

GENERAL ABSTRACT				
Name of Work	:-	PROPOSED CONSTRUCTION OF BITUMENOUS SMART ROAD OF BARGI HILLS VIA TECHNO PARK JABALPUR (M.P)		
Amount	:-	17.75	Crore	
Project Circle	:-	JABALPUR		
Project Division	:-	JABALPUR		
Length of Road	:-	2100 M		
Sr. No.	PARTICULAR			AMOUNT (in lacs)
1	FLEXIBLE PAVMENT (9.0M WIDE ROAD)			953.99
2	DRAIN (900 X 900)			203.49
3	DIVIDER (1.0M WIDE)			48.73
4	SLAB CULVERT			91.40
5	FOOTHPATH (2.5M WIDE)			204.76
6	ELECTRICAL			236.12
7	HORTICULTURE & ORNAENTAL BENCHES AND ARRANGEMENT FOR DRIP IRRIGATION OF PLANT LumSum			37.00
		TOTAL		1775.49
			SAY	17.75
				CRORE

Sub Engineer
J.S.C.L , JABALPUR

Assistant Engineer
J.S.C.L , JABALPUR

Executive Engineer
J.S.C.L , JABALPUR

Superintendent Engineer
J.S.C.L , JABALPUR

PROPOSED CONSTRUCTION OF BITUMENOUS SMART ROAD OF BARGI HILLS VIA TECHNO PARK JABALPUR (M.P)

ESTIMATE BASED ON SOR UADD 2012 & P.W.D 2017

Sl. No.	Item No.	Item	Unit	Rate	Reuced Rate	QTY	Amount
		SOR ITEM		(INR)	(INR)		(INR)
		FLEXIBLE PAVMENT (ROAD)					
	UADD TEM NO. 2.1	Cutting of trees , including cutting of trunks, branches and removal of stumps, roots, stacking of serviceable material with all lifts and up to a lead of 1000 mtrs and earth filling in the depression/pit and as per relevant clauses of section-200 for					
	i)	Girth from 300 mm to 600 mm each 136.00	each	136	122.4	5	612
	ii)	Girth beyond 600 mm to 900 mm	each	224	201.6	10	2016
	iii)	Girth beyond 900 mm to 1800 mm	each	465	418.5		
	iv)	Girth above 1800 mm	each	906	815.4		
	UADD TEM NO. 2.3	Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts and lead 1000 meter					
	b)	Cement Concrete Grade M-15 & M-20	cum	234	210.6	1000	210600
	UADD 3.1 PG. NO. 21	Excavation for roadway in soil including loading in truck for carrying of cut earth to embankment site with all lifts and lead upto 1000 meters and as per relevant clauses of section-300.	cum	98	88.2	82859.5	7308207.9
	UADD 3.2 PG. NO. 21	Excavation for road way in ordinary rock including loading in a truck and carrying of excavated material to embankment site with in all lifts and leads upto 1000 meters and as per relevant clauses of section-300.	cum	142	127.8	33143.8	4706419.6
	UADD 3.3 PG. NO. 21	Excavation for roadway in hard rock (requiring blasting) by drilling, blasting and breaking, trimming of bottom and side slopes in accordance with requirements of lines, grades and cross sections, loading and disposal of cut road with in all lifts and leads upto 1000 meters and as per relevant clauses of section-300.	cum	232	208.8	24000	5011200

	UADD 3.4 PG. NO. 21	Excavation for roadway in hard rock (blasting prohibited) with rock breakers including breaking rock, loading in tippers and disposal within all lifts and lead upto 1000 meters, trimming bottom and side slopes in accordance with requirements of lines, grades and cross sections and as per relevant clauses of section-300.	cum	502	451.8	25715	11618037
	UADD 2.4 PG. NO. 15	Dismantling of flexible pavements and disposal of dismantled materials up to a lead of 1000 meter, stacking serviceable and unserviceable materials separately and as per relevant clauses of section-200					
	a)	Bituminous courses	cum	358	322.2	1080	347976
	P.W.D 3.10 PG. NO. 20	Embankment Construction with Material Obtained from Borrow Pits Construction of embankment with approved material having CBR>7 obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacting to meet requirement of table 300-1, 300-2 and as per relevent clauses of section-300.	CUM	144		17475.9	2516529.6
	P.W.D 3.11 PG. NO. 20	Construction of Embankment with Material Deposited from Roadway Cutting Construction of embankment with approved materials CBR>7 deposited at site from roadway cutting and excavation from drain and foundation of other structures graded and compacted to meet requirement of table 300-1, 300-2 and as per relevent clauses of section-300.	CUM	65		49715.7	3231520.5

	UADD 4.1 *	Construction of granular sub-base by providing coarse graded material, spreading in uniform layers with on prepared surface, mixing by mix in place method at OMC, and compacting with vibratory roller to achieve the desired density, complete in all respect and as per relevant clauses of section-400					
	ii)	for grading- II Material	cum	614	552.6	5670	3133242
	P.W.D 4.12 PG. NO. 25 *	Crusher Run Macadam Sub Base/Base Course Providing crushed stone aggregate, depositing on a prepared surface by hauling vehicles, spreading and mixing with a motor grader, watering and compacting with a vibratory roller to clause 410 to form a layer of sub-base/Base in accordance to Table No. 400-14, 400-15 and as per clause of section 407 of specifications.					
	i)	For 53 mm maximum size	cum	957		5670	5426190
	ii)	For 37.5 mm maximum size	cum	949		5670	5380830
	UADD 4.5 *	Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver in sub- base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density and as per relevant clauses of section-400.	cum	951	855.9	2835	2426476.5
	UADD 5.1	Providing and applying primer coat with bitumen emulsion on prepared surface of granular Base including clearing of road surface and spraying primer at the rate of 0.75 kg/sqm using mechanical/Manual means and as per relevant clauses of section-502	sqm	26	23.4	37800	884520
	UADD 5.2	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor on the prepared bituminous/granular surface cleaned with mechanical broom and as per relevant clauses of section-503.					
	i)	@ 0.25 kg per sqm (normal bituminous surfaces)	sqm	9	8.1	37800	306180

