rs.
9.135	Providing and fixing fly proof stainless steel grade 304 wire gauge, to windows and clerestory windows using wire gauge with average width of aperture 1.4 mm in both directions with wire of dia 0.50 mm all complete.		
	9.135.1 With 2nd class teak wood beading 62X19 mm	sqm	1199.00
	9.135.2 With 12 mm mild steel U beading	sqm	846.90
9.136	Providing and fixing fire resistant door frame of section 143 x 57 mm having built in rebate made out of 16 SWG G.I.sheet (zinc coating not less than 120 gm/sqm) duly filled with vermiculite based concrete mix, suitable for mounting 60 minutes fire rated door shutters. The frame is fitted with intumescent fire seal strip of size 10x4 mm (minimum) around the frame and fixing with dash fastener of approved size and make, including applying a coat of approved brand fire resistant primer etc. complete as per direction of Engineer-in-charge (Dash fastener to be paid for separately).	m	1444.30
9.137	Providing and fixing 50 mm thick glazed fire resistant door shutters of 60 minutes fire rating conforming to IS:3614 (Part-II), tested and certified as per laboratory approved by Engineer-in-charge, with suitable mounting on door frame, consisting of vertical styles, lock rail, top rail 100 mm wide, bottom rail 200 mm wide, made out of 16 SWG G.I. sheet (zinc coating not less than 120 gm/ m2) duly filled FR insulation material and fixing with necessary stainless steel ball bearing hinges of approved make, including applying a coat of approved fire resistant primer etc. all complete as per direction of Engineer-incharge (panneling to be paid for separately).	sqm	6166.00
9.138	Providing and fixing glazing in fire resistant door shutters, fixed panels, ventilators and partitions etc.,with G.I. beading of appropriate size, made out of 20 SWG G.I.sheet (zinc coating not less than 120 gm/m2), fire resistant sealant, including applying a coat of approved fire resistant primer on G.I. beading etc., complete all as per direction of Engineer-in-charge.		
	9.138.1 With clear fire resistant glass panes 6 mm thick of approved brand, having minimum 60 minutes fire resistance	sqm	31710.70
9.139	Providing and fixing panic bar / latch (Double point) fitted with a single body, Trim Latch & Lock on backside of the Panic Latch of reputed brand and manufacture to be approved by the Engineer- in- charge,all complete.	Each	7055.30
9.140	Providing and fixing plain lining with necessary screws/nuts & bolts/nails, including a coat of approved primer on one face, and fixed on wooden /steel frame work, complete as per direction of Engineer-incharge (Frame work shall be paid for separately).		
	9.140.1 12 mm thick commercial ply conforming to IS : 1328 BWR type	sqm	907.90

Code No.	Description	Unit	Rate Rs.
9.141	Providing and fixing PVC Door Frame of size 50x47 mm with a wall thickness of 5 mm ( $\pm 0.2$ mm), made out of single piece extruded PVC profile, with mitred cut joints and joint with 2 nos of PVC bracket of size 190 mm x 100 mm long arms of cross section size 35 x 15 mm & self driven self tapping screws, the vertical door profiles to be reinforced with 40x20 mm M.S. rectangular tube of 0.8 mm, including providing EPDM rubber gasket weather seal throughout the frame, including jointing 5 mm PVC frame strip with PVC solvent cement on the back of the profile. The door frame to be fixed to the wall using 8 x100 mm long anchor fasteners complete, all as per manufacturer's specification and direction of Engineer -in- charge.	m	431.30
9.142	35 mm thick factory made Solid panel PVC Door shutter, made out of single piece extruded solid PVC profiles, 5 mm ( $\pm 0.2$ mm) thick, having styles & rails (except lock rail) of size 95 mm x 35 mm x 5 mm, out of which 75 mm shall be flat and 20 mm shall be tapered (on both side), having one side thickness of 15 mm integrally extruded on the hinge side of the profile for better screw holding power, including reinforcing with MS tube of size 40 mm X 20 mm x 1 mm, joints of styles & rails to be mitred cut & joint with the help of PVC solvent cement, self driven self tapping screws & M.S. rectangular pipes bracket of size 190 mm X 100 mm of cross section size 35 mm x 17 mm x 1 mm at each corner. Single piece extruded 5mm thick solid PVC Lock rail of size 115 mm x 35 mm x 35 mm, out of which 95 mm to be flat and 20 mm to be tapered at both ends, having 15 mm solid core in middle of rail section integrally extruded, fixing the styles & rails with the help of solvent and self driven self tapping screws of 125 mm x 11 mm, including providing 5 mm Single piece solid PVC extruded sheet inserted in the door as panel, all complete as per manufacturer's specification and direction of Engineer-in-charge.		
9.142.1	Non decorative finish (matt finish)	sqm	3098.00
9.142.2	Decorative finish (wood grained finish)	sqm	3700.10
9.143	Providing and Fixing factory made uPVC door frame, made of uPVC extruded sections, of size 65 mm x 55 mm with wall thickness 2.0 mm ( $\pm 0.2$ mm), corners of the door frame to be mitred cut and jointed with plastic brackets and stainless steel screws, reinforcing hinge side vertical of the frames with PVC profile of Size 28 mm x 30 mm having wall thickness 2 mm ( $\pm 0.2$ mm), including providing & fixing 3 nos of 125 mm long stainless steel hinges to the frame, fixing the frame with jamb with required number & size of anchor dash fastners, all complete as per manufacturer's specification and direction of Engineer-in-charge.	m	502.80

*[Handwritten signatures and initials]*



Code No.	Description	Unit	Rate Rs.
9.144	Providing and fixing 37 mm thick factory made PVC door shutter, styles and rails made of PVC hollow section of size 100 mm x 37 mm with wall thickness 2 mm ( ± 0.2 mm), with inbuilt bead on one side, styles and rails mitred cut and joint at the corners by means of 2 nos of plastic brackets of size 75 mm PVC profile of size 28 mm x 30 mm, with wall thickness 2 mm ( ± 0.2 mm). Lockrail of size 100 mm x 37 mm, wall thickness 2 mm ( ± 0.2 mm) will be fixed to the vertical styles. Providing with PVC snapfit beads and panel of size 100 mm x 20 mm, and inserting 2 nos tie bar of 6 mm dia and fastening with nuts and washers complete, all as per manufacturer's specification and direction of Engineer-in-charge.	sqm	3376.10
9.145	Providing and Fixing factory made PVC door frame made of PVC extruded sections of size 75 mm x 53 mm, having wall thickness 2.0 mm ( ± 0.2 mm). Both verticals sides of the frame reinforced with PVC profile of cross section size 28 mm x 30 mm x 2 mm thickness ( ± 0.2 mm) and 75 mm x 200 mm long, including reinforcing both ends of the top frame with PVC profile. PVC Door Frame and PVC reinforcement profile to be mitred cut jointed and fusion welded together, including providing and fixing 3 nos of 125 mm long stainless steel hinges to frame, fixing the frame with jamb with required nos & sizes of anchor dash fastener, all complete as per manufacturer's specification and direction of engineer-in-charge.	m	563.00
9.146	Providing and fixing 37 mm thick factory made PVC Door shutter, styles and rails made of PVC hollow extruded printed and laminated section having overall dimension 115 mm x 37 mm with wall thickness 2 mm ( ± 0.2 mm) with inbuilt beading on one side, the styles and rails mitred cut and joint at corners by inserting 2 nos PVC profile reinforcement of size 75 mm x 200 mm long with cross section size of 28 mm x 30 mm having wall thickness 2 mm ( ± 0.2 mm). Styles, rails and reinforcements to be fusion welded together. Only hinge side vertical style to be reinforced with PVC profile reinforcement in full length. Printed and laminated PVC lock rail of size 110 mm x 37 mm having wall thickness 2 mm ( ± 0.2 mm) to be welded horizontally with the vertical styles after inserting PVC profile reinforcement as in styles and rails, providing with PVC snap fit beading, panels of 100 x 20 mm printed & laminated and inserting 2 nos 6 mm dia bright steel rod horizontally with both side threaded and tightened with check nuts and washers complete, all as per manufacturer's specification and direction of engineer-in-charge.	sqm	3643.60
9.147 A	Providing and fixing factory made uPVC white colour casement/ casement cum fixed glazed windows comprising of uPVC multi-chambered frame, sash and mullion (where ever required) extruded profiles duly reinforced with 1.60 ± 0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), uPVC extruded glazing beads of appropriate dimension, EPDM gasket, stainless steel (SS 304 grade) friction hinges, zinc alloy (white powder coated) casement handles, G.I fasteners 100 x 8 mm size for fixing frame to finished wall, plastic packers, plastic caps and necessary stainless steel screws etc. Profile	sqm	

Code No.	Description	Unit	Rate Rs.
	of frame & sash shall be mitred cut and fusion welded at all corners, mullion (if required) shall be also fusion welded including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge. (Single / double glass panes and silicon sealant shall be paid separately) Note: For uPVC frame, sash and mullion extruded profiles minus 5% tolerance		
9.147 A1	Casement window single panel with S.S. friction hinges (300 x 19 x 1.9 mm), made of (small series) frame 47 x 50 mm & sash 47 x 68 mm both having wall thickness of 1.9 ± 0.2 mm and single glass pane glazing bead of appropriate dimension. (Area of window upto 0.75 sqm.)	sqm	9373.80
9.147 A2	Casement window double panels with S.S. friction hinges (300 x 19 x 1.9 mm) made of (small series) frame 47 x 50 mm, sash 47 x 68 mm & mullion 47 x 68 mm all having wall thickness of 1.9 ± 0.2 mm and single glazing bead of appropriate dimension. (Area of window above 0.75 sqm upto 1.50 sqm).	sqm	8608.00
9.147A.3	Casement window double panels with top fixed with S.S. friction hinges (350 x 19 x 1.9 mm) made of (small series) frame 47 x 50 mm, sash 47 x 68 mm & mullion 47 x 68 mm all having wall thickness of 1.9 ± 0.2 mm and single glazing bead of appropriate dimension. ( Area of window upto 2.50 sqm).	sqm	6872.30
9.147A.4	Casement window single panel with S.S. friction hinges (400 x 19 x 1.9 mm) made of (big series)frame 67 x 60 mm & sash 67 x 80 mm both having wall thickness of 2.3 ± 0.2 mm and single glazing bead / double glazing bead of appropriate dimension. (Area of window above 0.75 sqm.)	sqm	9130.00
9.147A.5	Casement window double panels with S.S. friction hinges (350 x 19 x 1.9 mm) made of (big series)frame 67 x 60 mm & sash / mullion 67 x 80 mm both having wall thickness of 2.3 ± 0.2 mm and single glazing bead/ double glazing bead of appropriate dimension. (Area of window above 1.50 sqm	sqm	9615.10
9.147A.6	Casement cum fixed panel window having both end single casement panel, middle fixed panels and at top completely fixed ventilator with S.S friction hinges (350 x 19 x 1.9) made of (big series) frame 67 x 60 mm , sash 67 x 80 mm , & mullion 67 x 80 mm all having wall thickness of 2.3 ± 0.2 mm and single glazing bead/double glazing bead of appropriate dimension. (Area of window above 3.00 sqm upto 5.00 sqm).	sqm	7132.50

*f* *z* *am*

*b* *l*

*am*

*am* *a*



Code No.	Description	Unit	Rate Rs.
9.147B	Providing and fixing factory made uPVC white colour fixed glazed windows/ ventilators comprising of uPVC multi-chambered frame and mullion (where ever required) extruded profiles duly reinforced with 1.60 ± 0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), uPVC extruded glazing beads of appropriate dimension, EPDM gasket, G.I fasteners 100 x 8 mm size for fixing frame to finished wall, plastic packers, plastic caps and necessary stainless steel screws etc. Profile of frame shall be mitred cut and fusion welded at all corners, mullion (if required) shall be also fusion welded including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge. (Single / double glass panes and silicon sealant shall be paid separately). Note: For uPVC frame, sash and mullion extruded profiles minus 5% tolerance in dimension i.e. in depth & width of profile shall be acceptable.		
	9.147B.1 Fixed window / ventilator made of (small series) frame 47 x 50 mm & mullion 47 x 68 mm both having wall thickness of 1.9 ± 0.2 mm and single glazing bead of appropriate dimension. (Area upto 0.75 sqm.)	sqm	6369.00
9.147C	Providing and fixing factory made uPVC white colour casement/ Casement cum fixed glazed door comprising of uPVC multi-chambered frame, sash and mullion (where ever required) extruded profiles duly reinforced with 1.60 ± 0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), uPVC extruded glazing beads of appropriate dimension, EPDM gasket, zinc alloy (white powder coated) 3D hinges and one handle on each side of panels along with zinc plated mild steel multi point locking having transmission gear, cylinder with keeps and one side key, G.I fasteners 100 x 8 mm size for fixing frame to finished wall and necessary stainless steel screws, etc. Profile of frame & sash shall be mitred cut and fusion welded at all corners, mullion (if required) shall be also fusion welded including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge. (Single / double glass panes and silicon sealant shall be paid separately). Note: For uPVC frame, sash and mullion extruded profiles minus 5% tolerance in dimension i.e. in depth & width of profile shall be acceptable.		
	9.147C.1 Casement door with 3D hinges made of (big series) frame 67 x 64 mm & sash 67 x 110 mm both having wall thickness of 2.3 ± 0.2 mm and single glazing bead / double glazing bead of appropriate dimension. (Area of door upto 2.00 sqm)	sqm	9021.80

Code No.	Description	Unit	Rate Rs.
9.147C.2	Casement door with top hung ventilator with 3D and S.S. friction hinges (400 x 19 x 1.9 mm) made of (big series) frame 67 x 64 mm, sash 67 x 110 mm & mullion 67 x 80 mm all having wall thickness of 2.3 ± 0.2 mm and single glazing bead / double glazing bead of appropriate dimension.(Area of door upto 2.50 sqm)	sqm	9218.60
<b>9.147D.1</b>	Providing and fixing factory made uPVC white colour sliding glazed window upto 1.50 m in height dimension comprising of uPVC multi-chambered frame with in-built roller track and sash extruded profiles duly reinforced with 1.60 ± 0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), appropriate dimension of uPVC extruded glazing beads and uPVC extruded interlocks, EPDM gasket, wool pile, zinc alloy (white powder coated) touch locks with hook, zinc alloy body with single nylon rollers (weight bearing capacity to be 40 kg), G.I fasteners 100 x 8 mm size for fixing frame to finished wall and necessary stainless steel screws etc. Profile of frame & sash shall be mitred cut and fusion welded at all corners, including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealent over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge. (Single / double glass panes, wire mesh and silicon sealent shall be paid separately) Note: For uPVC frame and sash extruded profiles minus 5% tolerance in dimension i.e. in depth & width of profile shall be acceptable.		
<b>9.147D.1</b>	Two track two panels sliding window made of (small series) frame 52 x 44 mm & sash 32 x 60 mm both having wall thickness of 1.9 ± 0.2 mm and single glazing bead of appropriate dimension. (Area of window upto 1.75 sqm)	sqm	6599.90
<b>9.147D.2</b>	Three track three panels sliding window with fly proof SS wire mesh (Two nos. glazed & one no. wire mesh panels) made of (small series) frame 92 x 44 mm & sash 32 x 60 mm both having wall thickness of 1.9 ± 0.2 mm and single glazing bead of appropriate dimension (Area of window upto 1.75 sqm).	sqm	8844.50
<b>9.147D.3</b>	Three track three panels sliding window with fly proof SS wire mesh (Two nos. glazed & one no. wire mesh panels) made of (small series) frame 92 x 44 mm & sash 32 x 60 mm both having wall thickness of 1.9 ± 0.2 mm and single glazing bead of appropriate dimension (Area of window upto 1.75 sqm).	sqm	6802.50

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Code No.	Description	Unit	Rate Rs.
9.147D.4	Three track three panels sliding window with fly proof S.S wire mesh (Two nos. glazed & one no. wire mesh panels) made of (big series) frame 116 x 45 mm & sash 46 x 62 mm both having wall thickness of $2.3 \pm 0.2$ mm and single glazing bead / double glazing bead of appropriate dimension. (Area of window above 1.75 sqm).	sqm	8506.30
9.147D.5	Three track three panels sliding window made of (big series) frame 116 x 45 mm & sash 46 x 62 mm both having wall thickness of $2.3 \pm 0.2$ mm and single glazing bead / double glazing bead of appropriate dimension. (Area of window above 1.75 sqm)	sqm	8067.40
9.147E	Providing and fixing factory made uPVC white colour sliding glazed window above 1.50 m in height dimension comprising of uPVC multi-chambered frame with in-built roller track and sash extruded profiles duly reinforced with $1.60 \pm 0.2$ mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), appropriate dimension of uPVC extruded glazing beads, uPVC extruded interlocks and uPVC extruded Inline sash adaptor (if required), EPDM gasket, wool pile, zinc alloy (white powder coated) handle on one side of extreme panel along with zinc plated mild steel multi point locking having transmission gear with keeps, zinc alloy (white powder coated) touch lock with hook (if required for wire mesh panel), stainless steel (SS 304 grade) body with adjustable double nylon rollers (weight bearing capacity to be 120 kg), G.I fasteners 100 x 8 mm size for fixing frame to finished wall and necessary stainless steel screws etc. Profile of frame & sash shall be mitred cut and fusion welded at all corners, including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealent over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge. (Single / double glass panes, wire mesh and silicon sealent shall be paid separately). Note: For uPVC frame and sash extruded profiles minus 5% tolerance in dimension i.e. in depth & width of profile shall be acceptable.		
9.147E.1	Two track two panels sliding window made of (big series) frame 67 x 50 mm & sash 46 x 62 mm both having wall thickness of $2.3 \pm 0.2$ mm and single glazing bead / double glazing bead of appropriate dimension. (Area of window above 2.50 sqm upto 4.00 sqm.)	sqm	6751.90
9.147.1E-2	Two track four panels sliding window made of (big series) frame 67 x 50 mm & sash 46 x 62 mm both having wall thickness of $2.3 \pm 0.2$ mm and single glazing bead / double glazing bead of appropriate dimension. (Area of window above 4.00 sqm upto 8.00 sqm).	sqm	5832.20

Code No.	Description	Unit	Rate Rs.
9.147D.4	Three track three panels sliding window with fly proof S.S wire mesh (Two nos. glazed & one no. wire mesh panels) made of (big series) frame 116 x 45 mm & sash 46 x 62 mm both having wall thickness of $2.3 \pm 0.2$ mm and single glazing bead / double glazing bead of appropriate dimension. (Area of window above 1.75 sqm).	sqm	8506.30
9.147D.5	Three track three panels sliding window made of (big series) frame 116 x 45 mm & sash 46 x 62 mm both having wall thickness of $2.3 \pm 0.2$ mm and single glazing bead / double glazing bead of appropriate dimension. (Area of window above 1.75 sqm)	sqm	8067.40
9.147E	Providing and fixing factory made uPVC white colour sliding glazed window above 1.50 m in height dimension comprising of uPVC multi-chambered frame with in-built roller track and sash extruded profiles duly reinforced with $1.60 \pm 0.2$ mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), appropriate dimension of uPVC extruded glazing beads, uPVC extruded interlocks and uPVC extruded Inline sash adaptor (if required), EPDM gasket, wool pile, zinc alloy (white powder coated) handle on one side of extreme panel along with zinc plated mild steel multi point locking having transmission gear with keeps, zinc alloy (white powder coated) touch lock with hook (if required for wire mesh panel), stainless steel (SS 304 grade) body with adjustable double nylon rollers (weight bearing capacity to be 120 kg), G.I fasteners 100 x 8 mm size for fixing frame to finished wall and necessary stainless steel screws etc. Profile of frame & sash shall be mitred cut and fusion welded at all corners, including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealent over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge. (Single / double glass panes, wire mesh and silicon sealent shall be paid separately). Note: For uPVC frame and sash extruded profiles minus 5% tolerance in dimension i.e. in depth & width of profile shall be acceptable.		
9.147E.1	Two track two panels sliding window made of (big series) frame 67 x 50 mm & sash 46 x 62 mm both having wall thickness of $2.3 \pm 0.2$ mm and single glazing bead / double glazing bead of appropriate dimension. (Area of window above 2.50 sqm upto 4.00 sqm.)	sqm	6751.90
9.147.1E-2	Two track four panels sliding window made of (big series) frame 67 x 50 mm & sash 46 x 62 mm both having wall thickness of $2.3 \pm 0.2$ mm and single glazing bead / double glazing bead of appropriate dimension. (Area of window above 4.00 sqm upto 8.00 sqm).	sqm	5832.20

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Code No.	Description	Unit	Rate Rs.
9.147F	<p>Providing and fixing factory made uPVC white colour sliding glazed door comprising of uPVC multi-chambered frame with in-built roller track and sash extruded profiles duly reinforced with <math>1.60 \pm 0.2</math> mm thick galvanized mild steel section made from roll forming process of required length (shape &amp; size according to uPVC profile), appropriate dimension uPVC extruded glazing beads, uPVC extruded interlock and uPVC extruded Inline sash adaptor (if required), EPDM gasket, wool pile, zinc alloy (white powder coated) handle with key on one side of extreme panels along with zinc plated mild steel multi point locking having transmission gear with keeps, zinc alloy (white powder coated) crescent lock (if required), stainless steel (SS 304 grade) body with adjustable double nylon rollers (weight bearing capacity to be 120 kg), G.I fasteners 100 x 8 mm size for fixing frame to finished wall and necessary stainless steel screws etc. Profile of frame &amp; sash shall be mitred cut and fusion welded at all corners, including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealent over backer rod of required size and of approved quality, all complete as per approved drawing &amp; direction of Engineer-in- Charge. (Single / double glass panes, wire mesh and silicon sealent shall be paid separately).</p> <p>Note: For uPVC frame and sash extruded profiles minus 5% tolerance in dimension i.e. in depth &amp; width of profile shall be acceptable</p>		
9.147F.1	Two track two panels sliding door made of (big series) frame 67 x 50 mm & sash 46 x 82 mm both having wall thickness of $2.3 \pm 0.2$ mm and single glazing bead / double glazing bead of appropriate dimension. (Area of door above 2.00 sqm upto 5.00 sqm)	sqm	5995.30
9.147F.2	Two track four panels sliding door made of (big series) frame 67 x 50 mm & sash 46 x 82 mm both having wall thickness of $2.3 \pm 0.2$ mm and single glazing bead / double glazing bead of appropriate dimension. (Area of door above 8.00 sqm upto 10.00 sqm).	sqm	5221.10
9.147F.3	Three track three panels sliding door made of (big series) frame 116 x 45 mm & sash 46 x 82 mm both having wall thickness of $2.3 \pm 0.2$ mm and single glazing bead/ double glazing bead of appropriate dimension. (Area of door above 5.00 sqm)	sqm	5950.70



Code No.	Description	Unit	Rate Rs.
9.147F.4	Three track three panels sliding door with fly proof S.S wire mesh (Two nos. glazed & one no. wire mesh panels) made of (big series) frame 116 x 45 mm & sash 46 x 82 mm both having wall thickness of 2.3 ± 0.2 mm and single glazing bead / double glazing bead of appropriate dimension. (Area of door above 2.00 sqm upto 5.00 sqm)	sqm	7662.20
9.148	Providing and fixing stainless steel (SS-304 grade) friction hinges to the side/ top hung uPVC windows,of approved quality, with necessary stainless steel screws etc. as per direction of Engineer-incharge.		
9.148.1	200 x 19 x 1.9 mm	each	288.60
9.148.2	250 x 19 x 1.9 mm	each	322.00
9.148.3	300 x 19 x 1.9 mm	each	342.10
9.148.4	350 x 19 x 1.9 mm	each	475.90
9.148.5	400 x 19 x 1.9 mm	each	502.60
9.149	Providing and fixing casement handle made of zinc alloyed (white powder coated) for uPVC casement window with necessary screws etc. complete.	each	181.70
9.150	Providing and fixing zinc alloyed (white powder coated) touch lock for uPVC sliding window with necessary screws etc. complete.	each	148.20
9.151	Providing and fixing steel roller for uPVC sliding window with necessary screws etc. complete.	each	82.70
9.152	Providing and fixing steel roller for uPVC sliding door with necessary screws etc. complete.	each	134.90
9.153	Providing and fixing steel (white power coated) crescent lock for uPVC sliding window/ door with necessary screws etc. complete.	each	161.60
9.154	Providing and fixing frame work for partitions/ wall lining etc. made of 50x50x1.6 mm hollow MS tube,placed along the walls, ceiling and floor in a grid pattern with spacing @bolt, including making provision for opening for doors, windows, electrical conduits, switch boards 60 cm centre to centre both ways (vertically & horizontally ) or at required spacing near opening, with necessary welding at junctions and fixing the frame to wall/ ceiling/ floors with steel dash fasteners of 8 mm dia, 75 mm long etc., including providing with two coats of approved steel primer etc. complete, all as per direction of Engineer-in-charge.	Per Kg	1201.30
9.155	Providing and fixing panelling or paneling and glazing in panelled or panelled and glazed shutters for doors, windows and clerestory windows ( area of opening for panel grooves or rebated to be measured). Panelling for panelled and glazed shutters 25mm to 40mm inserts excluding portion inside thick:Pre-laminated with decorative lamination on both side exterior Grade - I MDF Board 12 mm thick confirming to IS:14587	sqm	1219.60

Code No.	Description	Unit	Rate Rs.
9.156	Providing and fixing Pre -laminated medium density fibre board exterior grade (Grade-I) IS:14587:1998 marked, to frame, backing or studding with screws etc. complete ( Frames, backing or studding to be paid separately).		
	9.156.1 Pre-laminated with decorative lamination on both side exterior Grade - I MDF Board 12 mm thick confirming to IS:14587	sqm	775.90
	9.156.2 Pre-laminated with decorative lamination on both side exterior Grade - I MDF Board 18 mm thick confirming to IS:14587	sqm	970.70
9.157	Providing and fixing Pre-laminated medium density fibre board IS: 14587:1998 marked, with one side decorative lamination other side balancing lamination Grade-I(exterior grade) in shelves with screws and fittings wherever required, edges to be sealed with PVC edge bending tape 2.00 mm thick of approved brand (fittings to be paid separately).		
	9.157.1 Pre-laminated with decorative lamination one side and other side balancing lamination exterior Grade - I MDF Board 18 mm thick confirming to IS:14587	sqm	1089.40
	9.157.2 Pre-laminated with decorative lamination one side and other side balancing lamination exterior Grade - I MDF Board 25 mm thick confirming to IS:14587	sqm	1507.90
9.158	Providing and fixing in wall lining medium density fibre board IS: 14587:1998 marked, Pre-laminated one side decorative lamination and other side balancing lamination, with necessary fixing arrangement and screws etc. complete.		
	9.158.1 12 mm thick.	sqm	941.60
	9.158.2 18 mm thick.	sqm	1140.30
	9.158.3 25 mm thick.	sqm	1574.50
9.159	Providing and fixing 25mm thick pre-laminated medium density fibre board exterior grade ( Grade-I) IS:14587:1998 marked one side decorative and other side balancing lamination for cupboard shutters edges to be sealed with PVC edge bending tape 2.00 mm thick of approved brand including ISI marked nicked plated bright finishing M.S. piano hinges IS:3818 marked with necessary screwed complete.	sqm	1604.40
9.160	Providing and fixing skirting with Pre-laminated medium density fibre board exterior grade (Grade-I) IS: 14587:1998 marked, (one side decorative and other side balancing lamination) with necessary fixing arrangements and screws, including drilling necessary holes for rawl plugs etc. and edges to be sealed with PVC edge bending tape 2.00 mm thick of approved brand complete.		
	9.160.1 18 mm thick.	sqm	1733.80
	9.160.2 25 mm thick.	sqm	2168.00



Code No.	Description	Unit	Rate Rs.
9.161	Providing and fixing fire resistant door frame of section 50 x 60 mm on horizontal side & 35 x 60 mm on vertical sides having built in rebate made out of 1.6 mm thick GI sheet ( Zinc coating not less than 120gm/m <sup>2</sup> ) suitable for mounting 120 min Fire Rated Glazed Door Shutters. The frame shall be filled with Mineral wool Insulation having density min 96Kg/m <sup>3</sup> . The frame will have a provision of G.I. Anchor fastners 14 nos ( 5 each on vertical style & 4 on horizontal style of size M10 x 80 ) suitable for fixing in the opening along with Factory made Template for SS Ball Bearing Hinges of Size 100x89x3mm for fixing of fire rated glazed shutter . The frame shall be finished with a approved fire resistant primer or Powder coating of not less than 30 micron in desired shade as per the directions of Engineer - in- charge . (Cost of SS ball bearing hinges is excluded).	metre	1513.00
9.162	Providing and fixing 60 mm thick glazed fire resistant door shutters of 120 min Fire Rating confirming to IS:3614 (Part II) or EN1634-1:1999, tested and certified as per laboratory approved by Engineer-in-charge, with suitable mounting on door frame, consisting of vertical styles, top rail & side rail 60 mm x 60 mm wide and bottom rail of 110 mm x 60 mm made out of 1.6mm thick G.I. sheet (zinc coating not less than 120gm/m <sup>2</sup> ) duly filled mineral wool insulation having density min 96 kg/m <sup>3</sup> and fixing with necessary stainless steel ball bearing hinges of size 100x89x3mm of approved make, including applying a coat of approved fire resistant primer or powder coating not less than 30 micron etc all complete as per direction of Engineer-in-charge (panelling to be paid for seperately).	sqm	8379.30
9.163	Providing and fixing non load bearing fixed frame for fire resistant glazed Partition for 120 min Fire Rating, made out to a profile of dimension 60mm x 70 mm of 1.6 mm thick galvanised steel sheet as per test evidence suitable for fixing fire rated glass for 120 min of both integrity & radiation control (EW120) & minimum 15 min of insulation (EI15).The profile has to be fixed to the supporting construction by means of anchor fasteners of size M10 x 80, every 150 mm from the edges and every 500 mm (approx) c/c. Linear measurement of frame shall be measured for payment. The frame shall be filled with mineral wool insulation of density min 96kg/m <sup>3</sup> . and finished with a approved fire resistant primer or Powder coating of not less than 30 micron in desired shade as per the directions of Engineer - in-charge.	sqm	1513.00
9.164	Providing and fixing glazing in fire resistant door shutters, fixed panels & partitions etc., with G.I. beading made out of 1.6 mm thick G.I. sheet (zinc coating not less than 120 gm/m <sup>2</sup> ) of size 20 x 33 mm screwed with M4 x 38 mm SS screws at distance 75 mm from the edges and 150 mm c/c , including applying a coat of approved fire resistant primer/powder coating of not less than 30 micron on G.I. beading, & special ceramic tape of 5 x 20 mm size etc complete in all respect as per direction of Engineer-in- charge. The glass shall be clear, toughened, interlayered, non-wired fire resistant having 11 mm thickness of approved brand with 120 minutes of fire resistance both integrity & radiation control (EW120) and minimum 15 min of insulation (EI15) and having a sound reduction of ?37dB and LT of 86%. Glass	sqm	39395.30

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Code No.	Description	Unit	Rate Rs.
	shall be compliant to class 2(B)2 category of Impact Resistance as per EN 12600. The glass should be manufactured in UL & TUV audited Facility and including UL-EU Certification. The maximum glazing size cannot be more than 1100 mm x 2200 mm (w x h) or 2.42 sq mts in total area. The test report for the complete system (Glazed Door or Partition) will be considered valid only if it contains the stamp and signature of the authorized signatory from the glass manufacturer. (Actual glass size is to be measured at site for payments).		
9.165	Providing and fixing bright /matt finished Stainless Steel handles of approved quality & make with necessary screws etc all complete.		
9.165.1	125 mm	each	102.30
9.165.2	100mm	each	75.60
9.165.3	75 mm	each	48.80
9.166	Providing and fixing 18mm thick both sides Pre-laminated cement bonded wood particle board as per IS : 15786:2008 of approved brand and shade with suitable full threaded steel screws etc. in partitions, boxes, shelves, racks and cupboard, kitchen cabinet under kitchen counter etc. all complete as per direction of Engineer-in-charge (Note: Fittings to be paid separately).	sqm	
9.166.1	18 mm thick	sqm	1075.00
<b>9.167</b>	Providing and fixing 6mm thick both sides Pre-laminated cement bonded wood particle board as per IS : 15786:2008 of approved brand and shade with suitable full threaded steel screws etc. on the backing of racks, drawer, cupboard, kitchen cabinet under kitchen counter etc. all complete as per direction of Engineer-in-charge.	<b>sqm</b>	<b>769.70</b>
9.168	Providing and fixing cupboard shutter with 19mm thick one side decorative and other side balancing lamination factory pressed BWP grade marine ply as per IS 710 of approved brand including 2mm thick PVC edge banding tape with hot glue by edge bending machine etc. with auto closing spring loaded hinges {hydraulic type} etc. complete as per direction of Engineer-in-charge.(Payment of providing and fixing auto closing hinges shall be paid separately)	sqm	2716.60
9.169	Providing and fixing 19mm thick both side balancing lamination factory pressed BWP grade marine ply as per IS 710 of approved brand boxes, shelves, racks, almirah, cupboard and drawer etc. including necessary nails, screws etc. complete as per direction of Engineer-in-charge.	sqm	2479.80
<b>9.170</b>	Providing and fixing stainless steel fancy handle of approved make fixed with SS screws etc. complete as per direction of Engineer-in-charge.		
9.170.1	200mm	each	147.80

Code No.	Description	Unit	Rate Rs.
9.171	Providing and fixing stainless steel soft closing spring hinges at 0 degree hinges (hydraulic type) of approved make/brand to cupboard shutters with full threaded steel screws including making necessary recess in board and finished etc. complete as per direction of Engineer-in-charge.	each	218.00
9.172	Providing and fixing stainless steel soft closing heavy type telescopic drawer channels of approved make 500 mm long with screws etc. complete as per directions of Engineer- in- charge	each set	747.80
9.173	Providing and fixing readymade 304 grade stainless steel Modular kitchen basket and accessories such as right angle basket (Plain Cup & Saucer, plant, Partition, Bottle rack, Thali, Cutlery) kitchen utensil basket, Dinner set basket, kitchen grain basket, Multipurpose basket as per site requirement including finishing (wherever required) and fittings. The same shall be fixed with necessary stainless steel nuts & bolts, Stainless Steel screws & telescopic channel etc. as per direction of Engineer-in-charge. (For payment purpose only weight of Stainless steel basket shall be considered excluding weight of all fixing accessories such as nuts, bolts, fasteners telescopic basket channels etc. Payment of providing and fixing telescopic channel shall be paid separately}.	Per Kg	369.80
9.174	Providing and fixing 2mm thick 16 to19mm wide PVC edge binding tape of approved quality for cupboard/wardrobe shutters including necessary synthetic resin hot pressed to edges on binding machine etc. complete as per directions of Engineer- in-charge.	metre	32.00

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**SUB HEAD : 10.0**  
**STEEL WORK**

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BUILDING WORK - Contd.

**10.0 Steel Work**

Code No.	Description	Unit	Rate Rs.
10.1	Structural steel work in singal section fixed without connecting plate including cutting,hoisting,fixing in position and applying a priming coat of approved steel primer all complete.	kg	65.60
10.2	Structural steel work riveted or bolted in built up sections, trusses and framed work, including cutting,hoisting,fixing in position and applying a priming coat of approved ateeef primer all complete.	kg	81.20
10.3	Providing and fixing in position collapsible steel shutters with vertical channes 20x10x2 mm and braced with flat iron diagonals 20x5 mm size with top and bottom rail of T-tron 40x40x6 mm with 40 mm dia steel pulleys complete with bots.nuts locking arrangement stoppers handies including applying a priming coat of approved steel primer.	sqm	5590.40
10.4	Providing and fixing 1 mm thick M.S.sheet sliding - shutters with frame and diagonal braces of 40x40x6 mm angle iron,3 mm M.S. gusset plates at the junction and corners, 25 mm dia pulley, 40x40x6 mm angle and T-iron guide at the top bottem respectively including applying a priming coat of approved steel primer.	sqm	3615.30
10.5	Providing and fixing 1 mm thick M.S. sheet door with frame of 40x40x6 mm angle iron and 3mm MS gusset plates at the junction and corners.all necessary fittings completeincluding applying a priming coat of approved steel primer.		
10.5.1	Using M.S. angle 40x40x6 mm for diagonal braces	sqm	3177.50
10.5.2	Using flats 30x6 mm for diagonal braces and central cross piece.	sqm	3095.90
10.6	Supplying and fixing-rolling shuters of approved make.made of required size of M.S.laths interlocked together through their intire length and jointed together at the end by end locks mounted on specially designed pipe shaft with brackets, side guides and arragements for inside and outside locking with push and pull operation complete including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters.		
10.6.1	80x1.25mmM.S. Laths with 1.25mm thick top cover.	sqm	2650.20
10.6.2	80x1.20mm thick M.S. laths with 1.20 mm thick top cover.	sqm	2509.70
10.6.3	80x0.90 mm thick M.S. laths with 0.90 mm thick top cover.	sqm	2360.30
10.7	Providing and fixing ball bearing for rolling shutters	sqm	419.90



Code No.	Description	Unit	Rate Rs.
<b>10.8</b>	Extra for providing mechanical device chain and crank operation for operating rolling shutters:		
<b>10.8.1</b>	Exceeding 10.00 sqm and upto 16.80 sqm in area (say average 14 sqm)	sqm	1106.50
<b>10.8.2</b>	Exceeding 16.80 sqm in area	sqm	1106.50
<b>10.9</b>	Extra for providing grilled rolling shutters manufactured out of 8 mm dia. M.S. bar instead of laths as per design approved by Engineer-in-charge (area of grill to be measured.)	sqm	669.00
<b>10.10</b>	Fixing standard steel glazed doors, windows and ventilators in walls, including fixing of float glass panes with glazing clips and special metal-sash putty of approved make, or metal beading with screws, (only steel windows, glass panes cut to size and glazing clips or metal beading with screws, shall be supplied by department free of cost.		
10.10.1	Fixing with 15x3 mm lugs 10 cm long embedded in cement concrete block 15x10x10 cm of C.C. 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20mm nominal size)	Kg	43.50
10.10.2	Fixing with carbon steel galvanised dash fastener of required dia and size (to be paid for separately).	kg	22.20
<b>10.11</b>	Providing and fixing steel glazed doors, windows and ventilators of standard rolled steel sections, joints mitered and welded with 15x3 mm lugs 10 cm long with steel lugs embedded in cement concrete blocks 15x10x10 cm of 1:3:6(1 cement: 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) or with wooden plugs and screws or rawl plugs and screws or with fixing clips or with bolts and nuts as required, including providing and fixing of glass panes with glazing clips and special metal-sash putty of approved make complete including applying a priming coat of approved steel primer; excluding the cost of metal beading and other fitting except necessary hinges or pivots as required.		
<b>10.12.1</b>	<b>Doors</b>	sqm	3022.20
<b>10.13</b>	Extra for providing and fixing steel beading of approved shape and section with screws instead of glazing clips and met. Sash putty in steel doors, windows, Ventilators and composite units.		
<b>10.13A</b>	Steel doors.	sqm	331.60
<b>10.13B</b>	Steel windows	sqm	395.20
<b>10.13C</b>	Steel ventilators	sqm	403.60
<b>10.14.1</b>	Providing and fixing T-iron frames for doors. windows and ventilators of mils steel Tee-sections, joints miltred and welded with 15x3 mm lugs 10 cm long embedded in cement concreete blocks 15x10x10 cm of 1:3:6 ( 1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) or with wooden plugs and screws or rawl plugs and screws or with fixing clips or with bolts and nuts as required including	kg	83.40

Code No.	Description	Unit	Rate Rs.
10.14.2	Fixing with carbon steel galvanised dash fastener of required dia and size (to be paid for separately).	kg	80.00
10.15	Providing and fixing pressed steel door confirming IS code 4351 manufactured from commercial mild steel sheet of 1.25 mm thickness including hinges, jamb, lock jamb, bead and if required angle threshold of mild steel angle of section 50 x 25 mm or base ties of 1.25mm pressed mild steel welded or rigidly fixed together by mechanical means, adjustable lugs with split end tail to each jamb including steel butt hinges 2.5 mm thick with mortar guards, lock strike-plate and shock absorbers as specified and applying a coat of approved steel primer after pre-treatment of the surface as directed by Engineer-in-charge:		
10.15.1	Profile B	metre	373.20
10.15.2	Profile C	metre	400.00
10.15.3	Profile E	metre	440.10
10.16	Steel work in built up tubular trusses including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, welded and bolted including special shaped washers etc. complete:		
10.16.1	Hot finished welded type tubes	kg	117.70
10.16.2	Hot finished seamless type tubes	kg	131.70
10.16.3	Electric resistance or induction butt welded tubes	kg	104.50
10.17	Providing and fixing M.S. fan clamp type I or II of 16 mm dia. M.S. bar bent to shape with hooked ends in R.C.C slabs during laying including painting the exposed portion of loop, all as per standard design complete.	each	128.50
10.18	Providing and fixing circular/hexagonal cast iron or M.S. sheet box for ceiling fan clamp 140 mm internal dia, 73 mm height, 5 mm thick rim bottom and top lids, 1.5 mm thick M.S. sheet with its top surface hacked for proper bonding top lid shall be screwed into the cast iron box by means of 3.3 mm dia round headed screws, one lock at the corners. Clamps shall be made of 12 mm dia M.S. bar bent to shape as per standard drawing.	each	139.10
10.19	Providing and fixing M.S. round holding down bolts with nuts and washer plates complete.	kg	78.20
10.20(a)	providing and fixing bolts upto 300 mm in length	kg	96.90
10.20(b)	providing and fixing bolts above 300 mm in length	kg	101.00
10.21	Providing and fixing M.S. rivets of sizes in position.	kg	150.30
10.22(a)	Welding by gas plant including transportation of gas	cm	3.30
10.22(b)	Welding by electric plant including transportation of electric welding plant at site etc. complete.	cm	3.40

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Code No.	Description	Unit	Rate Rs.
10.28	Providing and fixing bright finished brass casement window fastners of minimum weight 200 gms to side hung steel windows with necessary welding and machine screws etc. complete.	each	73.50
10.29	Providing and fixing bright finished brass peg stays 300 mm long of minimum weight 330 gms.to side hung steel windows with necessary welding and machine screws etc. complete.	each	181.90
10.30	Providing and fixing bright finished brass peg stays to steel ventilators with necessary welding and machine screws etc. complete.		
10.30.1	300 mm long of minimum weight of 330 grams.	each	181.90
10.30.2	250 mm long of minimum weight of 240 grams.	each	147.10
10.31	providing and fixing 14 mm bright finished brass	each	240.70
10.32	Steel work welded in built up sections/framed work including cutting hoisting, rixing in position <b>and</b> applying a priming coat of approved steel primer using structural steel, etc. as required.		
10.32.1	In stringers, treads landings etc. of stair cases including use of required plates wherever required all complete.	kg	82.80
10.32.2	In gratings, frames, guard bar, ladders, railings, brackts. gates & similar works.	kg	99.50
10.33	Providing and fixing hand rail by welding etc. to steel ladder railings & staircases railing including applying a priming coat of approved steel primer		
10.33.1	MS tube (medium) 40mm nominal bore	kg	115.80
10.33.2	E.R.W tube 40 mm nominal dia	kg	109.70
10.33.3	G.I pipes 40 mm nominal bore (class B)	kg	132.90
10.33.4	Labour for fitting and fixing barbed wire fencing in six rows horizontal up to a height of 1.85m and two diagonals including fixing of post in cement concrete at 2.5m centres including cost of staples (but excluding the cost of cement concrete, angle, iron post, its cutting and making holes, nuts & bolts) all complete as per building specification and direction of E/l.	Per m	69.90
10.33.5	Labour for fitting and fixing barbed wire fencing in FOUR rows horizontal up to a height of 1.25m and two diagonals including fixing of post in cement concrete at 2.5m centres including cost of staples (but excluding the cost of cement concrete, angle, iron post, its cutting and making holes, nuts & bolts) all complete as per building specification and direction of E/l.	Per m	49.20
10.33.6	Drilling 6mm Dia. In M.S. angle iron for fixing of staples etc. as per building specification and direction of E/l.	Each	8.50
10.33.7	Labour for cutting of M.S. angle iron post to required length, one end splitted as fish tailed in a length of 150mm complete as per building specification and direction of E/l.	Each	26.40

Code No.	Description	Unit	Rate Rs.
<b>10.35</b>	Providing and fixing carbon steel galvanised ( minimum coating 5 micron ) dash fastener of 10 mm dia double threaded 6.8 grade (yield strength 480 N/mm <sup>2</sup> ), counter sunk head, comprising of 10 mm dia polyamide PA 6 grade sleeve,including drilling of hole in frame , concrete/ masonry, etc. as per direction of Engineer-in-charge.		
10.35.1	10 x60 mm.	each	71.30
10.35.2	10 x80 mm.	each	76.60
10.35.3	10 x120 mm.	each	93.80
10.35.4	10 x140 mm.	each	105.20
10.35.5	10 x160 mm.	each	130.30
<b>10.36</b>	Providing and fixing stainless steel ( Grade 304) railing made of Hollow tubes,channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, i/c fixing the railing with necessary accessories & stainless steel dash fasteners , stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-in-charge, ( for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts,fasteners etc.).	kg	521.00
<b>10.37</b>	Providing & fixing fly proof wire gauze to windows, clerestory windows & doors with M.S. Flat 15x3 mm and nuts & bolts complete.		
10.37.1	Galvanised M.S. Wire gauze with 0.63 mm dia wire and 1.4 mm aperture on both sides.	sqm	407.00
10.37.2	Stainless steel (grade 304) wire gauze of 0.5 mm dia wire and 1.4 mm aperture on both sides.	sqm	628.90
<b>10.38</b>	Providing & fixing glass panes with putty and glazing clips in steel doors, windows, clerestory windows all complete with.		
10.38.1	4.0 mm thick glass panes.	sqm	838.60
10.38.2	5.5 mm thick glass panes.	sqm	1133.00
<b>10.39</b>	Providing and fixing factory made ISI marked steel glazed doors, windows and ventilators, side / top / centre hung, with beading and all members such as F7D,F4B, K11 B and K12 B etc. complete of standard rolled steel sections, joints mitred and flash butt welded and sash bars tenoned and riveted, including providing and fixing of hinges, pivots, including priming coat of approved steel primer , but excluding the cost of other fittings, complete all as per approved design, (sectional weight of only steel members shall be measured for payment).		
10.39.1	Fixing with 15x3 mm lugs 10 cm long embedded in cement concrete block 15x10x10 cm of C.C. 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size).	kg	134.90
10.39.2	Fixing with carbon steel galvanised dash fastener of required dia and size (to be paid for separately).	kg	91.40

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Code No.	Description	Unit	Rate Rs.
10.40	Extra for providing and fixing steel beading of size 10 x 10 x 1.6 mm (box type), approved shape and section with screws instead of glazing clips and metal sash putty, in steel doors, windows, ventilators and composite units.	metre	45.40
10.41	Providing and fixing M.S. Tubular frames for doors, windows, ventilators and cupboard with rectangular/ L-Type sections, made of 1.60 mm thick M.S. Sheet, joints mitred, welded and grinded finish, with profiles of required size, including fixing of necessary butt hinges and screws and applying a priming coat of		
10.41.1	Fixing with 15x3 mm lugs 10 cm long embedded in cement concrete block 15x10x10 cm of C.C. 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate	kg	202.80
10.41.2	Fixing with carbon steel galvanised dash fastener of required dia and size (to be paid for separately).	kg	195.50
10.42	Providing and fixing bolts including nuts and washers complete.	kg	97.70
10.43	Providing and fixing concertina coil fencing with punched tape concertina coil 600 mm dia 10 metre openable length ( total length 90 m), having 50 nos rounds per 6 metre length, upto 3 m height of wall with existing angle iron 'Y' shaped placed 2.4 m or 3.00 m apart and with 9 horizontal R.B.T. reinforced barbed wire, stud tied with G.I. staples and G.I. clips to retain horizontal, including necessary bolts or G.I. barbed wire tied to angle iron, all complete as per direction of Engineer-in-charge, with reinforced barbed tape(R.B.T.) / Spring core (2.5 mm thick) wire of high tensile strength of 165 kg/ sq mm with tape (0.52 mm thick) and weight 43.478 gm/ metre (cost of M.S. angle, C.C. blocks shall be paid separately)	metre	263.50
10.44	Providing and fixing angle iron frames for doors, windows and ventilators of mild steel Angle sections of size 35x35x5 mm, joints mitred and welded by angle iron 35x35x5 mm or 35x 5 mm flat pieces to the existing T-iron frame or to the wall with dash fastener, including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primer, all complete as per the direction of Engineer_In_charge.	kg	74.60

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**SUB HEAD : 11.0**  
**FLOORING**

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## BUILDING WORK - Contd.

**11.0 Flooring**

Code No.	Description	Unit	Rate Rs.
11.1	Brick on edge flooring with bricks of class designation 100A including cement slurry etc. complete in cement mortar.		
11.1.1	1:4 (1 cement: 4 coarse sand)	sqm	656.20
11.1.2	1:6(1 cement:6 coarse sand)	sqm	621.00
11.3	Cement concrete flooring 1:2:4(1 cement:2 coarse:sand:4 graded stone agregate) finished with a floating coat of neat cement including cement slurry, etc. but excluding the cost of nosing of steps etc. complete.		
11.3.1	40 mm thick with 20 mm nominal size stone aggregate	sqm	280.80
11.4	52 mm thick cement concrete flooring with metallic concrete hardener topping under layer 40 mm thick cement concrete 1:2:4(1 cement:2 coarse sand:4 graded stone aggregate 20 mm nominal size) and top layer 12 mm thick metallic concrete hardener consisting of mix 1:2 (1 cement hardener mix:2 stone aggregate 6 mm nominal size) by volume @ 2 liter per 50 kg of cement or as per manufacture specification. This includes cost of cement slurry, etc. but excluding the cost of nosing of steps etc. complete.	sqm	456.50
11.5	62 mm thick cement concrete flooring with metallic concrete hardener topping under layer 50 mm thick cement concrete 1:2:4(1 cement:2 coarse sand:4 graded stone aggregate 20 mm nominal size) and top layer 12mm thick metallic cement hardener consisting of mix 1:2(1 cement hardener mix:2 stone aggregate 6 rnr.. ominal size) by volume hardning compound is mixed @ 2 liter per 50 kg of cement or as per manufacture specification. This includes cost of cement slurry, etc. but excluding the cost of nosing of steps etc. complete.	sqm	494.60
11.6	Cement plaster skirting (upto 30 cm hieght) with cement mortar 1:3 (1 cement:3 coarse sand) finished with a floating coat of neat cement.		
11.6.1	18 mm thick	sqm	291.35
11.7	Cement concrete pavement with 1:2:4(1 cement:2 coarse sand:4 graded stone aggregate 20 mm nominal size) including finishing complete.	cum	5289.60
11.8	Extra for making chequers of approved pattern on cement concrete floors, steps, landing, pavemerts etc.	sqm	34.10
11.9	40 mm thick marble chips flooring rubbed and polished to granolithic finish, under layer 34 mm thick cement concrete 1:2:4(1 cement:2 coarse sand:4 graded stone aggregate 12.5 mm nominal size) and top layer 6 mm thick with white, blacm, chocolate, grey, yellow or Baroda green marble chips of sizes form 1 mm to 4 mm nominal size laid in cement marble powder mix 3:1(3 cement: 1 marble powder) by weight in proportion of 4:7 (4 cement marble powder mix:7 marble chips) by volume including cement slurry etc. complete.		
11.9.1	Dark shade pigment with ordinary cement	sqm	534.60
11.9.2	Light shade pigment with white cement	sqm	567.20

Code No.	Description	Unit	Rate Rs.
11.9.3	Medium shade pigment with 50% white cement and 50% ordinary cement.	sqm	547.50
11.9.4	White cement without any pigment	sqm	553.70
11.9.5	Light shade pigment with ordinary cement.	sqm	530.80
11.9.6	Ordinary cement without any pigment	sqm	514.10
11.10	40 mm thick marble chips flooring, rubbed and polished to granolithic finish, under layer 31 mm thick cement concrete 1:2:4(1 cement:2 coarse sand:4 graded stone aggregate 12.5 mm nominal size) and top layer 9 mm thick with white, black, chocolate, grey, yellow or Baroda green marble chips of sizes from 4 mm to 7 mm nominal size laid in cement marble powder mix 3:1 (3 cement:1 marble powder) by weight in proportion of 4:7( 4 cement marble powder mix:7 marble chips) by volume including cement slurry etc. complete.		
11.10.1	Dark shade pigment with ordinary cement	sqm	566.80
11.10.2	Light shade pigment with white cement	sqm	613.30
11.10.3	Medium shade pigment with 50% white cement and 50% ordinary cement	sqm	585.20
11.10.4	White cement without any pigment	sqm	598.50
11.10.5	Light shade pigment with ordinary cement	sqm	561.40
11.10.6	Ordinary cement without any pigment	sqm	539.30
11.11	40 mm thick marble chips flooring, rubbed and polished to granolithic finish, under layer 28 mm thick cement concrete 1:2:4(1 cement:2 coarse sand:4 graded stone aggregate 12.5 mm nominal size) and top layer 12 mm thick with white, black, chocolate, grey, yellow or Baroda green marble chips of sizes from 7 mm to 10 mm nominal size laid in cement marble powder mix 3:1(3 cement :1 marble powder mix :3marble chips) by volume including cement slurry etc. complete.		
11.11.1	Dark shade pigment with ordinary cement	sqm	599.30
11.11.2	Light shade pigment with white cement	sqm	672.00
11.11.3	Medium shade pigment with 50% white cement and 50% ordinary cement	sqm	632.20
11.11.4	White cement without any pigment	sqm	634.60
11.11.5	Light shade pigment with ordinary cement	sqm	599.60
11.11.6	Ordinary cement without any pigment	sqm	561.70
11.12	Marble chips skirting (up to 30 cm height) rubbed and polished to granolithic finish, top layer 6mm thick with white, black, chocolate, grey, yellow or green marble chips of sizes from smallest to 4mm nominal size laid in cement marble powder mix 3:1 (3 cement: 1 marble powder) by weight in proportion of 4:7 94 cement marble powder mix: 7 barbie chips) by volume:		
11.12.1	18 mm thick with under layer 12 mm thick in cement plaster 1:3 (1 cement : 3coarse sand).	sqm	802.00

Code No.	Description	Unit	Rate Rs.
11.12.2	21 mm thick with under layer 15 thick cement plaster 1:3(1 cement:3 coarse sand)		
11.12.2.1	Dark shade pigment with ordinary cement	sqm	712.60
11.12.2.2	Light shade pigment with white cement	sqm	745.20
11.12.2.3	Medium shade pigment with 50 % white cement and 50% ordinary cement	sqm	725.40
11.12.2.4	White cement without any pigment	sqm	798.50
11.12.2.5	Light shade pigment with ordinary cement	sqm	708.80
11.12.2.6	Ordinary cement without any pigment	sqm	739.40
11.13	Providing and fixing glass strips in joints of terrazo/cement concrete floors.		
11.13.1	40 mm wide and 4 mm thick	meter	54.50
11.14	Extra for laying terrazo flooring on stair case treads not exceeding 30cm in width including cost of forming, nosising etc.	sqm	37.40
11.15	Crazy marble stone flooring, including filling the gaps with light shade pigment with white cement marble powder mixture (3 parts of white cement : 1 part of marble powder) by weight in proportion of 4:7 (4 cement marble powder mix : 7white, black or white and black marble chips of sizes from 1 mm to 4 mm nominal size by volume), with under layer 25 mm thick cement concrete 1:2:4 (1 cement :2 coarse sand : 4 graded stone aggregate 12.5 mm nominal size), including rubbing, polishing and cement slurry etc. complete.		
11.15.1	18 mm thick crazy marble stone white, black or as specified.	sqm	963.20
11.16	Precast terrazo tiles 22 mm thick with marble chips of sizes upto 12 mm laid in floors and landings jointed with neat cement slurry mixed with pigment to match the shade of the tiles; including rubbing and polishing complete with precast tiles on 20 mm thick bed of cement mortar 1:4(1 cement:4 coarse sand)		
11.16.1	Light shade using white cement	sqm	965.00
11.16.2	Medium shade using 50% white cement and 50% ordinary cement	sqm	914.10
11.16.3	Dark shade using ordinary cement	sqm	750.30
11.16.4	Ordinary cement without any pigment	sqm	714.90
11.17	Extra if terrazo tiles are laid in treads of steps not exceeding 30 cm in width	sqm	49.00
11.18	Precast terrazo tiles 22 mm thick with marble chips of sizes upto 12 mm in skirting and risers of steps not exceeding 30 cm in height, on 12 mm thick cement plaster 1:3 (1 cement:3 coarse sand) jointed with neat cement slurry mixed with pigment to match the shade of the tiles, including rubbing and polishing complete with tiles of		
11.18.1	Light shade using white cement	sqm	1295.80
11.18.2	Medium shade using 50% white cement and 50% ordinary cement	sqm	1227.60

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Code No.	Description	Unit	Rate Rs.
11.18.3	Dark shade using ordinary cement	sqm	1176.00
11.18.4	Ordinary cement without any pigment	sqm	1144.40
11.19	Chequered terrazo tiles 22 mm thick with marble chips of sizes upto 6 mm in floors jointed with neat cement slurry mixed with pigment to match the shade of the tiles, including rubbing and polishing complete on 20 mm thick bed of cement mortar 1:4 (1 cement:4 coarse sand)		
11.19.1	Light shade using white cement	sqm	950.30
11.19.2	Medium shade using 50% white cement and 50% ordinary cement	sqm	965.70
11.19.3	Dark shade using ordinary cement	sqm	882.70
11.19.4	Ordinary cement without pigment	sqm	918.80
11.20	Chequered precast cement concrete tiles 22 mm thick with marble chips of size 6 mm in footpath & courtyard jointed with neat cement slurry mixed with pigment to match the shade of tiles including rubbing and cleaning etc. Complete on 20 mm thick bed of cement mortar 1:4(1 cement:4 coarse sand)		
11.20.1	Light shade using white cement	sqm	1075.10
11.20.2	Medium shade using 50% white cement 50% grey cement	sqm	930.70
11.20.3	Dark shade using ordinary cement	sqm	742.90
11.20.4	Ordinary cement without any pigments	sqm	779.00
11.21	Providing and fixing 10 mm thick acid and / or alkali resistant tiles of approved make and colour using acid and / or alkali resisting mortar bedding, and joints filled with acid and / or alkali resisting cement as per IS : 4457, complete as per the direction of Engineer-in-Charge.		
11.21.1	In flooring on a bed of 10 mm thick mortar 1:4 (1 acid proof cement : 4 coarse sand).		
11.21.1.1	Acid and alkali resistant tile.	sqm	1306.50
11.21.2	In dado/skirting on 12 mm thick mortar 1:4 (1 acid proof cement : 4 coarse sand).		
11.21.2.1	Acid and alkali resistant tile.	sqm	1376.20
11.22	Tile work in skirting, risers of steps and dado(upto 2m height) over 12 mm thick bed of cement mortar 1:3(1 cement;3 coarse sand) and jointed with grey cement slurry@ 3.3 kg/sqm including pointing in .white cement mixed with pigment of matching shade complete.		
11.22.1	Marble tiles (polished) Raj nagar 8 mm thick	sqm	1477.60
11.23	Marble stone flooring with 18 mm thick marble stone (sample of marble shall be approved by Engineer-in-charge) over 20 mm (average) thick base of cement mortar 1:4 (1 cement: 4 coarse sand) laid and jointed with grey cement slurry including rubbing and polishing complete with:		
11.23.1	Makrana white second quality.	sqm	2872.80

Code No.	Description		Unit	Rate Rs.
	11.23.2	Rajnagar plain white marble 18mm thick above 0.10 sqm upto 0.20 sqm	sqm	1557.20
	11.23.2.1	Rajnagar plain white marble 18mm thick above 0.20 sqm upto 0.50 sqm	sqm	1734.20
	11.23.4	Black Zebra marble	sqm	2057.30
	11.23.5	Udaipur green marble	sqm	1626.50
	11.23.6	Pink marble	sqm	1664.90
11.24	Extra for nosing in marble stone for treads		sqm	291.20
11.25	Extra for marble stone flooring in treads of steps. Not exceeding 30 cm in width.		sqm	346.20
11.26	Kota stone slab flooring over 20 mm (average ) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab including rubbing and polishing complete . Base with 1:1:1 (1 lime : 1 surkhi: 1 coarse sand ) / 1:4 (1 cement: 4 coarse sand )			
	11.26.1	20 to 25 mm thick -	sqm	1153.80
11.27	Kota stone slabs 20 mm thick in risers of steps skirting. Dado & pillars laid on 12 mm (average (thick cement mortar 1:3 (1 cement: 3 coarse sand ) and jointed with grey cement slurry mixed with pigment to match the shade of the slab including rubbing and polishing complete. Details of cost for 10 sqm		sqm	1224.20
<b>SAND STONE FLOORING</b>				
11.28	Supplying sand stone 40 mm thick for flooring ,carriage to site and rough chisel dressing			
	11.28.1.1	Red sand stone	sqm	407.30
	11.28.1.2	white sand stone	sqm	407.30
11.28A.	40 mm thick rough chisel dressed stone flooring over 20 mm (average) thick base with joint base 1:1:1 (1 lime : 1 Surkhi : 1 coarse sand) or 1:5 (1 cement : 5 coarse sand) finished flush.			
	11.28A.1	Red sand stone	sqm	713.60
	11.28A.2	White sand stone	sqm	713.60
11.29	40 mm thick rough chisel dressed stone flooring over 20 mm (average) thick base including pointing with C.M 1:2 (1 cement :2 stone dust) with an admixture of pigment to match the shade of the stone with base 1:1:1 (1 lime : 1surkhi : coarse sand or 1:5 (1 cement : 5 coarse sand)			
	11.29.1	Red sand stone	sqm	816.20
	11.29.2	white sand stone	sqm	816.20
11.30	40 mm thick fine dressed stone flooring over 20 mm (average) thick base with joint finished flush:base 1:5 (1 cement: 5 coarse sand )			
	11.30.1	Red sand stone	sqm	780.60
	11.30.2	White sand Jtone	sqm	780.60

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Code No.	Description	Unit	Rate Rs.
11.31	Extra for pre finished nosing in treads of steps of Kota stone / sand stone slab.	m	77.90
11.32	Extra for Kota stone / sand stone in treads of steps and risers using single up to 1.05 metre.length	sqm	16.90
11.33	25 mm wooden planking, tongued and grooved in flooring including fixing with iron screws complete .		
11.33.2	2nd class teak wood	sqm	3978.90
11.34	38 mm thick parquet (wood block) flooring of 1st class teak wood laid over 25 mm thick levelling layer of cement concrete 1:2:4(1 cement:2 coarse sand:4 store aggregate 10 mm nominal size) to be paid separately coated with a thin layer of hot bitumen (blown type) @ 2.45 kg per sqm. including fixing blocks in position after dipping in hot bitumen (blown type) upto half depth,planed,levelled smooth and finished complete.	sqm	7758.10
11.35	Providing and fixing M.S. angle 50x50x5 mm to act as nosing with tugs of M.S. flat 10x5 mm 10 cm long forked at end 60 cm apart (minimum 3 lugs to be provided) including necessary welding and applying a priming coat of approved primer on exposed surfaces etc. complete	kg	91.20
11.36	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS : 15622 (Thickness to be specified by the manufacture) of approved make in all colours, shades except burgundy , bottle green , black of any size as approved by Engineer-in-charge in skirting , risers of steps and dados over 12 mm thick bed of cement Motar 1:3(1 cement: 3 coarse sand ) and jointing with grey cement slurry @ 3.3 kg per sqm including pointing in white cement mixed with pigment of matching shade complete.	sqm	797.50
11.37	Providing and laying Ceramic glazed floor tiles 300x300 mm (thickness to be specified by the manufacturer) of ist quality conforming to IS : 15622 of approved make in colours such as white , Ivory , Grey , Fume Red , Brown , laid on 20 mm thick Cement motar 1:4 (1 cement: 4 coarse sand ) including pointing the joints with white cement and matching pigment etc., complete.	sqm	712.20
11.37A	Providing and fixing 1st quality ceramic glazed floor tiles conforming to IS : 15622 (thickness to be specified by the manufacturer ) of approved make in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge in skirting, risers of steps and dados over 12 mm thick bed of cement Mortar 1:3 (1 cement: 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm including pointing in white cement mixed with pigment of matching shade complete.	sqm	688.00
11.38	Providing and laying Ceramic glazed floor tiles 300x300 mm (thickness to be specified by the manufacturer) of ist quality conforming to IS : 15622 of approved make in colours such shades except white , Ivory , Grey , Fume Red , Brown , laid on 20 mm thick Cement motar 1:4 (1 cement: 4 coarse sand ) including pointing the joints with white cement and matching pigment etc., complete.	sqm	783.70



