



**CONSTRUCTION
OF INTIMATE
THEATRE AND
O.A.T. AT
BHAWARTAL
PARK,
JABALPUR, M.P.**

AGENCY:

**JABALPUR SMART CITY
LIMITED**

BILL OF QUANTITIES

COST:

RS 1296.00 LACS

**DETAILED ESTIMATE FOR INTIMATE THEATRE AT BHAWARTAL PARK,
JABALPUR**

1	Name of Work	:	INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR
2	Location	:	BHAWARTAL PARK, JABALPUR
3	Amount Of Estimate	:	1296.00 LACS
4	Authority	:	JABALPUR SMART CITY LIMITED
5	Land	:	NAGAR NIGAM, JABALPUR, M.P.
6	History	:	CENTRAL AND ONE OF OLDEST PARKS OF JABALPUR BEING UPGRADED TO AN CULTURAL HUB OF THE CITY VIA AN INTIMATE THEATRE.
7	Necessity	:	As per the requirements of the JSCL
8	Standard applicable		As per I.S. Norms
9	Facility provided		RCC framed structure new buidling LEVEL 1 BASEMENT AREA @ -2300 = 1580 SQM LEVEL 2 GROUND FLOOR @ +1300 =440 SQM Total b.u.a. of project = 2020 SQM
10	Provisions for		The construction work is proposed Basement floor, Ground and Terrace Garden (7.0m avg height in auditorium and 3.6 m floor to floor ht approx in other areas)
i)	Foundation		Piles and R.CC. raft Foundtion. Grade of concrete : M15 for pcc and M30 for RCC (RMC)
ii)	Plinth filling	:	Hard murrum of 0.4 M avg thickness and stone dust 0.2 M thk.
iii)	Superstructure	:	Superstructure shall be of RCC framed structure with M-30 RCC. (RMC)
iv)	walls	:	A.A.C blocks walls, 100 or 200 th.
v)	Roof	:	Roof of the building shall be RCC slab with water proofing admixture and proper water proofing treatment for landscaped garden.
vi)	Plaster	:	12mm with 1:6 CM on one brick thick and 12mm th with 1:4 CM on half brick thick AAC blocks wall. 6mm th plaster on ceiling. 20mm th external plaster with watreproofing compound.
vii)	Finishing	:	Finishing shall be of pop putty and delux multi surface paint on inner walls and ceiling and Textured exterior paint on outer walls. Granite dado upto 2100 ceiling ht in toilet interiors
viii)	Windows	:	Aluminium windows with glass panes and aluminium grill for safety purpose.
ix)	Door	:	30mm thick fiberglass reinforced plastic (F.R.P.) flush door shutter shutters in Fiber Glass Reinforced plastic (FRP) Door Frames 12mm thick Fire Retardant laminate panelling on doors, Marine laminate on toilet doors

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

x)	Flooring	:	Flooring shall be of granite/Italian marble stone floor in Public areas and entrances; vitrified tiles in chambers, antiskid tiles in toilets, Cement Concret floor below premium carpet in auditorium hall, wooden flooring on stage and OAT Seating.		
xi)	Roof treatment	:	Landscape over Water proofing		
xii)	Sanitary fittings	:	Premium Indian sanitary fittings (Jaguar and similar make)		
xiii)	water supply	:	G.I. pipe		
xiv)	Drainage (soil & waste pipe)		UPVC and CI Pipes		
xv)	Effluent Treatment	:	Not Provided		
xvi)	Drainage rain water	:	PVC rainwater pipes, RCC Pipes in underground Drainage with chambers		
xvii)	Electrification internal	:	Provided		
xviii)	Electrification external	:	External lighting on and around building included.		
xix)	HVAC	:	VRV System approx 60 Tonn capacity		
xx)	Solar water heating		Not Provided		
xxi)	fire fighting system		Fire detection and suppression system included		
xxii)	Lifts and Elevators		Provided		
xxiii)	approach road Internal road		Included		
xxiv)	Boundary wall and gate		Not Required, hence not provided.		
xxv)	landscape		Included		
11	Specification	:	UADD./MPPWD/CPWD Specifications will be followed.		
12	Rates	:	applicable on S.O.R. of Building and Electrical issued by Comissioner, U.A.D.D. Bhopal inforce from 10 may 2012. For items not available in U.A.D.D. SOR, the latest SOR of MPPWD, and CPWD DSR are used.		
			<table border="0" style="width: 100%;"> <tr> <td style="border: 1px solid black; padding: 5px; width: 50%; text-align: center;">Sub Engineer J.S.C.L., Jabalpur</td> <td style="border: 1px solid black; padding: 5px; width: 50%; text-align: center;">Executive Engineer J.S.C.L., Jabalpur</td> </tr> </table>	Sub Engineer J.S.C.L., Jabalpur	Executive Engineer J.S.C.L., Jabalpur
Sub Engineer J.S.C.L., Jabalpur	Executive Engineer J.S.C.L., Jabalpur				

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

FORMAT - B

DETAILED ESTIMATE FOR INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

PROMOTER: JABALPUR SMART CITY LIMITED

							All Amount in Rs.	
S.No	Name Of Project Sub Head	Built Up Area in Sq.m.	Amount SOR	Amount Non-SOR	Amount TOTAL	Unit Area Rate (Rs./Sq.m.)	Reference Format	
1	2	3	4	5	6	7	8	
1	Cost of construction of Intimate theatre	2019.65	10,15,80,796	50,296	10,15,80,796	50,296	Format C	
2	Amenities - Intimate theatre	2019.65	2,20,50,585	10,918	2,20,50,585	10,918	Format C	
SUB TOTAL		2019.65	12,36,31,382	61,214	12,36,31,382	61,214	Format C	
D	SITE DEVELOPMENT	2019.65	59,68,569	-	59,68,569	2,955	Format D	
TOTAL			12,95,99,950	61,214	12,95,99,950	64,170		
PROJECT TOTAL					12,95,99,950	1296.00 LACS		
Sub Engineer J.S.C.L., Jabalpur				Executive Engineer J.S.C.L., Jabalpur				

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

					FORMAT - C	
DETAILED ESTIMATE FOR INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR						
Name of Project Sub Head :-			Cost of construction of AUDITORIUM BUILDING			
Built up Area (in Sqm.) :-			2,020	SQM		
GENERAL ABSTRACT						
					All Amount in Rs.	
Type Of Work	Comp onent NO.	Name of Component	Amount SOR	Unit Area Rate (Rs./Sq.m.)	Reference Format	
1	2	3	4	7	8	
BUILDING WORKS	1	Civil Work	6,57,60,564	32,560	Format 1A	
	2	Interior Work	2,82,72,821	13,999	Format 1B	
	3	Internal Water supply ,Plumbing and Sanitary	8,80,789	436	Format 1 C	
	4	Internal Electrification	66,66,623	3,301	Format 1D	
	Sub Total - BUILDING WORKS			10,15,80,796	50,296	
	BUILDING AMENITIES	5	Fire suppression system	25,21,720	1,249	Format 1E
6		fire Alarm System	5,12,267	254	Format 1F	
7		HVAC	48,92,091	2,422	Format N	
8		Lifts	37,77,000	1,870	Format L	
9		Sound System	40,96,428	2,028	Format M	
10		Furniture	58,08,405	2,876	Format P	
11		CCTV	4,42,675	219	Format Q	
Sub Total - AMENITIES			2,20,50,585	10,918		
(BUILDING WORKS + AMENITIES)			12,36,31,382	61,214		
		Sub Engineer J.S.C.L., Jabalpur		Executive Engineer J.S.C.L., Jabalpur		

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

FORMAT - D

**DETAILED ESTIMATE FOR INTIMATE THEATRE AT BHAWARTAL PARK,
JABALPUR**

Name of Project Sub Head :- SITE DEVELOPMENT

Building Area in Sq.m. :- 2,019.65

General Abstract- Site Development

All Amount in Rs.

Type Of Work	Component NO.	Name of Component	Amount SOR	Unit Area Rate (Rs/Sqm.)	Reference Format
1	2	3	4		8
SITE DEVELOPMENT	1	External Water Supply	4,62,051.00	229	Format T
	2	External electrification	28,97,555	1,435	Format U
	3	External Drainage	9,80,871.30	486	Format V
	4	Landscaping	16,28,090.93	806	Format W
		Total SITE SERVICES	59,68,569	2,955	

Sub Engineer
J.S.C.L., Jabalpur

Executive Engineer
J.S.C.L., Jabalpur

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

			FORMAT - E	1	a	
DETAILED ESTIMATE FOR INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR, M.P.						
Project Sub Head :-			1			
Project Sub Head :-			Cost of construction of AUDITORIUM BUILDING			
Component :-			a			
Sub Component :-			Civil Work			
Abstract Of Cost						
All Amount in Rs.						
SNO	SOR Item NO.	Description Of Item	Unit	Quantity	RATE	Amount
1	2	3	4	5	6	7
SOR ITEMS						
		EARTHWORK				
1	2.28 UADD	Surface dressing of the ground including removing vegetation and in-equalities not exceeding 15 cm deep and disposal of rubbish, lead upto 50 m and lift upto 1.5 m.				
	2.28.1	All kinds of soil	100 Sqm	4200.00	596.7	25,061
2	2.33 UADD	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.				
	2.33.3	Beyond 1200 cm girth upto and including 240 cm girth	each	7.00	1959.3	13,715
	2.33.4	Above 240 cm girth	each	3.00	3879.9	11,640
3	2.6 UADD	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30cm in depth. 1.5m in width as well as 10 sqm on plan) including dressing of sides and ramming of bottom disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed.				
	2.6.1	All kinds of soil	cum.	6263.07	114.3	7,15,869
	2.7 UADD	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30 cm in depth, 1.5m in width as well as 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.				

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f Component :-			Civil Work			
	2.7.1	Ordinary rock	cum.	327.85	176.4	57,833
4	2.26 UADD PG-24	Extra for every additional lift of 1.5 m or part thereof in excavation. (No extra lift is payable if work is done by mechanical means)				
	2.26.1	All kinds of soil.	cum.	2516.47	21.6	54,356
5.00	2.24 UADD	Extra rates for quantities of works, executed: (The extra percentage rate is applicable in respect of each item but limited to quantities of work executed in these difficult conditions).				
	2.24.1	In or under water and/or liquid mud, including pumping out water as required.(All water that may accumulate in excavations during the progress of the work from seepage, (not due to the negligence of the contractor), shall be bailed, pumped out or otherwise removed. The contractor shall take adequate measures for bailing and/or pumping out water from excavations and/or pumping out water from excavations and construct diversion channels, bunds, sumps, etc)				
		(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 excuted,in difficult condition.)	cum.	2516.47	22.86	57,526
		P.C.C.				
6	4.1 UADD	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :				
	4.1.2	Cement concrete grade M-15 (Nominal Mix) with 20 mm maximum size of stone aggregate	Cum	469.64	3738.6	17,55,793
7	4.3 UADD	Providing and laying cement concrete in kerbs, steps and the like at or near ground level excluding the cost of centering, shuttering and finishing.				
	4.3.1	Cement concrete grade M-15 (Nominal Mix) with 20 mm maximum size of stone aggregate	cum	21.79	3738.6	81,455

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

f Component :-			Civil Work			
8.00	4.2 UADD	Providing and laying cement concrete in retaining walls, return walls, walls (any thickness) including attached pilasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window sills, fillets etc. up to floor two level, excluding the cost of centering, shuttering and finishing :				
	4.2.2	Cement concrete grade M-15 (Nominal Mix) with 20 mm maximum size of stone aggregate	CUM	5.61	5398.2	30,307
		R.C.C.				
9.00	16.2 UADD	Boring, providing and installing bored cast-in-situ reinforced cement concrete pile of specified diameter and length below the pile cap M 35 in 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 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)				
	16.2.3	450 mm dia piles	MT	282.00	1727.1	4,87,042

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

f Component :-			Civil Work			
10	5.31 PWD SOR	Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using 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 : Cement content considered in this item is @ 330 kg/cum. Excess/ less cement used as per design mix is payable/ recoverable separately)				
	5.31.1	All works upto plinth level.	Cum	1418.12	5652	80,15,204
	5.32.2	All works above plinth level and upto floor V level.	cum	1306.82	5790.6	75,67,267
11	5.28 PWD SOR	Extra for providing richer mixes at all floor levels. Note : If Excess/ less cement over the specified cement content used is payable/ recoverable separately)				
	5.28.1	Providing M-30 grade concrete instead of M-25 grade BMC/RMC. Note : Cement content considered in M-30 is @ 340 kg/cum)	Cum	3006.937	63	1,89,437
12	5.29	Add/deduct for using extra/ less cement in the items of design mix over and above the specified cement content therein.	QT	751.73	602.1	4,52,619

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

f Component :-			Civil Work			
13	5.25 PWD SOR	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. Note For Item No. 5.25:- The quantity will be calculated by multiplying the depth measured from the subsoil water level up to 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 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. No extra payment shall be made for placing reinforcement or centering & shuttering under sub - soil water conditions.				
			CUM	1381.98	267.3	3,69,404
		STEEL				
14	5.20 UADD	Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding including cost of binding wire upto floor two level including all wastage etc. complete.				
	5.20.6	Thermo-Mechanically Treated bars.(TMT)	kg	454047.5	54	2,45,18,567
15	5.20.7	Add extra for providing reinforcement above Floor two level for every additional floor or part there of.				
			Kg	60138.7	0.54	32,475
		FORMWORK				
16	20.1 UADD P.No.2 15	Centering and shuttering including strutting, propping etc. and removal of form for :				
	20.1.1	Foundations, footings, bases of columns, etc. For mass concrete.	sqm	481.07	124.2	59,749
17	20.1.2	Walls (any thickness) including attached pilasters, buttresses, plinth and string courses etc	sqm	4620.64	194.4	8,98,252
18.00	20.1.6	Columns, Pillars, Piers, Abutments, Posts and Struts.	sqm	1055.03	253.8	2,67,766
19.00	20.1.5	Lintels, beams, girders, bressumers and cantilevers.	sqm	2558.83	182.7	4,67,498
20.00	20.1.3	Suspended floors, roofs, landings, balconies and access platform.	sqm	1544.07	204.3	3,15,454
21.00	20.1.7	Stairs, (excluding landings) except spira staircases.	sqm	211.64	250.2	52,953
22.00	20.1.21	Weather shades, Chajjas Corbels etc incl edges	sqm	43.13	316.8	13,664
		EARTH REFILL				

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

f Component :-			Civil Work			
23	2.25 UADD P.No- 24	Filling by available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	cum	1631.81	53.1	86,649
24	1 .1 UADD	Loading and unloading of stone boulder / stone aggregates / sand / kanker / moorum. (Placing tipper at loading point, loading with front end loader, dumping, turning for return trip, excluding time for haulage and return trip)				
	1.20	Transportation rate of different other material in comparison with 20 mm metal. (i.e. @ Rs. 48.81 Per Cum)			Rate as % of metal	
	e	Excavated Earth (25% ABOVE)				
	f	Excavated ordinary rock measured (100% ABOVE)				
	1 .1	Transportation of metal 20 mm	Cum	9407.24	186.3	17,52,569
25	2.27 UADD	Supplying and filling in plinth under floors including, watering, ramming consolidating and dressing complete.				
	2.27.3	Moorum/Hard copra	cum	90.52	513	46,436
26	2 .27.1 UADD	Crusher Stone Dust	cum	315.94	565.2	1,78,568
27	2.28.2 PWD SOR	Supplying and filling in plinth with soil (other than B.C. soil) having MDD not less than 1.85 t/M3 under floors including watering, ramming, compacting (minimum compaction 95% of MDD), in layers not exceeding 15 cms in depth and dressing complete		11.31	225	2,546

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

f Component :-			Civil Work			
28	2.32 PWD SOR	Pre construction antitermite treatment to the building underconstruction by providing 1: Treating the bottom and the sides (up to 30cm hight of the excavated trench @litter per sqm of the surface area. Staa=e 2: After masonry/RCC work, the backfill in the immdiate contact with the foundation structure treatment .5 litter per sqm. of the vertical surface of the substructure for each side. Staa=e 3: surface treatment by spreading emulsion over the plinth area before laying the base concrete under floors @.0 litres/Sqm. Staa=e 4: Pumping the emulsion in plinth masonry on filling side at floor junction 5 litres/Sqm.				
		Stage 5: Pumping the emulsion from outer side of the plinth below ground around the masonry <@.0 litres/Sqm as per I.S. 8944 Emulsion. (lchlorpyrifos: 19 water with five years serv-ice guarantee (Measurements to be taken for plinth area)	Sqm	4849.32	122.4	5,93,557
		BRICK WORK				
29	6.31 UADD	Providing and laying autoclaved aerated cement blocks masonry with 100mm thick AAC blocks in super structure above plinth level up to floor II 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.scaffolding	CUM	822.76	5319	43,76,234
30	6.32 UADD	Extra for AAC block masonry in superstructure above floor II level for every floor or part there of.	cum	1175.88	122.4	1,43,927
30 A	6.1 UADD	Brick work with well burnt chimney bricks in bulls patent trench kiln manufactured by ghol process,crushing strength not less than 40kg /sqcm and water absorption not more than 15% in foundation and plinth.				
	6.1.1	Cement mortar 1:4 (1 cement : 4 coarse sand)	CUM	13.07	3995.1	52,212
30B	6.3 UADD	Brick work with chimeny brick of class designation 40 in superstructure above plinth level upto floor 2 level including the cost of scaffolding in :				

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

f Component :-			Civil Work			
	6.1.1	Cement mortar 1:4(1 cement : 4 coarse sand)	CUM	69.06	4092.3	2,82,614
30 C	6.10 UADD	Half brick masonry with of class designation 40 in super structure above plinth level up to floor 2 level including the cost of scaffolding				
	6.10.2	Cement mortar 1:4 (1 cement : 4 coarse sand)	CUM	18.85	4092.3	77,119
30D	6.12 UADD	Extra for providing and placing in position 2 Nos. 6mm dia. M.S. bars at every third course of half brick masonry (with of class designation 40)	CUM	18.85	4092.3	77,119
		PLASTER				
31	13.3 UADD	20 mm cement plaster of mix				
	13.3.3	1:6 (1 cement : 6 sand)	Sqm	3568.17	123.3	4,39,955
32	13.1 UADD	12 mm cement plaster of mix :				
	13.1.3	1:6 (1 cement: 6 fine sand)	Sqm	4807.16	100.8	4,84,561
33	13.2.1	1:4 (1 cement: 4 fine sand)	sqm	2138.21	114.3	2,44,397
34	13.17 UADD	6 mm cement plaster 1:3 (1 cement: 3 fine sand) finished with a floating coat of neat cement and thick coat of Lime wash on top of walls when dry for bearing of R.C.C. slabs and beams.	Sqm	2019.65	100.8	2,03,580
35	5.27 UADD	Providing for plaster drip course/ groove in plastered surface or moulding to R.C.C. projections.	RM	50.90	13.5	687
		WATER PROOFING				
	18.14 UADD	Grading roof for water proofing treatment with (upto two floor level)				
	18.14.1	Cement concrete grade M-15 (Nominal Mix with 20mm maximum size of stone aggregate)	CUM	157.97	3738.6	5,90,581

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

f Component :-			Civil Work			
18.17 UADD	Providing and laying in situ seven course water proofing treatment with APP (Atactic Polypropylene) modified Polymeric memberane 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 100micron 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.					
			5159.507	414	21,36,036	
18.5 UADD	Providing and laying water proofing treatment in sunken portion of WCs, bathroom etc., by applying cement slurry mixed with water proofing cement compound consisting of applying a) First layer of slurry of cement @ 0.488 kglsqm mixed with water proofing cement compound @ 0.253 kglsqm. This layer will be allowed to air cure for 4 hours. b) Second layer of slurry of cement @ 0.242 kglsqm mixed with water proofing cement compound @ 0.126 kglsqm This layer will be allowed to air cure for 4 hours followed with water curing for 48 hours. The rate includes preparation of surface, treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixes slurry.					
		Sqm	88.41	173.7	15,357	