	UADD 5.6 *	Providing and laying Dense bituminous macadam with hot mix plant batch using crushed aggregates of specified grading, premixed with bituminous binder, transporting the hot mix to work site, laying with mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction complete in all respects and as per relevant clauses of section-507. (Only cement will be used as filler.					
	ii)	for Grading I (80-100mm thickness)	cum	7161	6444.9	2835	18271291.5
	UADD 5.8 *	Providing and laying Bituminous concrete with hot mix plant using crushed aggregates of specified grading,premixed with bituminous binder,transporting the hot mix to work site,laying with a mechanical paver finisher to the required grade,level and alignment,rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects and as per relevant clauses of section-509.(Only cement will be used as filler).					
	i)	for Grading I (50-65 mm thickness) with	cum	8223	7400.7	1512	11189858.4
	UADD TEM NO. 8.4	Direction and Place Identification signs upto 0.9 sqm size board. (Providing and erecting direction and place identification retro-reflectorised sign as per IRC:67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminium sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75x75x6 mm (height from crown level of the road and bottom of the sign board shall not be less than 1.5 m.) firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing including painting of vertical post as per specification.	sqm	7983	7184.7	0.54	3879.738

	UADD TEM NO. 8.5	Direction and Place Identification signs with size more than 0.9 sqm size board. (Providing and erecting direction and place identification retro- reflectorised sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminium sheeting, 2 mm thick with area exceeding 0.9 sqm supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm (height from crown level of the road and bottom of the sign board shall not be less than 1.5 m.) , 2 Nos. firmly fixed to the ground by means of properly designed foundation with M 15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing including painting of vertical post as per specification	sqm	13831	12447.9	10.8	134437.32
	UADD TEM NO. 8.10	Road Marking with Hot Applied Thermoplastic Compound with Reflectorising Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes and as per relevant clauses of section-800.	sqm	900	810	2520	2041200
	UADD TEM NO. 8.12	Road Delineators (Supplying and installation of delineators (road way indicators, hazard markers, object markers), 80-100 cm high above ground level, painted black and white in 15 cm wide stripes, fitted with 80 x 100 mm rectangular or 75 mm dia circular reflectorised panels at the top, buried or pressed into the ground and conforming to IRC-79 and the drawings as per relevant clauses of section-800 of specifications.	each	292	262.8	8400	2207520

	UADD TEM NO. 8.6	Painting two coats after filling the surface with synthetic enamel paint in all shades on new plastered concrete surfaces and as per relevant clauses of section-800 & I.R.C.-67 including cost of paint etc. complete	sqm	44	39.6	6300	249480
	UADD TEM NO. 8.6.1	Labour rate excluding the cost of material	sqm	17	15.3	6300	96390
	P.W.D 8.16	Kilo Metre Stone Reinforced cement concrete M15grade kilometre stone of standard design as per IRC:8-1980, fixing in position including painting and printing etc					
		(i) 5th kilometre stone (precast)	each	2791		0	0
		(ii) Ordinary Kilometer stone (Precast)	each	1681		13	21853
						TOTAL (A)	86726467.06
		ADD EXTRA AMOUNT FOR CURVATURE , RAMP ETC (10 % EXTRA)				TOTAL (B)	8672646.71
						TOTAL A+B	953.99
						SAY	9.54

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CONTRACTORS MAY COAT THERE RATES CONSIDERING THE BELOW MANDATORY MACHINERIES.

NO EXTRA RATE SHALL BE PAID IN THE BELOW ITEMS OF EMBAKEMENT, G.S.B, C.R.M , D.B.M, B.C, ETC. FOR

* **NOTES:- FOR BITUMINOUS WORK**

(A) IT IS MANDATORY TO USE MIXING OF BITUMINOUS MATERIAL ONLY BATCH MIX PLANT OF APPROPRIATE CAPACITY OR AS SPECIIED IN ANNEXTURE FORMAT 1-5.

(B) IT IS MANDATORY TO USE LAYING WITH A HYDROSTATIC PAVER FINISHER WITH SENSOR CONTROL TO THE REQUIRED GRADE, LEVEL AND ALIGNMENT, ROLLING WITH SMOOTH WHEELED, VIBRATORY AND TANDEM ROLLERS TO ACHIEVE THE DESIRED COMPACTION AS PER CLAUSE 507 OF SPECIFICATION.

* **NOTES:- FOR CONSTRUCTION OF EMBANKMENT WORK**

IT IS MANDATORY TO USE MOTOR GRADER FOR SPREADING AND LEVELLING AND VIBRATORY ROLLER, PNEMATIC TYRE ROLLER ETC. AS PER CLAUSE 305.3.6, COMPACTION AT O.M.C NOT MORE THAN 30CM LAYER.

* **NOTES:- FOR GRANULAR SUB BASE**

IT IS MANDATORY TO USE MATERIAL C.B.R. > 30 SPREADING AND UNIFORM LAYERS WITH MOTOR GRADER & COMPACTING AT O.M.C WITH VIBRATORY & STATIC ROLLER TO ACHIEVE REQUIRED DENSITY AS PER CLAUSE 305.3.6.