Code No.	Description	Unit	Rate Rs.
11.39	Providing and laying Ceramic glazed floor tiles 400x400 mm (thickness to be specified by the manufacturer) of 1 st quality conforming to IS : 13755 of NITCO , ORIENT , SOMANY , KAJARIA or equivalent make in colours such as white , Ivory , Grey , Fume , Red , Brown , laid on 20 mm thick cement motar 1:4 (1 cement: 4 Coarse sand) including grouting the joints with white cement and matching pigments etc, complete.	sqm	1282.30
11.40.	Providing and laying Ceramic glazed floor tiles 400x400 mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS : 13755 of NITCO , ORIENT , SOMANY , KAJARIA or equivalent make in colours except white , Ivory , Grey , Fume , Red , Brown , laid on 20 mm thick cement motar 1:4 (1 cement: 4 Coarse sand) including grouting the joints with white cement and matching pigments etc, complete.	sqm	1366.50
11.41	Providing and laying vitrified floor tiles in different sizes {thickness to be specified by the manufactruer) with water absorption's less than 0.08 % and conforming to IS : 15622 of approved make in all colours and shades, laid on 20 mm thick cement mortar 1:4 (1 cement: 4 coarse sand ) including grouting the joint with white cement and matching pigments etc., complete.		
1.1.41.1	Size of Tile 50x50 cm.	sqm	1493.00
11.41.2	Size of Tile 60x60 cm	sqm	1731.40
11.41.3	Size of Tile 80x80 cm	sqm	1998.70
11.41.4	Size of Tile 100x100 cm	sqm	2757.30
11.41A	Providing and laying Vitrified tiles in floor in different sizes {thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS:15622, of approved brand & manufacturer, in all colours and shade, laid on 20 mm thick cement mortar 1:4 (1 cement: 4 coarse sand) jointing with grey cement slurry @3.3 kg/sqm including grouting the joints with white cement and matching pigments etc. The tiles must be cut with the zero chipping diamond cutter only.Laying of tiles will be done with the notch trowel, plier, wedge, clips of required thickness, leveling system and rubber mallet for placing the tiles gently and easily.		
11.41A.1	Double charge vitrified tile polished finish of size		
11.41A.1.1	Size of Tile 600 x 600 mm	sqm	1093.80
11.41A.1.2	Size of Tile 800 x 800 mm	sqm	1209.60
11.41A.1.3	Size of Tile 600 x 1200 mm	sqm	1286.00
11.41A.1.4	Size of Tile 800 x 1600 mm	sqm	1563.20
11.41A.1.5	Size of Tile 1000 x 1000 mm	sqm	1447.60
11.41A.2	Glazed vitrified floor tiles polished finish of size		
11.41A.2.1	Size of Tile 600 x 600 mm	sqm	1152.10
11.41A.2.2	Size of Tile 600 x 1200 mm	sqm	1471.90
11.41A.2.3	Size of Tile 800 x 800 mm	sqm	1405.20

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Code No.	Description	Unit	Rate Rs.
11.41A.2.4	Size of Tile 800 x 1200 mm	sqm	1746.30
11.41A.2.5	Size of Tile 1200 x 1200 mm	sqm	2301.00
11.41A.3	Glazed Vitrified tiles Matt/ Antiskid finish of size		
11.41A.3.1	Size of Tile 600 x 600 mm	sqm	1116.50
11.41A.3.2	Size of Tile 600 x 1200 mm	sqm	1471.90
11.41A.3.3	Size of Tile 800 x 800 mm	sqm	1405.20
11.41A.3.4	Size of Tile 800 x 1200 mm	sqm	1703.30
11.41A.3.5	Size of Tile 1200 x 1200 mm	sqm	2504.00
11.42	Deduct for not using 20 mm thick cement mortar 1:4 (1 cement : 4 coarse sand) bedding in laying of floor tiles.	sqm	459.40
11.43	Fixing glazed/ Ceramic/ Vitrified floor tiles with cement based high polymer modified quick-set tile adhesive (Water based) conforming to IS: 15477, in average 3 mm thickness.	sqm	424.20
11.44	Crazy ceramic tile flooring, with under layer 12 mm thick cement mortar 1:4 (1 cement: 4 coarse sand), with joints not exceeding 5 mm, including filling the gaps with ordinary cement mixture & mixing with synthetic polyester fibre, triangular in shape having specific gravity of 1.34 to 1.40, cross section size ranging from 10 to 40 micron & length upto 6 mm , mixing fibre @ 125 grams per 50 kg of cement in cement mortar, including providing and mixing water proofing material in mortar @ 1 kg per 50 kg of cement , all complete as per direction of Engineer-in-charge.	sqm	435.00
11.45	Providing and laying 500x500x40 mm thick Turf paver (Turf pave XD) on 150 mm thick sub grade of compacted bed of 20 mm thick nominal size stone aggregate and base course and filling with 150 mm thick jamuna sand, including spreading, well ramming, consolidating and finishing smooth etc. all complete as per direction of Engineer-in-charge.	sqm	963.60
11.46	Providing and laying Vitrified tiles in different sizes (thickness to be specified by manufacturer), with water absorption less than 0.08 % and conforming to I.S. 15622, of approved make, in all colours & shade, in skirting, riser of steps, over 12 mm thick bed of cement mortar 1:3 (1 cement: 3 coarse sand), including grouting the joint with white cement & matching pigments etc. complete.		
11.46.1	Size of Tile 500 x 500 mm.	sqm	1076.70
11.46.2	Size of Tile 600 x 600 mm.	sqm	1309.50
11.46.3	Size of Tile 800 x 800 mm.	sqm	1570.40
11.46.4	Size of Tile 1000 x 1000 mm.	sqm	2311.00
11.46A	Providing and fixing glazed screen printed border tile 75mm wide having thickness 5mm, of approved quality & make, in all shades, design and prints, in dado, over 12mm thick bed of cement mortar 1:3 (1 Cement : 3 Coarse sand) and jointing with grey cement slurry @ 3.3 kg/sqm including pointing with white cement mixed with pigment of matching shade, all complete as approved by Engineer - in - Charge	meter	146.70

Code No.	Description	Unit	Rate Rs.
11.47	Providing and laying Vitrified tiles in different sizes (thickness to be specified by the manufacturer), with water absorption less than 0.08% and conforming to IS: 15622, of approved brand & manufacturer, in all colours and shade, in skirting, riser of steps, laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS: 15477, in average 6 mm thickness, including grouting of joints (Payment for grouting of joints to be made separately).		
11.47.1	Size of Tile 500 x 500 mm.	sqm	1210.90
11.47.2	Size of Tile 600 x 600 mm.	sqm	1443.70
11.47.3	Size of Tile 800 x 800 mm.	sqm	1704.60
11.47.4	Size of Tile 1000 x 1000 mm.	sqm	2445.10
11.48	Grouting the joints of flooring tiles having joints of 3 mm width, using epoxy grout mix of 0.70 kg of organic coated filler of desired shade (0.10 kg of hardener and 0.20 kg of resin per kg), including filling/grouting and finishing complete as per direction of Engineer-in-charge.		
11.48.1	Size of Tile 500x500 mm.	sqm	209.50
11.48.2	Size of Tile 600 x 600 mm.	sqm	176.30
11.48.3	Size of Tile 800 x 800 mm.	sqm	143.00
11.48.4	Size of Tile 1000 x 1000 mm.	sqm	104.70
11.49	Providing and laying Vitrified tiles in floor with different sizes (thickness to be specified by the manufacturer), with water absorption less than 0.08% and conforming to IS:15622 , of approved brand & manufacturer, in all colours and shade, laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS : 15477, in average 6 mm thickness, including grouting of joints (Payment for grouting of joints to be made separately).		
11.49.1	Size of Tile 500 x 500 mm.	sqm	1144.90
11.49.2	Size of Tile 600 x 600 mm.	sqm	1377.70
11.49.3	Size of Tile 800 x 800 mm.	sqm	1638.60
11.49.4	Size of Tile 1000 x 1000 mm.	sqm	2379.20
11.50	Deduct for not grouting the joints with white cement and matching pigment in the items of fixing of vitrified tiles.	sqm	11.00
11.51	Providing and laying machine cut, mirror polished, Italian Marble stone flooring laid in required pattern in linear portion of the building all complete as per architectural drawings, with 18 mm thick stone slab laid over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with white cement slurry @ 4.4 kg/sqm including pointing with white cement slurry admixed with pigment to match the marble shade including rubbing, curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge.		
	a. 18 mm thick Italian Marble stone slab,Perlato, Rosso verona, Fire Red or Dark Emperadore etc.	sqm	5625.80

Code No.	Description	Unit	Rate Rs.
11.52	Providing and laying machine cut, mirror polished Marble stone flooring, in required design (Simple geometrical, abstract etc.) and in patterns in combination with Italian marble stones of different colours, shades and finished surface texture etc., in linear portions of the building, all complete as per the shades and finished surface texture etc., in linear portions of the building, all complete as per the architectural drawings, with 18 mm thick stone slab laid over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with white cement slurry @ 4.4 kg/sqm including pointing with white cement slurry admixed with pigment to match the marble shade including rubbing , curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge.		
	a. 18 mm thick Italian Marble stone slab,Perlato, Rosso verona, Fire Red or Dark Emperadore etc.	sqm	5879.20
11.53	Providing and fixing Glass mosaic tiles at finished plain wall surface of size 20 mm x 20 mm x 4 mm in all colour, design , fixing in customize design as per direction of Engineer-in- Charge. The glass mosaic tiles to be fixed on the wall surface with the help of approved adhesive applied at the rate of 2.5 kg per sqm and grouting of the same. The rate is inclusive of all operation, material and required pattern approved by Engineer-in-Charge.	sqm	3087.40
11.54	Providing and fixing removable raised/false access flooring with system and its components of approved make for different plenum height with possible height adjustment upto 50 mm, comprising of modular load bearing floor panels supported on G.I. rectangular stinger frame work and G.I. Pedestal etc. all complete, as per the architectural drawings, as specified and as directed by Engineer-in-charge consisting of :		
	a) P roviding at required spacing to form modular framework, pedestals made out of GI tube of thickness minimum 2 mm and 25 mm outer diameter, fully welded on to the G.I. Base plate of size 100mmx100mmx3mm at the bottom of the pedestal tube, G.I. pedestal head of size 75mmx75mmx3.5 mm welded with GI fullythreaded stud 16mm outer diameter with two GI Check nuts screwed on the stud for level adjustment upto 50mm, locking and stabilizing the pedestal head in for level adjustment upto 50mm, locking and stabilizing the pedestal head in position at the required level. The pedestals shall be fixed to the subfloor (base)through base plate using epoxy based adhesive of approved make or the machine through base plate using epoxy based adhesive of approved make or the machine screw with rawl plug.		
	b) S tringers system in all steel construction hot dipped galvanized of rectangular size 570x20x30x0.80 mm thick having holes at both ends for securing the stringers on to the pedestal head using fully threaded screws ensuring maximum lateral stability in all directions, the grid formed by the pedestal and stringer assembly shall receive the floor panel, this system shall provide adequate solid,rigid support for access floor panel, the system shall provide a minimum clear uninterrupted clearance between the bottom of the floor for electrical conduits and wiring etc. all complete as per the architectural drawings, as specified and as directed by the Engineer-in-charge.		

Code No.	Description	Unit	Rate Rs.
	c) providing and fixing Access Floor panel of 600x600x32 mm medium grade Filled Steel anti static high pressure Lamination of 800H grade (FS800H). Access Floor panel shall finished with Anti-static High Pressure laminate with Non Warp technology upto be steel welded construction with an enclosed bottom pan with uniform pattern of 64 hemispherical cones. The top and bottom plates of Steel Gauges: top 0.6 mm and bottom 0.7 mm fused spot welded together (minimum 64 welds in each dome and 20 welds along each flange). The panel should be Corroresist epoxy coated for lifetime rust protection and cavity formed by the top and bottom plate is filled with Pyrogrip noncombustible Portland cementitious core mixed with lightweight foaming compound. The access floor shall be factory core mixed with lightweight foaming compound. The access floor shall be factory 1mm thickness for superior adhesion and Surface flatness within 0.75mm. The panel is to withstand a Concentrated Load of 363 kgs applied on area 25mm x 25mm The panel will withstand and Uniformly Distributed Load (UDL) minimum 1250 kg/sqm and an impact load of 50kg all complete as per the approved manufacturers specification and as per the direction of Engineer-in-charge. All specification must be printed on the side of the panel to ensure the quality of the product.		
11.54.1	300 mm Finished Floor Height (FFH).	sqm	5156.60
11.54.2	450 mm Finished Floor Height (FFH).	sqm	5156.60
11.55	Providing and laying flamed finish Granite stone flooring in required design and patterns, in linear as well as curvilinear portions of the building all complete as per the architectural drawings with 18 mm thick stone slab over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade including rubbing, curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge :		
11.55.1	Flamed finish granite stone slab Jet Black, Cherry Red, Elite Brown, Cat Eye or equivalent.	sqm	2114.00
11.56	Providing and laying Polished Granite stone flooring in required design and patterns, in linear as well as curvilinear portions of the building all complete as per the architectural drawings with 18 mm thick stone slab over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade including rubbing , curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge.		
11.56.1	Polished Granite stone slab jet Black, Cherry Red, Elite Brown, Cat Eye or equivalent.	sqm	3273.30
11.72	Providing designation 100 A one brick flat soling joints filled with local sand including cost of watering, taxes, royalty all complete as per building specification and direction of E/I,	sqm	285.20

Code No.	Description	Unit	Rate Rs.
11.73	Providing designation 100 A one brick on edge soling joints filled with local sand including cost of watering, taxes, royalty all complete as per building specification and direction of E/I,	sqm	449.80
11.74	Providing designation 100 B one brick flat soling joints filled with local sand including cost of watering, taxes, royalty all complete as per building specification and direction of E/I, but excluding carriage cost of bricks & sand.	sqm	269.20
11.75	Providing designation 100 B one brick on edge soling joints filled with local sand including cost of watering, taxes, royalty all complete as per building specification and direction of E/I,	sqm	423.00
11.76	Providing average 150mm thick dry rammed khoa beaten to 112mm (compacted with water) made of well burnt or jhama bricks including ramming properly till compacted thickness is achieved, curing and carriage of water with all leads, making proper slope and blinding the top with cement mortar (1: 10) all complete as per building specification and direction of E/I,	sqm	391.20
11.77	Providing and laying 60 mm thick factory made cement concrete interlocking paver block of M -30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required colour and pattern over and including 50 mm thick compacted bed of coarse sand, filling the joints with fine sand etc. all complete as per the direction of Engineer-in-charge.	sqm	657.20
11.78	Providing and laying factory made coloured chamfered edge Cement Concrete paver blocks of required strength, thickness & size/shape, made by table vibratory method using PU mould, laid in required colour & pattern over 50mm thick compacted bed of fine sand, compacting and proper embedding/laying of inter locking paver blocks into the sand bedding layer through vibratory compaction by using plate vibrator, filling the joints with jamuna sand and cutting of paver blocks as per required size and pattern,finishing and sweeping extra sand in footpath, parks, lawns, drive ways or light traffic parking etc.complete as per manufacturer's specifications & direction of Engineer-in-Charge. <b>60mm thick C.C.paver block of M-35 grade with approved colour, design &amp; pattern.</b>	sqm	725.70
11.79	Providing and laying factory made chamfered edge Cement Concrete paver blocks of required strength,thickness & size/shape, made by table vibratory method , to attain superior smooth finish using PU or equivalent moulds, laid in required Grey colour & pattern over 50mm thick compacted bed of coarse sand, compacting and proper embedding / laying of inter locking paver blocks into the sand bedding layer through vibratory compaction by using plate vibrator, filling the joints with jamuna sand and cutting of paver blocks as per required size and pattern, finishing and sweeping extra sand in footpath, parks,lawns, drive ways or light traffic parking etc. all complete as per manufacturer's specifications & direction of Engineer -in-Charge:		
11.79.1	(a) 80 mm thick c.c. paver block of M-35 grade with approved colour design and pattern.	sqm	915.10
11.79.2	(b) 80 mm thick c.c. paver block of M-35 grade with white colour design and pattern.	sqm	866.90

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**SUB HEAD : 12.0**  
**ROOFING**

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BUILDING WORK - Contd.

**12.0 Roofing**

Code No.	Description	Unit	Rate Rs.
12.1	Providing corrugated G.S. sheet roofing fixed with G.I.J. or hooks, bolts and nuts 8 mm diameter with bitumen and G. I. limpet washers or with G.I. limpet washers filled with white lead and including a coat of approved steel primer and two coats of approved paint on over lapping of sheets complete (upto a pitch of 60°) excluding the cost of purlins, rafters and trusses.		
12.1.3	1.00 mm thick with zinc coating not less than 275 gm/m <sup>2</sup>	sqm	1037.10
12.1.4	0.8mm thick with zinc coating not less than 275 gm/m <sup>2</sup>	sqm	883.40
12.1.5	0.63 mm thick with zinc coating not less than 275 gm/m <sup>2</sup>	sqm	754.80
12.2	Extra for providing and fixing corrugated G. S. sheets vertically or to a pitch exceeding 60	sqm	10.40
12.3	Extra for providing and fixing curved C.G.S. sheets on roofing		
12.3.4	0.80 mm thick	sqm	11.70
12.3.5	0.63 mm thick	sqm	9.40
12.4	Extra for straight cutting in C.G. S. sheet roofing for making opening of area exceeding 40 dm <sup>2</sup> for chimney stacks , sky light etc.		
12.4.3	1.00 mm thick	m	45.20
12.4.4	0.80 mm thick	m	36.10
12.4.5	0.63 mm thick	m	36.10
12.5	Extra for circular cutting in C. G. S. sheet roofing for making opening of area exceeding 40 square decimeter .		
12.5.3	1.0 mm thick	m	256.40
12.5.4	0.80 mm thick	m	204.80
12.5.5	0.63 mm thick	m	204.80
12.6	Providing ridges or hips of width 60 cm overall width plain G.S. sheet fixed with G.I.J. or L hooks . Bolts and nuts 8 mm dia. G. 1. limpet and bitumen washers complete. .		
12.6.1	0.80 mm thick with zinc coating not less than 275 gm/m <sup>2</sup> Consider the length of the ridge 10.35 metres. The ridge will be made out of plain G. I. sheets 0.9 m x 1.8 m ,	m	585.10
12.6.2	0.63 mm thick with zinc coating not less than 275 gm/m <sup>2</sup>	m	513.90
12.7	Providing valleys of 90 cm wide overall in plain G.S. sheet fixed with G.I.J. or L hooks, bolts and nuts 8 mm dia. G.I. limpet and bitumen washers complete.		
12.7.1	1.60 mm thick with zinc coating not less than 350 gm/m <sup>2</sup>	m	1107.10
12.8	Providing flashing of 40 cm over al width in plain, G.S. sheet fixed with G.I.J. or L. hooks, bolts and nuts G.I. limpet and bitumen washers complete, bent to shape and fixed in wall with cement mortar 1:3(1 cement:3 coarse sand).		

Code No.	Description	Unit	Rate Rs.
12.8.2	1.00 mm thick with zinc coating not less than 275 gm/m <sup>3</sup>	m	448.50
12.9	Providing and fixing 15 cm wide 45 cm over all semi circular plain G.S. sheet gutter with iron brackets 40x3 mm size bolts, nuts and washers etc. including making necessary connections with rain water pipes complete.		
12.9.3	0.80 mm thick with zinc coating not less than 275 gm/m <sup>2</sup>	m	558.80
12.9.4	0.63 mm thick with zinc coating not less than 275 gm/m <sup>2</sup> consider a length of 9.04 metres.	m	499.50
12.10	Providing asbestos cement 6 mm thick corrugated sheets roofing and fixing with G.I. J or L hooks bolts and nuts 8 mm dia G. I. plain and bitumen washers complete excluding the cost of purlins, rafters and trusses corrugated sheet.		
12.10.1	upto 60 degree pitch	sqm	367.90
12.10.2	above 60 degree pitch	sqm	378.60
12.11	Extra for straight cutting in A.C. corrugated, semi corrugated 6 mm thick sheet roofing for making opening of area exceeding 40 dm <sup>2</sup> for chimney stacks, skylights etc.	m	36.10
12.12	Extra for circular cutting in A.C. corrugated/semi corrugated 6 mm thick sheet roofing for making opening of area exceeding 40 dm <sup>2</sup>	m	301.00
12.13	Extra for providing and fixing wind ties of 40x6mm flat iron section.	m	137.30
12.14	Providing and fixing ridges and hips in asbestos cement sheet roofing		
12.14.1	One piece plain angular ridges Consider a shed of 20x 10 m (external dimensions at plinth )	m	239.30
12.14.2	Serrated of plain wing adjustable ridges Consider a shed of 20x10 m ( external dimension at plinth)	m	310.30
12.14.3	Close fitting adjustable ridges consider a shed 20x10 metre (External dimension at plinth).	m	392.80
12.14.5	Unserrated adjustable hips consider a shed with hip as 20.2 metres.	m	309.80
12.15	Providing and fixing asbestos cement roofing accessories with galvanised iron J or L hooks, bolts and nuts and of G.I. seam bolts and nuts. G.I. plain and bitumen washers complete.		
12.15.1	Approan flashing pieces	m	218.00
12.15.2	Eves filler pieces	m	165.60
12.15.3	North light and ventilator curves	m	403.40
12.15.4	Barge boards	m	236.90
12.15.6	Ridge finials	pair	154.50
12.15.8	Curved barge boards for north light curves	each	320.70
12.15.9	Roof lights	each	1518.40

Code No.	Description	Unit	Rate Rs.
12.15.10	Expansion joints for ridges	each	475.60
12.15.11	Expansion joints for north light curves	each	440.10
12.15.12	S type louvers	m	147.50
12.20	Providing flat iron brackets 50x3mm size, with necessary bolts, nuts and washers etc. for fixing asbestos cement /G.S sheet gutters with purlins.	m	66.60
12.29	Painting top of roofs with bitumen of approved quality at 17 kg per 10m <sup>2</sup> impregnated with a coat of coarse sand at 60 cubic dm per 10m <sup>2</sup> including cleaning the slab surface with brushes and finally with a piece of cloth lightly soaked in kerosene oil complete:		
12.29.1	With residual type petroleum bitumen of VG10	sqm	143.90
12.33	Providing and laying brick tiles of class designation 100 over mummy root grouted with cement mortar 1:3 (1 cement:3 coarse sand) mixed with 2% if integral water proofing compound by weight of cement, over a 12 mm layer of cement mortar 1:3 (1 cement:3 fine sand) and finished neat.		
12.33.2	With F.P. brick tiles	sqm	473.90
12.33A	Providing and laying pressed clay tiles (as per approved pattern 20 mm nominal thickness and of approved size) on roofs jointed with cement mortar 1:4(1 cement :4 coarse sand )mixed with 2% integral water proofing compound laid over a bed of 20 mm thick cement mortar 1:4(1 cement::4 coarse sand )and finished neat complete	sqm	493.40
12.38	Providing gola 75x75 mm in cement concrete 1:2:4 (1 cement:2 coarse sand:4 stone aggregate 10mm and down gauge) including finishing with cement mortar 1:3(1 cement::3 coarse sand)as per standard design		
12.38.1	In 75x75 mm deep chase	sqm	62.10
12.39	Making khurras 45x45 cm with average minimum thickness of 5 cm cement concrete 1:2:4 (1 cement:2 coarse sand:4 graded stone aggregate of 20 mm nominal size) over P.V.C. sheet 1 mx1 mx400 micron, finished 12 mm cement plaster 1:3 (1 cement:3 coarse sand) and a coat of neat cement rounding the edges and making and finishing the outlet complete	each	178.00
12.40	Providing sand stone slabs for roofing and laying them in cement mortar 1:4 (1 cement:4 coarse sand) over wooden karries or R.C.C. battens (karries and battens to be paid separately) including pointing the ceiling joints with cement mortar 1:3 (1 cement:3 coarse sand) complete:		
12.40.1	<b>Red sand stone slab</b>		
12.40.1.1	40 mm thick	sqm	548.60
12.40.1.2	45mm thick	sqm	575.00
12.40.1.3	50 mm thick	sqm	602.00
12.40.2	<b>White sand stone slab</b>		

Code No.	Description		Unit	Rate Rs.
	12.40.2.1	40 mm thick	sqm	570.70
	12.40.2.2	45 mm thick	sqm	597.10
	12.40.2.3	50 mm thick	sqm	624.10
12.52	Grading roof for water proofing treatment with			
	12.52.2	Cement concrete 1:2:4(1 cement :2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	cum	3886.40
	12.52.3	Cement mortar 1:3(1 cement:3 coarse sand)	cum	7188.70
	12.52.4	Cement mortar 1:4 (1 cement: 4 coarse sand)	cum	6391.80
12.54	Providing and fixing 20 mm thick wooden planks ceiling (frame work for base to be paid separately) with M.S screws:			
	12.54.1	2nd class teak wood	sqm	2374.30
	12.54.3	1st class kail wood	sqm	994.70
12.55	Providing and fixing insulating board ceiling of approved quality with necessary nails etc complete (frame work to be paid separately)			
	12.55.1	<b>Natural colour insulating board</b>		
	12.55.1.1	12 mm thick	sqm	544.20
	12.55.2	<b>White face insulating board</b>		
	12.55.2.1	12 mm thick	sqm	566.30
	12.55.3	<b>Flame retardant face insulating board</b>		
	12.55.3.1	12mm thick	sqm	706.10
12.56	Providing and fixing hard board sheet ceiling of approved quality with necessary nails etc complete (frame work to be paid separately)			
	12.56.1	Standard quality boards		
	12.56.1.1	3 mm thick	sqm	415.80
	12.56.1.2	4.5 mm thick	sqm	526.30
12.57	Providing and fixing flat pressed 3 layer medium density particle board sheet Grade I conforming to IS: 3087 in ceiling with necessary nails etc. complete (frame work to be paid separately).			
	12.57.2	12 mm thick	sqm	658.50
12.58	Providing and fixing plain A.C. sheet ceiling of approved quality with necessary nails etc. complete (frame work to be paid separately):			
	12.58.2	6 mm thick	sqm	478.30
12.59	Extra for circular cutting and waste in ceiling with			
	12.59.1	2nd class teak wood planks 20 mm thick	m	440.80
	12.59.4	Natural colour insulating board		
	12.59.4.1	12 mm thick	m	210.00
	12.59.5	White face insulating board		

Code No.	Description	Unit	Rate Rs.
12.59.5.1	12 mm thick	m	214.50
12.59.6	Flame retardant face insulating board		
12.59.6.1	12 mm thick	m	230.10
12.59.7	Standard quality hard board sheet		
12.59.7.1	3 mm thick	m	196.20
12.59.7.2	4.5 mm thick	m	209.90
12.60.1	Extra for providing and fixing ceiling to curved surfaces in narrow widths	sqm	174.90
12.60.2	Providing and fixing false ceiling with 12 mm thick plain/or with design ceiling tiles of BWP type phenol formaldehyde synthetic resin bonded pressed particle board conforming to IS :3087 finished with a coat of aluminum primer on both sides & edges and two coats of synthetic enamel paint of approved quality on exposed face fixed to a grid made out of anodized aluminum (with 15 micron anodic coating) T-sections 35x15x1.5 mm size main runners and cross runners 23.5x19x1.5 mm fixed to main runners placed 600 mm centre to centre both ways so as to form a grid of 600 mm square. The frame work shall be suspended from ceiling by level adjusting hangers of 6 mm dia M.S. rod fixed to roof slab by means of ceiling cleats. The suspenders shall be placed 600x1200 mm centre to centre including fixing to the frame with CP brass screws and applying a priming coat of zinc chromate yellow primer for steel members complete (Frame work and suspenders to be paid for separately)	sqm	696.00
12.60.3	Extra for providing 3 mm thick translucent white acrylic plastic sheets of approved quality in false ceiling instead of 12 mm thick plain/or with design particle board ceiling tiles in item above.	sqm	588.70
12.61	Providing 10 mm thick plaster of Paris (Gypsum anhydrous) ceiling upto a height of 5 m above floor level over first class kail wood strips 25x6x mm with 10 mm gap in between and reinforced with rabbit wire mesh fixed to wooden frame (frame work to be paid separately)		
12.61.1	Flat surfaces	sqm	905.20
12.61.2	Curved surfaces	sqm	908.50
12.62	Extra for any sunk or raised moldings in the plaster of Paris (Gypsum anhydrous) ceiling	sqm	269.50
12.63	Extra for providing plaster of Paris (Gypsum anhydrous) ceiling above 5 metres height from floor level.	sqm	104.40
12.64	Providing and fixing 12 mm thick plaster of Paris (Gypsum anhydrous) ceiling tiles upto a height of 5 metres above floor level over wooden frames and rendered smooth with plaster of Paris (frame work to be paid separately).	sqm	623.00
12.65	Extra for providing and fixing plaster of Paris (Gypsum anhydrous) ceiling tiles beyond 5 metres height from floor level.(Height beyond 5 m to be measured for extra payment)	sqm	48.80

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Code No.	Description	Unit	Rate Rs.
12.67	Extra for making chamfered edges of beading		
12.67A	Thermal Insulation of roofing with bonded mineral wool, laid over false ceiling with suitable adhesive as per directions of the Engineer -in-charge.	sqm	221.10
12.67B	Thermal Insulation of roofing with Expanded polystyrene fixed with suitable adhesive to the false ceiling as per the directions of the Engineer-in charge		
12.67B.1	With Type N-Normal	sqm	257.90
12.67B.2	With Type SE Self Extinguishing type	sqm	257.90
12.68	Providing and fixing 100 mm diameter and 60 cm long rain water spout in cement mortar 1:4 (1 cement :4 fine sand)		
12.68.1	Stone ware spout	spout	96.00
12.68.2	Cement concrete spout	spout	96.00
12.71	Providing and fixing M.S. holder bat clamps of approved design to C.I. or S.C.I rain water pipes embedded in and including cement concrete blocks 10x10x10 cm of 1:2:4 mix(1ceme.it:2coarse sand:4 graded stone aggregate 20 mm nominal size) and cost of cutting holes and making good the walls etc.		
12.71.1	75 mm diameter	each	169.90
12.71.2	100 mm diameter	each	166.70
12.71.3	150 mm diameter	each	186.70
12.73	Providing lead caulked joints to sand cast iron rain water pipes and fittings:		
12.73.1	75 mm dia pipe	each	162.20
12.73.2	100 mm dia pipe	each	206.90
12.73.3	150 mm dia pipe	each	283.70
12.74	Providing and embedding sand cast iron accessories for rain water pipes in the masonry surrounded with 12 mm thick cement mortar of the same mix, as that of masonry (lead caulking will be paid for separately):		
12.74.2	Sand cast iron plain shoes		
12.74.2.3	150 mm diameter	shoe	340.10
12.78	Providing and fixing on wall face unplasticised-PVC(working pressure 4 kgf per sqm) rain water pipes conforming to IS :4985 including jointing with seal ring conforming to IS: 5382 leaving 10 mm gap for thermal expansion.		
12.78.1	75 mm diameter	metre	158.60
12.78.2	110 mm diameter	metre	252.60
12.79	Providing and fixing on wall face unplasticised -PVC molded fittings/accessories for unplasticised-PVC rain water pipes conforming to (S:4985 including jointing with seal ring conforming to IS: 5382 leaving 10 mm gap for thermal expansion.		



Code No.	Description	Unit	Rate Rs.
12.79.1	Coupler		
12.79.1.1	75 mm	each	77.80
12.79.1.2	110mm	each	117.80
12.79.2.1	Single pushfit coupler		
12.79.2.1	75 mm	each	263.80
12.79.2.2	110 mm	each	367.20
12.79.3	Single tee with door		
12.79.3.1	75x75x75 mm	each	139.80
12.79.3.2	110x110x110mm	each	191.20
12.79.4	Single tee without door		
12.79.4.1	75x75x75mm	each	122.40
12.79.4.2	110x110x110 mm	each	188.60
12.79.5	Band 87.5 <sup>0</sup>		
12.79.5.1	75 mm bend	each	89.90
12.79.5.2	110 mm bend	each	129.80
12.79.6	Shoe plain		
12.79.6.1	75 mm shoe	each	79.20
12.79.6.2	110m Shoe	each	113.78
12.80	Providing and fixing unplasticised -PVC pipe clip of approved design to unplasticised PVC rain water pipe by means of 50x50x50mm hard wood plugs, screwed with M.S. screws of required length including cutting brick work and fixing on cement mortar(1:4) 1 cement: 4corsa sand and making good the wall etc complete		
12.80.1	75 mm	each	175.40
12.80.2	110 mm	each	174.06
12.81	Providing and fixing to the inlet mouth of rain water pipe cast iron grating 15 cm diameter and weighing not less than 440 grams.	each	47.30
12.82	Providing and fixing at all height false ceiling of 12.5 mm thick - tapered edge gypsum board conforming to IS : 2095 including - providing and fixing of frame work made of special sections power pressed from M.S. sheet and galvanized in accordance with zinc coating 600 as per IS : 277 and consisting of angle cleats of size 25 mm wide x 16 mm thick with flanges of 22 mm and 27 mm at 1200 mm centre to centre one flange fixed to the ceiling with dash fastener 12.5 mm dia x 40 mm long with 6 mm dia bots to the angle hangers of 25x25x5 mm of required length, and other end of angle hanger being fixed with nut and bots to rate of 1200 mm centre to centre to which the ceiling section 0.5 mm thick bottom wedge of 80 mm with tapered flanges of 26 mm each having clips of 10.5 mm at 450 mm centre to centre shall be be fixed in a direction perpendicular to G. I. channel with connecting clips made out of 2.64 mm dia x 230 mm long G. I. wire at every junction including	each	743.10



Code No.	Description	Unit	Rate Rs.
	fixing the gypsum board with ceiling section and perimeter channels 0.5 mm thick 27 mm high having flanges of 20 mm and 30 mm long . the perimeter of ceiling fixed to wall / partition with the help of rawl plugs at 450 mm centre to centre with 25 mm long dirve-all screws @ 230 mm interval including jointing and fixing to a flush of tapered and square edges of the gypsum board with recommended filler., paper tapes, finisher and two coats of primer suitable for gypsum board as per manufactures specification and also including the coat cutouts made with frame of perimeter channels suitably fixed all complete as per-drawing and specification and direction of the Engineer-in-Charge but excluding the cost of painting.		
	Providing and fixing false ceiling at all height including providing and fixing of frame work made of special sections, power pressed from M.S. sheets and galvanized with zinc coating of 120 gms/sqm (both side inclusive) as per IS : 277 and consisting of angle cleats of size 25 mm wide x 1.6 mm thick with flanges of 27 mm and 37 mm, at 1200 mm centre to centre, one flange fixed to the ceiling with dash fastener 12.5 mm dia x 50 mm long with 6 mm dia bolts, other flange of cleat fixed to the angle hangers of 25x10x0.50 mm of required length with nuts & bolts of required size and other end of angle hanger fixed with intermediate G.I. channels 45x15x0.9 mm running at the spacing of 1200 mm centre to centre, to which the ceiling section 0.5 mm thick bottom wedge of 80 mm with tapered flanges of 26 mm each having lips of 10.5 mm, at 450 mm centre to centre, shall be fixed in a direction perpendicular to G.I. intermediate channel with connecting clips made out of 2.64 mm dia x 230 mm long G.I. wire at every junction, including fixing perimeter channels 0.5 mm thick 27 mm high having flanges of 20 mm and 30 mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450 mm centre, with 25 mm long dry wall screws @ 230 mm interval, including fixing of gypsum board to ceiling section and perimeter channel with the help of dry wall screws of size 3.5 x 25 mm at 230 mm c/c, including jointing and finishing to a flush finish of tapered and square edges of the board with recommended jointing compound , jointing tapes , finishing with jointing compound in 3 layers covering upto 150 mm on both sides of joint and two coats of primer suitable for board, all as per manufacturer's specification and also including the cost of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels suitably fixed, all complete as per drawings, specification and direction of the Engineer in Charge but excluding the cost of painting with :		
12.45.1	<b>12.5 mm thick tapered edge gypsum plain board conforming to IS: 2095- Part I</b>	<b>sqm</b>	<b>833.00</b>
12.45.2	<b>12.5 mm thick tapered edge gypsum fire resistant board conforming to IS: 2095- Part I</b>	<b>sqm</b>	<b>948.70</b>
12.45.3	<b>12.5 mm thick tapered edge gypsum moisture resistant board</b>	<b>sqm</b>	<b>1012.80</b>

Code No.	Description	Unit	Rate Rs.
12.45.4	Fully Perforated Gypsum Plaster Board of size 1200 x 2400x12.5 mm having approx. 15 % perforated area with perforation size and pattern as approved by the Engineer-in-charge and as per manufacturer's specification, with all 4 side tapered and backed by acoustical tissue with NRC value not less than 0.60.	sqm	1202.40
12.46	Providing and fixing to the inlet mouth of rain water pipe PTMT (an Engineering Thermoplastic) grating square (Slit) 150 mm square with a height of 8 mm and weighing not less than 100 gms.	each	100.40
12.47	Providing & fixing UV stabilised fiberglass reinforced plastic sheet roofing up to any pitch, including fixing with polymer coated 'J' or 'L' hooks, bolts & nuts 8mm dia. G.I plain/bitumen washers complete but excluding the cost of purlins, rafters, trusses etc. The sheets shall be manufactured out of 2400 TEX panel rovigs incorporating minimum 0.3% ultra-violet stabiliser in resin system under approximately 2400 psi and hot cured. They shall be of uniform pigmentation and thickness without air pockets and shall conform to IS 10192 and IS 12866. The sheets shall be opaque or translucent, clear or pigmented, textured or smooth as specified.		
12.47.1	2 mm thick corrugated (2.5" or 4.2" or 6") or step-down (2" or 3" or 6" ) as specified	sqm	1023.00
12.47.2	2 mm thick flat	sqm	927.10
12.48	Providing & fixing on roof pressed clay tile (Mangalore tile) of 20 mm nominal thickness and of approved size and as per approved pattern on steel frame work complete (steel frame work to be paid separately)	sqm	285.10
12.49	Providing & laying on roof pressed clay tile ridge (Mangalore tile) of 20mm thickness and of approved pattern on steel frame work complete (steel frame work to be paid separately).	sqm	20.10
12.50	Providing and fixing precoated galvanised iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-charge) 0.50 mm (+ 0.05 %) total coated thickness with zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches during transportation and should be supplied in single length upto 12 metre or as desired by Engineer-in-charge. The sheet shall be fixed using self drilling /self tapping screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.	sqm	586.10
12.51	Providing and fixing precoated galvanised steel sheet roofing accessories 0.50 mm (+0.05 %) total coated thickness, Zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15- 18 microns using self drilling/ self tapping screws complete :		

Code No.	Description	Unit	Rate Rs.
12.51.1	Ridges plain (500 - 600mm)	sqm	370.50
12.51.2	Flashings/ Aprons.( Upto 600 mm)	meter	376.20
12.51.3	North light curves	meter	415.50
12.51.4	Barge board (Upto 300 mm)	metre	332.70
12.51.5	Crimp curve	sqm	382.90
12.51.6	Gutter (600 mm over all girth)	metre	855.30
12.52X	Providing and fixing tiled false ceiling of specified materials of size 595x595 mm in true horizontal level, suspended on inter locking metal grid of hot dipped galvanized steel sections ( galvanized @ 120 grams/ sqm, both side inclusive) consisting of main "T" runner with suitably spaced joints to get required length and of size 24x38 mm made from 0.30 mm thick (minimum) sheet, spaced at 1200 mm center to center and cross "T" of size 24x25 mm made of 0.30 mm thick (minimum) sheet, 1200 mm long spaced between main "T" at 600 mm center to center to form a grid of 1200x600 mm and secondary cross "T" of length 600 mm and size 24x25 mm made of 0.30 mm thick (minimum) sheet to be interlocked at middle of the 1200x600 mm panel to form grids of 600x600 mm and wall angle of size 24x24x0.3 mm and laying false ceiling tiles of approved texture in the grid including, required cutting/making, opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc. Main "T" runners to be suspended from ceiling using GI slotted cleats of size 27 x 37 x 25 x1.6 mm fixed to ceiling with 12.5 mm dia and 50 mm long dash fasteners, 4 mm GI adjustable rods with galvanised butterfly level clips of size 85 x 30 x 0.8 mm spaced at 1200 mm center to center along main T, bottom exposed width of 24 mm of all T-sections shall be pre-painted with polyester paint, all complete for all heights as per specifications, drawings and as directed by Engineer-in-charge.		
12.52x.1	GI Metal Ceiling Lay in plain Tegular edge Global white color tiles of size 595x595 mm, and 0.5 mm thick with 8 mm drop; made of G I sheet having galvanizing of 100 gms/sqm (both sides inclusive) and electro statically polyester powder coated of thickness 60 microns (minimum), including factory painted after bending.	sqm	1289.90
12.52x.2	GI Metal Ceiling Lay in perforated Tegular edge global white color tiles of size 595x595 mm and 0.5 mm thick with 8 mm drop; made of GI sheet having galvanizing of 100 gms/ sqm (both sides inclusive) and 20% perforation area with 1.8 mm dia holes and having NRC (Noise Reduction Coefficient ) of 0.5, electro statically polyester powder coated of thickness 60 microns (minimum), including factory painted after bending and perforation, and backed with a black Glass fiber acoustical fleece.	sqm	1434.60

Code No.	Description	Unit	Rate Rs.
12.52x.3	12.5 mm thick square edge PVC Laminated Gypsum Tile of size 595x595 mm, made of Gypsum plasterboard, manufactured from natural gypsum as per IS 2095 part I and laminated with white 0.16mm thick fire retardant PVC film on the face side and 12micron metalized polyester on the back side with all edges sealed with the face side PVC film which goes around and wraps the edges and is bonded to the edges and the back side metalized polyester film so as to make the tile a completely sealed unit.	sqm	1666.40
12.52x.4	12.5 mm thick fully Perforated Gypsum Board tile made from plasterboard having glass fibre conforming to IS: 2095 part I, of size 595x595 mm, having perforation of 9.7x9.7 mm at 19.4 mm c/c with center borders of 48 mm and the side borders of 30 mm, backed with non woven tissue on the back side, having an NRC ( Noise Reduction Coefficient) of 0.79, with 50 mm resin bonded glass wool backing.	sqm	957.00
12.53X	Providing and Fixing 15 mm thick densified tegular edged eco friendly light weight calcium silicate false ceiling tiles of approved texture of size 595 x 595 mm in true horizontal level, suspended on inter locking metal grid of hot dipped galvanised steel sections (galvanising @ 120 grams per sqm including both side) consisting of main 'T' runner suitably spaced at joints to get required length and of size 24x38 mm made from 0.33 mm thick (minimum) sheet, spaced 1200 mm centre to centre, and cross "T" of size 24x28 mm made out of 0.33 mm (Minimum) sheet, 1200 mm long spaced between main'T' at 600 mm centre to centre to form a grid of 1200x600 mm and secondary cross 'T' of length 600 mm and size 24 x28 mm made of 0.33 mm thick (Minimum) sheet to be inter locked at middle of the 1200x 600 mm panel to form grid of size 600x600 mm, resting on periphery walls /partitions on a Perimeter wall angle pre-coated steel of size(24x24X3000 mm made of 0.40 mm thick (minimum) sheet with the help of rawl plugs at 450 mm centre to centre with 25 mm long dry wall screws @ 230 mm interval and laying 15 mm thick densified edges calicum silicate ceiling tiles of approved texture in the grid, including, cutting/ making opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc., wherever required. Main 'T' runners to be suspended from ceiling using G.I. slotted cleats of size 25x35x1.6 mm fixed to ceiling with 12.5 mm dia and 50 mm long dash fasteners, 4 mm G.I. adjustable rods with galvanised steel level clips of size 85 x 30 x 0.8 mm, spaced at 1200 mm centre to centre along main 'T', bottom exposed with 24 mm of all Tsections shall be pre-painted with polyster baked paint, for all heights, as per specifications, drawings and as directed by Engineer-in-Charge.	sqm	1429.40
12.54x	Providing and fixing GI Clip in Metal Ceiling System of 600x600 mm module which includes providing and fixing 'C' wall angle of size 20x30x20 mm made of 0.5 mm thick pre painted steel along the perimeter of the room with help of nylon sleeves and wooden screws at 300 mm center to centre, suspending the main C carrier of size 10x38x10 mm made of G.I steel 0.7 mm thick from the soffit with help of		










Code No.	Description	Unit	Rate Rs.
	soffit cleat 37x27x25x1.6 mm, rawl plugs of size 38x12 mm and C carrier suspension clip and main carrier bracket at 1000 mm c/c. Inverted triangle shaped Spring Tee having height of 24 mm and width of 34 mm made of GI steel 0.45 mm thick is then fixed to the main C carrier and in direction perpendicular to it at 600 mm centers with help of suspension brackets. Wherever the main C carrier and spring T have to join, C carrier and spring T connectors have to be used. All sections to be galvanized @ 120 gms/sqm (both side inclusive), fixing with clip in tiles into spring T with :		
<b>12.54X.1</b>	GI Metal Ceiling Clip in plain Beveled edge global white color tiles of size 600x600 and 0.5 mm thick with 25 mm height, made of GI sheet having galvanizing of 100 gms/ sqm (both sides inclusive) and electro statically polyester powder coated of thickness 60 microns (minimum), including factory painted after bending.	<b>sqm</b>	<b>1519.60</b>
<b>12.54X.2</b>	GI Metal Ceiling Clip in plain Beveled edge global white color tiles of size 600x600 and 0.5 mm thick with 25 mm height, made of GI sheet having galvanizing of 100 gms/ sqm (both sides inclusive) and 20% perforation area with 1.8 mm dia holes and having NRC of 0.5, electro statically polyester powder coated of thickness 60 microns (minimum), including factory painted after bending and perforation.	<b>sqm</b>	<b>1667.10</b>
<b>12.55X</b>	Providing and fixing Heat Resistant Terrace Tiles (300 mm x 300 mm x 20 mm) with SRI (solar refractive index) > 78, solar reflection > 0.70 and initial emittance > 0.75 on waterproof and sloped surface of terrace, laid on 20 mm thick cement sand mortar in the ratio of 1:4 (1 cement : 4 coarse sand) and grouting the joints with mix of white cement & marble powder in ratio of 1:1, including rubbing and polishing of the surface upto 3 cuts complete, including providing skirting upto 150 mm height along the parapet walls in the same manner.	<b>sqm</b>	<b>1083.00</b>
<b>12.56X</b>	Providing and laying roof insulation with 40 mm thick impervious sprayed, closed cell free Rigid Polyurethane foam over deck insulation conforming to IS - 12432 Pt. III (density of foam being 40-45 kg/ cum), over a coat of polyurethane primer applied @ 6-8 sqm per litre, laying 400 G polythene sheet over PUF spray and providing a wearing course of 40 mm thick cement screed 1:2:4 (1 cement : 2 coarse sand : 4 stone aggregate 20 mm nominal size) in chequered rough finish, in panels of 2.5 m x 2.5 m and embedding with 24 G wire netting and sealing the joints with polymerized mastic, all complete as per direction of Engineer-in-Charge.	<b>sqm</b>	<b>1402.50</b>
<b>12.57X</b>	Providing and fixing thermal insulation with Resin Bonded Fibre glass wool conforming to IS: 8183 having density 24 kg/m <sup>3</sup> , 50 mm thick, wrapped in 200G Virgin Polythene Bags fixed to wall with screw, rawel plug & washers and held in position by criss crossing GI wire etc. complete as per directions of Engineer-in-Charge.	<b>sqm</b>	<b>274.90</b>



Code No.	Description	Unit	Rate Rs.
12.58X	Providing and fixing tiled false ceiling of specified materials of size 595x595 mm in true horizontal level, suspended on interlocking metal grid of hot dipped galvanized steel sections ( galvanized @ 120 grams/ sqm, both side inclusive) consisting of main "T" runner with suitably spaced joints to get required length and of size 24x38 mm made from 0.30 mm thick (minimum) sheet, spaced at 1200 mm center to center and cross "T" of size 24x25 mm made of 0.30 mm thick (minimum) sheet, 1200 mm long spaced between main "T" at 600 mm center to center to form a grid of 1200x600 mm and secondary cross "T" of length 600 mm and size 24x25 mm made of 0.30 mm thick (minimum) sheet to be interlocked at middle of the 1200x600 mm panel to form grids of 600x600 mm and wall angle of size 24x24x0.3 mm and laying false ceiling tiles of approved texture in the grid including, required cutting/making, opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc. Main "T" runners to be suspended from ceiling using GI slotted cleats of size 27 x 37 x 25 x1.6 mm fixed to ceiling with 12.5 mm dia and 50 mm long dash fasteners, 4 mm GI adjustable rods with galvanized butterfly level clips of size 85 x 30 x 0.8 mm spaced at 1200 mm center to center along main T, bottom exposed width of 24 mm of all T-sections shall be pre-painted with polyester paint, all complete for all heights as per specifications, drawings and as directed by Engineer-in-charge.		
12.58X.1	8 mm thick fully perforated calcium silicate board made with Calcareous & Siliceous materials reinforced with cellulose fiber manufactured through autoclaving process to give stable crystalline structure with minimum compressive strength 225 kg/ sq. cm, bending strength 100 kg/sq. cm , of size 595x595 mm, having perforation of dia. 10 mm with minimum perforated area 18 % with non woven tissue on the back side, having an NRC ( Noise Reduction Coefficient) of 0.85, with 50 mm thick rockwool of 48 kg /cum backing.	sqm	1545.20
12.59X	Providing & fixing false ceiling at all height including providing & fixing of framework made of special section, power pressed from M.S. sheets and galvanised with zinc coating of 120 gms/ sqm (both side inclusive) as per IS : 277 and consisting of angle cleat of size 25mm wide x 1.6mm thick with flanges of 27mm and 37mm, at 1200mm c/c, one flange fixed to the ceiling with dash fastener 12.5mm dia x 50mm long with 6mm dia bolts, other flange of cleat fixed to the angle hangers of 25 x10 x0.50mm of required length with nuts & bolts of required size and other end of angle hanger fixed with intermediate G.I channels 45 x15 x 0.90mm running at the spacing of 1200 mm c/ c, to which the ceiling section 0.5mm thick bottom wedge of 80mm with tapered flanges of 26 mm each having lips of 10.5mm, at 450mm c/c, shall be fixed in a direction perpendicular to G.I intermediate channel with connecting clip made out of 2.64mm dia x 230mm long G.I wire at every junction, including fixing perimeter channels 0.50mm thick 27mm high having flanges of 20mm and 30mm long, the perimeter of ceiling fixed to wall/		

Code No.	Description	Unit	Rate Rs.
	partitions with the help of Rawl plugs at 450mm centre, with 25mm long dry wall screws @ 230mm interval, including fixing of Calcium Silicate Board to ceiling section and perimeter channels with the help of dry wall screws of size 3.5 x25mm at 230mm c/c, including jointing & finishing to a flush finish of tapered and square edges of the board with recommended jointing compounds, jointing tapes, finishing with jointing compounds in three layers covering up to 150mm on both sides of joints and two coats of primer suitable for boards, all as per manufacture's specification and also including the cost of making opening for light fittings, grills, diffusers, cut outs made with frame of perimeter channels suitably fixed, all complete as per drawings, specification and direction of the Engineer in charge but excluding the cost of painting with:		
<b>12.59X.1</b>	8 mm thick Calcium Silicate Board made with Calcareous & Siliceous materials reinforced with cellulose fiber manufactured through autoclaving process.	<b>sqm</b>	<b>988.50</b>
<b>12.61X</b>	Providing and fixing thermal insulation with Resin bonded rock wool conforming to IS: 8183, density 48 kg/m <sup>3</sup> , 50 mm thick, wrapped in 200 G virgin Polythene bags placed over existing false ceiling and held in position by criss- crossing GI wire.	<b>sqm</b>	<b>235.70</b>
<b>12.62X</b>	Providing and fixing thermal insulation with Resin Bonded rock wool conforming to IS: 8183, having density 48 kg/m <sup>3</sup> , 50 mm thick, wrapped in 200 G Virgin Polythene Bags fixed to wall with screw, rawel plug & washers and held in position by criss crossing GI wire etc. complete as per directions of Engineer-in-Charge.	<b>sqm</b>	<b>241.00</b>
<b>12.63X</b>	Providing and applying two coats of High Albedo paint having minimum Solar Reflective Index (SRI) 108 (with solar reflectance & thermal emittance tested as per ASTM C 1549 and ASTM C 1371 respectively), VOC less than 10 cc/gm. The coating thickness and the methodology of application shall strictly as per manufacturer's specifications and as approved by Engineer-in-Charge. Surface preparation includes cleaning with metal wire brush to remove all dust, fungus etc., washing with water all complete. The contractor shall give guarantee for the performance of SRI and also the durability of coating, all complete as per direction of Engineer-in-Charge.	<b>sqm</b>	<b>272.70</b>
<b>12.64X</b>	Providing & fixing at all heights, levels and locations Mill finish Aluminium alloy roofing sheets of alloy IS designation 31500, temper Hx8 conforming to IS 737 and dimensions as per IS code 2676 with characteristics of good formability and corrosion resistance. The profile sheets shall be fixed to truss members in slope or required pitch or curvature with Hex cap headed self drilling/tapping Stainless steel screws M6, 60 mm long with 3 mm EPDM seal washer etc. all inclusive of labour, scaffolding, T&P and sundries etc. complete as per directions of the Engineer-In-Charge. (Cost of truss/frame work shall be paid separately).		
<b>12.64X.1</b>	0.56 mm, Aluminium troughed profile with center to center pitch of 200 mm, depth of 32 mm, overall profile width 1092 mm, cover width 1000mm	<b>sqm</b>	<b>887.30</b>



Code No.	Description	Unit	Rate Rs.
12.64X.2	0.71 mm, troughed profile with center to center pitch of 200 mm, depth of 32 mm, overall profile width 1092 mm, cover width 1000mm.	sqm	1109.30
12.64X.3	0.91 mm, troughed profile with center to center pitch of 200 mm, depth of 32 mm, overall profile width 1092 mm, cover width 1000mm.	sqm	1402.90
12.64X.4	0.56mm Aluminium profile with center to center pitch of 175 mm, depth of 46mm, top crest width of 41mm, bottom valley width of 80mm, overall profile width of 1144mm, cover width 1050mm.	sqm	1151.90
12.64X.5	0.71mm Aluminium profile with center to center pitch of 175 mm, depth of 46mm, top crest width of 41mm, bottom valley width of 80mm, overall profile width of 1144mm cover width 1050mm.	sqm	1439.60
12.64X.6	0.91mm Aluminium profile with center to center pitch of 175 mm, depth of 46mm, top crest width of 41mm, bottom valley width of 80mm, overall profile width of 1144 mm, cover width 1050mm.	sqm	1822.10
12.64X.7	0.56mm Aluminium Circular (sinusoidal) profile with center to center pitch of 75 mm, depth of 19 mm, overall profile width 1250mm, cover width 1150mm.	sqm	867.50
12.64X.8	0.71mm Aluminium Circular (sinusoidal) profile with center to center pitch of 75 mm, depth of 19 mm, overall profile width 1250mm, cover width 1150mm.	sqm	1097.80
12.64X.9	0.91mm Aluminium Circular (sinusoidal) profile with center to center pitch of 75 mm, depth of 19 mm, overall profile width 1250mm, cover width 1150mm.	sqm	1404.80
12.65X	Providing & fixing at all heights, levels and locations colour finish Aluminium alloy roofing sheets of alloy IS designation 31500, temper Hx8 conforming to IS 737 and dimensions as per IS code 2676 with characteristics of good formability and corrosion resistance. The profile sheets shall be fixed to truss members in slope or required pitch or curvature with Hex cap headed self drilling/tapping Stainless steel screws M6, 60 mm long with 3 mm EPDM seal washer etc. all inclusive of labour, scaffolding, T&P and sundries etc. complete as per directions of the Engineer-In-Charge. {Cost of truss/frame work shall be paid separately).		
12.65X.1	0.56 mm, Aluminium Color coated troughed profile with center to center pitch of 200 mm, depth of 32 mm, overall profile width 1092 mm, cover width 1000mm	sqm	1017.00
12.65X.2	0.71 mm, Aluminium Color coated troughed profile with center to center pitch of 200 mm, depth of 32 mm, overall profile width 1092 mm, cover width 1000mm.	sqm	1274.70

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Code No.	Description	Unit	Rate Rs.
12.65X.3	0.91 mm, Aluminium Color coated troughed profile with center to center pitch of 200 mm, depth of 32 mm, overall profile width 1092 mm, cover width 1000mm.	sqm	1615.90
12.65X.4	0.56mm Aluminium color profile with center to center pitch of 175 mm, depth of 46mm, top crest width of 41mm, bottom valley width of 80mm, overall profile width of 1144mm, cover width 1050mm.	sqm	1323.90
12.65X.5	0.71mm Aluminium color coated profile with center to center pitch of 175 mm, depth of 46mm, top crest width of 41mm, bottom valley width of 80mm, overall profile width of 1144mm, cover width 1050mm.	sqm	1657.50
12.65X.6	0.91mm Aluminium color coated profile with center to center pitch of 175 mm, depth of 46mm, top crest width of 41mm, bottom valley width of 80mm, overall profile width of 1144mm, cover width 1050mm.	sqm	2100.90
12.65X.7	0.56 mm Aluminium profile with center to center pitch of 177.5 mm, depth of 28.5 mm, 987mm overall profile width, cover width 900mm	sqm	1076.70
12.65X.8	0.71 mm Aluminium profile with center to center pitch of 177.5 mm, depth of 28.5 mm, 987mm overall profile width, cover width 900mm	sqm	1361.10
12.66X	Providing and fixing of Pre-coated colour or mill finish Aluminium Roofing Accessories in 0.71 mm thickness ,Alloy 31500 (IS designation) [Aluminium Alloy (AA) 3004 (ISO designation)] For color, coating shall be 5-7 microns epoxy primer on both sides of the sheet and polyester top coat 15-18 microns, using self drilling/tapping SS screws of size 6 x 60mm with 3mm thick EPDM seal and SS plain washer complete:		
12.66X.1	Precoated/mill finish aluminium Ridges plain (500- 600mm)	metre	912.40
12.66X.2	Precoated/mill finish aluminium Flashings/ Aprons (Upto 600 mm)	metre	856.90
12.66X.3	Precoated/mill finish aluminium North light curves	metre	937.10
12.66X.4	Precoated/mill finish aluminium Barge board (Upto 200 mm)	metre	716.90
12.66X.5	Precoated/mill finish aluminium Crimp curve	metre	796.40
12.66X.6	Precoated/mill finish aluminium Gutter (600 mm over all girth)	metre	1376.50

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**SUB HEAD : 13.0**  
**FINISHING**

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BUILDING WORK - Contd.

