

# RAJASTHAN STATE ROAD DEVELOPMENT & CONSTRUCTION CORPORATION Ltd.



## DETAIL PROJECT REPORT

### B.O.T. WORK

### Volume - II ESTIMATE PART

<b>NAME OF WORK</b>	:	<b>STRENGTHING &amp; WIDENING OF FATEHNAGAR DARIBA ROAD (MDR-33) KM 1/500 TO 19/500.</b>
<b>LENGTH</b>	:	18.00 Km
<b>PROJECT COST</b>	:	RS. 2844.76 Lacs
<b>BLOCK</b>	:	FATEHNAGAR, RAILMANGRA
<b>DISTRICT</b>	:	UDAIPUR & RAJSAMAND
<b>STATE</b>	:	RAJASTHAN

**PREPARED BY**

**RESIDENT ENGINEER  
R.S.R.D.C. Ltd., UNIT – UDAIPUR**

**Name of Work :- Widening & Strengthening of Fatehnagar-Dariba Road  
(MDR - 33) Km 1/500 - 18/500 ( Under B.O.T.).**

**Abstract of Cost**

	<b>Particulars</b>	<b>Amount (in lacs)</b>
A	Land Acquisition/ Shifting of Services	281.32
B	Land Development	
C	(i) Item Wise Cost	
	Fatehnagar-Dariba Road (MDR-33) KM 1/500 TO 19/500	1862.10
	<b>Base cost</b>	<b>2143.42</b>
	Escalation for the 2nd year @ 10% Of 40% of Base Cost	74.48
	TP @ 5%	93.11
	Contingency @ 5%	93.11
	Quality control @ 1%	18.62
	Guarantee Commission to State Govt.	18.62
	Sub Total	<b>2441.36</b>
	A&S Charges	216.00
	Application fee and front end fee	9.31
	Sub Total	<b>2666.67</b>
	IDCP	80.17
	Intrest payable to HZL	97.92
	<b>Total Cost of Project</b>	<b>2844.76</b>

Resident Engineer  
R.S.R.D.C. Ltd Unit UDAIPUR

**NAME OF WORK :- STRENGTHENING & WIDENING OF FATEHNAGAR-DARIBA ROAD  
(MDR-33) KM 1/500 TO 19/500 (UNDER B.O.T.)**

**GENERAL ABSTRACT**

<b>PART</b>	<b>PARTICULARS</b>	<b>AMOUNT (Rs.)</b>
Part "A"	Road Work	142381916.00
Part "B"	C.C. Pavement	8423453.00
Part "C"	C.D.Works - I	5342293.00
Part "D"	C.D. Works Maintenance- II	5476237.00
Part "E"	C.D. Works - III	7681131.00
Part "F"	Retaining Wall	8025835.00
Part "G"	Road Furniture	1589027.00
Part "H"	Toll Plaza & Foot path	7290304.00
	Total	<b>186210196.00</b>
	<b>Say</b>	<b>1862.10</b>

Asistant Resident Engineer  
R.S.R.D.C. Ltd Unit  
UDAIPUR

Resident Engineer  
R.S.R.D.C. Ltd Unit UDAIPUR

**NAME OF WORK :- STRENGTHENING & WIDENING OF FATEHNAGAR-DARIBA ROAD (MDR-33) KM 1/500 TO 19/500 (UNDER B.O.T.)**

**DETAILS**

Part "B" : C.C. PAVEMENT

S.N.	BSR 2008	Description of Item	Quantity	Rate (Rs.)	Unit	Amount (Rs.)
1	2	3	4	5	6	7
1	6.4/P.37	Construction of un-reinforced, dowel jointed as expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25mm, mixed in a concrete mixer of not less 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days, using curing compound (where specified) and water finishing to lines and gradeas per drawing and Technical Specification Clause 1501.				
			2489.20	3384.00	P.Cum	8423453.00
		Total				<b>8423453.00</b>

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**NAME OF WORK :- STRENGTHENING & WIDENING OF FATEHNAGAR-DARIBA ROAD (MDR-33) KM 1/500 TO 19/500 (UNDER B.O.T.)**

## DETAILS

### Part "D" : CD MAINTENANCE -II

S.N.	Description of Item	Quantity	Rate (Rs.)	Unit	Amount (Rs.)
1	3	4	5	6	7
1	Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of stone masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.Rubble Stone Masonry in Cement Mortar.				
		382.98	95.00	P.Cum.	36384.00
2	Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts and lead of 1000m as per Technical Specification Clause 202 By Mechanical Means Reinforced Cement Concrete.				
		62.23	271.00	P.Cum	16865.00
3	Removing all types of Hume pipes and stacking within a lead of 1000 m including Earthwork and Dismantling of Masonry Works as per Technical Specification Clause 202.Above 900 mm dia Hume pipe.				
		37.50	111.00	P.Rm	4163.00
4	Earth Work in excavation for structures as per drawing and technical specification Clause 305.1 including setting out, construction of shoring and bracing, removal of stumps and other deleterious material and disposal upto a lead of 50m, dressing of sides and bottom and backfilling in trenches with excavated suitable material. Ordinary Soil. Upto 3 m depth.				
		963.20	81.00	P.Cum	78019.00
5	Providing concrete for plain/reinforced concrete in open foundations complete as per drawings and technical specifications clause 802, 803, 1202 & 1202 & 1203, P.C.C. grade M-10 Nominal mix 1:3:6				
		512.02	2037.00	P.Cum	1042989.00

6	Stone masonry work in cement mortar in foundation complete as per drawing and technical specifications clauses 702, 704, 1202 & 1203. Random Rubble masonry in cement mortar 1:4.				
		380.48	1518.00	P.Cum	577575.00
7	Stone masonry work in cement mortar for sub-structure complete as per drawing and technical specifications clauses 702, 704, 1202 & 1204. Random Rubble masonry in cement mortar 1:5.				
		1376.39	1485.00	P.Cum	2043937.00
8	Providing and laying of dry rubble flooring complete as per drawings and technical specifications Clause 1303.3				
		101.93	601.00	P.Cum,	61257.00
9	Construction of toe walls for protection of slopes as per drawing and technical specifications Clause 1302.5 Random rubble dry stone masonry				
		150.00	849.00	P.Cum	127350.00
10	Providing and laying reinforced cement concrete in superstructure as per drawing and technical specifications Clauses 800, 1205.4 and 1205.5 for height upto 5 mtr R.C.C. M.25				
		127.24	3165.00	P.Cum	402707.00
11	Supplying, fitting, and placing HYSD bar reinforcement in superstructure complete as per drawing and technical specifications Clauses 1002, 1010 and 1202				
		19.09	41800.00	P.MT	797779.00
12	Providing and fixing in position 20 mm thick premoulded joint filler in expansion joint for fixed ends of simply supported spans, covered with sealant complete as per drawing and technical specifications.				
		768.96	8.00	P.Rm.P.Cm. Depth	6152.00
13	Plastering with cement mortar (1:4), 20 mm thick on Stonework in substructure as per technical specification Clauses 613.4 & 1204				
		2932.85	770.00	P.10 sqm.	225829.00
14	Plain/reinforced cement concrete in substructure complete as per drawing and technical specifications Clauses 802,804,805, 806, 807, 1202 and 1204 for height up to 5 meter P.C.C. grade M-20 nominal mix 1:2:4				

		17.10	2519.00	P. Cum	43075.00
15	White washing of parapet walls of C.D. work and tree trunks white washing two coats on parapet walls and tree trunks including preparation of surface by cleaning scraping etc. as per technical specifications Clause 1915				
		112.20	6.00	P. sqm.	673.00
16	Pointing with cement mortar (1:3) on stone work as per drawing and technical specification Clauses 613.3 and 1204				
		402.90	285.00	P.10 sqm.	11483.00
	<b>Total</b>				<b>5476237.00</b>

Asistant Resident Engineer  
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Resident Engineer  
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**NAME OF WORK :- STRENGTHENING & WIDENING OF FATEHNAGAR-DARIBA ROAD (MDR-33) KM  
1/500 TO 19/500 (UNDER B.O.T.)**

**DETAILS**

Part "D" : CD MAINTENANCE - II

S.N.	Description of Item	NO.	L*B*H	Total	Quantity	Unit
<b>1</b>	<b>3</b>		<b>4</b>		<b>8</b>	<b>6</b>
1	Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of stone masonry, including disposal of unserviceable material and stacking the serviceable material with all lift and lead of 1000 m as per Technical Specification Clause 202.Rubble Stone Masonry in Cement Mortar					
	Ch. 3/344	1	2*7.5*(1.0+0.6)/2*1.25	15.00	15.00	
	Pier	1	1*7.5*(0.9+0.6)/2*1.25	7.03	7.03	
	parapet	1	2*2.70*0.6*0.8	2.59	2.59	
	Ch. 6/310	1	2*6.10*(1+0.4)/2*1.25	10.68	10.68	
	parapet	1	2*6.0*0.4*0.6	2.88	2.88	
	Ch. 7/173	1	2*7.5*(1.0+0.6)/2*1.00	12.00	12.00	
	parapet	1	2*2.10*0.4*0.45	0.76	0.76	
	Ch. 8/147	1	2*7.5*(1.0+0.6)/2*1.35	16.20	16.20	
		1	2*2.10*0.4*0.50	0.84	0.84	
	Ch. 10/664	1	2*7.5*(1.2+0.6)/2*1.80	24.30	24.30	
	Pier	1	2*7.5*(1.0+0.6)/2*1.80	21.60	21.60	
	parapet	1	2*5.10*0.40*0.60	2.45	2.45	
	Ch. 12/820	1	2*7.5*(1.2+0.6)/2*2.40	32.40	32.40	
		1	1*7.5*(1.0+0.6)/2*2.40	14.40	14.40	
		1	2*7.60*0.40*0.65	3.95	3.95	
	Ch. 13/700	1	2*7.5*(1.2+0.6)/2*1.70	22.95	22.95	
		1	1*7.5*(1.0+0.6)/2*1.70	10.20	10.20	
		1	2*3.70*0.40*0.50	1.48	1.48	
	Ch. 14/452	1	2*7.5*(1.2+0.6)/2*1.50	20.25	20.25	
	parapet	1	2*1.70*0.40*0.50	0.68	0.68	
	Ch. 15/00	1	2*3.00*(1.1+0.6)/2*1.1	5.61	5.61	
		1	2*2.90*0.50*0.60	1.74	1.74	
	Ch. 15/260	1	2*7.5*(1.2+0.6)/2*1.60	21.60	21.60	
		1	1*7.5*(1.0+0.6)/2*1.60	9.60	9.60	
		1	2*4.00*0.50*0.60	2.40	2.40	
	Ch. 15/770	1	2*7.50*(1.2+0.6)/2*1.6	21.60	21.60	
		1	2*2.40*0.40*0.50	0.96	0.96	