* **NOTES:- FOR CRM**

IT IS MANDATORY TO SPREADING AND MIXING WITH A MOTOR GRADER, WATERING AND COMPACTING WITH A VIBRATORY ROLLER AS PER CLAUSE 410

* **NOTES FOR WMM**

IT IS MANDATORY TO BRING PRE MIX MATERIAL WITH WATER AT O.M.C IN MECHANICAL MIX PLANT.

PROPOSED CONSTRUCTION OF BITUMENOUS SMART ROAD OF BARGI HILLS VIA TECHNO PARK JABALPUR (M.P)

ESTIMATE BASED ON SOR UADD 2012 & P.W.D 2017

Sl. No.	Item No.	Item	Unit	Rate	Reuced Rate	QTY	Amount
		SOR ITEM		(INR)	(INR)		(INR)
		DRAIN WORK					
	3.16	Excavation in all kinds of soil for drainage work by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30cm in depth. 1.5m in width including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed.	cum	99	89.1	6720	598752
	13.6	Providing and laying Plain/Reinforced cement concrete (mixed in concrete mixture) in open foundation including form work shuttering etc. complete as per drawing and technical specifications and as per relevant clauses of sections 1500, 1700 & 2100 with .					
	a)	PCC Grade M15 with 40 mm maximum s	cum	3692	3322.8	588	1953806.4
	e)	RCC Grade M20 with 20 mm maximum s	cum	4277	3849.3	0	0
	f)	RCC Grade M25 with 20 mm maximum s	cum	4300	3870	1764	6826680
	13.26	Supplying, fitting and placing un-coated HYSD bar reinforcement in foundation complete as per drawing and technical specifications and as per relevant clauses of sections 1600.	kg	56.994	51.2946	210000	10771866
	14.8	Providing weep holes in Brick masonry/Plain/Reinforced concrete abutment, wing wall/return wall with 100 mm dia AC pipe, extending through the full width of the structure with slope of 1V :20H towards drawing foc. Complete as per drawing and Technical specifications and as per clause 2706 of specifications.	meter	131	117.9	1680	198072
TOTAL							20349176.4
SAY							203.49 LAC

PROPOSED CONSTRUCTION OF BITUMENOUS SMART ROAD OF BARGI HILLS VIA TECHNO PARK JABALPUR (M.P)

ESTIMATE BASED ON SOR UADD 2012 & P.W.D 2017

Sl. No.	Item No.	Item	Unit	Rate	Reduced Rate	QTY	Amount
SOR ITEM				(INR)			(INR)
		DIVIDER					
	13.6	Providing and laying Plain/Reinforced cement concrete (mixed in concrete mixture) in open foundation including form work shuttering etc. complete as per drawing and technical specifications and as per relevant clauses of sections 1500, 1700 & 2100 with.					
	a)	PCC Grade M15 with 40 mm maximum size of	cum	3692	3322.8	441	1465354.8
	e)	RCC Grade M20 with 20 mm maximum size of	cum	4277	3849.3	472.5	1818794.25
	f)	RCC Grade M25 with 20 mm maximum size of	cum	4300	3870	756	
	4.1	Construction of granular sub-base by providing coarse graded material, spreading in uniform layers with on prepared surface, mixing by mix in place method at OMC, and compacting with vibratory roller to achieve the desired density, complete in all respect and as per relevant clauses of section-400					
	ii)	for grading- II Material	cum	614	552.6	535.5	295917.3
	13.26	Supplying, fitting and placing un-coated HYSD bar reinforcement in foundation complete as per drawing and technical specifications and as per relevant clauses of sections 1600.	kg	56.994	51.2946	25200	1292623.92
						TOTAL-	4872690.27
						SAY	48.73

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PROPOSED CONSTRUCTION OF BITUMENOUS SMART ROAD OF BARGI HILLS VIA TECHNO PARK JABALPUR (M.P)

ESTIMATE BASED ON SOR UADD 2012 & P.W.D 2017

Sl. No.	Item No.	Item	Unit	Rate	Reduced Rate	QTY	Amount
		SOR ITEM		(INR)			(INR)
STRUCTURE WORK (CULVERT & BRIDGE)							
	13.1	Earth work in excavation of foundation of structures as per drawing and technical specification, including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material etc. and as per relevant clauses of section 300 & 2100 in					
	I	Soil					
	i)	upto 3 m depth	cum	136	122.4	1500	183600
	IV	Hard rock (blasting prohibited, with written perm	cum	577	519.3	700	363510
	13.6	Providing and laying Plain/Reinforced cement concrete (mixed in concrete mixture) in open foundation including form work shuttering etc. complete as per drawing and technical specifications and as per relevant clauses of sections 1500, 1700 & 2100 with .					
	a)	PCC Grade M15 with 40 mm maximum size of a	cum	3692	3322.8	184	611395.2
	f)	RCC Grade M25 with 20 mm maximum size of a	cum	4300	3870	1602	6199740
	iv)	Grade M30 PCC with 40 mm maximum size of a	cum	4339	3905.1	117.6	459239.76
	13.26	Supplying, fitting and placing un-coated HYSD bar reinforcement in foundation complete as per drawing and technical specifications and as	kg	56.994	51.2946	25600	1313141.76
	14.8	Providing weep holes in Brick masonry/Plain/Reinforced concrete abutment, wing wall/return wall with 100 mm dia AC pipe, extending through the full width of the structure with slope of 1V :20H towards	meter	131	117.9	80	9432
TOTAL-							9140058.72
SAY							91.40

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PROPOSED CONSTRUCTION OF BITUMENOUS SMART ROAD OF BARGI HILLS VIA TECHNO PARK JABALPUR (M.P)