**13.0 Finishing**

Code No.	Description	Unit	Rate Rs.
	<b>Cement plaster in course sand</b>		
13.11	12 mm cement plaster of mix:		
13.11.1	1:3 (1 cement:3 coarse sand)	sqm	157.40
13.11.2	1:4(1 cement :4 coarse sand)	sqm	146.00
13.11.3	1:5(1 cement: 5 coarse sand)	sqm	139.80
13.11.4	1:6(1 cement: 6 coarse sand)	sqm	134.50
13.12	15 mm cement plaster on rough side of single or half brick wall of mix.		
13.12.1	1:3 (1 cement :3 coarse sand)	sqm	182.20
13.12.2	1:4(1 cement: 4 coarse sand )	sqm	168.50
13.12.3	1:5 (1 cement: 5 coarse sand)	sqm	161.10
13.12.4	1:6 (1 cement: 6 coarse sand)	sqm	154.80
13.13	20 mm cement plaster of mix ;		
13.13.1	1:3 (1 cement: 3 coarse sand)	sqm	218.60
13.13.2	1: 4(1 cement: 4 coarse sand)	sqm	200.80
13.13.3	1:5(1 cement: 5 coarse sand)	sqm	191.20
13.13.4	1:6(1 cement: 6 coarse sand)	sqm	182.90
13.14	12 mm lime plaster of mix:		
13.14.1	1:1:1 (1 lime putty:1 surkhi:1sand )	sqm	126.90
13.14.2	1:1:2(1 limeputty :1surkhi:2 sand)	sqm	120.10
13.14.3	1:2(1 lime: 2surkhi)	sqm	139.40
13.14.4	1:3(1lime putty: 3surkhi)	sqm	138.70
	<b>CEMENT PLASTER WITH A FLOATING COAT OF NEAT CEMENT</b>		
13.17.1	12 mm cement plaster 1:3( 1 cement: 3 coarse sand) finished with a floating coat of near cement	sqm	195.10
13.17.2	12 mm cement plaster 1:4( 1 cement: 4coarse sand) finished with a floating coat of near cement Details of cost for 10 sqm	sqm	183.60
13.18	15 mm cement plaster 1:3 (1 cement: 3 coarse sand) finished with a floating coat of neat cement on the rough side of single or half brick wall.	sqm	219.90
13.19	18 mm cement plaster in two coat under layer 12 mm thick cement plaster 1:5 (1 cement: 5 course sand) and a top layer 6mm thick cement plaster 1:3(1 cement: 3 coarse sand finished rough with sponge	sqm	207.60
13.20	18 mm cement plaster in two coats under layer 12 mm thick cement plaster 1:5 (1 cement :5 coarse sand) and top layer 6 mm thick, cement plaster 1:3 (1 cement: 3 coarse sand) finished rough with sponge.	sqm	217.00



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Code No.	Description	Unit	Rate Rs.
13.24	6 mm cement plaster to ceiling of mix :		
	13.24.1	1:3(1 cement: 3 coarse sand)	sqm 124.80
	13.24.2	1:4(1 cement: 4 coarse sand)	sqm 119.10
13.26	Neat cement punning	sqm	38.90
13.30	Rough cast plaster upto 10m height above ground level with a mixture of sand and gravel or crushed stone from 6 mm to 10 mm nominal size dashed over and including the fresh plaster in two layers, under layer 12 mm cement plaster 1:4(1 cement :4 coarse sand) and top layer 10 mm cement plaster 1:3 (1 cement :3 coarse sand) mixed with 10% finely grounded hydrated lime by volume of cement:		
	13.30.1	Ordinary cement finish using ordinary cement	sqm 381.10
13.31	Rough cast plaster with a mixture of sand and gravel or crushed stone from 2.36 to 12.5 mm nominal size dashed over and including the fresh plaster in two layers, under layer 12 mm cement plaster 1:5(1 cement:5 coarse sand ) and top layer 10 mm cement plaster 1:3(1 cement:3 coarse sand) mixed with 10% finely grounded hydrated lime by volume of cement:		
	13.31.1	Ordinary cement finish using ordinary cement	sqm 374.90
13.32	Pebble dash plaster with a mixture of washed pebble or crushed stone 6 mm to 12.5 mm nominal size dashed over and including fresh plaster in two layers under layer 12 mm cement plaster 1:4(1 cement: 4 coarse sand) and top layer 10 mm cement plaster with cement mortar 1:3(1 cement :3 coarse sand) mixed with 10% finely grounded hydrated lime by volume of cement		sqm 359.70
13.36	Extra for providing and mixing water proofing material in proportion recommended by the manufacturers:		
	13.36.1	12 mm cement plaster 1:3(1 cement :3 sand)	sqm 8.80
	13.36.2	12 mm cement plaster 1:4(1 cement :4 sand)	sqm 7.10
	13.36.3	15 mm cement plaster 1:3(1 cement :3 sand)	sqm 10.20
	13.36.4	15 mm cement plaster 1:4(1 cement :4 sand)	sqm 8.10
	13.36.5	20 mm cement plaster 1:3(1 cement:3 sand)	sqm 12.70
	13.36.6	20 mm cement plaster 1:4(1 cement: 4 sand)	sqm 10.00
13.37	Extra for plastering exterior walls of height more than 10m from ground level for every additional height of 3 m or part there of		sqm 41.70
13.38	Extra for plastering on circular work not exceeding 6 m in radius :		
	13.38.1	In one coat	sqm 18.80
	13.38.2	In two coats	sqm 27.30
13.39	Extra for plastering done on moulding cornices or architraves including neat finish to line and level:		
	13.39.1	In one coat	sqm 269.30
	13.39.2	In two coats	sqm 443.40

Code No.	Description	Unit	Rate Rs.
<b>13.40</b>	Extra for plastering:		
<b>13.40.1</b>	Spherical ceiling	sqm	70.20
<b>13.40.2</b>	Groined ceiling	sqm	76.80
<b>13.40.3</b>	Flewing soffits	sqm	45.90
<b>13.40A</b>	Providing and applying plaster of paris putty of 2 mm thickness over plastered surface to prepare the surface even and smooth complete.	sqm	121.10
<b>13.45</b>	<b>Finishing walls with textured exterior paint of required shade :</b>		
<b>13.45.1</b>	New work (Two or more coats applied @ 3.28 ltr/ 10 sqm) over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm	sqm	194.50
<b>13.46</b>	<b>Finishing walls with Acrylic Smooth exterior paint of required shade :</b>		
<b>13.46.1</b>	New work (Two or more coat applied @ 1.67 ltr/ 10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm)	sqm	127.2
<b>13.46A</b>	Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade :		
<b>13.46A.1</b>	New work (Two or more coat applied @ 1.43 ltr/ 10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm)	sqm	123.7
<b>13.48</b>	Finishing with Deluxe Multi surface paint system for interiors and exteriors using Primer as per manufacturers specifications.		
<b>13.48.1</b>	Two or more coats applied on walls @ 1.25 ltr/10 sqm over and including one coat of special primer applied @ 0.75 ltr /10 sqm.	sqm	104.7
<b>13.48.2</b>	Painting wood work with Deluxe Multi Surface Paint of required shade. Two or more coat applied @ 0.90 ltr/ 10 sqm over an under coat of primer applied @ 0.75 ltr/ 10 sqm of approved brand and manufacture.	sqm	92.8
<b>13.48.3</b>	Painting Steel work with Deluxe Multi Surface Paint to give an even shade. Two or more coat applied @ 0.90 ltr/ 10 sqm over an under coat of primer applied @ 0.80 ltr/ 10 sqm of approved brand and manufacture.	sqm	42.8
<b>13.48.4</b>	Extra for lining out plaster to imitate stone or concrete blocks walling	sqm	42.8
<b>13.50</b>	12 mm thick plain cement mortar bands in cement mortar 1:4(1 cement: 4 coarse sand):		
<b>13.50.1</b>	Flush Band	1 m long & 1cm wide	3.00
<b>13.50.2</b>	Sunk Band	1m long & 1cm wide	3.30

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Code No.	Description	Unit	Rate Rs.
	13.50.3 Raised Band	1m long & 1cm wide	3.70
	13.50.4 Molded Band	1m long & 1cm wide	6.30
13.51	18 mm thick plain cement mortar band in cement mortar 1:4(1 cement :4 coarse sand):		
	13.51.1 Flush Band	1m long & 1cm wide	3.70
	13.51-2 Sunk Band	1m long & 1cm wide	4.00
	13.51.3 Raised Band	1m long & 1cm wide	4.60
	13.51.4 Molded Band	1m long & 1cm wide	8.40
13.52	18 mm thick molded cement mortar band in two coats, under layer 12 mm thick with cement mortar 1:5(1 cement:5 coarse sand top layer 6 mm thick with cement mortar 1:4(1 cement :4 coarse sand)	1m long & 1cm wide	8.30
13.56	Pointing on brick work with cement mortar 1:3(1 cement:3 coarse sand):		
	13.56.1 Flush pointing	sqm	103.00
	13.56.2 Ruled pointing	sqm	109.80
	13.56.3 Struck or weathered pointing	sqm	134.30
	13.56.4 Raised and cut pointing	sqm	167.00
13.57	Pointing on brick flooring with cement mortar 1:3(1 cement:3 coarse sand):		
	13.57.1 Flush pointing	sqm	87.50
	13.57.2 Ruled pointing	sqm	94.50
13.58	Pointing on brick flooring with cement mortar 1:4(1 cement :4 coarse sand):		
	13.58.1 Flush pointing	sqm	87.00
	13.58.2 Ruled pointing	sqm	89.10
13.63	Pointing on tile brick work with cement mortar 1:3(1 cement :3 coarse sand):		
	13.63.1 Flush pointing	sqm	136.20
	13.63.2 Ruled pointing	sqm	142.60
	13.63.3 Struck or weathered pointing	sqm	167.40
13.64	Pointing on stone work with cement mortar 1:3(1 cement:3 fine sand):		
	13.64.1 Flush pointing	sqm	147.20
	13.64.2 Ruled pointing	sqm	158.20
	13.64.3 Raised and cut pointing	sqm	269.30

Code No.	Description	Unit	Rate Rs.
<b>13.68</b>	Pointing on stone slab ceiling with cement mortar 1:2 (1 cement :2 coarse sand):		
<b>13.68.1</b>	Flush pointing	sqm	82.80
<b>13.68.2</b>	Ruled pointing	sqm	88.30
<b>13.69</b>	Extra for pointing on walls on the outside at height more than 10m from ground level for every additional height of 3 m or part there of	sqm	7.20
<b>13.70</b>	White washing with lime to give an ever shade		
<b>13.70.1</b>	New work (three or more coats)	sqm	17.80
<b>13.70.2</b>	Old work (two or more coats)	sqm	9.80
<b>13.70.3</b>	Old work (one or more coats)	sqm	5.70
<b>13.71</b>	Satna lime wash on wads one coat	sqm	6.90
<b>13.72</b>	White washing with whiting to give an even shade :		
<b>13.72.1</b>	New work (three or more goats)	sqm	17.00
<b>13.72.2</b>	Old work (two or more coats)	sqm	10.10
<b>13.72.3</b>	Old work (one or more coats)	sqm	6.00
<b>13.73</b>	Colour washing such as green, blue or buff to give an even shade		
<b>13.73.1</b>	New work (two or more coats) with a base coat of white washing	sqm	24.40
<b>13.73.2</b>	New work (two or more coats) with a base coat of whiting	sqm	24.90
<b>13.73.3</b>	Old work (two or more coats) with lime	sqm	12.80
<b>13.73.4</b>	Old work (two or more coats) with whiting	sqm	13.30
<b>13.73.5</b>	Old work ( one or more coats ) with lime	sqm	7.30
<b>13.73.6</b>	Old work (one or more coats ) with whiting	sqm	7.60
<b>13.74</b>	Removing white or colour wash by scrapping and sand paper in and preparing the surface smooth including necessary repair scratches etc. complete	sqm	7.20
<b>13.75</b>	Distempering with dry distemper of approved brand and manufacture (two or more coats ) and of required shade on new work , over and including priming coat of whiting to give an even shade.	sqm	66.60
<b>13.76</b>	Distempering with dry distemper of approved brand and manufacture ( one or more coats ) and of required shade on old work to give an even shade .	sqm	29.10
<b>13.77</b>	Distempering with oil bound washable distemper of approved brand and manufacture to give an even shade .		
<b>13.77.2</b>	New work (two or more coats ) over and including priming coat with cement primer	sqm	97.20
<b>13-77.3</b>	Old work (one or more coats)	sqm	31.60
<b>13.77A</b>	Distempering with 1st quality washable distemper (ready made ) of approved manufacturer and of required shade and colour complete. As per manufacture's specifications.		

Code No.	Description	Unit	Rate Rs.
	<b>13.77A.1</b> Two or more coats on new work	sqm	53.80
	<b>13.77A.2</b> One or more coats on old work	sqm	32.40
<b>13.78</b>	Applying one coat of cement primer of approved brand and manufacture on wall surface:		
	13.78.1 Cement primer	sqm	36.70
	13.78.2 Distemper primer	sqm	36.80
<b>13.79</b>	Finishing walls with water proofing cement paint of approved brand and manufacture and of required shade to give an even shade		
	13.79.1 New work (three or more coats)	sqm	77.90
	13.79.2 Old work (one or more coats)	sqm	58.00
<b>13.80</b>	Removing dry or oil bound distemper by scrapping, sand paper and preparing the surface smooth including necessary repari scratches tec. Gmplete	sqm	9.10
<b>13.80 A.1</b>	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	sqm	77.70
<b>13.80 A.2</b>	Providing and applying white cement based putty of average thickness 2 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	sqm	102.10
<b>13.81 A</b>	Distemping with 1st quality acrylic distemper, having VOC (Volatile Organic Compound ) content less than 50 grams/ litre, of approved brand and manufacture,including applying additional coats wherever required, to achieve even shade and colour.		
	<b>13.81.1 A</b> One coat	sqm	30.90
	<b>13.81.2B</b> Two coats	sqm	49.20
<b>13.81</b>	Applying priming coat:		
	<b>13.81.1</b> With ready mixed pink or grey primer of approved brand and manufacture on wood work (hard and softwood)	sqm	38.00
	<b>13.81.2</b> with ready mixed aluminum primer of approved brand and manufacture on resinous wood and plywood.	sqm	38.50
	<b>13.81.3</b> With ready mixed zinc chromate yellow primer of approved brand and manufacture on steel galvanized iron/steel works	sqm	32.40
	<b>13.81.4</b> With ready mixed zinc chromate yellow primer of approved brand and manufacture on steel work (second coat)	sqm	18.00
<b>13.82</b>	Painting with ready mixed paint of approved brand and manufacture in all shades to give an even shade:		
	<b>13.82.1</b> New steel work (two or more coats)	sqm	80.30
	<b>13.82.2</b> New wood work (two or more coats)	sqm	80.30

Code No.	Description	Unit	Rate Rs.
13.82.3	Old steel work (one or more coats)	sqm	52.00
13.82.4	Old wood work (one more coats)	sqm	52.00
13.82.A	Painting one thin coat with white lead of approved brand and manufacture on wet or patchy portion of plastered surfaces.	sqm	61.90
13.82B	Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacture's specifications including appropriate priming coat, preparation of surface, etc. complete.		
13.82B.1	On steel work	sqm	118.30
13.82B.2	On concrete work	sqm	120.30
13.83	Painting on G.S. sheet with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade:		
13.83.1	New work (two or more coats) including a coat of approved steel primer but excluding a coat of mordant solution	sqm	83.50
13.83.A	Applying a coat of mordant paint on G.S. sheet.		
13.83A.1	1 With a solution of 38 gms of copper acetate in a litre of soft water	sqm	21.70
13.83.A.2	With a solution made of 13 gms hydrochloric acid in a solution of 13 gms. Each of copper chloride, copper nitrate and ammonium chloride dissolved in a litre of soft water	sqm	21.80
13.84	Painting (two or more coats) on rain water, soil, waster and vent pipes and fittings with black anticorrosive bitumastic paint of approved brand and manufacture over and including a priming of ready mixed zinc chromate yellow primer on new work:		
13.84.1	50 mm diameter pipes	sqm	17.70
13.84.2	75 mm diameter pipes	sqm	25.00
13.84.3	100 mm diameter pipes	sqm	33.20
13.84.4	150 mm diameter pipes	sqm	49.50
13.85	Painting (one or more coats) on rain water, soil waste and vent pipes and fittings with black anticorrosive bitumastic paint approved brand and manufacture on old work:		
13.85.1	50 mm diameter pipes	metre	8.00
13.85.2	75mm diameter pipes	metre	11.40
13.85.3	100 mm diameter pipes	metre	15.10
13.85.4	150 mm diameter pipes	metre	21.90
13.86	Painting (two or more coats) on rain water, soil, waste and vent pipes and fittings with synthetic enamel paint of approved brand and manufacture and required colour over a priming coat of ready mixed zinc chromatic yellow primer on new work.		
13.86.1	50 mm diameter pipes	metre	18.70
13.86.2	75 mm diameter pipes	metre	26.10
13.86.3	100 mm diameter pipes	metre	34.70
13.86.4	150 mm diameter pipes	metre	51.70



Code No.	Description	Unit	Rate Rs.
13.87	Painting (one more coats) on rain water soil, waste and vent pipes and filings with synthetic enamel paint of approved brand and manufacture and required colour on old work:		
13.87.1	50 mm diameter pipes	metre	8.40
13.87.2	75 mm diameter pipes	metre	12.20
13.87.3	100 mm diameter pipes	metre	15.70
13.87.4	150 mm diameter pipes	metre	22.80
13.88	Painting with oil type wood preservative of approved brand and manufacture:		
13.88.1	New work (two or more coats)	sqm	33.10
13.88.2	Old work(one or more coats)	sqm	24.50
13.88 A	Providing and applying two coats of fire retardent paint FR 881 unthinned on cleaned wood/ply surface @ 3.5 sqm per litre per coat including preparation of base surface as per recommendationns of fmanufacturer to make the surface fire retardent.	sqm	247.20
13.89	Coal tarring two coats on new work using 0.16 and 0.12 litre coat sqm in the first coat and second coat respectively.	sqm	35.40
13.92	Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade:		
13.92.1	Two or more coats on new work	sqm	83.10
13.92.2	One or more coats on old work	sqm	53.70
13.93	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade:		
13.93.1	Two or more coats on new work	sqm	80.30
13.93.2	One or more coats on old work.	sqm	51.50
13.94	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade:		
13.94.1	Two or more coats on new work over an under coat of suitable shade with ordinary pain <sup>+</sup> of approved brand and manufacture	sqm	111.00
13.95	Painting with aluminum paint of approved brand and manufacture to give an even shade.		
13.95.1	Two or more coats on new work	sqm	66.80
13.95.2	One or more coats on old work.	sqm	43.00
13.96	Painting with acid proof paint of approved brand and manufacture of required colour to give an even shade:		
13.96.1	Two or more coats on new work.	sqm	85.30
13.96.2	One or more coats on old work.	sqm	54.90
13.97	Painting with black anti-corrosive bitumastic paint of approved brand and manufacture to give an even shade:		
13.97.1	Two or more coats on new work	sqm	62.40
13.97.2	One or more coats on old work.	sqm	41.10

Code No.	Description	Unit	Rate Rs.
13.98	Floor painting with floor enamel paint of approved brand and manufacture of required colour to give an even shade:		
	13.98.1 Two or more coats on new work.	sqm	99.80
	13.98.2 One or more coats on ole work.	sqm	63.90
13.1	Varnishing with varnish of approved brand and manufacture:		
	13.100.1 Two or more coats of glue sizing with copal varnish over an under coat of flatting varnish.	sqm	110.20
	13.100.3 One or more coats with copal varnish.	sqm	44.00
	13.100.4 Two more coats glue sizing with spar varnish or an under coat of flatting varnish.	sqm	111.40
	13.100.6 <b>One or more coats with sprit varnish.</b>	sqm	44.70
13.101	French spirit polishing:		
	13.101.1 Two or more coats on works including a coat of wood filler.	sqm	204.30
	13.101.2 One or more coats on old work.	sqm	104.00
13.104	Polishing on wood work with ready made wax polish of approved brand and manufacture:		
	13.104.1 New work	sqm	89.80
	13.104.2 Old work	sqm	45.70
13.105	Floor polishing on masonry or concrete floors with wax polish off approved brand and manufacture.	sqm	40.10
13.106	Lettering with black Japan paint of approved brand and manufacture	1 letter of 1cm hight	2.60
13.107	Re-lettering with black Japan paint of approved brand and manufacture.	1 letter of 1cm hight	1.70
13.112	Washed stone grit plaster in two layers, under layer 12 mm cement plaster 1:4 (1 cement :4 coarse sand) furrowing the under layer with scratching tool, applying cement slurry on the under layer @ 2 kg of cement per square metre, tope layer 15 mm cement plaster 1:1/2:2 (1 cement: 1/2 coarse sand :2 stone chipping 10 mm nominal size) in panels with groove all around as per approved pattern including scrubbing and washing, the top layer with brushes and water to expose the stone chippings, complete as per specification and direction of Engineer -in charges (Payment for providing grooves shall be made separately)	sqm	493.00
13.113	Forming groove of uniform size in the top layer of washed stone grit piaster as per approved pattern using wooden batten nailed to the under layer including removal of wooden battens, repair to the edges of panels and finishing the groove complete as per specifications and direction of the Engineer-in-charges.		
	13.113.1 15 mm wide and 15 mm deep groove	metre	29.60
	13.113.2 20 mm wide and 15 mm deep groove	metre	30.20
13.114	Extra for washed grit plaster on exterior walls of height more than 10 m from ground level for every additional hight of 3 m or part there of	sqm	58.50

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Code No.	Description	Unit	Rate Rs.
13.115	Extra for washed stone grit plaster on circular work not exceeding 6m in radius (in coats).	sqm	50.70
13.116	Forming groove of uniform size from 12x12 mm and upto 25x15 mm in plastered surface as per approved pattern using wooden battens, nailed to the under layer including removal of wooden battens, repairs to the edges of plaster panel and finishing the groove complete as per specifications and direction of the Engineer-in-Charge.	metre	45.30
13.117	Extra for using white cement in place of ordinary cement in the top layer of the item washed stone grit plaster.	sqm	89.90

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**SUB HEAD : 14.0**  
**REPAIRS TO BUILDINGS**

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## 14.0 REPAIRS TO BUILDINGS

Code No.	Description	Unit	Rate Rs.
14.1	Repairs to plaster of thickness 12 mm to 20 mm in patches of area 2.5 sq. meters and under, including cutting the patch in proper shape, raking out joints and preparing and plastering the surface of the walls complete, including disposal of rubbish to the dumping ground, all complete as per direction of Engineer-in-Charge.		
14.1.1	With cement mortar 1:4 (1 cement :4 fine Sand)	sqm	225.60
14.1.2	With cement mortar 1:4 (1cement: 4 coarse sand)	each	225.60
14.2	Fixing chowkhats in existing opening including embedding chowkhats in floors or walls cutting masonry for holdfasts, embedding hold fasts in cement concrete blocks of size 15 x 10 x 10 cm with cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size), painting two coats of approved wood preservative to sides of chowkhats and making good the damages to walls and floors as required complete, including disposal of rubbish to the dumping ground, all complete as per direction of Engineer-in-Charge.		
14.2.1	Door chowkhats	each	751.70
14.2.2	Window chowkhats	each	451.50
14.2.3	Clerestory window chowkhats	each	341.10
14.3	Fixing chowkhat in existing opening in brick/ RCC wall with dash fasteners/ Chemical fasteners of appropriate size (3 nos on each vertical member of door chowkhat and 2 nos on each vertical member of window chowkhats), including Cost of dash fasteners/ chemical fastener.	each	171.80
14.4	Making the opening in brick masonry including dismantling in floor or walls by cutting masonry and making good the damages to walls, flooring and jambs complete, to match existing surface i/c disposal of mulba/ rubbish to the nearest municipal dumping ground, all complete as per direction of Engineer-in-Charge.		
14.4.1	For door/ window/ clerestory window	sqm	502.00
14.5	Renewing glass panes, with putty and nails wherever necessary including racking out the old putty:		
14.5.1	Float glass panes of thickness 4 mm	sqm	697.60
14.5.2	Float glass panes of thickness 5.5 mm	sqm	991.90
14.6	Renewing glass panes, with wooden fillets wherever necessary:		
14.6.1	Float glass panes of thickness 4 mm	sqm	891.40
14.6.2	Float glass panes of thickness 5.5 mm	sqm	1185.70
14.7	Renewing glass panes and refixing existing wooden fillets:		
14.7.1	Float glass panes of thickness 4 mm	sqm	738.20
14.7.2	Float glass panes of thickness 5.5 mm	sqm	1032.50

Code No.	Description	Unit	Rate Rs.
<b>14.8</b>	Supplying and fixing new wooden fillets wherever necessary:		
14.8.1	2nd class teak wood fillets	metre	41.20
14.8.2	Hollock wood fillets	metre	34.50
<b>14.9</b>	Renewal of old putty of glass panes (length)	metre	23.90
<b>14.10</b>	Refixing old glass panes with putty and nails	sqm	302.40
<b>14.11</b>	Fixing old glass panes with wooden fillets (excluding cost of fillets)	sqm	259.10
<b>14.12</b>	Providing and fixing 16 mm M.S. Fan clamps of standard shape and size in existing R.C.C. slab, including cutting chase, anchoring clamp to reinforcement bar, including cleaning, refilling, making good the chase with matching concrete, plastering and painting the exposed portion of the clamps complete.	Each	263.00
<b>14.13</b>	Regrading terracing of mud phaska covered with tiles or brick, in cement by dismantling tiles or bricks, removing mud plaster, preparing the surface of mud phaska to proper slope, relaying mud plaster gibri leaping and tiles or bricks, grouted in cement mortar 1:3 (1 cement : 3 fine sand), including replacing unserviceable tiles or bricks with new ones and disposal of unserviceable material to the dumping ground (the cost of the new tiles or brick excluded), all complete as per direction of Engineer-in-Charge.	sqm	361.80
<b>14.14</b>	Replacing sand stone slabs in roofing, laid in cement mortar 1:4 (1 cement : 4 coarse sand), including necessary repairs and cement pointing with same mortar complete, including disposal of rubbish to dumping ground, all complete as per direction of Engineer-in-Charge.		
14.14.1	Red/ white sand stone slabs 30 to 50 mm thick	sqm	669.30
<b>14.15</b>	Renewing wooden battens in roofs, including making good the holes in wall and painting with oil type wood preservative of approved brand and manufacture complete, including removal of rubbish to the dumping ground, all complete as per direction of Engineer-in-Charge.		
14.15.1	Sal wood battens	cum	87486.40
<b>14.16</b>	Renewing wooden beams in roofs including making good the holes in walls and painting with oil type wood preservative of approved brand and manufacture complete, including removal of rubbish to the dumping ground, all complete as per direction of Engineer-in-Charge.		
14.16.1	Not exceeding 4.00 metres in length.		
14.16.1.1	Sal wood beams	cum	89773.50
14.16.1.2	Hollock wood beams	cum	55307.70
14.16.2	Above 4.00 metres and upto 5.00 metres length.		
14.16.2.1	Sal wood beams	cum	90816.40
14.16.2.2	Hollock wood beams	cum	56314.70
<b>14.17</b>	Raking out joints in lime or cement mortar and preparing the surface for re-pointing or replastering, including disposal of rubbish to the dumping ground, all complete as per direction of Engineer-in-Charge.	sqm	26.90

Code No.	Description	Unit	Rate Rs.
<b>14.18</b>	Flush pointing with cement mortar 1:3 (1 cement : 3 fine sand) mixed with 2% of integral water proofing compound by weight of cement for flat tile bricks on top of mud phaska :		
14.18.1	With F.P.S. brick tiles	sqm	57.50
14.18.2	With modular brick tiles	sqm	58.40
<b>14.19</b>	Taking out wind ties from roof including cutting out rusted bolts, nuts etc. and removing materials to any distance within compound and stacking.	kg	2.00
<b>14.20</b>	Renewing bottom rail and/or top runner of collapsible gate including making good all damages and applying priming coat of zinc chromate yellow primer of approved brand and manufacturer.	metre	82.20
<b>14.21</b>	Renewing bottom rail and/or top runner of collapsible gate including making good all damages and applying priming coat of zinc chromate yellow primer of approved brand and manufacturer.	kg	146.60
<b>14.22</b>	Renewing Wrought iron or M.S. Wheel or roller of steel door or gate and fitting and fixing the same with necessary clamps, nuts and bolts/welding and erection etc. complete.		
14.22.1	Wheel 50 mm dia and below	per wheels	138.60
14.22.2	Wheel above 50 mm dia	per wheels	214.80
<b>14.23</b>	Pumping out water caused by springs, tidal or river seepage, broken water mains or drains and the like.	Kl	102.60
<b>14.24</b>	Mud mortar made with local clay good earth	cum	629.10
<b>14.25</b>	Brick work with common burnt clay bricks of class designation 7.5 in mud mortar	cum	4171.00
<b>14.26</b>	Providing and fixing 25 mm thick shutters for cup board etc. :		
14.26.1	Panelled or panelled & glazed shutters :		
14.26.1.1	Superior class teak wood including nickel plated bright finished M.S. piano hinges with necessary screws.	sqm	3835.50
14.26.1.2	Ist class teak wood including nickel plated bright finished M.S. piano hinges with necessary screws.	sqm	3216.10
14.26.2	Glazed shutters :		
14.26.2.1	Superior class teak wood including nickel plated bright finished M.S. piano hinges with necessary screws.	sqm	3924.00
14.26.2.2	Ist class teak wood including nickel plated bright finished M.S. piano hinges with necessary screws.	sqm	3258.10
<b>14.27</b>	Providing and fixing plain jaffri door and window shutters including bright or/and black enamelled M.S. butt hinges with necessary screws 35x10 mm laths placed 35 mm apart (frames to be paid separately), including fixing 50x12 mm beading complete with :		
14.27.1	Second class teak wood	sqm	3508.30

Code No.	Description	Unit	Rate Rs.
<b>14.28</b>	Providing and fixing brass curtain rods of wall thickness 1.25 mm with two brass brackets fixed with brass screws and wooden plugs etc. wherever necessary complete		
14.28.1	20 mm diameter.	metre	283.40
14.28.2	25 mm diameter.	metre	350.30
<b>14.29</b>	Providing and fixing M.S. round or square bars with M.S. flats at required spacing in wooden frames of windows and clerestory windows.	Kg	74.40
<b>14.30</b>	Providing joists (karries) including hoisting, fixing in position and applying wood preservative on unexposed surface etc. complete with :		
14.30.1	Sal wood	cum	86270.00
14.30.2	Hollock wood	cum	52152.60
<b>14.31</b>	Providing and fixing bright finished brass single acting spring hinges with necessary brass screws etc. complete :		
14.31.1	150 mm	Each	621.60
14.31.2	125 mm	Each	434.30
14.31.3	100 mm	Each	382.10
<b>14.32</b>	Providing and fixing bright finished brass double acting spring hinges with necessary brass screws etc. complete :		
14.32.1	150 mm	Each	695.20
14.32.2	125 mm	Each	588.10
14.32.3	100 mm	Each	569.40
<b>14.33</b>	Providing and fixing bright finished brass flush bolts with necessary brass screws etc. complete		
14.33.1	250 mm	Each	220.10
14.33.2	150 mm	Each	191.50
14.33.3	100 mm	Each	138.00
<b>14.34</b>	Providing and fixing 150 mm bright finished floor brass door stopper with rubber cushion, necessary brass screws etc. to suit shutter thickness complete	Each	229.20
<b>14.35</b>	Providing and fixing bright finished brass hard drawn hooks and eyes :		
14.35.1	300 mm	Each	83.60
14.35.2	250 mm	Each	79.40
14.35.3	200 mm	Each	71.60
14.35.4	150 mm	Each	56.90
14.35.5	100 mm	Each	49.50
<b>14.36</b>	Providing and fixing bright finished brass fan light pivot with necessary brass screws etc. complete.	Each	36.00
<b>14.37</b>	Providing and fixing 300 mm long bright finished brass chain with hook for fan light including necessary brass screws etc. complete.	Each	59.00

Code No.	Description	Unit	Rate Rs.
14.38	Providing and fixing bright finished brass quadrant stay 300 mm long with necessary brass screws etc. complete.	Each	158.00
14.39	Providing and fixing bright finished brass helical door spring (superior quality).	Each	431.90
14.40	Providing and fixing chromium plated brass butt hinges with necessary chromium plated brass screws etc. complete.		
14.40.1	125x70x4 mm (ordinary type)	Each	159.90
14.40.2	100x70x4 mm (ordinary type)	Each	135.40
14.40.3	75x65x4 mm (heavy type)	Each	151.90
14.40.4	75x40x2.5 mm (ordinary type)	Each	87.20
14.40.5	50x40x2.5 mm (ordinary type)	Each	37.00
14.41	Providing and fixing 85x42 mm chromium plated brass pull bolt lock with necessary chromium plated brass screws, nuts, bolts and washers etc. complete.	Each	234.00
	FINISHING		
14.42	White washing with lime to give an even shade :		
14.42.1	Old work (two or more coats)	Rate same as 13.70.2	
14.42.2	Old work (one or more coats)	Rate same as 13.70.3	
14.43	Removing white or colour wash by scrapping and sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete	Rate same as 13.74	
14.44	Distempering with dry distemper of approved brand and manufacture (one or more coats) and of required shade on old work to give an even shade.	Rate same as 13.76	
14.45	Distempering with oil bound washable distemper of approved brand and manufacture to give an even shade :		
14.45.1	Old work (one or more coats)	Rate same as 13.77.3	
14.46	Removing dry or oil bound distemper, water proofing cement paint and the like by scrapping, sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete.	Rate same as 13.80	
14.47	Painting on G.S. sheet with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade :		
14.47.1	Old work (one or more coats)	sqm	43.60
14.48	Painting (two or more coats) on rain water, soil, waste and vent pipes and fittings with black anticorrosive bitumastic paint of approved brand and manufacture over and including a priming coat of ready mixed zinc chromate yellow primer on new work :		
14.48.1	75 mm diameter pipes	Rate same as 13.84.2	



Code No.	Description	Unit	Rate Rs.
<b>14.49</b>	Painting (one or more coats) on rain water, soil, waste and vent pipes and fittings with black anticorrosive bitumastic paint of approved brand and manufacture on old work :		
14.49.1	75 mm diameter pipes		Rate same as 13.85.2
14.49.2	100 mm diameter pipes		Rate same as 13.85.3
14.49.3	150 mm diameter pipes		Rate same as 13.85.4
<b>14.50</b>	Painting (two or more coats) on rain water, soil, waste and vent pipes and fittings with aluminium paint of approved brand and manufacture over a priming coat of ready mixed zinc chromate yellow primer on new work :		
14.50.1	75 mm diameter pipes	metre	30.10
14.50.2	100 mm diameter pipes	metre	42.80
14.50.3	150 mm diameter pipes	metre	63.80
<b>14.51</b>	Painting (one or more coats) on rain water, soil, waste and vent pipes and fittings with synthetic enamel paint of approved brand and manufacture and required colour on old work :		
14.51.1	75 mm diameter pipes	metre	14.60
14.51.2	100 mm diameter pipes	metre	18.80
14.51.3	150 mm diameter pipes	metre	26.70
<b>14.52</b>	Painting with oil type wood preservative of approved brand and manufacture:		
14.52.1	Old work (one or more coats)		Rate same as 13.88.2
<b>14.53</b>	Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade:		
14.53.1	One or more coats on old work		Rate same as 13.92.2
<b>14.54</b>	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade :		
14.54.1	One or more coats on old work		Rate same as 13.93.2
<b>14.55</b>	Painting with aluminium paint of approved brand and manufacture to give an even shade:		
14.55.1	One or more coats on old work		Rate same as 13.95.2
<b>14.56</b>	Painting with acid proof paint of approved brand and manufacture of required colour to give an even shade :		
14.56.1	One or more coats on old work		Rate same as 13.96.2
<b>14.57</b>	Painting with black anti-corrosive bitumastic paint of approved brand and manufacture to give an even shade :		
14.57.1	One or more coats on old work		Rate same as 13.97.2
<b>14.58</b>	French spirit polishing :		
14.58.1	One or more coats on old work		Rate same as 13.101.2

Code No.	Description	Unit	Rate Rs.
14.59	Polishing on wood work with ready made wax polish of approved brand and manufacture :		
14.59.1	Old work		Rate same as 13.104.2
14.60	Re-lettering with black Japan paint of approved brand and manufacture.		Rate same as 13.106.2
14.61	Painting (one or more coats) with black Japan paint of approved brand and manufacture to give an even shade.	sqm	45.00
14.62	Providing and fixing C.P. brass chain and rubber plug complete for sink or wash basin:		
14.62.1	32 mm dia	each	63.30
14.62.2	40 mm dia	each	63.30
14.63	Distemping with 1st quality acrylic washable distemper (ready made) of approved manufacturer and of required shade and colour complete. as per manufacturer's specification.		
14.63.1	One or more coats on old work	sqm	30.90
14.64	Finishing walls with water proofing cement paint of required shade :		
14.64.1	Old work (one or more coats applied @ 2.20 kg/10 sqm) over priming coat of primer applied @ 0.80 ltrs/10 sqm complete including cost of Priming coat.	sqm	58.00
14.64.2	Old work (one or more coats @ 2.20 kg/10 sqm) complete.		Rate same as 13.106.2
14.65	Finishing walls with textured exterior paint of required shade :		
14.65.1	Old work (Two or more coats on existing cement paint surface applied @ 3.28 ltr/10 sqm.	sqm	141.60
14.65.2	Old work (One or more coats) applied @ 1.82 ltr/10 sqm.	sqm	85.70
14.66	Finishing walls with Acrylic Smooth exterior paint of required shade:		
14.66.1	Old work (Two or more coat applied @ 1.67 ltr/ 10 sqm) on existing cement paint surface	sqm	72.70
14.66.2	Old work (One or more coat applied @ 0.90 ltr/10 sqm).	sqm	47.70
14.67	Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade		
14.67.1	Old work (Two or more coats applied @ 1.43 ltr/ 10 sqm) over existing cement paint surface	sqm	70.60
14.67.2	Old work (one or more coats applied @ 0.83 ltr/10 sqm).	sqm	47.30
14.69	Varnishing with varnish of approved brand and manufacture:		
14.69.1	One or more coats with copal varnish	sqm	45.90
14.69.2	One or more coats with spar varnish	sqm	46.30
14.70	Melamine polishing on wood work (one or more coat).	sqm	83.40
14.71	Varnishing with flatting varnish of approved brand and manufacture one or more coats on old work.	sqm	49.10

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Code No.	Description	Unit	Rate Rs.
14.72	Providing and fixing double scaffolding system (cup lock type) on the exterior side, up to seven story height made with 40 mm dia M.S. tube 1.5 m centre to centre, horizontal & vertical tubes joining with cup & lock system with M.S. tubes, M.S. tube chollies, M.S. clamps and M.S. staircase system in the scaffolding for working platform etc. and maintaining it in a serviceable condition for the required duration as approved and removing it there after .The scaffolding system shall be stiffened with bracings, runners, connection with the building etc wherever required for inspection of work at required locations with essential safety features for the workmen etc. complete as per directions and approval of Engineer- in-charge .The elevational area of the scaffolding shall be measured for payment purpose .The payment will be made once irrespective of duration of scaffolding.	sqm	167.30
	Note: - This item to be used for maintenance work judiciously, necessary deduction for scaffolding in the existing item to be done.		
14.73	Providing and fixing bright finished brass casement window fasteners or peg stays to windows/ ventilators with necessary welding and machine screws etc. complete.	kg	473.90
14.74	Providing and fixing 14 mm bright finished brass spring catch to steel centre hung ventilators with necessary welding and machine screws etc. complete.	each	57.30
14.75	Repair to plaster of thickness 12mm to 20 mm in patches of area 2.5 sqm and under, including cutting the patch in proper shape, raking out joints and preparing plastering the wall surface with white cement based polymer modified self curing mortar, including disposal of rubbish, all complete as per the direction of Engineer-In- Charge.	sqm	388.80
	<b>ROUTINE MAINTENANCE WORK</b>		
14.75A	Cleaning of terrace/loft water storage tank (inside surface area) upto 2000 litre capacity at all heights with coconut brushes, duster etc., removal of silt, rubbish from the tank and cleaning the tank with fresh water disinfecting with bleaching powder @ 0.5gm per litre capacity of tank, including marking the date of cleaning on the side of tank body with the help of stencil and paint and disposing of malba, all complete as per direction of Engineer-in-Charge. (The old date already written on tank should be removed with paint remover or black paint and if date is not written with the stencil or old date is not removed deduction will be made @ Rs. 0.10 per litre if during cleaning any GI fittings or ball cock is damaged that is to be repaired by contractor at his own cost and nothing extra will be paid on this account)	litre	0.20
14.76	Cleaning and desilting of gully trap chamber, including removal of rubbish mixed with earth etc. and disposal of same, all as per the direction of Engineer-in-charge.	each	51.70

Code No.	Description	Unit	Rate Rs.
14.77	Cleaning of choked sewer line by diesel running vehicle mounting hydraulic operated high pressure suction cum jetting sewer cleaning machine fitted with pump having 4000 litres suction capacity and 6000 litres water jetting tank capacity including skilled operator, supervising engineer etc. for cleaning and partial desilting of manholes and dechocking of sewer lines. Dechocking and flushing of sewer line from one manhole to another by high pressure jetting system of 2200 PSI for sewer line from 150mm dia upto 300mm dia for all depth.	metre	248.10
14.78	Cleaning of under ground sump, Over Head R.C.C. Tank ( independent staging) including disposal of slit and rubbish, all as per direction of Engineer-in-Charge. The cleaning shall consist following operations:- (i) Tank shall be emptied of water by pumping & bottom shall be cleaned of slit and other deposits. (ii) Entire surface area of the sump shall then scrubbed thoroughly with wire brush etc. and pressure washed with water. (iii) Chlorination of RCC internal surface by liquid chlorine. (iv) The treated surface shall be dried using air jetting and all loose particles shall be removal from the surface. (v) Finally the surface shall be treated with ultraviolet radiation etc. as per direction of Engineer-in-Charge.	sqm	39.80
14.79	Disconnecting damaged overhead/terrace PVC water storage tank of any size from water supply line and removing from the terrace including shifting at ground level as per direction of Engineer-in-charge.	each	164.30
14.80	Providing & fixing White vitreous china water closet squatting pan (Indian type) along with "S" or "P" trap including dismantling of old WC seat and "S" or "P" trap at site complete with all operations including all necessary materials, labour and disposal of dismantled material i/c malba, all complete as per the direction of Engineer-in charge.		
14.80.1	Long pattern W.C Pan of size 580x440 mm	each	1973.90
14.80.2	Orissa pattern W.C Pan of size 580x440 mm	each	2814.80
14.81	Cutting holes of required size in brick masonry wall for fixing of exhaust fan including providing and fixing 300 mm dia PVC pipe conforming BIS-12818 and making good the same etc. complete as per direction of Engineer-in-charge.	each	131.40
14.82	Dismantling W.C. Pan of all sizes including disposal of dismantled materials i/c malba all complete as per directions of Engineer-in-Charge.	each	50.70
14.83	Hacking of CC flooring including cleaning for surface etc. complete as per direction of the Engineer-in-Charge.	sqm	1.40



Code No.	Description	Unit	Rate Rs.
14.84	Dismantling 15 to 40 mm dia G.I. pipe including stacking of dismantled pipes within 50 metres lead as per direction of Engineer- in-Charge. (a) Internal Work - Exposed on wall	metre	2.70
14.85	Taking out existing wooden door shutter, repair by cutting, painting etc. and refixing of repaired door shutters to existing door frames, including replacement of hinges with screws, etc. as required, all complete as per the direction of the Engineer-in-charge.	each	157.40

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**SUB HEAD : 15.0**

**DISMANTLING AND DEMOLISHING**

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## BUILDING WORK - Contd.

**15.0 Dismantling and Demolishing**

Code No.	Description	Unit	Rate Rs.
15.1	Demolishing lime concrete and disposal of material within 50 metre lead.	cum	319.80
15.2	Demolishing cement concrete including disposal of material within 50 metre lead:		
15.2.1	1:3:6 or richer mix	cum	911.40
15.2.2	1:4:8 or leaner mix	cum	563.20
15.3	Demolishing R.C.C. work including stacking of steel bars and disposal of unserviceable material within 50 metres lead:	cum	1324.40
15.4	Demolishing R.B. work including stacking of steel bars and disposal of unserviceable material within 50 metres lead:	cum	1186.60
15.5	Extra for cutting reinforcement bars in R.C.C. or R.B. work (Payment shall be made on the cross sectional area of R.C.C. or R.B. work)	Per RCC	458.60
15.6	Extra for scrapping, cleaning and straightening reinforcement from R.C.C. or R.B. work.	kg	3.60
15.7	Demolishing brick work including stacking of serviceable material and disposal of unserviceable material within 50 meters lead:		
15.7.1	In mud mortar	cum	266.00
15.7.2	In lime mortar with old mugal bricks	cum	662.90
15.7.3	In lime mortar	cum	319.80
15.7.4	In cement mortar	cum	773.50
15.8	Removing mortar from bricks and cleaning bricks including stacking within a lead of 50m (stacks of cleaned bricks shall be measured):		
15.8.1	From brick work in mud mortar	cum	1751.10
15.8.3	From brick work in lime mortar	cum	2028.50
15.8.1	From brick work in cement mortar	cum	2538.00
15.9	Demolishing stone rubble masonry including stacking of serviceable material and disposal of unserviceable material within 50 meters lead.		
15.9.1	In lime mortar	cum	435.50
15.9.2	In cement mortar	cum	922.50
15.10	Demolishing dressed stone work ashlar face stone work, marble work or precast concrete work including stacking of serviceable and disposal of unserviceable material within 50 metres lead:		
15.10.1	In lime mortar	cum	550.80
15.10.2	In cement mortar	cum	1078.50

Code No.	Description	Unit	Rate Rs.
15.11	Removing mortar from stones and cleaning stones and concrete articles (net quantity of stacks of cleaned materials will be measured)		
	15.11.1 In lime mortar	cum	181.27
	15.11.2 In cement mortar	cum	259.10
15.12	Desman tiling doors windows and clerestory windows (steel or wood) shutters including chowkhats, architrage, holdfasts etc. complete and stacking within 50 metres lead:		
	15.12.1 Of area 3 sqm and below	each	142.20
	15.12.2 Of area beyond 3 sqm	each	195.60
15.13	Taking out doors, windows and clerestory window shutters (steel or wood) including stacking within 50 meters lead.		
	15.13.1 Of area 3 sqm and below	each	55.20
	15.13.2 Of area beyond 3 sqm	each	73.10
15.14	Dismantling wood work in frames, trusses, purlins and rafters upto 10 metres span and 5 metres height including stacking the material within 50 metres lead:		
	15.14.1 Of sectional area 40 cm* and above	cum	1727.00
	15.14.2 Of sectional area below 40cm <sup>2</sup>	m	6.90
15.15	Extra for dismantling trusses, rafters, purlins etc. of wood work for every additional span of of one metre or part thereof beyond 10 me res:		
	15.15.1 Of sectional area 40 cm <sup>2</sup> and above	metre span	243.30
	15.15.2 Of sectional area below 40 cm <sup>2</sup>	meter span	0.70
15.16	Extra for dismantling trusses, rafters purlins etc. of wood work for every additional height of one meter or part thereof beyond 5 meters.		
	15.16.1 Of sectional area 40 square centimeters and above	cum	343.20
	15.16.2 Of sectional area below 40 square centimeters	m	1.30
15.17	Dismantling steel work in single sections including dismembering and stacking within 50 meters lead in:		
	15.17.1 R.S. Joists	kg	1.30
	15.17.2 Channels.angles, tees and flats	kg	0.90
15.18	Dismantling steel work in built up sections in angles, tees, flats and channels including all gusset plats, bolts, nuts, cutting hvets, welding etc. including dismem bering and stacking within 50 metres lead.	kg	2.20

Code No.	Description	Unit	Rate Rs.
15.19	Dismantling steel work in built up sections without dismembering and stacking within 50 metres lead	kg	1.50
15.2	Extra for dismantling trusses, rafters, purlins etc. Of steel work for every additional span of one metre or part thereof beyond 10 metres	kg	0.30
15.21	Extra for dismantling trusses, rafters, purlins etc. Of steel work for every additional height of one metre or part there of beyond 5 metres	kg	0.30
15.22	Extra for marking of structural steel work required to be re-erected.	kg	1.50
15.23	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead.		
	15.23.1 For thickness of tiles 10 mm to 25 mm	sqm	28.80
	15.23.2 For thickness of tiles above 25 mm and upto 40 mm	sqm	44.50
15.24	Demolishing dry brick pitching in floors, drains etc. including stacking serviceable material and disposal of unserviceable material within 50 metres lead.	cum	503.30
15.25	Dismantling stone slab flooring laid in cement mortar including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.	sqm	100.10
15.26	Demolishing brick tile covering in terracing including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.	sqm	41.30
15.27	Demolishing mud phaska in terracing and disposal of material within 50 metres lead	cum	346.80
15.28	Dismantling roofing including ridges, hips valleys and gutters etc. and stacking the material within 50 metres lead of:		
	15.28.1 G.S. Sheet	sqm	63.30
	15.28.2 Asbestos sheet	sqm	29.90
15.29	Dismantling stone slab roofing over wooden karries or R.C.C battens (dismantling karries and battens to be paid for separately) including stacking of serviceable material and disposal of unserviceable material within 50 metres lead:	cum	1001.30
15.3	Dismantling jack arch roofing and floors including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.	sqm	96.30
15.31	Dismantling tiled roofing with battens boarding etc. complete including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.	sqm	78.60
15.32	Demolishing thatch roofing including mats,bamboo,jaffari etc, complete including stacking of serviceable material and disposal of unserviceable material within 50 metres lead .	sqm	21.70



Code No.	Description	Unit	Rate Rs.
15.33	Dismantling wooden bairies in posts and struts including stacking within 50 metres lead	m	7.90
15.34	Dismantling and stacking 50 metres lead.fencing posts or struts including all earth work and dismantling of concrete etc. in base of:		
15.34.1	T' or 'l.' iron or pipe	each	108.20
15,34.2	R. C. C.	each	126.65
15.35	Cutting bairies or wooden posts of fencing at the point of projection above the concrete or ground and stacking the same within 50 metres lead.	each	11.10
15.36	Dis nantling barbed wire or flexible rope in fencing including making roll;; and stacking within 50 metres lead.	kg	13.60
15.37	Dismantling wooden trellis work excluding frames but including stacking the serviceable material within 50 metres lead.	sqm	25.00
15.38	Dismantling expanded metal or R.R.C. fabrics with necessary battens and beading including stacking the serviceable material within 50 metres lead.	sqm	29.10
15.39	Dismantling wooden boardings in lining of walls and partitions, excluding supporting members but including stacking within 50 metres lead.		
15.39.1	Upto 10 mm thick	sqm	24.00
15.39.2	Thickness above 10 mm upto 25 mm	sqm	30.60
15.39.3	Thickness above 25 mm upto 40 mm	sqm	36.30
15.4	Dismantling precast concrete or stone slabs in walls , partition walls etc. including stacking within 50 metres lead.		
15.40.1	Thickness upto 40 mm	sqm	109.60
15.40.2	Thickness above 40 mm upto 75 mm	sqm	164.10
15.41	Dismantling cement asbestos, Celotax or other hard board ceiling or partition walls including stacking of serviceable materials and disposal of unserviceable materials within 50 metres lead.	sqm	22.20
15.42	Dismantling C.I. or asbestos rain water pipe with fittings and clamps including stacking the material within 50 metres lead.		
15.42.1	75 to 80 mm dia pipe .	m	28.50
15.42.2	100 mm dia pipe	m	29.40
15.42.3	150 mm dia pipe	m	30.40
15.43	Dismantling including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.		
15.43.1	Water bound macadam road	sqm	84.50
15.43.2	. Bituminous road	sqm	163.70

Code No.	Description	Unit	Rate Rs.
<b>15.45</b>	Dismantling G.I. pipes including excavation and refilling trenches after taking out the pipes , breaking lead caulked joints, melting of lead and making into blocks including stacking of pipes , lead at site within 50 metres lead.		
15.45.1	Upto 150 mm diameter	m	157.00
15.45.2	Above 150 mm dia upto 300 mm dia	m	212.30
15.45.3	Above 300 mm diameter	m	279.70
<b>15.46</b>	Dismantling steel cylinder R.C. pipes including excavation and refilling trenches after laking out the pipes. Breaking lead caulked joints, melting of lead and making into blocks including stacking or pipes , lead at site within 50 metres lead.		
15,46,1	Upto 600 mm diameter	m	279.70
15.46.2	Above 600 mm diameter	m	698.80
<b>15.47</b>	Dismantling asbestos cement pressure pipes including excavation and refilling trenches after laking out the pipes and stacking the pipes within 50 metres lead .		
15.47.1	Upto 150 mm diameter	m	124.50
15.47.2	Above 150 mm diameter	m	151.80
<b>15.48</b>	Taking out C. I. cover with frame from R.C.C. top slab of manholes of various sizes including demolishing of R.C.C, wo'k and stacking of useful materials near the site and disposal of unserviceable materials into municipal dumps within 50 metres lead.	each	270.60
<b>15,49</b>	Taking out C.I. cover with frame from R.C.C. top slab of inspection chambers of various sizes including demolishing of R.CC. work and stacking of useful materials near the site and disposal of unserviceable materials into municipal dumps within 50 metres	each	159.40
<b>15.5</b>	Dismantling of R.C.C. spun vent shaft including excavating the cement concrete pit completely , taking out the shaft, refilling the excavated gap, stacking the useful materials near the site and disposal of unserviceable materials within 50 metres lead.	each	1760.50
<b>15.51</b>	Dismantling or road gully chamber or various sizes including C.I. grating with frame including stacking of useful materials near the site and disposal of unserviceable materials into municipal dumps within 50 metres lead including refilling the excavated	each	370.00
<b>15.52</b>	Dismantling of flushing cistern of any size including stacking of useful materials near the site and disposal of unserviceable materials within 50 metres lead.	each	372.10
<b>15.53</b>	Dismantling of C.I. sluice valve including stacking of useful materials within a lead of 50 metres.		
15.53.	Upto 150 mm dia .	nos	135.60
15.53.L	Above 150 mm diameter	nos	467.70
<b>15.54</b>	Dismantling of spindle fire hydrant including stacking of useful materials within 50 metres lead	nos	279.00

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Code No.	Description	Unit	Rate Rs.
15.55	Dismantling of cement concrete platform along with curtain wall and base concrete etc. including stacking of useful materials near the site and disposal of unserviceable materials within 50 metres lead.		
	15.55.1 120x120 cm(outside to outside)	nos	414.20
	15.55.2 210x120 cm (outside to outside)	nos	635.20
	15.55.3 320x120 cm (outside to outside)	nos	898.90
15.56	Dismantling old plaster or skirting raking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 50 metres lead.	sqm	20.30
15.57	Dismantling aluminium/Gypsum partitions, doors, windows, fixed glazing and false ceiling including disposal of unserviceable surplus material and stacking of serviceable material with in 50 m lead as directed by Engineer-in-charge.	sqm	22.20
<b>BARRICADING WORK</b>			
15.58	Providing sal ballah barricading with departmental sal ballah average 150 dia. And 2M long sal ballah post at interval of 2.5 M C/C fixed 0.5 M average below ground, packed with earth and Brick bats, well watered and rammed with three rows of average 100mm dia. Sal ballah horizontal runners fixed with iron spikes and wires, white washing one coat to exposed surface, dismantling the barricade after function, filling the holes, excluding carriage of sal ballah from and to godown up to 5K.M. lead, stacking them in countable stacks in godown including cost of all labour and materials and taxes all complete job as per specification and direction of E/I.	Per m	203.00
15.58A	Demolishing R.C.C. work by mechanical means and stockpiling at designated locations and disposal of dismantled materials up to a lead of 1 kilometre, stacking serviceable and unserviceable material separately including cutting reinforcement bars.	Per cum	1349.50
15.59	Dismantling of flexible pavement (bituminous courses) by mechanical means and disposal of dismantled material up to a lead of 1 kilometre, as per direction of Engineer-in-charge.	Per cum	209.20
15.60	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved.	Per cum	138.80

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**SUB HEAD : 16.0**  
**ROAD WORK**

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## 16.0 ROAD WORK

Code No.	Description	Unit	Rate Rs.
	<b>ROADS</b>		
16.1	Preparation and consolidation of sub grade with power road roller of 8 to 12 tonne capacity after excavating earth to an average of 22.5 cm depth, dressing to camber and consolidating with road roller including making good the undulations etc. and re-rolling the sub grade and disposal of surplus earth with lead upto 50 metres.	sqm	85.50
16.2	Extra for compaction of earth work in embankment under optimum moisture conditions to give at least 95% of the maximum dry density (proctor density).	cum	11.00
16.3	Supplying and stacking at site.		
16.3.1	90 mm to 45 mm size stone aggregate	cum	611.20
16.3.2	63 mm to 45 mm size stone aggregate	cum	638.80
16.3.3	53 mm to 22.4 mm size stone aggregate	cum	654.80
16.3.4	Over burnt (Jhama) brick aggregate 120 mm to 40 mm	cum	1635.00
16.3.5	Over burnt (Jhama) brick aggregate 90 mm to 45 mm	cum	1635.00
16.3.6	Stone screening 13.2 mm nominal size (Type A)	cum	813.00
16.3.7	Stone screening 11.2 mm nominal size (Type B)	cum	410.00
16.3.8	Red bajri	cum	1476.80
16.3.9	Good earth	cum	178.90
16.3.10	Moorum	cum	352.90
16.4	Laying, spreading and compacting stone aggregate of specified sizes to WBM specifications in uniform thickness, hand picking, rolling with 3 wheeled road / vibratory roller 8-10 tonne capacity in stages to proper grade and camber, applying and brooming requisite type of screening / binding material to fill up interstices of coarse aggregate, watering and compacting to the required density .	cum	465.50
16.5	Laying water bound macadam sub-base with brick aggregate and binding material, earth etc. including screening, sorting and spreading to template and consolidation with light power road-roller etc. complete.(payment for brick aggregate and moorum etc. to be made separately)		
16.5.1	Over burnt (Jhama) brick aggregate 120 mm to 40 mm	cum	338.50
16.5.2	Over burnt (Jhama) brick aggregate 90 mm to 45 mm	cum	338.50
16.6	Supplying, stacking and Spreading 6 mm thick red bajri, watering and rolling complete including preparation of the surface and rolling.		
16.6.1	With road roller/ hand roller	sqm	15.60
16.7	Brick edging in full brick width and half brick depth including excavation, refilling and disposal of surplus earth lead upto 50 metres.		



Code No.	Description	Unit	Rate Rs.
16.7.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	metre	144.90
16.8	Brick edging laid lengthwise with half brick depth including excavation, refilling and disposal of surplus earth lead upto 50 metres		
16.8.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	metre	41.40
16.9	Scarifying metalled (water-bound) road surface including disposal of rubbish, lead upto 50 m and consolidation of the aggregate received from scarifying with power road roller of 8 to 10 tonne capacity	sqm	15.50
16.10	Making bajri path including preparation of subgrade, supplying and laying brick aggregate of 50 mm nominal size 7.5 cm deep with blinding material consisting of 12 mm moorum and 12 mm red bajri consolidated with road roller.	sqm	213.70
16.11	Dry stone pitching 22.5 cm thick including supply of stones and preparing surface complete.	sqm	497.60
16.12	Dry brick pitching half brick thick in drains including supply of bricks and preparing the surface complete :		
16.12.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	sqm	512.30
16.13	Cutting road and making good the same including supply of extra quantities of materials i.e. aggregate, moorum screening, red bajri and labour required.		
16.13.1	Bituminous portion	cum	2130.80
16.13.2	Water bound macadam	cum	1256.90
16.14	Cutting bajri paths and making good the same including supply of extra quantities of brick aggregate, moorum and red bajri required.	sqm	142.80
<b>FENCING</b>			
16.15	Supplying at site :		
16.15.1	R.C.C. Standards post/ struts/rails/ pales of mix 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 12.5 mm nominal size) with wooden plugs or 6mm bar nibs wherever required as per direction of Engineer-in-charge (cost of earth works in excavation, concrete works in foundation to be paid separately).	cum	18421.30
16.15.2	Welded steel wire fabric of required width having rectangular mesh painted with two or more coats of enamel paint of approved shade over a coat of primer (Priming & Painting to be paid for separately).	kg	74.40
16.16	Supplying and fixing turn buckles and straining bolts for barbed wire fencing.	each set	193.90

Code No.	Description	Unit	Rate Rs.
16.17	Fencing with R.C.C. post placed at required distance, embedded in cement concrete blocks, every 15th post, last but one end post and corner post shall be strutted on both sides and end post one side only, provided with horizontal lines and two diagonals of barbed wire weighing 9.38 kg per 100 metres (minimum), between the two posts fitted and fixed with G.I. staples on wooden plugs or G.I. binding wire tied to 6 mm bar nibs fixed while casting the post (cost of R.C.C. posts, struts, earth work and concrete to be paid for separately) :- Payment to be made per metre cost of total length of barbed wire used.		
16.17.1	With G.I. barbed wire	metre	9.80
16.18	Fencing with angle iron post placed at required distance embedded in cement concrete blocks, 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 horizontal lines and two diagonals interwoven with horizontal wires, of barbed wire weighing 9.38 kg per 100 m (minimum), between the two posts fitted and fixed with G.I. staples, turn buckles etc. complete. (Cost of posts, struts, earth work and concrete work to be paid for separately). Payment to be made per metre cost of total length of barbed wire used.		
16.18.1	With G.I. barbed wire	metre	15.50
16.19	Supplying at site Angle iron post & strut of required size including bottom to be split and bent at right angle in opposite direction for 10 cm length and drilling holes upto 10 mm dia. etc. complete.	kg	68.40
16.20	Welded steel wire fabric fencing with posts of specified material and of standard design placed and embedded in cement concrete blocks 45x45x 60 cm of mix 1:5:10 (1 cement:5 fine sand : 10 graded stone aggregate 40 mm nominal size), 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 struts embedded in cement concrete blocks 70x45x50 cm of the same mix, provided with welded steel wire fabric fixed between the posts fitted and fixed with G.I. staples on wooden plugs or tied to 6 mm bar nibs with G.I. binding wire (cost of posts, welded steel wire fabric, painting, earth work in excavation and concrete to be paid for separately).	Sqm	30.20
<b>ROAD SIGNS</b>			
16.21	Engraving letters in hard stone	per cm height per letter	4.50
16.22	Providing and fixing 15x15x90 cm boundary stone of hard stone with top 30 cm chisel dressed on all four sides including top (cost of excavation, refilling and concrete etc. to be paid for separately).	each	164.20

*[Handwritten signatures and initials]*

Code No.	Description	Unit	Rate Rs.
16.23	Providing and fixing 15 cm dia at top, 20 cm at bottom and 90 cm high precast reinforced cement concrete 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) boundary stone as per standard design, including finishing smooth with cement mortar 1:3 (1 cement : 3 fine sand) (cost of excavation, refilling and concreting to be paid for separately).	each	412.70
16.24	Providing and fixing precast reinforced cement concrete 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size) kilometre stone as per standard design, including finishing smooth in 1:3 cement mortar (1 cement : 3 fine sand) but excluding the cost of earth work, concrete in foundation, painting and lettering etc. which shall be paid for separately.		
16.24.1	35x111x25 cm size	each	1611.90
16.24.2	50x152.5x25 cm size	each	2813.20
<b>SURFACE DRESSING</b>			
16.25	Surface dressing on new surface with paving bitumen of grade VG - 10 of approved quality using 2.25 kg of bitumen per sqm with 1.65 cum of stone chippings 13.2 mm nominal size per 100 sqm of road surface, including consolidation with road roller of 6 to 8 tonne capacity etc. complete:	sqm	129.70
16.26	Surface dressing on new surface in two coats with bitumen of grade VG -10 of approved quality using 1.8 kg of bitumen per sqm with 1.5 cum of stone chippings 13.2 mm nominal size per 100 sqm of road surface for first coat and 1.1 kg. of bitumen per sqm with 1.00 cu. metre of stone chippings 11.2 mm nominal size per 100 sqm of road surface for second coat, including consolidation of each coat separately with road roller of 6 to 8 tonne capacity etc. complete.	Sqm	176.60
16.27	Surface dressing on old surface with hot bitumen of grade VG - 10 of approved quality using 1.95 kg of bitumen per sqm with 1.50 cum of stone chippings 11.2 mm nominal size per 100 sqm of road surface, including consolidation with road roller of 6 to 8 tonne capacity, etc. complete.	sqm	103.10
16.28	Surface dressing one coat on new surface with bitumen of specified grade at a rate of 1.95 kg/sqm of surface area with 1.5 cum of stone chippings 13.2 mm nominal size per 100 sqm of road surface, including consolidation with road roller of 6 to 8 tonne capacity , etc. complete :		
16.28.1	Using bitumen emulsion (minimum 50% bitumen content-RS grade conforming to IS : 8887)	sqm	154.20
16.29	Surface dressing one coat on old surface with bitumen of specified grade at the rate of 1.22 kg/ sqm of surface area with 1.10 cum of stone chippings 11.2 mm nominal size per 100 sqm of road surface, including consolidation with road roller of 6 to 8 tonne capacity etc. complete :		

Code No.	Description	Unit	Rate Rs.
16.29.1	Using bitumen emulsion (minimum 50% bitumen content-RS grade conforming to IS : 8887)	sqm	84.00
PREMIX CARPET			
<b>16.30</b>	Providing and applying tack coat using hot straight run bitumen of grade VG - 10, including heating the bitumen, spraying the bitumen with mechanically operated spray unit fitted on bitumen boiler, cleaning and preparing the existing road surface as per specifications :		
<b>16.30.1</b>	On W.B.M. @ 0.75 Kg l sqm	sqm	34.10
<b>16.30.2</b>	On bituminous surface @ 0.50 Kg l sqm	sqm	25.70
<b>16.31</b>	Providing and applying tack coat using bitumen emulsion conforming to IS: 8887, using emulsion pressure distributor including preparing the surface & cleaning with mechanical broom.		
<b>16.31.1</b>	With rapid setting bitumen emulsion		
<b>16.31.1.1</b>	On W.B.M / W.M.M. @ 0.4kg/sqm	sqm	11.70
<b>16.31.1.2</b>	On bituminous surface @ 0.25kg/sqm	sqm	7.80
<b>16.31.2</b>	With medium setting bitumen emulsion		
<b>16.31.2.1</b>	On W.B.M / W.M.M. @ 0.4kg/sqm	sqm	23.90
<b>16.31.2.2</b>	On bituminous surface @ 0.25kg/sqm	sqm	15.50
Note - Use of Item No. 16.81.1 shall be restricted only per site at sub zero temperature or for emergency application			
<b>16.32</b>	2 cm premix carpet surfacing with 1.8 cum and 0.90 cum of stone chippings of 13.2 mm size and 11.2 mm size respectively per 100 sqm and 52 kg and 56 kg of hot bitumen per cum of stone chippings of 13.2 mm and 11.2 mm size respectively, including a tack coat with hot straight run bitumen, including consolidation with road roller of 6 to 9 tonne capacity etc. complete (tack coat to be paid for separately).		
<b>16.32.1</b>	With paving Asphalt grade VG - 10 heated and then mixed with solvent at the rate of 70 grams per kg of asphalt	sqm	119.60
<b>16.32.2</b>	With paving Asphalt grade VG - 30 with no solvent	sqm	146.20
<b>16.32.3</b>	With Refinery Modified Bitumen CRMB 55 conforming to IRC: SP: 53	sqm	149.90
<b>16.33</b>	2.5 cm premix carpet surfacing with 2.25 cum and 1.12 cum of stone chippings of 13.2 mm and 11.2 mm size respectively per 100 sqm and 52 kg and 56 kg of hot bitumen per cum of stone chippings of 13.2 mm and 11.2 mm size respectively, including a tack coat with hot straight run bitumen, including consolidation with road roller of 6 to 9 tonne capacity etc. complete (tack coat to be paid for separately).		
<b>16.33.1</b>	With paving Asphalt grade VG - 10 heated and then mixed with solvent at the rate of 70 grams per kg of asphalt	sqm	144.20

Code No.	Description	Unit	Rate Rs.
	16.33.2 With paving Asphalt grade VG - 30 with no solvent	sqm	177.50
	16.33.3 With Refinery Modified Bitumen CRMB 55 conforming to IRC: SP: 53	sqm	182.08
16.34	2 cm premix carpet surfacing with 2.4 cum of stone chippings 11.2 mm nominal size per 100 sqm and bitumen emulsion (medium setting min. 65% bitumen content) complying with IS : 8887, using 96 kg per cum of chippings, including consolidation with road roller of 6 to 9 tonne capacity etc. complete.	sqm	173.10
16.35	2.5 cm premix carpet surfacing with 3 cum of stone chippings 10 mm nominal size per 100 sqm and bitumen emulsion (medium setting min. 65% bitumen contents) complying with IS : 8887, using 96 kg per cum of chippings of road surface, including consolidation with road roller etc complete .	sqm	211.40
16.36	Providing and laying Bitumen Penetration Macadam with hard stone aggregate of quality, size and grading as specified, with bitumen of suitable penetration grade, including required key aggregate as specified, spreading coarse aggregate with the help of self propelled/ tipper tail mounted aggregate spreader and applying bitumen by a pressure distributor and then spreading key aggregate with the help of aggregate spreader complete, including consolidation with road roller of minimum 8 to 10 tonne capacity to achieve specified values of compaction and surface accuracy :		
	16.36.1 For 50mm compacted thickness using coarse aggregate of size 50-20 mm graded @ 0.60 cum per 10 sqm key aggregate of size 12.5 mm graded @ 0.15 cum per 10 sqm. With paving asphalt grade VG - 10 @ 50 kg/ 10 sqm.	sqm	266.60
	16.36.2 For 75 mm compacted thickness in two layers using stone aggregate of size 63-41 mm graded @ 0.90 cum per 10 sqm key aggregate of size 20.0 mm graded @ 0.18 cum per 10 sqm. With paving asphalt grade VG - 10 @ 68 kg/ 10 sqm.	sqm	391.70
16.37	Providing and laying bitumen mastic wearing course (as per specifications) with industrial bitumen of grade 85/25 conforming to IS : 702, prepared by using mastic cooker and laid to required level and slope, including providing antiskid surface with bitumen precoated fine grained hard stone chipping of approved size at the rate of 0.005 cum per 10 sqm and at approximate spacing of 10 cm centre to centre in both directions, pressed into surface protruding 1 mm to 4 mm over mastic surface, including cleaning the surface, removal of debris etc. all complete. (Considering bitumen using 10.2% as per MORTH specification).		
	16.37.1 25 mm thick	sqm	486.20
	16.37.2 40 mm thick	sqm	802.10





Code No.	Description	Unit	Rate Rs.
<b>16.38</b>	2.5 cm thick bitumastic sheet with hot bitumen of approved quality, using stone chippings (60% with 12.5 mm nominal size and 40% with 10 mm nominal size) @ 1.65 cum per 100 sqm and coarse sand @ 1.65 cum per 100 sqm of road surface and with bitumen @ 56 kg/cum of stone chippings and @ 128 kg/cum of sand over a tack coat with hot straight run bitumen, including consolidation with road roller of 8 to 10 tonne etc. complete. (tack coat to be paid separately) :		
16.38.1	With paving Asphalt grade VG - 10 heated and then mixed with solvent at the rate of 70 grams per kg of asphalt	sqm	<b>180.40</b>
<b>16.38.2</b>	With paving Asphalt grade VG - 30	sqm	<b>236.40</b>
16.38.3	With Refinery Modified Bitumen CRMB 55 conforming to IRC: SP : 53	sqm	<b>244.20</b>
<b>16.39</b>	4 cm thick bitumastic sheet with hot bitumen of approved quality, using stone chippings (60% with 12.5 mm nominal size and 40% with 10 mm nominal size) @ 2.60 cum per 100 sqm and coarse sand @ 2.60 cum per 100 sqm of road surface and with bitumen @ 56 kg/cum of stone chippings and @ 128 kg/cum of sand over a tack coat with hot straight run bitumen, including consolidation with road roller of 8 to 10 tonne etc. complete. (tack coat to be paid separately) :		
16.39.1	With paving Asphalt grade VG - 10 heated and then mixed with solvent at the rate of 70 grams per kg of asphalt	sqm	<b>272.30</b>
16.39.2	With paving asphalt grade VG - 30 with no solvent	sqm	<b>361.50</b>
<b>16.39.3</b>	With Refinery Modified Bitumen CRMB 55 conforming to IRC: SP : 53	sqm	<b>373.70</b>
	<b>SEAL COAT</b>		
<b>16.40</b>	Providing and laying seal coat of premixed fine aggregate ( passing 2.36 mm and retained on 180 micron sieve) with bitumen using 128 kg of bitumen of grade VG - 10 bitumen per cum of fine aggregate and 0.60 cum of fine aggregate per 100 sqm of road surface, including rolling and finishing with road roller all complete.	sqm	<b>51.90</b>
<b>16.41</b>	Providing and laying seal coat over prepared surface of road with bitumen heated in bitumen boiler fitted with the spray set spraying using 98 kg of bitumen of grade VG - 10 and blinding surface with 0.90 cum of stone aggregate of 6.7 mm size (Passing 11.2 mm sieve and retained on 2.36 mm sieve) per 100 sqm of road surface, including rolling and finishing with power road roller all complete.	sqm	<b>70.40</b>
	Note: Seal coat items to be operated only with the prior approval of chief Engineer concerned.		