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

f Component :-			Civil Work			
22.22	CPWD	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	12027.75	376.40	45,27,245

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

f Component :-			Civil Work			
22.23 CPWD	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 guaranteed for 10 years against any leakage					
22.23.2	For horizontal surface one coat @1.10 kg per sqm.	SQM	1269.50	362.35	4,60,004	
22.23A CPWD	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	5159.51	368.20	18,99,730	

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

f Component :-			Civil Work			
22.26 CPWD	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 guaranteed for 10 years against any leakage.					
			MT	1074.30	538.00	5,77,973
		SUB TOTAL SOR ITEMS				6,57,60,564
		Sub Engineer		Executive Engineer		
		J.S.C.L., Jabalpur		J.S.C.L., Jabalpur		

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

			FORMAT - F	1	A	
DETAILED ESTIMATE FOR INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR, M.P.						
Project Sub Head :-			1			
Project Sub Head :-			Cost of construction of AUDITORIUM BUILDING			
Component :-			b			
Component :-			Interior Work			
Abstract Of Cost						
					All Amount in Rs.	
S.N.	SOR Item NO.	Description Of Item	Unit	Quantity	Rate	Amount
1	2	3	4	5	6	7
SOR ITEMS						
DOOR WINDOWS AND HARDWARE						
1	9.136 CPWD	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).	MT	209.10	1249	2,61,166
2	9.137 CPWD	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-in-charge (panneling to be paid for separately).	SQM	87.99	5335	4,69,427

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

of Component :-		Interior Work				
	9.138 CPWD	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/m ²), fire resistant sealant, including applying a coat of approved fire resistant primer on G.I. beading etc., complete all as per direction of Engineer-incharge.				
	9.138.1	With clear fire resistant glass panes 6mm thick of approved brand, having minimum 60 minutes fire resistance	SQM	9.50	27400	2,60,295
	9.140 CPWD	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	12mm thick commercial ply conforming to IS : 1328 BWR type	SQM	76.00	27400	20,82,362
3)	9.77 UADD PG.100	Providing and fixing bright finished brass 100 mm mortice latch with one dead bolt and a pair of lever handles with necessary screws etc. complete (best make of approved quality).	Nos	46.00	334	15,359
4)	9.74 UADD P. No.100	Providing and fixing bright finished brass tower bolts (barrel type) with necessary screws etc. complete :				-
	9.74.1	250x10 mm	Nos	46.00	221	10,143
5)	9.81 UADDP. No.100	Providing and fixing bright finished brass handles with screws etc. complete :				-
	9.66.1	125 mm	Nos	92.00	138	12,668
6)	9.82 UADD	Providing and fixing bright finished brass hanging type floor door stopper with necessary screws, etc. complete.	Nos	46.00	112	5,134
7)	17.4 UADD	Providing and fixing double action hydraulic floor spring of approved brand and manufacture IS : 6315 marked, for doors including cost of cutting floors as required, embedding in floors 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.				-
	17.4.2	With brass cover plate	each	6.00	1954	11,723
						-

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

bf Component :-		Interior Work				
8)	17.1 UADD	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Zsections and other sections of approved make conforming to IS: 733 and IS : 1285, fixed with rawl plugs and screws or with fixing clips, or with expansion hold fasteners including necessary filling up of gaps at junctions, at top, bottom and sides with required PVC/neoprene felt etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing and paneling to be paid for separately) :				
	17.1.1	For fixed portion				
	17.1.3	Polyester powder coated aluminium (minimum thickness of polyester powder coating 50 micron)	KG	205.64	337	69,218
	17.1.2	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 PVC / neoprene gasket required (Fittings shall be paid for separately).				
	17.1.2.3	Polyester powder coated aluminium (minimum thickness of polyester powder coating 50 micron)	KG	479.83	356	1,71,010
9)	17.3 UADD	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with PVC/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):				
	17.3.3	With float glass panes of 8 mm thickness	Sqm	62.32	1084	67,525
	17.2	Providing and fixing 12mm 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				
	17.2.2	Pre-laminated particle board with decorative lamination on both sides.	Sqm	21.14	847	17,901

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

bf Component :-		Interior Work				
10)	21.17 MPPWD SOR	Providing and fixing anodised aluminium grill (anodised transparent or dyed to required shade according to IS: 1868 with minimum anodic coating of grade AC15) of approved design/pattern, with approved standard section and fixed to the existing window frame with C.P. brass/ stainless steel screws 00mm 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 measured for payment).	KG	283.68	369	1,04,678
		STEEL WORK				
11)	10.25 UADD	Steel work welded in built up sections/ framed work including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required				
	10.25.1	In stringers, treads, landings etc. of stair cases including use of chequered plate wherever required, all complete.	KG	192.00	57	10,886
	10.25.2	In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works.	kg	3593.60	60	2,16,694
12)	10.25 MPPWD	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 and 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	952.35	714	6,80,335
13)	10.23 MPPWD	Providing and fixing hand rail of approved size by welding etc. to steel ladder railing, balcony railing, staircase railing and similar works, including applying a priming coat of approved steel primer.				
	10.23.3	G.I. pipes.	KG	604.50	116	69,938

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

bf Component :-		Interior Work				
14)	10.3 UADD	Providing and fixing in position collapsible steel shutters with vertical channels 20x10x2mm and braced with flat iron diagonals 20x5mm size with top and bottom rail of T-iron 40x40x6mm with 40mm dia steel pulleys complete with bolts, nuts, locking arrangement, stoppers,handles, including applying a priming coat of approved steel primer.	SQM	48.70	3020	1,47,093
						-
15)	10.6 UADD	Supplying and fixing rolling shutters of approved make, made of required size M.S. laths interlocked together through their entire length and jointed together at the end by end locks mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete including the cost of providing and fixing necessary 27.5cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to I.S. 4454- part-1 and M.S. top cover of required thickness for rolling shutters.				
	10.6.1	80x1.25mm M.S. laths with 1.25 mm thick top cover.	sqm	25.20	1727	43,523
	10.7	Providing and fixing ball bearing for rolling shutters.	each	16.00	536	8,568
	10.9	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	9.00	241	2,171
16)	10.2 uadd	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting,hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	kg	4700.40	56	2,62,282
		FLOORING AND DADO				
17)	11.3 UADD	Cement concrete flooring M-15 (nominal mix) finished with a floating coat of neat cement including cement slurry, but excluding the cost of nosing of steps etc. complete.				
	11.3.1	40 mm thick with 20mm maximum size of stone aggregate.	Sqm	694.15	212	1,47,437

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

of Component :-		Interior Work				
18)	11.34 CPWD	38 mm thick wood block flooring of first class teak wood laid over 25 mm thick leveling layer of cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 10 mm nominal size) to be paid separately, coated with a thin layer of hot bitumen penetration 80/25 (blown type) @ 2.45 kg per sqm, including fixing blocks in position after dipping in hot bitumen (blown type) up to half depth, planed, levelled smooth and finished complete	SQM	239.58	7266	17,40,788
19)	11.29 MPPWD	Providing and laying gang saw cut, 18 mm thick mirror polished and pre moulded (wherever required) and pre polished machine cut Granite stone of required size and shape of approved shade, colour and texture in flooring laid over 20 mm thick base of cement mortar 1:4 (1 cement : 4 sand) including grouting of joints with white cement mixed with matching pigments, epoxy touchups etc. complete as per instructions of Engineer In Charge.				
	11.29.2	all shades other than black				
	11.29.2. 2	Area of Slab more than 0.5 mts	sqm	344.90	3326	11,46,961
						-
20)	11.32 MPPWD	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 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	229.93	3297	7,58,019
21)	11.22 MPPWD	Providing and fixing 18mm 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 of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1 cement: 4 sand) with joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing moulding and polishing to edge to give high gloss finish wherever required etc. complete at all levels. samples approved by Engineer-in-charge.				-

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

Component :-		Interior Work				
	11.22.2.1	Granite Fine Grained dark black/dark red/White with self design/pattern/ crystal of other colours or glitters.	sqm	27.18	2120	57,632
						-
22)	8.50.UA DD	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 and polishing of cut edges etc. complete.	each	8.00	179	1,433
						-
23)	11.33 MPPWD	Pre polished Granite stone work 18mm thick of any colour in riser of steps, skirting, dado and pillars laid on 12 mm average thick cement mortar 1:3 (1 cement:3 sand) and jointed with white cement slurry mixed with pigment to match the shade of slab.	SQM	105.08	3072	3,22,759
24)	8.30	Extra for providing full edge moulding to 16mm 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	rm	9.00	89	802
	8.3.2	Granite work	rm	325.50	131	42,771
25)	11.25 MPPWD	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 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	449.85	4245	19,09,754
						-

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

bf Component :-		Interior Work				
26)	11.26 MPPWD	Providing and fixing machine cut, mirror / eggshell polished, Marble stone work for wall lining (veneer 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 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. a) 18 mm thick Italian Marble stone slab,Perlato, Rosso verona, Fire Red or Dark Emperadore etc	sqm	446.88	5009	22,38,601
					-	
27)	11.6 MPPWD	Providing and laying Antiskid endura floor tiles of any sizes, 12 mm water absorption's less than 0.08% and conforming with IS: 15622 in all colours and shades, laid on 20mm riortar 1:4 (1 cement :4 sand) including grouting the te cement with matching pigments etc., complete.	SQM	78.43	792	62,117
29)	11.26.1 UADD	Kota/cuddapah stone slab 30 mm thick 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 with base of cement mortar (1 cement : 4 course sand) 1 : 4 (minimum size of kota stone 0.25 sqm)	SQM	177.24	756	1,33,993
30_	8.1 UADD	Providing and fixing stone slab 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 aggregate 6 mm nominal size) as per direction of Engineer-incharge and finished smooth.				-
	8.10.2	Granite Stone of approved shade	SQM	4.05	2542	10,293
31	11.46 UADD	Providing and laying 60 mm thick factory made cement concrete interlocking paver block of M -30 grade made by block making machine ith strong vibratory compaction and of approved size and design/shape laid in required colour and pattern over and including 50 mm thick compacted bed of course sand, filling the joints with coarse sand etc. all complete as per the direction of Engineer-in-charge.	SQM	500.00	409	2,04,300
					-	
		PANELLING AND FALSE CEILING				-

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

Component :-		Interior Work				
32	12.65 MPPWD	Providing and fixing of Glass Fiber Acoustical Suspended Ceiling System with 16mm thick microlook edge tiles of size 595x595mm as approved by Engineer-in-charge, in true horizontal level suspended on inter locking metal grid of hot dipped galvanized steel sections (galvanized @ 120 gsm/sqm, both side inclusive) consisting of main "T" runner with suitably spaced joints to get required length and of size 15x38mm made from 0.30mm thick (minimum) sheet, spaced at 1200mm center to center and cross "T" of size 24x25mm made of 0.30mm thick (minimum) sheet, 1200mm long spaced between main "T" at 600mm center to center to form a grid of 1200x600 mm and secondary cross "T" of length 600mm and size 24x25mm made of 0.30 mm thick (minimum) sheet to be interlocked at middle of the 1200x600mm panel to form grids of 600x600mm and wall angle of size 24x24x0.3 mm and laying false				-
		ceiling tiles of approved texture in the grid including, wherever, 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 27x37x25x1.6 x mm fixed to ceiling with 12.5 mm dia and 50 mm long dash fasteners, 4mm GI adjustable rods with galvanised butterfly level clips of size 85x30x0.8 mm spaced at 1200mm 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. The tiles should have Humidity Resistance (RH) of 99%, NRC 0.5, Light Reflectance >83%, Thermal Conductivity k = 0.052 - 0.057 w/m K, Colour White, Fire Performance UK Class 0 / Class 1 (BS 476 pt -6 and7) in module size				-
		of 600 x 600 x 16mm with Bio Block coating on the face of the tile, suitable for Green Building application, with Recycled content of 38 - 41%. The Tile and Grid system used together should carry a 15 year warranty.	SQM	558.82	2338	13,06,633
						-

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

bf Component :-		Interior Work				
33	12.45 UADD	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 37mm, at 1200 mm centre to centre, one flange fixed to the ceiling with dash fastener 12.5 mm dia x 50mm long with 6mm dia bolts other flange of cleat fixed to the angle hangers of 25x10x0.50 mm of required length with nuts and 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 25mm 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 or 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	12.5 mm thick tapered edge gypsum fire resistant board conforming to IS: 2095- Part I.	SQM	351.67	646	2,27,249
						-

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

of Component :-		Interior Work				
34	9.148 MPPWD	Providing and installation of acoustical wall panelling wood finish Slats made out of HDF board , Melamine / veneer laminated finish, perforated wooden grooved slats (2mm grooves @ 8mm centers) / (2mm Slats @16mm pitch) / (2mm grooves @ 32mm centers) / (2mm grooves @ 64mm centers), backlined with black acoustical fleece, tongue-groove edge for a seamless look, FR grade, of lineal dimension size 128mm x 2440mm x 16mm thick having density 1000Kg /m3, weight 12.8Kgs/m2 installed by using GI strut system. The GI strut system includes GI Cross channel having thickness 0.45mm, length 3600mm, knurled web 40mm, depth 10mm and equal flanges 15mm is fastened vertically/horizontally at every 600mm centers. Aluminium core cross channel having thickness 0.5mm, length 2400mm, web 15mm and 27mm, depth 18mm and flanges of 7mm with suitable edge and centre brackets is then fixed perpendicular to the cross channel with the help of fasteners at every 400mm centers. Contractor to Provide expansion joints of 3mm at every 5mts bothways.	SQM	358.88	4661	16,72,776
						-
		PAINTING				-
35	13.39 MPPWD	Providing and applying plaster of paris punning of 10 mm average thickness over plastered surface to prepare the surface even and smooth complete.	Sqm	11180.75	117	13,08,148
36	13.45 UADD	Finishing walls with textured exterior paint of required shade :				-
	13.45.1	New work (Two or more coats applied @ 3.28 ltr/10 sqm) over and including priming coat of exterior primer applied @ 2.20kg/10 sqm.	Sqm	604.22	113	67,975
37	13.48U ADD	Finishing walls with Deluxe Multi surface paint system for interiors and exteriors using Primer as per manufacturers specifications :				-
	13.48..1	Two or more coats applied @ 1.25 ltr/10 sqm. over and including one coat of Special primer applied @ 0.75 ltr/10 sqm.	Sqm	10576.5	68	7,13,916
38	13 . 61 UADD	painting with synthetic enamel paint of approved brand and manufacture to give required colour to give an even shade				-
	13.61.1	Two or more coats on new work	Sqm	163.40	41	6,618
		SUB TOTAL SOR ITEMS				1,90,81,074
		NON SOR ITEMS				

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

of Component :-		Interior Work			
1	Providing and laying 100% Nylon pile Carpet Loop 650 GSM, Total Thickness - 6/7 mm, Gauge -1/12 with Action backing, BCF Yarn TypeSoluton Dyed, of make Unitex, Duratile and similar make with Fire Retardant properties, including supply, installation etc. complete	SQM	332.01	1520	5,04,655
2	Supply of Main curtain made of Velvet curtain cloth with horizontal sliding arrangement complete with fixing railing track , fixing brackets ,runner, master runner, 3mm rope wire , 1HP crompton moter , drum with groove cutting pulleys , 2 no air breaker switch for reverse 7 forward 2 no air micro switch for auto stop , 3 no push button for open/stop/close position the curtain should be droped to half area ,whenin closed position and minimum overlap at the center should be 900 mm and curtain should be stiched in double gathering of Appropriate size – 40 feet x 14feet	Nos.	1	187250	1,87,250
3	Supply of Rear curtain made of curtain cloth with horizontal sliding arrangement complete with fixing railing track , fixing brackets ,runner, master runner, 3mm rope wire , 1HP crompton moter , drum with groove cutting pulleys , 2 no air breaker switch for reverse 7 forward 2 no air micro switch for auto stop , 3 no push button for open/stop/close position the curtain should be droped to half area ,whenin closed position and minimum overlap at the center should be 900 mm and curtain should be stiched in double gathering of Appropriate size – 40 feet x 28 feet	Nos.	1	187250	1,87,250
4	Supplying of suitable size average frills made out from Black glazed cotton cloth duly stiched in double gathering in appropriate size- 40feet x 3feet	Nos.	2	23550	47,100
5	Supplying of suitable size stage wing panel made out from 25mm x 50mm of 16swg MS pipe duly painted in black color with black glazed cotton cloth both side having manual moving facility of appropriate size	Nos.	6	20850	1,25,100
					-
	HALL CEILING AND PANELLING				-

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

of Component :-		Interior Work			
6	Supply and installation of FR Grade Solserene fabric system with high-performance integrated core with a white matte face covering, acoustically-transparent textile of size 4/5mx75m, shall be stretched by using combination of GI strut channel framework and GI strut system, wooden base 10mm thick, rigid vinyl Stretch Tracks half wrap 25mm (SE25) and Midseam 25mm (SE25), strand board, synth PF 10x10 infill with requisite accessories & tools.	sqm	328	11880	38,96,640
	The GI strut channel Framework includes Floor/ Head (FC50) GI channels having thickness 0.55mm, length 3600mm, equal flanges of 32mm and web of 50mm fixed to floor and ceiling with suitable fasteners at 300mm centers in staggered manner very next to primary paneling. Noise and fire rated silicon sealant to be caulked along the perimeter of the partition frame before fixing channels. Then Stud channel (SC48) having thickness 0.45mm, length 3600mm, unequal flanges of 34/36mm and web of 48mm should be placed into the floor/head channel positioned vertically at 600mm centers. Extra reinforcement to be provided at openings (doors, windows, etc..)				-
	The GI strut system includes Cross channel (CC10) having thickness 0.45mm, length 3600mm, knurled web 40, depth 10mm and equal flanges of 15mm is screw fixed to the GI strut channel Framework behind @ 600mm centers. Wooden base 10mm is then installed on CC10 along the marking lines with metal fasteners inserted at 300 mm centers. SE25 tracks to be installed on wooden base, after applying Stick S7 adhesive on both surfaces for a true and continuous secure grip, and heavy-duty fasteners at 150mm centers on one/both sides of Stretch Tracks.				-

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

Component :-		Interior Work			
	<p>square edge magnesite bonded pinewood fiber panels of size 600x1200x20mm having density 400kg/m³, weight 8kg is fixed to CC10 (In between vinyl tracks) with suitable fasteners. Longer edges of panels should be perpendicular to CC10. Synth PF 10x10mm thick adhered on strand panel by using Stick 7 adhesive. The SLS fabric of width 5m is stretched and tucked into the tracks and secure into the locking jaws with tucking tools to obtain smooth, wrinkles free finish. Ensure the cord in the fabric are oriented in one direction to achieve uniform shade. Note - minimum 50mm additional fabric is required for tucking hence maximum module wall fabric width would be 3900/4900mm.</p>				
	<p>Technical Parameters of system</p> <ul style="list-style-type: none"> • Core - pinewood fibre & Poly fibre • Fire – 1 & P, class A • Acoustics – NRC 0.75 (system NRC, for 25mm thk Strand C50 mounting) • Climate (OC RH) – 49, 90 • Termite resistance – Yes • Light reflectance – Colour dependent • Green (RC %) – 25 • Hygiene (VoC, Clean room) – Low, Class 1 				
7	<p>Supply and installation of color FR Grade Solserene fabric system with high-performance integrated core with a color matte face covering, acoustically-transparent textile of size 4/5mx75m. Wooden base 10mm is first installed to the C-System (MC45 & CC22) on the marked lines with metal fasteners at 300mm centers embedded in plastic sleeves. Fix SE25 half wrap / full wrap, Midseam and Track outer corner, rigid FR-PVC high strength extrusions square / bevel edge on the wooden surface by using heavy-duty diverging fasteners at 25mm centers on one/both sides of Stretch Tracks.</p>	SQM	365.21	11620	42,43,752