ESTIMATE BASED ON SOR UADD 2012 & P.W.D 2017

Sl. No.	Item No.	Item	Unit	Rate	Reduced Rate	QTY	Amount
SOR ITEM				(INR)			(INR)
FOOTPATH (2.5M WIDE)							
	UADD 4.1	Construction of granular sub-base by providing coarse graded material, spreading in uniform layers with on prepared surface, mixing by mix in place method at OMC, and compacting with vibratory roller to achieve the desired density, complete in all respect and as per relevant clauses of section-400					
	ii)	for grading- II Material	cum	614	552.6	630	348138
	UADD 13.6	Providing and laying Plain/Reinforced cement concrete (mixed in concrete mixture) in open foundation including form work shuttering etc. complete as per drawing and technical specifications and as per relevant clauses of sections 1500, 1700 & 2100 with .					
	a)	PCC Grade M15 with 40 mm maximum size of aggregate	cum	3692	3322.8	420	1395576
KERB							
	a)	PCC Grade M15 with 40 mm maximum size of aggregate	cum	3692	3322.8	420	1395576
	c)	PCC Grade M25 with 40 mm maximum size of aggregate	cum	4282	3853.8	346.5	1335341.7
	UADD 5.2	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor on the prepared bituminous/granular surface cleaned with mechanical broom and as per relevant clauses of section-503.	sqm	13	11.7	10500	122850
	UADD 15.5	Providing and laying 12 mm thick mastic asphalt wearing course on top of deck slab excluding prime coat with paving grade bitumen meeting the requirements given in table 500-29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine grained hard stone chipping of 9.5 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 100 deg. C, protruding 1 mm to 4 mm over mastic surface, all complete as per clause 515 and 2702 of specifications..	sqm	258	232.2	10500	2438100
	* NON SOR	Providing and Laying 5 layer Acrylic/Synthetic Flooring for Jogging Track/Footpath (5 Layer Synthetic Courts - All weather synthetic surface applicable of one filler coat, two resurfacer coat, two pigmented (Synthetic paint) coats alongwith line marking as per details ext. complete.)	sqm	1280		10500	13440000
						TOTAL	20475581.7
						SAY	204.76

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NOTES:-

***FOR SYNTHETIC FLOORING:- 5 LAYERS ACRYLIC / SYNTHETIC FLOORING**

NEED TO TAKE CARE THAT RAIN WATER DOESN'T STAGNATE ON THE SURFACE.

PROPOSED CONSTRUCTION OF BITUMENOUS SMART ROAD OF BARGI HILLS VIA TECHNO PARK JABALPUR (M.P)

ESTIMATE BASED ON SOR UADD 2012 & P.W.D 2017

ELECTRICAL ESTIMATE

Sr. No	Item Code	Description / Specification	Quantity	Unit	Rate	New rate as per SOR	Amount
1	UADD SOR 13.2	Supply of support for overhead line RS joist / H-beam of I.S. standard including welding, drilling of required hole etc. complete as required.					
2	UADD SOR 13.2.2	R.S. Joist 175 x 90 - 19.3 kg per meter	650.00	Meters	1,029.00	926.10	6,01,965.00
3	UADD SOR 13.2.6	H-Beam 152x152mm , Std weight 37.1 kg per meter	1,285.00	Meters	1,977.00	1,779.30	22,86,400.50
4	UADD SOR 13.13	Erection of steel tubular or steel rail pole or H-Beam of length exceeding 8 meters but not exceeding 10 meters in cement concrete 1:3:6 (1 cement : 3 coarse sand: 6 graded stone aggregate 40mm nominal size) foundation , base padding & muffing including excavation and refilling etc. as required.(4.55 bags of cement/cmt.)	75.00	Each	2,163.00	1,946.70	1,46,002.50
5	UADD SOR 13.14	Erection of steel tubular or steel rail pole or H-Beam of length exceeding 10 meters but not exceeding 13 meters in cement concrete 1:3:6 (1 cement :3 coarse sand: 6 graded stone aggregate 40mm nominal size) foundation , base padding & muffing including excavation and refilling etc. as required.(4.55 bags of cement/cmt.)	97.00	Each	2,563.00	2,306.70	2,23,749.90
6	UADD SOR 13.58	Supplying of angle/channel flat iron fitting for overhead lines such as cross arms, clamps, brackets, welding and other necessary materials as per specifications.	5,500.00	Kg	54.00	48.60	2,67,300.00
14	UADD SOR 13.79	Supplying and erection of 11kV pin insulator complete with large steel head G.I. pin, nut, washer etc. as required.	88.00	Set	375.00	337.50	29,700.00
15	UADD SOR 13.80	Supplying and erection of 11kV disc insulator for 11kV overhead lines with galvanized insulator fittings, ball and socket type, and complete with galvanized strain clamp, bolts, nuts washer etc. as required.	55.00	Set	1,089.00	980.10	53,905.50