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Code No.	Description	Unit	Rate Rs.
	<b>CONCRETE PAVEMENTS</b>		
16.42	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 40 mm nominal size) in pavements, laid to required slope and camber in panels as required including consolidation finishing and tamping complete.	cum	4442.20
16.43	"Providing and laying design mix cement concrete of M-30 grade, in roads/ taxi tracks/ runways, using cement content as per design mix, using coarse sand and graded stone aggregate of 40 mm nominal size in appropriate proportions as per approved & specified design criteria, providing dowel bars with sleeve/ tie bars wherever required, laying at site, spreading and compacting mechanically by using needle and surface vibrators, levelling to required slope/ camber, finishing with required texture, including steel form work with sturdy M.S. channel sections, curing, making provision for contraction/ expansion, construction & longitudinal joints ( 10 mm wide x 50 mm deep) by groove cutting machine, providing and filling joints with approved joint filler and sealants, complete all as per direction of Engineer-in-charge (Item of joint fillers, sealants, dowel bars with sleeve/ tie bars to be paid separately).		
	Note:- Cement content considered in M-30 is @ 340 kg/cum. Excess/ less cement used as per design mix is payable/ recoverable separately.		
16.43.1	Cement concrete prepared with batch mixing machine	cum	5300.80
16.43.2	Cement concrete manufactured in automatic batching plant (RMC plant) i/c transportation to site in transit mixer	cum	5702.10
16.44	Extra for providing and mixing hardening compound of approved quality as per manufacturer's specification in cement concrete.	litre	50.80
16.45	Providing and fixing in position pre-moulded joint filler in expansion joints.	per cm depth per cm width	2.90
16.46	Providing and laying in position bitumen hot sealing compound for expansion joints etc.		
16.46.1	Using grade 'A' sealing compound.		2.20
	<b>PAINTING AREA / RUNWAY MARKING</b>		
16.47	Painting runway/taxi track/apron marking with adequate nos of coats to give uniform finish with road marking paint of superior make as approved by the Engineer-in-charge, i/c cleaning the surface of ail dirt, scales, oil, grease and other foreign mater;al etc. and lining out complete.		
16.47.1	New work (Two or more coats)	sqm	108.70
16.47.2	Old work (One or more coats)	sqm	68.30



Code No.	Description	Unit	Rate Rs.
<b>16.48</b>	Painting road surface marking with adequate nos of coats to give uniform finish with ready mixed road marking paint conforming to IS : 164, on bituminous surface in white/yellow shade, including cleaning the surface of all dirt, scales, oil, grease and foreign material etc. complete.		
<b>16.48.1</b>	New work (Two or more coats)	sqm	<b>128.30</b>
<b>16.48.2</b>	Old work (One or more coats)	sqm	<b>83.50</b>
<b>MISCELLANEOUS</b>			
<b>16.49</b>	Making bell mouth opening/ entrance of size 100x50x50 cm for drainage pipe under footpath, including providing cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) for shape of bell mouth, including plastering providing and fixing precast R.C.C./ S.F.R.C. slab including plastering with cement mortar 1:3 (1 cement : 3 fine sand) of 6 mm thickness on exposed surface of the slab & bell mouth including centring, shuttering & neat cement punning inside the bell mouth etc. all complete.	each	<b>1492.70</b>
<b>16.50</b>	Providing and fixing Glow studs of size 100x20 mm made of heavy duty body shall be moulded ASA (Acrylic styrene Acryloretrite ) or HIP (High impact polystyrene) or ABS having electronically welded micro- prismatic lens with abrasion resistant coating as approved by Engineer in charge. The glow stud shall support a load of 13635 kg tested in accordance with ASTM D4280. The slope of retro- reflective surface shall be 35 (+/-5) degress to base .The reflective panels on both sides with at least 12 cm of reflective area up each side. The luminance intensity should be as per the specification and shall be tested as described in ASTM I: 809 as recommended in BS: 873 part 4 : 1973. The studs shall be fixed to the Road surface using the adhesive conforming to IS, as per procedure recommended by the manufacturer complete and as per direction of Engineer-in-charge.	each	<b>169.40</b>
<b>16.51</b>	Preparation of sub-base road pavement with commercial dry lime (slaked), fly ash stabilised soil with a mix of 3% lime, 12% fly ash and 85% local suitable soil by weight, so as to achieve minimum field C.B.R. of 20, including mixing, rolling with road roller curing etc. all complete.		
<b>16.51.1</b>	Minimum thickness 15 cm	cum	<b>629.50</b>
<b>16.52</b>	Providing and fixing precast lime fly ash concrete blocks 1:2:3:6 (1 lime: 2 fly ash : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size), including finishing with 10mm thick cement mortar 1:3 (1 cement : 3 coarse sand) in foot paths, including preparation of sub grade with a hand rammer, laying 10 mm thick leveling course of fine sand (jamuna sand) and filling the joints with fine sand.	cum	<b>5648.70</b>

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Code No.	Description	Unit	Rate Rs.
16.53	Providing and fixing concertina coil fencing with punched tape concertina coil 600 mm dia 10 metre openable length ( total length 90 m), having 50 nos rounds per 6 metre length, upto 3 m height of wall with existing angle iron 'Y' shaped placed 2.4 m or 3.00 m apart and with 9 horizontal R.B.T. reinforced barbed wire, stud tied with G.I. staples and G.I. clips to retain horizontal, including necessary bolts or G.I. barbed wire tied to angle iron, all complete as per direction of Engineer-in-charge, with reinforced barbed tape(R.B.T.) / Spring core (2.5mm thick) wire of high tensile strength of 165 kg/ sq.mm with tape (0.52 mm thick) and weight 43.478 gm/ metre (cost of M.S. angle, C.C. blocks shall be paid separately)	metre	263.50
16.54	Providing and laying Dense Graded Bituminous Macadam using crushed stone aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site by tippers, laying with paver finisher equipped with electronic sensor to the required grade, level and alignment and rolling with smooth wheeled, vibratory and tandem rollers as per specifications to achieve the desired compaction and density, complete as per specificatons and directions of Engineer-in-Charge.		
16.54.1	50 to 100 mm average compacted thickness with bitumen of grade VG-30 @ 5% (percentage by weight of total mix) and lime filler @ 2% (percentage by weight of Aggregate) prepared in Batch Type Hot Mix Plant of 100-120 TPH capacity.	cum	8054.60
16.54.2	50 to 100 mm average compacted thickness with bitumen of grade VG-30 @ 5% (percentage by weight of total mix) and lime filler @ 2% (percentage by weight of Aggregate) prepared in Drum Type Hot Mix Plant of 60-90 TPH capacity.	cum	7956.20
16.55	Providing and laying bituminous macadam using crushed stone aggregates of specified grading premixed with bituminous binder, transported to site by tippers, laid over a previously prepared surface with paver finisher equipped with electronic sensor to the required grade, level and alignment and rolling with smooth wheeled, vibratory and tandem rollers as per specifications to achieve the desired compaction and density, complete as per specificatons and directions of Engineer-in-Charge.		
16.55.1	50 to 100 mm average compacted thickness with bitumen of grade VG-30 @ 3.50% (percentage by weight of total mix) prepared in Batch Type Hot Mix Plant of 100-120 TPH capacity.	cum	5906.60
16.55.2	50 to 100 mm average compacted thickness with bitumen of grade VG-30 @ 3.50% (percentage by weight of total mix) prepared in Drum Type Hot Mix Plant of 60-90 TPH capacity.	cum	5839.00

Code No.	Description	Unit	Rate Rs.
<b>16.56</b>	Providing and laying semi- dense Bituminous concrete using crushed stone aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site by tippers, laying with paver finisher equiped with electronic sensor to the required grade, level and alignment and rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction and density as per specification, complete and as per directions of Engineer-in- Charge.		
<b>16.56.1</b>	25 mm compacted thickness with bitumen of grade VG-30 @ 5% (percentage by weight of total mix) and lime filler @ 2% (percentage by weight of Aggregate) prepared in Batch Type Hot Mix Plant of 100-120 TPH capacity.	sqm	<b>203.50</b>
<b>16.56.2</b>	25 mm compacted thickness with bitumen of grade VG-30 @ 5% (percentage by weight of total mix) and lime filler @ 2% (percentage by weight of Aggregate) prepared in Drum Type Hot Mix Plant of 60-90 TPH capacity.	sqm	<b>201.40</b>
<b>16.57</b>	Providing and laying Bituminous concrete using crushed stone aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site by tippers, laying with paver finisher equiped with electronic sensor to the required grade, level and alignment and rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction and density as per specification, complete and as per directions of Engineer-in-Charge.		
<b>16.57.1</b>	40/50 mm compacted thickness with bitumen of grade VG-30 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) prepared in Batch Type Hot Mix Plant of 100-120 TPH capacity.	cum	<b>8949.40</b>
<b>16.57.2</b>	40/50 mm compacted thickness with bitumen of grade VG-30 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) and waste plastic additive @ 8% (percentage by weight of bitumen) prepared in Batch Type Hot Mix Plant of 100-120 TPH capacity	cum	<b>9504.20</b>
16.57.3	40/50 mm compacted thickness with bitumen of grade PMB-40 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) prepared in Batch Type Hot Mix Plant of 100-120 TPH capacity.	cum	<b>7671.60</b>
16.57.4	40/50 mm compacted thickness with bitumen of grade CRMB-60 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) prepared in Batch Type Hot Mix Plant of 100-120 TPH capacity.	cum	<b>8975.00</b>

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Code No.	Description	Unit	Rate Rs.
16.57.5	40/50 mm compacted thickness with bitumen of grade VG-30 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) prepared in drum Type Hot Mix Plant of 60-90 TPH capacity.	cum	8865.30
16.57.6	40/50 mm compacted thickness with bitumen of grade VG-30 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) and waste plastic additive @ 8% (percentage by weight of bitumen) prepared in drum Type Hot Mix Plant of 60-90 TPH capacity.	cum	9420.10
16.57.7	40/50 mm compacted thickness with bitumen of grade PMB-40 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) prepared in drum Type Hot Mix Plant of 60-90 TPH capacity.	cum	7587.60
16.57.8	40/50 mm compacted thickness with bitumen of grade CRMB-60 @ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) prepared in Drum Type Hot Mix Plant of 60-90 TPH capacity.	cum	8891.00
<b>16.59</b>	Manufacturing, supplying and fixing retro reflective sign boards made up of 2 mm thick aluminium sheet, face to be fully covered with high intensity encapsulated type heat activated retro reflective sheeting conforming to type - IV of ASTM-D 4956-01 in blue and silver white or other colour combination including subject matter, message (bi- lingual), symbols and borders etc. as per IRC ; 67:2001, pasted on substrate by an adhesive backing which shall be activated by applying heat and pressure conforming to class -2 of ASTM-D-4956-01 and fixing the same with suitable sized aluminium alloy rivets @ 20 cm c/c to back support frame of M.S. angle iron of size 25x25x3 mm along with theft resistant measures, mounted and fixed with 2 Nos. M.S. angles of size 35x35x5 mm to a vertical post made up to M.S. Tee section ISMT 50x50x6 mm welded with base plate of size 100x100x5 mm at the bottom end and including making holes in pipes, angles flats, providing & fixing M.S. message plate of required size, steel work to be painted with two or more coats of synthetic enamel paint of required shade and of approved brand & manufacture over priming coat of zinc chromate yellow primer (vertical MS-Tee support to be painted in black and white colours).Backside of aluminium sheet to be painted with two or more coats of epoxy paint over and including appropriate priming coat including all leads and lifts etc. complete as per drawing, specification and direction of Engineer--in-charge.		
<b>16.59.1</b>	Mandatory/ Regulatory sign boards of 900 mm diametre with support length of 3750 mm	each	5416.60



Code No.	Description	Unit	Rate Rs.
16.59.2	Cautionary /warning sign boards of equilateral triangular shape having each side of 900 mm with support length of 3650 mm	each	3947.10
16.6	Manufacturing, supplying and fixing retro reflective overhead signage boards made up of 2 mm thick aluminium sheet, face to be fully covered with high intensity and encapsulated lens type heat activated retro reflective sheeting conforming to type - III of ASTM-D-4956-01 as approved by Engineer-in-charge, letters, borders etc. as per IRC : 67-2001 in silver white with blue colour back ground and with high intensity grade, pasted on substrate by pressure sensitive adhesive backing which shall be activated by applying pressure conforming to class II of ASTM-D-4956-01 and fixing the same to the plate of structural frame work by means of suitable sized aluminium alloys, rivets or bolts & nuts @ 300 mm centre to centre all along the periphery as well as in two vertical rows along with theft resistant measures, including the cost of painting with two or more coats of epoxy paint in grey colour on the back side of aluminium sheet including appropriate priming coat. The rate includes the cost of rounding off the corners, lowering down the structural frame work from the gantry, fixing and erecting the same in position all complete as per drawings, specification and direction of the engineer-in-charge.(Structural frame work including M.S. plate to be provided separately. Rectangular area of the sheet only shall be measured for payment).		
16.60.1	Overhead informatory road signage	sqm	5213.00
16.61	Providing Retro-reflective regulatory sign board of size 900 mm diameter made out of 2 mm thick aluminium sheet, face to be fully covered with high intensity encapsulated lens type retro -reflective sheeting as approved by Engineer-in-charge . Letter, symbols, borders etc. will be as per IRC - 67 with required colour scheme on the boards and with the high intensity grade A. The aluminium sheet to be riveted to M.S. frame of angle iron of size 40x40x4 mm. The boards will be fixed to 1 No. 50x50 mm square post made of M.S. angle 50x50x4 mm, 4 m long welded to the frame with adequate anti-theft arrangement .Sheet work to be painted with two or more coats of synthetic enamel paint over an under coat (primer) and back side of aluminium sheet to be painted with two or more coats of epoxy paint including appropriate priming coat complete in all respects as per direction of Engineer-in-charge.	each	5965.30
16.62	Providing and applying 2.5 mm thick road marking strips (retro-reflective) of specified shade/ colour using hot thermoplastic material by fully/ semi automatic thermoplastic paint applicator machine fitted with profile shoe, glass beads dispenser, propane tank heater and profile shoe heater, driven by experienced operator on road surface including cost of material, labour, T&P, cleaning the road surface of all dirt, seals, oil, grease and foreign material etc. complete as per direction of Engineer-in-charge and accordance with applicable specifications.	sqm	591.10



Code No.	Description	Unit	Rate Rs.
16.63	Providing, laying and making kerb channel 30 cm wide and 50 mm thick with cement concrete 1:3:6 (1 cement: 3 coarse sand:6 graded stone aggregate 20 mm nominal size) over 75mm bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including finishing the top smooth etc. complete and as per direction of Engineer-in-charge.	sqm	402.50
16.64	Providing and laying 75 mm thick compacted bed of dry brick aggregate of 40 mm thick nominal size including spreading, well ramming, consolidating and grouting with jamuna sand, including finishing smooth etc. complete as per direction of Engineer-in-charge.	sqm	215.10
16.65	Providing and fixing post delineators made of ABS round body fitted with 2 nos 100 mm dia high reflective reflectors and mounted on MS pipe of 65 mm dia duly powder coated anti-rust and anti theft steel to be installed as per direction of Engineer-in-charge.	each	714.50
16.66	Excavating holes upto 0.10 cum, including getting out the excavated soil, then returning the soil as deported in layers not exceeding 20 cm in depth, including consolidating and deposited layer by ramming watering etc., disposing of surplus excavated soil as directed with in a lead of 50 mm and lift upto 1.5 m.		
16.66.1	All kind of soil	each	37.30
16.67	Providing and fixing at or near ground level factory made RCC pavement slab of M-30 grade of size 450x450x50 mm, including reinforcement with 6 mm dia M.S. bars 4 nos on each side, including setting in position in footpath to the required level and line over a bed of 20 mm average thick cement mortar 1:5 (1 cement : 5 coarse sand), having joint thickness not more than 5mm except on curve, including filling of joints with same cement mortar and making grooves etc. complete as per direction of Engineer-in-charge.	sqm	1076.20
16.68	Providing and laying 60mm thick factory made cement concrete interlocking paver block of M -30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.	sqm	654.30
16.69	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	cum	7831.10

Code No.	Description	Unit	Rate Rs.
16.70	Providing and fixing G.I. chain link fabric fencing of required width in mesh size 50x50 mm including strengthening with 2 mm dia wire or nuts, bolts and washers as required complete as per the direction of Engineer-in-charge.		
	16.70.1 Made of G.I. wire of dia 4 mm	sqm	642.80
	16.70.2 Made of G.I. wire of dia. 4 mm, PVC coated to achieve outer dia not less than 5 mm in required colour and shade	sqm	670.90
16.71	Providing and fixing G.I. chain link fabric fencing of required width in mesh size 25x25 mm made of G.I. wire of dia 3 mm including strengthening with 2 mm dia wire or nuts, bolts and washers as required complete as per the direction of Engineer-in-charge.	sqm	755.20
16.72	Supplying and stacking of hard stone (for stone pitching) 22.5 cm thick at site.	cum	966.10
16.73	Dry stone pitching 22.5 cm thick laid in courses and required profile with hammer dressed stones having no side less than 15 cm, with minimum depth of 20 cm including preparing the bedding surface etc. all complete. (Payment for Stone to be made separately).	sqm	254.70
16.74	75 mm thick back filling for pitching including supplying of required materials and consolidation etc. complete with :		
	16.74.1 Moorum	sqm	33.30
	16.74.2 Stone aggregate 20 mm nominal size	sqm	69.10
	16.74.3 Stone aggregate 40 mm nominal size	sqm	58.00
16.75	Providing and laying C.C. pavement of mix M-25 with ready mixed concrete from batching plant. The ready mixed concrete shall be laid and finished with screed board vibrator , vacuum dewatering process and finally finished by floating, brooming with wire brush etc. complete as per specifications and directions of Engineer-in- charge. (The panel shuttering work shall be paid for separately). (Note:- Cement content considered in this item is @ 330 kg/cum. Excess/less cement used as per design mix is payable/ recoverable separately).	cum	5618.40
16.76	Deduct for using of M-20 grade concrete instead of M-25 grade concrete in C.C. pavement.	cum	171.80
16.77	Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material within all lifts and lead upto 1km (by mechanical means).	sqm	3.80
16.78	Construction of granular sub-base by providing close graded Material conforming to specifications, mixing in a mechanical mix plant at OMC, carriage of mixed material by tippers to work site, for all leads & lifts, spreading in uniform layers of specified thickness with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per specifications and directions of Engineer-in-Charge.		

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Code No.	Description	Unit	Rate Rs.
16.78.1	With material conforming to Grade-I (size range 75 mm to 0.075 mm) having CBR Value-30	cum	1211.70
16.78.2	With material conforming to Grade-II (size range 53 mm to 0.075 mm ) having CBR Value-25	cum	1215.70
16.78.3	With material conforming to Grade-III (size range 26.5 mm to 0.075 mm ) having CBR Value-20	cum	1240.70
16.79	Providing, laying, spreading and compacting graded stone aggregate (size range 53 mm to 0.075 mm ) to wet mix macadam (WMM) specification including premixing the material with water at OMC in for all leads & lifts, laying in uniform layers with mechanical paverfinisher in sub- base / base course on well prepared surface and compacting with vibratory roller of 8 to 10 tonne capacity to achievethe desired density, complete as per specifications and directions of Engineer-in-Charge.	cum.	1179.00
16.80	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 specifications, 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, for all leads & lifts, laid with a mechanical paver, compacting with 8-10 tonne vibratory roller, finishing and curing etc. complete as per direction of Engineer- in-charge.	cum	2004.30
16.81	Providing and erecting 2.00 metre high temporary barricading at site as per drawing/ direction of Engineer-in-Charge which includes writing and painting, arrangement for traffic diversion such as traffic signals during construction at site for day and night, glow lamps, reflective signs, marking, flags, caution tape as directed by the Engineer-in- Charge. The barricading provided shall be retained in position at site continuously i/c shifting of barricading from one location to another location as many times as required during the execution of the entire work till its completion. Rate include its maintenance for damages, painting, all incidentals, labour materials, equipments and works required to execute the job. The barricading shall not be removed without prior approval of Engineer-in-Charge.	metre	1560.20
	(Note :- One time payment shall be made for providing barricading from start of work till completion of work i/c shifting. The barricading provided shall remain to be the property of the contractor on completion of the work).		
16.82	Taking out existing kerb stones of all types from footpath/ central verge, including removal of mortar etc., disposal of unserviceable material to the dumping ground, for which payment shall be made separately and stacking of serviceable material within 50 metre lead as per direction of Engineer-in-Charge.	metre	14.90

Code No.	Description	Unit	Rate Rs.
16.83	Taking out existing CC interlocking paver blocks from footpath/ central verge, including removal of rubbish etc., disposal of unserviceable material to the dumping ground, for which payment shall be made separately and stacking of serviceable material within 50 metre lead as per direction of Engineer-in-Charge	sqm	57.30
16.84	Laying old cement concrete interlocking paver blocks of any design/ shape laid in required line, level, curvature, colour and pattern over and including 50 mm thick compacted bed of coarse sand, filling the joints with fine sand etc. all complete as per the direction of Engineer-in-charge. (Old CC paver blocks shall be supplied by the department free of cost).	sqm	66.50
16.85	Laying at or near ground level old kerb stones of all types in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement : 3 coarse sand), including making joints with or without grooves (thickness of joints, except at sharp curve, shall not be more than 5 mm), including making drainage opening wherever required etc. complete as per direction of Engineer-in-charge. (Length of finished kerb edging shall be measured for payment). (Old kerb stones shall be supplied by the department free of cost)	metre	42.90
16.86	Providing and laying gang saw cut 18 mm thick, mirror polished pre moulded and pre polished machine cut granite stone of required size and shape of approved shade, colour and texture in footpath, flooring in road side plazas and similar locations, laid over 20mm thick base of cement mortar 1:4 (1cement : 4 coarse sand) including grouting the joints with white cement mixed with matching pigment, epoxy touch ups etc. complete as per direction of Engineer-in-Charge.		
	16.86.1 With granite stone of area less than 0.50 sqm.	sqm	3073.80
16.87	Providing and laying gang saw cut 30 mm thick, mirror polished pre moulded and pre polished machine cut granite stone of required size and shape of approved shade, colour and texture in footpath, flooring in road side plazas and similar locations, laid over 20mm thick base of cement mortar 1:4 (1 cement : 4 coarse sand) including grouting the joints with white cement mixed with matching pigment, epoxy touch ups etc. complete as per direction of Engineer-in-Charge.		
	16.87.1 With granite stone of area less than 0.50 sqm.	sqm	3354.80
16.88	Providing and laying matt finished vitrified tile of size 100x100x16mm having water absorption less than 0.5% and conforming to IS: 15622 of approved make in all colours and shades in out door floors such as footpath, court yard multi models etc., laid on 20mm thick base of cement mortar 1:4 (1cement : 4 coarse sand) in all shapes & patterns including grouting the joints with white cement mixed with matching pigments etc. complete as direction of Engineer-in-Charge.	sqm	1712.10

Code No.	Description	Unit	Rate Rs.
16.89	Providing and laying matt finished vitrified tile of size 300x300x9.8mm having water absorption less than 0.5% and conforming to IS: 15622 of approved make in all colours and shades in outdoor floors such as footpath, court yard, multi modals location etc., laid on 20mm thick base of cement mortar 1:4 (1 cement : 4 coarse sand) in all shapes & patterns including grouting the joints with white cement mixed with matching pigments etc. complete as per direction of Engineer-in-Charge.	sqm	1043.10
16.90	Providing and laying tactile tile (for vision impaired persons as per standards) of size 300x300x9.8mm having water absorption less than 0.5% and conforming to IS: 15622, of approved make in all colours and shades in outdoor floors such as footpath, court yard, multi modals location etc., laid on 20mm thick base of cement mortar 1:4 (1 cement : 4 coarse sand) in all shapes & patterns including grouting the joints with white cement mixed with matching pigments etc. complete as per direction of Engineer-in-Charge.	sqm	1712.10
16.91	Providing and laying factory made chamfered edge Cement Concrete paver blocks In foot path, park & lawns driveway or light & traffic parking etc. of required strength, thickness & size/ shape, made by table vibratory method using PU mould, laid in required colour & pattern over 50mm thick compacted bed of course sand, compacting and proper embedding/laying of inter locking paver blocks into the sand bedding layer through vibratory compaction by using plate vibrator, filling the joints with sand and cutting of paver blocks as per required size and pattern, finishing and sweeping extra sand, all complete as per manufacturer's specifications & direction of Engineer-in-Charge.		
16.91.1	60mm thick Cement concrete paver block of M-35 grade with approved colour, design & pattern	sqm	725.70
16.91.2	80mm thick Cement concrete paver block of M-30 grade with approved colour, design & pattern.	sqm	750.90
16.92	Providing and fixing 10x10x7.50 cm Granite stone block hand cut and chisel dressed on top, for paving in floors, drains etc. laid over 20mm thick base mortar 1:4 (1 cement : 4 coarse sand) with joints 10mm wide filled with same mortar including ruled pointing etc. complete as per direction of engineer-in-charge.	sqm	1494.20
16.93	Providing and placing in position 100 mm thick factory made machine batched & machine mixed Precast RCC Rectangular Covers on drains of footpath of various sizes, of M-25 grade cement concrete for RCC work, including cost of centering, shuttering, reinforcement of 8 mm dia TMT bars of Fe 500 grade @ maximum 100mm c/c on both ways , neat cement punning on finished surface, properly encased on all edges with 1.6 mm thick , 100 mm wide MS sheet duly painted over priming coat , reinforcement to be welded at edges with MS sheet and providing 2 Nos. 12 mm dia bar for hooks etc i/c cost of cartage, all leads & lift, handling at site etc. all complete as per direction of Engineer-in-Charge.	sqm	2067.50

16.94	Providing & making Gabion structure with Mechanically Woven Double Twisted Hexagonal Shaped Wire mesh Gabion Boxes as per IS 16014:2012,MORTH Clause 2500, of required size, Mesh Type 10x12 (D=100 mm with tolerance of $\pm 2\%$ ) zinc coated, Mesh wire diameter 3.0 mm, mechanically edged/ selvedged with partitions at every 1m interval and shall have minimum 10 numbers of openings per meter of mesh perpendicular to twist, tying with lacing wire of diameter 2.2mm, supplied @3% by weight of Gabion boxes, filled with boulders with least dimension of 200 mm, as per drawing, all complete as per direction of Engineer-in-charge.	cum	2959.20
16.95	Providing & making Gabion structure with Mechanically Woven Double Twisted Hexagonal Shaped Wire mesh Gabion Boxes as per IS 16014:2012,MORTH Clause 2500, of required size, Mesh Type 10x12(D=100 mm with tolerance of $\pm 2\%$ ) Zinc+PVC coated, Mesh wire diameter 2.7/3.7mm, mechanically edged/ selvedged with partitions at every 1m interval and shall have minimum 10 numbers of openings per meter of mesh perpendicular to twist, tying with lacing wire of diameter 2.2/ 3.2mm(ID/OD), supplied @3% by weight of Gabion boxes, filled with boulders with least dimension of 200 mm, as per drawing, all complete as per directions of Engineer-in- charge.	cum	3179.90
16.96	Providing & making Gabion structure with Mechanically Woven Double Twisted Hexagonal Shaped Wire mesh Gabion Boxes as per IS 16014:2012,MORTH Clause 2500, of required size, Mesh Type 10x12(D=100 mm with tolerance of $\pm 2\%$ ), Zinc+10% Al alloy+PVC coated, Mesh wire diameter 2.7/3.7mm (ID/OD), mechanically edged/selvedged with partitions at every 1m interval and shall have minimum 10 numbers of openings per meter of mesh perpendicular to twist, tying with lacing wire of diameter 2.2/3.2mm(ID/OD), supplied @3% by weight of Gabion boxes, filled with boulders with least dimension of 200 mm, as per drawing, all complete as per directions of Engineer- in- charge.	cum	3695.00

*[Handwritten signatures and initials]*







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**SUB HEAD : 17.0**  
**SANITARY INSTALLATIONS**

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**17.0 SANITARY INSTALLATIONS**

Code No.	Description	Unit	Rate Rs.
17.1	Providing and fixing water closet squatting pan (Indian type W.C.pan ) with 100 mm sand cast Iron P or S trap, 10 litre low fixtures complete, including cutting and making good the walls and level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and floors wherever required :		
17.1.1	White Vitreous china Orissa pattern W.C. pan of size 580x440 mm with integral type foot rests	each	4251.10
17.1.2	Stainless Steel AISI-304(18/8) Orissa pattern W.C. pan of size 585x480 mm with flush pipe and integrated type foot rests	each	8666.30
17.2	Providing and fixing white vitreous china pedestal type water closet (European type W.C. pan) with seat and lid, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever), conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required :		
17.2.1	W.C. pan with ISI marked white solid plastic seat and lid	each	4090.60
17.2.2	W.C. pan with ISI marked black solid plastic seat and lid	each	3970.20
17.3	Providing and fixing white vitreous china pedestal type water closet (European type) with seat and lid, 10 litre low level white vitreous china flushing cistern & C.P. flush bend with fittings & C.I.brackets, 40 mm flush bend, overflow arrangement with specials of standard make and mosquito proof coupling of approved municipal design complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required :		
17.3.1	W.C. pan with ISI marked white solid plastic seat and lid	each	5395.20
17.3.2	W.C. pan with ISI marked black solid plastic seat and lid	each	5274.80
17.4	Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350 mm and 340x410x265 mm sizes respectively with automatic flushing cistern with standard flush pipe and C.P. brass spreaders with brass unions and G.I clamps complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required :		
17.4.1	One urinal basin with 5 litre white P.V.C. automatic flushing cistern	each	3622.40
17.4.2	Range of two urinal basins with 5 litre white P.V.C. automatic flushing cistern	each	5561.80
17.4.3	Range of three urinal basins with 10litre white P.V.C. automatic flushing cistern	each	7663.20

Code No.	Description	Unit	Rate Rs.
17.4.4	Range of four urinal basins with 10 litre white P.V.C. automatic flushing cistern	each	10416.60
17.5	Providing and fixing white vitreous china flat back half stall urinal of size 580x380x350 mm with white PVC automatic flushing cistern,with fittings, standard size C.P. brass lush pipe, spreaders with unions and clamps (all in C.P. brass) with waste fitting as per IS :2556, C.I. trap with outlet grating and other couplings in C.P. brass, including painting of fittings and cutting and making good the walls and floors wherever required :		
17.5.1	Single half stall urinal with 5 litre P.V.C. automatic flushing cistern	each	6170.60
17.5.2	Range of two half stall urinals with 5 litre P.V.C. automatic flushing cistern	each	9293.20
17.5.3	Range of three half stall urinals with 10 litre P.V.C. automatic flushing cistern	each	11753.80
17.5.4	Range of four half stall urinals with 10 litre P.V.C. automatic flushing cistern	each	14068.90
17.6	Providing and fixing one piece construction white vitreous china squatting plate with an integral longitudinal flushing pipe, white P.V.C.automatic flushing cistern, with fittings, standard size G.I. / PVCflush pipe for back and front flush with standard spreader pipes with fittings, G.I clamps and C.P. brass coupling complete, including painting of fittings and cutting and making good the walls and floors etc. wherever required :		
17.6.1	Single squatting plate with 5 litre P.V.C. automatic flushing cistern	each	4998.50
17.6.2	Range of two squatting plates with 5 litre P.V.C. automatic flushing cistern	each	<b>7506.60</b>
17.6.3	Range of three squatting plates with 10 litre P.V.C. automatic flushing cistern	each	<b>10039.60</b>
17.6.4	Range of four squatting plates with 10 litre P.V.C. automatic flushing cistern	each	<b>12298.90</b>
17.7	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require :		
17.7.1	White Vitreous China Wash basin size 630x450 mm with a pair of 15 mm C.P. brass pillar taps	each	<b>2538.80</b>
17.7.2	White Vitreous China Wash basin size 630x450 mm with a single 15 mm C.P. brass pillar tap	each	2230.60
17.7.3	White Vitreous China Wash basin size 550x400 mm with a pair of 15 mm C.P. brass pillar taps	each	2298.00

Code No.	Description	Unit	Rate Rs.
17.7.4	White Vitreous China Flat back wash basin size 550x 400 mm with single 15 mm C.P. brass pillar tap	each	1989.80
17.7.5	White Vitreous China Angle back wash basin size 600x480 mm with single 15 mm C.P. brass pillar tap	each	2230.60
17.7.6	White Vitreous China Angle back wash basin size 400x400 mm with single 15 mm C.P. brass pillar tap	each	1829.30
17.7.7	White Vitreous China Flat back wash basin size 450x300 mm with single 15 mm C.P. brass pillar tap	each	1675.40
17.7.8	White Vitreous China Surgeon type wash basin of size 660x460 mm with a pair of 15 mm C.P. brass pillar taps with elbow operated levers	each	3503.50
17.7.9	White Vitreous China Surgeon type wash basin of size 660x460 mm with single 15 mm C.P. brass pillar taps with elbow operated levers ISI marked	each	2896.90
17.7.10	Stainless Steel AISI-304(18/8) Round basin 405x355 mm with single 15 mm C.P. brass pillar tap	each	3267.60
17.7.11	Stainless Steel AISI-304(18/8) Wash basin 530x345 mm with single 15 mm C.P. brass pillar tap	each	3936.50
17.7 A	Providing and fixing wash basin with C.I. brackets, 15 mm dia CP Brass single hole basin mixer of approved quality and make, including painting of fittings and brackets, cutting and making good the walls wherever required:- (a) White Vitreous China Wash basin size 550x400 mm with a 15 mm CP Brass single hole basin mixer	each	3869.40
17.7 B	Providing and fixing wash basin with C.I. brackets, 15 mm PTMT pillar cock, 32 mm PTMT waste coupling of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever required. White Vitreous China Flat back wash basin size 550x400 mm with single 15 mm PTMT pillar cock.	each	1849.80
17.8	Providing and fixing white vitreous china pedestal for wash basin completely recessed at the back for the reception of pipes and fittings.	each	1420.20
17.9	Providing and fixing kitchen sink with C.I. brackets, C.P. brass chain with rubber plug, 40 mm C.P. brass waste complete, including painting the fittings and brackets, cutting and making good the walls wherever required :		
17.9.1	White glazed fire clay kitchen sink of size 600x450x250 mm	each	2704.70

*[Handwritten signatures and initials]*

Code No.	Description	Unit	Rate Rs.
<b>17.10</b>	Providing and fixing Stainless Steel A ISI 304 (18/8) kitchen sink as per IS : 13983 with C.I. brackets and stainless steel plug 40 mm,including painting of fittings and brackets, cutting and making good the walls wherever required :		
17.10.1	Kitchen sink with drain board		
17.10.1.1	510x1040 mm bowl depth 250 mm	each	4476.70
17.10.1.2	510x1040 mm bowl depth 225 mm	each	5172.40
17.10.1.3	510x1040 mm bowl depth 200 mm	each	4904.90
17.10.1.4	510x1040 mm bowl depth 178 mm	each	4503.50
<b>17.10.2</b>	Kitchen sink without drain board		
17.10.2.1	610x510 mm bowl depth 200 mm	each	3204.40
17.10.2.2	610x460 mm bowl depth 200 mm	each	2370.20
17.10.2.3	470x420 mm bowl depth 178 mm	each	2169.50
<b>17.11</b>	Providing and fixing white vitreous china laboratory sink with C.I. brackets, C.P. brass chain with rubber plug, 40 mm C.P brass waste and 40mm C.P. brass trap with necessary C.P. brass unions complete, including painting of fittings and brackets, cutting and making good the wall wherever required :		
17.11.1	Size 450x300x150 mm	each	3664.00
17.11.2	Size 600x450x200 mm	each	5001.90
<b>17.12</b>	Providing and fixing draining board with C.I. brackets including painting of brackets, cutting and making good the walls wherever required :		
17.12.1	White glazed fire clay draining board of size 600x450x25 mm	each	1023.80
<b>17.13</b>	Providing and fixing white vitreous china water closet squatting pan (Indian type) :		
17.13.1	Long pattern W.C. pan of size 580 mm	each	1125.60
17.13.2	Orissa pattern W.C. pan of size 580x440 mm	each	2129.10
<b>17.14</b>	Extra for using coloured W.C. pan instead of white W.C. pan :		
17.14.1	Orissa pattern W.C. pan 580x440 mm	each	842.90
<b>17.15</b>	Providing and fixing white vitreous china pedestal type (European type/ wash down type) water closet pan.	each	1861.50
<b>17.16</b>	Extra for using coloured pedestal type W.C pan (European type)with low level cistern of same colour instead of white vitreous china W.C pan and cistern.	each	260.90
<b>17.16A</b>	Providing and fixing 8 mm dia C.P. / S.S. Jet with flexible tube upto 1 metre long with S.S. triangular plate to European type W.C. of quality and make as approved by Engineer - in - charge.	each	297.60

Code No.	Description	Unit	Rate Rs.
<b>17.17</b>	Providing and fixing a pair of white vitreous china foot rests of standard pattern for squatting pan water closet :		
17.17.1	250x130x30 mm	pair	186.50
17.17.2	250x125x25 mm	pair	186.50
<b>17.18</b>	Providing and fixing P.V.C. low level flushing cistern with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete.		
17.18.1	10 litre capacity - White	each	897.30
17.18.2	10 litre capacity - coloured	each	868.70
<b>17.19</b>	Providing and fixing controlled flush, low level cistern made of vitreous china with all fittings complete.		
17.19.1	10 litre (full flush) capacity-white	each	1429.00
17.19.2	10 litre (full flush) capacity-coloured	each	2031.00
<b>17.20</b>	Providing and fixing solid plastic seat with lid for pedestal type W.C. pan complete :		
17.20.1	White solid plastic seat with lid	each	571.00
17.20.2	Black solid plastic seat with lid	each	450.60
17.20.3	Coloured (other than black & white) solid plastic seat with lid	each	557.60
<b>17.21</b>	<b>Deleted.</b>		
<b>17.22</b>	Providing and fixing G.I. inlet connection for flush pipe connecting with W.C. pan.	each	116.10
<b>17.22A</b>	Providing and fixing CP Brass 32mm size Bottle Trap of approved quality & make and as per the direction of Engineer-in-charge.	each	883.00
<b>17.22B</b>	Providing and fixing CP Brass Single lever telephonic wall mixer of quality & make as pproved by Engineer in charge. (a) 15 mm nominal dia	each	6113.60
<b>17.23</b>	Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350 mm or 340x410x265 mm sizes respectively.	each	987.60
<b>17.24</b>	Providing and fixing white vitreous china squatting plate urinal with integral rim longitudinal flush pipe.	each	2381.30
<b>17.25</b>	Providing and fixing white vitreous china wash basin including making all connections but excluding the cost of fittings :		
17.25.1	Flat back wash basin of size 630x450 mm	each	1139.40
17.25.2	Flat back wash basin of size 550x400 mm	each	898.60
17.25.3	Angle back wash basin of size 600x480 mm	each	1139.40
17.25.4	Angle back wash basin of size 400x400 mm	each	738.00



Code No.	Description	Unit	Rate Rs.
17.25.5	Flat back wash basin of size 450x300 mm	each	584.20
17.25.6	Surgeon type wash basin of size 660x460 mm	each	1507.30
<b>17.26</b>	Providing and fixing kitchen sink including making all connections excluding cost of fittings.		
17.26.1	White glazed fire clay sink of size 600x450x250 mm	each	1853.60
<b>17.27</b>	Providing and fixing white vitreous china laboratory sink including making all connections excluding cost of fittings :		
17.27.1	Size 450x300x150 mm	each	2144.00
17.27.2	Size 600x450x200 mm	each	3481.90
<b>17.28</b>	Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete.		
17.28.1	Semi rigid pipe		
17.28.1.1	32 mm dia	each	87.70
17.28.1.2	40 mm dia	each	98.40
17.28.2	Flexible pipe		
17.28.2.1	32 mm dia	each	101.10
17.28.2.2	40 mm dia	each	101.10
<b>17.29</b>	Providing and fixing 100 mm sand cast Iron grating for gully trap.	each	44.60
<b>17.30</b>	Providing and fixing in position 25 mm diameter mosquito proof coupling of approved municipal design.	each	45.00
<b>17.31</b>	Providing and fixing 600x450 mm beveled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.	each	978.90
<b>17.32</b>	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing :		
17.32.1	Circular shape 450 mm dia	each	974.90
17.32.2	Rectangular shape 453x357 mm	each	853.10
17.32.3	Oval shape 450x350 mm (outer dimensions)	each	918.50
17.32.4	Rectangular shape 1500x450 mm	each	1519.40
<b>17.33</b>	Providing and fixing 600x120x5 mm glass shelf with edges round off, supported on anodised aluminium angle frame with C.P. brass brackets and guard rail complete fixed with 40 mm long screws, rawl plugs etc., complete.	each	639.40
<b>17.34</b>	Providing and fixing toilet paper holder :		
17.34.1	C.P. brass	each	468.10
17.34.2	Vitreous china	each	310.50

Code No.	Description	Unit	Rate Rs.
<b>17.35</b>	Providing and fixing soil, waste and vent pipes :		
17.35.1	100 mm dia		
17.35.1.1	Sand cast iron S&S pipe as per IS: 1729	metre	974.70
17.35.1.3	Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905	metre	1019.50
17.35.1.2	Centrifugally cast (spun) iron socket & spigot (S&S) pipe as per IS: 3989	metre	1057.80
17.35.2	75 mm diameter :		
17.35.2.1	Sand cast iron S&S pipe as per IS: 1729	metre	895.40
17.35.2.2	Centrifugally cast (spun) iron socketed pipe as per IS: 3989	metre	907.30
17.35.2.3	Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905	metre	832.60
<b>17.36</b>	Providing and filling the joints with spun yarn, cement slurry and cement mortar 1:2 ( 1 cement : 2 fine sand) in S.C.I./ C.I. Pipes :		
17.36.1	75 mm dia pipe	each	68.50
17.36.2	100 mm dia pipe	each	80.70
<b>17.37</b>	Providing and fixing M.S. holder-bat clamps of approved design to Sand Cast iron/cast iron (spun) pipe embedded in and including cement concrete blocks 10x10x10 cm of 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size),including cost of cutting holes and making good the walls etc.:		
17.37.1	For 100 mm dia pipe	each	170.00
17.37.2	For 75 mm dia pipe	each	166.00
<b>17.38</b>	Providing and fixing bend of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete.		
17.38.1	100 mm dia		
17.38.1.1	Sand cast iron S&S as per IS - 1729	each	461.60
17.38.1.2	Sand cast iron S&S as per IS - 3989	each	461.60
17.38.1.3	Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	each	548.60
17.38.2	75 mm dia		
17.38.2.1	Sand cast iron S&S as per IS - 1729	each	371.40
17.38.2.2	Sand cast iron S&S as per IS- 3989	each	384.80
17.38.2.3	Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	each	438.30
<b>17.39</b>	Providing and fixing plain bend of required degree.		
17.39.1	100 mm dia		
17.39.1.1	Sand cast iron S&S as per IS - 1729	each	422.20
17.39.1.2	Sand cast iron S&S as per IS : 3989	each	390.70

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Code No.	Description	Unit	Rate Rs.
17.39.1.3	Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905	each	343.90
17.39.2	75 mm dia		
17.39.2.1	Sand cast iron S&S as per IS -1729	each	309.80
17.39.2.2	Sand cast iron S&S as per IS - 3989	each	289.80
17.39.2.3	Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905	each	242.90
<b>17.40</b>	Providing and fixing heel rest sanitary bend		
17.40.1	100 mm dia		
17.40.1.1	Sand cast iron S&S as per IS - 1729	each	500.40
17.40.1.2	Sand cast iron S&S as per IS - 3989	each	432.20
17.40.2	75 mm dia		
17.40.2.1	Sand cast iron S&S as per IS - 1729	each	395.50
17.40.2.2	Sand cast iron S&S as per IS - 3989	each	363.40
<b>17.41</b>	Providing and fixing double equal junction of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete :		
17.41.1	100x100x100x100 mm		
17.41.1.1	Sand cast iron S&S as per IS - 1729	each	1016.50
17.41.1.2	Sand cast iron S&S as per IS - 3989	each	882.70
17.41.2	75x75x75x75 mm		
17.41.2.1	Sand cast iron S&S as per IS - 1729	each	719.20
17.41.2.2	Sand cast iron S&S as per IS - 3989	each	692.50
<b>17.42</b>	Providing and fixing double equal plain junction of required degree.		
17.42.1	100x100x100x100 mm		
17.42.1.1	Sand cast iron S&S as per IS - 1729	each	825.60
17.42.1.2	Sand cast iron S&S as per IS - 3989	each	865.70
17.42.1.3	Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905	each	718.50
17.42.2	75x75x75x75 mm		
17.42.2.1	Sand cast iron S&S as per IS - 1729	each	540.00
17.42.2.2	Sand cast iron S&S as per IS - 3989	each	647.00
17.42.2.3	Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905	each	396.80
<b>17.43</b>	Providing and fixing single equal plain junction of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete.		
17.43.1	100x100x100 mm		

Code No.	Description	Unit	Rate Rs.
	17.43.1.1 Sand cast iron S&S as per IS - 1729	each	602.10
	17.43.1.2 Sand cast iron S&S as per IS - 3989	each	722.50
	17.43.2 75x75x75 mm		
	17.43.2.1 Sand cast iron S&S as per IS - 1729	each	478.40
	17.43.2.2 Sand cast iron S&S as per IS - 3989	each	549.30
<b>17.44</b>	Providing and fixing single equal plain junction of required degree :		
	17.44.1 100x100x100 mm		
	17.44.1.1 Sand cast iron S&S as per IS - 1729	each	517.80
	17.44.1.2 Sand cast iron S&S as per IS - 3989	each	667.70
	17.44.1.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	each	571.40
	17.44.2 75x75x75 mm		
	17.44.2.1 Sand cast iron S&S as per IS - 1729	each	400.80
	17.44.2.2 Sand cast iron S&S as per IS - 3989	each	470.40
	17.44.2.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	each	316.50
<b>17.45</b>	Providing and fixing double unequal junction of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete :		
	17.45.1 100x100x75x75 mm		
	17.45.1.1 Sand cast iron S&S as per IS - 1729	each	996.80
	17.45.1.2 Sand cast iron S&S as per IS - 3989	each	1197.50
<b>17.46</b>	Providing and fixing double unequal plain junction of required degree :		
	17.46.1 100x100x75x75 mm		
	17.46.1.1 Sand cast iron S&S as per IS - 1729	each	859.00
	17.46.1.2 Sand cast iron S&S as per IS - 3989	each	1106.50
	17.46.1.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	each	571.40
<b>17.47</b>	Providing and fixing single unequal junction of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete :		
	17.47.1 100x100x75 mm		
	17.47.1.1 Sand cast iron S&S as per IS - 1729	each	796.10
	17.47.1.2 Sand cast iron S&S as per IS - 3989	each	916.50
<b>17.48</b>	Providing and fixing single unequal plain junction of required degree :		
	17.48.1 100x100x75 mm		
	17.48.1.1 Sand cast iron S&S as per IS - 1729	each	697.10

Code No.	Description	Unit	Rate Rs.
	17.48.1.2 Sand cast iron S&S as per IS - 3989	each	798.80
	17.48.1.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	each	537.90
<b>17.49</b>	Providing and fixing double equal plain invert branch of required degree:		
	17.49.1 100x100x100x100 mm		
	17.49.1.1 Sand cast iron S&S as per IS - 1729	each	772.00
	17.49.1.2 Sand cast iron S&S as per IS 3989	each	745.30
	17.49.1.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	each	872.40
	17.49.2 75x75x75x75 mm		
	17.49.2.1 Sand cast iron S&S as per IS - 1729	each	577.40
	17.49.2.2 Sand cast iron S&S as per IS - 3989	each	597.50
<b>17.50</b>	Providing and fixing single equal plain invert branch of required degree :		
	17.50.1 100x100x100 mm		
	17.50.1.1 Sand cast iron S&S as per iron 1729	each	584.70
	17.50.1.2 Sand cast iron S&S as per IS - 3989	each	604.80
	17.50.1.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	each	558.00
	17.50.2 75x75x75 mm		
	17.50.2.1 Sand cast iron S&S as per IS - 1729	each	457.00
	17.50.2.2 Sand cast iron S&S as per IS - 3989	each	461.00
	17.50.2.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	each	376.70
<b>17.51</b>	Providing and fixing double unequal invert branch of required degree :		
	17.51.1 100x100x75x75 mm		
	17.51.1.1 Sand cast iron S&S as per IS - 1729	each	798.80
	17.51.1.2 Sand cast iron S&S as per IS - 3989	each	1006.20
<b>17.52</b>	Providing and fixing single unequal plain invert branch of required degree :		
	17.52.1 100x100x75 mm		
	17.52.1.1 Sand cast iron S&S as per IS - 1729	each	698.50
	17.52.1.2 Sand cast iron S&S as per IS - 3989	each	765.40
	17.52.1.3 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	each	611.50



Code No.	Description	Unit	Rate Rs.
<b>17.53</b>	Providing and fixing sand cast iron S&S off sets as per IS: 1729		
17.53.1	76 mm off sets		
17.53.1.1	With 75 mm dia pipe	each	320.50
17.53.1.2	With 100 mm dia pipe	each	514.50
17.53.2	114 mm off sets		
17.53.2.1	With 75 mm dia pipe	each	437.60
17.53.2.2	With 100 mm dia pipe	each	548.60
17.53.3	152 mm off sets		
17.53.3.1	With 75 mm dia pipe	each	527.00
17.53.3.2	With 100 mm dia pipe	each	656.80
<b>17.53A</b>	Providing and fixing Hubless centrifugally cast iron offsets epoxy coated inside & outside as per IS:15905		
17.53A.1	65MM offsets		
17.53A.1.1	With 100 mm dia pipe	each	510.50
17.53A.1.2	With 75 mm dia pipe	each	423.60
<b>17.54</b>	Providing and fixing sand cast iron S&S off sets as per IS: 3989 :		
17.54.1	75 mm off sets		
17.54.1.1	With 75 mm dia pipe	each	329.90
17.54.2	150 mm off sets		
17.54.2.1	With 75 mm dia pipe	each	424.40
17.54.2.2	With 100 mm dia pipe	each	564.90
<b>17.54A</b>	Providing and fixing Hubless centrifugally cast iron offsets epoxy coated inside & outside as per IS:15905		
17.54A.1	130MM offsets		
17.54A.1.1	With 100 mm dia pipe	each	624.90
17.54A.1.2	With 75 mm dia pipe	each	443.60
<b>17.55</b>	Providing and fixing door piece, insertion rubber washer 3mm thick,bolts & nuts complete :		
17.55.1	100 mm		
17.55.1.1	Sand cast iron S&S as per IS - 1729	each	695.80
17.55.1.2	Sand cast iron S&S as per IS - 3989	each	595.40
17.55.2	75 mm		
17.55.2.1	Sand cast iron S&S as per IS - 1729	each	428.90
17.55.2.2	Sand cast iron S&S as per IS - 3989	each	445.00
<b>17.56</b>	Providing and fixing terminal guard :		
17.56.1	100 mm		
17.56.1.1	Sand cast iron S&S as per IS - 1729	each	355.90

Code No.	Description	Unit	Rate Rs.
17.56.1.2	Sand cast iron S&S as per IS - 3989	each	389.40
17.56.1.3	Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	each	397.40
17.56.2	75 mm		
17.56.2.1	Sand cast iron S&S as per IS - 1729	each	284.40
17.56.2.2	Sand cast iron S&S as per IS - 3989	each	309.80
<b>17.57</b>	Providing and fixing collar :		
17.57.1	100 mm		
17.57.1.1	Sand cast iron S&S as per IS - 1729	each	365.30
17.57.1.2	Sand cast iron S&S as per IS - 3989	each	409.50
17.57.2	75 mm		
17.57.2.1	Sand cast iron S&S as per IS - 1729	each	265.70
17.57.2.2	Sand cast iron S&S as per IS - 3989	each	256.30
<b>17.57A</b>	Providing and fixing shielded coupling for Hubless centrifugally cast iron pipe		
17.57A.1	100MM		
17.57A.1.1	SS 304 grade coupling with EPDM rubber gasket	each	404.10
17.57A.2	With 75 mm dia pipe		
17.57A.2.1	SS 304 grade coupling with EPDM rubber gasket	each	363.40
<b>17.58</b>	Providing lead caulked joints to sand cast iron/centrifugally cast (spun) iron pipes and fittings of diameter :		
17.58.1	100 mm	each	373.80
17.58.2	75 mm	each	321.80
17.58.3	50 mm	each	262.50
<b>17.59</b>	Providing and fixing M.S. stays and clamps for sand cast iron/centrifugally cast (spun) iron pipes of diameter :		
17.59.1	100 mm	each	126.50
17.59.2	75 mm	each	78.40
17.59.3	50 mm	each	72.20
<b>17.60</b>	Providing and fixing trap of self cleansing design with screwed down or hinged grating with or without vent arm complete, including cost of cutting and making good the walls and floors :		
17.60.1	100 mm inlet and 100 mm outlet		
17.60.1.1	Sand cast iron S&S as per IS: 3989	each	1097.10
17.60.1.2	Sand Cast Iron S&S as per IS: 1729	each	857.60
17.60.1.3	Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	each	758.70
17.60.2	100 mm inlet and 75 mm outlet		



Code No.	Description		Unit	Rate Rs.
	17.60.2.1	Sand cast iron S&S as per IS - 3989	each	1164.00
	17.60.2.2	Sand Cast Iron S&S as per IS- 1729	each	786.70
	17.60.2.3	Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	each	551.30
<b>17.61</b>	Cutting chases in brick masonry walls for following diameter sand cast iron/ centrifugally cast (spun) iron pipes and making good the same with cement concrete 1:3:6 ( 1 cement : 3 coarse sand :6 graded stone aggregate 12.5 mm nominal size), including necessary plaster and pointing in cement mortar 1:4 (1 cement : 4 coarse sand) :			
	17.61.1	100 mm dia	metre	313.20
	17.61.2	75 mm dia	metre	225.70
	17.61.3	50 mm dia	metre	146.90
<b>17.62</b>	Painting C.I. cistern with bitumastic or any other anti-corrosive paint inside and white paint over a coat of zinc chromate yellow primer (of approved quality ) .on the outside surface of the cistern, flush pipe, other fittings, etc. complete for new work		each	482.50
<b>17.63</b>	Re-painting C.I. cistern with bitumastic or any other anti-corrosive paint inside and white paint on the outside surface of the cistern, flush pipe, other fittings, etc. complete, including polishing of wooden seat and lid and cleaning of W.C. pan with acid wherever necessary.		each	342.20
<b>17.64</b>	Repainting C.I. cistern with synthetic enamel paint of approved colour, brand and manufacture on the outside surface of cistern, flush pipe, other fittings etc. complete.		each	142.80
<b>17.65</b>	Painting sand cast iron/ centrifugally cast (spun) iron soil, waste vent pipes and fittings with two coats of synthetic enamel paint of any colour such as chocolate grey, or buff etc. over a coat of primer (of approved quality) for new work :			
	17.65.1	100 mm diameter pipe	metre	43.60
	17.65.2	75 mm diameter pipe	metre	33.40
<b>17.66</b>	Repainting sand cast iron/ centrifugally cast iron (spun) iron, soil, waste, vent pipes and fittings with one coat of synthetic enamel paint of any colour such as chocolate, grey or buff etc :			
	17.66.1	100 mm diameter pipe	metre	21.10
	17.66.2	75 mm diameter pipe	metre	15.80
<b>17.67</b>	Repainting bath tub of size 1700x730x430 mm with enamel paint.		each	439.50



Code No.	Description	Unit	Rate Rs.
17.68	Providing and fixing vitreous china dual purpose closet suitable for use as squatting pan or European type water closet (Anglo Indian W.C pan) with seat & lid fixed with C.P. brass hinges and rubber buffers, 10 litre low level flushing cistern with fitting and brackets, 40 mm flush bend, 20 mm over flow pipe, with specials of standard make and mosquito proof coupling of approved municipal design complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required :		
17.68.1	White vitreous china dual purpose WC pan with white solid plastic seat and lid with white vitreous china flushing cistern and C.P. flush bend.	each	8734.10
17.69	Providing and fixing PTMT Waste Coupling for wash basin and sink, of approved quality and colour.		
17.69.1	Waste coupling 31 mm dia of 79 mm length and 62mm breadth weighing not less than 45 gms	each	99.80
17.69.2	Waste coupling 38 mm dia of 83 mm length and 77mm breadth, weighing not less than 60 gms	each	118.50
17.70	Providing and fixing PTMT Bottle Trap for Wash basin and sink.		
17.70.1	Bottle trap 31mm single piece moulded with height of 270 mm, effective length of tail pipe 260 mm from the centre of the waste coupling, 77 mm breadth with 25 mm minimum water seal, weighing not less than 260 gms	each	335.20
17.70.2	Bottle trap 38 mm single piece moulded with height of 270 mm, effective length of tail pipe 260 mm from the centre of the waste coupling, 77 mm breadth with 25 mm minimum water seal, weighing not less than 263 gms	each	348.60
17.71	Providing and fixing PTMT liquid soap container 109 mm wide, 125 mm high and 112 mm distance from wall of standard shape with bracket of the same materials with snap fittings of approved quality and colour, weighing not less than 105 gms.	each	158.60
17.72	Providing and fixing PTMT towel ring trapezoidal shape 215 mm long, 200 mm wide with minimum distances of 37 mm from wall face with concealed fittings arrangement of approved quality and colour, weighing not less than 88 gms.	each	228.20
17.73	Providing and fixing PTMT towel rail complete with brackets fixed to wooden cleats with CP brass screws with concealed fittings arrangement of approved quality and colour.		
17.73.1	450 mm long towel rail with total length of 495 mm, 78 mm wide and effective height of 88 mm, weighing not less than 170 gms	each	398.80
17.73.2	600 mm long towel rail with total length of 645 mm, width 78 mm and effective height of 88 mm, weighing not less than 190 gms	each	439.00

Code No.	Description	Unit	Rate Rs.
17.74	Providing and fixing PTMT shelf 440 mm long, 124 mm width and 36 mm height of approved quality and colour, weighing not less than 300 gms.	each	485.80
17.75	Providing and fixing PTMT 15 mm Urinal spreader size 95x69x100 mm with 1/2" BSP thread and shapes, weighing not less than 60 gms.	each	119.80
17.76	Providing and fixing PTMT urinal cock of approved quality and colour.		
	17.76.1 15 mm nominal bore, 80 mm long, 42 mm high and 30mm wide with BSP female threads weighing not less than 48 gms	each	164.10
17.77	Providing and fixing M.S. holder bat clamp of approved design to sand cast iron/ cast iron (spun) pipes comprising of M.S. flat brackets made of 50x5 mm flat of specified shape, projecting 75 mm outside the wall surface and fixed on wall with 4nos, 6mm dia expansion hold fasteners, including drilling necessary holes in brick wall/ CC/ RCC surface and the cost of bolts etc. The pipes shall be fixed to the already fixed brackets with the help of 30 mm x1.6 mm galvanised M.S. flats of specified shape and of total length 420 mm and shall be fixed with M.S. nuts, bolts, & washers of size 25x6 mm, one bolts on each side of the pipe.		
	17.77.1 Total bracket length 580 mm of approved shape and design (for single 100 mm dia pipe)	each	193.00
	17.77.2 Total bracket length 810 mm of approved shape and design (for two 100 mm dia pipes)	each	234.50
	17.77.3 Total bracket length 1040 mm of approved shape and design (for three 100 mm dia pipes)	each	276.00
17.78	Providing and fixing white vitreous china extended wall mounting water closet of size 780x370x690 mm of approved shape including providing & fixing white vitreous china cistern with dual flush fitting, of flushing capacity 3 litre/6 litre (adjustable to 4 litre/8 litres), including seat cover, and cistern fittings, nuts, bolts and gasket etc complete.	each	12562.70
17.79	Providing & fixing white vitreous china water less urinal of size 600 x 330 x 315 mm having antibacterial /germs free ceramic surface, fixed with cartridge having debris catcher and hygiene seal.	each	16457.40
17.80	Providing and fixing white vitreous china battery based infrared sensor operated urinal of approx. size 610 x 390 x 370 mm having pre & post flushing with water (250 ml & 500 ml consumption), having water inlet from back side, including fixing to wall with suitable brackets all as per manufacturers specification and direction of Engineer-in-charge.	each	6503.20



Code No.	Description	Unit	Rate Rs.
17.81	Providing and fixing floor mounted, white vitreous china single piece, double traps syphonic water closet of approved brand/make, shape, size and pattern including ntegrated white vitreous china cistern of capacity 10 litres with dual flushing system, including all fittings and fixtures with seat cover, cistern fittings, nuts, bolts and gasket etc including making connection with the existing P/S trap, complete in all respect as per directions of Engineer-in-Charge.	each	14168.20

*[Handwritten signatures and initials]*

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**SUB HEAD : 18.0**  
**WATER SUPPLY**

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**18.0 WATER SUPPLY**

Code No.	Description	Unit	Rate Rs.
	<b>PE - AL - PE COMPOSITE PRESSURE PIPES</b>		
18.1	Providing and fixing Polyethelene-Aluminium-Polyethelene (PE-ALPE) Composite Pressure Pipes conforming to IS - 15450, U.V. stabilized with carbon black having thermal stability for hot & cold water supply, capable to withstand temperature up to 80 OC, including all special fittings of composite material (engineering plastic blend and brass inserts wherever required) e.g. elbows, tees, reducers, couplers & connectors etc., with clamps at 1.00 metre spacing. This includes testing of joints complete as per direction of the Engineer in charge.		
	<b>Internal work - Exposed on wall</b>		
18.1.1	1216 (16 mm OD) pipe	metre	181.80
18.1.2	1620 (20 mm OD) pipe	metre	217.00
18.1.3	2025 (25 mm OD) pipe	metre	280.10
18.1.4	2532 (32 mm OD) pipe	metre	374.50
18.1.5	3240 (40 mm OD) pipe	metre	538.40
18.1.6	4050 (50 mm OD) pipe	metre	703.60
18.2	Providing and fixing Polyethelene-Aluminium-Polyethelene (PE-ALPE) Composite Pressure Pipes conforming to IS - 15450, U.V. stabilized with carbon black having thermal stability for hot & cold water supply, capable to withstand temperature up to 80 OC, including all special fittings of composite material (engineering plastic blend and brass inserts wherever required) e.g. elbows, tees, reducers, couplers & connectors etc., with clamps at 1.00 metre spacing. This includes the costs of cutting chases and including testing of joints complete as per direction of the engineer in charge.		
	<b>Concealed work, including cutting chases and making good the wall etc.</b>		
18.2.1	1216 (16 mm OD) pipe	metre	299.10
18.2.2	1620 (20 mm OD) pipe	metre	336.60
18.2.3	2025 (25 mm OD) pipe	metre	411.50
18.2.4	2532 (32 mm OD) pipe	metre	521.60
18.3	Providing and fixing Polyethelene-Aluminium-Polyethelene (PE-ALPE) Composite Pressure Pipes conforming to IS - 15450, U.V. stabilized with carbon black having thermal stability for hot & cold water supply, capable to withstand temperature up to 80 OC, including all special fittings of composite material (engineering plastic blend and brass inserts wherever required) e.g. elbows, tees, reducers, couplers & connectors etc., with trenching, refilling and testing of joints complete as per direction of the engineer in charge.		