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

bf Component :-		Interior Work				
		The ceiling system (C-System) shall includes GI Wall channel (WC22) having thickness 0.45mm, length 3600mm, unequal flanges of 20 & 30mm and web of 25mm to be fixed along the perimeters of the wall with nylon sleeves and suitable fasteners at every 300mm centers. Suspended Main channels (MC45) having thickness 0.8mm, length 3600mm, equal flanges of 15mm and web 45mm from the soffit at every 1200mm centers with Suspender angle (SA25) having thickness 0.45mm, length 3600mm, unequal flanges of 25 & 10mm. GI Cross channel (CC25) having thickness 0.45mm, length 3600mm, knurled web of 50mm, depth of 25mm and equal flanges of 9.5mm is fastened to the Main channel (MC45) in the direction perpendicular to the Main Channel (MC45) at every 600mm centers.				-
		magnesite bonded pinewood fiber panels of size 600x1200x20mm thk installed to Strut CC25 by using fasteners, PF 10x25mm thick is then adhered on strand board using Stick 7 adhesive. Ensure 5mm airgap between synth PF and SLS fabric. The SLS fabric of width 4/5m is stretched and tucked into the tracks and secure into the locking jaws with tucking tools to obtain smooth, wrinkles free finish. Ensure the cord in the fabric are oriented in one direction to achieve uniform shade.				
		Technical Parameters				
		<ul style="list-style-type: none"> • Core Variants - Polyfibre • Fire – Class A • Acoustics – NRC up to 1 • Climate (OC RH) – 49, 90 • Termite resistance – Yes • Light reflectance – Colour dependant • Green (RC %) – 25 • Hygiene (VoC, Clean room) – Low, Class 1 				
		TOTAL NON SOR ITEMS				91,91,747
		SUBTOTAL SOR AND NON SOR ITEMS				2,82,72,821
		Sub Engineer			Executive Engineer	
		J.S.C.L., Jabalpur			J.S.C.L., Jabalpur	

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

				FORMAT - E	1	c
DETAILED ESTIMATE FOR INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR, M.P.						
S.No. of Project Sub Head :-				1		
Name of Project Sub Head :-				Cost of construction of AUDITORIUM BUILDING		
S.No. of Component :-				c		
Name of Component :-				Internal Water supply ,Plumbing and Sanitary		
Abstract Of Cost						
S.No.	SOR Item NO.	Description Of Item	Unit	Quantity	Rate	Amount in Rs
1	2	3	4	5	6	7
SOR ITEMS						
		SANITARY AND WATER SUPPLY				
A		CHINAWARE FIXTURES				
1	25.6 mppw d	Providing and fixing white vitreous china made extended wall hung type couple closet size 760X360X635mm along with dule flushing cistern flushing capacity 3 & 6 litre approved shape (extended wall hung couple coset pan size 760X360X635mm) with 15mm quarter turn angular stop cock and PVC connection pipe, and all fittings and fixures complete including cutting and making good the wall and floors wherever required:				
	25.6.1 MPPWD	Anti germ Fluoro-Polymer Coated extended wall hung type couple closet size 760X360X635mm with solid poly propelyne made soft closing seat cover	Each	10.00	16532.1	165321
2	25.9 MPPWD	Providing and fixing white vitreous china type Anti germ Fluoro-Polymer Coated Wash Basin size 190x600x435mm with C. I. Brakets, 15 mm C. P. wall mounted single lever consiled basin mixure, (cortrage size 32 mm) 32 mm C. P. brass made waste coupling length 130mm and 32 mm C. P. Brass Made Bottle Trap size 200x300mm fittings and fixures complete including Painting of fittings and cutting and making good the wall and floors wherever required:				
	25.9.1	White Vetrious China Anti germ Fluoro-Polymer Coated Wash Basin Size 190x600x435mm with wall mounted single lever consiled basin mixure (cortrage size 32mm.)	Each	9.00	14772.6	132953.4

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

Name of Component :-			Internal Water supply ,Plumbing and Sanitary			
3	25.14 MPPWD	Providing and fixing white vitreous china Flat Back Anti germ Fluoro-Polymer Coated Urinal (Inbuilt spreaders, Inbuilt Bottle trap and inbuilt ceramic Waste coupling) Size 710 X 480 X300 mm with sensor complete including painting of fittings and brackets, cutting and making good the wall and floors wherever required :				
	25.14.1 MPPWD	White Vitreous China made Flat Back Anti germ Fluoro-Polymer Coated Urinal (Inbuilt spreaders, Inbuilt Bottle trap and inbuilt ceramic Waste coupling) Size 710 X 480 X300 mm with sensor	each	10.00	18012.6	180126
4	25.16 MPPWD	Providing & Fixing 8mm thick frosted Urinal glass partition size height 900 mm top width 450mm and bottom width 300mm brass made bracket with chrome plating.	each	9.00	7560	68040
5	25.10U ADD	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 :				
	25.1.1	Kitchen sink with drain board	Each			
	25.10.1. 425.10. 1.4	460x915 mm bowl depth 178mm.	Each	2.00	3717	7434
6)	25.19 MPPWD	Providing and fixing in position best indian (bonut size 24mm, ceramic disc size 19mm and min. body thickness 2mm, nickel plating 0.10 micron and chrome plating 0.3 micron, quarter turn)Bib cock.	each	10	1458	14580
7)	25.25 MPPWD	Providing and fixing in position best indian single Lever Auto Mixing Wall Mixer (Cartridge Size 40mm,nickel plating 0.10 micron and chrome plating 0.3 micron) for Shower area use only .	each	2.00	5292	10584
8)	25.31 MPPWD	Providing and fixing in position best indian C. P. brass made Shower Arm Length 600mm (nickel plating 0.10 micron and chrome plating 0.3 micron).	each	2.00	1404	2808
9)	25.32 MPPWD	Providing and fixing in position best indian shower rose 150mm dia, body and face chrome plated, brass made body, Silicon based Rubit cleaning nozzels.	each	2.00	3780	7560
10)	25.33 MPPWD	Providing and fixing C.P. brass grating of approved quality and make conforming to IS: specification.				
	23.38.1	100mm nominal dia	each	38.00	39.6	1504.8

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

Name of Component :-			Internal Water supply ,Plumbing and Sanitary			
11)	25.26	Providing and fixing in position best indian single Lever Auto mixing Basin Mixer (Cartridge Size 32mm,nickel plating 0.10 micron and chrome plating 0.3 micron) For Wash Basin area use only .	each	9.00	4104	36936
12	23.33	Providing & fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS: 8931				
	23.33.1	15 mm bore	each	33	360.9	11909.7
13)	25.37 MPPWD	Providing and fixing in position best indian Health Faucet with 8mm dia 1 meter long Flexible Tube and wall bracket with N. R. V. (nonreturn wall).	each	10	1728	17280
14)	25.70.2	Bottle trap 38mm single piece moulded with height of 270mm, effective length of tail pipe 260mm from the centre of the waste coupling 77mm breadth with 25mm minimum water seal, weighing not less than 263gms.	Each	9	391.5	3523.5
15	25.28	Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete.				
	25.28.2	Flexible pipe				
	25.28.2. 2	40mm dia	Each	2	51.3	102.6
16	17.58 MPPWD	Providing and fixing unplasticised Rigid PVC soil and waste pipes conforming to IS: 13592 Type B including jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion. Single socketed pipes for working pressure of 4 kg/sqcm.				
	17.58.1	75mm dia (min wall thickness 3.2mm)	RM	60	122.4	7344
	17.58.2	110mm dia (min wall thickness 3.2mm)	RM	100	214.2	21420
17	17.59/p .n.o. 261 MPPWD	Providing and fixing unplasticized pvc moulded fittings/accessories for unplasticised Rigid PVC soil and waste pipes conforming to IS: 13592 Type A including jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion.				
	12.42.1	Coupler				
	12.42.1. 1	75mm	each	30.00	144	4320
	12.42.1. 2	110mm	each	10.00	180	1800
	12.42.4	Single tee without door				

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

Name of Component :-			Internal Water supply ,Plumbing and Sanitary			
	12.42.4.1	75x75x75mm	each	10.00	261	2610
	12.42.4.2	110x110x110 mm	each	10.00	352.8	3528
	12.42.5	Bend 87.50				
	12.42.5.1	75mmbend	each	15.00	146.7	2200.5
	12.42.5.2	110mmbend	each	30.00	232.2	6966
18	12.43 MPPWD	Providing and fixing unplasticised -PVC pipe clips of approved design to unplasticised - PVC rainwater pipes bymeans of 50x50x50mm hard wood plugs, screwed with M.S.screws of required length including cuttingbrick work and fixing incement mortar 1:4 (1 cement : 4 coarse sand) and makinggoodthe wall etc. complete.				
	12.43.1	75 mm	each	10.00	99	990
	12.43.2	110 mm	each	50.00	121.5	6075
19	25.6 UADD	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 :				
	25.60.1	100mm inlet amd 100 outlet each				
	25.60.1.2	Sand cast iron sands pipe as per IS 1729	Each	38.00	465.3	17681.4
20	23.21 UADD	Providing and fixing unplasticised PVC connection pipe with brass unions				
	23.21.2	45 cm length				
	23.21.2.1	15mm nominal bore	each	31.00	45	1395
21	23.10.U ADD	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, including cutting and making good the walls etc.				
i)	23.10.1	15 mm dia. nominal bore	Rm	50.00	125.1	6255
ii)	23.10.2	20mmdia	Rm	26.00	154.8	4024.8
iii)	23.10.3	25mmdia	Rm	50.00	208.8	10440
iv)	23.10.4	32mm dia	rm	20.00	259.2	5184

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

Name of Component :-			Internal Water supply ,Plumbing and Sanitary			
v)	23.10.5	40 mm dia. nominal bore	Rm	20.00	312.3	6246
vi)	23.10.6	50mm dia TankFilling and Terrace Ring	Rm	200.00	396.9	79380
22.00	18.33 MPPWD	Providing and fixing gun metal gate valve with brass lever handle of approved quality.				
	18.33.1	25 mm nominal bore	each	2	306.9	613.8
	18.33.2	32 mm nominal bore	each	2	377.1	754.2
	18.33.3	40mm nominal bore	each	2	441.9	883.8
	18.33.4	50mm nominal bore	each	2	575.1	1150.2
23	25.32 UADD	Providing and fixing mirror of superior glass of approved quality andrequired shapeand size with 6mm th hardboard backing				
	25.32.4	rectangular shape 1500x450	each	9.00	1556.1	14004.9
24	17.75 MPPWD	Providing and fixing C.P. brass soap dish of approved quality and make	Each	15.00	379.8	5697
25	17.73 MPPWD	providing and fixing C.P. brass towel railof approved quality andmake				
	17.73.2	450x20	Each	10.00	752.4	7524
26	25.34	Toilet paper holder				
	25.34.1	C.P. brass	each	10.00	163.8	1638
TOTAL COST OF SANITARY INSTALLATION						880788.6
		Sub Engineer J.S.C.L., Jabalpur			Executive Engineer J.S.C.L., Jabalpur	

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

			FORMAT - E	1	d	
DETAILED ESTIMATE FOR INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR, M.P.						
	S.No. of Project Sub Head :-		1			
	Name of Project Sub Head :-		Cost of construction of AUDITORIUM BUILDING			
	S.No. of Component :-		d			
	Name of Component :-		Internal Electrification			
Abstract Of Cost						
S.N.	SOR	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	UADD1 .4	WIRING IN CONCEALED RIGID PVC CONDUIT (HEAVY DUTY) SYSTEM WITH MODULER ACCESSORIES				
1)		Point wiring (excluding metallic switch box & sheet but including switches,sockes,lamp,holders,ceiling roses etc) with 1.5 Sq. mm. PVC insulated cable FR with copper multi strand conductor ISI marked in concealed rigid P.V.C. conduit (HMS) ISI Marked of suitable size and 1.5 Sq. mm. PVC insulated copper earth continuity conductor of green colour inside conduit etc. as required as per specification for :-				
	1.4.1					
	1.4.1.1	Light Point/Fan Points.				
		a) short point	each	38	354.6	13474.80
		b)medium point	each	166	620.1	102936.60
		c)long point	each	283	924.3	261576.90
2)	1.4.1.2	3 pin 6 amp socket on separate board				
		a) short point	each	8	395.1	3160.80
		b)medium point	each	12	660.6	7927.20
		c)long point	each	10	964.8	9648.00
3)	1.4.1.3	Call Bell / Buzzer Points				
		c) Long Point	meter	2.00	935.1	1870.20
4)	9.4	Supplying and fixing as per specification Call bell / buzzer of approved make with necessary materials complete.				
	9.4.1	Buzzer	each	2	52.2	104.40
5)	1.4.4	Twin control light Points				
		c) Long Point	each	2	1006.2	2012.40

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

Name of Component :-		Internal Electrification				
6)	1.4.5	Point wiring (excluding metallic switch box & sheet but including switches, sockets) for 3 pin 6 Amp. Socket outlet point with 1.5 Sq. mm. PVC insulated cable FR with copper multi strand conductor ISI marked in concealed rigid P.V.C. conduit (HMS) ISI marked of suitable size and 1.5 Sq. mm. PVC insulated copper earth continuity conductor of green colour inside conduit with required materials as per specification on same board	meter	70.00	201.6	14112.00
		POWER WIRING IN CONCEALED RIGID PVC CONDUIT (HMS) SYSTEM WITH COPPER CONDUCTOR				
7)	pg12 item 9.1 MPPW D	Point wiring (excluding metallic switch box & sheet) for 3 Pin 16 Amp. Socket Outlet Point With 4 Sq. mm. PVC insulated cable FR with copper multi strand conductor ISI marked in Concealed rigid P.V.C Conduit (HMS) ISI Marked of suitable size etc. with 16 Amp. F.T. Switch & Socket / S.S.Combined 6/16 Amp. of ISI Marked and 4 Sq. mm. PVC insulated copper earth continuity conductor of green colour inside conduit as per specification for				
		WITH MODULAR ACCESSORIES				
		b)long point	each	2.00	1737	3474.00
		c)extralong- I	each	12.00	2378.7	28544.40
		D) Extra long II	each	8.00	4087.8	32702.40
		d) Extra long III	each	2.00	5323.5	10647.00
		CIRCUIT WIRING				
8)	4.6 MPPW D	Wiring for circuit wiring with PVC insulated cable FR with copper multi strand conductor ISI marked in concealed rigid P.V.C. conduit (HMS) of ISI marked suitable size etc. as required as per specification				
	a)	2x2.5 sq.mm circuit wiring	meter	850	105.3	89505.00
	b)	4x2.5	meter	690	158.4	109296.00
	c)	6x2.5	meter	825	202.5	167062.50
	d)	8x2.5	meter	575	249.3	143347.50
9)	4.3 UADD	Supplying and drawing single core PVC insulated cable FR with copper multi strand conductor ISI marked in existing rigid conduit in surface or concealed as per specification.				
	4.3.2.1	1x2.5sq.mm circuit wiring	meter	2940.00	28.8	84672.00

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

Name of Component :-		Internal Electrification				
	4.3.1.3	3x1.5mm	meter	2500	64.8	162000.00
10)		SUB MAINS IN SURFACE RIGID STEEL CONDUIT IN COPPER CONDUCTOR				
	5.1 UADD	Wiring for sub-mains with PVC insulated cable FR with copper multistrand conductor ISI marked in surface rigid steel ISI marked conduit of suitable size(conduit included) including connection painting etc ,as required as per specification				
	5.1.3	3 1/2 WIRE SUB-MAIN				
	5.1.3.5	3 x 16.0 + 1 x 10.0 sq mm cable in 32 mm conduit	meter	275.00	637.2	175230.00
	5.1.1	2 WIRE SUB-MAIN				
	5.1.1.5	16.0 sq mm cable in 32 mm conduit	meter	225.00	412.2	92745.00
		SWITCH BOXES				
11)	2.9 UADD	Supplying and fixing of approved make modular type metal box with modular frame/ base plate and cover plate including fixing in concealed / surface excluding switch,socket etc. as required for:-				
i)		1 or2 MODULE	each	10.00	93.6	936.00
ii)		3 MODULE	each	54.00	187.2	10108.80
iv)		6 MODULE	each	13.00	158.4	2059.20
v)		8/9 MODULE	each	34.00	181.8	6181.20
vi)		12 MODULE	each	39.00	229.5	8950.50
		COMPUTER AND TELEPHONE CABLES				
12)	MPPW D 38.6	Supply, fixing and testing of RJ 11 telephone jack modular (1 Module)	each	9.00	116.1	1044.90
13)	9.26 UADD	supplying and drawing following pair,0.5 Sq mm PVC Insulated copper conductor unarmoured telephone cable in existing surface / concealed ,steel / PVC Conduit as required.				
	9.28.3	(iii) 4 Pair	meter	675.00	32.4	21870.00
14)	MPPW D 38.4.2	Supply, Installation testing and commissioning of telephone Tag block Krone connector with enclosure and lock complete as mentioned below :-				
		20 Pair	each	1.00	245.7	245.70
17)	MPPW D38.9	Supply, Installation testing and commissioning RJ - 45 Computer Jack cat 6 with shutter Modular (1Module)	each	8.00	441.9	3535.20
18)	MPPW D38.12 .2	Supply, Installation testing and commissioning of patch cord as mentioned below :-				

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

Name of Component :-		Internal Electrification				
		CAT 6 RJ45 Patch Cord F/UTP 2 Mtr.	each	8.00	405	3240.00
19)	MPPW D 38.11	Suppling and drawing 4 pair shielded, 0.5 mm PVC.Insulated copper conductor un-armoured Cat-6 computer cable FR in existing surface / concealed ,steel / PVC. Conduit/Casing-N-Capping as required.		750.00	41.4	31050.00
20)	MPPW D38.13	Supply, Installation testing and commissioning of 19" Modular Patch - 1 U Patch Panel 24, RJ 45 Cat-6 connector	each	1.00	9833.4	9833.40
21)	MPPW D38.15 .3	Supply, Installation testing and commissioning of wall mounting rack, for computer switches complete as mentioned below				
		12U cabinet 638X600X500, wall mounting with power supply and Fan etc.	each	1.00	15738.3	15738.30
		DISTRIBUTION BOARDS				
22)	8.6 UADD	Supplying of approved make TPN MCB DB Metal Double Door IP 43 protection with provision for FP MCB/Isolator/RCCB/RCBO as incomer and SP MCBs as outgoing inclusive of Bus bar, Neutral bar, Earth bar & two earth terminals etc. complete as per IS:13032(exclusive of MCB & isolator):				
	8.6.5	8 way (8+24)	each	4.00	2853	11412.00
	27.8.1	4 WAY	EACH	2.00	2375.1	4750.20
	27.8.5	12 WAY	each	2.00	5896.8	11793.60
23)	UADD 8.4B	Supplying of MCB Isolators suitable for 240/415 Volts, 50 Hz AC supply with KA value rating 10 kA of approved make confirming to IS :13947- Part III : 1993 & IEC :60947- 3:2001 (without enclosures) :-				
	8.4.4	FOUR POLE MCB 100 Amps.	each	8.00	807.3	6458.40
24)	8.5 UADD	Supplying of ISI Marked and accepted standard of Miniature Circuit Breaker (MCB) of 'C' series suitable for 240/415 Volts, 50 Cycle , 10 kA Value AC supply confirming to IS : 8828 : 1996, IEC : 60898 :2002 but without enclosures :-				
	8.5.1.2	6 Amp to 32 Amp Rating	each	200.00	135.9	27180.00
25)		Fixing of MCB /MCCB/ Isolator				
i)	UADD 8.16	Fixing of MCB / Isolator SP/DP in sheet steel enclosure as required as per accepted practice, including mounting on busbar and cable connection etc. complete (Labour only)	each	24.00	7.2	172.80