16	UADD SOR 13.81	Supplying and erection of 33kV pin insulator complete with large steel head G.I. pin, nut, washer etc. as required.	55.00	Set	1,012.00	910.80	50,094.00
17	UADD SOR 13.82	Supplying and erection of 11kV disc insulator for 33kV overhead lines with galvanized insulator fittings, ball and socket type, and complete with galvanized strain clamp, bolts, nuts washer etc. as required.	30.00	Set	3,067.00	2,760.30	82,809.00
18	UADD SOR 13.86	Painting of Pole Bracket cable Protecting Pipe and its clamps in two coatings of All enamel based Primer as directed by Engineer-Charge.					
19	UADD SOR 13.86.2	Primer Cost over new Steel and other metallic surface with red oxide / zinc chromide paint complete with supply of material labour etc. Including preparation of Surface.	815.00	Sqm	21.00	18.90	15,403.50
20	UADD SOR 13.86.3	Primer cost with aluminum paint, brushing complete with material and labour including preparation of surface.	815.00	Sqm	28.00	25.20	20,538.00
21	UADD SOR 15.13	Supplying, installing, testing of earth Coil (coil of 115 turns of 50mm dia, and 2.5 Mtrs. Lead of 4 mm G.I wire.	140.00	Each	219.00	197.10	27,594.00
22	UADD SOR 19.183	Cable connector 35mm	178.00	Each	90.00	81.00	14,418.00
23	MP PWD 42.63	Supplying and fixing 33/11/0.4 KV enamel coated danger board size 200x250mm with clamp on existing HT/LT structure / poles.	150.00	Each	148.00	133.20	19,980.00
24	MP PWD 42.85	Supplying & drawing / laying of PVC insulated XLPE Aerial bunch power cable conductor H2/H4 grade Aluminium Solid/stranded conforming to IS-14255-1995, Alu. Alloy insulated messenger 1100 volts grade cable of approved make in Air with necessary material as per specification of required size as mentioned below –					
25	MP PWD 42.85.2	(ii) Single Core cable(Insulated neutral messenger)					
26	MP PWD 42.85.2.3	(c) 3x50 Sq.mm , 1x16(St.Light), 1x35(Insulated neutral messenger)	300.00	Meters	288.00	259.20	77,760.00

27	MP PWD 42.85.2.4	(d) 3x70 Sq.mm , 1x16(St.Light), 1x35(Insulated neutral messenger)	300.00	Meters	390.00	351.00	1,05,300.00
28	MP PWD 42.85.2.5	(e) 3x95 Sq.mm , 1x16(St.Light), 1x50(Insulated neutral messenger)	1,800.00	Meters	584.00	525.60	9,46,080.00
29	MP PWD 42.86	Supplying & fixing of Aerial bunch cable accessories suspension clamps i/c required attachment for single core cable of approved make on pole with clamp, necessary material as per specification for required size.	75.00	Each	343.00	308.70	23,152.50
30	MP PWD 42.87	Supplying & fixing of Aerial bunch cable accessories Tension clamps(Dead end) i/c required attachment for single core cable of approved make in Air with clamp, necessary material as per specification for required size.	90.00	Each	371.00	333.90	30,051.00
34	UADD SOR 15.3	Supplying installing and testing of AB isolating switch assembly set gang operated suitable for 11/0.4 KV, DP structure with brass part contacts, operating rod with required GI pipe, handle locking arrangement on On-Off position conforming to IS complete with required material and installing on existing structure to complete the job as required as per specification.					
35	1	11 kV	22.00	Set	7,099.00	6,389.10	1,40,560.20
	2	33 kV	30.00	Set	15,416.00	13,874.40	4,16,232.00
36	UADD SOR 15.4	Supplying, installing ,testing of 11 KV D.O. fuse assembly with brass part contact for 11/0.4 KV DP Structure set of 3 with fuse with barrel with required fuse element & other materials as per specification on existing D.P. structure as required.(set of 3nos.)					
37	1	11kV	15.00	Set	4,700.00	4,230.00	63,450.00
	2	33kV	20.00	Set	11,531.00	10,377.90	2,07,558.00
38	UADD SOR 13.84	Supplying and erection of three piece nonlinear resistor type lighting arrester suitable for 3 wire, 11kV overhead lines with rated voltage of 9kV (rms) with a nominal discharge current rating of 5 KA and complete with galvanized clamping arrangement, G.I. bolts, nuts, washer etc. as required.	25.00	0	4,284.00	3,855.60	96,390.00

	UADD SOR 13.85	Supplying and erection of single piece non-linear resistor type lightning arrester for 3 wire, 33kV overhead lines with rated voltage of 30kV (rms) with a nominal discharge current rating of 5 KA and complete with galvanised clamping arrangement, G.I. bolts, nuts, washer etc. as required.	30.00	Set	39,170.00	35,253.00	10,57,590.00
39		Supplying, installing, testing and commissioning of LT Distribution Box with TPN isolator 200 amper on incoming, bus bar and 66 S.P.M.C.C.B.of 60 A" .on outgoing side for 63 KVA transformer					
40	UADD SOR 15.7	(i)Supplying, installing, testing and commissioning of LT Distribution Box with TPN isolator 200 amper on incoming, bus bar and 6 S.P.M.C.C.B.of 90 A" .on outgoing side for 100 KVA transformer	2.00	Each	17,036.00	15,332.40	30,664.80
41		(i)Supplying, installing, testing and commissioning of LT Distribution Box with TPN isolator of 600 amper on incoming, bus bar and 6 S.P.M.C.C.B.of 120 A" .on outgoing side for 200 KVA transformer	2.00	Each	28,393.00	25,553.70	51,107.40
42	UADD SOR 13.5	Supplying and drawing All Aluminum Alloy conductor (AAAC) of approved make confirming to IS 398-1979 Pt. IV, including binding at existing insulator, jointing, jumpering, tearing off, connecting etc. as required including clearing of obstacles (if any)					
43	UADD SOR 13.5.4	0.075 sq.inch / 48 sq.mm Alloy Aluminum Conductor	9.00	KM	59,138.00	53,224.20	4,79,017.80
44	MP PWD 42.5	Supplying and drawing All Aluminum Alloy conductor (AAAC) of approved make confirming to IS 398-1979 Pt. IV, including binding at existing insulator, jointing, jumpering, tearing off, connecting etc. as required including clearing of obstacles (if any)					
45	MP PWD 42.5.4	AAAC 0.1 sq inch (100 Sq.mm Al. EQ.) - (Dog)	9.00	KM	77,891.00	70,101.90	6,30,917.10