Code No.	Description	Unit	Rate Rs.
	<b>External work</b>		
18.3.1	1216 (16 mm OD) pipe	metre	170.00
18.3.2	1620 (20 mm OD ) pipe	metre	197.80
18.3.3	2025 (25 mm OD ) pipe	metre	253.40
18.3.4	2532 (32 mm OD ) pipe	metre	335.20
18.3.5	3240 (40 mm OD ) pipe	metre	481.60
18.3.6	4050 (50 mm OD ) pipe	metre	646.80
	<b>PP- R PIPES</b>		
<b>18.4</b>	<b>Providing and fixing 3 layer PP-R (Poly propylene Random copolymer) pipes SDR 7.4, U V stabilized &amp; anti - microbial fusion welded, having thermal stability for hot &amp; cold water supply, including all PP - R plain &amp; brass threaded polypropylene random fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes testing of joints complete as per direction of Engineer in Charge.</b>		
	<b>Internal work - Exposed on wall</b>		
18.4.1	PN - 16 Pipe, 16 mm OD	metre	136.30
18.4.2	PN - 16 Pipe, 20 mm OD	metre	156.60
18.4.3	PN - 16 Pipe, 25 mm OD	metre	204.90
18.4.4	PN - 16 Pipe, 32 mm OD	metre	288.30
18.4.5	PN - 16 Pipe, 40 mm OD	metre	409.80
18.4.6	PN - 16 Pipe, 50 mm OD	metre	568.30
<b>18.5</b>	<b>Providing and fixing 3 layer PP-R (Poly propylene Random copolymer) pipes SDR 7.4, U V stabilized &amp; anti - microbial fusion welded, having thermal stability for hot &amp; cold water supply, including all PP - R plain &amp; brass threaded polypropylene random fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge.</b>		
	<b>Concealed work, including cutting chases and making good the walls etc.,</b>		
18.5.1	PN - 16 Pipe, 16 mm OD	metre	237.80
18.5.2	PN - 16 Pipe, 20 mm OD	metre	255.30
18.5.3	PN - 16 Pipe, 25 mm OD	metre	310.40
18.5.4	PN - 16 Pipe, 32 mm OD	metre	405.60
<b>18.6</b>	<b>Providing and fixing 3 layer PP-R (Poly propylene Random copolymer) pipes, U V stabilized &amp; anti - microbial fusion welded, having thermal stability for hot &amp; cold water supply, including all PP - R plain &amp; brass threaded polypropylene random fittings, including trenching, refilling &amp; testing of joints complete as per direction of Engineer in Charge.</b>		

Code No.	Description	Unit	Rate Rs.
	<b>External work</b>		
18.6.1	PN - 16 Pipe, 16 mm OD (SDR - 7.4)	metre	124.40
18.6.2	PN - 16 Pipe, 20 mm OD (SDR - 7.4)	metre	161.30
18.6.3	PN - 16 Pipe, 25 mm OD (SDR - 7.4)	metre	183.90
18.6.4	PN - 16 Pipe, 32 mm OD (SDR - 7.4)	metre	254.60
18.6.5	PN - 16 Pipe, 40 mm OD (SDR - 7.4)	metre	353.00
18.6.6	PN - 16 Pipe, 50 mm OD (SDR - 7.4)	metre	511.60
18.6.7	PN - 16 Pipe, 63 mm OD (SDR - 7.4)	metre	580.30
18.6.8	PN - 16 Pipe, 75 mm OD (SDR - 7.4)	metre	817.60
18.6.9	PN - 16 Pipe, 90 mm OD (SDR - 7.4)	metre	1159.00
18.6.10	PN - 10 Pipe, 110 mm OD (SDR - 11)	metre	1660.30
18.6.11	PN - 10 Pipe, 160 mm OD (SDR - 11)	metre	4631.80
<b>18.6A</b>	<b>Providing and fixing PPR Unions</b>		
18.6A.1	PPR Union 20mm	Each	169.50
18.6A.2	PPR Union 25mm	Each	235.00
18.6A.3	PPR Union 32mm	Each	288.80
18.6A.4	PPR Union 40mm	Each	352.50
18.6A.5	PPR Union 50mm	Each	577.30
18.6A.6	PPR Union 63mm	Each	752.30
18.6A.7	PPR Union 75mm	Each	1353.50
	<b>C.P.V.C. PIPES</b>		
<b>18.7</b>	<b>Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot &amp; cold water supply, including all CPVC plain &amp; brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes &amp; fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge.</b>		
	<b>Internal work - Exposed on wall</b>		
18.7.1	15 mm nominal outer dia Pipes	metre	165.80
18.7.2	20 mm nominal outer dia Pipes	metre	224.10
18.7.3	25 mm nominal outer dia Pipes	metre	286.30
18.7.4	32 mm nominal outer dia Pipes	metre	386.10
18.7.5	40 mm nominal outer dia Pipes	metre	527.40
18.7.6	50 mm nominal outer dia Pipes	metre	782.30
<b>18.8</b>	<b>Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot &amp; cold water supply, including all CPVC plain &amp; brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes &amp; fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge.</b>		



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Code No.	Description	Unit	Rate Rs.
	<b>Concealed work, including cutting chases and making good the walls etc.</b>		
18.8.1	15 mm nominal outer dia Pipes	metre	267.60
18.8.2	20 mm nominal outer dia Pipes	metre	336.10
18.8.3	25 mm nominal outer dia Pipes	metre	420.00
18.8.4	32 mm nominal outer dia Pipes	metre	537.10
<b>18.9</b>	<b>Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot &amp; cold water supply including all CPVC plain &amp; brass threaded fittings This includes jointing of pipes &amp; fittings with one step CPVC solvent cement ,trenching ,refilling &amp; testing of joints complete as per direction of Engineer in Charge.</b>		
	<b>External work</b>		
18.9.1	15 mm nominal outer dia Pipes	metre	146.60
18.9.2	20 mm nominal outer dia Pipes	metre	197.40
18.9.3	25 mm nominal outer dia Pipes	metre	265.30
18.9.4	32 mm nominal outer dia Pipes	metre	352.30
18.9.5	40 mm nominal outer dia Pipes	metre	470.70
18.9.6	50 mm nominal outer dia Pipes	metre	725.60
18.9.7	62.50 mm nominal inner dia Pipes	metre	1470.10
18.9.8	75 mm nominal inner dia Pipes	metre	1883.60
18.9.9	100 mm nominal inner dia Pipes	metre	2670.70
18.9.10	150 mm nominal inner dia Pipes	metre	5654.30
<b>18.10</b>	<b>Providing and fixing G.I. pipes complete with G.I. fittings and clamps, i/c cutting and making good the walls etc.</b>		
	<b>Internal work - Exposed on wall</b>		
18.10.1	15 mm dia nominal bore	metre	216.30
18.10.2	20 mm dia nominal bore	metre	268.40
18.10.3	25 mm dia nominal bore	metre	355.10
18.10.4	32 mm dia nominal bore	metre	435.20
18.10.5	40 mm dia nominal bore	metre	518.40
18.10.6	50 mm dia nominal bore	metre	638.90
<b>18.11</b>	<b>Providing and fixing G.I. Pipes complete with G.I. fittings and clamps, i/c making good the walls etc. concealed pipe, including painting with anti corrosive bitumastic paint, cutting chases and making good the wall :</b>		
18.11.1	15 mm dia nominal bore	metre	302.70
18.11.2	20 mm dia nominal bore	metre	348.40

Code No.	Description		Unit	Rate Rs.
18.12	<b>Providing and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc.</b>			
	External work			
	18.12.1	15 mm dia nominal bore	metre	187.90
	18.12.2	20 mm dia nominal bore	metre	227.50
	18.12.3	25 mm dia nominal bore	metre	303.20
	18.12.4	32 mm dia nominal bore	metre	363.30
	18.12.5	40 mm dia nominal bore	metre	417.00
	18.12.6	50 mm dia nominal bore	metre	499.10
	18.12.7	65 mm dia nominal bore	metre	633.80
18.12.8	80 mm dia nominal bore	metre	784.20	
18.13	<b>Making connection of G.I. distribution branch with G.I. main of following sizes by providing and fixing tee, including cutting and threading the pipe etc. complete :</b>			
	18.13.1	25 to 40 mm nominal bore	each	402.30
	18.13.2	50 to 80 mm nominal bore	each	1063.10
18.14	<b>Fixing water meter and stop cock in G.I. pipe line including cutting and threading the pipe and making long screws etc. complete (cost of water meter and stop cock to be paid separately).</b>			each
	BRASS FITTINGS			335.40
18.15	<b>Providing and fixing brass bib cock of approved quality :</b>			
	18.15.1	15 mm nominal bore	each	302.50
	18.15.2	20 mm nominal bore	each	326.40
18.16	<b>Providing and fixing brass stop cock of approved quality :</b>			
	18.16.1	15 mm nominal bore	each	302.50
	18.16.2	20 mm nominal bore	each	326.40
18.17	<b>Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) :</b>			
	18.17.1A	20 mm nominal bore.	each	463.70
	18.17.1	25 mm nominal bore	each	497.20
	18.17.2	32 mm nominal bore.	each	581.30
	18.17.3	40 mm nominal bore	each	678.40
	18.17.4	50 mm nominal bore	each	869.20
	18.17.5	65 mm nominal bore	each	1488.10
18.17.6	80 mm nominal bore	each	2217.90	
18.18	<b>Providing and fixing ball valve (brass) of approved quality, High or low pressure, with plastic floats complete</b>			
	18.18.1	15 mm nominal bore	each	338.70
	18.18.2	20 mm nominal bore	each	386.40
	18.18.3	25 mm nominal bore	each	394.00

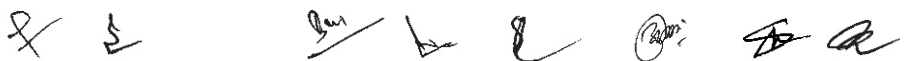
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Code No.	Description		Unit	Rate Rs.	
18.19	<b>Providing and fixing gun metal non- return valve of approved quality (screwed end) :</b>				
	18.19.1	25 mm nominal bore			
	18.19.1.1	Horizontal	each	477.70	
	18.19.1.2	Vertical	each	504.50	
	18.19.2	32 mm nominal bore			
	18.19.2.1	Horizontal	each	641.70	
	18.19.2.2	Vertical	each	708.60	
	18.19.3	40 mm nominal bore			
	18.19.3.1	Horizontal	each	792.40	
	18.19.3.2	Vertical	each	979.70	
	18.19.4	50 mm nominal bore			
	18.19.4.1	Horizontal	each	1144.10	
	18.19.4.2	Vertical	each	1251.10	
	18.19.5	65 mm nominal bore			
	18.19.5.1	Horizontal	each	2044.00	
	18.19.5.2	Vertical	each	2057.30	
	18.19.6	80 mm nominal bore			
	18.19.6.1	Horizontal	each	2890.70	
18.19.6.2	Vertical	each	3399.10		
18.20	<b>Providing and fixing brass ferrule with C.I. mouth cover including boring and tapping the main :</b>				
	18.20.1	15 mm nominal bore	each	295.10	
	18.20.2	20 mm nominal bore	each	340.20	
	18.20.3	25 mm nominal bore	each	438.40	
18.21	<b>Providing and fixing uplasticised PVC connection pipe with brass ions :</b>				
	18.21.1	30 cm length			
	18.21.1.1	15 mm nominal bore	each	72.80	
	18.21.1.2	20 mm nominal bore	each	79.50	
	18.21.2	45 cm length			
	18.21.2.1	15 mm nominal bore	each	83.00	
18.21.2.2	20 mm nominal bore	each	100.40		
18.22	<b>Providing and fixing C.P. brass shower rose with 15 or 20 mm inlet :</b>				
	18.22.1	100 mm diameter	each	151.90	
	18.22.2	150 mm diameter	each	188.80	
<b>C.I/ DUCTILE IRON PIPES &amp; SPECIALS</b>					
18.23	<b>Laying in position centrifugally cast (spun) iron S&amp;S or flanged pipes (excluding cost of pipe).</b>		quintal	140.50	

Code No.	Description		Unit	Rate Rs.
18.24	Laying in position S&S or flanged C.I. special such as tees, bends, collars, tapers and caps etc. (excluding cost of specials).		quintal	357.50
18.25	Providing and laying S&S C.I. standard specials such as tees, bends, collars, tapers, caps etc. (Heavy class) :			
18.25.1	Up to 300 mm dia		quintal	5186.40
18.25.2	Over 300 mm dia		quintal	5320.20
18.26	Providing and laying flanged C.I. standard specials such as tees, bends, collars, tapers, caps etc., suitable for flanged jointing as per IS : 1538 :			
18.26.1	Up to 300 mm dia		quintal	7728.50
18.26.2	Over 300 mm dia		quintal	7728.50
18.27	Providing and laying S&S centrifugally cast (spun) iron pipes (Class LA) conforming to IS - 1536 :			
18.27.1	100 mm dia pipe		metre	1177.50
18.27.2	125 mm dia pipe		metre	1467.90
18.27.3	150 mm dia pipe		metre	1770.90
18.27.4	200 mm dia pipe		metre	3004.50
18.27.5	250 mm dia pipe		metre	3923.40
18.27.6	300 mm dia pipe		metre	5289.80
18.27.7	350 mm dia pipe		metre	6345.00
18.27.8	400 mm dia pipe		metre	8358.60
18.27.9	450 mm dia pipe		metre	10121.60
18.27.10	500 mm dia pipe		metre	11750.00
18.27.11	600 mm dia pipe		metre	16430.70
18.28	Providing lead caulked joints to spun iron or C.I. pipes and specials, including testing of joints but excluding the cost of pig lead :			
18.28.1	100 mm diameter pipe		each	211.7
18.28.2	125 mm diameter pipe		each	312
18.28.3	150 mm diameter pipe		each	318
18.28.4	200 mm diameter pipe		each	421.5
18.28.5	250 mm diameter pipe		each	526.8
18.28.6	300 mm diameter pipe		each	634.7
18.28.7	350 mm diameter pipe		each	655.4
18.28.8	400 mm diameter pipe		each	853.4
18.28.9	450 mm diameter pipe		each	956.7
18.28.10	500 mm diameter pipe		each	1012.80
18.28.11	600 mm diameter pipe		each	1363.90
18.29	Supplying pig lead at site of work.		quintal	23560.00

Code No.	Description	Unit	Rate Rs.
<b>18.30</b>	<b>Providing flanged joints to double flanged C.I./ D.I. pipes and specials, including testing of joints :</b>		
18.30.1	80 mm diameter pipe	each	126.60
18.30.2	100 mm diameter pipe	each	206.10
18.30.3	125 mm diameter pipe	each	219.50
18.30.4	150 mm diameter pipe	each	260.40
18.30.5	200 mm diameter pipe	each	288.50
18.30.6	250 mm diameter pipe	each	401.30
18.30.7	300 mm diameter pipe	each	408.00
18.30.8	350 mm diameter pipe	each	560.80
18.30.9	400 mm diameter pipe	each	806.30
18.30.10	450 mm diameter pipe	each	999.20
18.30.11	500 mm diameter pipe	each	1139.10
18.30.12	600 mm diameter pipe	each	1337.70
	<b>C.I. SLUICE VALVES/ FIRE HYDRANTS &amp; FIXTURES</b>		
<b>18.31</b>	<b>Providing and fixing C.I. sluice valves (with cap) complete with bolts,nuts, rubber insertions etc. (the tail pieces if required will be paid separately) :</b>		
18.31.1	100 mm diameter		
18.31.1.1	Class I	each	3800.40
18.31.1.2	Class II	each	4232.80
18.31.2	125 mm diameter		
18.31.2.1	Class I	each	4125.70
18.31.2.2	Class II	each	4972.90
18.31.3	150 mm diameter		
18.31.3.1	Class I	each	5605.40
18.31.3.2	Class II	each	6192.40
18.31.4	200 mm diameter		
18.31.4.1	Class I	each	11060.90
18.31.4.2	Class II	each	13041.10
18.31.5	250 mm diameter		
18.31.5.1	Class I	each	16158.60
18.31.5.2	Class II	each	21053.00
18.31.6	300 mm diameter		
18.31.6.1	Class I	each	22450.50
18.31.6.2	Class II	each	26288.60





Code No.	Description	Unit	Rate Rs.
18.32	Constructing masonry Chamber 30x30x50 cm inside, in brick work in cement mortar 1:4 (1 cement :4 coarse sand) for stop cock, with C. I. surface box 100x100 x75 mm (inside) with hinged cover fixed in cement concrete slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), i/c necessary excavation, foundation concrete 1:5:10 ( 1 cement : 5 fine sand : 10 graded stone aggregate 40mm nominal size ) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12mm thick, finished with a floating coat of neat cement complete as per standard design :		
18.32.1	With common burnt clay F.P.S.(non modular) bricks of class designation 100A	each	1161.20
18.33	Constructing masonry Chamber 60x60x75 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for sluice valve,with C.I. surface box 100mm top diameter, 160 mm bottom diameter and 180 mm deep ( inside) with chained lid and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size ) , i/c necessary excavation, foundation concrete 1:5:10(1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominalsize) and inside plastering with cement mortar 1:3 (1 cement : 3coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design :		
18.33.1	With common burnt clay F.P.S.(non modular) bricks of class designation 100A	each	6755.10
18.34	Constructing masonry Chamber 60x60x75 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for sluice valve,with C.I. surface box 100mm top diameter, 160 mm bottom diameter and 180 mm deep ( inside) with chained lid and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) , i/c necessary excavation, foundation concrete 1:5:10(1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominalsize) and inside plastering with cement mortar 1:3 (1 cement : 3coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design :		
18.34.1	With common burnt clay F.P.S.(non modular) bricks of class designation 100A	each	12714.80
18.35	Constructing masonry Chamber 120x120x100 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for sluice valve, with C.I. surface box 100 mm top diameter, 160 mm bottom diameter and 180 mm deep ( inside) with chained lid and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) , i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design :		

Code No.	Description	Unit	Rate Rs.
18.35.1	With common burnt clay F.P.S.(non modular) bricks of class designation 100A	each	17540.00
<b>18.36</b>	<b>Constructing masonry Chamber 60x60x75 cm, inside in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for fire hydrants,with C.I. surface box 350x350 mm top and 165 mm deep ( inside)with chained lid and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) , i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand:10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand)12 mm thick, finished with a floating coat of neat cement complete as per standard design :</b>		
18.36.1	With common burnt clay F.P.S.(non modular) bricks of class designation 100A	each	6980.10
<b>18.37</b>	<b>Constructing masonry Chamber 60x45x50 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for water meter complete with C.I. double flap surface box 400x200x200 mm (inside)with locking arrangement and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) , i/c necessary excavation, foundation concrete 1:5:10 ( 1 cement : 5 fine sand:10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design :</b>		
18.37.1	With common burnt clay F.P.S.(non modular) bricks of class designation 100A	each	6247.80
<b>18.38</b>	<b>Painting G.I. pipes and fittings with synthetic enamel white paint with two coats over a ready mixed priming coat, both of approved quality for new work :</b>		
18.38.1	15 mm diameter pipe	metre	11.20
18.38.2	20 mm diameter pipe	metre	13.10
18.38.3	25 mm diameter pipe	metre	17.40
18.38.4	32 mm diameter pipe	metre	20.50
18.38.5	40 mm diameter pipe	metre	24.30
18.38.6	50 mm diameter pipe	metre	28.50
<b>18.39</b>	<b>Repainting G.I. pipes and fittings with synthetic enamel white paint with one coat of approved quality :</b>		
18.39.1	15 mm diameter pipe	metre	5.60
18.39.2	20 mm diameter pipe	metre	6.50
18.39.3	25 mm diameter pipe	metre	8.30
18.39.4	32 mm diameter pipe	metre	9.80
18.39.5	40 mm diameter pipe	metre	11.40
18.39.6	50 mm diameter pipe	metre	13.40

Code No.	Description	Unit	Rate Rs.	
18.40	<b>Painting G.I. pipes and fittings with two coats of anti-corrosive bitumastic paint of approved quality :</b>			
	18.40.1	15 mm diameter pipe	metre	6.40
	18.40.2	20 mm diameter pipe	metre	7.40
	18.40.3	25 mm diameter pipe	metre	9.50
	18.40.4	32 mm diameter pipe	metre	11.20
	18.40.5	40 mm diameter pipe	metre	12.70
	18.40.6	50 mm diameter pipe	metre	15.00
	18.40.7	65 mm diameter pipe	metre	18.40
	18.40.8	80 mm diameter pipe	metre	21.30
18.41	<b>Providing and filling sand of grading zone V or coarser grade, allround the G.I. pipes in external work :</b>			
	18.41.1	15 mm diameter pipe	metre	19.90
	18.41.2	20 mm diameter pipe	metre	20.10
	18.41.3	25 mm diameter pipe	metre	20.70
	18.41.4	32 mm diameter pipe	metre	21.20
	18.41.5	40 mm diameter pipe	metre	21.50
	18.41.6	50 mm diameter pipe	metre	22.30
	18.41.7	65 mm diameter pipe	metre	35.20
	18.41.8	80 mm diameter pipe	metre	36.20
	18.41.9	100 mm diameter pipe	metre	38.40
	18.41.10	150 mm diameter pipe	metre	57.20
18.42	<b>Boring with 100 mm diameter casing pipe for hand pump / tubewell, in all soils except ordinary hard rocks requiring blasting, including removing the casing pipe after the hand pump / tube well is lowered and tested :</b>			
	18.42.1	Up to 6 metres depth	metre	334.60
	18.42.2	Beyond 6 m and up to 12 m depth	metre	397.30
	18.42.3	Beyond 12 m and up to 18 m depth	metre	462.50
18.43	<b>Providing and placing in position filters of 40 mm diameter G.I. pipe with brass strainer of approved quality.</b>	metre	675.50	
18.44	<b>Providing and fixing to filter and lowering to proper levels 40 mm G.I. pipe for tube well including cleaning and priming the tube well.</b>	metre	391.60	
18.45	<b>Providing and placing in position hand pump of approved quality for 40 mm diameter G.I. pipe complete with all accessories.</b>	each	1035.70	
18.46	<b>Providing and fixing G.I. Union in G.I. pipe including cutting and threading the pipe and making long screws etc. complete (New work) :</b>			
	18.46.1	15 mm nominal bore	each	145.40

Code No.	Description		Unit	Rate Rs.
	18.46.2	20 mm nominal bore	each	170.80
	18.46.3	25 mm nominal bore	each	249.70
	18.46.4	32 mm nominal bore	each	293.90
	18.46.5	40 mm nominal bore	each	362.10
	18.46.6	50 mm nominal bore	each	474.90
	18.46.7	65 mm nominal bore	each	816.10
	18.46.8	80 mm nominal bore	each	895.00
<b>18.47</b>	<b>Providing and fixing G.I. Union in existing G.I. pipe line, cutting and threading the pipe and making long screws, including excavation,refilling the earth or cutting of wall and making good the same complete wherever required :</b>			
	18.47.1	15 mm nominal bore	each	346.10
	18.47.2	20 mm nominal bore	each	371.50
	18.47.3	25 mm nominal bore	each	450.50
	18.47.4	32 mm nominal bore	each	494.60
	18.47.5	40 mm nominal bore	each	562.90
	18.47.6	50 mm nominal bore	each	748.60
	18.47.7	65 mm nominal bore	each	1089.80
	18.47.8	80 mm nominal bore	each	1168.70
<b>18.48</b>	<b>Providing and placing on terrace (at all floor levels) polyethylene water storage tank, ISI : 12701 marked, with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank.</b>		per litre	8.80
<b>18.48.A</b>	<b>Providing and fixing rectangular high density polyethylene water storage loft tank with cover, conforming to ISI : 12701, colour of opaque white or as approved by Engineer-in-charge. The rate includes making necessary holes for inlet, outlet &amp; over flow pipes. The base support i/c fittings &amp; fixtures for tank shall be paid separately.</b>		per litre	8.80
	<b>C.P. BRASS FITTINGS</b>			
<b>18.49</b>	<b>Providing and fixing C.P. brass bib cock of approved quality conforming to IS:8931 :</b>		each	419.00
<b>18.50</b>	<b>Providing and fixing C.P. brass long nose bib cock of approved quality conforming to IS standards and weighing not less than 810 gms.</b>			
	18.50.1	15 mm nominal bore	each	618.80
<b>18.51</b>	<b>Providing and fixing C.P. brass long body bib cock of approved quality conforming to IS standards and weighing not less than 690 gms.</b>			
	18.51.1	15 mm nominal bore	each	552.30

Code No.	Description		Unit	Rate Rs.
18.52	<b>Providing and fixing C.P. brass stop cock (concealed) of standard design and of approved make conforming to IS:8931.</b>			
	18.52.1	15 mm nominal bore	each	606.30
18.53	<b>Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931 a) 15 mm nominal bore</b>			
	18.53.1	15 mm nominal bore	each	532.00
	<b>PTMT FITTINGS</b>			
18.54	<b>Providing and fixing PTMT bib cock of approved quality and colour.</b>			
	18.54.1	15mm nominal bore, 86 mm long, weighing not less than 88 gms	each	116.60
	18.54.2	15 mm nominal bore, 122mm long, weighing not less than 99 gms	each	162.10
	18.54.3	15 mm nominal bore, 165 mm long, weighing not less than 110 gms	each	176.80
	18.54.4	15mm nominal bore, 90 mm long, weighing not less than 93 gms	each	228.30
18.55	<b>Providing and fixing PTMT stop cock of approved quality and colour.</b>			
	18.55.1	15 mm nominal bore, 86 mm long, weighing not less than 88 gms	each	116.60
	18.55.2	20 mm nominal bore, 89 mm long, weighing not less than 88 gms	each	151.30
	18.55.3	Concealed stop cock, 15 mm nominal bore, 108 mm long, weighing not less than 108 gms	each	200.20
18.56	<b>Providing and fixing PTMT pillar cock of approved quality and colour .</b>			
	18.56.1	15 mm nominal bore, 107 mm long, weighing not less than 110 gms	each	192.60
	18.56.2	15 mm nominal bore, 125 mm long foam flow, weighing not less than 120 gms	each	210.00
18.57	<b>Providing and fixing PTMT, push cock of approved quality and colour.</b>			
	18.57.1	15 mm nominal bore, 98 mm long, weighing not less than 75 gms	each	104.50
	18.57.2	15 mm nominal bore, 80 mm long, weighing not less than 46 gms	each	97.80
18.58	<b>Providing and fixing PTMT grating of approved quality and colour.</b>			
	18.58.1	Circular type		
	18.58.1.1	100 mm nominal dia	each	37.90
	18.58.1.2	125 mm nominal dia with 25 mm waste hole	each	51.30

*[Handwritten signatures]*

Code No.	Description	Unit	Rate Rs.
18.58.2	Rectangular type with openable circular lid		
18.58.2.1	150 mm nominal size square 100 mm diameter of the inner hinged round grating	each	169.00
	<b>AIR VALVE &amp; WATER METER (BULK TYPE)</b>		
<b>18.59</b>	<b>Providing and fixing C.I. double acting air valve of approved quality with bolts, nuts, rubber insertions etc. complete (The tail pieces, tapers etc if required will be paid separately) :</b>		
18.59.1	50 mm dia	each	5114.40
18.59.2	80 mm dia	each	6084.20
18.59.3	100 mm dia	each	8134.20
<b>18.60</b>	<b>Providing and fixing enclosed type water meter (bulk type) conforming to IS : 2373 and tested by Municipal Board complete with bolts, nuts, rubber insertions etc. (The tail pieces if required will be paid separately) :</b>		
18.60.1	80 mm dia nominal bore	each	3491.00
18.60.2	100 mm dia nominal bore	each	5173.90
18.60.3	150 mm dia nominal bore	each	7591.70
18.60.4	200 mm dia nominal bore	each	8295.50
<b>18.61</b>	<b>Providing and fixing C.I. dirt box strainer for bulk type water meter with nuts, bolts, rubber insertions etc. complete conforming to IS : 2373 :</b>		
18.61.1	80 mm dia	each	4012.80
18.61.2	100 mm dia	each	6467.70
18.61.3	150 mm dia	each	8211.20
18.61.4	200 mm dia	each	11510.60
<b>18.62</b>	<b>Providing and fixing PTMT Ball cock of approved quality, colour and make complete with Epoxy coated aluminium rod with L.P./ H.P.H.D. plastic ball.</b>		
18.62.1	15 mm nominal bore, 105 mm long, weighing not less than 138 gms	each	191.50
18.62.2	20 mm nominal bore, 120 mm long, weighing not less than 198 gms	each	252.60
18.62.3	25 mm nominal bore, 152mm long, weighing not less than 440 gms	each	474.30
18.62.4	40 mm nominal bore, 206mm long, weighing not less than 690 gms	each	728.50
18.62.5	50 mm nominal bore, 242mm long, weighing not less than 1240 gms	each	1250.30
<b>18.63</b>	<b>Providing and fixing PTMT angle stop cock 15 mm nominal bore, weighing not less than 85 gms</b>	each	155.40
<b>18.64</b>	<b>Providing and fixing PTMT swivelling shower, 15 mm nominal bore,</b>	each	111.70

Code No.	Description	Unit	Rate Rs.
18.65	Providing and fixing PTMT soap Dish Holder having length of 138mm,breadth 102mm, height of 75mm with concealed fitting arrangements,weighing not less than 106 gms.	each	130.50
18.66	Providing and laying S&S C.I. Standard specials such as tees, bends,collars tapers and caps etc, suitable for flanged jointing as per IS : 1538 :		
18.66.1	Up to 300 mm dia	quintal	7313.70
18.66.2	Above 300 mm dia	quintal	8665.00
18.67	Providing and laying S&S C.I. Standard specials suitable for mechanical jointing as per IS : 13382 :		
18.67.1	Up to 300 mm dia	quintal	11837.30
18.67.2	Above 300 mm dia	quintal	12475.50
18.68	Providing and laying D.I. specials of class K-12 suitable for push-on jointing as per IS : 9523 :		
18.68.1	Up to 600 mm dia	quintal	16960.20
18.68.2	Above 600 mm dia	quintal	23382.40
18.69	Providing and laying D.I. Specials of Class K - 12 suitable for mechanical jointing as per IS : 9523 :		
18.69.1	Up to 600 mm dia	quintal	17829.90
18.69.2	Above 600 mm dia	quintal	25456.20
18.70	Providing push-on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including testing of joints and the cost of rubber gasket :		
18.70.1	100 mm dia pipes	joint	66.30
18.70.2	150 mm dia pipes	joint	100.90
18.70.3	200 mm dia pipes	joint	154.60
18.70.4	250 mm dia pipes	joint	186.90
18.70.5	300 mm dia pipes	joint	252.70
18.70.6	350 mm dia pipes	joint	274.10
18.70.7	400 mm dia pipes	joint	448.40
18.70.8	450 mm dia pipes	joint	519.50
18.70.9	500 mm dia pipes	joint	555.00
18.70.10	600 mm dia pipes	joint	716.90
18.70.11	650 mm dia pipes	joint	1006.60
18.70.12	700 mm dia pipes	joint	1153.80
18.70.13	800 mm dia pipes	joint	1268.90
18.70.14	900 mm dia pipes	joint	1636.00
18.70.15	1000 mm dia pipes	joint	1918.70
18.71	Providing and laying Double Flanged (screwed / welded) Centrifugally (Spun) Cast Iron, Class B (IS : 1536) :		
18.71.1	100 mm dia C.I. Double Flanged Pipe	metre	1793.70



Code No.	Description		Unit	Rate Rs.
	18.71.2	150 mm dia C.I. Double Flanged Pipe	metre	2807.30
	18.71.3	200 mm dia C.I. Double Flanged Pipe	metre	4429.80
	18.71.4	250 mm dia C.I. Double Flanged Pipe	metre	5356.30
	18.71.5	300 mm dia C.I. Double Flanged Pipe	metre	6845.30
	18.71.6	350 mm dia C.I. Double Flanged Pipe	metre	8621.30
	18.71.7	400 mm dia C.I. Double Flanged Pipe	metre	11156.80
	18.71.8	450 mm dia C.I. Double Flanged Pipe	metre	14206.10
	18.71.9	500 mm dia C.I. Double Flanged Pipe	metre	17643.10
	18.71.10	600 mm dia C.I. Double Flanged Pipe	metre	24451.6
<b>18.72</b>	<b>Providing and laying S&amp;S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS : 8329 :</b>			
	18.72.1	100 mm dia Ductile Iron Class K-7 pipes	metre	1095.00
	18.72.2	150 mm dia Ductile Iron Class K-7 pipes	metre	1562.30
	18.72.3	200 mm dia Ductile Iron Class K-7 pipes	metre	1923.60
	18.72.4	250 mm dia Ductile Iron Class K-7 pipes	metre	2475.20
	18.72.5	300 mm dia Ductile Iron Class K-7 pipes	metre	3093.40
	18.72.6	350 mm dia Ductile Iron Class K-7 pipes	metre	3658.50
	18.72.7	400 mm dia Ductile Iron Class K-7 pipes	metre	4385.50
	18.72.8	450 mm dia Ductile Iron Class K-7 pipes	metre	5315.90
	18.72.9	500 mm dia Ductile Iron Class K-7 pipes	metre	6003.50
	18.72.10	600 mm dia Ductile Iron Class K-7 pipes	metre	7737.80
	18.72.11	700 mm dia Ductile Iron Class K-7 pipes	metre	10082.9
	18.72.12	800 mm dia Ductile Iron Class K-7 pipes	metre	12567.9
	18.72.13	900 mm dia Ductile Iron Class K-7 pipes	metre	16260.7
	18.72.14	1000 mm dia Ductile Iron Class K-7 pipes	metre	17047
	18.72.15	100 mm dia Ductile Iron Class K-9 pipes	metre	1051.5
	18.72.16	150 mm dia Ductile Iron Class K-9 pipes	metre	1580.6
	18.72.17	200 mm dia Ductile Iron Class K-9 pipes	metre	2166.3
	18.72.18	250 mm dia Ductile Iron Class K-9 pipes	metre	3022.6
	18.72.19	300 mm dia Ductile Iron Class K-9 pipes	metre	3778.8
	18.72.20	350 mm dia Ductile Iron Class K-9 pipes	metre	4614.3
	18.72.21	400 mm dia Ductile Iron Class K-9 pipes	metre	5913.9
	18.72.22	450 mm dia Ductile Iron Class K-9 pipes	metre	6879.3
	18.72.23	500 mm dia Ductile Iron Class K-9 pipes	metre	8604.5
	18.72.24	600 mm dia Ductile Iron Class K-9 pipes	metre	10402.4
	18.72.25	700 mm dia Ductile Iron Class K-9 pipes	metre	14387.7
	18.72.26	750 mm dia Ductile Iron Class K-9 pipes	metre	15602.3
	18.72.27	800 mm dia Ductile Iron Class K-9 pipes	metre	15795.8
	18.72.28	900 mm dia Ductile Iron Class K-9 pipes	metre	19149.9
	18.72.29	1000 mm dia Ductile Iron Class K-9 pipes	metre	21440.2

Code No.	Description	Unit	Rate Rs.
18.73	<b>Providing and laying Double Flanged (Screwed / Welded) Centrifugally (Spun) Ductile Iron Pipes of Class K - 9 conforming to IS : 8329 :</b>		
18.73.1	100 mm dia Ductile Iron Double Flanged	metre	1505.4
18.73.2	150 mm dia Ductile Iron Double Flanged	metre	2258.5
18.73.3	200 mm dia Ductile Iron Double Flanged	metre	2846.5
18.73.4	250 mm dia Ductile Iron Double Flanged	metre	4042.1
18.73.5	300 mm dia Ductile Iron Double Flanged	metre	5192.6
18.73.6	350 mm dia Ductile Iron Double Flanged	metre	6544
18.73.7	400 mm dia Ductile Iron Double Flanged	metre	8407.6
18.73.8	450 mm dia Ductile Iron Double Flanged	metre	8847
18.73.9	500 mm dia Ductile Iron Double Flanged	metre	12523.9
18.73.10	600 mm dia Ductile Iron Double Flanged	metre	16586.1
18.73.11	700 mm dia Ductile Iron Double Flanged.	metre	19618.10
18.74	<b>Providing and fixing unplasticised P.V.C. connection pipe with PTMT Nuts, collar and bush of approved quality and colour.</b>		
18.74.1	15 mm nominal bore with 30cm length	each	94.90
18.74.2	15 mm nominal bore with 45 cm length	each	112.40
18.75	<b>Providing and fixing PTMT extension nipple for water tank pipe, fittings of approved quality and colour.</b>		
18.75.1	15 mm nominal bore, weighing not less than 32 gms	each	49.20
18.75.2	20mm nominal bore, weighing not less than 40 gms	each	81.30
18.75.3	25mm nominal bore, weighing not less than 62 gms	each	113.40
18.76	<b>Cutting holes up to 30x30 cm in walls including making good the same:</b>		
18.76.1	With common burnt clay F.P.S. (non modular) bricks	each	193.70
18.77	<b>Cutting holes up to 15x15 cm in R.C.C. floors and roofs for passing drain pipe etc. and repairing the hole after insertion of drain pipe etc. with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), including finishing complete so as to make it leak proof.</b>	each	204.30
18.78	<b>Making chases up to 7.5x7.5 cm in walls including making good and finishing with matching surface after housing G.I. pipe etc.</b>	metre	80.70
18.79	<b>Making hole up to 20x20 cm and embedding pipes up to 150 mm diameter in masonry and filling with cement concrete 1:3:6 (1 cement : 3 coarse sand 6 graded stone aggregate 20 mm nominal size) including disposal of malba.</b>	metre	112.30
18.80	<b>Disinfecting C.I. water mains by flushing with water containing bleaching powder @ 0.5 gms per litre of water and cleaning the same with fresh water, operation to be repeated three times including getting the sample of water from the disinfected main tested in the municipal laboratory.</b>		
18.80.1	80 mm diameter C.I. pipe	100 metre	723.10

Code No.	Description	Unit	Rate Rs.
18.80.2	100 mm diameter C.I. pipe	100 metre	953.80
18.80.3	125 mm diameter C.I. pipe	100 metre	1196.60
18.80.4	150 mm diameter C.I. pipe	100 metre	1442.80
18.80.5	200 mm diameter C.I. pipe	100 metre	1937.90
18.80.6	250 mm diameter C.I. pipe	100 metre	2454.40
18.80.7	300 mm diameter C.I. pipe	100 metre	2753.90
18.80.8	350 mm diameter C.I. pipe	100 metre	3067.10
18.80.9	400 mm diameter C.I. pipe	100 metre	3402.80
18.80.10	450 mm diameter C.I. pipe	100 metre	3746.30
18.80.11	500 mm diameter C.I. pipe	100 metre	4112.40
18.80.12	600 mm diameter C.I. pipe	100 metre	4866.10
<b>18.81</b>	<b>Extra for every operation of disinfecting the C.I. main by flushing with water containing bleaching powder @ 0.5 gms per litre of water and cleaning the same with fresh water, including getting the samples of water tested in the municipal laboratory :</b>		
18.81.1	80 mm diameter C.I. pipe	100 metre	265.30
18.81.2	100 mm diameter C.I. pipe	100 metre	324.90
18.81.3	125 mm diameter C.I. pipe	100 metre	398.80
18.81.4	150 mm diameter C.I. pipe	100 metre	467.60
18.81.5	200 mm diameter C.I. pipe	100 metre	717.10
18.81.6	250 mm diameter C.I. pipe	100 metre	828.60
18.81.7	300 mm diameter C.I. pipe	100 metre	936.70
18.81.8	350 mm diameter C.I. pipe	100 metre	1104.70
18.81.9	400 mm diameter C.I. pipe	100 metre	1275.30
18.81.10	450 mm diameter C.I. pipe	100 metre	1453.20
18.81.11	500 mm diameter C.I. pipe	100 metre	1633.10
18.81.12	600 mm diameter C.I. pipe	100 metre	2003.30
<b>18.82</b>	<b>Dismantling old C.I. pipes including excavation and refilling trenches after taking out the pipes, breaking lead caulked joints, melting of lead and making into blocks, including stacking of pipes at site lead up to 50 metre :</b>		
18.82.1	80 mm diameter C.I. pipe	metre	247.60
18.82.2	100 mm diameter C.I. pipe	metre	253.80
18.82.3	125 mm diameter C.I. pipe	metre	259.30
18.82.4	150 mm diameter C.I. pipe	metre	264.90
18.82.5	200 mm diameter C.I. pipe	metre	290.60
18.82.6	250 mm diameter C.I. pipe	metre	315.30
18.82.7	300 mm diameter C.I. pipe	metre	336.50
18.82.8	350 mm diameter C.I. pipe	metre	355.50
18.82.9	400 mm diameter C.I. pipe	metre	372.00
18.82.10	450 mm diameter C.I. pipe	metre	389.30
18.82.11	500 mm diameter C.I. pipe	metre	403.10
18.82.12	600 mm diameter C.I. pipe	metre	424.60

Code No.	Description	Unit	Rate Rs.
<b>18.83</b>	<b>Labour for cutting C.I. pipe with steel saw.</b>		
18.83.1	80 mm diameter C.I. pipe	Each cut	59.60
18.83.2	100 mm diameter C.I. pipe	Each cut	80.30
18.83.3	125 mm diameter C.I. pipe	Each cut	112.20
18.83.4	150 mm diameter C.I. pipe	Each cut	151.10
18.83.5	200 mm diameter C.I. pipe	Each cut	201.60
18.83.6	250 mm diameter C.I. pipe	Each cut	249.70
18.83.7	300 mm diameter C.I. pipe	Each cut	300.20
18.83.8	350 mm diameter C.I. pipe	Each cut	348.20
18.83.9	400 mm diameter C.I. pipe	Each cut	398.40
18.83.10	450 mm diameter C.I. pipe	Each cut	446.80
18.83.11	500 mm diameter C.I. pipe	Each cut	496.90
18.83.12	600 mm diameter C.I. pipe	Each cut	590.60
<b>18.84</b>	<b>Providing &amp; fixing chrome plated brass battery based infrared sensor operated pillar cock, having foam flow technology.</b>		
18.84.1	15 mm nominal bore	each	7781.60
<b>18.85</b>	<b>Providing and fixing Stainless Steel pipe and fitting of grade AISI 304 as per JIS standard 3448 complete with press type fitting (fitting shall be paid for separately) i/c fixing of the pipe with clamps at 1.00 m spacing including cutting and making good the walls including testing of joints complete as per direction of Engineer -in-charge. (The pipe length inserted in the fitting shall not be measured for payment) Internal work - Exposed on wall</b>		
18.85.1	15.88 mm outer dia pipe	metre	245.90
18.85.2	22.22 mm outer dia Pipe	metre	404.60
18.85.3	28.58 mm outer dia Pipe	metre	480.90
18.85.4	34.00 mm outer dia Pipe	metre	668.70
18.85.5	42.70 mm outer dia Pipe	metre	694.40
18.85.6	48.60 mm outer dia Pipe	metre	931.80
<b>18.86</b>	<b>Providing and fixing Stainless Steel pipe and fitting of grade AISI 304 as per JIS standard 3448 complete with press type fitting (fitting shall be paid for separately) i/c fixing of the pipe with clamps at 1.00m spacing and also including cutting of chases and making good the walls including testing of joints complete as per direction of Engineer -in-charge. (The pipe length inserted in the fitting shall not be measured for payment) Internal work - Concealed Pipe</b>		
18.86.1	15.88 mm outer dia .Pipes.	metre	336.60
18.86.2	22.22 mm Outer dia pipes	metre	495.40



Code No.	Description	Unit	Rate Rs.
18.87	Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge. Coupling/Socket		
	18.87.1 For 15.88 mm outer dia pipe	each	78.90
	18.87.2 For 22.22 mm outer dia pipe	each	84.30
	18.87.3 For 28.58 mm outer dia pipe	each	119.10
	18.87.4 For 34.00 mm outer dia pipe	each	175.30
	18.87.5 For 42.70 mm outer dia pipe	each	211.40
	18.87.6 For 48.60 mm outer dia pipe	each	240.80
18.88	Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge. Reducer		
	18.88.1 For 22.22 mm x 15.88 mm outer dia pipe	each	137.80
	18.88.2 For 28.58 mm x 15.88 mm outer dia pipe	each	188.60
	18.88.3 For 28.58 mm x 22.22 mm outer dia pipe	each	194.00
	18.88.4 For 34.00 mm x 15.88 mm outer dia pipe	each	246.20
	18.88.5 For 34.00 mm x 22.22 mm outer dia pipe	each	250.20
	18.88.6 For 34.00 mm x 28.58 mm outer dia pipe	each	254.20
	18.88.7 For 42.70 mm x 15.88 mm outer dia pipe	each	480.30
	18.88.8 For 42.70 mm x 22.22 mm outer dia pipe	each	484.30
	18.88.9 For 42.70 mm x 28.58 mm outer dia pipe	each	484.30
	18.88.10 For 42.70 mm x 34.00 mm outer dia pipe	each	517.80
	18.88.11 For 48.60 mm x 15.88 mm outer dia pipe	each	548.60
	18.88.12 For 48.60 mm x 22.22 mm outer dia pipe	each	548.60
	18.88.13 For 48.60 mm x 28.58 mm outer dia pipe	each	548.60
	18.88.14 For 48.60 mm x 34.0 mm outer dia pipe	each	548.60
18.88.15 For 48.60 mm x 42.70 mm outer dia pipe	each	548.60	
18.89	<b>Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.</b> <b>Slip Coupling/ Socket</b>		
	18.89.1 For 15.88 mm outer dia pipe	each	62.90
	18.89.2 For 22.22 mm outer dia pipe	each	84.30
	18.89.3 For 28.58 mm outer dia pipe	each	119.10
	18.89.4 For 34.00 mm outer dia pipe	each	175.30
	18.89.5 For 42.70 mm outer dia pipe	each	211.40
	18.89.6 For 48.60 mm outer dia pipe	each	227.40

Code No.	Description	Unit	Rate Rs.
18.90	Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.		
	<b>Elbow 90o</b>		
	18.90.1 For 15.88mm outer dia pipe	each	77.60
	18.90.2 For 22.22 mm outer dia pipe	each	84.30
	18.90.3 For 28.58 mm outer dia pipe	each	128.40
	18.90.4 For 34.00 mm outer dia pipe	each	145.80
	18.90.5 For 42.70 mm outer dia pipe	each	155.20
18.90.6 For 48.60 mm outer dia pipe	each	200.70	
18.90A	Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911:2017 and conforming to EN-10312 standards with V-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.		
	<b>Elbow 90</b>		
	18.90A.1 For 15 mm outer dia pipe	each	408.10
	18.90A.2 For 22 mm outer dia pipe	each	575.30
	18.90A.3 For 28 mm outer dia pipe	each	769.30
	18.90A.4 For 35 mm outer dia pipe	each	1257.70
	18.90A.5 For 42 mm outer dia pipe	each	2033.70
18.90A.6 For 54 mm outer dia pipe	each	2689.30	
18.91	Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.		
	<b>Reducing Elbow 90o</b>		
	18.91.1 For 22.22 mm x 15.88 mm outer dia pipe	each	198.00
	18.91.2 For 28.58 mm x 15.88 mm outer dia pipe	each	255.50
	18.91.3 For 28.58 mm x 22.22 mm outer dia pipe	each	295.70
	18.91.4 For 34.00 mm x 22.22 mm outer dia pipe	each	384.00
	18.91.5 For 34.00 mm x 28.58 mm outer dia pipe	each	461.60
18.91.6 For 42.70 mm x 34.00 mm outer dia pipe	each	239.50	
18.92	Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.		
	<b>Equal Tee</b>		
	18.92.1 For 15.88 mm outer dia pipe	each	212.70
	18.92.2 For 22.22 mm outer dia pipe	each	309.10
18.92.3 For 28.58 mm outer dia pipe	each	365.30	



Code No.	Description	Unit	Rate Rs.
18.92.4	Details of Cost for one no.	each	584.70
18.92.5	For 42.70 mm outer dia pipe	each	913.80
18.92.6	For 48.60 mm outer dia pipe	each	1186.80
18.92A	<b>Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911:2017 and conforming to EN-10312 standards with V-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.</b>		
	Equal Tee		
18.92A.1	For 15 mm outer dia pipe	each	669.00
18.92A.2	For 22 mm outer dia pipe	each	782.70
18.92A.3	For 28 mm outer dia pipe	each	963.30
18.92A.4	For 35 mm outer dia pipe	each	1197.50
18.92A.5	For 42 mm outer dia pipe	each	1672.40
18.92A.6	For 54 mm outer dia pipe	each	2006.90
18.93	<b>Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWVA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.</b>		
	<b>Reducing Tee</b>		
18.93.1	For 22.22 mm x 15.88 mm outer dia pipe	each	239.50
18.93.2	For 28.58 mm x 15.88 mm outer dia pipe	each	365.30
18.93.3	For 28.58 mm x 22.22 mm outer dia pipe	each	365.30
18.93.4	For 34.00 mm x 15.88 mm outer dia pipe	each	584.70
18.93.5	For 34.00 mm x 22.22 mm outer dia pipe	each	584.70
18.93.6	For 34.00 mm x 28.58 mm outer dia pipe	each	584.70
18.93.7	For 42.70 mm x 15.88 mm outer dia pipe	each	913.80
18.93.8	For 42.70 mm x 22.22 mm outer dia pipe	each	913.80
18.93.9	For 42.70 mm x 28.58 mm outer dia pipe	each	913.80
18.93.10	For 42.70 mm x 34.00 mm outer dia pipe	each	913.80
18.93.11	For 48.60 mm x 15.88 mm outer dia pipe	each	1186.80
18.93.12	For 48.60 mm x 22.22 mm outer dia pipe	each	1186.80
18.93.13	For 48.60 mm x 28.58 mm outer dia pipe	each	1186.80
18.93.14	For 48.60 mm x 34.00 mm outer dia pipe	each	1186.80
18.93.15	For 48.60 mm x 42.70 mm outer dia pipe	each	1186.80
18.93A	<b>Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911:2017 and conforming to EN-10312 standards with V-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.</b>		
	Reducing Tee		
18.93A.1	For 22 mm x 15 mm outer dia pipe	each	769.30
18.93A.2	For 28 mm x 15 mm outer dia pipe	each	956.60



Code No.	Description	Unit	Rate Rs.
18.93A.3	For 28 mm x 22 mm outer dia pipe	each	949.90
18.93A.4	For 35 mm x 15 mm outer dia pipe	each	1204.10
18.93A.5	For 35 mm x 22 mm outer dia pipe	each	1210.80
18.93A.6	For 35 mm x 28 mm outer dia pipe	each	1224.20
18.93A.7	For 42 mm x 22 mm outer dia pipe	each	1712.60
18.93A.8	For 42 mm x 28 mm outer dia pipe	each	1692.50
18.93A.9	For 42 mm x 35 mm outer dia pipe	each	1725.90
18.93A.10	For 54 mm x 22 mm outer dia pipe	each	2100.60
18.93A.11	For 54 mm x 28 mm outer dia pipe	each	2060.40
18.93A.12	For 54 mm x 35 mm outer dia pipe	each	2073.80
18.93A.13	For 54 mm x 42 mm outer dia pipe	each	2006.90
<b>18.94</b>	<b>Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.</b>		
	<b>Male Thread Tee</b>		
18.94.1	For 15.88 mm outer dia x 15 mm nominal dia threaded	each	239.50
18.94.2	For 22.22 mm outer dia x 15 mm nominal dia threaded	each	267.60
18.94.3	For 22.22 mm outer dia x 20 mm nominal dia threaded	each	274.30
18.94.4	For 28.58 mm outer dia x 15 mm nominal dia threaded	each	365.30
18.94.5	For 28.58 mm outer dia x 20 mm nominal dia threaded	each	365.30
18.94.6	For 28.58 mm outer dia x 25 mm nominal dia threaded	each	365.30
18.94.7	For 34.00 mm outer dia x 15 mm nominal dia threaded	each	584.70
18.94.8	For 34.00 mm outer dia x 20 mm nominal dia threaded	each	584.70
18.94.9	For 34.00 mm outer dia x 25 mm nominal dia threaded	each	584.70
18.94.10	For 34.00 mm outer dia x 32 mm nominal dia threaded	each	584.70
18.94.11	For 42.70 mm outer dia x 15 mm nominal dia threaded	each	913.80
18.94.12	For 42.70 mm outer dia x 20 mm nominal dia threaded	each	913.80
18.94.13	For 42.70 mm outer dia x 25 mm nominal dia threaded	each	913.80
18.94.14	For 42.70 mm outer dia x 32 mm nominal dia threaded	each	913.80
18.94.15	For 42.70 mm outer dia x 40 mm nominal dia threaded	each	913.80
18.94.16	For 48.60 mm outer dia x 15 mm nominal dia threaded	each	1186.80
18.94.17	For 48.60 mm outer dia x 20 mm nominal dia threaded	each	1186.80
18.94.18	For 48.60 mm outer dia x 25 mm nominal dia threaded	each	1186.80
18.94.19	For 48.60 mm outer dia x 32 mm nominal dia threaded	each	1186.80
18.94.20	For 48.60 mm outer dia x 40 mm nominal dia threaded	each	1186.80
18.94.21	For 48.60 mm outer dia x 50 mm nominal dia threaded	each	1186.80

*[Handwritten signatures and initials]*

Code No.	Description	Unit	Rate Rs.
18.95	<b>Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.</b>		
	<b>Female Thread Tee</b>		
18.95.1	For 15.88 mm outer dia x 15 mm nominal dia threaded	each	239.50
18.95.2	For 22.22 mm outer dia x 15 mm nominal dia threaded	each	267.60
18.95.3	For 22.22 mm outer dia x 20 mm nominal dia threaded	each	267.60
18.95.4	For 28.58 mm outer dia x 15 mm nominal dia threaded	each	365.30
18.95.5	For 28.58 mm outer dia x 20 mm nominal dia threaded	each	365.30
18.95.6	For 28.58 mm outer dia x 25 mm nominal dia threaded	each	365.30
18.95.7	For 34.00 mm outer dia x 15 mm nominal dia threaded	each	584.70
18.95.8	For 34.00 mm outer dia x 20 mm nominal dia threaded	each	584.70
18.95.9	For 34.00 mm outer dia x 25 mm nominal dia threaded	each	584.70
18.95.10	For 34.00 mm outer dia x 32 mm nominal dia threaded	each	584.70
18.95.11	For 42.70 mm outer dia x 15 mm nominal dia threaded	each	913.80
18.95.12	For 42.70 mm outer dia x 20 mm nominal dia threaded	each	913.80
18.95.13	For 42.70 mm outer dia x 25 mm nominal dia threaded	each	913.80
18.95.14	For 42.70 mm outer dia x 32 mm nominal dia threaded	each	913.80
18.95.15	For 42.70 mm outer dia x 40 mm nominal dia threaded	each	913.80
18.95.16	For 48.60 mm outer dia x 15 mm nominal dia threaded	each	1186.80
18.95.17	For 48.60 mm outer dia x 20 mm nominal dia threaded	each	1186.80
18.95.18	For 48.60 mm outer dia x 25 mm nominal dia threaded	each	1186.80
18.95.19	For 48.60 mm outer dia x 32 mm nominal dia threaded	each	1186.80
18.95.20	For 48.60 mm outer dia x 40 mm nominal dia threaded	each	1186.80
18.95.21	For 48.60 mm outer dia x 50 mm nominal dia threaded	each	1186.80
18.95A	<b>Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911: 18.95A 2017 and conforming to EN-10312 standards with V-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.</b>		
	<b>Female Thread Tee</b>		
18.95A.1	For 15 mm outer dia x 1/2" nominal dia threaded	each	749.20
18.95A.2	For 22mm outer dia x 1/2" nominal dia threaded	each	822.80
18.95A.3	For 22mm outer dia x 3/4" nominal dia threaded	each	923.20
18.95A.4	For 28 mm outer dia x 1/2" nominal dia threaded	each	976.70
18.95A.5	For 28 mm outer dia x 3/4" nominal dia threaded	each	1010.10
18.95A.6	For 28 mm outer dia x 1" nominal dia threaded	each	1123.90
18.95A.7	For 35 mm outer dia x 1/2" nominal dia threaded	each	1130.60
18.95A.8	For 35 mm outer dia x 1-1/4" nominal dia threaded	each	1550.70
18.95A.9	For 42 mm outer dia x 1-1/4" nominal dia threaded	each	1800.90

Code No.	Description	Unit	Rate Rs.
18.95A.1	For 54 mm outer dia x 1-1/2" nominal dia threaded	each	2568.80
18.95A.11	For 54 mm outer dia x 2" nominal dia threaded	each	3086.60
<b>18.96</b>	<b>Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.</b>		
	<b>Female Thread Connector/ Adapter</b>		
18.96.1	For 15.88 mm outer dia x 15 mm nominal dia threaded	each	254.20
18.96.2	For 22.22 mm outer dia x 15 mm nominal dia threaded	each	307.70
18.96.3	For 22.22 mm outer dia x 20 mm nominal dia threaded	each	317.10
18.96.4	For 28.58 mm outer dia x 15 mm nominal dia threaded	each	370.60
18.96.5	For 28.58 mm outer dia x 20 mm nominal dia threaded	each	382.70
18.96.6	For 28.58 mm outer dia x 25 mm nominal dia threaded	each	450.90
18.96.7	For 34.00 mm outer dia x 25 mm nominal dia threaded	each	547.20
18.96.8	For 34.00 mm outer dia x 32 mm nominal dia threaded	each	719.80
18.96.9	For 42.70 mm outer dia x 32 mm nominal dia threaded	each	770.70
18.96.10	For 42.70 mm outer dia x 40 mm nominal dia threaded	each	911.10
18.96.11	For 48.60 mm outer dia x 40 mm nominal dia threaded	each	1121.20
18.96.12	For 48.60 mm outer dia x 50 mm nominal dia threaded	each	1121.20
<b>18.96A</b>	<b>Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911:2017 and conforming to EN-10312 standards with V-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge</b>		
	<b>Female Thread Connector/ Adapter</b>		
18.96A.1	For 15 mm outer dia x 1/2" mm nominal dia threaded	each	588.70
18.96A.2	For 22 mm outer dia x 1/2" mm nominal dia threaded	each	662.30
18.96A.3	For 22 mm outer dia x 3/4" mm nominal dia threaded	each	776.00
18.96A.4	For 28 mm outer dia X 1" nominal dia threaded	each	1277.70
18.96A.5	For 35 mm outer dia X 1-1/4" nominal dia threaded	each	1364.70
<b>18.96A.6</b>	<b>For 42 mm outer dia X 1-1/2" nominal dia threaded</b>	each	2093.90
18.96A.7	For 54 mm outer dia X 2" nominal dia threaded	each	3211.10
<b>18.97</b>	<b>Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.</b>		
	<b>Male Thread Connector/ Adapter</b>		
18.97.1	For 15.88 mm outer dia x 15 mm nominal dia threaded	each	258.20
18.97.2	For 22.22 mm outer dia x 15 mm nominal dia threaded	each	303.70
18.97.3	For 22.22 mm outer dia x 20 mm nominal dia threaded	each	331.80
18.97.4	For 28.58 mm outer dia x 20 mm nominal dia threaded	each	418.80

Code No.	Description	Unit	Rate Rs.
18.97.5	For 28.58 mm outer dia x 25 mm nominal dia threaded	each	428.10
18.97.6	For 34.00 mm outer dia x 25 mm nominal dia threaded	each	616.80
18.97.7	For 34.00 mm outer dia x 32 mm nominal dia threaded	each	755.90
18.97.8	For 42.70 mm outer dia x 32 mm nominal dia threaded	each	868.30
18.97.9	For 42.70 mm outer dia x 40 mm nominal dia threaded	each	971.30
18.97.10	For 48.60 mm outer dia x 40 mm nominal dia threaded	each	1123.90
18.97.11	For 48.60 mm outer dia x 50 mm nominal dia threaded	each	1522.60
18.97A	<b>Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911:2017 and conforming to EN-10312 standard with V-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.</b>		
	<b>Male Thread Connector/ Adapter</b>		
18.97A.1	For 15 mm outer dia X 1/2" nominal dia threaded	each	541.90
18.97A.2	For 22 mm outer dia X 1/2" nominal dia threaded	each	642.20
18.97A.3	For 22 mm outer dia X 3/4" nominal dia threaded	each	675.70
18.97A.4	For 28 mm outer dia X 1" nominal dia threaded	each	889.70
18.97A.5	For 35 mm outer dia x 1-1/4" nominal dia threaded	each	1297.80
18.97A.6	For 42 mm outer dia X 1-1/2" nominal dia threaded	each	1893.20
18.97A.7	For 54 mm outer dia X 2" nominal dia threaded	each	2535.40
18.98	<b>Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.</b>		
	<b>Valve Connector</b>		
18.98.1	For 15.88 mm outer dia x 15 mm nominal dia threaded	each	313.10
18.98.2	For 22.22 mm outer dia x 15 mm nominal dia threaded	each	369.30
18.98.3	For 22.22 mm outer dia x 20 mm nominal dia threaded	each	394.70
18.98.4	For 28.58 mm outer dia x 25 mm nominal dia threaded	each	567.30
18.98.5	For 34.00 mm outer dia x 32 mm nominal dia threaded	each	841.60
18.98.6	For 42.70 mm outer dia x 40 mm nominal dia threaded	each	1170.70
18.98.7	For 48.60 mm outer dia x 50 mm nominal dia threaded	each	1573.40
18.99	<b>Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.</b>		
	<b>Female Threaded Elbow 90O</b>		
18.99.1	For 15.88 mm outer dia x 15 mm nominal dia threaded	each	200.70
18.99.2	For 22.22 mm outer dia x 15 mm nominal dia threaded	each	255.50
18.99.3	For 22.22 mm outer dia x 20 mm nominal dia threaded	each	255.50
18.99.4	For 25.58 mm outer dia x 25 mm nominal dia threaded	each	274.30

Code No.	Description	Unit	Rate Rs.
18.99.5	For 34.00 mm outer dia x 32 mm nominal dia threaded	each	384.00
18.99.6	For 42.70 mm outer dia x 32 mm nominal dia threaded	each	639.50
18.99.7	For 42.70 mm outer dia x 40 mm nominal dia threaded	each	639.50
18.99.8	For 48.60 mm outer dia x 40 mm nominal dia threaded	each	913.80
18.99.9	For 48.60 mm outer dia x 50 mm nominal dia threaded	each	913.80
<b>18.100</b>	<b>Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.</b>		
	<b>Male Threaded Elbow 90O</b>		
18.100.1	For 15.88 mm outer dia x 15 mm nominal dia threaded	each	255.50
18.100.2	For 22.22 mm outer dia x 15 mm nominal dia threaded	each	274.30
18.100.3	For 22.22 mm outer dia x 20 mm nominal dia threaded	each	274.30
18.100.4	For 28.58 mm outer dia x 25 mm nominal dia threaded	each	274.30
18.100.5	For 34.00 mm outer dia x 25 mm nominal dia threaded	each	384.00
18.100.6	For 34.00 mm outer dia x 32 mm nominal dia threaded	each	384.00
18.100.7	For 42.70 mm outer dia x 32 mm nominal dia threaded	each	639.50
18.100.8	For 42.70 mm outer dia x 40 mm nominal dia threaded	each	639.50
18.100.9	For 48.60 mm outer dia x 40 mm nominal dia threaded	each	913.80
18.100.10	For 48.60 mm outer dia x 50 mm nominal dia threaded	each	913.80
<b>18.100.A</b>	<b>Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS6911:2017 and conforming to EN-10312 standard with V-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.</b>		
	<b>Male Threaded Elbow 90°</b>		
18.100A.1	For 15mm outer dia X 1/2" nominal dia threaded	each	702.40
18.100A.2	For 22mm outer dia X 3/4" nominal dia threaded	each	1057.00
18.100A.3	For 28mm outer dia X 1" nominal dia threaded	each	1398.10
18.100A.4	For 35mm outer dia X 1-1/4" nominal dia threaded	each	1926.60
18.100A.5	For 42mm outer dia X 1-1/2" nominal dia threaded	each	3525.50
18.100A.6	For 54mm outer dia X 2" mm nominal dia threaded	each	4011.10
<b>18.101</b>	<b>Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.</b>		
	<b>Cap</b>		
18.101.1	For 15.88 mm outer dia pipe	each	60.20
18.101.2	For 22.22 mm outer dia pipe	each	85.60
18.101.3	For 28.58 mm outer dia pipe	each	112.40
18.101.4	For 34.00 mm outer dia pipe	each	218.10
18.101.5	For 42.70 mm outer dia pipe	each	315.80
18.101.6	For 48.60 mm outer dia pipe	each	400.00



Code No.	Description	Unit	Rate Rs.	
18.101A	<b>Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911:2017 and conforming to EN-10312 standard with V-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.</b>			
	<b>Cap</b>			
	18.101A.1	For 15 mm outer dia pipe	each	428.10
	18.101A.2	For 22 mm outer dia pipe	each	555.20
	18.101A.3	For 28 mm outer dia pipe	each	689.00
	18.101A.4	For 35 mm outer dia pipe	each	963.30
	18.101A.5	For 42 mm outer dia pipe	each	2093.90
18.101A.6	For 54 mm outer dia pipe	each	2301.30	
18.102	<b>Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWVA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.</b>			
	<b>Pipe Bridge</b>			
	18.102.1	For 15.88 mm outer dia pipe	each	286.30
	18.102.2	For 22.22 mm outer dia pipe	each	362.60
18.102.3	For 28.58 mm outer dia pipe	each	544.50	
18.103	<b>Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911:2017 and conforming to EN-10312 standard with V-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.</b>			
	<b>Male Union</b>			
	18.103.1	For 15mm outer dia X 1/2" nominal dia threaded	each	1184.10
	18.103.2	For 22mm outer dia X 1/2" nominal dia threaded	each	1197.50
	18.103.3	For 22mm outer dia X 3/4" nominal dia threaded	each	1371.40
	18.103.4	For 28mm outer dia X1" nominal dia threaded	each	2415.00
	18.103.5	For 35mm outer dia X 1-1/4" nominal dia threaded	each	2522.00
	18.103.6	For 42mm outer dia X 1-1/2" nominal dia threaded	each	2849.80
18.103.7	For 54mm outer dia X 2" nominal dia threaded	each	4923.60	
18.104	<b>Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS 6911:2017 and conforming to EN-10312 standard with V-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.</b>			
	<b>Female Union</b>			
	18.104.1	For 22 mm outer dia X 3/4" nominal dia threaded	each	1271.00
18.104.2	For 28mm outer dia X1" nominal dia threaded	each	1712.60	

Code No.	Description	Unit	Rate Rs.
18.105	Providing and fixing required Stainless Steel Fitting of press fit design of grade 316L as per IS6911:2017 and conforming to EN-10312 standard with V-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.		
	<b>Female Transition Elbow/ FTE</b>		
18.105.1	For 15mm outer dia X 1/2" nominal dia threaded	each	868.30
18.105.2	For 22mm outer dia X 1/2" nominal dia threaded	each	1204.10
18.105.3	For 22mm outer dia X 3/4" nominal dia threaded	each	1164.00

*[Handwritten signatures and initials]*





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**SUB HEAD : 19.0**  
**DRAINAGE**

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BUILDING WORK - Contd.