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

Name of Component :-		Internal Electrification			
26)	8.19 UADD	Labour charges for fixing sheet steel enclosures, MCB DB flush mounting type, as per accepted practice, duly embedded and end plate completely flushed in wall, cable connection etc.complete :-			
	8.19.1	8.5(1) to 8.5(5), 8.6(1) to 8.6 (5) & 8.7(1)	each	8.00	122.4 979.20
27)	9.15 UADD	Supplying, fixing,testing & commissioning wall / floor mounted LT Panel primer coated with two coat of enamel paint & provided with required gasket for dust/ vermin proof with degree of protection IP42 suitable for 415V 3 phase ,50 Hz ,4 wire system fabricated out of CRCA sheet upto 2 mm thick (1.6 mm for doors) with frame work of angle iron/ channel/ bolted type construction duly compartmentalised for incomer,bus section , outgoing ,cable alleys & CT,PT Ampere Meter ,Volt Meter , selector switches,Frequency Meter ,phase indicating lamps , energy Meter complete including cost of busbar supports, detachable cable gland plates,2 earthing terminals, internal wiring & fixing of separately supplied MCBs, MCCBs ,panel mounted Changeover switch/SFUs, etc. as required but excluding cost of busbar strips,Ampere Meter, Volt Meter, Selector switch as per approved design & specification			
		LT PANEL	ITEM 27.3.6 PAGE 31 KG	180.00	94.5 17010.00
28)	9.16 UADD	Supplying and fixing of LT Panel accessories of approved make in existing LT Panel including connections etc.as required as per specefication			
i)	9.16.1	Digital ampere meter with CTs with selector switch	each	1.00	1926 1926.00
ii)	9.16.2	Digital volt metere with selector switch &HRC sefu	each	1.00	2070 2070.00
iii)	9.16.5	Aluminium bus bar strips with PVC sleeves		25.00	171 4275.00
iv)	9.16.6	LED lamp indicater	each	11.00	198 2178.00
29)	8 UADD	Supplying of ISI Marked and approved make of Moulded Case Circuit Breaker (MCCB) suitable for 3 phase,3 pole, Case Circuit Breaker (MCCB) suitable for 3 phase,3 pole,50 Hz, 415 Volts, AC supply with respective interrupting capacity (KA) at 415 Volts cited against their range standard conforming to IS – 8828			
i)	8.2	MCCB with Breaking Capacity 35 KA at 415 V			

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

Name of Component :-		Internal Electrification				
	8.2.5	Current Rating -500/630 Amps & Adjustable: 70% -100% thermal	each	8.00	17105.4	136843.20
ii)	8.1	MCCB with Breaking Capacity 25 KA at 415 V				
	8.1.2	Current Rating -125 Amps & 780% -100% adjustable	each	3.00	5106.6	15319.80
iii)	mppw d 27.1.1. 1	MCCB with Breaking Capacity 10 KA at 415 V				
		Current Rating -25 to100 Amps	each	13.00	1523.7	19808.10
30)	11.3 UADD	Earthing with G.I. Earth plate 600mm X 600mm X 6mm thick including accessories and providing masonry encloser in cement mortar, cover plate having locking arrangement on the top and G.I. watering pipe 20mm dia 2.7 Metre long etc. (but without charcoal or coke and salt) complete as required.	Each	2.00	2082.6	4165.20
31)	11.5 UADD	Add Extra for using salt and charcoal / coke for G.I. Plate or Copper plate earth electrode Aasrequired including excavationand refilling	Each	2.00	424.8	849.60
32)	11.9 UADD	Supplying and laying 25mm X 6mm G.I. strip at 0.5 Metre below ground level as strip earth electrode including soldering etc. as required.	mtrs	125.00	63	7875.00
34)	9.32 UADD	Supplying, erection and testing of approved make electric Ceiling fan of double ball bearing complete with standard down rod, canopy, hanging shackle, Aluminium blades, without regulator, A.C. 230-250 volts including connections with all necessary material complete of approved as required confirming to IS :374/1979 with up to date ammendments.				
		Ceiling Fan (5 star & ISI)-1200 mm Sweep	Each	37.00	1635.3	60506.10
35)	9.31 UADD	Supplying and fixing of approved make step type Modular electronic fan regulator including connection etc. as required on existing board.				
	1	100 watt (2 module)	each	37.00	490.5	18148.50
36)	10.11 UADD	Supplying and fixing down rod of MS pipe for ceiling fan including threading, painting, making holes etc. as required complete :-	meter	37.00	79.2	2930.40
37)	10.6.2 UADD	Supplying and fixing fan clamps of 16 mm dia steel bar as per specification complete For R.C.C. Slabs / Beams	each	37.00	19.8	732.60

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

Name of Component :-		Internal Electrification				
38)	9.36 UADD	Supplying, erecting and testing of approved make Exhaust Fan heavy duty with mounting frame, blades AC 230-250 complete connection and including, frame bolt/ Anchor hole fastners etc. complete finished of approved as required.				
		Exhaust fan 300mm sweep 900RPM	Each	7.00	2315.7	16209.90
39)	12.13 UADD	Providing recess in brick wall suitable for erection of exhaust fan up to 450 sweep complete with grouting of nut bolts, plastering and colour wash to match the colour of wall				
	12.13.1	For brick wall thickness up to 9"	each	7.00	206.1	1442.70
40)	UADD 9.57	Supplying, fixing & testing of approved make of T- 5 lamp channel luminaire with plastic extruded housing with in-built electronic control gear with decorative end caps with necessary materials connection etc. complete as required (with lamp)	each	9.00	669.6	6026.40
41)	9.23 UADD	Supplying, Fixing and Testing of Compact Fluorescent Lamp (CFL) with inbuilt electronic ballast ISI marked BC / ES cap of approved make as required as per specification				
	9.23.5	18 watt	each	10	183.6	1836.00
42)	MPPW D SOR	Supplying and fixing PVC conduit ISI marked along with the accessories in concealed system etc. as required				
	15.1	PVC . Conduit 20 mm (HMS)	meter	2500.00	35.1	87750.00
	15.2	25mm conduit (HMS)	meter	100.00	45.9	4590.00
	15.3	32mm Conduit (HMS)	meter	500.00	64.8	32400.00
43)	31.26 MPPW D	Supplying and fixing surface mounting LED down lighter, LED of 1 to 3 W each assembled on single MCPCB, having color temp 6500K & having 50000 burning hrs life with minimum @ L 70, system lumen output should be minimum with efficacy>80lm/W. LED driver PF 0.95 & THD < 20%. The colour rendering index of LED light should be more than 70. Housing made of CRCA powder coated frame with glare free diffused polycarbonate cover. Submission LM 80-08 Form LED Source Manufacturer & LM79-08 / IS16106 from NABL approved lab. Manufacturer mandatory. i/c connection wire, testing etc. to complete the job. 2 Yrs Guarantee certificate from manufacturer.				

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

Name of Component :-		Internal Electrification				
	31.26.2	15 W , 180/200mm	NOS	21.00	3449.7	72443.70
44)	31.27 MPPW D	Supplying and fixing recessed mounting LED down lighter, LED of 1 to 3 W each assembled on single MCPCB, having color temp 6500K & having 50000 burning hrs life with minimum @ L 70, system lumen output should be minimum with efficacy>80lm/W. LED driver PF 0.95 & THD < 20%. The colour rendering index of LED light should be more than 70. Housing made of CRCA powder coated frame with glare free diffused polycarbonate cover. Submission LM 80-08 Form LED Source Manufacturer & LM79-08 / IS16106 from NABL approved lab. Manufacturer mandatory. i/c connection wire, testing etc. to complete the job. 2 Yrs Guarantee Certificate from manufacturer.				
	31.27.3	15 W, 180/200mm	each	142.00	2486.7	353111.40
45)	31.2 MPPW D	Supplying and fixing flood light with high power LED of 1 to 3 W each assembled on single MCPCB, system lumens output with efficacy>90 lm/W. luminaire having color temp 6500K & 50000 burning hrs life with minimum @ L 70, The colour rendering index of LED light should be more than 70. Luminaire comprises of driver, PF 0.95 & surge protection 3KV. Housing made of pressure die cast aluminium with heat resistant flat glass, IP65 protection. Submission LM 80-08 Form LED Source Manufacturer & LM79-08 / IS16106 from NABL approved lab. Manufacturer mandatory i/c connection lead, testing etc to complete the job. 2 Yrs Guarantee certificate from manufacturer.				
	31.30.4	90 W	each	4.00	22840.2	91360.80
	31.30.6	150W	each	33.00	30813.3	1016838.90
46)	31.7 MPPW D	Supplying, fixing and testing of approved make modular integral step / skirt LED light suitable for 3 module box and plate including fixing on wall as required, with necessary material complete	Each	118	601.2	70941.60

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

Name of Component :-		Internal Electrification			
47	29.30	Supplying and fixing of approved make electronic dimmer /regulator including connection etc. as required on existing board			
	29.30.2	1000 Watt	EACH	10	351 3510.00
48	43.B.17	Supply Installation, testing & Commissioning of Diesel Generating Set Three phase, water cooled with AMF control panel. 250KVA 415V.	SET	1	2332867.5 2332867.50
		INVERTER			
49	NSOR1	Pure Sinewave type inverter, Capacity 5700 Watts, Battery Voltage (V) 72V DC (External 6 Batteries Required), Power Output 4560, UPS Warranty 24 Months On-site, UPS Topology Offline/Standby with DSC (Micro Controller Based Design)	EACH	1	26280 26280.00
	NSOR2	Lead acid type Inverter Battery 150 Ah with Onsite warranty of 24 Months having 100% Hadi Tubular and PE Envelope Seperator Technology with Ceramic Water Level Indicator	EACH	6	11250 67500.00
		PUMPS FOR WATER TANK AND TUBEWELL			
52	39.1 MPPW D	Supplying & Installation of approved Make required capacity 3 phase, 50 Hz, 415V, Open Well Submersible pump, with Control Panel Starter with Dry Run Protection, single phase preventer, connections, etc. as required as per specifications but excluding Pipe and connection cable.			
	30.10.1	3.0 H.P. Head Mt 15-24, Discharge LPM 615-195	Each	2	22251.6 44503.20
53	39.1 MPPW D	Supplying & Installation of required capacity of singlephase, 50 Hz,220V, deep well submersible pump StainlessSteel body, as per IS of approved Make, suitable for 4"/6 "tube well with Control Panel Starter suitable for Submersible pump with dry run protection, connections, including clamps, bore cap etc. as required as per specifications but excluding Pipe, SS/Nylon wire rope and connection cable.			
	39.1.4.3	3 H.P. with 20 to 22 stages, Head Mt 167-51, Discharge LPM 25-90	each	13.00	31320 407160.00

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

Name of Component :-		Internal Electrification				
54	39.3 MPPW D	Supplying and laying of submersible flat cable ISI marked 3 core copper wire of suitable size with proper clamping of approved make.				
		4.0 Sq.mm multi strand	meter	250	166.5	41625.00
						666623
		Sub Engineer		Executive Engineer		
		J.S.C.L., Jabalpur		J.S.C.L., Jabalpur		

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

		FORMAT - E	1		E	
DETAILED ESTIMATE FOR INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR, M.P.						
	S.No. of Project Sub Head :-		1			
	Name of Project Sub Head :-		of			
	S.No. of Component :-		E			
	Name of Component :-		Fire Suppression System			
Fire Suppression System						
S.No.		Description	Unit	QTY	RATE (Rs)	AMOUNT
1	MPPWD 26.4	Supplying and fixing single headed internal hydrant valve with instaneous Gun metal couplings of 63mm dia with cast iron wheel ISI marked conforming to IS 5290 (Type -A) with blank gunmetal cap and chain as required.	each	6	7600.5	45603
2	26.12 MPPWD	Supplying and fixing first -Aid hose reel with MS construction spray painted in post office red, confirming to IS 884 with upto date amendments, complete with the following as required, a) 20/30/40m long 20mm (nominal internal) dia water hose thermoplastic (textile reinfirced) type -2 as per IS 12585b) 20mm (nominal internal) dia gun metal globe valve and nozzle.c) Drum and brakets for fixing the equipments on wall.d) Connections from riser with 40 mm dia stop valve (gun metal) and M.S. pipe	Each	3	5457.6	16372.8
3	26.11 MPPWD	Supplying and fixing 63mm dia, 15 mtr long RRL hose pipe with 63mm dia male and female gun metal couplings duly binded with GI wire, rivets etc. confirming to IS 636 (type-A)as required.	Each	6	6369.3	38215.8
4	NSOR1	Providing and fixing Controlled Percolating (CP) Hose ISI marked (IS:8423) 63 mm dia x 15 m long complete with instanteneous type gunmetal / SS, 63 mm dia, ISI marked Male & Female couplings (IS:903) bound and rivetted to hose pipe with copper rivets and 1.5 mm copper wire.	Each	6	3992.4	23954.4
5	26.15 MPPWD	Providing and fixing 63mm gun metal branch pipe with 20 mm (nominal internal diameter) size gun metal nozzle conforming to IS 903, suitable for instaneous connection to interconnect hose pipe coupling as required.	Each	6	2259	13554

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

Name of Component :-			Fire Suppression System			
6	MPPWD 26.22	Providing and fixing angle iron (40mmx40mm x5mm) door frame and MS sheet (2mm thick) cum glass shutter of size 2.1 mtr. X 1.2mtr. (N.S.) with 25mmx25mmx3mm angle frame all around and stiffened in between i/c hinges, handle, locking arrangement, painting with one coat of primer, stove enamelled fire red finished, "Fire Hose" written on front, suitable to accommodate 2 Nos single headed Hydrant landing valve, 1 fire hose reel, 2 nos.15m long 63mmdia hose,1-branch pipe, 1 fire-man's axe, including suitably mounted on a raised masonry platform as required.	each	3	6340.5	19021.5
7	26.13 MPPWD	Supplying and fixing hose cabinet of size 900mmx600mmx500mm made of 2 mm thick MS sheet with 6 mm thick glazed glass doors i/c necessary locking arrangement suitable to accommodate external hydrant with butterfly valve 2 nos. 15mtr. Long hose pipe, 1 no	Each	3	14555.7	43667.1
8	M.P.P.W .D. 26.17	Supplying and fixing air vessel made of 250 mm dia, 8mm thick MS sheet, 1200 mm. in height with air release valve on top and flanged connection to riser, drain arrangement with 25mm dia gun metal wheel valve, with required accessories, pressure gauge as required incl. fixing brackets. On Hydrant and Sprinkler Risers	each	3	10570.203	31710.609
9	26.3 MPPWD	Providing laying, testing and commissioning of class 'C' heavy duty MS pipe conforming to IS 3589/1239 including fittings like elbows, tees, flanges, tapers, nuts bolts, gasket etc. fixing the pipe on the wall/ceiling with suitable clamps and painting with				
9.1	26.3.9	25 mm dia	RM	160	279	44640
9.2	26.3.8	32 mm dia	RM	15	351.9	5278.5
9.3	26.3.7	40 mm dia	RM	70	398.7	27909
9.4	26.3.6	50 mm dia	RM	50	529.2	26460
9.5	26.3.5	65 mm dia	RM	15	668.7	10030.5
9.6	26.3.4	80 mm dia	RM	20	828.9	16578
9.7	26.3.3	100 mm dia	RM	30	1195.2	35856
9.8	26.3.2	150 mm dia	RM	75	1724.4	129330

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

Name of Component :-		Fire Suppression System				
10	26.1 MPPWD	Providing laying, testing and commissioning of 'C' class heavy duty MS pipe conforming to IS 1239/3589 underground i/c fittings like elbows, tees, flanges, tapers, jointing with nuts bolts, gaskets and welding etc. underground including excavation and providing cement concrete blocks as supports, at prescribed intervals and anticorrosive treatment with coaltar/asphalt tape as per IS 10221, with 4mm thick fiber reinforced tape and 12mm overlap and refilling the trench etc. of the following sizes complete as directed by Engineer-in-Charge. 26.1.1 200mm dia				
10.3	26.1.1	200mmdia	RM		2535.3	
	26.1.2	150mm dia	RM	25	1734.3	43357.5
	26.1.3	80mmdia	RM		839.7	
11	26.8 MPPWD	Providing, installation, testing and commissioning of dual plate non- return valve of following sizes confirming to IS 5312 complete with rubber gasket, GI bolts, nuts, washers etc. as required.				
	26.8.1	200mmdia	each	4	16415.1	65660.4
	26.8.2	100mmdia	each		6300	
	26.8.3	80mmdia	each	3	4757.4	14272.2
12	MPPWD 26.6	Supplying, fixing, testing and commissioning of butterfly valve PN 1.6, with Bronze/Gunmetal seat duty ISI marked complete with Nuts, Bolts, washers, gaskets, confirming to IS 13095, of following sizes as required.				
	26.6.1	200mmdia	each		8138.7	
	26.6.2	150 mm dia	each	6	4064.4	24386.4
	26.6.3	80mmdia	each		2259.9	
13	26.10	Providing, installation, testing and commissioning of gun metal valves of following sizes as required.				
	26.10.1	50mmdia	each		2280.6	
	26.10.2	25mmdia	each	7	936.9	6558.3
14	NSOR3	Providing and fixing dial type pressure gauge including making connection with ball valve at each hydrant station, complete in all respects. Dial dia 100 mm, calibration 0-15 kg/sq cm. Valve shall be paid separately.				
14.1		a) 15 mm dia nominal bore	Each	3	661.00	1983
15	NSOR4	Providing and fixing standard fireman's axe with heavy insulated rubber handle conforming to IS: 926 complete.	Each	3	566.00	1698

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

Name of Component :-			Fire Suppression System			
16	26.3 MPPWD	Providing laying, testing and commissioning of class 'C' heavy duty MS pipe confirming to IS 3589/1239 including fittings like elbows, tees, flanges, tapers, nuts bolts, gasket etc. fixing the pipe on the wall/ceiling with suitable clamps and painting with				
	26.3.3	100 mm dia	RM	30	1195.2	35856
	26.3.2	150 mm dia	RM	75	1724.4	129330
	26.3.1	200 dia	RM	10	2525.4	25254
	NSOR 5	250 dia	RM	10	3572.00	35720
17	26.17 mppwd	Providing and fixing Two Way Fire Brigade connection of CI body with 2 nos Gun Metal male instantaneous inlet coupling complete with cap chain as required. For 150 dia MS pipe connection, confirming to IS:904-1983 as required	Each	3	5400	16200
II		SUPPLY, INSTALLATION, TESTING & COMMISSIONING OF :-				
18	26.19 MPPWD	Providing fixing testing and commissioning of 15 mm size quartzoid bulb type sprinklers, set to operate at 68/79 degree Centigrade. Pendent type/ upright type/ side wall type with required accessories complete as directed by Engineer-in-charge.	Each	131	373.5	48928.5
19	NSOR6	150 mm dia. Installation Control Valve assembly comprising of vertical wet alarm valve, including 150 mm dia butterfly valve, hydraulic alarm motor & gong, 15 mm dia. Test valve, 50 mm dia. Drain valve and all necessary trimming connections including 2 nos.pressure guages as per manufacturer 's catalogue (UL/FM/LPC/TAC listed/approved).	Each	1	40924.00	40924
20	26.20MP PWD	Providing and fixing flow switches in 100/150mm dia MS pipe.	Each	1	3173.4	3173.4
21	NSOR 7	Providing and fixing 25 mm dia inspecting & testing assembly with gunmetal valve, gunmetal sight glass, bypass valve & connected to drain line.	Each	1	5537.00	5537
22	26.10 MPPWD	Providing, installation, testing and commissioning of gun metal valves of following sizes as required.				
	26.10.1	50mmdia	each		2280.6	
	26.10.2	25mmdia	each	1	936.9	936.9
23	NSOR3	Providing and fixing dial type pressure gauge with ball valve and pipe at hydrant station, complete in all respects. Dial dia 100 mm, calibration 0-15 kg/sq cm. Valve shall be paid separately.				
23.1		a) 20 mm dia nominal bore	Each	1	661.00	661

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

Name of Component :-		Fire Suppression System			
		Total C/F to Summary			
III		Fire Pump and Accessories.			
24	NSOR 8	SUPPLY, INSTALLATION, TESTING. & COMMISSIONING OF:			
		Electrical Motor Driven Fire Pumping set suitable for automatic operation consisting of the following as per the specifications.			
		a) Horizontally mounted, centrifugal type single/ multi stage fire pump having cast iron body, bronze impeller, stainless steel shaft & capable of delivering 2280 LPM against a total head of 60 M complete with pressure gauge with GM cocks on the delivery side including bypass arrangement (with 50 valve and upto 5M G.I. Medium pipes) for periodical testing of the working of the testing of the working of the pumping set as per TAC rules.			
		b) Squirrel cage induction motor totally enclosed fan cooled type suitable for 415 Volts +_ 15%, 3 phase, 50 HZ A.C. supply 2900 RPM of suitable capacity (approx. 195 HP or as required) for the above pump coupled with flexible coupling including earthing as per relevant Indian Standard & specifications.			
		c) Common bed plate for mounting Pump and Motor fabricated of Motor fabricated of suitable M.S.Channel as per manufacturer*s recommendations.			
		d) Suitable RC.C Pump-Foundations as per manufacturer's design and 4 nos. Dunlop (cushy foot) heavy duty Antivibration mounting pads. (for Hydrant and Sprinkler system).	Set	1	250000.00
25	NSOR 9	SUPPLY, INSTALLATION TESTING & COMMISSIONING OF:			250000
		Diesel Engine Driven Fire Pumping set suitable for automatic operation consisting of the following as per specifications:			
		a) Horizontally mounted, centrifugal type single/ multi stage fire pump having cast iron body, bronze impeller, stainless steel shaft & capable of delivering 2280 LPM against a total head of 60 M complete with pressure gauge with GM cocks on the delivery side including bypass arrangement (with 50 valve and upto 5M G.I. Medium pipes) for periodical testing of the working of the testing of the working of the pumping set as per TAC rules.			