	Ch. 15/940	1	$2*7.50*(1.4+0.6)/2*2.00$	30.00	30.00	
		1	$2*2.50*0.45*0.60$	1.35	1.35	
	Ch. 16/00	1	$2*7.50*(1.4+0.6)/2*2.00$	30.00	30.00	
		1	$2*3.00*0.40*0.50$	1.20	1.20	
	Ch. 16/500	1	$2*6.10*(1+0.4)/2*1.00$	8.54	8.54	
		1	$2*5.0*0.4*0.6$	2.40	2.40	
	Ch. 16/600	1	$2*3.00*(1+0.4)/2*1.00$	4.20	4.20	
	Ch. 18/500	1	$2*7.50*(1.2+0.6)/2*1.20$	16.20	16.20	
		1	$2*5.90*0.50*0.50$	2.95	2.95	
	<b>Total</b>				<b>382.98</b>	<b>Cum</b>
2	Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts and lead of 1000m as per Technical Specification Clause 202 By Mechanical Means Reinforced Cement Concrete.					
	C.D. 3/344	2	$7.50*1.5*0.20$	2.25	4.50	
	C.D. 7/173	1	$7.50*1.5*0.20$	2.25	2.25	
	C.D. 8/147	1	$7.50*1.75*0.25$	3.28	3.28	
	C.D. 10/664	3	$7.50*1.85*0.25$	3.47	10.41	
	C.D. 12/820	2	$7.50*2.10*0.25$	3.94	7.88	
	C.D. 13/700	2	$7.50*1.50*0.20$	2.25	4.50	
	C.D. 14/552	1	$7.50*1.50*0.20$	2.25	2.25	
	C.D. 15/260	2	$7.50*1.50*0.20$	2.25	4.50	
	C.D. 15/770	1	$7.50*1.70*0.25$	3.19	3.19	
	C.D. 15/940	1	$7.50*1.75*0.25$	3.28	3.28	
	C.D. 16/00	1	$7.50*2.80*0.30$	6.30	6.30	
	C.D. 18/500	2	$7.50*2.20*0.30$	4.95	9.90	
	<b>Grand Total</b>				<b>62.23</b>	<b>CUM</b>
3	Removing all types of Hume pipes and stacking within a lead of 1000 m including Earthwork and Dismantling of Masonry Works as per Technical Specification Clause 202. Above 900 mm dia Hume pipe					
	C.D. 6/310	1	$2*7.5$	15	15.00	
	C.D. 15/00	1	$1*7.5$	7.5	7.50	

	C.D. 16/500	1	1*7.5	7.5	7.50	
	C.D. 16/600	1	1*7.5	7.5	7.50	
					<b>37.50</b>	<b>CUM</b>
4	Earth Work in excavation for structures as per drawing and technical specification Clause 305.1 including setting out, construction of shoring and bracing, removal of stumps and other deleterious material and disposal upto a lead of 50m, dressing of sides and bottom and backfilling in trenches with excavated suitable material. Ordinary Soil. Upto 3 m depth.					
	(a)Ordinary Soil. Upto 3 m depth.					
	C.D. Abut Ch. 4/070, 4/750, 5/925, 7/850, 8/850, 8/993, 9/200,9/305, 10/524, 11/880,15/540, 16/775, 16/900, 18/200, 18/990, 19/420	32	2*2.70*2.70*1.20	17.50	559.87	
	Pier	14	2*2.70*1.80*1.20	11.66	163.30	
	C.D. Abut 19/500	2	2*2.70*3.60*1.20	23.33	46.66	
	Wingwall	17	4*5.00*1.75*0.65	11.38	193.38	
	<b>Grand Total</b>				<b>963.20</b>	<b>CUM</b>
5	Providing concrete for plain/reinforced concrete in open foundations complete as per drawings and technical specifications clause 802, 803, 1202 & 1202 & 1203, P.C.C. grade M-10 Nominal mix 1:3:6					
	C.D. Abut Ch. 4/070, 4/750, 5/925, 7/850, 8/850, 8/993, 9/200,9/305, 10/524, 11/880,15/540, 16/775, 16/900, 18/200, 18/990, 19/420	32	2*2.70*2.70*0.40	5.83	186.62	
	C.D. Abut 19/500	2	2*2.70*3.60*0.40	7.78	15.55	
	Pier	14	2*2.70*1.80*0.20	1.94	27.22	
	Pier	14	2*2.70*1.50*1.20	9.72	136.08	
	Wingwall	17	4*5.00*1.75*0.15	2.63	44.63	
	Over Kharanja					
	C.D 4/070, 4/750, 7/850, 8/850, 9/200, 18/200, 19/990, 19/420	10	7.50*1.25*0.30	2.81	28.13	
	CD 5/925	1	7.50*1.00*0.30	2.25	2.25	
	C.D. 8/993, 15/540	4	7.50*2.50*0.30	5.63	22.50	
	9/305, 16/900	5	7.50*1.80*0.30	4.05	20.25	

	10/524, 11/880	4	7.50*1.50*0.30	3.38	13.50	
	16/775, 19/500	2	7.50*3.40*0.30	7.65	15.30	
	<b>Grand Total</b>				<b>512.02</b>	<b>CUM</b>
6	Stone masonry work in cement mortar in foundation complete as per drawing and technical specifications clauses 702, 704, 1202 & 1203. Random Rubble masonry in cement mortar 1:4.					
	C.D. Abut Ch. 4/070, 4/750, 5/925, 7/850, 8/850, 8/993, 9/200,9/305, 10/524, 11/880,15/540, 16/775, 16/900, 18/200, 18/990, 19/420	32	2*2.70*1.90*0.40	4.10	131.33	
		32	2*2.70*(1.90+1.50)/2*0.40	3.67	117.50	
	Pier	14	2*2.70*(1.20+1.10)/2*0.6	3.73	52.16	
	C.D. Abut 19/500	2	2*2.70*2.80*0.40	6.05	12.10	
		2	2*2.70*(2.8+2.4)/2*2.40	33.70	67.39	
	<b>Grand Total</b>				<b>380.48</b>	<b>CUM</b>
7	Stone masonry work in cement mortar for sub-structure complete as per drawing and technical specifications clauses 702, 704, 1202 & 1204. Random Rubble masonry in cement mortar 1:5.					
	C.D. Abut Ch. 4/070, 4/750, 5/925, 7/850, 8/850, 8/993, 9/200,9/305, 10/524, 11/880,15/540, 16/775, 16/900, 18/200, 18/990, 19/420	32	2*2.70*(1.50+0.70)/2*2.00	11.88	380.16	
	Dirt wall	32	2*2.70*(0.4+0.3)/2*0.25	0.47	15.12	
	Pier	14	2*2.70*(1.10+0.6)/2*2.0	9.18	128.52	
	C.D. Abut 19/500	2	2*2.70*(2.0+0.70)/2*3.00	21.87	43.74	
	Dirt wall	2	2*2.70*(0.4+0.3)/2*0.37	0.70	1.40	
	Wing Wall	17	4*5.00*(1.35+0.50)/2*2.50	46.25	786.25	
	Parapet	32	1*3.0*0.4*0.50	0.6	19.20	
		2	1*5.0*0.40*0.50	1	2.00	
	<b>Grand Total</b>				<b>1376.39</b>	<b>CUM</b>
8	Providing and laying of dry rubble flooring complete as per drawings and technical specifications Clause 1303.3					
	C.D 4/070, 4/750, 7/850, 8/850, 9/200, 18/200, 19/990, 19/420	10	7.50*1.25*0.30	2.81	28.13	

	CD 5/925	1	7.50*1.00*0.30	2.25	2.25	
	C.D. 8/993, 15/540	4	7.50*2.50*0.30	5.63	22.50	
	9/305, 16/900	5	7.50*1.80*0.30	4.05	20.25	
	10/524, 11/880	4	7.50*1.50*0.30	3.38	13.50	
	16/775, 19/500	2	7.50*3.40*0.30	7.65	15.30	
	<b>Grand Total</b>				<b>101.93</b>	CUM
9	Construction of toe walls for protection of slopes as per drawing and technical specifications Clause 1302.5 Random rubble dry stone masonry.					
		1	200*0.50*1.50	150.00	150.00	
	<b>Grand Total</b>				<b>150.00</b>	CUM
10	Providing and laying reinforced cement concrete in superstructure as per drawing and technical specifications Clauses 800, 1205.4 and 1205.5 for height upto 5 mtr R.C.C. M.25					
	C.DCh. 4/070, 4/750, 5/925, 7/850, 8/850, 8/993, 9/200,9/305, 10/524, 11/880,15/540, 16/775, 16/900, 18/200, 18/990, 19/420 Bed Plate	16	4*2.70*0.3*0.20	0.65	10.37	
	Bed Plate Pier	14	2*2.70*0.6*0.20	0.65	9.07	
	Dirt wall	16	4*2.70*0.4*0.25	1.08	17.28	
	Bed plate 19/500	1	2*2.70*0.30*0.20	0.32	0.32	
	Dirt wall	1	2*2.70*0.40*0.25	0.54	0.54	
	Slab					
	Ch. 4/070	2	2*2.70*1.85*0.25	2.50	5.00	
	Ch. 4/750	2	2*2.70*1.85*0.25	2.50	5.00	
	Ch. 5/925	2	2*2.70*1.60*0.25	2.16	4.32	
	Ch. 7/850	1	2*2.70*1.85*0.25	2.50	2.50	
	Ch. 8/850	1	2*2.70*1.85*0.25	2.50	2.50	
	Ch. 8/993	3	2*2.70*3.00*0.30	4.86	14.58	
	Ch. 9/200	1	2*2.70*1.85*0.25	2.50	2.50	
	Ch. 9/305	3	2*2.70*2.40*0.25	3.24	9.72	
	Ch. 10/524	1	2*2.70*2.10*0.25	2.84	2.84	
	Ch. 11/880	3	2*2.70*2.10*0.25	2.84	8.51	
	Ch. 15/540	1	2*2.70*2.85*0.30	4.62	4.62	
	Ch. 16/775	1	2*2.70*3.60*0.30	5.83	5.83	
	Ch. 16/900	2	2*2.70*2.40*0.25	3.24	6.48	
	Ch. 18/200	1	2*2.70*1.80*0.25	2.43	2.43	
	Ch. 18/990	1	2*2.70*1.80*0.25	2.43	2.43	
	Ch. 19/420	1	2*2.70*1.80*0.25	2.43	2.43	
	Ch. 19/500	1	2*2.70*4.00*0.37	7.99	7.99	
	<b>Grand Total</b>				<b>127.24</b>	CUM