**19.0 DRAINAGE**

Code No.	Description	Unit	Rate Rs.
	<b>NOTE</b> : - The rates given for all the items under sub-head ' Drainage' are applicable to work executed in soils above sub- soil water level. Extra allowance has to be made for work under sub- soil water level.		
	<b>STONE WARE PIPES AND FITTINGS</b>		
<b>19.1</b>	<b>Providing, laying and jointing glazed stoneware pipes class SP-1 with stiff mixture of cement mortar in the proportion of 1:1 (1 cement : 1 fine sand) including testing of joints etc. complete :</b>		
19.1.1	100 mm diameter	metre	235.90
19.1.2	150 mm diameter	metre	391.00
19.1.3	200 mm diameter	metre	667.30
19.1.5	250 mm diameter	metre	1014.30
19.1.6	300 mm diameter	metre	1432.50
<b>19.2</b>	<b>Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) all-round S.W. pipes including bed concrete as per standard design :</b>		
19.2.1	100 mm diameter S.W. pipe	metre	396.50
19.2.2	150 mm diameter S.W. pipe	metre	484.90
19.2.3	200 mm diameter S.W. pipe	metre	565.20
19.2.4	250 mm diameter S.W. pipe	metre	653.60
<b>19.3</b>	<b>Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) up to haunches of S.W. pipes including bed concrete as per standard design :</b>		
19.3.1	100 mm diameter S.W. pipe	metre	188.40
19.3.2	150 mm diameter S.W. pipe	metre	305.40
19.3.3	200 mm diameter S.W. pipe	metre	359.00
19.3.4	250 mm diameter S.W. pipe	metre	417.90
19.3.5	300 mm diameter S.W. pipe	metre	482.20
<b>19.4</b>	<b>Providing and fixing square-mouth S.W. gully trap class SP-1 complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300 x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design :</b>		
19.4.1	100x100 mm size P type		
19.4.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	1831.90
19.4.1.2	With Sewer bricks conforming to IS : 4885	each	1831.90
19.4.2	150 x 100 mm size P type		

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Code No.	Description	Unit	Rate Rs.
19.4.2.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	1866.20
19.4.2.2	With sewer bricks conforming to IS : 4885	each	1866.20
19.4.3	180x150 mm size P type		
19.4.3.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	1980.20
19.4.3.2	With Sewer bricks conforming to IS : 4885	each	1980.20
<b>19.5</b>	<b>Dismantling of old S.W. pipes including breaking of joints and bed concrete stacking of useful materials near the site within 50 m lead and disposal of unserviceable materials into municipal dumps</b>		
19.5.1	100 mm diameter	metre	33.20
19.5.2	150 mm diameter	metre	36.80
19.5.3	200 mm diameter	metre	39.20
19.5.4	250 mm diameter	metre	41.60
19.5.5	300 mm diameter	metre	44.00
19.5.6	350 mm diameter	metre	50.60
19.5.7	400 mm diameter	metre	55.30
19.5.8	450 mm diameter	metre	57.70
<b>19.6</b>	<b>Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete :</b>		
19.6.1	100 mm dia. R.C.C. pipe	metre	356.10
19.6.2	150 mm dia. R.C.C. pipe	metre	390.80
19.6.3	250 mm dia. R.C.C. pipe	metre	639.30
19.6.4	300 mm dia. R.C.C. pipe	metre	757.00
19.6.5	450 mm dia. R.C.C. pipe	metre	1250.90
19.6.6	500 mm dia. R.C.C. pipe	metre	1504.90
19.6.7	600 mm dia. R.C.C. pipe	metre	1791.90
19.6.8	700 mm dia. R.C.C. pipe	metre	2338.90
19.6.9	800 mm dia. R.C.C. pipe	metre	2809.60
19.6.10	900 mm dia. R.C.C. pipe	metre	3836.40
19.6.11	1000 mm dia. R.C.C. pipe	metre	4486.60
19.6.12	1100 mm dia. R.C.C. pipe	metre	4993.10
19.6.13	1200 mm dia. R.C.C. pipe	metre	5544.80
<b>19.7</b>	<b>Constructing brick masonry manhole in cement mortar 1:4 ( 1 cement : 4 coarse sand ) with R.C.C. top slab with 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete as per standard design :</b>		

Code No.	Description	Unit	Rate Rs.
19.7.1	Inside size 90x80 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) :		
19.7.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	7564.90
19.7.1.2	With Sewer bricks conforming to IS : 4885	each	7564.90
19.7.2	Inside size 120x90 cm and 90 cm deep including C.I. cover with frame (medium duty) 500 mm internal diameter, total weight of cover and frame to be not less than 116 kg (weight of cover 58 kg and weight of frame 58 kg) :		
19.7.2.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	17243.10
19.7.2.2	With Sewer bricks conforming to IS : 4885	each	32533.20
19.7.3	Inside size 120x90 cm and 90 cm deep including C.I. cover with frame (heavy duty) 560 mm internal diameter, total weight of cover and frame to be not less than 208 kg (weight of cover 108 kg and weight of frame 100 kg) :		
19.7.3.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	22991.30
19.7.3.2	With Sewer bricks conforming to IS : 4885	each	22991.40
<b>19.8</b>	<b>Extra for depth for manholes :</b>		
19.8.1	Size 90x80 cm		
19.8.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	metre	5661.00
19.8.1.2	With Sewer bricks conforming to IS : 4885	metre	5661.20
19.8.2	Size 120x90 cm		
19.8.2.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	metre	6776.30
19.8.2.2	With Sewer bricks conforming to IS : 4885	metre	6776.40
<b>19.9</b>	<b>Constructing brick masonry circular type manhole 0.91 m internal dia at bottom and 0.56m dia at top in cement mortar 1:4 (1 cement :4 coarse sand), in side cement plaster 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement, foundation concrete 1:3:6 mix (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size), and making necessary channel in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement, all complete as per standard design:</b>		

Code No.	Description	Unit	Rate Rs.
19.9.1	0.91 m deep with S.F.R.C. cover and frame (heavy duty, HD-20 grade designation) 560 mm internal diameter conforming to I.S. 12592, total weight of cover and frame to be not less than 182 kg., fixed in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) including centering, shuttering all complete. (Excavation, foot rests and 12mm thick cement plaster at the external surface shall be paid for separately) :		
19.9.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	7034.60
19.9.1.2	With Sewer bricks conforming to IS : 4885	each	6970.60
<b>19.10</b>	<b>Extra depth for circular type manhole 0.91m internal dia (at bottom) beyond 0.91 m to 1.67 m</b>		
19.10.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	metre	4834.92
19.10.2	With Sewer bricks conforming IS : 4885	metre	4834.92
<b>19.11</b>	<b>bottom and 0.56 m dia at top in cement mortar 1:4 (1 cement : 4 coarse sand) inside cement plaster 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement foundation concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) and making necessary channel in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement, all complete as per standard design:</b>		
19.11.1	1.68 m deep with SFRC Cover and frame (heavy duty HD-20 grade designation) 560 mm internal diameter conforming to I.S. 12592, total weight of cover and frame to be not less than 182 kg. fixed in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) including centering, shuttering all complete. (Excavation, foot rests and 12 mm thick cement plaster at the external surface shall be paid for separately) :		
19.11.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	13772.90
19.11.1.2	With Sewer bricks conforming IS : 4885	each	13709.00
<b>19.12</b>	<b>Extra depth for circular type manhole 1.22 m internal dia (at bottom) beyond 1.68 m to 2.29 m :</b>		
19.12.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	metre	6280.70
19.12.2	With Sewer bricks conforming IS : 4885	metre	6280.90





Code No.	Description	Unit	Rate Rs.
19.13	Constructing brick masonry circular manhole 1.52 m internal dia at bottom and 0.56 m dia at top in cement mortar 1:4 (1 cement : 4 coarse sand) inside cement plaster 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement, foundation concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) and making necessary channel in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement, all complete as per standard design:		
19.13.1	2.30 m deep with SFRC Cover and frame (heavy duty HD- 20 grade designation) 560 mm internal diameter conforming to I.S. 12592, total weight of cover and frame to be not less than 182 kg. fixed in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) including centering, shuttering all complete. (Excavation, foot rests and 12 mm thick cement plaster at the external surface shall be paid for separately) :		
19.13.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 100A	each	30702.20
19.13.1.2	With Sewer bricks conforming IS : 4885	each	30574.60
19.14	Extra depth for circular type manhole 1.52 m internal dia (at bottom) beyond 2.30 m :		
19.14.1	With common burnt clay F.P.S. (non modular) bricks of class designation 100A	metre	15057.10
19.14.2	With Sewer bricks conforming IS : 4885	metre	15057.50
19.15	Providing M.S. foot rests including fixing in manholes with 20x20x10 cm cement concrete blocks 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) as per standard design :		
19.15.1	With 20x20 mm square bar	each	290.50
19.15.2	With 20 mm diameter round bar	each	241.20
19.16	Providing orange colour safety foot rest of minimum 6 mm thick plastic encapsulated as per IS : 10910, on 12 mm dia steel bar conforming to IS : 1786, having minimum cross section as 23 mmx25 mm and over all minimum length 263 mm and width as 165 mm with minimum 112 mm space between protruded legs having 2 mm tread on top surface by ribbing or chequering besides necessary and adequate anchoring projections on tail length on 138 mm as per standard drawing and suitable to with stand the bend test and chemical resistance test as per specifications and having manufacture's permanent identification mark to be isible even after fixing, including fixing in manholes with 30x20x15 cm cement concrete block 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) complete as per design.	each	290.50

Code No.	Description	Unit	Rate Rs.
19.17	<b>Replacement of M.S. foot rests in manholes including dismantling concrete blocks and fixing with 20x20x10 cm cement concrete blocks 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) :</b>		
19.17.1	With 20x20 mm square bar	each	339.20
19.17.2	With 20 mm diameter round bar	each	289.80
19.18	<b>Supplying and fixing C.I. cover without frame for manholes :</b>		
19.18.1	455x610 mm rectangular C.I. cover (light duty) the weight of the cover to be not less than 23 kg	each	1282.70
19.18.2	500 mm diameter C.I. cover (medium duty) the weight of the cover to be not less than 58 kg	each	3159.40
19.18.3	560 mm diameter C.I. cover (heavy duty) the weight of the cover to be not less than 108 kg	each	6778.90
19.19	<b>Providing and fixing in position pre-cast R.C.C. manhole cover and frame of required shape and approved quality</b>		
19.19.1	L D- 2.5		
19.19.1.1	Rectangular shape 600x450 mm internal dimensions	each	1115.50
19.19.1.2	Square shape 450 mm internal dimensions	each	942.20
19.19.1.3	Circular shape 450 mm internal diameter	each	942.20
19.19.2	M D - 10		
19.19.2.1	Square shape 450 mm internal dimension	each	990.10
19.19.2.2	Circular shape 500 mm internal diameter	each	1077.60
19.19.3	H D - 20		
19.19.3.1	Circular shape 560 mm internal diameter	each	978.40
19.19.4	EHD - 35		
19.19.4.1	Circular shape 560 mm internal dia	each	1386.40
19.20	<b>Supplying and fixing C.I. cover 300x300 mm without frame for gully trap (standard pattern) the weight of cover to be not less than 4.5 kg</b>	each	656.90
19.21	<b>Making connection of drain or sewer line with existing manhole including breaking into and making good the walls, floors with cement concrete 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) cement plastered on both sides with cement mortar 1:3 (1 cement : 3 coarse sand), finished with a floating coat of neat cement and making necessary channels for the drain etc. complete :</b>		
19.21.1	For pipes 100 to 250 mm diameter	each	355.90
19.21.2	For pipes 250 to 300 mm diameter	each	410.50
19.21.3	For pipes 350 to 450 mm diameter	each	591.30

Code No.	Description	Unit	Rate Rs.
19.22	<b>Providing sand cast iron drop connection externally for 60 cm drop from branch sewer line to main sewer manhole including inspection and cleaning eye with chain and lid, sand cast iron drop pipe and bend encased all-round with cement concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) with all centering and shuttering required, cutting holes in walls and making good with brick work in cement mortar 1:4 (1 cement : 4 coarse sand)plastered with cement mortar 1:3 (1 cement : 3 coarse sand) on inside of the manhole wall, lead caulked joints between sand cast iron pipes and fittings, stiff cement mortar 1:1 (1 cement : 1 fine sand) joints between sand cast iron tee and S.W. pipe, making required channels complete as per standard design and specifications :</b>		
19.22.1	100 mm dia sand cast iron drop connection	each	5767.60
19.22.2	150 mm dia sand cast iron drop connection	each	7789.30
19.23	<b>Extra for depths beyond 60 cm of sand cast iron drop connection complete :</b>		
19.23.1	For 100 mm dia sand cast iron drop connection	metre	1845.20
19.23.2	For 150 mm dia sand cast iron drop connection	metre	2479.10
19.24	<b>Dismantling of manhole including R.C.C. top slab, C.I. cover with frame, including stacking of useful materials near the site and disposal of unserviceable materials into municipal dumps within 50 m lead :</b>		
19.24.1	Rectangular manhole 90x80 cm and 45 cm deep	each	1188.80
19.24.2	Rectangular manhole 120x90 cm and 90 cm deep	each	2127.50
19.24.3	Rectangular arch type manhole 140x90 cm and 2.45 m deep	each	3197.50
19.24.4	Circular manhole 122 cm diameter and 1.68 m deep	each	2448.50
19.25	<b>Extra for depth of manholes dismantled :</b>		
19.25.1	Rectangular manhole 90x80 cm and beyond 45 cm depth	metre	770.60
19.25.2	Rectangular manhole 120x90 cm and beyond 90 cm depth	metre	917.60
19.25.3	Rectangular arch type manhole 140x90 cm and beyond 2.45 m depth (up to 4.25 m depth)	metre	741.50
19.25.4	Circular manhole 122 cm diameter and beyond 1.68 m depth (up to 2.29 m depth)	metre	835.80
19.26	<b>Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) :</b>		
19.26.1	Rectangular manhole 90x80 cm with rectangular cover 600x450 mm of grade LD - 2.5	each	1360.40
19.26.2	Rectangular manhole 120x90 cm with circular cover 500 mm dia of grade MD - 10	each	2138.70
19.26.3	Rectangular manhole 120x90 cm with circular cover 560 mm dia of grade HD - 20	each	1996.10
19.26.4	Circular manhole 140 cm dia with circular cover 600 mm dia of grade EHD - 35	each	202.70

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Code No.	Description	Unit	Rate Rs.
19.27	Constructing brick masonry road gully chamber 50x45x60 cm with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) including 500x450 mm pre-cast R.C.C. horizontal grating with frame complete as per standard design :		
19.27.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	3710.40
19.28	Constructing brick masonry road gully chamber 45x45x77.5 cm with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) with precast R.C.C. vertical grating complete as per standard design :		
19.28.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	4128.60
19.29	Constructing brick masonry road gully chamber 110x50x77.5 cm with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) including 500x450 mm pre-cast R.C.C. horizontal grating with frame and vertical grating complete as per standard design :		
19.29.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	6900.10
19.30	Constructing brick masonry chamber for underground C.I. inspection chamber and bends with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover with frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg), R.C.C. top slab with 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand), finished smooth with a floating coat of neat cement on walls and bed concrete etc. complete as per standard design :		
19.30.1	Inside dimensions 455x610 mm and 45 cm deep for single pipe line :		
19.30.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	4228.40
19.30.2	Inside dimensions 500x700 mm and 45 cm deep for pipe line with one or two inlets :		
19.30.2.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	4892.60
19.30.3	Inside dimensions 600x 850 mm and 45 cm deep for pipe line with three or more inlets :		
19.30.3.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	5662.90
19.31	Extra for depth beyond 45 cm of brick masonry chamber		
19.31.1	For 455x610 mm size		
19.31.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	metre	3949.30
19.31.2	For 500x700 mm size		

	19.31.2.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	metre	4304.80
	19.31.3	For 600x850 mm size		
	19.31.3.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	metre	5008.20
<b>19.32</b>	<b>Making soak pit 2.5 m diameter 3.0 metre deep with 45 x 45 cm dry brick honey comb shaft with bricks and S.W. drain pipe 100 mm diameter, 1.8 m long complete as per standard design.</b>			
	19.32.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	33640.10
<b>19.33</b>	<b>Constructing soak pit 1.20x1.20x1.20 m filled with brickbats including S.W. drain pipe 100 mm diameter and 1.20 m long complete as per standard design.</b>			each 3675.30
<b>19.34</b>	<b>Providing and fixing S.W. intercepting trap in manholes with stiff mixture of cement mortar 1:1 (1 cement : 1 fine sand) including testing of joints etc. complete :</b>			
	19.34.1	100 mm dia	each	315.50
	19.34.2	150 mm dia	each	423.30
<b>19.35</b>	<b>Providing and laying Non Pressure NP-3 class (Medium duty) R.C.C. pipes including collars/spigot jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete</b>			
	19.35.1	450 mm dia RCC pipes.	metre	2152.30
	19.35.2	600 mm dia RCC pipes.	metre	2859.10
	19.35.3	900 mm dia RCC pipes.	metre	4503.70
	19.35.4	1000 mm dia RCC pipes. (Laying by manual/ machanical means)	metre	5570.70
	19.35.5	1200 mm dia RCC pipes. (Laying by manual/ machanical means)	metre	7304.90
	19.35.6	1800 mm dia RCC pipes. (Laying by manual/ machanical means)	metre	132.96
<b>19.36</b>	<b>Providing and laying Non Pressure NP-4 class (Heavy duty) R.C.C. pipes including collars/spigot jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete</b>			
	19.36.1	450 mm dia RCC pipes.	metre	2503.10
	19.36.2	600 mm dia RCC pipes.	metre	3280.60
	19.36.3	900 mm dia RCC pipes.	metre	6301.90
	19.36.4	1000 mm dia RCC pipes.(Laying machanical means)	metre	7818.50
	19.36.5	1200 mm dia RCC pipes. (Laying machanical means)	metre	9271.70
	19.36.6	1800 mm dia RCC pipes. (Laying machanical means)	metre	18995.70





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**SUB HEAD : 20.0**  
**PILE WORK**

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BUILDING WORK - Contd.

**20.0 PILE WORK**

Code No.	Description	Unit	Rate Rs.
20.1	Providing, driving and installing driven cast-in-situ reinforced cement concrete piles of grade M-25 of specified diameter and length below the pile cap, to carry safe working load not less than specified, excluding the cost of steel reinforcement but including the cost of shoe and the length of pile to be embedded in the pile cap etc. all complete. (Length of pile for payment shall be measured from top of shoe to the bottom of pile cap) :		
20.1.1	400 mm dia piles	metre	1823.70
20.1.2	450 mm dia piles	metre	2213.30
20.1.3	500 mm dia piles	metre	2657.00
20.1.4	550 mm dia piles	metre	2840.10
20.1.5	750 mm dia piles	metre	4748.10
20.1.6	1000 mm dia piles	metre	7758.10
20.1.7	1200 mm dia piles	metre	9825.70
20.1.8	1500 mm dia piles	metre	13578.10
20.2	Boring, providing and installing bored cast-in-situ reinforced cement concrete piles of grade M-25 of specified diameter and length below the pile cap, to carry a safe working load not less than specified, excluding the cost of steel reinforcement but including the cost of boring, with bentonite solution and temporary casing of appropriate length for setting out and removal of same and the length of the pile to be embedded in the pile cap etc. all complete, including removal of excavated earth with all lifts and leads (Length of pile for payment shall be measured upto bottom of pile cap).		
20.2.1	300 mm dia piles	metre	787.90
20.2.2	400 mm dia piles	metre	1045.00
20.2.3	450 mm dia piles	metre	1273.70
20.2.4	500 mm dia. piles	metre	1478.10
20.2.5	600 mm dia piles	metre	1993.60
20.2.6	750 mm dia piles	metre	3049.30
20.2.7	1000 mm dia piles	metre	7738.30
20.2.8	1200 mm dia piles	metre	9957.10
20.2.9	1500 mm dia piles	metre	14076.10



Code No.	Description	Unit	Rate Rs.
20.2A	Boring, providing and installing bored cast-in-situ reinforced of grade M-25 of specified diameter and length below the pile cap, to carry a safe cement concrete piles working load not less than specified, excluding the cost of steel reinforcement but including the cost of boring, with bentonite solution and temporary casing of appropriate length for setting out and removal of same and the length of the pile to be embedded in the pile cap etc.(By <u>Crawler mounted, telescopic boom hydraulic pilling Rig</u> all complete, including removal of excavated earth with all lifts and leads (Length of pile for payment shall be measured upto bottom of pile cap).		
	20.2A.1 600 mm dia piles.	metre	3308.10
	20.2A.2 750 mm dia piles.	metre	4685.20
	20.2A.3 1000 mm dia piles.	metre	7738.30
	20.2A.4 1200 mm dia piles.	metre	9957.10
	20.2A.5 1500 mm dia piles.	metre	14076.10
20.3	Boring, Providing and installing cast in situ single under reamed piles of specified diameter and length below pile cap in M-25 cement concrete, to carry a safe working load not less than specified, excluding the cost of steel reinforcement but including the cost of boring with bentonite solution and the length of the pile to be embedded in pile cap etc. all complete. (Length of pile for payment shall be measured upto to the bottom of pile cap) :		
	20.3.1 300 mm dia piles	metre	2074.00
	20.3.2 400 mm dia piles	metre	2424.60
	20.3.3 450 mm dia piles	metre	2630.50
	20.3.4 550 mm dia piles	metre	2882.60
20.3A	20.3A.1 Making 25 cm (10") dia bore up to 4 mtr depth below ground with hand auger of approved quality in ordinary soi! (vide classification of soil item A ) true to plumb and without eccentricity in any stage of operation and disposal of the excavated earth up to 50 mtr , Lead in eluding all lifts , all complete as per approved disign and direction of E/I Details of cost for 4 piles of 4 m= 16 mtrs depth )	metre	167.50
	20.3A.2 63 CM (25) UNDER -REAM Making 63 cm (25) dia under ream at required with hand auger of approved quality in ordinary soil (vide classification of soil ifem - A) true to plumb and without eccentricity in my stage of opration and disposal of the excavated earth up to 50 mts lead in eluding all lifts , all complete as per approved design and direction of (E/I)	Each	178.70

Code No.	Description	Unit	Rate Rs.
20.4	Extra over item No. 23.3 for providing additional bulb in under reamed piles, under specified dia meter (Only the quantity of extra bulbs are to be paid).		
20.4.1	300mm dia piles	each	1458.80
20.4.2	400mm dia piles	each	1619.20
20.4.3	450 mm dia piles	each	1716.30
20.4.4	550 mm dia piles	each	1875.10
20.5	Providing, driving and installing driven Pre-cast reinforced cement concrete piles of specified diameter and length below the pile cap in M-25 cement concrete to carry safe working load not less than specified. With a central through preformed hole with M.S. black pipe of dia, 40 mm for grouting with cement sand grouting of mix 1:2 (1 cement : 2 coarse sand) under sufficient positive pressure to ensure complete filling including centring, shuttering, driving and removing the steel casing pipe and lifting casing etc. complete but excluding the cost of steel reinforcement. (Length of pile for payment shall be measured from top of the shoe to the bottom of pile cap).		
20.5.1	400 mm dia piles	metre	2400.30
20.5.2	450 mm dia piles	metre	2873.70
20.5.3	500 mm dia piles	metre	3035.20
20.5.4	550 mm dia piles	metre	3405.40
20.5.5	750 mm dia piles	metre	6156.10
20.5.6	1000 mm dia piles	metre	8319.00
20.6	Vertical load testing of piles in accordance with IS 2911 (Part IV) including installation of loading platform and preparation of pile head or construction of test cap and dismantling of test cap after test etc. complete as per specification & the direction of Engineer in-charge.		
20.6.1	Single pile upto 50 tonne capacity		
20.6.1.1	Initial test	per test	53517.50
20.6.1.2	Routine test	per test	20069.10
20.6.2	Single pile above 50 tonne and upto 100 tonne capacity		
20.6.2.1	Initial test	per test	60207.20
20.6.2.2	Routine test	per test	30772.60
20.6.3	Group of two or more piles upto 50 tonne capacity		
20.6.3.1	Initial test	per test	66896.90
20.6.3.2	Routine test	per test	39469.20

Code No.	Description	Unit	Rate Rs.
20.7	<b>Cyclic vertical load testing of pile in accordance with IS Code of practice IS: 2911 (part IV) including preparation of pile head etc for.</b>		
20.7.1	Single pile		
20.7.1.1	Upto 50 tonne capacity pile	per test	20069.10
20.7.1.2	Above 50 tonne and upto 100 tonne capacity pile	per test	30772.60
20.7.2	Group of two piles		
20.7.2.1	Upto 50 tonne capacity each	per test	39469.20
20.8	<b>Lateral load testing of single pile in accordance with IS Code of practice IS : 2911 (Part IV) for determining safe allowable lateral load on pile :</b>		
20.8.1	Upto 50 tonne capacity pile	per test	20069.10
20.8.2	Above 50 tonne and upto 100 tonne capacity pile	per test	31575.30
20.9	<b>Integrity testing of Pile using Low Strain/ Sonic Integrity Test/ Sonic Echo Test method in accordance with IS 14893 including surface preparation of pile top by removing soil, mud, dust &amp; chipping lean concrete lumps etc. and use of computerised equipment and high skill trained personal for conducting the test &amp; submission of results, all complete as per direction of Engineer-in-charge.</b>	per test	865.60
	<b>Note :- The inclusion of the above item in the schedule of work shall be judiciously decided by the technical sanctioning authority,keeping in view the quality control, type of soil strata &amp; importance of the project.</b>		

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**SUB HEAD : 21.0**  
**ALUMINIUM WORK**

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BUILDING WORK - Contd.

**21.0 ALUMINIUM WORK**

Code No.	Description	Unit	Rate Rs.
21.1	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / aneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) :		
21.1.1	For fixed portion		
21.1.1.1	Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)	kg	382.40
21.1.1.2	Powder coated aluminium (minimum thickness of powder coating 50 micron)	kg	414.70
21.1.1.3	Polyester powder coated aluminium (minimum thickness of polyester powder coating 50 micron)	kg	423.10
21.1.2	For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately)		
21.1.2.1	Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)	kg	441.80
21.1.2.2	Powder coated aluminium (minimum thickness of powder coating 50 micron)	kg	474.80
21.1.2.3	Polyester powder coated aluminium (minimum thickness of polyester powder coating 50 micron)	kg	474.60
21.2	Providing and fixing 12 mm thick pre-laminated particle board flat pressed three layer or graded wood particle board conforming to IS: 12823 Grade I Type II, in panelling fixed in aluminum doors, windows shutters and partition frames with C.P. brass / stainless steel screws etc. complete as per architectural drawings and directions of engineer-in-charge.		
21.2.1	Pre-laminated particle board with decorative lamination on one side and balancing lamination on other side	sqm	888.50
21.2.2	Pre-laminated particle board with decorative lamination on both sides	sqm	937.60










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Code No.	Description	Unit	Rate Rs.
21.3	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item):		
21.3.1	With float glass panes of 4.0 mm thickness	sqm	813.40
21.3.2	With float glass panes of 5.50 mm thickness	sqm	1110.20
21.3.3	With float glass panes of 8 mm thickness	sqm	1276.20
21.4	Providing and fixing double action hydraulic floor spring of approved brand and manufacture conforming to IS : 6315, having brand logo embossed on the body / plate with double spring mechanism and door weight upto 125 kg, for doors, including cost of cutting floors, embedding in floors as required and making good the same matching to the existing floor finishing and cover plates with brass pivot and single piece M.S. sheet outer box with slide plate etc. complete as per the direction of Engineer-in-charge.		
21.4.1	With stainless steel cover plate minimum 1.25 mm thickness	each	2267.50
21.4.2	With brass cover plate minimum 1.25 mm thickness	each	2428.10
21.5	Providing and fixing powder coated aluminium work (minimum thickness of powder coating 50 micron) consisting of tee/ angle sections, of approved make conforming to IS : 733 in frames of false ceiling including aluminium angle cleats with necessary C.P. brass/ stainless steel sunk screws, aluminium perimeter angles fixed to wall with stainless steel rawl plugs @ 450 mm centre to centre and fixing the frame work to G.I. level adjusting hangers 6 mm dia. with necessary cadmium plated machine screws all complete as per approved architectural drawings and direction of the Engineer-in-charge (level adjusting hangers, ceiling cleats and expansion hold fasteners to be paid for separately).	kg	587.10
21.6	Providing and fixing 6 mm dia. G.I. level adjusting hangers (upto 1200mm length), fixed to roof slabs by means of ceiling cleats made out of G.I. flat 40x3mm size 60 mm long and stainless steel expandable dash fastener of 12.5 mm dia and 50 mm long, complete as per direction of Engineer -in-charge.	each	58.60
21.7	Providing and fixing machine moulded aluminium covering of approved pattern & design, made out of machine cut aluminium sheet and machine holed for receiving dash fastener, over expansion joints on vertical surfaces/ceiling floors, the fixing on plate in one row on one side of joint only shall be done with stainless steel dash fasteners of 8 mm dia and 75 mm long bolt including providing aluminium washers 2 mm thick & 15 mm dia , at a staggered pitch of 200mm centre to centre including drilling holes in the receiving surface and providing expandable plastic sleeves in holes etc. complete as per direction of Engineer-in-charge.		

Code No.	Description		Unit	Rate Rs.
21.7.1	Anodised aluminium sheet 2.5mm thick (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)		kg	536.70
21.7.2	Powder coated aluminium sheet 2.5mm thick (minimum thickness of powder coating 50 micron)		kg	569.00
21.8	Filling the gap in between aluminium frame & adjacent RCC/ Brick/Stone work by providing weather silicon sealant over backer rod of approved quality as per architectural drawings and direction of Engineer-in-charge complete.			
21.8.1	Upto 5mm depth and 5 mm width		metre	79.50
21.9	Extra for applying additional anodic coating AC 25 instead of AC 15 to aluminium extruded sections.			
21.9.1	For fixed portion		kg	13.40
21.9.2	For shutters of doors, windows & ventilators		kg	13.40
21.10	Providing and fixing double glazed hermetically sealed glazing in aluminium windows, ventilators and partition etc. with 6 mm thick clear float glass both side, having 12 mm air gap, including providing EPDM gasket, perforated aluminium spacers, desiccants, sealant (Both primary and secondary sealant) etc. as per specifications, drawings and direction of Engineer-in-charge complete.		sqm	3635.80
21.11	Providing and fixing stainless steel (SS 304 grade) adjustable friction windows stays of approved quality with necessary stainless steel screws etc. to the side hung windows as per direction of Engineer-in-charge complete.			
21.11.1	205 X 19 mm		each	244.40
21.11.2	255 X 19 mm		each	311.30
21.11.3	355 X 19 mm		each	275.20
21.11.4	510 X 19 mm		each	716.70
21.11.5	710 X 19 mm		each	1218.40
21.12	Providing and fixing aluminium tubular handle bar 32 mm outer dia, 3.0 mm thick & 2100 mm long with SS screws etc. complete as per direction of Engineer-in-Charge.			
21.12.1	Anodized (AC 15 ) aluminium tubular handle bar		each	506.50
21.12.2	Powder coated minimum thickness 50 micron aluminium tubular handle bar		each	556.70
21.12.3	Polyester powder coated minimum thickness 50 micron aluminium tubular handle bar		each	603.80
21.13	Providing and fixing 100mm brass locks (best make of approved quality) for aluminium doors including necessary cutting and making good etc. complete.		each	379.00

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Code No.	Description	Unit	Rate Rs.
21.14	Providing and fixing anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868. Minimum anodic coating of grade AC 15) sub frame work for windows and ventilators with extruded built up standard tubular sections of approved make conforming to IS: 733 and IS: 1285, fixed with dash fastener of required dia and size (Dash fastener to be paid for separately).	kg	343.90
21.15	Providing and fixing aluminium casement windows fastener of required length for aluminium windows with necessary screws etc. complete.		
21.15.1	Anodized (AC 15) aluminium	each	64.70
21.15.2	Powder coated minimum thickness 50 micron aluminium	each	68.80
21.15.3	Polyester powder coated minimum thickness 50 micron aluminium	each	67.40
21.16	Providing and fixing aluminium round shape handle of outer dia 100mm with SS screws etc. complete as per direction of Engineer in-charge		
21.16.1	Anodized (AC 15) aluminium	each	76.80
21.16.2	Powder coated minimum thickness 50 micron aluminium	each	80.80
21.16.3	Polyester powder coated minimum thickness 50 micron aluminium	each	86.20
21.17	Providing and fixing anodised aluminium grill (anodised transparent or dyed to required shade according to IS: 1868 with minimum anodic coating of grade AC 15) of approved design/pattern, with approved standard section and fixed to the existing window frame with C.P. brass/ stainless steel screws @ 200 mm centre to centre, including cutting the grill to proper opening size for fixing and operation of handles and fixing approved anodised aluminium standard section around the opening, all complete as per requirement and direction of Engineer-in-charge. (Only weight of grill to be easured for payment).	kg	476.70
21.18	Providing and fixing 12 mm thick frameless toughened glass door shutter of approved brand and manufacture, including providing and fixing top & bottom pivot & spring type fixing arrangement and making necessary holes etc. for fixing required door fittings, all complete as per direction of Engineer-in-charge (Door handle, lock and stopper etc.to be paid separately).	sqm	5099.10
21.19	Filling the gap in between aluminium/ stone/ wood frame and adjacent RCC/ Brick/ Stone/ wood/ Ceramic/ Gypsum work by providing weather/structural non sag elastomeric PU sealant over backer rod of approved quality as per architectural drawings and direction of Engineer-in-charge complete, complying to ASTM C920, DIN 18540-F & ISO 11600		
21.19.1	Upto 5 mm depth and 5 mm width	metre	106.40
21.19.2	Upto 10 mm depth and 10 mm width	metre	147.10
21.19.3	Upto 20 mm depth and 20 mm width	metre	273.60

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**SUB HEAD : 22.0**  
**WATER PROOFING**

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BUILDING WORK - Contd.

**22.0 Water proofing**

Code No.	Description	Unit	Rate Rs.
22.1	Providing and laying integral cement based treatment for water proofing on horizontal surfaces at all levels as directed by Engineer-in-charge and consisting of: 1) 1st layer of 20 mm thick approved and specified rough stone slab over a 25 mm thick base of cement mortar 1:3 (1 cement:3 coarse sand) mixed with water proofing compound conforming to IS: 12645 in the recommended proportion. Joints sealed and grouted with cement slurry mixed with water proofing compound conforming to IS: 12645 in proportions recommended by the manufacturer. II) 2nd class layer of 25 mm thick cement mortar 1:3 (1 cement:3 coarse sand) mixed with water proofing compound in recommended proportions. III) Finishing top with stone aggregate of 10 mm to 12 mm nominal size spreading @ 8 cum/sqm thoroughly embedded in the 2nd layer.		
22.1.1	Using rough kota stone.	sqm	1418.20
22.1.2	Using rough red sand stone.	sqm	1264.30
22.2	Providing and laying integral cement based treatment for water proofing on the vertical surface by fixing specified stone slab 20 mm thick with cement slurry mixed with water proofing compound conforming to IS: 2645 in recommended proportion with a gap of 20 mm (minimum) between stone slabs and the receiving surfaces and filling the gaps with neat cement slurry mixed with water proofing compound and finishing the exterior of stone slab with cement mortar 1:4 (1 cement:4 coarse sand) 20 mm thick with neat cement punning mixed with water proofing compound in recommended proportion complete at all levels and as directed by Engineer-in-charge.		
22.2.1	Using rough kota stone	sqm	1758.20
22.2.2	Using rough red sand stone.	sqm	1609.60
22.3	Providing and laying water proofing treatment to vertical and horizontal surfaces of depressed portions of W.C. kitchen and the like consisting of: (i) 1st course of applying cement slurry @ 4.4 kg/sqm mixed with water proofing compound conforming to IS 2645 in recommended proportions. (ii) 1st course of 20 mm cement plaster 1:3 (1 cement:3 coarse sand) mixed with water proofing compound in recommended proportion, (iii) 3rd course of applying blown or/residual bitumen applied hot at 1.7 kg. per sqm of area, (iv) 4th course of 400 micron thick PVC sheet. (Overlaps at joints of PVC sheet should be 100 mm wide and pasted to each other with bitumen @ 1.7 kg/sqm).	sqm	458.80
22.4	Providing and Placing in position suitable PVC water stops for construction/expansion joints between two RCC members and fixed to the reinforcement with binding wire before pouring concrete etc. complete		



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Code No.	Description	Unit	Rate Rs.
	22.4.1 Serrated with central buld (225 mm wide, 8-11 mm thick)	m	272.80
	22.4.2 Dumb bell with Central bulb (180 mm wide, 8 mm thick)	m	222.00
	22.4.3 Kickers (320 mm wide, 5 mm thick)	m	255.50
22.5	Providing and laying in sssitu five course water proofing treatment with glass fibre tissue reinforced bitumen over roof consisting of first coat of bitumen primer @ 0.40 kg. per sqm, 2nd & 4th courses of bonding material@ 1.60 kg. per sqm which shall consist of blown type bitumen of grade 85/25 conforming to IS: 702, third layer of glass ffbre tissue course as specified, fifth, the top most layer of stone grit 6 mm and down size or pea-sized gravel sprad @ 6 dm <sup>l</sup> per sqm including preparation of surface excluding grading for slope etc. complete.	sqm	407.90
22.6	Providing and laying in situ seven course water profing treatment with flass fibre tissue reinforced bitumen over roof consisting of first coat of bitumen primer @ 0.40 Kg, per sqm . 2nd , 4th \$ 6th courses of bonding material @ 1.60 kg, per sqm , which shall consist of blown typw bitumen of grade 55/25 conforming to IS : 702 , third and fifth layers of glass fibre tissue course as specified , seventh , the top pea-sized grsvel spread @ 6 dm <sup>3</sup> per sqm , including prepatation of surface excluding grading for slope etc. complete.	sqm	641.10
22.7	Providing and laying in situ nine course water proofing treatment with glass fibre tissue reinforced bitumen over roof consisting of first coat of bitumen primer @ 0.40 kg. per sqm , 2nd , 4th , 6th , 8th courses of bonding material @ 1.60 kg. per sqm , which shall consist of blown type bitumen of grade 55/25 conforming to IS -702 , third , fifith and seventh courses of flass fibre tissue , as specified , ninth, the top most layer of stone grit 6 mm and down size or pea-sized gravel spread @ 6 dm <sup>2</sup> per sqm including preparation of surface ' excluding grading for slope etc, compete.	sqm	872.30
22.8	Providing and laying integral cement based water proofing treatment including prepatation of surface as required for treatment of roofs, balconies , terraces etc, consisting of following operations. (a) Applying and grouting a slurry coat of neat cement using 2.75 kg/sqm of cement admixed with proprietary water -proofing compound cleaning the surface before treatment, (b) Laying cement concrete using broken bricks / brick bats 25 mm to 100 mm size with 50 % of cement mortar 1:5 (1 cement: 5 coarse sand ) admixed with proprietary water proofing compound conforming to IS : 2645 over 20 mm thick layer of cement mortar of mix 1:5 (1 cement: 5 coarse sand ) admixed with proprietary water froofing compound conforming to IS 2545 to reuired slope and treating similiary the adjoining walls upto 300 mm height including rounding of junctions, or walls ad slabs. (c) After two days of proper curing applying a secoung coat of cement slurry admixed with proprietary water proofing compound conforming to IS : 2645. (d) Finishing the		

Code No.	Description	Unit	Rate Rs.
	surface with 20 mm thick jointless cement mortar of mix 1:4 (1 cement: 4 coarse sand ) admixed with proprietary water proofing compound conforming to IS : 2645 and finally finishing the surface with trowel with neat cement slurry and making of 300 x 300 mm square. <b>(e)</b> The whole terrace so finished shall be flooded with water for a minimum period of two weeks for curing and for final test, All above operations to be done in order and as directed and specified by the Engineer-in-Charge.		
22.8.1	With average thickness of 120 mm and minimum thickness at khurras point to be 65 ..	<b>sqm</b>	<b>809.00</b>
<b>22.9.1</b>	Providing and laying in situ seven course water proofing treatment with APP (Atactic poly-propylene) modified Polymeric membrane over roof consisting of first coat of bitumen primer @ 0.40Kg per sqm, 2nd, 4th & 6th courses of bonding material @ 1.20 Kg/sqm, which shall consist of blown type bitumen of grade 85/25 conforming to IS : 702, 3rd and 5th layers of roofing membrane APP modified Polymeric membrane 1.5mm thick of 2.25 Kg/sqm weight consisting of five layers prefabricated with centre core as 20micron HMHDPE film sandwiched on both sides with polymeric mix and the polymeric mix is protected on both side with 20micron HMHDPE film. 7th, the top most layer shall be finished with brick tiles of class designation 100 grouted with cement mortar 1:3 (1cement:3 fine sand) mixed with 2% integral water proofing compound by weight of cement over a 12mm layer of cement mortar 1:3 (1 cement: 3 fine sand) and finished neat which shall be paid for separately .	<b>sqm</b>	<b>519.80</b>
<b>22.9.2</b>	Providing and laying in situ five course water proofing treatment with <b>APP</b> (Atactic Polypropylene) modified Polymeric membrane over roof consisting of first coat of bitumen primer @ 0.40Kg per sqm, 2nd & 4th courses of bonding material @ 1.20 Kg/sqm, which shall consist of blown type bitumen of grade 85/25 conforming to IS: 702, 3rd layer of roofing membrane APP modified Polymeric membrane 2.0mm thick of 3.00 Kg/sqm weight consisting of five layers prefabricated with centre core as 100micron HMHDPE film sandwiched on both sides with polymeric mix and the polymeric mix is protected on both side with 20micron HMHDPE film. 5th, the top most layer shall be finished with brick tiles of class designation 100 grouted with cement mortar 1:3 (1 cement: 3 fine sand) mixed with 2% integral water proofing compound by weight of cement over a 12mm layer of cement mortar 1:3 (1 cement : 3 fine sand) and finished neat which shall be paid for separately as per DSR Item No. 12.19.	<b>sqm</b>	<b>355.40</b>

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Code No.	Description	Unit	Rate Rs.
22.9.3	Providing and laying in situ seven course water proofing treatment with APP (Atactic Polypropylene) modified Polymeric membrane over roof consisting of first coat of bitumen primer @ 0.40Kg per sqm, 2nd, 4th & 6th courses of bonding material @ 1.20 Kg/sqm, which shall consist of blown type bitumen of grade 85/25 conforming to IS : 702, 3rd and 5th layers of roofing membrane APP modified Polymeric membrane 2.0mm thick of 3.00 Kg/sqm weight consisting of five layers prefabricated with centre core as 1 OOmicon HMHDPE film sandwiched on both sides with polymeric mix and the polymeric mix is protected on both side with 20micron HMHDPE film. 7th, the top most layer shall be finished with brick tiles of class designation 100 grouted with cement mortar 1:3 (1 cement: 3 fine sand) mixed with 2% integral water proofing compound by weight of cement over a 12 mm layer of cement mortar 1:3 ( 1 cement: 3 fine sand) and finished neat which shall be paid for separately .	sqm	578.60
22.18	Providing and fixing APP (Atactic Polypropylene Polymer) modified prefabricated five layer 2 mm thick water proofing membrane, black finished reinforced with glass fibre matt consisting of a coat of bitumen primer for bitumen membrane @ 0.40 litre/ sqm by the same membrane manufacture of density at 25°C, 0.87 - 0.89 kg/ litre and viscosity 70 - 160 cps. Over the primer coat the layer of membrane shall be laid using Butane torch and sealing all joints etc., and preparing the surface complete. The vital physical and chemical parameters of the membrane shall be as under : Joint strength in longitudinal and transverse direction at 23°C as 350/300 N/ 5cm. Tear strength in longitudinal and transverse direction as 60/80N. Softening point of membrane not less than 150°C. Cold flexibility shall be upto -2°C when tested in accordance with ASTM, D - 5147. The laying of membrane shall be got done through the authorised applicator of the manufacture of membrane.		
22.18.1	2 mm (for corrugated roof sheets).	sqm	340.90
22.19	Providing and laying APP (Atactic Polypropylene Polymer) modified prefabricated five layer, 3 mm thick water proofing membrane, black finished reinforced with glass fibre matt consisting of a coat of bitumen primer for bitumen membrane @0.40 litre/ sqm by the same membrane manufactured of density at 25° C, 0.87 - 0.89 kg/ litre and viscosity 70 - 160 cps. Over the primer coat the layer of membrane shall be laid using butane torch and sealing all joints etc., and preparing the surface complete. The vital physical and chemical parameters of the membrane shall be as under : Joint strength in longitudinal and transverse direction at 23°C as 350/300 N/5 cm. Tear strength in longitudinal and transverse direction as 60/80N. Softening point of membrane not less than 150°C. Cold flexibility shall be upto -2°C when tested in accordance with ASTM, D - 5147. The laying of membrane shall be got done through the authorised applicator of the manufacturer of membrane.		
22.19.1	3 mm thick.	sqm	434.10

Code No.	Description	Unit	Rate Rs.
22.20	Providing and laying APP (Atactic Polypropylene Polymer) modified prefabricated five layer 3 mm thick water proofing membrane, black finished reinforced with non-woven polyester matt consisting of a coat of bitumen primer for bitumen membrane @ 0.40 litre/ sqm by the same membrane manufacture of density at 25°C, 0.87-0.89 kg/ litre and viscosity 70-160 cps. Over the primer coat the layer of membrane shall be laid using Butane Torch and sealing all joints etc., and preparing the surface complete. The vital physical and chemical parameters of the membrane shall be as under : Joint strength in longitudinal and transverse direction at 23°C as 650/450N/5 cm. Tear strength in longitudinal and transverse direction as 300/250N. Softening point of membrane not less than 150°C. Cold flexibility shall be upto -2°C when tested in accordance with ASTM, D - 5147. The laying of membrane shall be got done through the authorised applicator of the manufacturer of membrane.		
22.20.1	3 mm thick.	sqm	456.20
22.21	Extra for covering top of membrane with Geotextile, 120 gsm non woven, 100%polyester of thickness 1 to 1.25 mm bonded to the membrane with intermittent touch by heating the membrane by Butane Torch as per manufactures recommendation.	sqm	83.90
22.22	Providing and mixing integral crystalline admixture for waterproofing treatment to RCC structures like basement raft, retaining walls, reservoir, sewage & water treatment plant, tunnels / subway and bridge deck etc.. at the time of transporting of concrete into the drum of the ready-mix truck , using integral crystalline admixture @0.80% (minimum) to the weight of cement content per cubic meter of concrete) or higher as recommended by the manufacturer's specification in reinforced cement concrete at site of work. The material shall meet the requirements as specified in ACI-212-3R-2010 i.e. by reducing permeability of concrete by more than 90%, compared with control concrete as per DIN 1048 and resistant to 16 bar hydrostatic pressure. The crystalline admixture shall be capable of self-healing of cracks up to a width of 0.50mm. The work shall be carried out all complete as per specification and the direction of the Engineer-in-charge. The product performance shall carry guarantee for 10 years against any leakage.	kg	387.20
22.22A	Providing and applying fibre reinforced elastomeric liquid water proofing membrane with resilient acrylic polymers having Sun Reflectivity Index (SRI) of 105 on top of concrete roof in three coats @10.76 litre/ 10 sqm. One coat of self-priming of elastomeric waterproofing liquid (dilution with water in the ratio of 3:1) and two coats of undiluted elastomeric waterproofing liquid (dry film thickness of complete application/system not less than 500 microns). The operation shall be carried out after scrapping and properly cleaning the surface to remove loose particles with wire brushes, complete in all respect as per the direction of Engineer-in-Charge.	sqm	364.40

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Code No.	Description	Unit	Rate Rs.
22.23	Providing and applying integral crystalline slurry of hydrophilic in nature for waterproofing treatment to the RCC structures like retaining walls of the basement, water tanks, roof slabs, podiums, reservoir, sewage & water treatment plant, tunnels / subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 parts integral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 parts integral crystalline slurry : 1 part water) for horizontal surfaces and applying the same from negative (internal) side with the help of synthetic fiber brush. The material shall meet the requirements as specified in ACI-212-3R-2010 i.e by reducing permeability of concrete by more than 90% compared with control concrete as per DIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystalline slurry shall be capable of self-healing of cracks up to a width of 0.50mm. The work shall be carried out all complete as per specification and the direction of the engineer- in-charge. The product performance shall carry guarantee for 10 years against any leakage.		
22.23.1	For vertical surface two coats @0.70 kg per sqm	sqm	484.50
22.23.2	For horizontal surface one coat @1.10 kg per sqm.	sqm	373.40
22.23A	Providing & Applying polymer modified, flexible cementitious negative side waterproofing coating with elastic waterproofing polymers on interior wall plaster surface in three coats @14.35 kg /10 sqm. one coat of self priming of cementitious waterproofing polymer(dilution with water in the ratio of 1:1) and two coats of cementitious waterproofing polymer (dilution with water in the ratio of 3:1 ) after scrapping and properly cleaning the surface to remove pre-existing paint film & loose particles till plaster is visible, complete in all respect as per the direction of Engineer-in-Charge.	sqm	417.60
22.24	Providing and applying integral crystalline (dry shake) of hydrophilic in nature for waterproofing treatment to the RCC structures like basement raft, foundation slab, sewage & water treatment plant slab, warehouses floor, parking structures and water tank base slab etc. sprinkled @0.60kg per sqm or higher as recommended by the manufacturer's specification over the lean concrete of above cited structures. The material shall meet the requirements as specified in ACI-212-3R-2010 i.e. by reducing permeability of concrete by more than 85%, compared control concrete as per DIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystalline dry- shake shall be capable of self-healing of cracks up to a width of 0.50mm. The work shall be carried out all complete as per specification and the direction of the Engineer-in- charge. The product performance shall carry guarantee for 10 years against any leakage	sqm	327.70



Code No.	Description	Unit	Rate Rs.
22.25	Providing and applying crystalline mortar by mixing in the ratio of 4.5 : 1 (4.5 parts crystalline mortar : 1 part water) for the treatment of faulty construction joints, cracks, tie rod holes and spalled & honeycombed surface of RCC underground structures like basement, water tanks, bridge deck etc. to ensure water tightness. The crystalline mortar shall conform to the EN 1504-3 having compressive strength Class R4 (45 MPa) and adhesive bond strength Class R3 (1.5 MPa). The work shall be carried out all complete as per specification and the direction of the engineer-in-charge. The product performance shall carry guarantee for 10 years against any leakage.		
22.25.1	For sealing cracks and faulty construction joints, routed out/making U-shape groove size 25x25mm and then primed the area with integral crystalline slurry @0.05kg/running meter and while the surface is tacky filled the groove upto surface with crystalline mortar @1.50kg/running meter. Once crystalline mortar is touch dry then finally applied two coats of integral crystalline slurry @0.05kg/running meter per coat.	per metre	519.40
22.25.2	For patching of tie rod holes, prepared tie rod hole surface and then primed the area with integral crystalline slurry @0.070kg/sqm and while the surface is tacky repair and then filled the tie rod holes with crystalline mortar@0.040kg per hole. The crystalline mortar should be tightly rodded into tie rod holes or packed tightly (For 25x25x25 mm tie rod hole, use 0.040kg to fill the hole)	each	19.50
22.26	Providing and applying of swellable type water stop tape, 19mm x 25mm thick in linear meter (expansive nature) for construction joints treatment of RCC structure such as raft slab, retaining walls, water storage tank and at the junctions of raft slab with the retaining walls etc.. After cleaning the surface, one coat of required primer for swellable water stop tape shall be applied throughout the length of the joint @3.78 litre per 240 running meter. Over the primed surface swellable type water stop tape shall be placed. The work shall be carried out all complete as per specification and the direction of the engineer-in-charge. The product performance shall carry guarantee for 10 years against any leakage.	metre	548.10

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**SUB HEAD : 23.0**

**HORTICULTURE AND LANDSCAPING**

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## BUILDING WORK-Contd.

**23.0 Horticulture and Landscaping**

Code No.	Description	Unit	Rate Rs.
23.1	Trenching in ordinary soil upto a depth of 60 cm including removal and stacking of serviceable materials and then disposing of by spreading and neatly levelling within a lead of 50 m and making up the trenched area to proper levels by filling with earth or earth mixed with sludge of/and manure before and after flooding trench with water (including cost of imported earth,sludge or manure).	cum	42.00
23.2	Supplying and stacking of good earth at site including royalty but excluding carriage (earth measured in stacks will be reduced by 20% for payment).	cum	134.80
23.3	Supplying and stacking Sludge at site including royalty and carriage (Sludge measured in stacks will be reduced by 8% for payment).	cum	195.10
23.4	Supplying and stacking a' site dump manure from approved source, excluding carriage (manure measured in stacks will be reduced by 8% for payment)		
23.4.1	Screened through sieve of I.S. designation 20 mm	cum	188.90
23.4.2	Screened through sieve of I.S. Designation 16 mm	cum	208.10
23.4.3	Screened through sieve of I.S. designation 4.75 mm	cum	223.50
23.5	Rough dressing the trenched ground including breaking clods.	100sqm	80.60
23.6	Uprooting weeds form the trenched area after 10 to 15 days of its flooding with water including disposal of uprooted vegetation.	100sqm	266.00
23.7	Fine dressing the ground	100sqm	195.80
23.8	Spreading of sludge, dump manure or/and good earth in required thickness (Cost of sludge, dump manure or/and good earth to be paid separately).	cum	28.30
23.9	Mixing earth and sjudge or manure in porportion specified or directed.	cum	19.60
23.10	Grassing with 'Doob' grass including watering and maintenance of the lawn for 30 days or more tili the grass forms a thick lawn free form weeds and fit for mowing including supplying good earth if needed.		
23.10.1	In rows 15 cm apart in either direction.	100sqm	300.30
23.10.2	In rows 7.5 cm apart in either direction.	100sqm	630.30
23.10.3	In rows 5 cm apart in either direction.	100sqm	965.40



Code No.	Description	Unit	Rate Rs.
23.11	Renovating lawns including weeding,cheeling the grass,forcking the ground, top dressing with sludge or manure,mixing the same with forked soil,watering and maintaining the lawn for 30 days or more till the grass forms a thich lawn free from weeds and fit for mowing and disposal of rubbish as directed, including supplying good earth if needed but excluding the cost of sludge or manure.	100 sqm	1844.20
23.12	Uprooting rank vegetation and weeds by digging the area to a depth of 60 cm removing all weeds and other growth with roots by forking repeatedly, breaking clods, rough dressing, flooding with water, uprooting fresh growths after 10 to 15 days and then fine dressing for planting new grass, including disposal of all rubbish with all leads and lifts.	100sqm	3208.80
23.13	Preparation of beds for hedging and shrubbery by excavating 60 cm deep and trenching the excavated base to a further depth of 30 cm, refilling the excavated earth after breaking clods and mixing with sludge or manure in the ratio of 8:1 (8 parts of stacked volume of earth after reduction by 20% : one part of stacked volume of sludge or manure after reduction by 8%). flooding with water, filling with earth if necessary, watering and finally fine dressing, levelling etc. including stacking and disposal of materials declared unserviceable and surplus earth by spreading and levelling as drected, within a lead of 50 m lift upto 1.5 m complete (cost of sludge, manure or extra earth to be paid for separately).	cum	119.10
23.14	Digging holes in ordinary soil and refilling the same with the excavated earth mixed with manure or sludge in the ratio of 2;1 by volume (2 parts of stacked volume of earth after reduction by 20% : 1 part of stacked volume of manure after reduction by 8%) flooding with water,dressing including removal of rubbish and surplus earth, if any with all leads and lifts (cost of manure, sludge or extra good earth if needed to be paid for separately):		
	23.14.1 Holes 1.2 m dia, And 1.2 m deep.	each	504.40
	23.14.2 Holes 60 cm ciia. And 60 cm deep.	each	65.20
23.15	Half brick circular tree guard in 50 class designation bricks, internal diameter 1.25 metre and height 1.? metre above ground and 0.20 m below ground bottom two courses laid dry and top three courses in lime mortar 1:2(1 lime putty:2 surkhi) or cement ortar 1:6 (1 cement:6 fine sand) and the intermediate courses being in dry honey comb masonry as per design complete:		
	23.15.1 With F.P.S. Bricks	each	1671.90



Code No.	Description	Unit	Rate Rs.
23.16	Providing and fixing M.S. fiat iron tree guard 60 cm dia. And 2 m high above ground level formed of 4 nos. 25x6 mm and 8 nos. 25x3 mm vertical M.S. flats hvetted to 3 nos. 25x6 mm M.S. flat 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 and manufacture over a coat of priming, complete in all respects.	each	3356.60
23.19	Edging with bricks laid dry length wise including excavation, refilling, consolidating with hand packing and spreading neatly susrplus earth within a lead of 50 m:		
23.19.1	100A class designation.		
23.19.1.1	F.P.S.Bricks	m	41.40
23.19.1.2	100Bclass designation.	m	38.50
23.20	Filling mixture of earth and sludge or manure in the deisired proportion in trenches, flooding with water and levelling (cost of supplying earth and sludge nr manure and mixing excluded).	m	9.70
23.21	Excavation in dumped stones or malba including stacking of serviveable and unserviceable material separately and disposal of unserviceable material lead upto 50 m and lift upto 1.5 m disposed material to be neatly dressed.	cum	274.40
23.22	Excavation in bajri path including stacking of serviceable and unserviceable material lead upto 50 m and lift upto 1.5 m disposed material to be neatly dressed,	cum	305.10
23.23	Excavation in water bound macadam road including stacking the serviceable and unserviceable material separatedly and disposal of unserviceabel material lead upto 50 m and lift upto 1.5 m disposed material to be neatly dressed.	cum	371.80
23.24	Flooding the ground with water including making kiaries and dismantelling the same.	100sqm	161.30

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**SUB HEAD : 24.0**  
**RAIN WATER HARVESTING & TUBEWELLS**

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## BUILDING WORK - Contd.