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

Name of Component :-			Fire Suppression System			
		b) Water cooled TAC approved Diesel Engine suitable for (1450/1800 RPM) for above pump complete with automatic starting mechanism, batteries, automatic battery charger unit, flexible coupling with the pump, coupling with the pump, fuel tank, silencer, exhaust pipe & all standard accessories as required as per TAC rules including earthing, mandatory spares and tool kit.				
		c) Common bed plate for mounting Pump and Engine fabricated of suitable M.S.Channel as per manufacturer's recommendations.				
		d) Suitable RCC Pump foundations as per manufacturer ' s design 8 Nos Dunlop Anti-vibration (cushy foot) heavy duty mounting pads.	Set	1	390000.00	390000
26	NSOR 10	SUPPLY, INSTALLATION TESTING & COMMISSIONING OF:				
		a) Electrical Motor Driven Automatic pressurisation (Jockey) pumping set consisting of the following as per specifications. Horizontally mounted centrifugal type single/multi-stage fire pump for building pressure loss due to any leakage in the system and capable to deliver approx 180 LPM against a total head of 60 M having cast iron body. bronze impeller, stainless steel shaft and complete with Pressure Gauge with stop G.M. Stop Valve etc. on the delivery side the delivery side including bypass arrangement (with 25 mm dia. G.M. Stop Valve and upto 5 M.G.I. Medium pipes) for periodical testing of the working of the pumping set.				
		b) Squirrel cage induction motor totally enclosed fan cooled type suitable for 415 Volts +_ 15% 3 phase. 50 HZ A.C. supply of suitable capacity (approx 25 HP or as required) for the above pump with synchronous speed of 1500/3000 RPM confirming to IS: 325 & duly coupled with above pump coupled with flexible coupling including earthing as per relevant Indian Standard and specifications.				
		c) Common bed plate for mounting Pump and Motor fabricated of suitable M.S.Channel as per manufacturer's recommendations.				

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

Name of Component :-			Fire Suppression System			
		d) Suitable RCC Pump foundations as per manufacturer's design 4 Nos Dunlop Anti-vibration (cushy foot) heavy duty mounting pads.	Set	1	150000.00	150000
27	NSOR 11	Supply, Installation, Testing & Commissioning of cubical type floor mounted Fire Pump Control Panel fabricated from 14 g M.S. Sheet duly powder coated finish of approved shade and comprising of :				
		INCOMING:				
		a) One 400 amp. TP +NL M.C.C.B.with rotary handle of beaking capacity 35 KA				
		b) One-Volt Meter (0- 500 V) with selector switch				
		c) One Set indicating lamps				
		BUS BARS OUTGOING				
		a) 900 Amp. TPN Dual Sleeve BUS BAR (Aluminium).				
		b) Two - 300 Amp. TP + NL M.C.C.B.with rotary handle of beaking capacity 35KA				
		d) Two - 63 Amp.TP +NL M.C.C.B.with rotary handle of beaking capacity 35KA				
		e) One Fully Automatatic Star-Delta starters suitable for 100 HP Pump Motor with over load relay timer push buttons and Auto/Manual selector switch				
		f) One Fully Automatatic Star-Delta starters suitable for Jockey Pump Motor (25 HP) with over load relay, timer push buttons and Auto/Manual selector switch				
		g) Five panel type Amp. meters one for each motor with ASS. CTS etc.				
		h) Five sets of On/Off - neon indicating lamp.				
		i) One Fully Automatic Diesel engine starting system comple with battery charger hooter, indicating lights, transformer, rectifier, timer, voltmeter ammeter, selector switches, push buttons, auxilliary relay etc. complete as required as per TAC rules				
		j) All interconnecting power & control wires/cables of suitable size within the panel and from panel to motors diesel engine, pressure switches, level switches,cable Tray, pipes etc. including brass glands termination within fire pump house and earthing as per specifications (Power cable size shall not be less than 2 No. 3 x 240 mm sq. for main pump motor and 2 Nos. 3 x 25 mm sq for jockey pump motor and Fire curtain motor)	Set	1	433230.00	433230

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

Name of Component :-		Fire Suppression System				
28	NSOR 12	Providing and fixing reselient rubber neoprene lined single arch vibration eliminators suitable for raw water upto 45 deg. C. temperature working pressure 7 kg and test pressure 14 kg per sq. cm. (for suction side)				
		a) 80 mm dia	Each			
		b) 100 mm dia	Each	1	4002.00	4002
		c) 150 mm dia	Each			
		d) 200 mm dia	Each	2	7677.00	15354
		e) 250 mm dia	Each			
29	NSOR 12	Providing and fixing reselient rubber neoprene lined single arch vibration eliminators suitable for raw water upto 45 deg. C. temperature working pressure 14 kg and test pressure 20 kg per sq. cm. (for delivery side)				
		a) 80 mm dia	Each	1	6000.00	6000
		b) 100 mm dia	Each			
		c) 150 mm dia	Each	2	10500.00	21000
		d) 200 mm dia	Each			
		e) 250 mm dia	Each			
30	26.8 MPPWD	Providing, installation, testing and commissioning of dual plate non- return valve of following sizes confirming to IS 5312 complete with rubber gasket, GI bolts, nuts, washers etc. as required.				
	26.8.1	200mmdia	each			
	26.8.2	100mmdia	each	2	6300	12600
	26.8.3	80mmdia	each	1	4757.4	4757.4
31	MPPWD 26.6	Supplying, fixing, testing and commissioning of butterfly valve PN 1.6, with Bronze/Gunmetal seat duly ISI marked complete with Nuts, Bolts, washers, gaskets, confirming to IS 13095, of following sizes as required.				
	26.6.1	200mmdia	each			
	26.6.2	150 mm dia	each	6	4064.4	24386.4
	26.6.3	80mmdia	each	2	2259.9	4519.8
	NSOR13	100mm dia	each	1	3528.00	3528
32	26.10 MPPWD	Providing, installation, testing and commissioning of gun metal valves of following sizes as required.				
	26.10.2	25mmdia	each	6	936.9	5621.4

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

Name of Component :-		Fire Suppression System				
34	MPPWD ELECT. 41.54	Supply and erection of hot dip G.I. cable tray perforation not more than 17.5% for specific dimensions along with tees, bends.. The cable tray shall be hang from ceiling/ fixed to wall with necessary angle/flat iron / hanging rod, for ceiling suspensions, clamps, anchor fastner, nuts, bolts, washers, not mor than 1.5 mtr. apart complete as per specification to complete the job. The tray shall be as follows :-				
		a) 300 mm width x 50 mm depth x 2 mm thickness	Each	2	759.6	1519.2
		b) 150 mm width x 50 mm depth x 2 mm thickness	Each	1	514.8	514.8
35	MPPWD 26.9	Providing, installation, testing and commissioning stainless steel strainer fabricated out of 1.6 mm thick stainless steel sheet with 3 mm dia holes with stainless steel flange.				
	26.9.1	80mmdia	each		4115.7	
	26.9.2	100mmdia	each		5967.9	
	NON SOR 14	250mm dia	Each	2	40076.00	80152
36	NON SOR 3	Providing and fixing dial type pressure gauge with ball valve and pipe at hydrant station, complete in all respects. Dial diameter 100 mm, calibration 0-15 kg /sq cm.				
		a) 20 mm dia nominal bore	Each	3	661.00	1983
IV		Portable Chemical Fire Extinguishers.				
37	26.23 MPPWD	Providing and fixing of carbon-di-oxide type fire extinguishers consisting of welded M.S. cylindrical body, squeeze lever discharge valve fitted with pressure indicating guage internal discharge tube 30 ems long high pressure discharge hose, discharge no 26.23.1 Capacity4.5 Kg.	each	5	10215.9	51079.5
38	26.24 MPPWD	Providing and fixing of ABC Powder type fire extinguishers consisting of welded M.S. cylindrical body, squeeze lever discharge valve fitted with pressure indicating guage internal discharge tube 30 ems long high pressure discharge hose, discharge nozzle 26.24.1 Capacity 5.0 Kg.	each	5	6570.9	32854.5
		Total C/F to Summary				2521719.81
		Sub Engineer J.S.C.L., Jabalpur			Executive Engineer J.S.C.L., Jabalpur	

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

			FORMAT - E	1	F	
DETAILED ESTIMATE FOR INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR, M.P.						
	S.No. of Project Sub Head :-	1				
	Name of Project Sub Head :-	Cost of construction of AUDITORIUM				
	S.No. of Component :-	F				
	Name of Component :-	FIRE ALARM AND DETECTION SYSTEM				
SI No	SOR	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
ABSTRACT OF COST						
FIRE ALARM AND DETECTION SYSTEM						
1.00	43.CB1 MPPWD	Fire Panel : Providing, Fixing, testing & commissioning Microprocessor based Main Fire Alarm Panel and indicating panel solid state modular card type pulsar, timer for dual stage alarm facility with indicators, standby battery ,Complies to IS 2189:1999.2 x 16 character backlit LCD display .Lamp test features. Complete with integral power supply and battery charger for SMF battery. NO/NC contacts for both fire and fault. Switches to enable on board operation. LCD and LED Indication for open, short circuit, Isolate, Fire in each zone. Reset, Lamp Test, Silence, Isolate, Short, Open, Fire Continuous buzzer for fault and intermittent buzzer for fire battery charger box, operating voltage 220 Volt Mains A.C. Input / 24V D.C. Output etc. complete in all respect.				-
	43.CB1.3	8 Zone Fire Panel	Nos.	1	36155	36,154.80
						-
1.02	43.CB1.3 MPPWD	Smoke Detector (Optical Type) : Providing & Fixing of Optical type Smoke Detector as per IS" 11360 - 1985 of photooptic sensing chamber, 12/24 volt DC, ionization source - less than one micro curie maximum Americium 241, twin visual alarm indicator (LED's) "Blink" in stand by and "steady" in alarm complete in all respects.	Nos.	90	2669	2,40,165.00
						-
1.03	43.C.B.1.4 MPPWD	Heat Detector Providing & Fixing of Heat Detector based on Heat Rate-of-Rise/fixed temperature with working voltage 9-33V DC twin visual alarm indicator (LED's) "Blink" in stand by and "steady" in alarm complete in all respects.	Nos.	1	1960	1,960.20
						-

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

Name of Component :-		FIRE ALARM AND DETECTION SYSTEM				
1.04	43.C.B.1.7 MPWD	Manual call Point Providing & Fixing of Manual calls Point flush or Surface Mounting. Front protection glass cover. Unbreakable glass ABS plastic body.	Nos.	4	512	2,048.40
						-
1.05	43.C.B.1.8 MPPWD	Internal Hooter Providing & Fixing of Internal Hooter With Working AC Voltage 220V- A.C. / 24V D.C. Current Consumption, Sound output 120 DB, Material M.S .Sheet.	Nos.	4	599	2,397.60
						-
1.06	NDSR	Supply, Installation, testing & commissioning of control module complete as per specification as required.	Nos.	4	5749	22,996.00
						-
1.07	43.C.B.1.6 MPPWD	R.I. Providing & Fixing of Response Indicator	Nos.	47	180	8,460.00
1.08	NDSR	Supply & laying of Fire Survival Armoured cable (HPSR) High Performance Silica Rubber, size 1.5 sq mm x 2 core Copper, as per BS 7629 code, LPCB certified, 950°C rating for three hours for fire alarm system	Mtr	1400	125	1,75,000.00
						-
1.09	19.1 mppwd	Supplying and drawing single core PVC insulated cable FR with copper multi strand conductor ISI marked in existing rigid PVC Casing-N-Capping / conduit in surface or concealed as per specification.				-
	1.17.2	2 x 1.5 sq.mm.	Mtr	200	32	6,480.00
						-
1.10	13	Supplying and fixing rigid steel conduit ISI marked along with the accessories in concealed system including cutting the wall and plastering & repainting the wall with matching colour to bring in its original condition as required				-

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

Name of Component :-			FIRE ALARM AND DETECTION SYSTEM			
13.1	H.G. Conduit 20 mm, wall thickness-1.6mm	Mtr	100	104	10,440.00	
13.2	H.G. Conduit 25 mm, wall thickness-1.6mm	Mtr	50	123	6,165.00	
	SUB TOTAL				5,12,267.00	
	Sub Engineer J.S.C.L., Jabalpur		Executive Engineer J.S.C.L., Jabalpur			

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

		FORMAT - F	1.00	G		
DETAILED ESTIMATE FOR INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR, M.P.						
S.No. of Project Sub Head		1.00				
Name of Project Sub Head		Cost of construction of AUDITORIUM BUILDING				
S.No. of Component		G				
Name of Component		H.V.A.C.				
ABSTRACT OF COST						
Schedule of Airconditioning work for Auditorium building, Jabalpur						
S.No.	Ref DSR NO.	Description of Items	Qty	Unit	Rate in Figures in Rupees	Amount
1	NSI-1	<u>VRV OUTDOOR FOR DX TYPE AHU</u>				
		Supply, installation, testing and commissioning of Variable refrigerant volume/ Variable refrigerant flow modular type air-conditioning system suitable for cooling and heating by using minimum 33 % as variable capacity Inverter based compressors in each Module complete with outdoor units with controller, Expansion Valve Kit (EV kit), control box with internal wiring and other related accessories etc. full charging of R-410A refrigerant gas complete, powder coating complete as per specification.				
		(Considering conversion factor 1 HP= 0.83TR)				
		Outdoor units of nominal capacity as per manufacturer's standard suitable for operating with R-410A refrigerant.				
1.1	1.1	Minimum 20 HP (For 6400 cfm/ 16.0 TR DX AHU)	2	Nos.	4,82,330.00	9,64,660.00
2	NSI-2	<u>INDOOR UNITS</u>				
		<u>DX TYPE AHU</u>				
		Supply, installation, testing and commissioning of double skin modular construction, draw through Floor Mounted Horizontal type (FM) Air Handling Units of 0.6 mm thick Plain GSS Sheet from inside & 0.8 mm thick Preplasticized GSS Sheet from Outside with 40 mm thick puf insulation in between them. AHU Shall be complete with DIDW Centrifugal fan (plugfan), Squirrel cage induction motor, DX type cooling / heating coil (Copper tubes and Aluminium fins), pre-filter (Washable Synthetic fibre of efficiency 90% down to 10 micron), drain pan, V belt drive, fireproof double canvass connection and other accessories as per specifications . Motor shall be suitable for 415 ± 10% volts, 50 cycle, 3 Phase AC supply as indicated below.AHU shall include the cost of metering, power and control wiring between Control panel and Motor. PCC/RCC foundation with plaster, Antivibration arrangement of cushy foot mountings etc. complete in all respect shall be in contractor's scope for floor mounted AHUs..				