11	Supplying, fitting, and placing HYSD bar reinforcement in superstructure complete as per drawing and technical specifications Clauses 1002, 1010 and 1202					
		127.24	150		19.09	
	<b>Grand Total</b>				<b>19.09</b>	MT.
12	Providing and fixing in position 20 mm thick premoulded joint filler in expansion joint for fixed ends of simply supported spans, covered with sealant complete as per drawing and technical specifications					
	Ch. 4/070	2	4*2.70*0.25	2.70	5.40	
	Ch. 4/750	2	4*2.70*0.25	2.70	5.40	
	Ch. 5/925	2	4*2.70*0.25	2.70	5.40	
	Ch. 7/850	1	4*2.70*0.25	2.70	2.70	
	Ch. 8/850	1	4*2.70*0.25	2.70	2.70	
	Ch. 8/993	3	4*2.70*0.30	3.24	9.72	
	Ch. 9/200	1	4*2.70*0.25	2.70	2.70	
	Ch. 9/305	3	4*2.70*0.25	2.70	8.10	
	Ch. 10/524	1	4*2.70*0.25	2.70	2.70	
	Ch. 11/880	3	4*2.70*0.25	2.70	8.10	
	Ch. 15/540	1	4*2.70*0.30	3.24	3.24	
	Ch. 16/775	1	4*2.70*0.30	3.24	3.24	
	Ch. 16/900	2	4*2.70*0.25	2.70	5.40	
	Ch. 18/200	1	4*2.70*0.25	2.70	2.70	
	Ch. 18/990	1	4*2.70*0.25	2.70	2.70	
	Ch. 19/420	1	4*2.70*0.25	2.70	2.70	
	Ch. 19/500	1	4*2.70*0.37	4.00	4.00	
	<b>Grand Total</b>				<b>76.90</b>	sqm
					<b>768.96</b>	Rm
13	Plastering with cement mortar (1:4), 20 mm thick on Stonework in substructure as per technical specification Clauses 613.4 & 1204					
	C.D. Abut Ch. 4/070, 4/750, 5/925, 7/850, 8/850, 8/993, 9/200, 9/305, 10/524, 11/880, 15/540, 16/775, 16/900, 18/200, 18/990, 19/420	16	2*12.0*2.00	48.00	768.00	
	Side	16	2*2*(1.50+0.7)/2*2.00	8.80	140.80	
	Dirt wall	16	2*12.00*0.25	6.00	96.00	
	Side	16	2*2*(0.4+0.30)/2*0.25	0.35	5.60	
	Pier	14	2*12.00*2.0	48.00	672.00	
	Side	14	2*2*(1.10+0.60)/2*2.0	6.80	95.20	

	C.D. Abut 19/500	1	2*12.00*3.00	72.00	72.00	
	Dirt wall	1	2*12.00*0.37	8.88	8.88	
	Side	1	4*(0.40+0.30)/2*0.37	0.52	0.52	
	Wing Wall	17	4*5.00*2.50	50.00	850.00	
	Side	17	4*(1.35+0.50)/2*2.50	9.25	157.25	
	Parapet	16	2*3.0*0.50	3.00	48.00	
		1	2*5*0.50	5.00	5.00	
	Side	17	4*0.4*0.5	0.80	13.60	
	Total				<b>2932.85</b>	Sqm
14	Plain/reinforced cement concrete in substructure complete as per drawing and technical specifications Clauses 802,804,805, 806, 807, 1202 and 1204 for height up to 5 meter P.C.C. grade M-20 nominal mix 1:2:4					
	Dirt wall	16	2*12.00*0.3*0.05	0.36	5.76	
	Dirt wall	2	2*12.00*0.30*0.05	0.36	0.72	
	Wing Wall	17	4*5.00*0.50*0.05	0.50	8.50	
	Parapet	32	1*3.0*0.4*0.05	0.06	1.92	
		2	1*5.0*0.40*0.05	0.10	0.20	
	<b>Grand Total</b>				<b>17.10</b>	CUM
15	White washing of parapet walls of C.D. work and tree trunks white washing two coats on parapet walls and tree trunks including preparation of surface by cleaning scraping etc. as per technical specifications Clause 1915					
	Perapat	32	2*3.00*0.50	3.00	96.00	
	Side	32	2*0.4*0.5	0.40	12.80	
	Perapat	1	2*3.00*0.50	3.00	3.00	
	Side	1	2*0.4*0.5	0.40	0.40	
	<b>Grand Total</b>				<b>112.20</b>	Sqm
16	Pointing with cement mortar (1:3) on stone work as per drawing and technical specification Clauses 613.3 and 1204					
	Wing wall	17	2*5.00*2.00	20.00	340.00	
	Side	17	2*(1.35+0.50)/2*2.00	3.70	62.90	
	<b>Total</b>				<b>402.90</b>	<b>Sqm</b>

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**NAME OF WORK :- STRENGTHENING & WIDENING OF FATEHNAGAR-DARIBA ROAD (MDR-33) KM 1/500 TO 19/500 (UNDER B.O.T.)**

**DETAILS**

Part "B" : C.C. PAVEMENT

Cement Concrete pavement

7.0 mtr

Sanwad Village	1/810 - 1/970	160.00
Dhaneriya village	8/200 - 8/440	220.00
Dhaneriya village	8/440 - 8/755	315.00
Gawardi Village	12/140 -12/280	140.00
Gawardi Village	12/280 -12/518	238.00
Gawardi Village	12/605 -12/650	45.00
Gawardi Village	12/650 - 12/820	170.00
Anjana Village	14/900 - 15/00	100.00
Dariba Village	17/260 - 17/410	150.00
Dariba Village	17/410 - 17/650	240.00
<b>C.C.Pavement Length</b>		<b>1778.00</b>

S.N.	Description of Item	Length	L*B*H	Total	Quantity
1	3	4	5	6	7
1	Construction of un-reinforced, dowel jointed as expansion and construction joint only, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25mm, mixed in a concrete mixer of not less 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days,				
	using curing compound (where specified) and water finishing to lines and grade as per drawing and Technical Specification Clause 1501				
	New CC 7.0 mtr.	1778.00	1.0*7.00*0.20	1.400	2489.20
	<b>Total</b>				<b>2489.20</b>

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**NAME OF WORK :- STRENGTHENING & WIDENING OF FATEHNAGAR-DARIBA ROAD (MDR-33) KM 1/500 TO 19/500 (UNDER B.O.T.)**

**DETAILS**

Part "C" : CD WORKS -I

One Row	<b>8</b>	No.
Two Row	<b>1</b>	No.
Drain	<b>2970.00</b>	Mtrs.
Syphon	<b>36</b>	No.

S.N.	Description of Item	NO.	L*B*H	Total	Quantity	Unit
1	3		4		8	6
1	Excavation for Structures.Earth Work in excavation for structures as per drawing and technical specification Clause 305.1 including setting out, construction of shoring and bracing, removal of stumps and other deleterious material and disposal upto a lead of 50m, dressing of sides and bottom and backfilling in trenches with excavated suitable material.					
	(a)Ordinary Soil. Upto 3 m depth.					
	One Row 1000 mm Dia	8	2*6.1*1.75*1.5	32.03	256.20	
	Two Row 1000mm Dia	1	2*8.25*1.75*1.5	43.31	43.31	
	Side Drain	2970	1*1*1.4*0.65	0.91	2702.70	
	Syphon		2*1.5*1.5*1	4.5		
			1*6.6*0.6*7	2.77		
	Total	36		7.27	261.79	
	<b>Grand Total</b>				<b>3264.00</b>	<b>CUM</b>
2	Providing concrete for plain/reinforced concrete in open foundations complete as per drawings and technical specifications clause 802, 803, 1202 & 1202 & 1203, P.C.C. grade M-10 Nominal mix 1:3:6					
	One Row 1000 mm Dia	8	2*6.1*1.75*.15	3.20	25.62	
	Two Row 1000mm Dia	1	2*8.25*1.75*.15	4.33	4.33	
	Side Drain	2970	1*1*1.4*0.15	0.21	623.70	
	Syphon	36	2*1.5*1.5*.15	0.675	24.30	
	<b>Grand Total</b>				<b>677.95</b>	<b>CUM</b>