**24.0 RAIN WATER HARVESTING & TUBEWELLS**

Code No.	Description	Unit	Rate Rs.
24.1	Boring/drilling bore well of required dia for casing/ strainer pipe, by suitable method prescribed in IS: 2800 (part I), including collecting samples from different strata, preparing and submitting strata chart/ bore log, including hire & running charges of all equipments, tools, plants & machineries required for the job, all complete as per direction of Engineer -in-charge, upto 90 metre depth below ground level.		
24.1.1	All types of soil		
24.1.1.1	300 mm dia	metre	426.00
24.1.1.2	350 mm dia	metre	466.00
24.1.1.3	400 mm dia	metre	596.50
24.1.2	Rocky strata including Boulders		
24.1.2.1	300 mm dia	metre	977.60
24.1.2.2	350 mm dia	metre	1020.20
24.1.2.3	400 mm dia	metre	1170.40
24.2	Boring/drilling bore well of required dia for casing/ strainer pipe, by suitable method prescribed in IS: 2800 (part I), including collecting samples from different strata, preparing and submitting strata chart/ bore log, including hire & running charges of all equipments, tools, plants & machineries required for the job, all complete as per direction of Engineer -in-charge, beyond 90 metre & upto 150 metre depth below ground level.		
24.2.1	All types of soil		
24.2.1.1	300 mm dia	metre	497.10
24.2.1.2	350 mm dia	metre	577.20
24.2.1.3	400 mm dia	metre	784.60
24.2.2	Rocky strata including Boulders		
24.2.2.1	300 mm dia	metre	1054.90
24.2.2.2	350 mm dia	metre	1092.80
24.2.2.3	400 mm dia	metre	1380.30
24.3	Supplying, assembling, lowering and fixing in vertical position in bore well, unplasticized PVC medium well casing (CM) pipe of required dia, conforming to IS: 12818, including required hire and labour charges, fittings & accessories etc. all complete, for all depths, as per direction of Engineer -in-charge.		
24.3.1	100 mm nominal size dia	metre	595.30
24.3.2	150 mm nominal size dia	metre	684.70

Code No.	Description		Unit	Rate Rs.
	24.3.3	200 mm nominal size dia	metre	1058.40
	24.3.4	50 mm nominal size dia	metre	236.50
	24.3.5	75 mm nominal size dia	metre	412.60
24.4	Supplying, assembling, lowering and fixing in vertical position in bore well unplasticized PVC medium well screen (RMS) pipes with ribs, conforming to IS: 12818, including hire & labour charges, fittings & accessories etc. all complete, for all depths, as per direction of Engineer-in-charge.			
	24.4.1	100 mm nominal size dia	metre	646.40
	24.4.2	150 mm nominal size dia	metre	740.10
	24.4.3	200 mm nominal size dia	metre	1128.20
	24.4.4	50 mm nominal size dia	metre	354.70
	24.4.5	75 mm nominal size dia	metre	480.30
24.5	Supplying, filling, spreading & leveling stone boulders of size range 5 cm to 20 cm, in recharge pit, in the required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge.		cum	1235.90
24.6	Supplying, filling, spreading & leveling gravels of size range 5 mm to 10 mm, in the recharge pit, over the existing layer of boulders, in required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge.		cum	1235.90
24.7	Supplying, filling, spreading & leveling coarse sand of size range 1.5 mm to 2 mm in recharge pit, in required thickness over gravel layer, for all leads & lifts, all complete as per direction of Engineer -in-charge.		cum	1235.90
24.8	Gravel packing in tubewell construction in accordance with IS: 4097, including providing gravel fine/ medium/ coarse, in required grading & sizes as per actual requirement, all complete as per direction of Engineer-in-charge.		cum	1388.90
24.9	Providing and fixing factory made precast RCC perforated drain covers, having concrete of strength not less than M-25, of size 1000 x 450x50 mm, reinforced with 8 mm dia four nos longitudinal & 9nos cross sectional T.M.T. hoop bars, including providing 50 mm dia perforations @ 100 to 125 mm c/c, including providing edge binding with M.S. flats of size 50 mm x 1.6 mm complete, all as per direction of Engineer-in-charge.		each	1210.80

Code No.	Description	Unit	Rate Rs.
24.10	Supplying, assembling, lowering and fixing in vertical position in bore well, ERW (Electric Resistance Welded) FE 410 mild steel screwed and socketed/ plain ended casing pipes of required dia, conforming to IS: 4270, of reputed & approved make, including painted with outside surface with two coats of anticorrosive paint of approved brand and manufacture, including required hire & labour charges, fittings & accessories, all complete, for all depths, as per direction of Engineer-in-charge.		
24.10.1	100 mm nominal size dia having minimum wall thickness 5.00 mm	metre	1145.20
24.10.2	150 mm nominal size dia having minimum wall thickness 5.00 mm	metre	1404.90
24.10.3	200 mm nominal size dia having minimum wall thickness 5.40 mm	metre	1999.80
24.11	Supplying, assembling, lowering and fixing in vertical position in bore well, ERW (Electric Resistance Welded) FE 410 plain slotted (having slot of size 1.6/3.2 mm) mild steel threaded and socketed /plain bevel ended pipe (type A) of required dia, conforming to IS: 8110, of reputed and approved make, having wall thickness not less than 5.40 mm, including painted with outside surface with two coats of anticorrosive bitumestic paint of approved brand and manufacture, including hire & labour charges, fittings & accessories, all complete, for all depths, as per direction of Engineer -in-charge.		
24.11.1	100 mm nominal size dia	metre	1226.00
24.11.2	150 mm nominal size dia	metre	1717.40
24.11.3	200 mm nominal size dia	metre	2108.70
24.12	Development of tube well in accordance with IS : 2800 (part I) and IS: 11189, to establish maximum rate of usable water yield without sand content (beyond permissible limit), with required capacity air compressor, running the compressor for required time till well is fully developed, measuring yield of well by "V" notch method or any other approved method, measuring static level & draw down etc. by step draw down method, collecting water samples & getting tested in approved laboratory, i/c disinfection of tubewell, all complete, including hire & labour charges of air compressor, tools & accessories etc., all as per requirement and direction of Engineer-in-charge.	hour	857.60
24.13	Providing and fixing suitable size threaded mild steel cap or spot welded plate to the top of bore well housing/ casing pipe, removable as per requirement, all complete for borewell of:		
24.13.1	100 mm dia	each	189.70



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Code No.	Description		Unit	Rate Rs.
	24.13.2	150 mm dia	each	210.70
	24.13.3	200 mm dia	each	281.00
<b>24.14</b>	<b>Providing and fixing M.S. clamp of required dia to the top of casing/ housing pipe of tubewell as per IS: 2800 (part I), including necessary bolts &amp; nuts of required size complete.</b>			
	24.14.1	100 mm clamp	each	1089.70
	24.14.2	150 mm clamp	each	1154.30
	24.14.3	200 mm clamp	each	1307.70
<b>24.15</b>	<b>Providing and fixing Bail plug/ Bottom plug of required dia to the bottom of pipe assembly of tubewell as per IS:2800 (part I).</b>			
	24.15.1	100 mm dia	each	227.40
	24.15.2	150 mm dia	each	281.00
	24.15.3	200 mm dia	each	307.70

*[Handwritten signatures and initials]*

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**SUB HEAD : 25.0**

**CONSERVATION OF HERITAGE BUILDINGS**

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BUILDING WORK - Contd.

**25.0 CONSERVATION OF HERITAGE BUILDINGS**

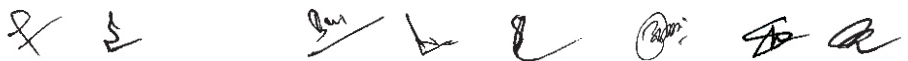
Code No.	Description	Unit	Rate Rs.
25.1	Raking out joints of stone masonry surface to the required width and depth, with due care and precaution, by mechanical / manual means, including preparing and cleaning the surface for re-pointing/ refilling of joints, including disposal of rubbish to the dumping ground within 50 metre lead.	sqm	26.90
25.2	Providing and fixing double scaffolding system (cup lock type) on the exterior side of building/structure, upto 25 metre height, above ground level, including additional rows of scaffolding in stepped manner as per requirement of site, made with 40mm dia M.S. tube, placed 1.5 metre centre to centre, horizontal & vertical tubes joint with cup & lock system with M.S. Tubes, M.S. tube challis, M.S. clamps and staircase system in the scaffolding for working platform etc. and maintaining it in a serviceable condition for execution of work of cleaning and/ or pointing and/ or applying chemical and removing it thereafter. The scaffolding system shall be stiffened with bracings, runners, connecting with the building etc, wherever required, if feasible, for inspection of work at required locations with essential safety features for the workmen etc., complete as per directions and approval of Engineer-in-charge.	sqm	167.40
	<b>Note:-</b> (1) The elevational area of the scaffolding shall be measured for payment purpose.		
	(2) The payment will be made once only for execution of all items for such works.		
25.3	Cleaning the sand stone surface and removing dirt, dust, bird dropping, grease, oil, algae, fungus, monkey beats, vegetable growth etc., including providing, applying and washing the surface with liquid Ammonia Chemical of 5% solution and other chemical cleaning agent as approved by chaeological Survey of India/ Engineer-incharge, of approved brand and manufacturer, with the help of required scrubbers and also cleaning with machine operated water jet mixed with desired quantity of fine silica where ever required, without causing any scratching/ damage to the stone surface and finally washing the surface with clean water with the help of pressure jet machine, complete in all respect, including taking all precautions to safeguard ventilators, windows, doors etc. by suitable covering so as to avoid any damage to the building/ structure, all as per direction of Engineer-in-charge (The rate is inclusive of all materials & labours involved except scaffolding).	sqm	72.90



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Code No.	Description	Unit	Rate Rs.
25.4	Providing and applying antifungal wash treatment using 3% solution of sodium pentachlorophenate, of reputed brand and manufacturer, on cleaned sand stone surface at desired locations as per direction of Engineer-in-charge (The rate is inclusive of all materials & labours involved except scaffolding).	sqm	29.50
25.5	Ruled / Flush pointing on Red sand stone masonry surface with lime, surkhi and marble dust mortar in the ratio of 1:1.5:1/2 {One lime: 1.5 surkhi (50% red and 50% light yellow surkhi ):1/2 marble dust}. (The rate is inclusive of all materials & labours involved except scaffolding).	sqm	142.90
25.6	Ruled/ Flush pointing on White sand stone masonry surface with lime, surkhi and marble dust mortar in the ratio of 1:1.5:1/2 {One lime : 1.5 surkhi (15% dark red and 85% light yellow surkhi) : 1/2 marble dust}. (The rate is inclusive of all materials & labours involved except scaffolding).	sqm	142.90
25.7	Applying two or more coat of Ethyl Silicate chemical as approved by Archaeological Survey of India/ Engineer-in-charge, of approved brand and manufacturer, with brush or spray on the existing stone masonry surface till there is no further absorption of chemical by stone surface, including protecting the applied surface from direct sunlight by suitable means during application, all complete as per direction of the Engineer-in-Charge (The rate is inclusive of all materials & labours involved except scaffolding).	sqm	270.30
25.8	Applying breathable, non-reactive, antifungal, and water repellent Silane/ Siloxane chemical as approved by Archaeological Survey of India/ Engineer-in-charge, of approved brand and manufacture, diluted with solvent mineral Turpentine oil in the ratio of 1:12 (One part of approved chemical :12 Part of Turpentine oil), on the existing sand stone masonry surface with two or more coats to give uniform application of chemical on the surface, all complete as per direction of Engineer-In-charge (The rate is inclusive of all materials & labours involved except scaffolding).	sqm	75.10



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**SUB HEAD : 26A.0**

**STRUCTURAL GLAZING AND  
ALUMINIUM COMPOSITE PANEL**

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BUILDING WORK - Contd.

**26A.0 STRUCTURAL GLAZING AND ALUMINIUM COMPOSITE PANEL**

Code No.	Description	Unit	Rate Rs.
26A.1	Providing and supplying aluminium extruded tubular and other aluminium sections as per the architectural drawings and approved shop drawings, the aluminium quality as per grade 6063 T5 or T6 as per BS74, including super durable powder coating of 60-80 microns conforming to AAMA 2604 of required colour and shade as approved by the Engineer-in-Charge. (The item includes cost of material such as cleats, sleeves, screws etc. necessary for fabrication of extruded aluminium frame work. Nothing extra shall be paid on this account).	kg	370.40
26A.2	Designing, fabricating, testing, protection, installing and fixing in position semi (grid) unitized system of structural glazing (with open joints) for linear as well as curvilinear portions of the building for all heights and all levels, including:	kg	2949.40
	a) Structural analysis & design and preparation of shop drawings for the specified design loads conforming to IS 875 part III (the system must pass the proof test at 1.5 times design wind pressure without any failure), including functional design of the aluminium sections for fixing glazing panels of various thicknesses, aluminium cleats, sleeves and splice plates etc. gaskets, screws, toggles, nuts, bolts, clamps etc., structural and weather silicone sealants, flashings, fire stop (barrier)-cum-smoke seals, microwave cured EPDM gaskets for water tightness, pressure equalisation & drainage and protection against fire hazard including:		
	b) Fabricating and supplying serrated M.S. hot dip galvanised / Aluminium alloy of 6005 T5 brackets of required sizes, sections and profiles etc. to accommodate 3 Dimensional movement for achieving perfect verticality and fixing structural glazing system rigidly to the RCC/ masonry/structural steel framework of building structure using stainless steel anchor fasteners/ bolts, nylon separator to prevent bimetallic contacts with nuts and washers etc. of stainless steel grade 316, of the required capacity and in required numbers.		
	c) Providing and filling, two part pump filled, structural silicone sealant and one part weather silicone sealant compatible with the structural silicone sealant of required bite size in a clean and controlled factory / work shop environment, including double sided spacer tape, setting blocks and backer rod, all of approved grade, brand and manufacture, as per the approved sealant design, within and all around the perimeter for holding glass.		

Code No.	Description	Unit	Rate Rs.
	d) Providing and fixing in position flashings of solid aluminium sheet 1 mm thick and of sizes, shapes and profiles, as required as per the site conditions, to seal the gap between the building structure and all its interfaces with curtain glazing to make it watertight.		
	e) Making provision for drainage of moisture/ water that enters the curtain glazing system to make it watertight, by incorporating principles of pressure equalization, providing suitable gutter profiles at bottom (if required), making necessary holes of required sizes and of required numbers etc. complete. This item includes cost of all inputs of designing, labour for fabricating and installation of aluminium grid, installation of glazed units, T&P, scaffolding and other incidental charges including wastages etc., enabling temporary structures and services, cranes or cradles etc. as described above and as specified. The item includes the cost of getting all the structural and functional design including shop drawings checked by a structural designer, dully approved by Engineer-in-charge. The item also includes the cost of all mock ups at site, cost of all samples of the individual components for testing in an approved laboratory, field tests on the assembled working structural glazing as specified, cleaning and protection till the handing over of the building for occupation. In the end, the Contractor shall provide a water tight structural glazing having all the performance characteristics etc. all complete as required, as per the Architectural drawings, as per item description, as specified,as per the approved shop drawings and as directed by the Engineerin-Charge.		
	Note:- 1. The cost of providing extruded aluminium frames, shadow boxes, extruded aluminium section capping for fixing in the grooves of the curtain glazing and vermin proof stainless steel wire mesh shall be paid for separately under relevant items under this subhead. However, for the purpose of payment, only the actual area of structural glazing (including width of grooves ) on the external face shall be measured in sqm. up to two decimal places.		
	Note:-2. The following performance test are to be conducted on structural glazing system if area of structural glazing exceeds 2500 Sqm from the certified laboratories accredited by BL(National Accreditation Board for Testing and Calibration boratories), Department of Science &Technologies, India. Cost of testing is payable separately. The NIT approving authority will decide the necessity of testing on the basis of cost of the work, cost of the test and importance of the work. Performance Testing of Structural glazing system Tests to be conducted in the NBL Certified laboratories		

Code No.	Description	Unit	Rate Rs.
	1. Performance Laboratory Test for Air Leakage Test (-50pa to -300pa) & (+50pa to +300pa) as per ASTM E-283-04 testing method for a range of testing limit 1 to 200 mVhr"		
	2. Static Water Penetration Test. (50pa to 1500pa) as per ASTM E-331-09 testing method for a range up to 2000 ml."		
	3. Dynamic Water Penetration (50pa to 1500pa) as per AAMA 501.01-05 testing method for a range upto 2000 ml"		
	4. Structural Performance Deflection and deformation by static air pressure test (1.5 times desing wind pressure without any failure) as per ASTM E-330-10 testing method for a range upto 50 mm"		
	5. Seismic Movement Test (upto 30 mm) as per AAMA 501.4-09 testing method for Qualitative test" Tests to be conducted on site		
	6. Onsite Test for Water Leakage for a pressure range 50 kpa to 240 kpa (35psi) upto 2000ml"	sqm	
26A.3	Providing, assembling and supplying vision glass panels (IGUs) comprising of hermetically-sealed 6-12- 6 mm insulated glass (double glazed) vision panel units of size and shape as required and specified, comprising of an outer heat strengthened float glass 6mm thick, of approved colour and shade with reflective soft coating on surface # 2 of approved colour and shade, an inner Heat strengthened clear float glass 6mm thick, spacer tube 12mm wide, dessicants, including primary seal and secondary seal (structural silicone sealant) etc. all complete for the required performances, as per the Architectural drawings, as per the approved shop drawings, as specified and as directed by the Engineer-in-Charge. The IGUs shall be assembled in the factory/ workshop of the glass processor. (Payment for fixing of IGU Panels in the curtain glazing is included in cost of item No.26.2)For payment, only the actual area of glass on face # 1 of the glass panels (excluding the areas of the grooves and weather silicone sealant) provided and fixed in position, shall be measured in sqm.		
	(i) Coloured tinted float glass 6mm thick substrate with reflective soft coating on face # 2, + 12mm Airgap + 6mm Heat Strengthened clear Glass of approved make having properties as visible Light transmittance (VLT) of 25 to 35 %, Light reflection internal 10 to 15%, light reflection external 10 to 20 %, shading coefficient (0.25-0.28) and U value of 3.0 to 3.3 W/m2 degree K etc. The properties of performance glass shall be decided by technical sanctioning authority as per the site requirement.	sqm	3250.90

Code No.	Description	Unit	Rate Rs.
26A.4	Extra for openable side / top hung vision glass panels (IGUs) including providing and supplying at site all accessories and hardwares for the openable panels as specified and of the approved make such as heavy duty stainless steel friction hinges, min 4 -point cremone locking sets with stainless steel plates, handles, buffers etc. including necessary stainless steel screws/ fasteners, nuts, bolts, washers etc. all complete as per the Architectural drawings, as per the approved shop drawings, as specified and as directed by the Engineerin- Charge.	sqm	3163.10
26A.5	Providing, fabricating and supplying shadow box of required size and shape, for fixing in the spandrel portion of the structural glazing, in linear as well as curvilinear portions of the building by providing semi -rigid, inorganic, non-combustible fibre glass wool insulation 50 mm thick, conforming to IS: 8183 and BS: 3958 Part 5. The insulation layer shall have facing (factory bonded on surface # 1of the fibre glass insulation layer), of black non-woven fibre glass tissue of nominal thickness 0.5 mm and nominal mass not less than 60 gm / sqm, made of randomly oriented glass fibres distributed in a binder by a wet-lay process including fixing 1.5 mm thick solid aluminum sheet backing using, 6 mm thick cement board including SS rivets, nuts, bolts, washers etc complete.	sqm	1883.60
26A.6	Providing and supplying Spandrel Glass Panels comprising of 6 mm thick heat strengthened monolithic float glass of approved colour and shade with reflective soft coating on surface # 2 of approved colour and shade so as to match the colour and shade of the IGUs in the vision panels etc. ,all complete for the required performances as specified, as per the Architectural drawings, as per the approved shop drawings, as specified, and as directed by the Engineer- in- Charge. For payment, only the actual area of glass on face # 1 of the glass panels (but excluding the area of grooves and weather silicone sealant) provided and fixed in position, shall be measured in sqm.(Payment for fixing of Spandrel Glass Panels in the curtain glazing is included in cost of relevent Item*).		
	(i) Coloured tinted float glass 6mm thick substrate with reflective soft coating on face # 2, having properties as visible Light transmittance (VLT) of 25 to 35 %, Light reflection internal 10 to 15%, light reflection external 10 to 20 %, shading coefficient (0.25-0.28) and U value of 3.0 to 3.3 W/m2 degree K etc. . The properties of performance glass shall be decided by technical sanctioning authority as per the site requirement.	sqm	2127.90
26A.7	Designing, fabricating, testing, installing and fixing in position Curtain Wall with Aluminium Composite Panel Cladding, with open grooves for linear as well as curvilinear portions of the building , for all heights and all levels etc. including:		



Code No.	Description	Unit	Rate Rs.
	a) Structural analysis & design and preparation of shop drawings for pressure equalisation or rain screen principle as required, proper drainage of water to make it watertight including checking of all the structural and functional design.		
	b) Providing, fabricating and supplying and fixing panels of aluminium composite panel cladding in pan shape in metallic colour of approved shades made out of 4mm thick aluminium composite panel material consisting of 3mm thick FR grade mineral core sandwiched between two Aluminium sheets (each 0.5mm thick). The aluminium composite panel cladding sheet shall be coil coated, with Kynar 500 based PVDF / Lumiflon based fluoropolymer resin coating of approved colour and shade on face # 1 and polymer (Service) coating on face # 2 as specified using stainless steel screws, nuts, bolts, washers, cleats, weather silicone sealant, backer rods etc.		
	c) The fastening brackets of Aluminium alloy 6005 T5 / MS with Hot Dip Galvanised with serrations and serrated washers to arrest the wind load movement, fasteners, SS 316 Pins and anchor bolts of approved make in SS 316, Nylon separators to prevent bi-metallic contacts all complete required to perform as per specification and drawing		
	The item includes cost of all material & labour component, the cost of all mock ups at site, cost of all samples of the individual components for testing in an approved laboratory, field tests on the assembled working curtain wall with aluminium composite panel cladding, cleaning and protection of the curtain wall with aluminium composite panel cladding till the handing over of the building for occupation. Base frame work for ACP cladding is payable under the relevant aluminium items. The Contractor shall provide curtain wall with aluminium composite panel cladding, having all the performance characteristics all complete, as per the Architectural drawings, as per item description, as specified, as per the approved shop drawings and as directed by the Engineer-in-Charge. However, for the purpose of payment, only the actual area on the external face of the curtain wall with Aluminum Composite Panel Cladding (including width of groove) shall be measured in sqm. up to two decimal places.	sqm	4309.80



Code No.	Description	Unit	Rate Rs.
26.8	"Design supply & installation of suspended Spider Glazing system designed to withstand the wind pressure as pr IS 875 (Part-III). The Suspended System held with Spider Fittings of SS-316 Grade Steel of approved manufacturer with glass panel having 12 mm thick clear toughened glass held together with SS-316 Grade Stainless steel Spider & bolt assembly with laminated glass fins 21 mm thick. The Glass fins and glass panel assembly shall be connected to Slab/beams by means of SS- 316 Grade stainless steel brackets & Anchor bolts and at the bottom using SS channel of 50x25x2mm using fastener & anchor bolts, non staining weather sealants of approved make, Teflon/ nylon bushes and separators to prevent bi-metallic contacts, all complete to perform as per specification and approved drawings. The complete system to be designed to accommodate thermal expansion & seismic movements etc. The joints between glass panels (6 to 8 mm) and gaps at the erimeter & in U channel of the assembly to be filled with non staining weather sealant, so as to make the entire system fully water proof & dust proof.		
	The rate shall include all design, Engineering and shop drawing including approval from structural designer, labour, T&P, scaffolding ,other incidental charges including wastage, enabling temporary services all fitting fixers nut bolts, washer, Buffer plates, fastener, anchors, SS channel laminated glass etc. all complete.		
	For the purpose of payment, actual elevation area of Glazing including thickness of joints and the portion of Glass panel inside the SS channel shall be measured. "	sqm	3899.70

*[Handwritten signatures and initials]*

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**SUB HEAD : 26.0**  
**NEW TECHNOLOGIES AND**  
**MATERIALS**

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BUILDING WORK - Contd.

**26.0 NEW TECHNOLOGIES AND MATERIALS**

Code No.	Description	Unit	Rate Rs.
26.1	Providing & fixing in position Phenol bonded Bamboowood flooring with planks of sizes 14mm thick, 1800mm length (minimum) and 130 mm wide(minimum), in approved colour, texture and finish, having Performance Appraisal Certificate (PAC) issued by Building Materials & Technology Promotion Council (BMTPC). The flooring shall be fixed with tongue and groove interlocking system, with underlayment of 4mm thick expanded poly ethylene foam sheets having density 40kg/cum, over prepared surface with necessary quarter round planks of size 1900mm x 18mm and door reducer of size 1900mm x 44mm, wherever required. The bamboo wood planks shall have minimum density of 1000 Kg/cum & minimum Hardness 1000 Kgf. with Eco friendly UV coating, all complete as per direction of the Engineer in-charge.	sqm	5257.50
26.2	Providing & fixing in position Phenol bonded Bamboo wood in wall skirting with planks of sizes 14mm thick, 1900mm length (minimum) and 85mm wide(minimum), in approved colour, texture and finish, having Performance Appraisal Certificate (PAC) issued by Building Materials & Technology Promotion Council (BMTPC). The skirting shall be fixed with SS screws & rawl plugs, over underlayment of 4mm thick, expanded poly ethylene foam sheets having 40kg/cum density over prepared surface. The bamboo wood planks shall have minimum density of 1000 Kg/cum & minimum Hardness 1000 Kgf. with Eco friendly UV coating, all complete as per direction of the Engineer in-charge.	sqm	5079.60
26.3	Providing & fixing in position Phenol bonded Bamboowood wall cladding at all height with planks of sizes 10mm thick, 1800mm length (minimum) and 130 mm wide (minimum), in approved colour, texture and finish, having Performance Appraisal Certificate (PAC) issued by Building Materials & Technology Promotion Council (BMTPC), with necesasary profiled edges fixed with 40mm SS screws 5 nos in each tile to frame work made of second class teak wood of size 20x15 mm in centre of each tile and bottom and top of work height, 40x15mm placed at ends of each tile. The cladding shall be laid over backlayment of 1.00 mm thick expanded poly ethylene foam of density 40kg/cum in two layers, first layer on wall surface before fixing wooden frame and second layer on frame under cladding. The bamboo wood planks shall have minimum density of 1000 Kg/cum & minimum Hardness 1000 Kgf. with Eco friendly UV coating, all complete as per direction of the Engineer in-charge.	sqm	5447.60
26.4	Providing & fixing in position Phenol bonded Bamboo wood panelled or panelled and glazed shutters for doors windows, clerestorey windows with pre-molded 30mm thick planks, in approved colours, texture & finishe. It shall have 10mm wide, 25mm deep groove to fit in panels. The bamboo wood shall have minimum density of 1000 Kg/cum, minimum Hardness 1000 Kgf. All styles and rails shall have profiled interlocking system locked in place by bamboo pins, all complete as per direction of Engineer in charge. (The panelling will be paid for separately).	sqm	5330.40

Code No.	Description	Unit	Rate Rs.	
26.5	Providing & fixing in position Phenol bonded Bamboo wood panelling of 10mm thick, in 25 to 40 mm thick panelled or panelled & glazed shutters for doors, windows, clerestorey windows, in approved colour, texture & finish. The bamboo wood planks shall have minimum density of 1000 Kg/cum & minimum Hardness 1000 Kgf. The panels shall have profiled interlocking system locked in place with bamboo pins all complete as per direction of the Engineer in-charge. (area of opening for panel inserts excluding portion inside grooves or rebates to be measured)	sqm	3141.10	
26.6	Providing & fixing in position 65 mm thick factory made door frame of Phenol bonded Bamboo wood (superior class, interior use), in approved colour, texture and finish. The bamboo wood shall have minimum density of 1000 Kg/cum, minimum Hardness 1000 Kgf. The door frame shall have tenon & mortise interlocking system, to be fixed to the wall with 100 mm size G.I screws all a complete as per direction of Engineer-in charge.	cudm	243.00	
26.6A	Providing, erecting, laying and fixing in position in 3.5 to 4 mm thick bamboo mat corrugated sheet (BMCS) as per IS: 15476-2004 in roofing with self drilling screws along with EPDM washers complete or with galvanized iron J or L hooks 8mm dia G.I. plain and bitumen washers etc, all complete as per direction of Engineer-in-Charge.	sqm	5093.50	
26.B	Providing and fixing in position ridges of 3.5 to 4 mm thick bamboo mat ridge cap (BMRC) as per IS: 15476-2004 in roofing with self drilling screws along with EPDM washers complete or with galvanized iron J or L hooks 8mm dia G.I. plain and bitumen washers etc, all complete as per direction of Engineer-in-Charge.	metre	4124.10	
26.6C	Providing and fixing at all height false ceiling of 4mm thick phenol bonded Bamboo Mat board (595x595mm) conforming to IS:13958-1994 including providing and fixing of frame work made of GI angle 25x25x0.4 mm thick all around suitably fixed to wall with the help of dash fastener and hanger frame (600x600 c/c) made GI slotted Tee having powder coating on bottom side (30x25x0.3 mm thick for main member & 25x25x0.3 mm for cross member) connected to ceiling with 2.64mm GI wire and anchor fastener at every junction and also including cost of making openings for light fittings, grills, diffusers, cut outs made with frame of perimeter channels suitably fixed all complete as per direction of Engineer-in-charge.	sqm	3063.20	
26.6D	Providing and fixing at Bamboo Mat board conforming to IS:13958-1994 for partition to frame by bucking or studding with screws etc. complete (Frames, backing or studding to be paid separately)			
	26.6D.1	3mm thickness	sqm	2286.90
	26.6D.2	26.6D.2 4mm thickness	sqm	2632.00
	26.6D.3	6mm thickness	sqm	3159.80
	26.6D.4	9mm thickness	sqm	3988.60
	26.6D.5	12mm thickness	sqm	4588.50

Code No.	Description	Unit	Rate Rs.	
26.6E	Providing and fixing at all height wall panelling with phenol bonded Bamboo Mat board conforming to IS:13958-1994 including providing and fixing to frame work made of 50mm x 50mm hardwood plugs including cutting brick work and fixing in cement mortar and making good the wall etc. and also providing and fixing wooden moulded corner beading of triangular shape to the junction of panelling etc. with iron screws all complete as per direction of Engineer-in- Charge.			
	26.6E.1	9mm thickness	sqm	4362.70
	26.6E.2	12mm thickness	sqm	4962.50
26.7	Providing and fixing 50 mm thick extruded polystyrene rigid insulation board of required size between cavity wall, complying with ISO 4898:2008 & ASTM C 578- 08b - type VI, having thermal conductivity of 0.0289 W/m K as per ASTM C 578 (measured as per IS 3346), compressive strength of > 350 kPa listed as per ASTM D 1621, density of 34-36 kg/m <sup>3</sup> as per ASTM D 1622, water absorptions 1% by volume as per ASTM D 2842, oxygen index of 24.1 to 28.1 listed as per ASTM D 2863, cell size 0.4 mm of dia (max) as per ASTM D 3576. Fire retardent property as per DIN 4102, Part 1 of class B2 and as per ASTM E84 class A, fixed with suitable water based adhesive and fastener, complete in all respect as per the direction of Engineer-in-Charge.	sqm	776.00	
26.8	Providing and fixing 50 mm thick extruded polystyrene rigid insulation board of required size under deck on ceiling surface, complying with ISO 4898:2008 & ASTM C 578-08b - type VI, having thermal conductivity of 0.0289 W/m K as per ASTM C 578 (measured as per IS 3346), compressive strength of > 350 kPa listed as per ASTM D 1621, density of 34-36 kg/cum as per ASTM D 1622, water absorptions 1% by volume as per ASTM D 2842, oxygen index of 24.1 to 28.1 listed as per ASTM D 2863, cell size 0.4 mm of dia (max) as per ASTM D 3576. Fire retardent property as per DIN 4102, Part 1 of class B2 and as per ASTM E84 class A, fixed with suitable water based adhesive and fastener, complete in all respect as per the direction of Engineer-in-Charge	sqm	808.80	
26.9	Providing and fixing factory made solid Foam uPVC profile for kitchen cabinet frame (45 x 20 mm) of approved shade, quality and make. The profile shall be laminated on both sides, made from rigid foam sheets (Single extruded) having density 600 Kg/cum and the exposed edges sealed with PVC edge beading of same shade and colour. The frame shall be fire retardent with necessary screw holding capacity. Frame shall be fixed to wall using Expendable Fastner with necessary stainless steel screws, all complete as per direction of Engineer-in- charge	metre	338.00	

Code No.	Description	Unit	Rate Rs.
26.10	Providing and fixing factory made Kitchen Cabinet Shutter/Partition 20 mm nominal thickness of approved shade, quality and make, made from rigid foam sheets (Single extruded) having density 600 Kg/cum and laminated on both side by laminate Sheet/PVC foil lamination. The exposed edges shall be sealed with PVC edge beading of same shade and colour. The shutter shall be fire retardent having necessary screw holding capacity. Shutter shall be fixed to frame using approved hinges with necessary stainless steel screws, all complete as per direction of Engineer-in-charge.	sqm	3956.30
26.11	Providing and fixing concealed hinge of approved quality for 19-20mm thick door with stainless steel screws complete :	each	45.20
26.12	Supplying & laying of bi-axial extruded high modulus polypropylene geogrid coforming to MORTH SPECIFICATION for base/sub-base reinforcement having minimum tensile strength 15kN/m in the longitudinal and transverse direction, with 5kN/m and 7kN/m tensile strength at 2% and 5% strain respectively in the longitudinal and transverse direction, junction efficiency not less than 95% and with 38mm X 38mm mesh opening.	sqm	160.00
26.13	Supplying & laying of bi-axial extruded high modulus polypropylene geogrid coforming to MORTH SPECIFICATION for base/sub-base reinforcement having minimum tensile strength 20kN/m in the longitudinal and transverse direction, with 7kN/m and 14kN/m tensile strength at 2% and 5% strain respectively in the longitudinal and transverse direction, junction efficiency not less than 95% and with 38mm X 38mm mesh opening.	sqm	182.00
26.14	Supplying & laying of bi-axial extruded high modulus polypropylene geogrid coforming to MORTH SPECIFICATION for base/sub-base reinforcement having minimum tensile strength 30kN/m in the longitudinal and transverse direction, with 10.5kN/m and 21kN/m tensile strength at 2% and 5% strain respectively in the longitudinal and transverse direction, junction efficiency not less than 95% and with 38mm X 38mm mesh opening.	sqm	285.10
26.15	Supplying & laying of bi-axial extruded high modulus polypropylene geogrid coforming to MORTH SPECIFICATION for base/sub-base reinforcement having minimum tensile strength 40kN/m in the longitudinal and transverse direction, with 14kN/m and 28kN/m tensile strength at 2% and 5% strain respectively in the longitudinal and transverse direction, junction efficiency not less than 95% and with 38mm X 38mm mesh opening.	sqm	417.50
26.16	Supplying & laying of drainage composite for use behind walls, between two different fills, alongside drains of road, below concrete lining of canals etc. Geocomposite for planar drainage, realized by thermobonding a draining core in extruded monofilaments with two filtering nonwoven geotextiles that may also be working as separation or protecting layers. The draining three dimensional core will have a "W" configuration as longitudinal parallel channels. Minimum thickness to be 7.2mm, with two filtering UV stabilized polypropylene nonwoven geotextile of minimum thickness of 0.75mm having pores of 150 micron and tensile strength of 8.0 kN/m that will be working as separation or	sqm	792.80



Code No.	Description	Unit	Rate Rs.
	protecting layer, geocomposite having in plane flow capacity of 2.1 L / (m.s) at hydraulic gradient of 1.0 & 20 kPa pressure and tensile strength of 18 kN/m , with mass per unit area of 740 gsm, supplied in the form of roll for easy transportation to site of work as per detailed specification all complete as per directions of Engineer in charge.		
26.17	Supplying & laying of drainage composite for use behind walls, between two different fills, alongside drains of road, below concrete lining of canals etc. having thermobonding a draining core - HDPE geonet comprises of two sets of parallel overlaid ribs integrally connected to have a rhomboidal shape with a polyethylene film and a nonwoven geotextile having mass per unit area 130 g/m <sup>2</sup> and tensile strength of 8.0 kN/m that will be working as separation or protecting layer, geocomposite having in plane flow capacity of 0.7 L / (m.s) at hydraulic gradient of 1.0 & 20 kPa pressure and tensile strength of 13.5 kN/ m , with mass per unit area of 830 gsm, at easily accessible location including top and bottom, with all leads and lifts, manpower and machinery, materials, labour etc. complete and as directed by Engineer - In - Charge.	sqm	940.00
26.18	Supplying and laying high strength flexible geogrids (HSFG) as soil reinforcement / basal reinforcement as per MORTH 3100 and IRC 113, made of high tenacity polyester core with polyethylene coating with Minimum Long Term Design Strength (LTDS) of more than 50% of ultimate tensile strength at 30 degree Celcius corresponding to 12 % strain .		
26.18.1	Ultimate tensile strength- 100 kN/m	sqm	336.60
26.18.2	Ultimate tensile strength- 150 kN/m	sqm	351.30
26.18.3	Ultimate tensile strength- 200 kN/m	sqm	483.70
26.18.4	Ultimate tensile strength- 250 kN/m	sqm	535.20
26.18.5	Ultimate tensile strength- 300 kN/m	sqm	550.00
26.18.6	Ultimate tensile strength- 350 kN/m	sqm	507.80
26.18.7	Ultimate tensile strength- 400 kN/m	sqm	711.90
26.18.8	Ultimate tensile strength- 500 kN/m	sqm	800.20
26.18.9	Ultimate tensile strength- 600 kN/m	sqm	822.20
26.18.10	Ultimate tensile strength- 700 kN/m	sqm	1020.90
26.18.11	Ultimate tensile strength- 800 kN/m	sqm	1116.60
26.18.12	Ultimate tensile strength- 900 kN/m	sqm	1337.30
26.18.13	Ultimate tensile strength- 1000 kN/m	sqm	1516.70
26.18.14	Ultimate tensile strength- 1100 kN/m	sqm	1484.50
26.18.15	Ultimate tensile strength- 1200 kN/m	sqm	1614.00
26.19	Providing at all heights, levels and locations Aluminium profile industrial troughed sheet of Alloy 31500/31000/40800, conforming to IS 1254, IS 737, IS 2676. The sheet shall be fixed using self drilling/self tapping SS screws of size 5.5x65 mm with EPDM seal complete upto required pitch in horizontal, vertical or curved surfaces i/c cutting to size and shape where required as per specifications, detail drawings and direction of Engineer-in-Charge. The rate shall be inclusive of all screws, seal, ridge, labour, scaffolding, machinery for fixing and approved sealant where required etc. but excluding the cost of purlins, rafters and trusses.		

Code No.	Description	Unit	Rate Rs.
26.19.1	0.71 mm thick, the profile detail width 1044/920 mm, cover width 1000/875 mm.	sqm	934.50
26.19.2	0.91 mm thick, the profile detail width 1044/920 mm, cover width 1000/875 mm.	sqm	1198.10
<b>26.20</b>	Providing round the clock security guard without gun for watch & ward of Government premises and its all belongings by deploying neatly dressed security guards in 8 hour's shift including necessary T&P like torch, lathi and uniform etc.complete,as per the direction of Engineer-in-charge.(One job means 8 hour's duty).	one job 8hrs	538.90
<b>26.21</b>	Providing round the clock security guard with gun for watch & ward of Government premises and its all belongings by deploying neatly dressed security guards in 8 hour's shift including necessary T&P like torch, lathi and uniform etc.complete, as per the direction of Engineer-in-charge.(One job means 8 hour's duty).	one job 8hrs	590.00
<b>26.22</b>	Providing and fixing false ceiling at all heights with integral densified calcium silicate reinforced with fibre and natural filler false ceiling tiles of Size 595x595 mm of approved texture, design and patterns having NRC (Noise Reduction coefficient) of 0.50 (minimum) as per IS 8225:1987, Light reflectance of 85% (minimum). Non combustible as per BS:476 (part-4), fire performance as per BS:476 (part 6 &7), humidity resistance of 100%, thermal conductivity < 0.043 W/m K as per ASTM 518:1991,in true horizontal level suspended on inter- locking metal T-Grid of hot dipped galvanised iron section of 0.33mm thick (galvanized @ 120 grams per sqm including both sides) comprising of main- T runners of size 24x38 mm of length 3000 mm, cross - T of size 24x32 mm of length 1200 mm and secondary intermediate cross-T of size 24x32 mm of length 600mm to form grid module of size 600 x 600 mm, suspended from ceiling using galvanised mild steel items (galvanizing @ 80 grams per sqm) i.e. 50 mm long, 8 mm outer diameter M-6 dash fasteners, 6 mm dia fully threaded hanger rod upto 1000 mm length and L-shape level adjuster of size 85x25x25x2 mm. Galvanised iron perimeter wall angle of size 24x24x0.40 mm of length 3000 mm to be fixed on periphery wall / partition with the help of plastic rawl plugs at 450 mm center to center and 40 mm long dry wall S.S screws. The work shall be carried out as per specifications, drawing and as per directions of the Engineer-in-Charge.		
26.22.1	With 15 mm thick tegular edged light weight calcium silicate false ceiling tiles.	sqm	1482.00

Code No.	Description	Unit	Rate Rs.
26.23	Providing and fixing false ceiling at all heights with integral densified calcium silicate reinforced with fibre and natural filler false ceiling tiles of Size 595x595 mm of approved texture, design and patterns having NRC (Noise Reduction coefficient) of 0.50 (minimum) as per IS 8225:1987, Light reflectance of 85% (minimum). Non combustible as per BS:476 (part-4), fire performance as per BS:476 (part 6 &7), humidity resistance of 100%, thermal conductivity < 0.043 W/m K as per ASTM 518:1991, in true horizontal level suspended on interlocking metal powder coated T-Grid of hot dipped galvanised iron section of 0.40 mm thick on Silhouette profile, rotary stiched double webbed white with 6 mm reveal profile (white/black), comprising of main-T runners of size 15x42 mm of length 3000 mm, cross - T of size 15x42 mm of length 1200 mm and secondary intermediate cross-T of size 15x42 mm of length 600mm to form grid module of size 600 x 600 mm, suspended from ceiling using galvanised mild steel items (galvanizing @ 80 grams per sqm) i.e. 50 mm long, 8 mm outer diameter M-6 dash fasteners, 6 mm dia fully threaded hanger rod upto 1000 mm length and L-shape level adjuster of size 85x25x2 mm. Galvanised iron perimeter wall angle of size 22x19x0.40 mm of length 3000 mm to be fixed on periphery wall / partition with the help of plastic rawl plugs at 450 mm center to center and 40mm long dry wall S.S screws. The work shall be carried out as per specifications, drawing and as per directions of the Engineer-in- Charge.		
	26.23.1 With 15 mm thick integral densified micro edge light weight calcium silicate false ceiling tiles	sqm	1738.20
26.24	Providing and fixing in position wall panelling at all heights with integral densified calcium silicate panels/tiles of size 595 x 595mm, having NRC (Noise Reduction coefficient) of 0.50 (minimum) as per IS 8225:1987, Light reflectance of 85% (minimum). Non combustible as per BS:476 (part-4), fire performance as per BS:476 (part 6 &7), humidity resistance of 100%, thermal conductivity < 0.043 W/m K as per ASTM 518:1991, comprising of a frame made from especially fabricated galvanised mild steel sheet 0.50 mm thick pressed section (galvanizing @120 grams per sqm including both sides) i.e.vertical studs of size 48 x 34 x 36 mm are placed at 600mm center to center in a floor and ceiling channel section of size 50 x 32m fixed to the floor and soffit at 600mm centers using 12mm dia,50mm long wedge type expanded zinc alloy dash fastner with 10mm bolt. This same channel is then to be fixed in horizontal direction at 600mm center to center so as to form a grid of 600mm x 600mm. Glasswool of 50mm thickness is then to be inserted in the slots and finally calcium silicate non combustible panels/tiles are to be screw fixed with self tapping pan head nickel coated mild steel screws of size 13 x 3.2mm on to this grid leaving an even groove of 1 mm between the panels. The joints between the panels are to be duly jointed and finished using recommended jointing calcium silicate based compound and fiber joint tape roll 50mm wide (90 metre )roll and two coats of primer suitable for panelling as per manufacturer's specification as per direction of Engineer-in-Charge all complete.		
	26.24.1 15 mm thick fully With perforated square/butt edge light weight calcium silicate panels/ tiles	sqm	2390.40

Code No.	Description	Unit	Rate Rs.
26.25	Providing and fixing 15 mm thick false ceiling tiles at all heights with integral densified calcium silicate reinforced with fibre and natural filler false ceiling tiles of Size 595x595 mm of approved texture, design and patterns having NRC (Noise Reduction coefficient) of 0.50 (minimum) as per IS 8225:1987, Light reflectance of 85% (minimum). Non combustible as per BS:476 (part-4), fire performance as per BS:476 (part 6 &7), humidity resistance of 100%, thermal conductivity < 0.043 W/m K as per ASTM 518:1991,in true horizontal level on the existing frame work consisting of T-sections and Lsections suitably fixed according to tile size as per direction of Engineer-in-charge.	sqm	1189.50
26.26	Providing & fixing false ceiling at all heights with GRG (Glass Fibre Reinforced Gypsum) false ceiling tiles of Size 595x595 mm of approved texture, design and patterns having moisture content less than 2%, humidity resistance of 99%, NRC0.50 to 0.75 as per IS 8225:1987, Non combustible as per BS 476 (part 4)-1970 and light reflectance of 85% (minimum) to be laid in true horizontal level suspended on inter-locking metal T-Grid of hot dipped galvanised iron section of 0.33mm thick (galvanized @ 120 grams per sqm including both sides) comprising of main-T runners of size 15x32 mm of length 3000 mm, cross - T of size 15x32 mm of length 1200 mm and secondary intermediate cross-T of size 15x32 mm of length 600mm to form grid module of size 600 x 600 mm, suspended from ceiling using galvanised mild steel items (galvanizing '@ 80 grams per sqm) i.e. 50 mm long, 8 mm outer diameter M-6 dash fasteners, 6 mm dia fully threaded hanger rod upto 1000 mm length and L-shape level adjuster of size 85x25x2 mm. Galvanised iron perimeter wall angle of size 24x24x0.40 mm of length 3000 mm to be fixed on periphery wall / partition with the help of plastic rawl plugs at 450 mm center to center and 40 mm long dry wall wood screws. The work shall be carried out as per specifications, drawing and as per directions of the Engineer-in-Charge.		
26.26.1	With semi perforated 12 mm thick micro tegular edged GRG false ceiling tiles.	sqm	1358.40
26.26.2	With fully perforated 12 mm thick micro tegular edged or 10 mm thick square edged GRG false ceiling tiles.	sqm	1484.80
26.27	Providing and fixing mineral fibre false ceiling tiles at all heights of size 595X595mm of approved texture, design and pattern. The tiles should have Humidity Resistance (RH) of 99%, Light Reflectance ?85%, Thermal Conductivity k = 0.052 - 0.057 w/m K, Fire Performance as per (BS 476 pt - 6 &7)in true horizontal level suspended on interlocking T-Grid of hot dipped all round galvanized iron section of 0.33 mm thick (galvanized @120 gsm ) comprising of main T runners of 15x32 mm of length 3000 mm, cross T of size 15x32mm of length 1200 mm and secondary intermediate cross T of size 15x32 mm of length 600 mm to form grid module of size 600x600 mm suspended from ceiling using galvanized mild steel item (galvanised@80gsm) 50 mm long 8mm outer diameter M-6 dash fasteners, 6 mm diameter fully threaded hanger rod up to 1000 mm length and L-shape level adjuster of size 85x25x2 mm, spaced at 1200 mm centre to centre along main 'T'. The		

Code No.	Description	Unit	Rate Rs.
	system should rest on periphery walls /partitions with the help of GI perimeter wall angle of size 24x24X3000 mm made of 0.40 mm thick sheet, to be fixed to the wall with help of plastic rawl plug at 450 mm centre to centre & 40 mm long dry wall S.S. screws. The exposed bottom portion of all T-sections used in false ceiling support system shall be pre-painted with polyester baked paint, for all heights. The work shall be carried out as per specifications, drawings and as per directions of the engineer-in-charge.		
26.27.1	With 16 mm thick beveled tegular mineral fibre false ceiling tile (NRC 0.55 to 0.6)	sqm	1786.30
26.27.2	With 20 mm thick beveled tegular mineral fibre false ceiling tile (NRC 0.7)	sqm	2082.30
26.27.3	With 16 mm thick beveled tegular mineral fibre Anti-microbial false ceiling tile confirming to ISO 5 (class 100 ) specifications	sqm	1913.70
<b>26.28</b>	Chipping of unsound/weak concrete material from slabs, beams, columns etc. with manual Chisel and/ or by standard power driven percussion type or of approved make including tapering of all edges, making square shoulders of cavities including cleaning the exposed concrete surface and reinforcement with wire brushes etc. and disposal of debris for all lead and lifts all complete as per direction of Engineer-In-Charge		
26.28.1	75mm average thickness	sqm	184.00
26.28.2	50mm average thickness	sqm	121.80
26.28.3	25 mm average thickness	sqm	62.20
<b>26.29</b>	Cleaning of reinforcement from rust from the reinforcing bars to give it a total rust free steel surface by using alkaline chemical rust remover of approved make with paint brush and removing loose particles after 24 hours of its application with wire brush and thoroughly washing with water and allowing it to dry, all complete as per direction of Engineer-In-Charge.		
26.29.1	Bars upto 12 mm diameter	metre	4.60
26.29.2	Bars above 12 mm diameter	metre	9.20
<b>26.30</b>	Drilling suitable holes in reinforced or plain cement concrete with power driven drill machine to a minimum depth of 100mm upto 200mm in RCC beams, lintels, columns and slabs to introduce steel bars for sunshades/balconies including fixing the steel bars in position using epoxy resin anchor grout of approved make but excluding the cost of reinforcement, all complete as per direction of Engineer-In-Charge.		
26.30.1	Upto and including 12mm dia.	each	72.00

Code No.	Description	Unit	Rate Rs.	
26.31	Providing, mixing and applying bonding coat of approved adhesive on chipped portion of RCC as per specifications and direction of Engineer-In-charge complete in all respect.			
	26.31.1	SBR Polymer (@10% of cement weight) modified cementitious bond coat @2.2 kg cement per sqm of surface area mixed with specified proportion of approved polymer	sqm	93.50
	26.31.2	Epoxy bonding adhesive having coverage 2.20 sqm/kg of approved make	sqm	388.50
26.32	Providing, mixing and applying SBR polymer (of approved make) modified Cement mortar in proportion of 1:4 (1 cement: 4 graded coarse sand with polymer minimum 2% by wt. of cement used) as per specifications and directions of Engineer-in-charge. Note: Measurement and payment: The pre-measurement of thickness shall be done just after the surface preparation is completed and Payment under this item shall be made only after proper wet curing has been done and surface has been satisfactorily evaluated by sounding / tapping with a blunt metal instrument and/or the 75mm size cube crushing strength at the end of 28 days to be not less than 30 N/Sqmm2).			
	26.32.1	12 mm average thickness.	sqm	185.40
	26.32.2	25 mm average thickness in 2 layers.	sqm	301.70
	26.32.3	50 mm average thickness in 3 layers.	sqm	603.40
26.33	Providing, mixing and applying SBR polymer (of approved make @ minimum 2% by wt. of cement used) modified plain/reinforced cement concrete for structural members having minimum characteristic compressive strength [with ordinary portland cement, coarse sand and graded stone aggregate of 10mm maximum size in proportion as per design criteria] with specified average thickness. Note: Rates shall be for finished surface area of concrete and shall include the cost of labour, concrete and appropriate approved Super-Plasticiser for rendering concrete as flowable and SBR polymer but shall exclude cost of reinforcement, bond coat, Shear Keys, centering and shuttering, strutting, propping etc (Payment under this item shall be made only after proper wet curing has been done and surface has been satisfactorily evaluated by sounding/tapping with a blunt metal instrument)			
	26.33.1	50mm thick in Grade M 25 with cement content not less than 330 kg per cum	sqm	355.10
	26.33.2	75mm thick in Grade M 25 with cement content not less than 330 kg per cum	sqm	532.60



Code No.	Description	Unit	Rate Rs.
<b>26.34</b>	Providing and laying SBR Polymer modified (of approved make @ minimum 2% by wt. of cement used) plain/reinforced concrete jacket for the structural members e.g. columns, pillars, piers, beams etc with concrete having the specified minimum characteristic compressive strength [with ordinary portland cement, coarse sand and graded stone aggregate of 10mm maximum size in proportion as per design criteria] with specified average thickness all-round existing core of RCC member. Note: Rates shall be for finished surface area of concrete and shall include the cost of making holes in existing RCC slab, if required, for pouring concrete in shuttering mould of jacket and appropriate approved Super-Plasticiser for rendering concrete as flowable self compacting and SBR polymer but shall exclude cost of reinforcement, bond coat, Shear Keys, centering and shuttering, strutting, propping etc (Payment under this item shall be made only after proper wet curing has been done and surface has been satisfactorily evaluated by sounding/tapping with a blunt metal instrument		
26.34.1	50mm thick in Grade M 25 with cement content not less than 330 kg per cum	sqm	355.10
26.34.2	75mm thick in Grade M 25 with cement content not less than 330 kg per cum	sqm	532.60
26.34.3	100mm thick in Grade M 25 with cement content not less than 330 kg per cum	sqm	717.60
<b>26.35</b>	Providing and injecting approved grout in proportion recommended by the manufacturer into cracks/honey-comb area of concrete/masonry by suitable gun/pump at required pressure including cutting of nipples after curing etc. complete as per directions of Engineer-in-Charge. (The payment shall be made on the basis of actual weight of approved grout injected.)		
26.35.1	Stirrer mixed Acrylic Polymer of approved make @ 2% of weight of cement used) modified Cement slurry made with non shrink compound in concrete/ RCC work	kg	85.30
26.35.2	Stirrer mixed SBR Polymer (of approved make) modified Cement slurry made with Shrinkage Compensating Cement in concrete/RCC work.	kg	89.60
26.35.3	Epoxy injection grout in concrete/RCC work of approved make	kg	789.10
<b>26.36</b>	Providing, erecting, maintaining and removing temporary protective screens made out of specified fabric with all necessary fixing arrangement to ensure that it remains in position for the work duration as required by the Engineer- in-charge.		
26.36.1	Wooven PVC cloth	sqm	45.50
<b>26.37</b>	Cleaning of exposed concrete surface of sticking material including loose and foreign material by sand blasting with coarse sand followed by and including cleaning with oil free air blast as per direction of Engineer in charge.	sqm	107.40

Code No.	Description	Unit	Rate Rs.
<b>26.38</b>	Shotcreting R.C.C. columns, beams and slabs etc. in layers with approved design mix concrete having the specified minimum characteristic compressive strength [with ordinary portland cement, coarse sand and graded stone aggregate of 10 mm maximum size in proportion as per design criteria] including the cost of centering and shuttering at edges and corners etc. as directed by Engineer- in-Charge. Note: Rates shall include the providing necessary ground wires etc. The levelling gauges, if used, shall be paid for separately. Payment under this item shall be made only after proper wet curing has been done and surface has been satisfactorily evaluated by sounding/tapping with a blunt metal instrument.		
26.38.1	25mm thick in Grade M 25 with cement content not less than 330 kg per cum	sqm	430.20
26.38.2	50mm thick in Grade M 25 with cement content not less than 330 kg per cum	sqm	686.20
26.38.3	75mm thick in Grade M 25 with cement content not less than 330 kg per cum	sqm	1008.80
<b>26.39</b>	Providing and inserting 12mm dia galvanised steel injection nipple in honey comb area and along crack line including drilling of holes of required diameter (20mm to 30mm) up to depth from 30mm to 80mm at required spacing and making the hole & crack dust free by blowing compressed air, sealing the distance between injection nipple with adhesive chemical of approved make and allow it to cure complete as per direction of Engineer-In-Charge	each	160.20
<b>26.40</b>	Providing and fixing hard drawn steel wire fabric of size 75 x25 mm mesh or other suitable size wire mesh to be fixed & firmly anchored to the concrete surface by means of "L" shaped mild steel shear key welded with existing reinforcement including the cost of materials, labour, tool & plants as approved by Engineer-in-charge.	sqm	720.80
<b>26.41</b>	Designing, providing, installing and fixing factory finished custom designed cold form Light Gauge Steel Framed super structure comprising of steel wall panel, trusses, purlins etc manufactured out of minimum 0.75 mm thick steel sheet as per design requirements. The steel sheet shall be galvanized (AZ-150 gms Aluminum Zinc Alloy coated steel having minimum yield strength 300- 550 Mpa) conforming to AISI specifications and IBC 2009 for cold formed steel framing and construction and also as per IS: 875-1987, ISO 800-1984 and IS: 801-1975. The wind load shall be as per provisions of IS 875 (part -III). LGSFS frame shall be designed as per IS: 801 using commercially available software such as Frame CAD Pro-11.7/ STAAD PRO-V8i/ArchitekV2.5.16/ Revit architecture-2011 or equivalent. Proper usage of Connection Accessories like Heavy Duty Tension Ties, Light Duty Hold-ons, Twist Straps (to connect truss with wall frames), Strong Tie, Tie Rod, H-Brackets, Boxing Sections, L-Shaped Angles for better structural stability. The framing section shall be cold form C-type having minimum web depth 89 mm x 39mm flange x 11mm lip in required length as per structural design requirement duly punched with dimple/slot at required locations as per approved drawings. The slots will be along centre line of webs and shall be spaced minimum 250mm away from both ends of the member.		



Code No.	Description	Unit	Rate Rs.
	The frame can be supplied in panelized or knock down condition in specific dimensions and fastened with screws extending through the steel beyond by minimum of three exposed threads. All self drilling tapping screws for joining the members shall have a Type II coating in accordance with ASTM B633(13) or equivalent corrosion protection of gauge 10 & 12, TPI 16 & 8 of length 20mm. The frames shall be fixed to RCC slab or Tie beam over Neoprene rubber using self expanding carbon steel anchor bolt of dia as per approved drawings. design subject to minimum 12mm diameter and 121mm length conforming to AISI 304 and 316 at 500mm c/c with minimum embedment of 100mm in RCC (RCC to be paid separately) and located not more than 300mm from corners or termination of bottom tracks complete in all respects. The item also includes the submission of stability reports duly examined and issued by any NIT/IIT. The rate includes the concept design, detailed design, fabrication of sections, transportation, installation and all required fixing arrangement at site as described above.	kg	202.10
<b>26.42</b>	Providing and fixing of external wall system on Light gauge steel frame work with outer face cement boards as per standard sizes fixed with self- drilling/ tapping rews/ fasteners @ 60cm c/c of approved make.A groove of 2mm to3mm shall be maintained and grooves shall be sealed with silicon based sealant.The board shall be fixed in a staggered pattern. Screws shall be of counter sunk rib head of 1.60mm to 4 mm thick or 8 to 10 gauge of length varying from 25 to 45 mm and. Internal face 12.5 mm thick gypsum plaster board fixed on cement board as per standard sizes fixed with self-drilling/ tapping screws/ fasteners @ 60cm c/c of approved make, proper taping and jointing to be done using fiber mesh tape and epoxy and acrylic based jointing compound for seamless finish.(cos of frame work to be paid for separately)		
26.42.1	Outer face: Outer face having 6mm thick fiber cement board fixed on 9mm thick fiber cement board, Type A, as per IS:14862:2000 (high pressure steam cured) Inner Face :- 12.5 mm thick gypsum plaster board conforming to IS 2095:2011 fixed on 8 mm thick fibre cement board confirming to S:14862:2000 of type B (High pressure steam cured)	sqm	3084.50
26.42.2	Outer face: Outer face having 8 mm thick cement bonded particle Board fixed on 10 mm thick cement bonded particle board. (Termite, Fire and Moisture Resistance) as per IS 14276:1995. Inner face:-12.5 mm thick gypsum plaster board conforming to IS 2095:2011 fixed on 8 mm thick cement bondedparticle board (Termite, fire and moisture resistance confirmin to IS: 14276:1995)	sqm	2363.30

Code No.	Description	Unit	Rate Rs.
26.43	Providing and fixing internal wall panels on Light gauge steel frame work with 12.5mm thick gypsum plaster board conforming IS 2095:2011 fixed on 8mm thick fiber cement board conforming to IS 14862:2000 of category III type B (High pressure steam cured) as per standard sizes fixed with self-drilling / taping screws / fasteners @ 60cm c/c of approved make, Screws shall be of counter sunk rib head of 1.60mm to 4 mm thick of 8 to 10 gauge of length varying from 25 to 45 mm. Proper taping and jointing to be done using fiber mesh tape and epoxy and acrylic based jointing compound for seamless finish.(cost of frame work to be paid for separately)	sqm	1927.60
26.44	Providing and fixing in all exterior face panels breathable vapour barrier underneath the cement fiber board as per National Building Code 2009 complete as per direction of Engineer-in-charge.	sqm	276.20
26.45	Supplying and installation of moisture resistant/fire resistant 6 mm thick Heavy duty fiber cement board (High pressure steam cured) conforming to IS 14862:2000 of category III type B as per standard sizes fixed with self-drilling / taping screws. Screws shall be of counter sunk rib head of 1.60mm to 4 mm thick of 8 to 10 gauge of length varying from 25 to 45 mm.	sqm	998.20
26.46	Providing and fixing in position, 200 mm thick factory made Expanded Polystyrene Core (EPS Core) wall panels consisting of EPS core sandwiched between two Engineered sheets of welded wire fabric mesh duly finished with shortcrete materials on outer faces. The fabric mesh shall be made of 3 mm dia G.I. wire mesh with 50 mm pitch in both the directions and on both faces of the wall, kept at 120-135 mm gap and connected by the zig zag G.I. wire of 3 mm dia at alternate row by welding (at an angle ranging from 50-70 degree) . The EPS core shall consist of 100 mm thick EPS of density not less than 20 kg/ per cum. Both the outer faces of the panel shall be finished by applying the layer of 50 mm thick cement mortar 1:3 {1 cement: 3 coarse sand (not having more than 40% stone chips of size upto 6 mm)} with the help of shotcreting/guniting equipment etc at a pressure not less than 1 bar (100Kn/m <sup>2</sup> ) and both surfaces finished with trowel. Fixing operations of wall panels shall be completed in all respect as per drawings and specifications and under the overall direction of the Engineer-in-charge.	sqm	3610.50
26.47	Providing and fixing in position, 230mm thick factory made Expanded Polystyrene Core (EPS Core) roof/floor panels made of 3 mm dia G.I. wire mesh with 50 mm pitch in both the directions and on both faces of panel, kept at 120-135 mm gap and connected by the zig zag G.I. wire of 3 mm dia at alternate row by welding (at an angle ranging from 50-70 degree). The EPS core shall consist of 100 mm thick EPS of density not less than 20kg/ per cum. The bottom side of the panel shall be finished by applying a layer of 60-65 mm thick cement mortar 1: 3 {1 cement: 3 coarse sand (not having more than 40% stone chips of size upto 6 mm)} with the help of shotcreting equipment etc at a pressure of not less than 1 bar (100Kn/m <sup>2</sup> ) and surface finished with trowel. The top face of the panel shall be provided and finished by applying 70-75 mm thick layer of cement concrete 1:1.5: 3 (1 cement :1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size). Fixing operations of roof/floor panels shall be completed in all respect as per drawings and specifications and under the overall direction of the Engineer-in-charge.	sqm	1387.10

Code No.	Description	Unit	Rate Rs.
26.48	Providing and fixing aluminum formwork for monolithic construction RCC members using grade 5052 aluminum for panel sheets of minimum 4 mm thickness and grade 6061 (Type-6) aluminum for extruded sections. The tolerance of finished panels to be (-1 mm). Pins and wedges to be made of high grade mild steel. All complete as per direction of Engineer-in-charge.	sqm	163.20
26.49	Providing and fixing in position factory made EPS cement sandwich wall/roof/floor light weight solid core panels made of core material of EPS granule balls/beads (conforming to IS 4671:1984 and shall have density not less than 15kg per cum) adhesive, cement, sand, flyash and other bonding material in mortar state processed to form in a preset mould. The outer face on both sides of the panels will be non asbestos fiber cement board confirming to IS 14862:2000 or Calcium silicate board confirming to EN 14306:2009 of 5mm thick each. Panel shall be laid on 6mm thick cement mortar (1 cement: 2 fine sand) mixed with chemical adhesive of 0.5kg per 50kg of cement or shall be preferably fixed into 'C' channel made of 1.2mm thick MS plate screwed/fastened to the slab/column/beam etc. The panel shall fixed vertically with tongue and groove joint and horizontally locked with steel bar between each other and floors and filled with cement mortar and adhesive. Panels should be used as floor & roofing with additional structural support, steel or RCC depending upon the design. All the operation shall be completed in all respect as per drawings, Manufacturers specifications and under the overall direction of Engineer-in-Charge (Cost of all the material is included except "C channel" which will be paid separately).		
26.49.1	Non load bearing panels 50mm thick of required size	sqm	1107.20
26.49.2	Non load bearing panels 60mm thick of required size	sqm	1261.30
26.49.3	Non load bearing panels 75mm thick of required size	sqm	1545.80
26.49.4	Non load bearing panels 90mm thick of required size	sqm	1855.60
26.49.5	Non load bearing panels 100mm thick of required size	sqm	2198.90
26.50	Providing and fixing in position factory made non asbestos fibre reinforced aerated cement sandwich wall/roof/floor light weight solid core panels made of light weight cement concrete core composed of OPC cement, pulverized flyash, quick lime, cotton pulp & Gypsum in mortar state mixed with aeration agent in a preset mould. The outer face on both sides of the panels will be non asbestos fibre cement board confirming to IS 14862:2000. These solid wall panels are installed using Galvanized iron steel tracks/C channel of 1mm thick of required sizes as recommended by manufacturer's and fixed to floor and RCC soffit in plumb to each other with steel screw/ fasteners. The panel shall be fixed vertically with tongue & groove joint with cement based polymer modified jointing compound. The exposed surface finished with fibre mesh/glass fibre tape with polymer based jointing compound having superior flexibility. Panels should be used as floor & roofing with additional structural support, steel or RCC depending upon the design. All the operation shall be completed in all respect as per drawings, Manufacturers specifications and under the overall direction of Engineer-in-Charge (Cost of all the material is included except "tracks/C channel" which will be paid separately).		