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

Name of Component			H.V.A.C.			
2.1	2.1	6400 CFM (FM) AHU, 16.0 TR, 4 row deep cooling coil, 125 mm Static Pressure with 3.0 HP/ 3 Phase motor	2	Nos.	1,01,421.00	2,02,842.00
3	NSI-3	OUTDOOR UNITS				
		Supply, installation, testing and commissioning of Variable refrigerant volume/ Variable refrigerant flow modular type air-conditioning system suitable for cooling and heating by using minimum 33 % as variable capacity Inverter based compressors in each Module complete with outdoor units with controller and with accessories & sub assemblies fittings etc. full charging of R-410A refrigerant gas complete, powder coating complete as per specifications,with connectivity to BMS for A/M status, RUN status & Remote start/stop command.(Bacnet/IP)				
		(Considering conversion factor 1 HP= 0.83TR)				
		Outdoor units of nominal capacity as per manufacturer's standard suitable for operating with R-410A refrigerant.				
		Ground Floor				
3.1	3.1	Minimum 20 HP	2	Nos.	4,25,180.00	8,50,360.00
4	NSI-4	Cassette Type Units				
		Supply, installation, testing and commissioning of Indoor units equipped with pre-filter, fan section with low noise fan, multispeed motor, coil section with DX coil, outer cabinet, drain pan, insulation, pipe connections etc. of various capacities as per drawings, complete with remote controls with (Bacnet/IP) as required.				
4.1	4.1	3.98 TR/ 1220 cfm (Minimum)	3	Nos.	94,875.00	2,84,625.00
4.2	4.2	3.18 TR/ 1120 cfm (Minimum)	2	Nos.	88550	1,77,100.00
4.3	4.3	2.55 TR/ 820 cfm (Minimum)	1	No.	60,214.00	60,214.00
4.4	4.4	1.02 TR/ 440 cfm (Minimum)	3	Nos.	45,034.00	1,35,102.00
4.5	4.5	1.02 TR/ 335 cfm (Minimum) - Multi Flow Type	3	Nos.	44,022.00	1,32,066.00
5	NSI-5	Hi-wall Type Units				
		Supply,installation,testing and commissioning of Wall mounted type Hi-wall units of following nominal capacities, with fittings, complete with remote controls with (Bacnet/IP) as required.				
5.1	5.1	2.0 TR	3	Nos.	35,800.00	1,07,400.00
5.2	5.2	1.59 TR	2	Nos.	30,500.00	61,000.00
5.3	5.3	1.33 TR	1	Nos.	28,450.00	28,450.00
5.4	5.4	1.0 TR	1	Nos.	26,450.00	26,450.00
						-
6	NS-6	Supply,installation,testing and commissioning of Imported Y Joints with insulation to connect indoor units with main header as per drawing.	32	Nos.	5,230.00	1,67,360.00
7	NSI-7	CONTROL & TRANSMISSION WIRING				
7.1	7.1	Providing & Fixing Control cum Transmission Wiring of 2 Core x 1.5 mm ² copper wire in PVC conduit as per specifications for transmission and between Indoor Units & their wired remotes.	150	RM	200.00	30,000.00
8	NSI-8	REFRIGERANT PIPING				

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

Name of Component			H.V.A.C.			
		Supplying & Installation of interconnecting following sizes of one end expanded refrigerant copper pipe work with Headers of following outer diameter, insulated with closed cell electrometric nitrile rubber tubular insulation between each set of indoor & outdoor units with outer mechanical protection of alluminum cladding for all exposed pipes as per specification all piping inside the room shall be propelry fixed/supported with suitable size of clamp/ M.S. hanger and all external piping shall run in M.S. painted cable tray etc. as reqd. (The final refrigerant pipe sizes shall be as per manufacturer).The Pipe given quantity also includes the extra refrigerant pipe beyond 5 meter of length for Split units.				
8.1	8.1	41.3 mm dia with 19mm thick insulation	10	Mtrs.	1,675.00	16,750.00
8.2	8.2	34.9 mm dia with 19mm thick insulation	10	Mtrs.	1,230.00	12,300.00
8.3	8.3	28.6 mm dia with 19mm thick insulation	50	Mtrs.	960.00	48,000.00
8.4	8.4	22.2 mm dia with 19mm thick insulation	25	Mtrs.	815.00	20,375.00
8.5	8.5	19.1 mm dia with 13mm thick insulation	25	Mtrs.	720.00	18,000.00
8.6	8.6	15.9 mm dia with 13mm thick insulation	50	Mtrs.	625.00	31,250.00
8.7	8.7	12.7 mm dia with 13mm thick insulation	15	Mtrs.	525.00	7,875.00
8.8	8.8	9.5 mm dia with 13mm thick insulation	15	Mtrs.	505.00	7,575.00
8.9	8.9	6.4 mm dia with 13mm thick insulation	10	Mtrs.	430.56	4,305.60
			10			
9	NSI-9	DRAIN PIPING				
		Supply, installation, testing and commissioning of rigid heavy duty PVC piping complete with fittings, support as per drawing and insulated with 6 mm closed cell elastomeric insulation.				
9.1	9.1	25 mm dia	70	RM	215.00	15,050.00
9.2	9.2	32 mm dia	40	RM	270.00	10,800.00
10	DSR-16.12.1	Supply, installation, balancing and commissioning of factory fabricated GSS sheet metal rectangular/round ducting complete with neoprene rubber gaskets, elbows, splitter dampers, vanes, hangers, supports etc. as per approved drawings and specifications of following sheet thickness complete as required.				
		Note :- Auditorium height is approx. 30 ft and contractor has to arrange its scaffolding for ducts installation and other work. Quoted price should be inclusive of scaffolding price.				
10.1	16.12.1.1	0.63 MM (24 gauge) Galvanized Sheet Steel Ducting	350	Sqmt	739	2,58,650.00
10.2	16.12.1.2	0.80 MM (22 gauge) Galvanized Sheet Steel Ducting	75	Sqmt	905	67,875.00
10.3	16.12.1.3	1.0 MM (20 gauge) Galvanized Sheet Steel Ducting	40	Sqmt	1014	40,560.00
10.4	16.12.1.4	1.25 MM (18 gauge) Galvanized Sheet Steel Ducting	R.O	Sqmt	1278	
11	NSI-10	SITC of Flexible Connection between AHU and duct complete with fittings, flanges, supports, all accessories as per specifications.	2	Nos.	1485	2,970.00

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

Name of Component			H.V.A.C.			
12		SUPPLY / RETURN AIR GRILLES				
12.1	DSR-16.15	Supplying & fixing of powder coated extruded aluminium Supply/Fresh Air Grills with aluminium volume control dampers as per specifications.	6	Sqmt	7,132.00	42,792.00
12.2	DSR-16.16	Supplying & fixing of powder coated extruded aluminium Return / Exhaust Air Grilles with louvers but without volume control dampers complete as required.	12	Sqmt	4,065.00	48,780.00
13		SUPPLY / RETURN AIR DIFFUSERS				
13.1	DSR-16.17	Supplying, fixing testing commissioning of supply air diffusers of powder coated aluminium with aluminium volume control dampers with anti smudge ring & removable core.	0.5	Sqmt	8,686.00	4,343.00
13.2	DSR-16.18	Supplying, fixing testing commissioning of Return air diffusers of powder coated aluminium without volume control dampers with anti smudge ring & removable core.	0.5	Sqmt	5619	2,809.50
14	DSR-16.21	Supplying, fixing acoustic lining of supply air duct and plenum with 25 mm thick resin bonded glass wool having density of 32 Kg/M ³ , with 25 mm x 25 mm GI section of 1.25 mm thick at 600 mm centre to centre covering with reinforced plastic tissue paper and 0.5 mm thick perforated aluminum sheet fixed to inside surface of ducts with cadmium plated nuts, bolts, stick pins, CPRX compound complete as required and as per specification.	30	Sqmt	551	16,530.00
15	DSR-16.23	Supplying and fixing of following thickness duly laminated aluminum foil of mat finish closed cell Nitrile rubber (class"O") insulation on existing duct after applying two coats of cold setting adhesive (CPRX compound). The joints shall sealed with 50 mm wide and 3 mm thick self adhesive nitrile rubber tape insulation complete as per specifications and as required.				
15.1	16.23.1	19 mm thick (In Condition Space)	500	Sqm.	821.00	4,10,500.00
16	DSR-16.22	Supplying, fixing accoustic lining on wall amd ceiling of AHU rooms with 50 mm thick, density 32 kg/cum resin bonded glass fiber insulation friction fixed in 610mm x 610 mm frame work made of 25 x 50 x 50 x 25 mm made out of 0.6 mm thick GI sheet U shaped channel and covered with reinforced fiber galss tissue and finished with 0.8 mm perfoarted aluminium sheet etc. complete as required and as per sepcifications.	75	Sqmt	870.00	65,250.00
17	DSR-16.20	FIRE DAMPERS				

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

Name of Component			H.V.A.C.			
		Supplying, Fixing,testing and commissioning of fire dampers in supply air duct/main branch and return air path as and where required of required sizes i/c control wiring,the damper shall be motorized and spring return so as to close the damper in the event of power failure automatically and open the same in case of power being restored. The spring return action shall be inbuilt mechanism and not externally mounted. The damper shall also be closed in the event of fire signal complete as required and as per specifications.				
17.1	16.20.1	Fire damper	2	Sqm.	7103	14,206.00
17.2	16.20.2	Actuator	4	Each	6604	26,416.00
18	NSI-11	<u>AXIAL FLOW FANS</u>				
		Supply, installation, testing and commissioning of direct driven Axial Flow Fans as shown in drawings and as per specifications. Each fan shall be complete with totally enclosed fan cooled motor EFF-1 (IP:55), Starters, metering, power and control wiring between Control panel and Motor etc., motor mount and vibration isolators. Fan motor shall be suitable for 3 Phase, 415 +/- 10% V, 50 Hz AC supply.(Motor speed shall not exceed 900 rpm). The Smoke Extraction Fan and its casing shall be suitable for smoke exhaust application and fan shall be AMCA certified. Motor shall be thermally rated for 250°C for 2 hours as per [BS-7346 Part-2 : 1990] Class-B				
18.1	11.1	Duty : Smoke Exhaust in case of Emergency				
		Air Quantity : 14000 CFM				
		Static Pressure : 25 mm wg	1	No.	115273	1,15,273.00
		Motor Rating :12.5 HP (Suggested)				
18.2	11.2	Duty : Fresh Air in case of Emergency				
		Air Quantity : 13000 CFM				
		Static Pressure : 25 mm wg				
		Motor Rating :12.5 HP (Suggested)	1	No.	106545	1,06,545.00
19	NSI-12	<u>INLINE FANS</u>				
		Supply, installation, testing and commissioning of inline ducted Fans as shown in drawings. Fan motor shall be suitable for single phase, 50 Hz AC supply. The capacity of the fan given as under:-				
19.1	12.1	Air Quantity : 550 CFM				
		Static Pressure : 20 mm wg				
		Motor rating : 150 Watt	1	No.	15210.00	15,210.00
		Duty : Exhaust				

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

Name of Component			H.V.A.C.			
19.2	12.2	Air Quantity : 400 CFM				
		Static Pressure : 20 mm wg				
		Motor rating : 150 Watt				
		Duty : Exahust	1	No.	15065.00	15,065.00
19.3	12.3	Air Quantity : 350 CFM				
		Static Pressure : 20 mm wg				
		Motor rating : 150 Watt				
		Duty : Exahust	1	No.	9680.00	9,680.00
19.4	12.4	Air Quantity : 250 CFM				
		Static Pressure : 20 mm wg				
		Motor rating : 150 Watt				
		Duty : Exahust	1	No.	7067.00	7,067.00
19.5	12.5	Air Quantity : 200 CFM				
		Static Pressure : 20 mm wg				
		Motor rating : 150 Watt				
		Duty : Exahust	1	No.	5940.00	5,940.00
19.6	12.6	Air Quantity : 150 CFM				
		Static Pressure : 20 mm wg				
		Motor rating : 80 Watt				
		Duty : Exahust	1	No.	5220.00	5,220.00
20	NSI-13	PROPELLER FANS				
		Supply, installation, testing and commissioning of direct driven Propeller fans for exhaust air as shown on drawings and as per specifications. Each fan shall be complete with permanent split capacitor or shaded pole motor, mounting plate, accessories like wire guard, bird screen and fixed louvers for weather protection as required. The quoted price shall include cost of wiring and cabling from electrical panel to unit with conduit/ cable tray etc. Fan motor shall be suitable for 1 Phase, 230 ± 10% V, 50 Hz AC supply. Fan capacities and Electrical characteristics shall be as follows:				
20.1	13.1	Air Quantity : 100 CFM				
		Power : 80 watt				
		Duty : exhaust	2	Nos.	3415	6,830.00
21	NSI-14	HVAC PANEL				
		315 Amp FP MCCB having breaking capacity - 35 kA breaking capacity manual drawout type with Microprocessor release and rotatry handle.				
		(0-315 A) Digital Ammeter with selector switch & 315/5 C.T.'s - 1 Set				
		(0-500 V) Digital Voltmeter with selector switch - 1 Set				
		1 No. 3 phase and neutral, neutral to earth (minimum 4 mode) surge suppressor for 35KA along with necessary fuses.				

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

Name of Component		H.V.A.C.			
		Indication lamp R/Y/B with backup MCB - 1 Set of Three			
		BUS BARS			
		Electrolytic grade aluminium TPN busbars rated at 400amp suitable to withstand symmetrical fault level of 35 ka for 1 sec.			
		OUTGOINGS			
		4 Nos. 63A TPN, D curve MCB (VRF- 1,2,3, & 4), 10 kA breaking capacity for VRF.			
		8 Nos. 5 KW DOL Starter with 25A TPN, D curve MCB 10KA (for Fan- 1,,2,3,4.5.6.7 & 8).			
		4 Nos. 7.5 KW DOL Starter with 32A TPN, D curve MCB 10KA (for AHU- 1,,2,3 & 4).			
		2 Nos. 63A TPN MCCB, 35 kA breaking capacity with thermal release and adjustable setting and with rotary handle (Spare)			
		03 nos. 25A TPN, D curve MCB (Spare).			
		Supplying,Receiving, fixing, testing & commissioning of above described Panel	1	Set	114500
					1,14,500.00
22	NSI-15	Providing & fixing weather proof 63 Amp FP MCB near each outdoor unit etc.	4	Nos.	2880
					11,520.00
23	NSI-16	Providing and Fixing of aluminium armoured Power cabling including supply of cables, saddles, cable ties, cable tags, ferrules, cable glands, lugs, nuts/bolts/hardware etc. complete in all respects as per specifications and any other item required to make the system complete			
23.1		4C x 25 Sqmm Aluminium	150	Rmt	135
					20,250.00
24	DSR 5.7	Supplying and laying 6 SWG G.I. wire at 0.50 meter below ground level for conductor earth electrode, including connection/ termination with GI thimble etc. as required.	350	Rmt	28
					9,800.00
25	DSR 4.1	Supplying and installing following size of perforated painted with powder coating M.S. cable trays with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc. as required.			
	4.1.3	225 mm width X 50 mm depth X 1.6 mm thickness	60	Rmt	460
					27,600.00
Grand Total					4892091
		Sub Engineer J.S.C.L., Jabalpur		Executive Engineer J.S.C.L., Jabalpur	

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

		FORMAT - E			1	H
DETAILED ESTIMATE FOR INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR, M.P.						
S.No. of Project Sub Head :-				N+1		
Name of Project Sub Head :-				Cost of construction of AUDITORIUM BUILDING		
S.No. of Component :-				H		
Name of Component :-				LIFTS		
Abstract Of Cost						
						All Amount in Rs.
ion C	SOR Item NO.	Description Of Item	Unit	Quantity	Rate	Amount
1	2	3	4	5	6	7
NON SOR ITEM						
1)	NON SOR	8 PERSON passenger lift				
	1	Providing, installing, testing and commissioning 8 persons (544kg) Hydraulic passenger elevator having speed of .5 m /S with 2 stops/2 openings simplex microprocessor control, Car size 1300 w x 1100 deep x2100 car entrance 800 MM X 2000mm centre opening automatic glass door, car enclosure S.S. hairline finish with seven segment digital display on car landing, call register indicator and ARD for emergency power failure	each	1.00	1843000.00	18,43,000
	2	Providing, installing, testing and commissioning Hyddraulic goods elevator (844kg) Hydraulic passenger elevator having speed of .5 m /S with 2 stops/2 openings simplex microprocessor control, Car size 1000 w x 2000 deep x2100 car entrance 900 MM X 2000mm center opening automatic s.s. door one one side, car enclosure S.S. hairline finish with seven segment digital display on car landing, call register indicator and ARD for emergency power failure	each	1	1934000.00	19,34,000
					37,77,000	
Sub Engineer J.S.C.L., Jabalpur			Executive Engineer J.S.C.L., Jabalpur			

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

		FORMAT - E			1	1
DETAILED ESTIMATE FOR INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR, M.P.						
S.No. of Project Sub Head :-		1				
Name of Project Sub Head :-		Cost of construction of AUDITORIUM BUILDING				
S.No. of Component :-		1				
Name of Component :-		SOUND AND PROJECTION SYSTEM				
Abstract Of Cost						
		All Amount in Rs.				
Providing, installing, testing and commissioning Sound system of Bose Make as per the item code given below						
ion C	SOR Item NO.	Description Of Item	Unit	Quantity	Rate	Amount
1	2	3	4	5	6	7
NON SOR ITEMS						
A		AUDITORIUM				
1		Loudspeaker				
		Frequency range 52Hz-15KHz Nominal coverage pattern 120 degree horizontal * 100 degree vertical Loudspeaker EQ Active EQ required for optimal performance Power handling 240 W Sensitivity 92 Db Nominal impedance 8 ohms	EACH	6	133406.00	800436
2		Subwoofer				
		Frequency response 40Hz – 280Hz Nominal Dispersion Omni directional below 200Hz Sensitivity 91 db SPL Long term power handling 400 W Nominal impedance 8 ohms Loudspeaker EQ Required	EACH	1	342000.00	342000
3		Monitor Loudspeakers				
		Frequency response 70Hz- 16kHz Frequency range 55Hz – 19kHz Nominal dispersion 60 degree horizontal * 120 degree vertical Long term power handling 100 W Sensitivity 91 dB SPL Nominal mpedance 8 ohm	EACH	2	106000.00	212000
4		Graphic Equaliser				
		Frequency response 20Hz – 20kHz Signal to Noise ratio 96dB Total harmonic distortion 0.05% Control range +/-12dB Gain +/-0db Output level 1.23V	EACH	1	50500.00	50500
5		Amplifier				

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

Name of Component :-		SOUND AND PROJECTION SYSTEM			
	Amplifier Frequency Response 20Hz – 20kHz Signal to Noise ratio 102 db SPL Loudspeaker EQ 9 band PEQ (+/- 20db) Maximum output delay 3s Input channels 8 (balanced line level)Mains voltage 100-240 VInput to Output signal routing8*8 matrix	EACH	1	796000.00	796000
6	Amplifier				
	Amplifier Frequency response 20Hz – 20kHz Signal to Noise ratio 102 db Input to Output signal routing 4*4 matrix Maximum Output delay 3 sMaximum Input level +24dBu Mains voltage 100-240V	EACH	1	664000.00	664000
7	Allen & Heath Mixer				
	XLR Mic/Line inputs 1-16 Balanced , 48V Phantom power Input sensitivity -60 to +5dBuInput impedance >5kohm Maximum input level +19dBuDynamic range 112 dB Signal to noise ratio 90dB	EACH	2	78091.00	156182
8	Handheld Microphones Wireless				
	Working range 75m (250 ft) Audio channel response Minimum – 45Hz, Maximum – 15kHz Total harmonic distortion 0.5 percent typical Dynamic range >100db,A weighted typical RF Level switch 1mW and 10mW	EACH	4	39046.00	156184
9	Handheld Microphones Wired				
	Frequency response 70 to 15000Hz Polar pattern Cardioid Output Impedance 600ohm Sensitivity -53.5dbv/pa Type dynamic	EACH	4	39046.00	156184
10	Lapel Microphone				
	Selectable channels 8 Audio output 2 109, RPS, Sheikh Sarai – 1, New Delhi – 110017 Frequency response 60 – 20000 Hz Polar pattern Unidirectional Audio output level -50Dbv/PA Signal to noise ratio 66dB	EACH	1	39046.00	39046
11	Share Feedback Reducer				

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

Name of Component :-		SOUND AND PROJECTION SYSTEM			
	Frequency response 150Hz – 20kHz Low cut filter 3dB down at 80Hz Common mode rejection >70db at 1kHz Input clipping level -16dBv Aux input 20Hz – 20kHz Output clipping level -22dBv	EACH	2	39046.00	78092
12	Epson EB 2265U Projector				
	Color light output 5500 lumens – 3800 lumens Resolution WUXGA ,1920*1200 , 16:10 Contrast ratio 15000:1 Aspect ratio 16:10 High definition Full HD Lamp 300W, 5000Hrs durability	EACH	2	222172.00	444344
13	Custom 150" Diagonal 16:10 Motorised Screen	EACH	1	149400.00	149400
14	Projector Mount	EACH	2	7809.00	15618
15	Rack 8U	EACH	2	18221.00	36442
	SUB TOTAL				4096428
	TOTAL COST OF SOUND AND PROJECTION SYSTEM				40,96,428.00
	Sub Engineer J.S.C.L., Jabalpur			Executive Engineer J.S.C.L., Jabalpur	

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

			FORMAT - E	1	i	
DETAILED ESTIMATE FOR INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR, M.P.						
S.No. of Project Sub Head :-			1			
Name of Project Sub Head :-			Cost of construction of AUDITORIUM BUILDING			
S.No. of Component :-			1			
Name of Component :-			FURNITURE			
Abstract Of Cost						
					All Amount in Rs.	
ion C	SOR Item NO.	Description Of Item	Unit	Quantity	Rate	Amount
1	2	3	4	5	6	7
NON SOR ITEMS						
I		Providing and installing furniture of Godrej / Herman Miller / Haworth / Knoll make with same specifications as per given below				
A	NON SOR	AUDITORIUM				
1		Pushback Auditorium seats				
		The seat rest assembly to be of 1.2 +/- 0.1 cm thick flat plywood moulded with polyurethane foam & upholstered with 3 layered foam laminated fabric and injection moulded cover. The seat should auto tip off & should fold, when not in use. Seat size to be 45.00 cm W x 48.50 cm D x 14.50 cm T The back rest assembly to be of 1.2 +/- 0.1 cm thick flat plywood upholstered with 3 layered foam laminated fabric, the foam to be designed with contoured lumbar support for extra comfort. Back size of 47.50 cm W x 80.00 cm H x 12.50 cm T The High resilience polyurethane foam for seat & back should be moulded with a density = 48 +/- 2kgs/m3. The leg frame assembly is to be fabricated from MS tube of 6.0 +/- 0.03 cm x 4.0 +/- 0.03 cm x 2.0 +/- 0.16 cm welded with a grouting member. It should be black powder coated & should be grouted to the floor using anchors.	EACH	225	16561.00	37,26,225