3	Stone masonry work in cement mortar in foundation complete as per drawing and technical specifications clauses 702, 704, 1202, & 1203. Random Rubble masonry in cement mortar 1:4.						
	One Row 1000 mm Dia	8	$2*6.1*(1.6+1.15)/2*1.3$	21.81	174.46		
	Two Row 1000mm Dia	1	$2*8.25*(1.15+1.6)/2*1.3$	29.49	29.49		
	<b>Grand Total</b>				<b>203.95</b>	<b>CUM</b>	
4	Random Rubble Stone masonry in cement mortar 1:5 for substructure complete as per drawing & technical specification Clauses 702, 704, 1202 and 1204						
	One Row 1000 mm Dia		$2*6.1*(.4+1.15)/2*2.23$	21.08			
	Pillar		$2*.4*.4*.5$	0.16			
				21.24			
	Deduction		$2*3.14/4*1.23*1.23*(1.15+.74)/2$	2.24			
	Net Quantity	8		19.00	152.00		
	Two Row 1000mm Dia		$2*8.25*(1.15+0.4)/2*2.23$	28.52			
	Pillar		$2*.4*.4*.5$	0.16			
	Total			28.68			
	Deduction		$2*2*3.14/4*1.23*1.23*(1.15+.74)/2$	4.49			
	Net Quantity	1		24.19	24.19		
	Side Drain	2970	$2*1.0*(0.3+0.45)/2*0.45$	0.34	1002.38		
	Syphon		$4*1.5*0.3*1$	1.8			
			$4*0.9*0.3*1$	1.08			
	Total	36		2.88	103.68		
	<b>Grand Total</b>				<b>1282.24</b>	<b>CUM</b>	
5	Providing and laying reinforced cement concrete pipe NP-3 as per design in single row. Providing and laying reinforced cement concrete pipe NP-3 for culverts on first class bedding of granular material in single row including fixing collar with cement mortar 1:2 but excluding excavation, protection works, backfilling, concrete and masonry works in heas walls and parapets clause 1106. 1000 mm dia.						
	One Row 1000 mm Dia	8	$1*12.5$	12.5	100.00		
	<b>Grand Total</b>				<b>100.00</b>	<b>Mtr.</b>	

6	Pointing with cement mortar (1:3) on stone work as per drawing and technical specification Clauses 613.3 and 1204						
	One Row 1000 mm Dia			2*6.1*2.25	27.45		
	Deduction			1*2*3.14/4*1.23*1.23	-2.37		
		8		Total	25.08	200.64	
	Two Row 1000mm Dia			2*8.25*2.23	36.80		
	Deduction			2*2*3.14/4*1.23*1.23	-4.75		
		1			32.04	32.04	
	<b>Grand Total</b>					<b>232.68</b>	Sqm
7	Plastering with cement mortar (1:3) 20 mm thick on stonework in parapet as per technical specifications Clauses 613.4 and 1208.5						
	One Row 1000 mm Dia	8		2*4*4*5	1.6	12.80	
	Two Row 1000mm Dia	1		2*4*4*5	1.6	1.60	
	Side Drain	2970		2*1.0*0.50	1.0	2970.00	
	Syphon	36		8*0.90*0.90	6.48	233.28	
	<b>Grand Total</b>					<b>3217.68</b>	Sqm
8	Providing and laying reinforced cement concrete pipe NP-3 as per design in Double row. Providing and laying reinforced cement concrete pipe NP-3 for culverts on first class bedding of granular material in Double row including fixing collar with cement mortar 1:2 but excluding excavation, protection works, backfilling, concrete and masonry works in heas walls and parapets clause 1106. 1000 mm dia.						
	Two Row 1000mm Dia	1		1*12.5	12.5	<b>12.50</b>	Mtr.
9	Laying cement concrete pipe NP-3 (burried conduits) on first class bedding of granular material including fixing collar with cement sand mortar 1:2 but excluding excavation, protection works, backfilling, concrete and masonry work in head wall and parapets, 300 mm dia						
	Syphon	36		1*12.5	12.5	<b>450.00</b>	Mtr.

10	Laying (First Class) bedding of well compacted sand as per Clause 1105 (ii)						
	One Row 1000 m Dia	8	$1*1.5*(10.06+10.20)/2*0.2$	3.04	24.31		
	Two Row 1000mm Dia	1	$1*3.37*(10.06+10.20)/2*0.2$	6.83	6.83		
	Total				<b>31.14</b>	CUM	
11	Providing PCC M-20 architectural coping in 7.5 Cm thickness on the top of wing wall, return wall etc. complete as per drawing and technical specification Clauses 615, 710, and 1204, 3.11						
	One Row 1000 mm Dia	8	$2*6.1*0.4$	4.88	39.04		
	Two Row 1000mm Dia	1	$2*8.25*0.4*0.05$	0.33	0.33		
	Syphon		$2*.9*.9$	1.62			
			$1.5*4*.3$	1.8			
			$4*.9*.3$	1.08			
	Total	36		4.50	162.00		
	Side Drain		$1*1.0*0.30$	0.3			
			$2*1.0*0.3$	0.6			
		2970		0.90	2673.00		
	<b>Grand Total</b>				<b>2874.37</b>	Sqm	

#### Details of CD Work

1	One Row 1000 mm dia.	Ch.	1/525, 13/590, 14/700, 15/00, 16/100, 16/200, 16/500, 16/600	=	
2	Two Row 1000 mm dia	Ch.	6/310,	=	
3	Side Drain	Ch	0/0 - 0/70, =2 X70	=	140.00
		Ch	1/250 -1/380, = 1X130	=	130.00
		Ch	12/140 -12/650 = 1 X 510	=	510.00
		Ch	14/875 - 15/025 =2 X 150	=	300.00
		Ch	16/00 -16 /750 =2 X 750	=	1500.00
		Ch	17/260 - 17/ 650 =1 X 390	=	390.00
			<b>Total</b>		<b>2970.00</b>

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**NAME OF WORK :- STRENGTHENING & WIDENING OF FATEHNAGAR-DARIBA ROAD  
(MDR-33) KM 1/500 TO 19/500 (UNDER B.O.T.)**

**ABSTRACT**

Part "C" : CD WORKS -I

S.N.	Description of Item	Quantity	Rate (Rs.)	Unit	Amount (Rs.)
1	3	4	5	6	7
1	Excavation for Structures.Earth Work in excavation for structures as per drawing and technical specification Clause 305.1 including setting out, construction of shoring and bracing, removal of stumps and other deleterious material and disposal upto a lead of 50m, dressing of sides and bottom and backfilling in trenches with excavated suitable material.				
	(a)Ordinary Soil. Upto 3 m depth.				
		3264.00	81.00	P.Cum	264384.00
2	Providing concrete for plain/reinforced concrete in open foundations complete as per drawings and technical specifications clause 802, 803, 1202 & 1202 & 1203, P.C.C. grade M-10 Nominal mix 1:3:6				
		677.95	2037.00	P.Cum	1380987.00
3	Stone masonry work in cement mortar in foundation complete as per drawing and technical specifications clauses 702, 704, 1202, & 1203. Random Rubble masonry in cement mortar 1:4.				
		203.95	1518.00	P.Cum	309602.00
4	Random Rubble Stone masonry in cement mortar 1:5 for substructure complete as per drawing & technical specification Clauses 702, 704, 1202 and 1204				
		1282.24	1485.00	P.Cum	1904130.00
5	Providing and laying reinforced cement concrete pipe NP-3 as per design in single row. Providing and laying reinforced cement concrete pipe NP-3 for culverts on first class bedding of granular material in single row including fixing collar with cement mortar 1:2 but excluding excavation, protection works, backfilling, concrete and masonry works in heas walls and parapets clause 1106. 1000 mm dia.				
	Total	100.00	2862.00	Rm	286200
6	Pointing with cement mortar (1:3) on stone work as per drawing and technical specification Clauses 613.3 and 1204				

		232.68	285.00	P.10 Sqm	6631.00
7	Plastering with cement mortar (1:4) 20 mm thick on stone work in parapet as per technical specifications Clauses 613.4 and 1204				
	Total	3217.68	770.00	P.10 Sqm	247761.00
8	Providing and laying reinforced cement concrete pipe NP-3 for culverts on first class bedding of granular material in Double row including fixing collar with cement mortar 1:2 but excluding excavation, protection works, backfilling, concrete and masonry works in head walls and parapets clause 1106. 1000 mm dia.				
		12.50	5436.00	P.RM	67950.00
9	Laying cement concrete pipe NP-3 (buried conduits) on first class bedding of granular material including fixing collar with cement sand mortar 1:2 but excluding excavation, protection works, backfilling, concrete and masonry work in head wall and parapets as per clause 1106 (Excluding cost of first class Bedding) 300 mm dia				
		450.00	608.00	P.Mtr.	273600.00
10	Laying (First Class) bedding of well compacted sand as per Clause 1105 (ii)				
		31.14	379.00	P.Cum	11802.00
11	Providing PCC M-20 architectural coping in 7.5 Cm thickness on the top of wing wall, return wall etc. complete as per drawing and technical specification Clauses 615, 710, and 1204, 3.11				
		2874.37	205.00	P.Cum	589246.00
	Total				<b>5342293.00</b>
					<b>5342293.00</b>

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**NAME OF WORK :- STRENGTHENING & WIDENING OF FATEHNAGAR-DARIBA ROAD (MDR-33) KM 1/500  
TO 19/500 (UNDER B.O.T.)**

**DETAILS  
Part "H" Toll Plaza & Foot Path**

S.N.	Description of Item		No	L (M)	B (m)	D (m)	Quantity	Unit
1	3		4	5	6	7	8	9
1	Excavation for road work in soil with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading in tppers, timming bootom and side slopes, in accordance with requirements of lines, grades and cross-sections, and transporting to the embankment location with a lift upto 1.5 m and lead upto 1000 m as per Technical specification clause 302.3							
	Toll Plaza	2	4	80.00	(0+8.5)/2	0.45	1224.00	Cum
		2	2	30.00	3.75	0.45	202.50	Cum
	Total						1426.50	Cum
2	Construction of embankment with approved materials deposited at site from roadway cutting and excavation from drain and foundation of other structers graded and comapcted to meet requirement of Tables 300.1 and 300.2 as per Technical specification Clause 301.5							
	As per Enclosed Sheet						1426.50	Cum
3	Construction of granular sub-base by providing well graded material, spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC and compacting with smooth wheel roller to achieve the desired density, complete as per Technical specification Clause 401, For Grading III Material.							
	Toll Plaza	2	4	80.00	(0+8.5)/2	0.20	544.00	Cum
		2	2	30.00	3.75	0.20	90.00	Cum
	Total						634.00	Cum
	Add 2% for curve						12.68	Cum
	Total						<b>646.68</b>	Cum