46	UADD SOR 13.65	Supplying of 50mmx 8mm M.S. Flat iron pole top bracket/cross arm for single 11/22/33kV overhead line conductor complete with fixing bolts, nuts and washers drilling holes for insulator pins, painting with primer and finish paint as required.	45.00	Each	280.00	252.00	11,340.00
47	UADD SOR 14.8	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.For Conductor Size-					
48	UADD SOR 14.8.2	25 Sq.mm	48.00	Each	7.00	6.30	302.40
49	UADD SOR 14.8.3	35 Sq.mm	30.00	Each	9.00	8.10	243.00
50	UADD SOR 14.8.4	50 Sq.mm	30.00	Each	14.00	12.60	378.00
51	UADD SOR 14.8.6	95 Sq.mm	24.00	Each	24.00	21.60	518.40
52	UADD SOR 14.8.8	150 Sq.mm.	24.00	Each	44.00	39.60	950.40
53	UADD SOR 14.8.10	240 Sq.mm.	24.00	Each	93.00	83.70	2,008.80
54	UADD SOR 14.8.11	300 Sq.mm.	24.00	Each	129.00	116.10	2,786.40
55	UADD SOR 13.8	Supplying and drawing guard wire/earth wire/bearer wire 13mm ² (4mm. Dia) G.I. including stringing, binding at existing insulators or brackets, jointing, jumpering, connecting etc. as required and clearing of obstacles (if any)	0.30	KM	9,176.00	8,258.40	2,477.52

56	UADD SOR 13.24	Supplying and erection of stay set complete (Galvanized) with 19mm.dia 1.8 meter long stay rod, anchor plate of size 300mm x 300 mm x 6.4mm thimble stay clamps, bowtightener, 7/3.15 dia G.I. stay wire and strain insulator etc. in cement concrete 1:3:6 (1 Cement : 3 Coarse and : 6 graded stone aggregate 40mm nominal size) foundation including excavation and refilling etc. as required.	40.00	Each	2,634.00	2,370.60	94,824.00
57	UADD SOR 13.62	Supplying and erection of galvanized stay set for 33kV overhead line complete with 19/20mm dia x 1.8 meters long stay rod, anchor plate of size 45cm x 45cm x 7.5mm thick, thimble, stay clamps, turn buckle (20mmx 600mm), 7/4.00mm dia G.I. stay wire and 33kV strain insulator etc. in cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40mm. nominal size) foundation including excavation and refilling etc. as required.	45.00	Each	2,906.00	2,615.40	1,17,693.00
58	MP PWD 42.68	Supplying and fixing Limit switch with accessories & arrangement on existing HT/LT structure / poles AB switch handle for inter locking between distribution panel main incoming LT switch gear/ system as required to complete the job. (Distrubtion Box for house connection)	20.00	Each	1,778.00	1,600.20	32,004.00
59		Earthing					
60	UADD SOR 11.40	Supplying and erecting earth pit of minmum bore dia 150 mm size, approved make safe earthing electrode consiting pipe in pipe tecnologie as per IS 3043-1987 made of corriosion free GI pipes having outer pipe dia of 50 mm having 80-200 micron galvanising, inner pipe dia of 25 mm having 20-250 micron galavinsing, connection teriminal dia of 12 mm with constent OHMIC value sourrounded by highly conductiv compund with high charge disipation sutible for effective and maintence free earthing					
61	UADD SOR 11.40.2	with 3 mtr. Pipe in normal soil with 50 kg (two bag) back filling compound	45.00	Each	10,800.00	9,720.00	4,37,400.00

62	UADD SOR 11.8	Supplying and laying 25mm X 5mm G.I. strip at 0.5 meter below ground level as strip earth electrode including soldering etc. as required.	2,500.00	Meters	66.00	59.40	1,48,500.00
63	UADD SOR 11.37	Providing and laying earth continuity conductor including fixing with					
64	UADD SOR 11.37 (B)	G.I. Or Steel Earth Continuity Conductor :-					
65	UADD SOR 11.37 (B) 2	10 Sq mm.	1,000.00	Meters	9.00	8.10	8,100.00
67		Dismantal / Shifting Work					
68	UADD SOR 13.57	Dismantling poles / street light standards / struts embedded in cement concrete foundation etc. as required.	89.00	Each	609.00	548.10	48,780.90
69	MP PWD 35.10	Dismantling of existing overhead ACSR, AAAC, GI , conductor and making the site clear i/c transportation to required destination within township.	6,500.00	Meters	4.00	3.60	23,400.00
70	MP PWD 42.63	Shifting, erection, & commissioning of of 100/ 200 / 315 / 500 KVA (11/0.433 KV) distribution transformer on existing structure including Bi-metallic clamp, ACSR/AAAC Conductor i/c colour code sleeve, for connection from H.T. Line to transformer as required as per specification.	8.00	Each	8,191.00	7,371.90	58,975.20
71		Cable Laying					
72	UADD SOR 14.1	Supply of XLPE Insulated power cable (conforming IS- 7098) 1100 Volt grade/Heavy duty power cable conforming to IS 1554-1100 Volts grade , 2 core /3½ core/4 coreSI MARKED with Alu. Stranded /solid conductor					
73	UADD SOR 14.1.2	ARMOURED 2 Core					
	UADD SOR 14.1.1.1	2.5 Sq.mm.(Heavy Duty)	240.00	Meters	47.00	42.30	10,152.00
74	UADD SOR 14.1.2.4	10 Sq.mm.(XLPE)	300.00	Meters	154.00	138.60	41,580.00
75	UADD SOR 14.1.2.5	16 Sq.mm.(XLPE)	200.00	Meters	180.00	162.00	32,400.00