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

Name of Component :-		FURNITURE			
	<p>The armrest made up of black integral polyurethane with 65 +/- 10 shore "A" hardness & reinforced with MS insert fixed with leg frame, the armrest should be scratch & weather resistant & shoul have provision for holding cups. The armrest cladding should be made of 0.9 +/- 0.05 cm thick particle board & upholstered with fabric.</p> <p>All steel parts to be epoxy powder coated with DFT of 40-60 microns.</p>				
2	VIP Sofas -4 Seater (2+2)				
	<p>Sofa 2 seater Proving & Fixing 2 seater - Size: 141cm(W) x 77.5cm(D) x 74.5cm(H), Seat height (SH): 41.5 cm. LH/RH Side Frame: The LH/Rh side frame is fitted to the two ends of the seat/back mounting frame to form the leg assembly. It is made of SS J4 Grade tube Dia 4.44cm x 1.5mm thick. Seat/Back mounting Frame: the seat/back mounting frame assy. Holds the two side frames together. The mounting frames 2 nos. Are used to connect the side frames. The mounting frame is made of MS. E.R.W. Tube 5.08+_0.03cm(dia) x 3.15+_0.0252cm(thk) black painted. The seat/back is mounted on 4.0+_0.03cm x 2.0+_0.02cm x 0.2+_0.016cm M.S. Rectangular tube which is welded on the beam of seat/back mounting frame.</p> <p>Seat/back Assembly :</p>				
	<p>Seat/back Assembly : The Seat/back Assembly consists of 1.2+_0.1cm thk plywood insert with polyurethane foam having density 45 +_ 2 kg/m³ and the hardness of the P.U. Foam = 18 to 22 kg on Hampden m/c for 25% compression of the foam. The complete moulded seat/back assembly is covered with a replaceable fabric upholstrey. The rate shall include all materials, hardware and labour etc. complete as per instruction of engineer-in charge and consultant. Approved Make: Godrej / Herman Miller / Haworth / Knoll</p>	EACH	4	61000.00	2,44,000
3	VIP Sofas -5 Seater				
	<p>Specificateion same as ite,m no 2 but seat size of 3 seater : 181cm x 77.5cm(D) x 74.5cm(H), and size of 2 seater is 141cm(W) x 77.5cm(D) x 74.5cm(H),</p>	EACH	4	70500.00	2,82,000
4	Chairs				

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

Name of Component :-			FURNITURE			
		The seat and back are made up of 1.2 cm thick hot pressed plywood, upholstered with fabric and moulded Polyurethane foam with PVC lipping all around. The back foam is designed with contoured lumbar support for extra comfort. SIZE: 65.0cm. (W) X 65.0cm. (D) X 90.0 – 102.5cm(H), SEAT SIZE: 44.0cm. X 56.5m. The polyurethane foam is moulded with density = 45 +/-2 kg/m3 & Hardness = 20 +/- 2 on Hampden machine at 25% compression. The one-piece armrests made of black integral skin polyurethane with 50-70 Shore Hardness and reinforced with M.S. insert. The armrests are scratch and weather resistant. The armrests are fitted to the seat with seat armrest connecting bracket made of 0.3 cm. thk. HR steel. The pneumatic height adjustment has an adjustment stroke of 10 cm.	EACH	20	6007.64	1,20,153
		The bellow is 3 piece telescopic type and injection moulded in black Polypropylene. The pedestal is made of moulded plastic (polypropylene) with metal insert and fitted with 5nos. twin wheel castors (castor wheel dia. 5.0cm.). The pedestal is 66.0-cm. pitch-center dia. (76.0 cm with castors). The twin wheel castors are injection moulded in 30% Glass Filled black Nylon.	EACH	20	7700.00	1,54,000
5		Sofa -3 Seater				

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

Name of Component :-			FURNITURE			
		Sofa 3 seater Proving & Fixing 3 seater - Size: 183.0cm(W) x 77.5cm(D) x 74.5cm(H), Seat height (SH): 41.5 cm. LH/RH Side Frame: The LH/Rh side frame is fitted to the two ends of the seat/back mounting frame to form the leg assembly. It is made of SS J4 Grade tube Dia 4.44cm x 1.5mm thick. Seat/Back mounting Frame: the seat/back mounting frame assy. Holds the two side frames together. The mounting frames 2 nos. Are used to connect the side frames. The mounting frame is made of MS. E.R.W. Tube 5.08+ _{-0.03} cm(dia) x 3.15+ _{-0.025} cm(thk) black painted. The seat/back is mounted on 4.0+ _{-0.03} cm x 2.0+ _{-0.02} cm x 0.2+ _{-0.016} cm M.S. Rectangular tube which is welded on the beam of seat/back mounting frame. Seat/back Assembly : The Seat/back Assembly consists of 1.2+ _{-0.1} cm thk plywood insert with polyurethane foam having density 45 + ₋₂ kg/m ³ and the hardness of the P.U. Foam = 18 to 22 kg on Hampden m/c for 25% compression of the foam.	EACH	12	45837.00	5,50,044
		The complete moulded seat/back assembly is covered with a replaceable fabric upholstrey. The rate shall include all materials, hardware and labour etc. complete as per instruction of engineer-in charge and consultant. Approved Make: Godrej / Herman Miller / Haworth / Knoll				
6		Side Table (300x300)	EACH	18	3663.00	65,934
		The corner table is of dimension 45mm W x 45mm D x 46mm H and the corner table is in revolving can be used as the center table also with top Glass of black painted toughened and base of toughened glass.				
7		Coffee Table (900x450)	EACH	2	6329.00	12,658
8		Coffee Table (900x900)	EACH	1	8850.00	8,850
9		Lockers (1300mm)				

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

Name of Component :-		FURNITURE			
	<p>Providing & Fixing 4 Door Locker Unit - Product Size: 380mm(W) x 450mm(D) x 1830mm(H) Models: 4 Door (Add on units), Stackability The add-on units can be stacked width wise to form bank of lockers having common side panel. Locking § 10 Lever cam lock with lock lever, Material: CRCA 0.6mm Thickness Construction: Rigid knockdown construction. Shelf Uniformly Distributed Load Capacity per each shelf level is 35 Kg maximum.Finish: Epoxy Polyester Powder coated to the thickness of 50 Microns (+/-10). Handle / Label holder · Aesthetically appealing Snap fit ABS plastic Handle. Plastic label holder for identification Ventilation Attractive punched pattern for ventilation Approved Make: Godrej / Herman Miller / Haworth / Knoll</p>	EACH	3	29337.00	88,011
10	Reception Counter				
	<p>(Work top)Rubber Wood Top:- Clean matt PU finish 18mm thick Inside radius 700.0 mm Outside radius – 1350.0 mm Depth – 650 mm,Cork:-Rubberized cork – 18mm thick,Glass:-Frosted Glass 10mm thick Diamond cut finishing on edges Inside Radius – 1202.5mm Outside radius – 1402.5 mm Depth – 200mm,Modesty Panel:-MS Perforated sheet Below Worksurface : 0.8 mm (thick) x 665.0 mm (height) x 1345.0 mm (flat length) Above Worksurface : 0.8mm (Thick) x 260 mm (height) x 1345.0 mm (flat length),Legs:-MS tube 1.6 mm thick Diameter 50.8 mm Height 604 mm</p>	EACH	1	124225.00	1,24,225
11	chair				

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

Name of Component :-			FURNITURE			
		The seat and back are made up of 1.2 cm thick hot pressed plywood, upholstered with fabric and moulded Polyurethane foam with PVC lipping all around. The back foam is designed with contoured lumbar support for extra comfort. The polyurethane foam is moulded with density = 45 +/-2 kg/m ³ & Hardness = 20 +/- 2 on Hampden machine at 25% compression. The one-piece armrests made of black integral skin polyurethane with 50-70 Shore Hardness and reinforced with M.S. insert. The armrests are scratch and weather resistant. The armrests are fitted to the seat with seat armrest connecting bracket made of 0.3 cm. thk. HR steel. The pneumatic height adjustment has an adjustment stroke of 10 cm. The bellow is 3 piece telescopic type and injection moulded in black Polypropylene.	EACH	24	8706.00	2,08,944
		The pedestal is made of moulded plastic (polypropylene) with metal insert and fitted with 5nos. twin wheel castors (castor wheel dia. 5.0cm.). The pedestal is 66.0-cm. pitch-center dia. (76.0 cm with castors). The twin wheel castors are injection moulded in 30% Glass Filled black Nylon.SIZE: 64.0cm. (W) X 64.0cm. (D) X 81.0 – 93.5cm (H), SEAT SIZE: 42.0cm. X 54.5cm.				
12		work desk 600x1200	EACH	4	11615.00	46,460
13		work desk 1350x750	EACH	2	13938.00	27,876
14		Filing Cabinet				
		File Cabinets - 3700mm	EACH	3	19557.00	58,671
		File Cabinets - 1300mm	EACH	2	19557.00	39,114
		File Cabinets - 2500mm	EACH	2	10000.00	20,000
		File Cabinets - 2500mm	EACH	2	10000.00	20,000
15		Executive Chairs	EACH	2	5620.00	11,240
		SUB TOTAL				58,08,405
		TOTAL QUOTATION				58,08,405
		approved makes			Godrej / Herman Miller / Haworth / Knoll	
		Sub Engineer J.S.C.L., Jabalpur			Executive Engineer J.S.C.L., Jabalpur	

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

		FORMAT - E	N+1	q		
DETAILED ESTIMATE FOR INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR, M.P.						
S.No. of Project Sub Head :-		N+1				
Name of Project Sub Head :-		Cost of construction of AUDITORIUM BUILDING				
S.No. of Component :-		q				
Name of Component :-		CCTV SECURITY SYSTEM				
Abstract Of Cost						
All Amount in Rs.						
ion C	SOR Item NO.	Description Of Item	Unit	Quantity	Rate	Amount
1	2	3	4	5	6	7
SOR ITEMS						
A		NON SOR				
1		16CH NVR STANDALONE FAST LAN QUALITY with following features: Third-party network cameras supported • Up to 6 Megapixels resolution recording • HDMI and VGA output at up to 1920×1080P resolution • 4/8-ch network cameras can be connected detection, including network delay, packet loss, etc.	EACH	1	17475.00	17475
2		32CH NVR STANDALONE with following features: Third-party network cameras supported • Up to 6 Megapixels resolution recording • HDMI and VGA output at up to 1920×1080P resolution • 4/8-ch network cameras can be connected detection, including network delay, packet loss, etc.	EACH	1	29148.00	29148
3		3 MP IR BULLET / DOME IP CAMERA 3 megapixel high resolution , HD real-time video 3D DNR & DWDR & BLC, IR LEDs: up to 30m IP66 ,Compact design	EACH	45	5708.00	256860
4		4U Rack for NVR BOX Make : confirming to isi specifications	SET	1	4144.00	4144
5		4 TB Hard Disk Drive Make : Seagate / WD / Toshiba	EACH	3	11440.00	34320
6		Gigabyte 8 Port POE Switch Make : Digisol / D Link / ISI	EACH	7	8872.00	62104

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

Name of Component :-		CCTV SECURITY SYSTEM				
7	MPPW D 38.11	Suppling and drawing 4 pair shielded, 0.5 mm PVC.Insulated copper conductor un-armoured Cat-6 computer cable FR in existing surface / concealed ,steel / PVC. Conduit/Casing-N- Capping as required.	EACH	435	41.4	18009
8	MPPW D SOR	Supplying and fixing PVC conduit ISI marked along with the accessories in concealed system etc. as required				
	15.2	25mm conduit (HMS)	101 me	435	45.9	19966.5
	15.3	32mm Conduit (HMS)	102 me	10.00	64.8	648
		SUB TOTAL				
						4,42,675
		Sub Engineer J.S.C.L., Jabalpur		Executive Engineer J.S.C.L., Jabalpur		

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

			FORMAT - E	N + 1	k	
DETAILED ESTIMATE FOR INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR, M.P.						
	S.No. of Project Sub Head :-		N + 1			
	Name of Project Sub Head :-		Cost of construction of SITE SERVICES			
	S.No. of Component :-		K			
	Name of Component :-		External Water Supply			
Abstract Of Cost						
					All Amount in Rs.	
Division	Item NO.	Description Of Item	Unit	Quantity	RATE	Amount
1	2	3	4	5	6	7
SOR ITEMS						
1	23.12 UADD	Providing and fixing G.I. pipe complete with G.I. Fittings i/c trenching and refilling etc complete in external work				
	23.12.6	50 mm dia. nominal bore borewell	Rm	250.00	324.9	81225.00
2	16.2 MPPWD	Boring/drilling bore well of required dia perfectly vertical to receive 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 and running charges of all equipments, tools, plants and machineries required for the job, all complete as per direction of Engineer -in-charge, upto 90 metre depth below ground level.				
	16.1.1	all types of soil				
	16.1.1.3	200 mm nominal size dia.	meter	30.00	405.9	12177.00
	16.1.2	Rocky strata i/c boulders				
	16.1.2.3	200 mm nominal size dia.	meter	60.00	621	37260.00
3	16.2 MPPWD	Boring/drilling bore well of required dia perfectly vertical to receive 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 and running charges of all equipments, tools, plants and machineries required for the job, all complete as per direction of Engineer -in-charge, beyond 90 metre depth below ground level.				
	16.2.2	Rocky strata i/c boulders				
	16.2.2.3	200 mm nominal size dia.	meter	160.00	644.4	103104.00

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

Name of Component :-		External Water Supply				
4	16.5 MPPWD	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 and approved make, including painted with outside surface with two coats of anticorrosive paint of approved brand and manufacture, including required hire and labour charges, fittings and accessories, all complete, for all depths, as per direction of Engineer- in-charge.				
	16.5.1	100 mm nominal size dia having minimum wall thickness 4.50 mm	meter	100.00	715.5	71550.00
5	16.6 MPPWD	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 and labour charges, fittings and accessories, all complete, for all depths, as per direction of Engineer -in-charge.				
	16.6..1	100 mm nominal dia.(minimum wall thickness 5mm)	meter	150.00	338.4	50760.00
6	16.7 MPPWD	Gravel packing in tubewell construction in accordance with IS: 4097, including providing gravel fine/ medium/ coarse, in required grading and sizes as per actual requirement, all complete as per direction of Engineer-in-charge.	cum	30.00	852.3	25569.00

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

Name of Component :-		External Water Supply				
7	16.80	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 and draw down etc. by step draw down method, collecting water samples and getting tested in approved laboratory, i/c disinfection of tubewell, all complete, including hire and labour charges of air compressor, tools and accessories etc., all as per requirement and direction of Engineer-in-charge.	hour	20.00	430.2	8604.00
8	16.10	Providing and fixing M.S. clamp of required dia made of 100 x10 mm flat to the top of casing/ housing pipe of tubewell as per IS: 2800 (part 1), including necessary bolts and nuts of required size complete.				
	16.10.1	100 mm clamp.	each	2.00	961.2	1922.40
9	16.11 MPPWD	Providing and fixing Bail plug/ Bottom plug of required dia to the bottom of pipe assembly oftubewell as per IS:2800 (part 1).				
	16.11.1	100 mm dia	each	2.00	176.4	352.80
10		Supplying and laying of approved Make HDPE pipe as per IS : 4984 and IS : 14333 with latest amendment for installation of submersible pump with necessary connection, socket/couplings, Tees,etc. as required (PE-63 & working Pressure 10 kgf/sq cm)77				
	39.4					
	39.4.1.3	40MM DIA	rm	300	153.9	46170.00
11		Supplying and laying of approved Make Nylon rope 12 mm thick complete with binding for support of pump and motor. per mtr 75	rm	320	67.5	21600.00
	39.5					
12	18.33 MPPWD	Providing and fixing Gun metal gate valve with brass lever handle of approved quality				
	18.33.4	50 mm nominal bore	each	2.00	878.4	1756.80
SUB TOTAL SOR ITEMS						462051
	Sub Engineer J.S.C.L., Jabalpur		Executive Engineer J.S.C.L., Jabalpur			

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

			FORMAT - F	N+1	M	
DETAILED ESTIMATE FOR INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR, M.P.						
S.No. of Project Sub Head :-		:	N+1			
Name of Project Sub Head :-		Cost of construction of	SITE DEVELOPMENT			
S.No. of Component :-		:	M			
Name of Component :-		:	Drainage (Open & Underground)			
Abstract Of Cost						
Adc	SOR Item NO.	Description Of Item	Unit	Quantity	Rate	Amount in rs
1	2	3	4	5	6	7
SOR ITEMS						
		SEWER LINE DRAINAGE LINE ROAD SIDE DRAIN				
1	2.8 P. NO. 23	Earth work in excavation by mechanical means (Hydraulic Excavator)/ manual means 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. (No extra lift is payable if work is done by mechanical means)				
		All kinds of soil.	cum.	1075.00	117.9	126742.50
2	2.25 P.No. 26	Filling available excavated earth (excluding hard rock/Ordinary rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	cum	860.00	64.8	55728.00
3	19.10	Providing and laying glazed and jointing glazed stoneware pipes class SP1 with stiff mixture of cement mortar in proportion of 1:1 (1 cement and one sand) including testing of joints etc complete (excavation to be paid separately)				
	19.1.3	200 dia	rm	100.00	303.3	30330.00
	19.1.5	250 dia	rm	200.00	456.3	91260.00

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

Name of Component :-		:	Drainage (Open & Underground)			
4	19.2	providing and laying concrete 1:5:10 (1 cement:5 sand:10 aggregate of 40mm nominal size around stoneware pipe including bed concrete as per standard design.				
	19.2.3	200 dia	rm	100.00	609.3	60930.00
	19.2.5	250 dia	rm	200.00	703.8	140760.00
5	19.8	providing and laying non pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar of 1:2 (1 cement :2 sand) including testing of joints etc complete				
	19.8.4	300 dia	rm	200.00	432	86400.00
6	19.7	Providing and fixing SW square mouthed gully trap class SP1 complete with CI grating, brick masonry chamber with water tight CI cover,with frame of 300x300 size (inside) the weight of cover to be not less than 4.5 kg and frame to be not less than 2.7 kg				
	19.7.1	100x100mm size of P type	nos	6.00	1587.6	9525.60
7	19.8	constructing brick masonry man holes in cement mortar 1:4(1 cement:4 sand)R.C.C. top slab with cement concrete 1:2:4 mix (1 cement:2 sand:4 aggregates20 mm nominal size), foundation concrete 1:4:8 (1 cement:4 sand and 8 aggregate of 40mm nominal size) inside lastering 12mmthwith 1:3 cement mortar (1 cement:3 sand) finished with floating coat of neat cement andmaking channels in cement concrete 1:2:4 (1 cement:2 sand:4 aggregate of 20mm nominal size)finished with floating coat of neat cement complete as per standard design.				
	19.9.1	inside size 90x80 cm and 45 cm deep i/c CI cover with frame light duty 455x610mminternal dimension, total weightof cover and frame to be not less than 38 kg				
	19.9.1	with well burnt bricks	nos	20.00	7197.3	143946.00
	19.9.2	Inside size 120x90 cm and 90 cm deep i/c CI cover with frame medium duty,500mm internal diameter, total weight of cover and frame to benot less than 116 kg				