4	Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the material with water at OMC in mechanical mixer (Pug Mill), carriage of mixed material by tipper to site, laying in uniform layers in sub-base/base course on a well prepared sub-base and compacting with smooth wheel roller of 80 to 100kN weight to achieve the desired density including lighting, barricading and maintenance of diversion, etc as per Tables 400.11 & 400.12 and Technical Specification Clause 406.							
	Toll Plaza	2	4	80.00	(0+8.5)/2	0.25	680.00	Cum
		2	2	30.00	3.75	0.25	112.50	Cum
	For overlay 5/600	1	4	80.00	(0+8.5)/2	0.15	204.00	Cum
		1	2	30.00	3.75	0.15	33.75	Cum
	Overlay Km 17/500	1	4	80.00	(0+8.5)/2	0.20	272.00	Cum
		1	2	30.00	3.75	0.20	45.00	Cum
	Total						<b>1347.25</b>	Cum
	Add 2% for curve						26.95	Cum
	Total						<b>1374.20</b>	Cum
5	Providing and applying primer coat with bitumen emulsion (SS-1) on prepared surface of granular base including claning of road surface and spraying primer at the rate of 0.70-1.0 kg./sqm. Using mechanical means as per Technical specification Clause 502.							
	Toll Plaza	2	4	80.00	(0+8.5)/2		2720.00	Sqm
		2	2	30.00	3.75		450.00	Sqm
	Total						<b>3170.00</b>	Sqm
	Add 2% for curve						<b>63.40</b>	Sqm
	Total						<b>3233.40</b>	Sqm
6	Providing and applying tack coat with Bitumen emulsion (RS-1) using emulsion distributor at the rate of 0.25 to 0.30 Kg. Per Sqm on the prepared granular surfaces treated with primer and cleaned with Hydraulic broom as per Technical specification Clauses 503.							
	Toll Plaza	2	4	80.00	(0+8.5)/2	2	5440.00	Sqm
		2	2	30.00	3.75	2	900.00	Sqm
	Total						<b>6340.00</b>	Sqm
	Add 2% for curve						<b>126.80</b>	Sqm
	Total						<b>6466.80</b>	Sqm

7	Providing and laying dense bituminous macadam on prepared surface with specified graded crushed aggregates for base/ binder coarse, (including cost of antistripping compound, to bring the stripping value of aggregate, within permissible limits as per specification, if required) including loading, of material with F.E. loader, heating binder, aggregates and filler in hot mix plant, transporting the mixed material by tippers and laying with paver finisher to the required level and grade, rolling, by power roller to achieve the desired density but excl. primer / tack coat as per MoRTH specification Cl. 507 with 4.5% bitumen content variation to be paid/ deducted as per job mix formula item 16.8. Bitumen S-65.							
	Toll Plaza Km 5/600	1	4	80.00	(0+8.5)/2	0.065	88.40	Cum
		1	2	30.00	3.75	0.065	14.63	Cum
	Km 17/500	1	4	80.00	(0+8.5)/2	0.09	122.40	Cum
		1	2	30.00	3.75	0.09	20.25	Cum
	Total						<b>245.68</b>	Cum
	Add 2% for curve						4.91	Cum
	G.Total						<b>250.59</b>	Cum
8	Providing and laying bituminous concrete as per design mix on prepared surface with specified graded stone aggregate as per table 500-18 for wearing course including loading of aggregates with F.E. loader and hot mixing of binder (including cost of anti-stripping compound wherever .required) and 3% cement filler with aggregates in hot mix ,plant 40 - 60 TPH, transporting the mixed material with tipper to paver and laying with sensor paver finisher (as per clause 504.3.5) to the required level and grade and rolling with vibratory compactor and pneumatic tyred roller 150 to 250 KN, TP 0.7 MPa to achieve the desired density (approved by. the dept.) excluding cost of primer/ tack coat as per MoRTH specification Cl. 509. Binder variation to be paid/deducted as' per job mix formula as per item No 16.8. 30-45 mm compacted using 6.0% binder with all lead of mix material. Bitumen S-65.							
	Toll Plaza Km 5/600	1	4	80.00	(0+8.5)/2	0.04	54.40	Cum
		1	2	30.00	3.75	0.04	9.00	Cum
	Km 17/500	1	4	80.00	(0+8.5)/2	0.04	54.40	Cum
		1	2	30.00	3.75	0.04	9.00	Cum
	Total						<b>126.80</b>	Cum

		Add 2% for curve						2.54	Cum
		G.Total						<b>129.34</b>	Cum
9		Supplying and fixing precast CC kerp stone (as per enclosed drawing ) manufactured by Vibro compaction process up to 60 cm length over 20 mm thick fixing in cm 1:6 including jointing , earthwork, pointing and jointing with cm 1:3 size and enamel paint on exposed surface. Excavated material shall be disposed of 50 mm size. Size 40x12.5 (M 20 grade ).							
		Toll Plaza	2	8	30.00			480.00	Rm
			2	4	2.00			16.00	Rm
			2	2	5.00			20.00	Rm
		Dariba median	1	4	750.00			3000.00	Rm
			1	2	3.00			6.00	Rm
			2	2	50.00			200.00	Rm
			1	4	3.00			12.00	Rm
		Total						<b>496.00</b>	Rm
10		Providing concrete for plain/reinforced concrete in open foundations complete as per drawings and technical specifications clause 802, 803, 1202 & 1202 & 1203, P.C.C. grade M-10 Nominal mix 1:3:6							
		Toll Plaza	2	2	30.00	2.00	0.1	24.00	Cum
			2	1	30.00	5.00	0.1	30.00	Cum
			2	2	30.00	2.00	0.1	24.00	Cum
		G.Total						<b>78.00</b>	Cum
11		Providing and Laying of Interlocking Concrete Block Pavements having thickness 80 mm as per drawings and Technical Specification Clause 1504.							
		Toll Plaza	2	2	30.00	2.00		240.00	sqm
			2	1	30.00	5.00		300.00	sqm
			2	2	30.00	2.00		240.00	sqm
		G.Total						<b>780.00</b>	sqm
12		Providing and fixing cabin for toll collection	2					<b>2.00</b>	No.
		G.Total						<b>2.00</b>	No.
13		Providing and fixing steel girder truss for toll plaza including fixing of GI Sheet and all other accessories.							
			2		15.00	24.00		<b>720.00</b>	sqm

14	Supply & fixing of <b>Fibre-reinforced Ferro-cement drain cover (light duty)</b> designed for Road side drain, for class "B" loading duly marked on cover with adequate steel reinforcement having thickness 50 mm to 75 mm, anti-corrosive bitumen painted M.S. Plate Rim and on M.S. lifting hooks, additives & admixture like plasticizer, shrinkage resistance compound, abrasion resistant etc. as per approved drawing and design complete in all respect.. 1500 x 700 mm							
	Dariba village	2	750.00	1.50		<b>2250.00</b>	sqm	

Asistant Resident Engineer  
R.S.R.D.C. Ltd Unit UDAIPUR

Resident Engineer  
R.S.R.D.C. Ltd Unit UDAIPUR

**NAME OF WORK :- STRENGTHENING & WIDENING OF FATEHNAGAR-DARIBA  
ROAD (MDR-33) KM 1/500 TO 19/500 (UNDER B.O.T.)**

**ABSTRACT  
Part "H" Toll Plaza & Foot Path**

S.N.	Description of Item	Quantity	Rate (Rs.)	Unit	Amount (Rs.)
1	3	4	5	6	7
1	Excavation for road work in soil with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross-sections, and transporting to the embankment location with a lift upto 1.5 m and lead upto 1000 m as per Technical specification clause 302.3	1426.50	24.00	P.Cum	34236.00
2	Construction of embankment with approved materials deposited at site from roadway cutting and excavation from drain and foundation of other structures graded and compacted to meet requirement of Tables 300.1 and 300.2 as per Technical specification Clause 301.5	1426.50	18.00	P.Cum	25677.00
3	Construction of granular sub-base by providing well graded material, spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC and compacting with smooth wheel roller to achieve the desired density, complete as per Technical specification Clause 401, For Grading III Material .	646.68	169.00	P.Cum	109289.00
4	Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the material with water at OMC in mechanical mixer (Pug Mill), carriage of mixed material by tipper to site, laying in uniform layers in sub-base/base course on a well prepared sub-base and compacting with smooth wheel roller of 80 to 100kN weight to achieve the desired density including lighting, barricading and maintenance of diversion, etc as per Tables 400.11 & 400.12 and Technical Specification Clause 406.	1374.20	730.00	P.Cum	1003162.00
5	Providing and applying primer coat with bitumen emulsion (SS-1) on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.70-1.0 kg./sqm. Using mechanical means as per Technical specification Clause 502.	3233.40	22.50	P.Sqm	72752.00