Code No.	Description	Unit	Rate Rs.
26.50.1	Non load bearing panels 50mm thick of required size (minimum 4mm thick fibre cement board)	sqm	1177.70
26.50.2	Non load bearing panels 75mm thick of required size (minimum 5mm thick fibre cement board)	sqm	1395.50
<b>26.51</b>	Supplying of standard quality GFRG panel of 124 mm thickness with modular cavities purchased from GFRG panel manufacturing plant in the country, cut to required wall sizes and floor/ roof slab sizes in correct length and height, including cutting of door, window and ventilator opening as per the cutting drawing prepared by architects /design engineers for the construction of GFRG building and loaded in stillages for transportation to the construction site. Cost of panel includes security deposits, hire charges of stillages & jaws, cost of transportation in trucks/ lorries without any damages upto 300kms including all leads and lifts from GFRG manufacturing plant to construction site and unloading at site using suitable fork lift/ crane. (Payment shall be made on the basis of area of one side of panel without reduction of opening of door/ window / ventilator). For transportation above 300kms, additional charges to be paid.	sqm	1305.60
<b>26.52</b>	Erection of GFRG Panels in walls in all floors using suitable crane as per instructions of Engineer-in- Charge, as per cutting drawings and structural drawings, in perfect line and plumb, above RCC plinth beam/GFRG panel below and provide necessary lateral/ slanting support to keep the wall panel in safe position, providing & tying of Reinforcement as per structural drawings and applying a coat of water repellent coating Zycosil/equivalent or equivalent product (1Zycosil/equivalent compound :10 water) to saturation level over RCC plinth beam to provide water proofing treatment to joint between wall panel & plinth beam as per the guide lines / instruction by the engineer in charge. (Cost of reinforcement, water proofing of walls and plinth beam/GFRG panel below joints and installation of door/ window frames before filling of concrete shall be paid separately).The rate quoted shall include making provision for laying of lintels, beams, sunshades, staircase beams, lofts, plumbing work, electrical conduits and any structural insertion etc., as per the drawing and direction of the engineer in charge. The payment shall be made based on the actual exposed area (one side only)of the panel. The work shall be carried out as per the Special Conditions For Glass Fibre Reinforced Gypsum (GFRG) structures mentioned in NIT. Note:i. When cutting panel, "A" side is to be for outside or external surface of respective external wall and B side is to be for internal surface of wall ii. Erection of panel is to be with reference to both building plan & cutting drawing by following notational mark indicated in the cutting drawing as well as notional mark written on each panel cut as per cutting drawing	sqm	195.10

Code No.	Description	Unit	Rate Rs.
26.53	<p>Filling of empty cavities (as shown in the structural design drawing) with quarry dust mixed with 5% cement (by volume). After initial infill of 50 mm thick with M25 concrete at base/bottom of cavities to seal off, infill wall panel cavities in 3 stages as detailed below,</p> <p>(i) 1st pour / infill to be limited to 0.3 to 0.50 m height from bottom of the panel.</p> <p>(ii) 2nd Pour/ infill: infilling shall be done only after 90 minutes interval between successive pours. The maximum height of infill shall be restricted to 1.5m height or up to the top level of door / window.</p> <p>(iii) 3rd pour/infill: After an interval of 90 minutes of second pour, infill or pour the balance height up to the bottom of embedded RCC tie beam. Pour enough water just required to dampen the dry mix enough to form cake form after each stage. (cost of laying M25 concrete shall be paid separately)</p> <p>(If any rain falls in between any stages of concrete pour, make sure to cover the panel top to prevent ingress of water or water falling into the cavities. In case of water collection over the concrete inside the panel, drill 10mm hole in GFRG panel immediately above concrete filled level to drain out water before pour/in-fill of balance concreting)</p>	cum	871.00
26.54	<p>Laying of GFRG panel as roof / floor slab panel and staircase panel using suitable crane as per instructions of Engineer-in-Charge, including providing support system with 25mm x 300mm-400 mm wide plywood, as runner with proper prop below proposed micro beams including</p> <p>a) Cutting of top flange of panel to 180 mm wide (leaving 25mm projection on either side) to provide RCC embedded micro beam as per cutting drawings and structural drawings.</p> <p>b) Reinforcement for micro beams and tie beams to be provided in position with proper anchorage as per structural drawings.</p> <p>c) Provision for Electrical cabling, fan hooks and laying of pipes for plumbing work.</p> <p>d) Concreting of Tie beam, micro beam and top of GFRG panels (50 mm thick) with M-25 cement concrete mix using coarse aggregate of size less than 20 mm including laying of 10 gauge 100x100 size weld mesh with 25 mm effective cover from the panel top.</p>	sqm	220.10
26.55	<p>Supplying and fixing 10 Gauge weld mesh of size 100mm x100 mm for floor/roof slab concrete screed over the micro beams as reinforcement. The weld mesh shall be fixed as per drawing.</p>	sqm	222.50

Code No.	Description	Unit	Rate Rs.
26.56	Application of 2MB 60/equivalent solution (100 Kg 2MB 60/equivalent, 1 litre 2MB Nano Thinner,20 litre water &1 Litre Zycoprime/equivalent = 122 litre/kg) over already applied coat of Zycosil/equivalent & Zycoprime/equivalent solution on the top of all the RCC plinth beams by brush/spray coat before erection of GFRG over RCC plinth beams in GF. In the case of upper floors 150 mm wide on floor slab for all the external walls, bath/toilet/wet areas (3 hrs drying time)before erection of wall panel on upper floors including erection of parapet wall.	sqm	207.90
26.57	After erection of GFRG wall panels, seal all GFRG wall joints with paper tape temporarily. Water proofing treatment of vertical joints with Zycosil/equivalent water proofing Solution (1 litre of Zycosil/equivalent & 20 litres of water stirred first & 2 litres of Zycoprime/equivalent added and stirred (total 23 litres)) with 50 ml syringe till the gap and in filled concrete is completely saturated. After removing the paper seal, seal off the vertical joints with water proofing material "Grout RW/equivalent" (Sealing cost excluded.)	metre	61.70
26.58	Filling of joints between RCC plinth beam / floor slab and wall panel of external walls, toilet / bath room / wet areas walls on all floor and parapet wall over roof slab, stair case head room at the time of erection of GFRG panels with Grout RW/equivalent sealant compound after the erection of panel before the infill of concrete in panel cavities and fine finish. This applies for all horizontal and vertical joints between GFRG wall and slab panels.	metre	24.90
26.59	Water proofing treatment of Vertical joints (of external side and internal side) between door frame, window & ventilator frames (on all four sides) of outer wall over the Zycosil/equivalent solution already applied (before the installation of door j window j ventilator frames in position) and fine finish with Grout RW/equivalent.	metre	25.70
26.60	Water proofing treatment of RCC sunshade with Zycosil/equivalent water proofing Solution (1 litre of Zycosil/equivalent & 20 litres of water stirred first & 2 litres of Zycoprime/equivalent added and stirred (total 23 litres)) till it meets the saturation level and testing as per RILEM or by water drops test in which water drops do not absorb but drops remain or rolls.	sqm	105.40
26.61	In-filling / sealing of joint between RCC lintel cum sunshade and wall (on external side) in all floors by pushing in Grout RW/equivalent in paste form and coving 20 mm x 20 mm after applying a coat of Zycosil/equivalent & Zycoprime/equivalent solution before cement plastering of top, bottom and sides of RCC sunshade.	metre	25.70
26.62	Designing, Providing, installing and fixing factory finished customized design pregalvanized high tensile steel joists manufactured from G350 Z275 confirming to IS:277-1992, minimum coating of galvanizing 275 gm/sqm, minimum yield stress 35 MPa & minimum tensile strength of 380 MPa placed 1.23 metre apart to support the load of slab etc as per the design & directions of Engineer-in-Charge.	kg	130.40



Code No.	Description	Unit	Rate Rs.
26.63	Providing and fixing special adjustable lockbars of mild steel E-250 to support the temporary plywood for work between joists during construction as per design & directions of the Engineer-in-charge.	kg	11.30
26.64	Centering and shuttering with 12mm thick shuttering plywood confirming to IS 4990:2011 and removal of form at all heights. Plywood will be supported on lock bars.		
26.64.1	Suspended floors, roofs, landings, balconies and access platform.	sqm	83.60
26.65	Providing and fixing roofing consist of 0.8 mm thick galvanized steel deck sheet confirming to IS 1277:1992 used as permanent shuttering over which MS wire mesh 3mm laid at 100x100 mm grid including edge trim covered with concrete. This metal deck will be supported on structural steel beam with shear studs. (Structural steel like Beam, column, joists etc. & concrete of different grade as per design will be paid separately).	sqm	1400.20
26.66	Providing and fixing in position, 130 mm thick factory made Expanded Polystyrene Core (EPS Core) wall panels consisting of EPS core sandwiched between two Engineered sheets of welded wire fabric mesh duly finished with shotcrete materials on outer faces. The fabric mesh shall be made of 3 mm dia zinc coated G.I. wire mesh with 50 mm pitch in both the directions and on both faces of the wall and connected by GI wire of 3mm dia at alternate row by welding. The EPS core shall consist of 60 mm thick EPS of density not less than 16 kg/ per cum. Both the outer faces of the panel shall be finished by applying the layer of 3S mm thick cement mortar 1:3 {1 cement: 3 coarse sand (not having more than 40% stone chips of size upto 6 mm)} with the help of shotcreting/guniting equipment etc at a pressure not less than 1 bar (100KN/m <sup>2</sup> ) and both surfaces finished with trowel. Fixing operations of wall panels shall be completed in all respect as per drawings and specifications and under the overall direction of the Engineer-in-charge.	sqm	2136.30
26.67	Providing and fixing of external thermal insulation and composite system with First layer of self-extinguishing type Expanded Polystyrene (EPS) insulation boards of 120 mm thick ( max 1mX0.5m section), confirming to IS 4671:1984, having thermal conductivity of 0.034 W/mK, (measured as per IS 3346-1980), density of 20-24 kg/m <sup>3</sup> measured as per IS 5688-1982, Fire retardant property self-extinguishing type as per EN 13501-1, bonded with special polymer modified cementitious adhesive confirming to EOTA ETAG 004 (European Technical Approval) formulated to bond polystyrene insulation boards to typical mineral substrate (according to ETAG 004) and Polypropylene mechanical fasteners with plastic pin confirming to EOTA ETAG 014 (European Technical Approval) having dia 10mm & L=200mm on finished level wall and the junction between two adjacent EPS boards to be sealed with low expansion moisture cure Polyurethane Foam. Second layer consists of Fiberglass mesh covered with alkali-resistant coating, mass per unit area > 145 gm/m <sup>2</sup> , mesh size: 3.9x4.0 mm	sqm	3054.60



Code No.	Description	Unit	Rate Rs.
	±10% embedded in special polymer modified cementitious Base Coat with hydrophobes and the corners will be protected with Corner-beads with alkalis resistant mesh wings at least 10 cm wide, mesh mass per unit area min 145 gm/m <sup>2</sup> . The surface will be levelled, finished, made smooth complete in all respect as per manufactures specification and as per directions of Engineer-in-Charge.		
<b>26.68</b>	Providing and laying factory made Precast concrete solid blocks of 200 mm thickness of grade M10 made of C&D waste from approved manufacturer in foundation and plinth in:		
26.68.1	Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	4828.30
<b>26.69</b>	Providing and laying factory made Precast concrete solid blocks of 200 mm thickness of grade M10 made of C&D waste from approved manufacturer in superstructure above linth level up to floor V level		
26.69.1	Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	5805.90
<b>26.70</b>	Providing and laying half block masonry with factory made Precast concrete solid blocks of 100 mm thickness of grade M10 made of C&D waste from approved manufacturer in foundation and plinth in:		
26.70.1	Cement mortar 1:4 (1 cement : 4 coarse sand)	sqm	555.20
<b>26.71</b>	Providing and laying half block masonry with factory made Precast concrete solid blocks of 100 mm thickness of grade M10 made of C&D waste from approved manufacturer in superstructure above plinth level up to floor V level:		
26.71.1	Cement mortar 1:4 (1 cement : 4 coarse sand)	sqm	639.50
<b>26.72</b>	Providing and laying 60mm thick factory made cement concrete paver block of approved shape and colour of M -30 grade made of C&D waste by block making machine with vibratory compaction laid in required pattern and including over 50mm thick compacted bed of coarse sand, filling the joints with fine sand etc. all complete as per the direction of Engineer-in-charge.	sqm	546.50
<b>26.73</b>	Fabrication & Manufacturing of Prestressed Hollow Core slab (Hollow area 25 to 30%) of different thickness & modular width 1200 mm in Controlled Factory Environment with approved methodology confirming to IS 10297:1982 by using long line casting method having arrangement of proper steel bed. Concreting should be done by batch mixing plant capable of producing zero slump concrete, transported through automatic shuttels of standard make & layed on bed with the help of extruder/Slipformer, finishing, curing and also provision of steam curing. Cutting, making necessary cutout/holes of required sizes for services in slab element after achieving required strength, yard handling & stacking all complete as per approved shop drawings & design mix as per the direction of the Engineer-in-charge. (Cost of strands should be paid separately). Note: Excess/less cement over the specified cement content used as per design mix is payable/recoverable separately)		

Code No.	Description	Unit	Rate Rs.
26.73.1	Concrete Grade-M-40 (cement content 400 kg )		
26.73.1.1	100 mm thick hollow core slab	metre	894.20
26.73.1.2	120 mm thick hollow core slab	metre	1009.40
26.73.1.3	150 mm thick hollow core slab	metre	1182.20
26.73.1.4	200 mm thick hollow core slab	metre	1396.40
26.73.1.5	250 mm thick hollow core slab	metre	1665.90
26.73.1.6	300 mm thick hollow core slab	metre	1935.50
26.73.1.7	350 mm thick hollow core slab	metre	2205.00
26.73.1.8	400 mm thick hollow core slab	metre	2205.00
26.73.2	Extra for using M-50 (Cement content 425 kg) instead of M-40	metre	
26.73.2.1	100mm thick hollow core slab	metre	15.90
26.73.2.2	120mm thick hollow core slab	metre	19.10
26.73.2.3	150mm thick hollow core slab	metre	23.90
26.73.2.4	200mm thick hollow core slab	metre	29.80
26.73.2.5	250mm thick hollow core slab	metre	37.20
26.73.2.6	300mm thick hollow core slab	metre	44.60
26.73.2.7	350mm thick hollow core slab	metre	52.10
26.73.2.8	400mm thick hollow core slab	metre	52.70
26.73.3	Extra for using M-60 (Cement content 440 kg) instead of M-40		
26.73.3.1	100mm thick hollow core slab	metre	25.50
26.73.3.2	120mm thick hollow core slab	metre	30.60
26.73.3.3	150mm thick hollow core slab	metre	38.30
26.73.3.4	200mm thick hollow core slab	metre	47.60
26.73.3.5	250mm thick hollow core slab	metre	59.50
26.73.3.6	300mm thick hollow core slab	metre	71.40
26.73.3.7	350mm thick hollow core slab	metre	83.30
26.73.3.8	400mm thick hollow core slab	metre	95.20

Code No.	Description	Unit	Rate Rs.
<b>26.74</b>	Fabrication and manufacturing of solid precast concrete element with provisions of shear keys, connecting loops, dowel tubes and proper lifting accessories for walls, beams, slabs, stairs, column etc, of various thickness, shape and size of different concrete grades manufactured in controlled factory environment with approved methodology including moulds (Pallet system, Tilts form, table moulds, battery moulds, vertical moulds, beam moulds, column moulds, staircase moulds, Facade mould, etc.), mixing, transporting and placing of concrete, vibrating, curing, finishing, making necessary cutout/holes of required sizes for services, yard handling & stacking all complete as per IS 11447:1985 and as per approved shop drawings and design mix as per the direction of Engineer- in-Charge (Cost of reinforcement, Mechanical, Electrical and Plumbing inserts will be paid separately). Note: Excess/less cement over the specified cement content used as per design mix is payable/recoverable separately).		
26.74.1	Concrete grade M-35 (Cement content 370 kgs)	cum	14375.20
26.74.2	Extra for using M-40 (Cement content 400 kg) instead of M-35	cum	212.60
26.74.3	Extra for using M-50 (Cement content 425 kg) instead of M-35	cum	389.70
26.74.4	Extra for using M-60 (Cement content 440 kg) instead of M-35	cum	496.00
<b>26.75</b>	Providing & laying in position Prestressing steel strands (low relaxation) on hollow core bed by using mechanical pulling arrangement like Rabbit/ Bed master including all accessories for Stressing & destressing operations as per approved make conforming to IS1343 & grade FY-1860 etc, complete as per drawings and direction of Engineer -in-charge.	kg	140.60
<b>26.76</b>	Transportation of Precast Elements by flat bed Trailer (Double / Triple axle 40ft Length with proper accessories like A frame etc) from factory, including the cost of loading , unloading & stacking at site with the help of required capacity cranes.		
26.76.1	Lead within 15km	MT	426.30
26.76.2	Add/Deduct over item 26.76.1 for every additional lead of 5 km	MT	97.20
<b>26.77</b>	Erection & Installation of Precast/Prestressed Concrete elements in correct & final position with proper line level and plumb at site making all arrangements (i.e cranes, push-pull jacks & all another T & P for lifting Placing & Alignment of elements, within erection		
26.77.1	tolerance as per IS 15916 as per approved shop drawings and all complete as per the direction of Engineer-in-Charge but excluding the cost of sim pads, non shrink grout and steel works i.e hangers. All work up to fifth floor.Prestressed hollow core Slab up to 200 mm thickness	sqm	132.80
26.77.2	Prestressed hollow core slab above 200 mm up to 400 mm thickness	sqm	242.10
26.77.3	Solid concrete wall elements	cum	1690.20

Code No.	Description	Unit	Rate Rs.
26.78	Providing & Applying weather proof sealant on outer joints of approved make confirming to IS & directed by Engineer-in-charge.		
	26.78.1 Sealant 25mmx10mm at joints	metre	137.00
26.79	Providing & Laying of levelling sim pads required sizes (5x5cm to 10x10cm) of PVC / Rubber to adjust level of bearing surface of supporting members as per the direction of Engineer in charge.		
	26.79.1 2mm thick	each	19.10
	26.79.2 5mm thick	each	25.80
	26.79.3 10mm thick	each	39.10
26.80	Providing & Grouting of dowel tubes / Shear keys / Joints of precast members with M-60 grade cementitious grout (Non Shrink) of approved make by suitable means ( Free flowing /pump),curing etc. Complete as per directions of Engineer- in-charge. (The payment shall be made on the basis of actual weight of approved grout injected.)		
	26.80.1 Stirrer mixed cementitious grout (non shrink) of approved make in dowel tubes / Shear keys / Joints of precast members.	kg	69.00
26.81	Providing and fixing Scaffolding net of required width made of high density Polyethylene UV stabilized knitted on warp knitting machines having density 100gm/sqm and shading coefficient minimum 75% around the construction site/ for vertical extension as per requirement including fastening/tying with building/ scaffolding pipes or with any other fixtures etc. complete as per direction of Engineer-in-Charge. (One time payment shall be made for providing Scaffolding net from start of work till completion of work including shifting if any. The Scaffolding net shall be the property of the contractor on completion of the work)	sqm	23.00
26.82	Providing and laying rigid EPS (cellular plastic material) blocks conforming to ASTM standards/specifications of minimum density 21.60 Kg/cum on floors, steps, stage etc.of required size and shape as per direction of the Engineer-in-Charge. This shall include the following operation. The EPS blocks shall be cut to required shape and sizes including cuttings for passing of services, joined together with synthetic resin adhesives as per relevant specifications and packed/placed in position for stepped floor or platform formation. The top and sides surfaces to be provided with GI woven wire mesh of aperture 5.45 mm (with wire dia 0.90 mm) secured to EPS blocks with wire pins/clips. Horizontal top surface to be provided with 20 mm thick cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate upto 6mm chippings) and vertical surface to be provided with 12mm cement plaster 1:4 (1 cement : 4 coarse sand). The concrete/plastered surfaces so prepared shall be scratched with wire brushes to form burrs, so as to act as base for flooring or veneering/panelling to be done later as per approved design (which shall be paid for separately complete as per direction of the Engineer-in-Charge.	sqm	1906.50

Code No.	Description	Unit	Rate Rs.
26.83	<p>Applying stamping finish to the top surface of freshly laid plain/reinforced cement concrete of specified grade in porticos, sidewalks, driveways, pool decks and open yards as per direction of the Engineer-in-Charge. The process shall include the following:                      The concrete shall be placed and screeded to the finished grade, and floated to a uniform surface by using standard finishing techniques. The approved color hardener@ 2.7 kg/sqm shall be applied evenly to the surface of the fresh concrete by the dry shake method by sprinkling in two or more shakes, floated after each shake and trowelled only after the final floating. The approved release agent @ 0.113 kg/sqm shall be applied evenly to the trowelled surface before stamping or the said release agent can be applied to the flexible polyurethane stamp moulds of approved design and in required sizes to achieve final stamped pattern. These stampings shall be placed on the surface of concrete in three to four pieces at a time and tapped gently with rammers of sufficient size &amp; weight to leave proper stamp marks and the process repeated for the remaining concrete surface till the whole surface to be stamped is completed within the time while concrete is in plastic stage of setting. After stamping, the curing shall be done as per manufactures specifications. After initial curing the imprinted joints shall be grouted using cement slurry mixed with color hardener as per the requirement. The surface shall be sealed by applying acrylic based sealer not less than 0.167 litre/sqm on finished surface.                      The construction joints shall be provided by groove cutting of size 4mm x 20mm in panel size 3m x 3 m or lesser as per the site conditions and filling the same with 10 mm baker rod and providing and laying (PU) Polyurethane based joint sealer of approved make as per manufacturer's specifications and finished by applying Polyurethane resin based top protective clear coat of minimum 80 micron applied with rollers on properly cured and dry clean surface. (Cost of concrete for flooring is not included in this item which shall be paid separately.)</p>	sqm	539.60
26.84	<p>Supplying and laying of Uni-Axial Woven Polyester Geogrid conforming to MORTH 3100 and IRC 113, as soil reinforcement/ basal reinforcement including accessories like tie-strips, nuts &amp; bolts and loops/lugs for joining reinforcing elements with the fascia panels, overlaps and other protective elements for synthetic geo-grids and all other activities required for reinforced soil walls, slopes etc complete as per design requirements, manufacturer specifications and as per direction of engineer-in-charge,</p>		
26.84.1	Uni Axial Woven polyester geogrid of minimum tensile strength 40KN/m in the Longitudinal direction and 20 KN/m in the Transverse direction	sqm	128.00
26.84.2	Uni Axial Woven polyester geogrid of minimum tensile strength 60KN/m in the Longitudinal direction and 20 KN/m in the Transverse direction.	sqm	150.50
26.84.3	Uni Axial Woven polyester geogrid of minimum tensile strength 80 KN/m in the Longitudinal direction and 30 KN/ m in the Transverse direction .	sqm	194.00

Code No.	Description	Unit	Rate Rs.
26.84.4	Uni Axial Woven polyster geogrid of minimum tensile strength 1 00KN/m in the Longitudinal direction and 30 KN/m in the Transverse direction	sqm	226.30
26.84.5	Uni Axial Woven polyster geogrid of minimum tensile strength 120KN/m in the Longitudinal direction and 30 KN/m in the Transverse direction	sqm	243.20
26.84.6	Uni Axial Woven polyster geogrid of minimum tensile strength 150KN/m in the Longitudina direction and 30 KN/m in the Transverse direction.	sqm	307.80
26.84.7	Uni Axial Woven polyster geogrid of minimum tensile strength 200KN/m mn the Longitudinal direction and 30 KN/m in the Transverse direction	sqm	364.00
26.84.8	Uni Axial Woven polyster geogrid of minimum tensile strength 250KN/m in the Longitudinal direction and 30 KN/m in the Transverse direction.	sqm	446.90
26.84.9	Uni Axial Woven polyster geogrid of minimum tensile strength 300KN/m in the Longitudinal direction and 30 KN/min the Transverse direction.	sqm	518.50
<b>26.85</b>	Supplying and laying of Bi-Axial Woven Polyster Geogrid conforming to MOR TH 3100 and IRCI 13, as soil reinforcement/basal reinforcement of granular road base and sub base, area stallilization, track bed stabilization, load transfer platforms Including accessories like tie-strips, nuts & bolts and loops/lugs for joining reinforcing elements with the facia pannels, overlaps and other protective elements for synthetic geo-grids and all other activities required etc. complete as per design requirements, manufacturer specifications and as per direction of engineer-in- charge.		
26.85.1	Bi Axial Woven polyster geogrid of minimum tensile strength 20KN/m in both Longitudinal and Transverse direction.	sqm	102.70
26.85.2	Bi Axial Woven polyster geogrid of minimum tensile strength 40KN/m in both Longitudinal and Transverse direction	sqm	161.70
26.85.3	Bi Axial Woven polyster geogrid of minimum tensile strength 60KN/m in both Longitudinal and Transverse direction	sqm	212.30
<b>26.86</b>	Providing and fixing factory made single extruded WPC (Wood Polymer Composite) solid door/window/Ceosetory windows & other Frames/Chowkhat comprising of virgin PVC polymer of K value 58-60 (Suspension Grade), calcium carbonate and natural fibers (wood powder/ rice husk/wheat husk) and non toxic additives (maximum toxicity index of 12 for 100 gms) fabricated with miter joints after applying PVC solvent cement and screwed with full body threaded star headed SS screws having minimum frame density of 750 kg/cum, screw withdrawal strength of 2200 N (Face) & 1100 N (Edge), minimum compressive strength of 58 N/mm, modulus of		



Code No.	Description	Unit	Rate Rs.
	elasticity 900 N/mm and resistance to spread of flame of Class A category with property of being termite/borer proof, water/moisture proof and fire retardant and fixed in position with M.S hold fast/lugs/SS dash fasteners of required dia and length complete as per direction of Engineer-In- Charge. (M.S hold fast/lugs or SS dash fasteners shall be paid for Separately).		
	Note: For WPC solid door/window frames, minus 5mm tolerance in dimensions i.e. depth and width of profile shall be acceptable. Variation in profile dimensions on plus side shall be acceptable but no extra payment on this account shall be made.		
26.86.1	Frame size 45 x 70 mm	metre	588.80
26.86.2	Frame size 45 x 85 mm	metre	806.80
26.86.3	Frame size 50 x 100 mm	metre	829.60
26.86.4	Frame size 50 x 125 mm	metre	951.30
26.86.5	Frame size 65 x 100 mm	metre	951.30
26.86.6	Frame size 65 x 125 mm	metre	1245.70
26.86.7	Frame size 65 x 150 mm	metre	1487.80
<b>26.87</b>	Providing and fixing factory made single extruded WPC {Wood Polymer Composite} solid plain flush door shutter of required size comprising of virgin polymer of K value 58-60 Suspension Grade), calcium carbonate and natural fibers {wood powder/ rice husk/wheat husk) and non toxic additives {maximum toxicity index of 12 for 100 gms) having minimum density of 650 kg/cum and screw withdrawal strength of 1800N {Face) & 900N (Edge), minimum compressive strength 50 N/mm, modulus of elasticity 850 N/mm and resistance to spread of flame of Class A category with property of being termite/borer proof, water/moisture proof and fire retardant and fixing with stainless steel butt hinges of required size with necessary full body threaded star headed counter sunk S.S screws, all as per direction of Engineer-In• Charge. {Note: stainless steel butt hinges and necessary S.S screws shall be paid separately)		
26.87.1	30 mm thick	sqm	4071.90
26.87.2	35 mm thick	sqm	4715.40
<b>26.88</b>	Providing and fixing factory made single extruded WPC {Wood Polymer Composite) solid decorative type flush door shutter of required size comprising of virgin polymer of K value 58-60 (Suspension Grade), calcium carbonate and natural fibers {wood powder/ rice husk/wheat husk) and non toxic additives (maximum toxicity index of 12 for 100 gms) having minimum density of 650 kg/cum and screw withdrawal strength of 1800 N (Face) & 900 N (Edge), minimum compressive strength 50 N/mm', modulus of elasticity 850 N/mm' and resistance to spread of flame of Class A category with property of being termite/borer proof, water/moisture proof and fire retardant. WPC to be laminated with PVC foil of		



Code No.	Description	Unit	Rate Rs.
	minimum 14 microns thick of approved design pasted with hot melt adhesive on both faces of shutter and fixing with stainless steel butt hinges of required size with necessary full body threaded star headed counter sunk 5.5 screws, all as per direction of Engineer-In- Charge. {Note: stainless steel butt hinges and necessary 5.5 screws shall be paid separately)		
26.88.1	30 mm thick	sqm	4366.20
26.88.2	35 mm thick	sqm	5009.80
<b>26.89</b>	Providing and fixing factory made single extruded WPC (Wood Polymer Composite) solid board one side white colour and other side of board laminated with PVC foil of minimum 14 micron thickness of approved design pasted with hot melt adhesive for cup boards, work stations and bathroom/kitchen cabinet etc. of required sizes comprising of virgin polymer of K value 58-60 (Suspension Grade), calcium carbonate and natural fibers (wood powder/ rice husk/wheat husk) and non toxic additives (maximum toxicity index of 12 for 100 gms) having minimum density of 650 kg/cum and screw withdrawal strength of 1800 N (Face) & 900 N (Edge), minimum compressive strength 50 N/mm, modulus of elasticity 850 N/mm and resistance to spread of flame of Class A category with property of being termite/borer proof, water/moisture proof and fire retardant and fixing with stainless steel piano hinges/soft close clip on concealed hinges of required size with necessary full body threaded star headed counter sunk S.S screws, all as per direction of Engineer-In• Charge. (Note: stainless steel piano hinges/soft close clip on concealed hinges and necessary S.S screws shall be paid separately)		
26.89.1	18 mm thick	sqm	2745.00
26.89.2	25 mm thick	sqm	3605.30
<b>26.90</b>	Providing and fixing factory made single extruded WPC (Wood Polymer Composite) solid plain white color board for backing of cup boards and bathroom/kitchen cabinets etc. of required size comprising of virgin polymer of K value 58-60 (Suspension Grade), calcium carbonate and natural fibers (wood powder/ rice husk/wheat husk) and non toxic additives (maximum toxicity index of 12 for 100 gms) having minimum density of 650 kg/cum and screw withdrawal strength of 1800 N (Face) & 900 N (Edge), minimum compressive strength 50 N/mm, modulus of elasticity 850 N/mm and resistance to spread of flame of Class A category with property of being termite/borer proof, water/moisture proof and fire retardant and fixing with stainless steel screws etc. all as per direction of Engineer-In- Charge. (Note: stainless steel screws shall be paid separately)		
26.90.1	6 mm thick	sqm	927.40
26.90.2	7 mm thick	sqm	1529.50

Code No.	Description	Unit	Rate Rs.
26.91	<p>Providing and fixing factory made 18 mm thick single extruded WPC (Wood Polymer Composite) solid plain white colour board Jali, CNC (Computer numeric control) routed of approved design by Engineer-in -charge which are machine cut for duct/shaft covering, partitions and facades comprising of virgin polymer of K value 58-60 (Suspension Grade), calcium carbonate and natural fibers (wood powder/ rice husk/wheat husk) and non toxic additives(maximum toxicity index of 12 for 100 gms) having minimum density of 650 kg/cum and screw withdrawal strength of 1800 N (Face) minimum compressive strength 50 N/mm<sup>2</sup>, modulus of elasticity 850 N/mm<sup>2</sup> and resistance to spread of flame of ClassA category with properties of being termite/borer proof,water/moisture proof and fire retardant and fixing on M.S (mild steel) frame made of 25 x 251.5 mm square hollow box section including applying a priming coat of approved steel primer, placed at grid made at 1.0x 1.0 m or as per requirement at site with necessary stainless steel fasteners and SS screws etc., all complete as per direction of Engineer-In-Charge. (Note: M.S (mild steel) framework with priming coat and necessary SS fasteners and SS screws shall be paid separately.</p>	sqm	3245.20
26.92	<p>Providing and fixing of fa~ade at all heights with extruded hollow Clay / Terracotta ventilated rain screen tiles of height 250/ 300/ 400mm and length of 595 mm of approved texture, design and pattern having Flexural Strength/ Modulus of Rupture of &gt; 14 N/m and maximum water absorption of 10% tested as per ISO 10545-4:2004(E) and ISO 10545-3:1995 respectively in true level fixed to a supporting aluminium framework{Alloy 6063 T5/T6} consisting of vertical 'T' (for intermediates)/ 'L'(for ends/ termination)/ Tubular sections (at corners)of size 80x60x2mm/40x60x2mm/ 40x40x2mm respectively, spaced at maximum spacing of 600mm c/c matching to the tile vertical grid, and horizontal aluminium 'C'-clamps of size 56x25x2mm thickness of length 150mm at junction of tiles and of length 75mm at wall ends/ corners fixed on top of the vertical sections at spacing of 250/ 300/ 400mm c/c matching to the tile horizontal grid with two numbers of self-drilling /self-tapping SS screws of size 5.5x25 mm with EPDM washers. The vertical 'T'/'L' Tubular' sections shall be fixed to the wall using HOG (hot-dip-galvanized) steel L-brackets (galvanizing thickness of minimum 80 microns)of size 110x80x6 mm at intermediate vertical aluminium profiles and of size 220x110x12 mm at outer corners and stainless steel grade 304,MIO full threaded anchor fasteners with nylon sleeve 100mm long (for brick work) and M8 expansion anchor fasteners 75mm long for concrete surf ace, spacing of brackets to be based on a structural/ static calculation. The brackets shall be of length 175mm at junction of two vertical aluminium profiles and of length 100mm at intermediate points of vertical profiles and shall be fixed to the vertical aluminium T/L / Tubular profiles using two numbers self-drilling/ self-tapping SS screws of size 5.5x25mm with EPDM washers. EPDM gaskets to be fixed in between brackets and vertical profiles. The tiles shall be mounted on the 'C' clamps such that the tiles are</p>		

Code No.	Description	Unit	Rate Rs.
	<p>supported at top and bottom at both ends. The tiles shall be additionally secured to the horizontal 'C' clamps using special SS clips of required size which shall be inserted and pressed into position on the 'C' clamps holding the tiles and the cut tiles shall be glued at points to the horizontal 'C' clamps by using MS Polymer sealant adhesive. The vertical joint open groove between two adjacent tiles shall be 5mm. The tiles and system shall be designed to resist wind load as per IS 875 (Part 3) according to different zones. The tiles shall be installed using the ventilated rain screen principle with provision for natural ventilation of the space between the facade tiles and the structural wall. The work shall be carried out as per specification, drawing and as per direction of the Engineer-in-Charge.</p> <p>Note : Scaffolding wherever required to be paid separately.</p>		
26.92.1	With 16mm thickness (+/- 10%) terracotta tiles of grey colour	sqm	5394.00
26.92.2	With 16mm thickness (+/- 10%) terracotta tiles of other than grey colour	sqm	5167.10
26.93	<p>Providing and fixing of facade at all heights with extruded hollow Clay / Terracotta ventilated rain screen tiles of height 259/ 309/ 409mm and length of 1190 mm of approved texture, design and pattern having Flexural Strength/ Modulus of Rupture of <math>&gt; 14 \text{ N/m}^2</math> and maximum water absorption of 10% tested as per ISO 10545-4:2004(E) and ISO 10545-3:1995 respectively in true level fixed to a supporting aluminium framework (Alloy 6063 T5/T6) consisting of vertical 'T' (for intermediates)/ 'L' (for ends/ termination)/ Tubular sections (at corners) of size 80x60x2mm/40x60x2mm/ 40x40x2mm respectively, spaced at maximum spacing of 1200mm c/c matching to the tile vertical grid, and horizontal aluminium 'C'-clamps of size 56x34x2 mm thickness of length 150mm at junction of tiles and of length 75mm at wall ends/ corners fixed on top of the vertical sections at spacing of 250/ 300/ 400mm c/c matching to the tile horizontal grid with two numbers of self-drilling / self-tapping SS screws of size 5.5x25 mm with EPDM washers. The vertical 'T'/ 'L'/ Tubular' sections shall be fixed to the wall using HDG (hot-dip-galvanized) steel L• brackets (galvanizing thickness of minimum 80 microns) of size 110x80x6 mm at intermediate vertical aluminium profiles and of size 220x110x12 mm at outer corners and stainless steel grade 304, M10 full threaded anchor fasteners with nylon sleeve 100mm long (for brick work) and M8 expansion anchor fasteners 75mm long for concrete surface, spacing of brackets to be based on a structural/ static calculation. The brackets shall be of length 175mm at junction of two vertical aluminium profiles and of length 100mm at intermediate points of vertical profiles and shall be fixed to the vertical aluminium T/L / Tubular profiles using two numbers self-drilling/ self-tapping SS screws of size 5.5x25 mm with EPDM washers. EPDM gaskets to be fixed in between brackets and vertical profiles. The tiles shall be</p>		

Code No.	Description	Unit	Rate Rs.
	<p>mounted on the 'C' clamps such that the tiles are supported at top and bottom at both ends. The tiles shall be mounted on the C-clamps with EPDM profiles in between such that the tiles are supported at top and bottom at both ends. The vertical joint open groove between two adjacent tiles shall be 10mm. The tiles and system shall be designed to resist wind load as per IS 875 (Part 3) according to different zones. The tiles shall be installed using the ventilated rain screen principle with provision for natural ventilation of the space between the facade tiles and the structural wall. The work shall be carried out as per specification, drawing and as per direction of the Engineer-in-Charge.</p> <p>Note : Scaffolding wherever required to be paid separately.</p>		
26.93.1	With 24mm thickness (+/- 10%) terracotta tiles of grey colour	sqm	5233.80
26.93.2	With 24mm thickness (+/- 10%) terracotta tiles of other than grey colors	sqm	5030.50

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**SUB HEAD : 27.0**

**WET RISER & SPRINKLER SYSTEM**

**FOR FIRE SAFETY**

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## 27.0 Wet Riser & Sprinkler System for Fire safety

Code No.	Description of Item	Unit	Rate Rs.	
<b>PUMPS</b>				
1	(a) Horizontal type, multistage, centrifugal, split casing pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal conforming to IS 1520.			
	(b) Suitable HP Squirrel cage induction motor, TEFC, synchronous speed 1500 RPM, suitable for operation on 415 volts, 3 phase 50 Hz, AC supply with IP 55 protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS-325.			
	(c) M.S. fabricated Common base plate, coupling, coupling guard, foundation bolts etc. as required.			
	(d) Suitable cement concrete foundation duly plastered with anti vibration pads.			
	1.1	2850 lpm at 88 m Head	Set	450985.00
	1.2	2850 lpm at 70 m Head	Set	402819.00
	1.3	2850 lpm at 56 m Head	Set	401481.00
	1.4	2280 lpm at 88 m Head	Set	401481.00
	1.5	2280 lpm at 70 m Head	Set	366695.00
	1.6	2280 lpm at 56 m Head	Set	329233.00
	1.7	1620 lpm at 88 m Head	Set	366695.00
	1.8	1620 lpm at 70 m Head	Set	329233.00
1.9	1620 lpm at 56 m Head	Set	281067.00	
	Note: *The head of the pump is selected in a manner so as to give a minimum 3.5kgf/cm <sup>2</sup> pressure at the highest/farthest point.			
2	a) Supplying, installation, testing and commissioning of diesel engine driven main fire pump suitable for automatic operation and consisting of following, complete in all respects, as required : (Diesel Drive Pump)Horizontal type, multistage, centrifugal pump of cast of iron body and bronze impeller with stainless steel shaft, mechanical seal conforming to IS 1520.			
	b) Suitable HP, 1500 RPM water cooled with radiator, diesel engine conforming to relevant IS standard complete with auto starting mechanism, 12 /24 volts electric starting equipment, diesel tank, exhaust pipe extended upto 10 m outside pump house duly insulated with 50 mm thick glass wool with 1.0 mm thick aluminium sheet cladding, residential silencer, instruments and protection as per standard specification, stop solenoid for auto stop in the event of fault with audio indications, painted with post office red colour etc. as required.			



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Code No.	Description of Item	Unit	Rate Rs.
	c) M.S fabricated, common base plate, coupling, coupling guard, foundation bolts etc. as required.Suitable cement concrete foundation duly plastered and with anti vibration pads.		
2.1	2850 lpm at 88 m Head	Set	685713.00
2.2	2850 lpm at 70 m Head	Set	617077.00
2.3	2850 lpm at 56 m Head	Set	613464.00
2.4	2280 lpm at 88 m Head	Set	636209.00
2.5	2280 lpm at 70 m Head	Set	612126.00
2.6	2280 lpm at 56 m Head	Set	609450.00
2.7	1620 lpm at 88 m Head	Set	629653.00
2.8	1620 lpm at 70 m Head	Set	592057.00
2.9	1620 lpm at 56 m Head	Set	511781.00
	Note: * The head of the pump is selected in a manner so as to give a minimum 3.5kgf/cm <sup>2</sup> pressure at the highest/ farthest point.		
3	a) Supplying, installation, testing and commissioning of electric driven pressurisation pump suitable for automatic operation and consisting of following, complete in all respects, as required : <b>(Jockey Pump)</b>		
	b) Horizontal type, multistage, centrifugal pump of cast iron body and bronze impeller with stainless steel shaft, mechanical seal conforming to IS : 1520.		
	c) Suitable HP squirell cage induction motor TEFC type suitable for operation on 415 volts, 3 phase 50 Hz AC supply with IP 55 class of protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS : 325.		
	d) M.S.fabricated Common base plate, coupling, coupling guard, foundation bolts etc. as required.		
	e) Suitable cement concrete foundation duly plastered and with anti vibration pads.		
3.1	180 lpm at 88 m Head	Set	125370.00
3.2	180 lpm at 70 m Head	Set	101287.00
3.3	180 lpm at 56 m Head	Set	79880.00
3.4	300 lpm at 88 m Head	Set	165508.00
3.5	300 lpm at 70 m Head	Set	125637.00
3.6	300 lpm at 56 m Head	Set	113328.00



Code No.	Description of Item	Unit	Rate Rs.
4	Supplying, installation, testing and commissioning of electric driven terrace pump suitable for automatic operation and consisting of following, complete in all respects, as required: <b>(Terrace Pump)</b>		
	(a) Horizontal type, multistage, centrifugal, split casing pump of cast iron body & bronze impeller with stainless steel shaft, mechanical confirming to IS : 1520		
	(b) Suitable HP squirrel cage induction motor TEFC type suitable for operation on 415 volts, 3 phase, 50 Hz, AC supply with IP55 class of protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS-325.		
	(c) M.S.fabricated common base plate, coupling, coupling guard, foundation bolts etc.as required.		
	(d) Suitable cement concrete foundation duly plastered and with anti vibration pads.		
	4.1	900 lpm at 35 m Head	Set
4.2	450 lpm at 35 m Head	Set	84015.00
<b>CONTROL PANELS</b>			
5	Fabrication, supply, Installation testing & commissioning of Electrical control panel of cubical construction, floor mounted type, fabricated out of 2mm thick CRCA sheet, compartmentalised with hinged lockable doors, dust and vermin proof, powder coated of approved shade after 7 tank treatment process, cable alley, interconnection with suitable size copper conductor cable/solid copper strip, having switchgears and accessories, mountings and internal wiring, earth terminals, numbering etc. complete in all respect, suitable for main fire pump, pressurisation pump & diesel pump set complete as per CPWD specification with following in coming and Outgoings, suitable for operation on 415V, 3 phase, 50Hz Ac Supply with enclosure protection class IP 42 as required :		
5.1	<b>INCOMING</b>		
	250A, 50kA 4 Pole MCCB, Ics=100% Icu rating Digital Voltmeter 0-500V with selector switch Digital Ammeter (0-250 A) with selector switch & CTs etc.		
	LED type RYB phase indicating lamps, ON, OFF, trip indicating lamps Set of Copper Bus Bar 300A		
	<b>OUTGOING</b> ( Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps)		

*[Handwritten signatures and initials]*

Code No.	Description of Item	Unit	Rate Rs.
	<b>Main Fire Pump</b> 125 A, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 60 HP pump with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation.		
	<b>Jockey Pump</b> 63 A, 50kA TPN MCCB, Ics=100% Icu, with suitable HP fully automatic Star/Delta starter with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation.	Set	248187.00
	<b>DIESEL ENGINE CONTROL</b> Control for diesel engine comprising -Automatic/Manual selector switch & 3 attempts starting device, timers and relays as required, push buttons, start/stop in manual mode Indicating lamp for high/Low Lub. Oil pressure, High Water Temp and Engine on indication Battery charger suitable for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter All standard relays and accessories for automatic operation of diesel engine System Controller Designing, Supply, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specification		
5.2	Incomings		
	400A, 50kA 4 Pole MCCB, Ics=100% Icu rating		
	Digital Voltmeter 0-500V with selector switch Ammeter (0-400 A) with selector switch & CTs etc.		
	LED type RYB phase indicating lamps, ON, OFF, trip indicating lamps Set of Copper Bus Bar 500A		
	<b>Outgoings</b> ( Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps)		
	<b>Main Fire Pump</b> 200 A, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 75 hp pump with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation.		

Code No.	Description of Item	Unit	Rate Rs.
	<p><b>Jockey Pump</b> 100 A, 50kA TPN MCCB, Ics=100% Icu, with suitable HP fully automatic Star/Delta starter with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation.</p>	Set	290734.00
	<p><b>Diesel Engine Control</b> Control for diesel engine comprising -Automatic/Manual selector switch &amp; 3 attempt starting device, timers and relays as required, push buttons, start/stop in manual mode Indicating lamp for high/Low Lub. Oil pressure, High Water Temp and Engine on indication Battery charger suitable for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter All standard relays and accessories for automatic operation of diesel engine System Controller Designing, Supply, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specifications.</p>		
<b>5.3</b>	<p><b>Incomings</b> 630A, 50kA 4 Pole MCCB, Ics=100% Icu rating Digital Voltmeter 0-500V with selector switch Ammeter (0-630 A) with selector switch &amp; CTs etc. LED type RYB phase indicating lamps, ON, OFF, trip indicating lamps Set of Copper Bus Bar 800Amps</p>		
	<p><b>Outgoings</b> ( Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps)</p>		
	<p><b>Main Fire Pump</b> 250 A, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 100 hp pump with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation.</p>		
	<p><b>Jockey Pump</b> 125 A, 50kA TPN MCCB, Ics=100% Icu, with Suitable HP fully automatic Star/Delta starter with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation.</p>	Set	326189.00


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Code No.	Description of Item	Unit	Rate Rs.
	<p><b>Diesel Engine Control</b> Control for diesel engine comprising -Automatic/Manual selector switch &amp; 3 attempts starting device, timers and relays as required, push buttons, start/stop in manual mode Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indication Battery charger suitable for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter All standard relays and accessories for automatic operation of diesel engine System Controller</p>		
	Designing, Supply, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specification		
<b>5.4</b>	<p><b>Incomings</b> 400A, 50kA 4 Pole MCCB, Ics=100% Icu Rating Digital Voltmeter 0-500V with selector switch Ammeter (0-400 A) with selector switch &amp; CTs etc. LED type RYB phase indicating lamps, ON, OFF, trip indicating lamps Set of Copper Bus Bar 500Amps</p>		
	<p><b>Outgoings</b> ( Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps)</p>		
	<p><b>Main Fire Pumps</b> 125 Amp, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 60 hp pump with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. - 2 sets</p>		
	<p><b>Jockey Pump</b> 63 Amp, 50kA TPN MCCB, Ics=100% Icu, with Suitable HP fully automatic Star/Delta starter with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. - 2 sets</p>	Set	375827.00
	<p><b>Diesel Engine Control</b> Control for diesel engine comprising -Automatic/Manual selector switch &amp; 3 attempts starting device, timers and relays as required, push buttons start/stop in manual mode Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indication Battery charger suitable for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter</p>		

Code No.	Description of Item	Unit	Rate Rs.
	All standard relays and accessories for automatic operation of diesel engine System Controller Designing, Supply, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specification		
<b>5.5</b>	<b>Incomings</b> 630A, 50kA 4 Pole MCCB, Ics=100% Icu Rating Digital Voltmeter 0-500V with selector switch Ammeter (0-630 A) with selector switch & CTs etc.		
	LED type RYB phase indicating lamps, ON, OFF, trip indicating lamps Set of Copper Bus Bar 500A		
	<b>Outgoings</b> (Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps)		
	<b>Main Fire Pump</b> 200 Amp, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 75 hp pump with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. - 2 sets		
	<b>Jockey Pump</b> 100 Amp, 50kA TPN MCCB, Ics=100% Icu, with Suitable HP fully automatic Star/Delta starter with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. - 2 sets	Set	453828.00
	<b>Diesel Engine Control</b> Control for diesel engine comprising -Automatic/Manual selector switch & 3 attempts starting device, timers and relays as required, push buttons, start/stop in manual mode Indicating lamp for high/Low Lub. Oil pressure, High Water Temp and Engine on indication		
	Battery charger suitable for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter		
	All standard relays and accessories for automatic operation of diesel engine		

Code No.	Description of Item	Unit	Rate Rs.
	System Controller Designing, Supply, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specification		
<b>5.6</b>	<b>Incomings</b>		
	LED type RYB phase indicating lamps, ON, OFF, trip indicating lamps Set of Copper Bus Bar 500A		
	<b>Outgoings</b> ( Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps)		
	<b>Main Fire Pump</b> 250 Amp, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 100 hp pump with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation- 2 sets		
	<b>Jockey Pump</b> 125 Amp, 50kA TPN MCCB, Ics=100% Icu, with Suitable HP fully automatic Star/Delta starter with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. - 2 sets	Set	581468.00
	<b>DIESEL ENGINE CONTROL</b> Control for diesel engine comprising - Automatic/Manual selector switch & 3 attempts starting device, timers and relays as required, push buttons, start/stop in manual mode Indicating lamp for high/ Low Lub.Oil pressure, High Water Temp and Engine on indication Battery charger suitable for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter All standard relays and accessories for automatic operation of diesel engine		
	<b>System Controller</b>		
	Designing, Supply Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specification		

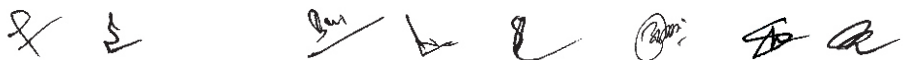


Code No.	Description of Item	Unit	Rate Rs.
<b>PIPES &amp; ACCESSORIES</b>			
<b>6</b>	Providing laying, testing & commissioning of 'C' class heavy duty MS Pipe conforming to IS 1239/3589 i/c fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. in ground including welding, excavation & providing cement concrete blocks as supports, anticorrosive treatment with coaltar/asphalt tape as per IS 10221, refilling the trench etc. of following sizes complete as required.		
6.1	200 mm. dia (wall thickness = 6.3 mm)	m	3073.00
6.2	150 mm. Dia	m	2272.00
<b>7</b>	Providing, laying, testing & commissioning of 'C' class heavy duty <b>MS pipe</b> conforming to IS 3589/IS:1239 including Welding, fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required shade complete as required :		
7.1	25 mm dia	m	349.00
7.2	32 mm dia	m	406.00
7.3	40 mm dia	m	496.00
7.4	50 mm dia	m	633.00
7.5	65 mm dia	m	816.00
7.6	80 mm dia	m	935.00
7.7	100 mm dia	m	1298.00
7.8	150 mm dia	m	1835.00
7.9	200 mm dia (wall thickness 6.3 mm)	m	2668.00
7.10	250 mm dia (wall thickness 6.3 mm)	m	3269.00
7.11	300 mm dia (wall thickness 7.1 mm)	m	3834.00
<b>8</b>	Providing, laying, testing & commissioning of 'B' class heavy duty G.I. pipe conforming to IS 1239 including welding, fittings like elbows, tees, flanges, tapers, nuts, bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required shade complete as required :		
8.1	25 mm dia	m	435.00
8.2	32 mm dia	m	506.00
8.3	40 mm dia	m	609.00
8.4	50 mm dia	m	706.00
8.5	65 mm dia	m	888.00
8.6	80 mm dia	m	1066.00
8.7	100 mm dia	m	1427.00
8.8	150 mm dia	m	20417.00

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Code No.	Description of Item	Unit	Rate Rs.
9	Supplying and fixing single headed <b>internal hydrant valve</b> with instantaneous Gunmetal/Stainless Steel coupling of 63 mm dia with cast iron wheel ISI marked conforming to IS 5290 (Type -A) with blank Gunmetal/Stainless Steel cap and chain as required :		
	9.1 Single headed Gunmetal	Set	7215.00
	9.2 Single headed Stainless steel	Set	5692.00
10	Supplying and fixing Single headed external yard hydrant valve with 1 No. 63 mm dia instantaneous FM Gunmetal/Stainless Steel coupling and cast iron wheel, ISI marked, conforming to IS 5290 (type A) with blank Gunmetal/Stainless Steel cap and chain as required :		
	10.1 Single headed Gunmetal	Set	7215.00
	10.2 Single headed Stainless steel	Set	5692.00
11	Supplying, fixing, testing and commissioning of butterfly valve of PN 1.6 rating with bronze/gunmetal seat duly ISI marked complete with nuts, bolts, washers, gaskets conforming to IS 13095 of following sizes as required :		
	11.1 40 mm dia	Set	3351.00
	11.2 50 mm dia	Set	3363.00
	11.3 65 mm dia	Set	3834.00
	11.4 80 mm dia	Set	4561.00
	11.5 100 mm dia	Set	6015.00
	11.6 150 mm dia	Set	8187.00
	11.7 200 mm dia	Set	14542.00
	11.8 250 mm dia	Set	19763.00
	11.9 300 mm dia	Set	24035.00
12	Supplying, fixing, testing & commissioning of <b>double flanged sluice valve</b> of rating PN 1.6 with non rising spindle, bronze/gun metal seat, ISI marked complete with nuts, bolts, washers, gaskets and conforming to IS 780 of following sizes as required :		
	12.1 40 mm dia	Set	5481.00
	12.2 50 mm dia	Set	6901.00
	12.3 65 mm dia	Set	8817.00
	12.4 80 mm dia	Set	10311.00
	12.5 100 mm dia	Set	14068.00
	12.6 150 mm dia	Set	22275.00
	12.7 200 mm dia	Set	39056.00
	12.8 250 mm dia	Set	46313.00
	12.9 300 mm dia	Set	65707.00



Code No.	Description of Item	Unit	Rate Rs.
13	Supplying and fixing orifice plate made out of 6 mm thick stainless steel (Grade 304) with orifice of required size to be fitted between flange & landing valve of external and internal hydrants to reduce pressure at the outlet to the level of 3.5 kg/cm <sup>2</sup> complete as required.	Each	1230.00
14	Providing, installation, testing and commissioning of <b>non-return valve</b> of following sizes confirming to IS: 5312 complete with rubber gasket, GI bolts, nuts, washers etc.as required :		
14.1	40 mm dia	Set	5361.00
14.2	50 mm dia	Set	5361.00
14.3	65 mm dia	Set	5995.00
14.4	80 mm dia	Set	7256.00
14.5	100 mm dia	Set	10436.00
14.6	125 mm dia	Set	15356.00
14.7	150 mm dia	Set	17259.00
14.8	200 mm dia	Set	28875.00
14.9	250 mm dia	Set	45042.00
14.10	300 mm dia	Set	60356.00
15	Providing, installation, testing and commissioning of stainless steel <b>Y-strainer</b> fabricated out of 1.6 mm thick stainless steel, Grade 304, sheet with 3 mm dia holes with stainless steel flange.		
15.1	80 mm dia	Each	4298.00
15.2	100 mm dia	Each	6006.00
15.3	150 mm dia	Each	10243.00
15.4	200 mm dia	Each	21769.00
15.5	250 mm dia	Each	27001.00
15.6	300 mm dia	Each	36254.00
16	Supplying and fixing 63 mm dia, 15 m long <b>RRL hose</b> pipe with 63 mm dia male and female couplings duly bound with GI wire, rivets etc. conforming to IS 636 (type-A) as required :		
16.1	Gunmetal	Set	5204.00
16.2	Stainless steel (Grade 304)	Set	4443.00
17	Supplying and fixing <b>first-aid Hose Reel</b> with MS construction spray painted in post office red, conforming to IS 884 complete with the following asrequired.		
	20 mm nominal internal dia water hose thermoplastic (Textile reinforced) type -2 as per IS: 12585		
	20 mm nominal internal dia gun metal globe valve & nozzle.		
	Drum and brackets for fixing the equipments on wall.		

Code No.	Description of Item		Unit	Rate Rs.
	Connections from riser with 25 mm dia stop gun metal valve & M.S. Pipe and socket.			
	17.1	30 m	Set	7869.00
	17.2	40 m	Set	9565.00
<b>18</b>	Supplying & fixing 63 mm dia gun metal <b>short branch pipe</b> with 20 mm nominal internal diameter size nozzle conforming to IS 903 suitable for instantaneous connection to interconnect hose pipe coupling as required :			
	18.1	Gunmetal	Nos.	2390.00
	18.2	Stainless steel (Grade 304)	Nos.	1629.00
<b>19</b>	Supplying and fixing of <b>fire brigade connection</b> of cast iron body with gun metal male instantaneous inlet couplings complete with cap and chain as reqd. for suitable dia MS pipe connection conforming to IS 904 as required :			
	19.1	2 way-100 mm dia M.S. Pipe	Set	6301.00
	19.2	4 way - 150 mm dia M.S. Pipe	Set	13606.00
	19.3	3 way - 150 mm dia M.S. Pipe	Set	9041.00
<b>20</b>	Supplying and fixing air vessel made of 250 mm dia, 8 mm thick MS sheet, 1200 mm in height with air release valve on top and flanged connection to riser, drain arrangement with 25 mm dia gun metal wheel valve with required accessories, pressure gauge and painting with synthetic enamel paint of approved shade as required.		Set	17659.00
<b>21</b>	Providing, fixing, testing & commissioning of 15mm dia quartzoid bulb type sprinklers of rating 68 degree centigrade with required accessories :			
	21.1	Pendent Sprinkler	Each	401.00
	21.2	Upright Sprinkler	Each	401.00
	21.3	Horizontal side wall sprinkler	Each	497.00
	21.4	Concealed sprinkler	Each	1322.00
<b>22</b>	Providing & fixing of <b>pressure switch</b> in M.S. pipe line including connection etc. as required.		Each	1435.00
<b>23</b>	Providing & fixing flow switch in following sizes M.S. pipe including connection etc as required.			
	23.1	100mm dia	Each	7081.00
	23.2	150mm dia	Each	8603.00
<b>24</b>	Providing, fixing, testing & commissioning of <b>installation control valve</b> of cast iron body, brass/bronze working parts comprising of water motor alarm, bronze seat clapper, clapper arm and hydraulically driven mechanical gong bell to sound continuous alarm when the wet riser/sprinkler system activates, pressure gauges, emergency releases, strainer, pressure switch, cock valve complete with drain valve and bypass, test control box, ball valves, MS pipe of required size, flanges, orifice plate, gasket etc of following sizes as required :			

Code No.	Description of Item		Unit	Rate Rs.
	24.1	80mm dia	Set	42107.00
	24.2	100mm dia	Set	44435.00
	24.3	150mm dia	Set	47667.00
<b>25</b>	Supplying, installation, testing & commissioning of sprinkler flexible pipe (UL Listed) of stainless steel complete with 15 NPT on reducer thread with maximum working pressure of 175 PSI test pressure of 875 PSI (Burst) with branch line (Inlet) 25mm NPT male thread to sprinkler head (Outlet) 15mm NPT female thread with reducer, nipple, 2 side brackets, center bracket, stockbar of following sizes complete as required.			
	25.1	700mm	Set	1266.00
	25.2	1000mm	Set	1467.00
	25.3	1200mm	Set	1561.00
	25.4	1500mm	Set	1724.00
<b>26</b>	Supplying, installation, testing & commissioning of deluge valve (to be used for water curtains) UL listed with wet pilot basic trim assembly for DVA with test and alarm, drip and drain valve with water motor gong complete as required.			
	26.1	50 mm dia	Set	82129.00
	26.2	80 mm dia	Set	82734.00
	26.3	100 mm dia	Set	92777.00
	26.4	150 mm dia	Set	115053.00
<b>27</b>	Providing, installation, testing & commissioning of water curtain nozzle 15mm dia nickel chrome plated brass, BSPT, K-factor as per design consideration complete as required.		Each	581.00
<b>28</b>	Providing, installation, testing & commissioning of electric release trim assembly for deluge wall with two way solenoid valve, weather proof operation on 24 volts DC supply complete as required.		Set	7316.00
<b>29</b>	Providing, installation, testing & commissioning of adjustable rosette plate for 15mm dia in white finish UL Listed or FM approved complete as required.		Each	163.00
<b>Note:</b>	(a) For Cabling, earthing and cable trays please refer to DSR (E&M) (b) For digging of hard & soft soil please refer to DSR (Civil)			

*[Handwritten signatures and initials]*