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

Name of Component :-			:	Drainage (Open & Underground)		
		with well burnt bricks	nos	10.00	16277.4	162774.00
11	19.1	Extra for depth of man hole				
	19.10.1	in 90x80 cm				
		with sewer bricks		10.00	4903.2	49032.00
	19.10.2	on 90x120				
		with sewer bricks		4.00	5860.8	23443.20
				TOTAL COST OF DRAINAGE		980871.30
		Sub Engineer J.S.C.L., Jabalpur			Executive Engineer J.S.C.L., Jabalpur	

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

			FORMAT - E	(N+1)	L	
DETAILED ESTIMATE FOR INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR, M.P.						
	S.No. of Project Sub Head :-		(N+1)			
	Name of Project Sub Head :-	Cost of construction of SITE SERVICES				
	S.No. of Component :-		L			
	Name of Component :-	External Electrification				
Abstract Of Cost						
SI No	SOR	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		EXTERNAL ELECTRIFICATION				
		STREET LIGHTS				
1)	42.97M PPWD	Providing and erecting black painted galvanized decorative designer poles in different section, top 60mm dia., bottom 140mm dia. with gold colour painted ornamental cast aluminium ring having lockable weather proof flush doorjunction box in bottom section, base plate dia. 290mm having 4 holes of 22mm dia. complete erected in an approved manner on existing foundation. Suitable size & type of foundation bolts 4 nos. X 16mm X 450mm 'J' type (EN8 grade)				
	42.97.1	3 mtrs. Height	Each	25	28190.7	704767.50
2)	31.13 MPPWD	Supplying, fixing & testing of approved make globe type polycarbonate post top lantern, consisting of cast aluminium spigot complete with all accessories, lamp holder, (without lamp) including fixing on gate Pillers/exiting G.I. pipe, pole with connection & all required materials on existing required size of G.I. pipe, suitable CFL for mentioned below sizes :-				
	31.13.1	200 mm (8") dia	Each	30	1084.5	32535.00
	31.13.3	300 mm (12") dia.	Each	25	2002.5	50062.50

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

3)	31.14	Supplying, fixing & testing of approved make of integral type bollard cylindrical shape housing cast aluminium dome shape top cover fixed with cylindrical shape poly carbonate cover having base plate with holes for direct mounting complete with all accessories and control gear box (without lamp) including preparatoion of foundation including fixing with connection and all required material as required.				
	31.14.2	LED 9 Watt Height > 700mm	Each	15	8731.8	130977.00
4)	29.23 mppwd	Supplying, Fixing and Testing of Compact Fluorescent Lamp (CFL) with inbuilt electronic ballast ISI marked BC / ES cap of approved make as required as per specification				
	29.23.5	18 Watt	Each	30	204.3	6129.00
	29.23.9	45 Watt	Each	25	543.6	13590.00
5)	42.101 MPPWD	Designing & casting with M-20 reinforcement cement concrete foundation suitable for Octagonal poles considering the safe soil bearing capacity at site as 10 T/sqm at 2 mtrs. Depth including excavation, foundation nut	cum	5.40	12991.5	70154.10
6)	41.1 MPPWD	Supply of XLPE Insulated power cable (confirming IS-7098 Part-I) 1100 Volt grade, 1 core /2 core /3½ core/4 core ISI MARKED with Alu. Stranded /solid conductor				
	41.1.10	4 CORE ARMOURED				
	41.1.10. 2	10 SQMM	meter	600	162.9	97740.00
	41.1.8	3 1/2CORE ARMOURED				
	41.1.8.1	25 SQMM	meter	50	226.8	11340.00
	41.1.8.4	50 Sq.mm	meter	50	360.9	18045.00
7)	19.2 MPPWD	Supplying and drawing single core PVC insulated cable FR with copper multi strand conductor ISI marked in existing rigid PVC Casing-N-Capping / conduit in surface or concealed as per specification				
	19.2.2	2 X 2.5 sq mm	meter	400.00	48.6	19440.00

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

8)	37.16 MPPWD	Providing and fixing 6 SWG (5.6mm) G.I. wire on surface or in recessed/concealed for loop earthing as required.			17.1	
			meter	450.00		7695.00
9)	41.5 MPPWD	Supplying and fixing heavy duty cable gland for P.V.C. insulated armoured cable with brass washer, Rubber ring complete erected with cable and lead connection etc. as per specification complete.				
	41.5.2 MPPWD	Gland Size 22mm suitable for cable 2/3, 3½, 2/4 x 10 Sq.mm or 2x 16 Sq.mm	each	50.00	41.4	2070.00
	41.5.4 MPPWD	Gland size 32mm for 2/3, 3½, 4 x 25 Sq.mm OR 2/3, 3½ x 35 Sq.mm OR 2/3 x 50 Sq.mm.	each	2.00	72	144.00
10)	41.7 MPPWD	Supplying and fixing cramping type Alum. lugs as per I.S.S. Specification suitable for following size of cable with Alu. /Copper solid/stranded conductor evenly cramped with high/pressure tool and connected to switch gear/Bus/M.C.C.B./ M.C.B. etc. as required complete.				
	41.7.1	6mm to 16 Sq.mm	each	175.00	1.8	315.00
	41.7.2	25 SQMM	each	10.00	1.8	18.00
	41.7.4	50 SQMM	each	10.00	7.2	72.00
11)	41.15 MPPWD	Laying of one number armoured / unarmoured power cable 1.1kV grade of size not exceeding 25 Sq.mm direct in ground including excavation in all soil / murrum / soft rock, sand cushioning, protective covering and refilling the pit etc. as required.			181.8	
			meter	800.00		145440.00
12)	41.12 MPPWD	Supplying & installing G.I. Pipe for protection of underground cable fixed on wall/support/in trench/fixed between two rigid existing support of wall/beam for erection of ceiling Fan/down rod for stiff pendent for light luminaries /fan/protective for earthing, lightning conductor down strip/overhead service line/for submersible cable or centrifugal pump for water supply with necessary ironclamp coupler, bend, tee, elbow, nuts and bolts etc.				
	41.12.6	50mm	m	750.00	418.5	313875.00
	41.12.1.9	100MM	mtrs	25.00	963	24075.00

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

TRANSFORMER						
13)	42.64 MPPWD	Supplying, installing, testing and commissioning of 11/0.4 K.V. 3 Phase 50 Cycle oil immersed, naturally cooled, out door type transformer connected delta on H.T. side and star on L.T. side, hand operated off load Tap changer switch above 100 kVA, oil conservator with drain valve, plug 63 KVA and above, dehydrating silica gel breather on eye level, rating and diagram plate, two earthing terminal, lifting lugs, oil level gauge, drain valve with plug, temperature not exceeding 50°C on load, oil filling hole with plug, four unidirectional roller, arcing horns, explosion vent, terminal arrangement bushing on H.V. side and cable box on LV side, first filling of oil upto desired level and transformer installing on existing structure with all required materials arrangement as required as per IS specification. Marked ISI & 3 Star rating				
	42.64.2.	Copper wound				
	42.64.2. 3	500KVA	Each	1.00	619818.3	619818.30
14)	41.1 MPPWD	Supply of XLPE Insulated power cable (confirming IS-7098 Part-I) 1100 Volt grade, 1 core /2 core /3½ core/4 core ISI MARKED with Alu. Stranded /solid conductor				
	41.1.8.9	3½ CORE ARMOURED 240 Sq.mm.	meter	300.00	1410.3	423090.00
15)	41.17 UADD	Laying of one number armoured / unarmoured cable 1.1.kV grade of size exceeding 120 Sq mm but not exceeding 400 Sq.mm direct in ground including excavation in all soil / murrum / soft rock, and sand			206.1	
			MT	300.00		61830.00
16)	41.5 UADD	gland for P.V.C. insulated armoured cable with brass washer, Rubber ring complete erected with cable and lead connection etc. as per specification complete.				
	41.5.9	Gland Size 70mm 3 x 240 Sq.mm, 3½ x 300 Sq.mm	NOS	4.00	299.7	1198.80

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

17)	41.7 UADD	Supplying and fixing cramping type Alum. lugs as per I.S.S. Specification suitable for following size of cable with Alu. /Copper solid/stranded conductor evently cramped with high/pressure tool and connected to switch Gear/Bus/M.C.C.B./ M.C.B. etc. as required complete.				
	41.7.10	240 Sq.mm.	NOS	16.00	49.5	792.00
18)	pg67 item 37.4 UADD	Earthing with Copper Earth plate 600mm X 600mm X 3mm thick including accessories and providing masonry encloses in cement mortar, cover plate having locking arrangement on the top and G.I. watering pipe 20mm dia 2.7 Metre long etc. (but without charcoal or coke and salt) complete as required.	Each	4.00	7211.7	28846.80
46)	pg67 item 37.3 UADD	Earthing with G.I. Earth plate 600mm X 600mm X 6mm thick including accessories and providing masonry encloser in cement mortor, cover plate having locking arrangement on the top and G.I. watering pipe 20mm dia 2.7 Metre long etc. (but without charcoal or coke and salt) complete as required.	each	2.00	2655.9	5311.80
19)	pg67 item 37.5.1 UADD	Add Extra for using salt and charcoal / coke for G.I. Plate or Copper plate earth electrode Aasrequired including excavationand refilling	Each	6.00	1656.9	9941.40
17)	pg67 item 37.14 UADD	Providing & fixing 25mm X 5mm copper strip surface or recessed for connection etc. as required.	meter	50.00	727.2	36360.00
20)	pg67 item 37.18 UADD	Supplying and laying 50mm X 6mm G.I. strip at 0.5 metre below ground level / surface as strip earth electrode including jointing etc. as required.	meter	50.00	85.5	4275.00

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

			FORMAT - E	N+1	q	
DETAILED ESTIMATE FOR INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR, M.P.						
S.No. of Project Sub Head :-			N+1			
Name of Project Sub Head :-			Cost of construction of SITE SERVICES			
S.No. of Component :-			q			
Name of Component :-			Landscaping			
Abstract Of Cost						
					All Amount in Rs.	
ion C	SOR Item NO.	Description Of Item	Unit	Quantity	Rate	Amount
1	2	3	4	5	6	7
SOR ITEMS						
HORTICULTURE						
1)	2.1 HOR TI DSR	Trenching in ordinary soil up to a depth of 60cm including removal and stacking of serviceable materials and then disposing of surplus soil, by spreading and neatly leveling within a lead of 50m and making up the trenched area to proper levels by filling with earth or earth mixed with sludge or/and manure before and after flooding trench with water (excluding cost of imported earth, sludge or manure).	cum	500.00	45.85	22,925
2)	2.2 HOR TI DSR	Supplying and stacking of good earth at site including royalty and carriage upto 5 km complete (earth measured in stacks will be reduced by 20% for payment).	cum	292.50	332.55	97,271
3)	2.2 HOR TI DSR	Supplying and stacking at site dump manure from approved source, including carriage upto 5 km complete (manure measured in stacks will be reduced by 8% for payment) :				
	2.4 HOR TI DSR	Screened through sieve of I.S. designation 16 mm	cum	292.50	192.50	56,306
4)	2.9 HOR TI DSR	Mixing earth and sludge or manure in the required proportion specified or directed by the Officer-in-charge	CUM	585.00	21.35	12,490

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

5)	2.8 HOR TI DSR	Spreading of sludge, dump manure and/or good earth in required thickness as per direction of officer-in-charge (cost of sludge, dump manure and/ or good earth to be paid separately).	CUM	585.00	30.95	18,106
6)	2.28 HOR TI DSR	Preparation of mounds of various size and shape by available excavated / supplied earth in layers not exceeding 20 cm in depth, breaking clods, watering of each layer, dressing etc., lead upto 50 meter and lift upto 1.5 m complete as per direction of Officer-in-charge	CUM	1500.00	267.10	4,00,650
7)	2.13 HOR TI DSR	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, leveling etc. including stacking and disposal of materials declared unserviceable and surplus earth by spreading and leveling as directed, within a lead of 50 m, lift up to 1.5 m complete (cost of sludge, manure or extra earth to be paid for separately)	CUM	112.50	130.35	14,664
8)	2.10 HOR TI DSR	Grassing with selection No. 1 grass including watering and maintenance of the lawn for 60 days or more till the grass forms a thick lawn, free from weeds and fit for mowing including supplying good earth, if needed (the grass and earth shall be paid for separately)				
	2.10. 1	In rows 5 Cm apart in both directions.	sqm	2000.00	10.40	20,800
9)	2.19 HOR TI DSR	Edging with bricks laid dry length wise, including required excavation, refilling, consolidating with hand packing and spreading surplus earth neatly within a lead of 50 m:				

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

	2.19.1 Horti DSR	Common burnt clay F.P.S. (non modular) bricks of class designation 7.5	metre	125	35.2	4,400
10)	2.57	Plantation of Trees, Shrubs, and Hedge at site i/c watering and removal of unserveiceable aterial's as per direction of officer in charge (excluding cast of plant & water)				
		Trees Plant		45.00	4.25	191
		Shrubs Plant		885.00	1.15	1,018
		Hedge Plant		2700.00	1.4	3,780
11)	7.7H Horti DSR	Supply and stacking of Plumeria alba plant of height 165-180 cm. with 3-4 branches and thick stem in big size HDPE bags as per direction of the officer-in-charge.	each	10.00	225.00	2,250
12)	8.41 Horti DSR	Supply and stacking of plant Largerstroemia indica of height 90-105 cm. multibranching in poly bags of size 25 cm as per direction of the officer-in-charge.	each	10.00	40.00	400
13)	7.42 Horti DSR	Supply and stacking of Foxtail palm plant of ht. 120-150 cm bottom girth 15-20 cm well developed in big poly bags of size 25 cm as per direction of the officer-in-charge.	each	25.00	230.00	5,750
14)	8.24 Horti DSR	Supply and stacking of plant Ficus panda of height 30-45 cm. with 3-4 branches and healthy foliage in p.bag of size 20 cm as per direction of the officer-in-charge.	each	400.00	30.00	12,000
15)	6.6 horti dsr	Providing and Displaying of Clerodendron inerme plant having ht. 25 cm to 32 cm multi branched in 20 cm size of Earthen Pot / Plastic Pot & as per direction of the officer-in-charge.	each	800.00	20.50	16,400

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

16)	8.65	Supply and stacking of plant Tecoma gaudichaudi of height 45-60 cm. in earthen pots of size 20 cm as per direction of the officer-in-charge.	each	800.00	35.00	28,000
17)	8.29	Supply and stacking of plant Hamelia patens of height 30-45 cm. with 3-4 branches in poly bags of size 20 cm as per direction of the officer-in-charge.	each	400.00	20.00	8,000
18)	5.2 HOR TI DSR	Providing and Displaying Acalypha green plant well developed, fresh & healthy with good foliage, multi branch 30 to 45 cm ht. in 20 cm size Earthen Pot/ Plastic Pot bushy plant as per C47direction of the officer-in-charge.	each	150.00	30.75	4,613
19)	5.3 HOR TI DSR	Providing and Displaying Acalypha red plant well developed with fresh & healthy 30 to 45 cm ht. in 20 cm size Earthen Pot/ Plastic Pot as per direction of the officer-in-charge.	each	150.00	41.00	6,150
20)	5.7 HOR TI DSR	Providing and Displaying Bamboo Buddha valley plant with fresh & healthy 3 to 4 suckers having 75 to 90 cm ht. in 25 cm size Earthen Pot/ Plastic Pot as per direction of the officer-in-charge.	each	50.00	461.25	23,063
21)	5.15 HOR TI DSR	Providing and Displaying Cycus revoluta specimen plant, having 45 to 50 fresh and healthy, leaves having 30cm to 35cm circumference of base stem well developed in 40 cm challi, as per direction of the officer-in-charge.	each	25.00	1537.50	38,438
22)	5.32 HOR TI DSR	Providing and Displaying Furcaria Variegated plant hybrid well developed with fresh & healthy foliage 20 and above attractive leaves in 35 cm Cement Pot as per direction of the officer-in-charge.	each	10.00	410.00	4,100

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

23)	3.15	Providing and displaying of Areca Palm plant, having ht. 1.20 m to 1.50 m with 5 to 6 suckers, well developed, fresh and healthy with lush green foliage in 25 cm size of Earthen pot / Plastic pot & as per direction of the officer-in-charge.	each	50.00	180.00	9,000
24)	3.68	Providing and displaying of Raphis palm plant, having ht. 45 cm to 60 cm with 5 to 7 suckers, well developed, full of fresh and healthy leaves in 25 cm size of Earthen pot / Plastic pot & as per direction of the officer-in-charge.	each	50.00	184.50	9,225
25)	6.8 HOR TI DSR	Providing and Displaying of Chlorophytum (Green) plant, full of leafy suckers in 20 cm size of Earthen Pot / Plastic Pot & as per direction of the officer-in-charge.	each	100.00	20.50	2,050
26)	6.4 HOR TI DSR	Providing and Displaying of Asparagus sprengeri plant of height 30 cm to 45 cm, full of leafy branches in 20 cm size of Earthen Pot / Plastic Pot & as per direction of the officer-in-charge..	each	200.00	20.50	4,100
27)	6.25	Providing and Displaying of Syngonium (Butterfly) variegated plant with 2-3 suckers healthy foliage in Earthen Pot/Plastic Pot of size 20 cm. as per direction of the officer-in-charge..		200.00	30.75	6,150
28)	6.30	Providing and Displaying of Wadelia trilobata plant, full of leaves in 15 cm size of Poly bags & as per direction of the officer-in-charge.		200.00	15.40	3,080
29)	2.54 HOR TI DSR	Anti termite treatment by digging pits 30 cm deep and 4 cm dia, 6 to 7 holes around the tree using chemical emulsion at the rate of 1.5 liter per hole in two time or more application to get the trees free from termite infection chemicals used Chlorpyrifos 20% EC in the ratio of 1% concentration and as per direction of officer-in-charge.	each	45.00	35.00	1,575

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

30)	2.56 HOR TI DSR	Anti termite treatment of lawn area through premise 30.50% I P. one liter premise diluted in 499 liters water and applying solution @ 1.00 litre solution per sqm lawn or bed area.(two application) i/c cost of chemical)and as per direction of officer-in-charge.and as per direction of officer-in-charge.	each	400.00	35.00	14,000
31)	2.39 HOR TI DSR	Complete maintenance of the entire garden features having as per yard stick in the garden area i.e. lawn trees, shrubs, hedge, flower beds, foliages, creepers etc. including hoeing,weeding pruning replacement of plants, gap filling, watering, mowing of lawn, grass cutting by lawn mover and brush cutter , removal of garden waste, applying insecticide, pesticide & fertilizers(whenever required) top dressing of lawn with good earth and manure and maintenance of other garden related works as directed by office-in-charge (Cost of Good Earth, Manure, Fertilizer, Insecticide, Pesticide , lawn mover and brush cutter with fuel will be provided by the Department & other T & P material/articles shall be provided by the contractor.)				
	2.39. 1	Prestigious works / H.M. house & officers entitled to free Per Sqm accommodation.(as per yard stick 1Mali =1.00Acre)	Per Sqm Per month	4000.00	2.75	11,000
		SUBTOTAL SOR ITEMS				8,61,944

INTIMATE THEATRE AT BHAWARTAL PARK, JABALPUR

NON SOR ITEMS							
	1	Drain-cell 30mm Weight 3000 (GSM) Compressive Strength/Sqm 160 ton Size 500*250*30 mm	sqm	1579.69	424.00		6,69,787
	2	Geo-textiles CPT-18 Weight 180 (GSM) size 200*2 mts roll,	sqm	1579.69	61.00		96,361
		SUBTOTAL SOR ITEMS					7,66,147
		TOTAL SOR AND NON SOR ITEMS					16,28,091
		Sub Engineer J.S.C.L., Jabalpur				Executive Engineer J.S.C.L., Jabalpur	