6	Providing and applying tack coat with Bitumen emulsion (RS-1) using emulsion distributor at the rate of 0.25 to 0.30 Kg. Per Sqm on the prepared granular surfaces treated with primer and cleaned with Hydraulic broom as per Technical specification Clauses 503.	6466.80	7.50	P.Sqm	48501.00
7	Providing and laying dense bituminous macadam on prepared surface with specified graded crushed aggregates for base/ binder coarse, (including cost of antistripping compound, to bring the stripping value of aggregate, within permissible limits as per specification, if required) including loading, of material with F.E. loader, heating binder, aggregates and filler in hot mix plant, transporting the mixed material by tippers and laying with paver finisher to the required level and grade, rolling, by power roller to achieve the desired density but excl. primer / tack coat as per MoRTH specification Cl. 507 with 4.5% bitumen content variation to be paid/ deducted as per job mix formula item 16.8. Bitumen S-65.	250.59	5065.00	P. Cum	1269231.00
8	Providing and laying bituminous concrete as per design mix on prepared surface with specified graded stone aggregate as per table 500-18 for wearing course including loading of aggregates with F.E. loader and hot mixing of binder (including cost of anti-stripping compound wherever .required) and 3% cement filler with aggregates in hot mix ,plant 40 - 60 TPH, transporting the mixed material with tipper to paver and laying with sensor paver finisher (as per clause 504.3.5) to the required level and grade and rolling with vibratory compactor and pneumatic tyred roller 150 to 250 KN, TP 0.7 MPa to achieve the desired density (approved by. the dept.) excluding cost of primer/ tack coat as per MoRTH specification Cl. 509. Binder variation to be paid/deducted as' per job mix formula as per item No 16.8. 30-45 mm compacted using 6.0% binder with all lead of mix material. Bitumen S-65.	129.34	6431.00	P.Cum	831760.00
9	Supplying and fixing precast CC kerp stone (as per enclosed drawing ) manufactured by Vibro compaction process up to 60 cm length over 20 mm thick fixing in cm 1:6 including jointing , earthwork, pointing and jointing with cm 1:3 size and enamel paint on exposed surface. Excavated material shall be disposed of 50 mm size. Size 40x12.5 (M 20 grade ).	496.00	220.00	P.Rm.	109120.00
10	Providing concrete for plain/reinforced concrete in open foundations complete as per drawings and technical specifications clause 802, 803, 1202 & 1202 & 1203, P.C.C. grade M-10 Nominal mix 1:3:6	78.00	2037.00	P.Cum	158886.00

11	Providing and Laying of Interlocking Concrete Block Pavements having thickness 80 mm as per drawings and Technical Specification Clause 1504.	780.00	498.00	P.Sqm	388440.00
12	Providing and fixing cabin for toll collection	2.00	300000.00	No	600000.00
13	Providing and fixing steel girder truss for toll plaza including fixing of GI Sheet and all other accessories.	720.00	1500.00	P.Sqm	1080000.00
14	Supply & fixing of <b>Fibre-reinforced Ferrocement drain cover (light duty)</b> designed for Road side drain, for class "B" loading duly marked on cover with adequate steel reinforcement having thickness 50 mm to 75 mm, anti-corrosive bitumen painted M.S. Plate Rim and on M.S. lifting hooks, additives & admixture like plasticizer, shrinkage resistance compound, abrasion resistant etc. as per approved drawing and design complete in all respect.. 1500 x 700 mm	2250.00	693.00	P.Sqm	1559250.00
	<b>TOTAL</b>				<b>7290304.00</b>

Asistant Resident Engineer  
R.S.R.D.C. Ltd Unit UDAIPUR

Resident Engineer  
R.S.R.D.C. Ltd Unit UDAIPUR

**NAME OF WORK :- STRENGTHENING & WIDENING OF FATEHNAGAR-DARIBA  
ROAD (MDR-33) KM 1/500 TO 19/500 (UNDER B.O.T.)**

**ABSTRACT**

Part "F" : RETAINING WALL

S.N.	BSR 2008	Description of Item	Quantity	Rate (Rs.)	Unit	Amount (Rs.)
1	2	3	4	5	6	7
1	11.1.A,I(i)/P-59	Excavation for Structures.Earth Work in excavation for structures as per drawing and technical specification Clause 305.1 including setting out, construction of shoring and bracing, removal of stumps and other deleterious material and disposal upto a lead of 50m, dressing of sides and bottom and backfilling in trenches with excavated suitable material.				
		(a)Ordinary Soil. Upto 3 m depth.	3107.00	81.00	P.Cum	251667.00
2	11.4.I (i)/P-60	Providing concrete for plain/reinforced concrete in open foundations complete as per drawings and technical specifications clause 802, 803, 1202 & 1203, P.C.C. grade M-10 Nominal mix 1:3:6				
			466.05	2037.00	P.Cum	949344.00
3	12.4.III (iii)/P-64	Stone masonry work in cement mortar for sub-structure complete as per drawing and technical specifications clauses 702, 704, 1202 & 1204. Random Rubble masonry in cement mortar 1:5.				
			4421.25	1485.00	P.Cum	6565556.00
4	12.5A,II (i) p-64	Plain/reinforced cement concrete in substructure complete as per drawing and technical specifications Clauses 802,804,805, 806, 807, 1202 and 1204 for height up to 5 meter P.C.C. grade M-20 nominal mix 1:2:4				
			43.10	2519.00	P.Cum	108569.00
5	12.2 (ii)/P-63	Pointing with cement mortar (1:3) on stone work as per drawing and technical specification Clauses 613.3 and 1204				
			5287.70	285.00	P.10 Sqm	150699.00
		<b>TOTAL</b>				<b>8025835.00</b>

Asistant Resident Engineer  
R.S.R.D.C. Ltd Unit UDAIPUR

Resident Engineer  
R.S.R.D.C. Ltd Unit UDAIPUR

**NAME OF WORK :- STRENGTHENING & WIDENING OF FATEHNAGAR-DARIBA ROAD (MDR-33) KM 1/500 TO 19/500 (UNDER B.O.T.)**

**Earth Work Calculation Sheet**

**Cutting = 11364.16**

**Filling = 81430.52**

	Cutting in HSMB	=	11364.16	x	0.7	=	7954.91			
	Cutting inOR	=	11364.16	x	0.3	=	3409.25			
	Total Length	=	18000.00							
	7.0 mtr wide carriage way	=	1380.00							
	3 mtr wide carriage way	=	16620.00							
	New Alignment	=	5020.00							
	Old Alignment	=	11600.00							
	C.C. Pavement length	=	1288.00	.+	490.00	.+	0.00	=		1778.00
	B.T.Length	=	14842.00	.+	1380.00			=		16222.00
	E/W for Embankment(New )	=	1.00	x	5020.00	x	(12.0+18.0)/2	x	1.5	112950.00
	Total	=								112950.00
1	E/W for Hoda cutting	=	2.00	x	11600.00	x	2.00	x	0.45	20880.00
	For Dariba Village	=	2.00	x	750.00	x	10.00	x	0.45	6750.00
	Total	=								27630.00
2	Qty. of GSB in Hoda	=	2.00	x	11600.00	x	2.00	x	0.20	9280.00
	For Dariba Village	=	2.00	x	750.00	x	10.00	x	0.2	3000.00
	Total	=								12280.00
3	Qty. of WMM in Hoda	=	2.00	x	11600.00	x	2.00	x	0.25	11600.00
	For Dariba Village	=	2.00	x	750.00	x	10.00	x	0.25	3750.00
	Total	=								15350.00
4	Qty. of earth refilling in side of hoda (outer side of GSB & WBM)	=	27630.00	-	12280.00	-	15350.00	=		0.00
5	Qty. of earth available for widening of embankment	=	27630.00	-	0.00			=		27630.00
6	Total qty. of earth work for embankment	=	81430.52	.+	$\frac{2*7000*(2.5+2.25)}{2*0.18}$	+	$\frac{2*9620*(2.5+2.25)}{2*0.105}$	.+	112950.0	205163.50
7	Useful qty. recd. From CD / RW structure	=								
	C.D. Works		3264.00							
	Retaining wall		3107.00							

	Reparing of execiting CD works		963.20							
	Box Culverts		2141.23							
	Total		9475.44	x	0.7			=	6632.80	
8	Qty received from cutting		11364.16	x	0.7			=	7954.91	
9	Qty. received from construction of side drain	=	4000.00	x	$(1.25+0.90)/2$	x	0.6	=	2580.00	
	Total (7+ 8 + 9)								17167.72	
10	E/W in Embankment material received from road way cutting,.C.D.	=	27630.00	.+	7954.91	.+	6632.80	.+	2580.00	44797.72
11	Extra earth required for embankment from borow area	=	205163.50	-	27630.00	-	17167.72			160365.78

Asistant Resident  
Engineer  
R.S.R.D.C. Ltd Unit  
UDAIPUR

Resident Engineer  
R.S.R.D.C. Ltd Unit  
UDAIPUR

**NAME OF WORK :- STRENGTHING & WIDENING OF FATEHNAGAR-RAILMANGRA-KHANDEL ROAD (MDR-33) KM1/500 TO 19/500(UNDER B.O.T.)**

**DETAILS**

Part "E" : CD WORKS -III

Box Size 1.50 X 1.50 10 No.  
 Box Size 2.00 X 2.00 6 No.  
 2 no. Box Size 2.00 X 2.00 5 No.

S.N	Description of Item	NO.	L*B*H	Total	Quantity	Unit
1	3		4		8	6
1	Excavation for Structures.Earth Work in excavation for structures as per drawing and technical specification Clause 305.1 including setting out, construction of shoring and bracing, removal of stumps and other deleterious material and disposal upto a lead of 50m, dressing of sides and bottom and backfilling in trenches with excavated suitable material.					
	(a)Ordinary Soil. Upto 3 m depth.					
	Box Size 1.50 X 1.50	10	1*12.40*2.40*2.2	65.47	654.72	
	Box Size 2.00 X 2.00	6	1*12.40*2.90*2.70	97.09	582.55	
	2 no. Box Size 2.00 X 2.00	5	1*12.40*5.40*2.70	180.79	903.96	
	<b>Grand Total</b>				<b>2141.23</b>	<b>CUM</b>
2	Providing concrete for plain/reinforced concrete in open foundations complete as per drawings and technical specifications clause 802, 803, 1202 & 1202 & 1203, P.C.C. grade M-10 Nominal mix 1:3:6					
	Box Size 1.50 X 1.50	10	1*12.40*2.40*0.2	5.95	59.52	
	Box Size 2.00 X 2.00	6	1*12.40*2.90*0.2	7.19	43.15	
	2 no. Box Size 2.00 X 2.00	5	1*12.40*5.40*0.2	13.39	66.96	
	<b>Grand Total</b>				<b>169.63</b>	<b>CUM</b>