76	UADD SOR 14.1.8	ARMOURED 4 CORE					
77	UADD SOR 14.1.8.2	10 Sq.mm.(XLPE)	300.00	Meters	183.00	164.70	49,410.00
78	UADD SOR 14.1.8.3	16 Sq.mm.(XLPE)	1,650.00	Meters	229.00	206.10	3,40,065.00
79	UADD SOR 14.1.8.4	25 Sq.mm(XLPE)	850.00	Meters	281.00	252.90	2,14,965.00
80	UADD SOR 14.1.8.5	35 Sq.mm(XLPE)	100.00	Meters	358.00	322.20	32,220.00
82	UADD SOR 14.10.17	Laying and fixing of one number PVC insulated and PVC sheathed aluminium conductor cable of 1.1kV grade of size not exceeding 25 Sq.mm on surface etc. as required.	500.00	Meters	35.00	31.50	15,750.00
83	UADD SOR 14.10.18	Laying and fixing of one number PVC insulated and PVC sheathed aluminium conductor cable of 1.1kV grade of size exceeding 25 Sq.mm but not exceeding 120 Sq.mm on surface etc. as required.	500.00	Meters	80.00	72.00	36,000.00
84	MP PWD 41.3	Supply of approved High-Tension XLPE cable (conforming IS-7098/II/85) as per ISI standard 3 core Armoured with Alu. Solid/stranded conductor ISI MARKED as required					
85	MP PWD 41.3.1	3 CORE XLPE CABLE 11 KV GRADE					
86	MP PWD 41.3.1.4	120 Sq.mm.	500.00	Meters	1,377.00	1,239.30	6,19,650.00
87	MP PWD 41.3.1.5	150 Sq.mm.	500.00	Meters	1,537.00	1,383.30	6,91,650.00
88	MPKVVNL M- 0402027	11 KV Under-Ground XLPE armoured Cable 3X240 Sq.mm.	0.10	Kilometer	8,23,085.00	8,23,085.00	82,308.50
89	MPKVVNL M- 0402026	11 KV Under-Ground XLPE armoured Cable 3X300 Sq.mm.	0.10	Kilometer	9,48,609.00	9,48,609.00	94,860.90
90	MPKVVNL M- 0404112	Outdoor heat shrinkable cable end jointing kit with lugs for 11 kV grade XLPE cable for 3 core 240 sq mm	2.00	Set	5,235.00	5,235.00	10,470.00
91	MPKVVNL M- 0404113	Outdoor heat shrinkable cable end jointing kit with lugs for 11 kV grade XLPE cable for 3 core 300 sq mm	2.00	Set	5,365.00	5,365.00	10,730.00

92	MP PWD 41.10	Providing & Making cable end termination with HEAT SHRINKABLE jointing kit complete with all accessories including lugs suitable for 33 kV/11 kV 3 core XLPE alum. conductor cable as required as per specification and as per accepted standard including connection testing complete.					
93	MP PWD 41.10.1	Heat shrinkable joint,kit 11 kV XLPE, 3 Core					
94	MP PWD 41.10.1.1	Heat shr.jointg. kit 11 kV XLPE cable O.D. termination					
95		c. 3 x 120-185 sq.mm.	4.00	Each	13,078.00	11,770.20	47,080.80
96	MPKVVN M- 0404112	Outdoor heat shrinkable cable end jointing kit with lugs for 11 kV grade XLPE cable for 3 core 240 sq mm	2.00	Set	5,235.00	5,235.00	10,470.00
97	MPKVVN M- 0404113	Outdoor heat shrinkable cable end jointing kit with lugs for 11 kV grade XLPE cable for 3 core 300 sq mm	16.00	Set	5,365.00	5,365.00	85,840.00
98	MP PWD 41.12	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, lightening conductor down strip / overhead service line / for submersible cable or centrifugal pump for water supply with necessary iron clamp coupler, bend, tee, elbow, nuts and bolts etc. complete in an approved manner as required to complete excluding cost of excavation/dismantalling & other finished masonry Item complete.					
99	MP PWD 41.12.1	For 'B' Class pipe ISI Marked (IS-1161-68)					
100	MP PWD 41.12.1.9	100.00mm	800.00	Meters	1,070.00	963.00	7,70,400.00
101	MP PWD 41.12.1.10	150.00mm	500.00	Meters	1,753.00	1,577.70	7,88,850.00

102	UADD SOR 17.4	Supplying and installing Double wall corrugated pipes (DWC) of HDPE (IS 14930 Part II -marked) for cable laid under ground with necessary connecting sockets/ couplings,tees of same material and at required depth upto 90cm. below road/ground surface,including excavation, back filling with excavated material with ramming and making the surface good.					
103	UADD SOR 17.4.1	50.00mm outside dia.	890.00	Meters	207.00	186.30	1,65,807.00
104	UADD SOR 17.4.2	175.00mm outside dia.	500.00	Meters	432.00	388.80	1,94,400.00
105	MP PWD 41.37	Laying of one number 3 core H.T armoured / unarmoured power cable of grade exceeding 1.1kV but not exceeding 11kV of size not exceeding 150 Sq.mm in the existing RCC / Hume / Stoneware / G.I. Pipe / surface in existing trench as required.	500.00	Meters	52.00	46.80	23,400.00
106	MP PWD 42.69	Supply & fixing fencing of chain link mesh 100 x 100 mm, 12 SWG GI wire for for D.P. structure electric sub-station including single post of angle iron size 50x50x5mm, 2.5 mt long should be provided up to 2.00 mt. apart or as required .The panel frame with required angle iron/ flat iron members /cross members including mesh welded in frame panel, shall be erected between the post. The angle iron post shall be erected in cement concrete 1:2:4 (20 mm graded metal) foundation, including excavation of pit and refilling the same. The fencing shall be provided with one entrance gate including locking arrangement as required as per specification. The height of fencing shall be 2 mt. above ground level. Fencing shall be painted with required shade.	30.00	Sq.Mtrs	1,100.00	990.00	29,700.00