3	<p>Providing and laying pre cast reinforced cement concrete box culvert section of M-40 grade (with contractor own design for AA class IRC loading including effect of impact) on firm base of 200 mm thick lean concrete of M-10 grade concrete with aggregate of 40mm nominal size for following internal sizes (span X depth ) complete including following:</p> <p>1) Provision of cost of safety measures as per codal provision during construction period.</p> <p>2) Provision for inspection chamber of suitable size for cleaning of drain as directed by Engineer -in-charge looking to site condition.</p> <p>3) Provision of cost for diversion of flow of water if needed.</p> <p>4) Provision of cost of design of RCC pre cast box and its proof checking from IIT.</p>					
	Box Size 1.50 X 1.50	10	1*12.00	12.00	120.00	
	<b>Total</b>				<b>120.00</b>	Rm
	Box Size 2.00 X 2.00	6	1*12.00	12.00	72.00	
	2 no. Box Size 2.00 X 2.00	5	2*12.00	24.00	120.00	
	<b>Total</b>				<b>192.00</b>	Rm
4	Random Rubble Stone masonry in cement mortar 1:5 for substructure complete as per drawing & technical specification Clauses 702, 704, 1202 and 1204					
	Box Size 1.50 X 1.50	10	1*3.0*0.40*0.5	0.60	6.00	
	Box Size 2.00 X 2.00	6	1*3.0*0.40*0.5	0.60	3.60	
	2 no. Box Size 2.00 X 2.00	5	1*5.0*0.40*0.5	1.00	5.00	
	<b>Grand Total</b>				<b>14.60</b>	CUM
5	Plastering with cement mortar (1:3) 20 mm thick on stonework in parapet and per technical specifications Clauses 613.4 and 1208.5					
	Box Size 1.50 X 1.50	10	1*6.80*0.5	3.40	34.00	
	Box Size 2.00 X 2.00	6	1*6.80*0.5	3.40	20.40	
	2 no. Box Size 2.00 X 2.00	5	1*10.80*0.5	5.40	27.00	
	<b>Grand Total</b>				<b>81.40</b>	CUM
6	Providing PCC M-20 architectural coping in 7.5 Cm thickness on the top of wing wall, return wall etc. complete as per drawing and technical specification Clauses 615, 710, and 1204, 3.11					
	Box Size 1.50 X 1.50	10	1*3.0*0.4	1.20	12.00	
	Box Size 2.00 X 2.00	6	1*3.0*0.4	1.20	7.20	

		2 no. Box Size 2.00 X 2.00	5	1*5.0*0.4	2.00	10.00	
		<b>Grand Total</b>				<b>29.20</b>	sqm

**Details of CD Works**

- |   |                            |      |                                       |
|---|----------------------------|------|---------------------------------------|
| 1 | Box Size 1.50 X 1.50       | Ch . | 14/552, 15/260, 15/770, 15/940, 16/00 |
| 2 | Box Size 2.00 X 2.00       | Ch.  | 3/344, 7/173, 8/147, 13/700           |
| 3 | 2 no. Box Size 2.00 X 2.00 | Ch.  | 10/664, 12/820, 18/500                |

Asistant Resident Engineer  
R.S.R.D.C. Ltd Unit UDAIPUR

Resident Engineer  
R.S.R.D.C. Ltd Unit UDAIPUR

**NAME OF WORK :- STRENGTHING & WIDENING OF FATEHNAGAR-RAILMANGRA-KHANDEL ROAD (MDR-33) KM 0/0 TO 37/500 (UNDER B.O.T.)**

**ABSTRACT**

Part "E" : CD WORKS - III

S.N	Description of Item	Quantity	Rate (Rs.)	Unit	Amount (Rs.)
1	3	4	5	6	7
1	Excavation for Structures.Earth Work in excavation for structures as per drawing and technical specification Clause 305.1 including setting out, construction of shoring and bracing, removal of stumps and other deleterious material and disposal upto a lead of 50m, dressing of sides and bottom and backfilling in trenches with excavated suitable material.				
	(a)Ordinary Soil. Upto 3 m depth.				
		2141.23	81.00	P.Cu m	173440.00
2	Providing concrete for plain/reinforced concrete in open foundations complete as per drawings and technical specifications clause 802, 803, 1202 & 1202 & 1203, P.C.C. grade M-10 Nominal mix 1:3:6				
		169.63	2037.00	P.Cu m	345540.00
3	Providing and laying pre cast reinforced cement concrete box culvet section of M-40 grade (with contractor own design for AA class IRC loading including effect of impact) on firm base of 200 mm thick lean concrete of M-10 grade concrete with aggregate of 40mm nominal size for following internal sizes (span X depth ) complete including following: 1) Provision of cost of safety measures as per codal provision during construction period. 2) Provision for inspection chamber of suitable size for cleaning of drain as directed by Engineer-in-charge looking to site condition. 3) Provision of cost for diversion of flow of water if needed. 4) Provision of cost of design of RCC pre cast box and its proof checking from IIT.				
	Box Size 1.50 X 1.50	120.00	15453.00	P.Rm	1854360.00
	Box Size 2.00 X 2.00	192.00	27468.00	P.Rm	5273856.00

4	Random Rubble Stone masonry in cement mortar 1:5 for substructure complete as per drawing & technical specification Clauses 702, 704, 1202 and 1204	14.60	1485.00	P.Cu m	21681.00
5	Plastering with cement mortar (1:4) 20 mm thick on stone work in parapet and per technical specifications Clauses 613.4 and 1204				
		81.40	770.00	P.10 Sqm	6268.00
6	Providing PCC M-20 architectural coping in 7.5 Cm thickness on the top of wing wall, return wall etc. complete as per drawing and technical specification Clauses 615, 710, and 1204, 3.11				
		29.20	205.00	P.Cu m	5986.00
	<b>TOTAL</b>				<b>7681131.00</b>
					<b>7681131.00</b>

Asistant Resident Engineer  
R.S.R.D.C. Ltd Unit UDAIPUR

Resident Engineer  
R.S.R.D.C. Ltd Unit UDAIPUR

**NAME OF WORK :- STRENGTHENING & WIDENING OF FATEHNAGAR-DARIBA  
ROAD (MDR-33) KM 1/500 TO 19/500 (UNDER B.O.T.)**

**ABSTRACT  
PART- 'A' ROAD WORK**

<b>S.N.</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Rate (Rs.)</b>	<b>Unit</b>	<b>Amount (Rs.)</b>
<b>1</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
1	Clearing and Grubbing Road land – Clearing and grubbing road land including uprooting wild vegetation, grass, bushes, shrubs, saplings and trees of griths upto 300 mm, removal of stumps of such trees cut earlier and disposal of unserviceable material & stacking of serviceable material to be used or auctioned, upto a lead of 1000 m including removal and disposal of top organic soil not exceeding 150 mm in thickness as per Technical specification Clause 201. By manual means. In area of non-thorny jungle.	12.52	14054.00	P.Hecta.	175900.00
2	Excavation for road work in soil with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross-sections, and transporting to the embankment location with a lift upto 1.5 m and lead upto 1000 m as per Technical specification clause 302.3	35584.91	24.00	P.Cum	854038.00
3	Excavation for roadway in ordinary rock with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading in tippers, transporting to embankment site with a lift upto 1.5 m and lead upto 1000 m, trimming bottom and side slopes in accordance with requirements of lines, grades and cross-sections as per Technical Specification Clause 302.3.5	3409.25	39.00	P.Cum	132961.00
4	Construction of embankment with approved materials deposited at site from roadway cutting and excavation from drain and foundation of other structures graded and compacted to meet requirement of Tables 300.1 and 300.2 as per Technical specification Clause 301.5	44797.72	18.00	P.Cum	806359.00
5	Construction of embankment with approved materials obtained from borrow pits with a lift upto 1.5 M transporting to site, spreading, grading to required slope and compacting to meet requirement of Tables 300.1 & 300.2 with a lead upto 1000 m as per Technical Specification Clause 301.5 Material obtained from Govt land/within R.O.W.	160365.78	48.00	P.Cum	7697557.00

6	Construction of unlined surface drains of average cross-sectional area 0.40 sqm in soil to specified lines, grades, levels and dimensions. Excavated material to be used in embankment with a lift upto 3m and lead of 50m (average lead 25m) as per Technical Specification Clause 307. Mechanical Means	2580.00	6.50	P.Cum	16770.00
7	Construction of granular sub-base by providing well graded material, spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC and compacting with smooth wheel roller to achieve the desired density, complete as per Technical specification Clause 401, For Grading III Material .	34378.69	169.00	P.Cum	5809999.00
8	Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the material with water at OMC in mechanical mixer (Pug Mill), carriage of mixed material by tipper to site, laying in uniform layers in sub-base/base course on a well prepared sub-base and compacting with smooth wheel roller of 80 to 100kN weight to achieve the desired density including lighting, barricading and maintenance of diversion, etc as per Tables 400.11 & 400.12 and Technical Specification Clause 406.	50006.36	730.00	P.Cum	36504646.00
9	Providing and applying primer coat with bitumen emulsion (SS-1) on prepared surface of granular base including claning of road surface and spraying primer at the rate of 0.70-1.0 kg./sqm. Using mechanical means as per Technical specification Clause 502.	131125.08	22.50	P.Sqm	2950314.00
10	Providing and applying tack coat with Bitumen emulsion (RS-1) using emulsion distributor at the rate of 0.25 to 0.30 Kg. Per Sqm on the prepared granular surfaces treated with primer and cleaned with Hydraulic broom as per Technical specification Clauses 503.	250010.16	7.50	P.Sqm	1875076.00
11	Providing and laying dense bituminous macadam on prepared surface with specified graded crushed aggregates for base/ binder coarse, (including cost of antistripping compound, to bring the stripping value of aggregate, within permissible limits as per specification, if required) including loading, of material with F.E. loader, heating binder, aggregates and filler in hot mix plant, transporting the mixed material by tippers and laying with paver finisher to the required level and grade, rolling, by power roller to achieve the desired density but excl. primer / tack coat as per MoRTH specification Cl. 507 with 4.5% bitumen content variation to be paid/ deducted as per job mix formula item 16.8. Bitumen S-65.	10128.87	5065.00	P. Cum	51302702.00