107	UADD SOR 14.11	Excavation of the trenches in Hard Rock not exceeding 1.5 meter in width and lift upto 1.5 meter including getting out the excavated soil and disposal of surplus excavated soil as directed within the lead of 50 meter (without blasting)	50.00	Cu.Mtrs	348.00	313.20	15,660.00
108	UADD SOR 14.8	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.For Conductor Size :					
109	UADD SOR 14.8.1	6mm to 16 Sq.mm	200.00	Each	5.00	4.50	900.00
110	UADD SOR 14.8.2	25 Sq.mm	250.00	Each	7.00	6.30	1,575.00
111	UADD SOR 14.8.3	35 Sq.mm	50.00	Each	9.00	8.10	405.00
112	UADD SOR 6.2 (V-2)	Brick work with well burnt chimney bricks in bulls patent trench kiln, crushing strength not less than 25kg/sqcm and water absorption not more than 20% in foundation and plinth					
113	UADD SOR 6.2.1 (V-2)	Cement mortar 1:4 (1 cement : 4 coarse sand)	40.00	Cum	4,152.00	3,736.80	1,49,472.00
		Street light					
	4.3	CIRCUIT WIRING IN EXISTING CONDUIT / PVC CASING CAPPINGS 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.					
	4.3.1	1.5 Sq mm cable					
	3	3 X 1.5 sq mm	1850	Meter	72.00	64.80	119880
	8.5	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	SINGLE POLE (SP)					
	2	6 Amp to 32 Amp Rating	179	Each	166.00	149.40	26742.6
	8.5.6	FOUR POLE(FP)					
	4	50 Amp to 63 Amp Rating	4	Each		1593.00	6372
	16.15.1	Change of timer renowned make.	2	Each		3312.00	6624

8.1	MCCB with Breaking Capacity 25 KA at 415 V						
1	Current Rating -25 to100 Amps & 70% -100% adjustable	2	Each		4445.10	8890.2	
14.8	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.For Conductor Size-						
1	6 - 16 Sq.mm	385	Each	5.00	4.50	1732.5	
9.15	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	295.00	KG	116.00	104.40	30798	
11.34	Providing and fixing earthing arrangement with 16mm dia 2.5 meter long galvanized iron or steel rod electrode including packing of charcoal powder and salt as per specification watering pipe 19mm dia G.I. Connection etc. complete with refilling the pit as required, but excluding the excavation of earth pit.	94	Each	219.00	600.30	56428.2	
11.3	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 meter long etc. (but without charcoal or coke and salt) complete as required.	2	Each	2540.00	2286.00	4572	
11.5	Add Extra for using salt and charcoal / coke for G.I. Plate or Copper plate earth electrode as required including excavation & refilling.	2	Each	520.00	468.00	936	

	PWD SOR 31.29.6	Supplying & fixing street 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 4000 K to 6500 K & 50000 burning hrs life with minimum @L 70, The color rendering index of LED light should be more than 70 LUminaire comprises of driver,PF 0.95 & surge protection 3 KV Housing made of pressure die cast aluminium with heat resistant flat glass/ Lens type,IP65 protection. Submission LM 80-08 Form LED Source Manufacturer & LM79-08 / IS16106 from NABL approved lab . Manufacturer mandatory i/c 50 mm dia. GI pipe bracket up to 2.0 mtr. long to required angle/shape connection lead ,testing etc. to complete the job.02 years Guarantee certificate from manufacturer. 150 W	182	Each	20049.00	18044.10	3284026.2
	PWD 42.93	Providing and erecting hot dipped galvanized octagonal poles in single section made from 3mm thick sheet having lockable weather proof flush door junction box complete erected in an approved manner on provided foundation. Suitable size & type of foundation bolts 4 nos. 'J' type (EN8 grade)					
	PWD 42.93.	9 mtrs. Height, 155 X 70mm A/F, 260x260x16mm base plate, 4 nos. X 24 x 750mm bolt	91	Each	24908.00	22417.20	2039965.2
	PWD 42.94	Providing and fixing of sword canopy type single arm GI bracket upto 2 Mtr. Long for 70mm A/F top octagonal pole	10	Each	3478.00	3130.20	31302
	PWD 42.95	Providing and fixing of sword canopy type double arm GI bracket upto 2 Mtr. Long for 70mm A/F top octagonal pole	91	Each	5645.00	5080.50	462325.5
	Uadd 10.33.10	Earth work in rough excavation in all kinds of soil rate from Building ISSR	715	Cum	203.00	182.70	130630.5
	Uadd 10.33.15	Cement concrete grade M-20 (Nominal Mix) with 20mm maximum size of stone aggregate (rate from Building ISSR)	715	Cum	4594.00	4134.60	2956239
	mppkvcl	INSTALLATION OF 11/04KV 200 KVA BIS LEVEL -III (BEE RATING -5 STAR) RATED DTR (ASSUMING 25 YEARS OF LIFE)	2	Each		329818.1	659636.2

	13	Preparation to drawing of exiting pole mounted substation up to 500 KVA 11 KV/0.4 KV rating, getting the drawing aprover from electrical inspectorate, getting the inspection of this substation installation done by Competent Authority of Electrical Inspectorate getting this installation of sub Station approved & acquiring provisional permission for charging & submitting the approved drawing and the provisional permission for charging to competent authority of JMC and getting this substation charged from MPSEB.	2	Each		16200	32400	
Total								2,36,12,044.02

SAY	236.12	LAC
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