12	Providing and laying bituminous concrete as per design mix on prepared surface with specified graded stone aggregate as per table 500-18 for wearing course including loading of aggregates with F.E. loader and hot mixing of binder (including cost of anti-stripping compound wherever .required) and 3% cement filler with aggregates in hot mix ,plant 40 - 60 TPH, transporting the mixed material with tipper to paver and laying with sensor paver finisher (as per clause 504.3.5) to the required level and grade and rolling with vibratory compactor and pneumatic tyred roller 150 to 250 KN, TP 0.7 MPa to achieve the desired density (approved by. the dept.) excluding cost of primer/ tack coat as per MoRTH specification Cl. 509. Binder variation to be paid/deducted as' per job mix formula as per item No 16.8. 30-45 mm compacted using 6.0% binder with all lead of mix material. Bitumen S-65.	5306.20	6431.00	P.Cum	34124193.00
13	Dismantling of flexible pavements and disposal of dismantled materials upto a lead of 100 m, stacking servicable and unservicable materials separately as per technical specification Clause 202. by mechanical means. Bituminous course	1354.65	97.00	P.Cum	131401.00
	<b>TOTAL</b>				<b>142381916.00</b>

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**NAME OF WORK :- STRENGTHENING & WIDENING OF FATEHNAGAR-DARIBA ROAD  
(MDR-33) KM 1/500 TO 19/500 (UNDER B.O.T.)**

**DETAILS  
Part "A" Road Work**

S.N.	Description of Item	No	L (M)	B (m)	D (m)	Quantity	Unit
1	3	4	5	6	7	8	9
1	Clearing and Grubbing Road land – Clearing and grubbing road land including uprooting wild vegetation, grass, bushes, shrubs, saplings and trees of griths upto 300 mm, removal of stumps of such trees cut earlier and disposal of unserviceable material & stacking of serviceable material to be used or auctioned, upto a lead of 1000 m including removal and disposal of top organic soil not exceeding 150 mm in thickness as per Technical specification Clause 201. By manual means. In area of non-thorny jungle.						
	New Alignment	1	5020.00	18.00		9.04	Hect.
	Old Alignment	1	11600.00	3.00		3.48	Hect.
	Total					12.52	Hect.
2	Excavation for road work in soil with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross-sections, and transporting to the embankment location with a lift upto 1.5 m and lead upto 1000 m as per Technical specification clause 302.3						
	As per Enclosed Sheet (Hoda cutting)					27630.00	Cum
	As per Enclosed Sheet (Side cutting)					7954.91	Cum
	Total					35584.91	Cum
3	Excavation for roadway in ordinary rock with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading in tippers, transporting to embankment site with a lift upto 1.5 m and lead upto 1000 m, trimming bottom and side slopes in accordance with requirements of lines, grades and cross-sections as per Technical Specification Clause 302.3.5						
	As per Enclosed Sheet (Side cutting)					3409.25	Cum
	Total					3409.25	Cum

4	Construction of embankment with approved materials deposited at site from roadway cutting and excavation from drain and foundation of other structures graded and compacted to meet requirement of Tables 300.1 and 300.2 as per Technical specification Clause 301.5						
	As per Enclosed Sheet					44797.72	Cum
5	Construction of embankment with approved materials obtained from borrow pits with a lift upto 1.5 M transporting to site, spreading, grading to required slope and compacting to meet requirement of Tables 300.1 & 300.2 with a lead upto 1000 m as per Technical Specification Clause 301.5 Material obtained from Govt land/within R.O.W.						
	As per Enclosed Sheet					160365.78	Cum
6	Construction of unlined surface drains of average cross-sectional area 0.40 sqm in soil to specified lines, grades, levels and dimensions. Excavated material to be used in embankment with a lift upto 3m and lead of 50m (average lead 25m) as per Technical Specification Clause 307. Mechanical Means						
						2580.00	Cum
7	Construction of granular sub-base by providing well graded material, spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC and compacting with smooth wheel roller to achieve the desired density, complete as per Technical specification Clause 401, For Grading III Material.						
	As per Enclosed Sheet( Hoda)					12280.00	Cum
	Add 10% for surface correction	1X0.1	18000.00	7.00	0.20	2520.00	Cum
	For Berm	2	18000.00	(2.25 +2.0) /2	0.15	11475.00	Cum
	For New Alignment	1	5020.00	7.40	0.2	7429.60	Cum
	Total					<b>33704.60</b>	Cum
	Add 2% for curve					674.09	Cum
	Total					<b>34378.69</b>	Cum

8	Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the material with water at OMC in mechanical mixer (Pug Mill), carriage of mixed material by tipper to site, laying in uniform layers in sub-base/base course on a well prepared sub-base and compacting with smooth wheel roller of 80 to 100kN weight to achieve the desired density including lighting, barricading and maintenance of diversion, etc as per Tables 400.11 & 400.12 and Technical Specification Clause 406.						
	As per Enclosed Sheet ( Hoda)					15350.00	Cum
	For overlay	1	8100.00	7.00	0.15	8505.00	Cum
	For New Alignment	1	2900.00	7.00	0.365	7409.50	Cum
	For overlay	1	4880.00	7.00	0.20	6832.00	Cum
	For New Alignment	1	2120.00	7.00	0.43	6425.72	Cum
	For Dariba village	2	750.00	10.00	0.20	3000.00	Cum
	Total					<b>47522.22</b>	Cum
	Add 2% for curve					950.44	Cum
	Total					<b>48472.66</b>	Cum
	Add 10% for surface correction ( 8505+6832)					<b>1533.70</b>	Cum
	Total					<b>50006.36</b>	Cum
9	Providing and applying primer coat with bitumen emulsion (SS-1) on prepared surface of granular base including claning of road surface and spraying primer at the rate of 0.70-1.0 kg./sqm. Using mechanical means as per Technical specification Clause 502.						
		1	16222.00	7.00		<b>113554.00</b>	Sqm
	For Dariba village	2	750.00	10.00		<b>15000.00</b>	Sqm
	Total					<b>128554.00</b>	Sqm
	Add 2% for curve					<b>2571.08</b>	Sqm
	Total					<b>131125.08</b>	Sqm
10	Providing and applying tack coat with Bitumen emulsion (RS-1) using emulsion distributor at the rate of 0.25 to 0.30 Kg. Per Sqm on the prepared granular surfaces treated with primer and cleaned with Hydraulic broom as per Technical specification Clauses 503.						
		2	16222.00	7.00		<b>227108.00</b>	Sqm
	For Dariba village	2	750.00	10.00		<b>15000.00</b>	Sqm
	On old Road (Ananjna Village)	2	500.00	3.00		<b>3000.00</b>	Sqm
	Total					<b>245108.00</b>	Sqm
	Add 2% for curve					<b>4902.16</b>	Sqm

		Total				<b>250010.16</b>	Sqm	
11		Providing and laying dense bituminous macadam on prepared surface with specified graded crushed aggregates for base/ binder coarse, (including cost of antistripping compound, to bring the stripping value of aggregate, within permissible limits as per specification, if required) including loading, of material with F.E. loader, heating binder, aggregates and filler in hot mix plant, transporting the mixed material by tippers and laying with paver finisher to the required level and grade, rolling, by power roller to achieve the desired density but excl. primer / tack coat as per MoRTH specification Cl. 507 with 4.5% bitumen content variation to be paid/ deducted as per job mix formula item 16.8. Bitumen S-65.						
		Km 1/0-6/0,7/0-10/0,12/0-14/0	1	9712.00	7.00	0.07	4418.96	Cum
		Km 6/0-7/0,10/0-12/0,14/0-18/0	1	6510.00	7.00	0.09	4101.30	Cum
		For Dariba village	2	750.00	10.00	0.09	1350.00	Cum
		For Old Allignment	1	500.00	3.00	0.04	60.00	Cum
		Total					<b>9930.26</b>	Cum
		Add 2% for curve					198.61	Cum
		G.Total					<b>10128.87</b>	Cum
12		Providing and laying bituminous concrete as per design mix on prepared surface with specified graded stone aggregate as per table 500-18 for wearing course including loading of aggregates with F.E. loader and hot mixing of binder (including cost of anti-stripping compound wherever .required) and 3% cement filler with aggregates in hot mix ,plant 40 - 60 TPH, transporting the mixed material with tipper to paver and laying with sensor paver finisher (as per clause 504.3.5) to the required level and grade and rolling with vibratory compactor and pneumatic tyred roller 150 to 250 KN, TP 0.7 MPa to achieve the desired density (approved by. the dept.) excluding cost of primer/ tack coat as per MoRTH specification Cl. 509. Binder variation to be paid/deducted as' per job mix formula as per item No 16.8. 30-45 mm compacted using 6.0% binder with all lead of mix material. Bitumen S-65.						
		Km 0/0-18/0	1	16222.00	7.00	0.04	4542.16	Cum
		For Dariba village	2	750.00	10.00	0.04	600.00	Cum
		For Old Allignment	1	500.00	3.00	0.04	60.00	Cum
		Total					<b>5202.16</b>	Cum
		Add 2% for curve					104.04	Cum

		G.Total					<b>5306.20</b>	Cum
13		Dismantling of flexible pavements and disposal of dismantled materials upto a lead of 100 m, stacking servicable and unservicable materials separately as per technical specification Clause 202. by mechanical means. Bituminous course						
			1	14842.00	3.00	0.03	1113.15	Cum
			1	1380.00	7.00	0.03	241.50	Cum
		Total					<b>1354.65</b>	Cum

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**NAME OF WORK :- STRENGTHENING & WIDENING OF FATEHNAGAR-DARIBA ROAD  
(MDR-33) KM 1/500 TO 19/500 (UNDER B.O.T.)**

**DETAILS**

Part "F" : RETAINING WALL

**2.0 mtr height**

Ch. 3/170- 3/344	174	
Ch. 6/120 - 6/420	300	
Ch. 7/160 - 7/180	40	
Ch. 8/960 - 9/020	60	
Ch. 8/960 - 8/990	30	
Ch. 9/285 - 9/315	60	
Ch. 10/400 - 10/600	400	
Ch. 11/860 - 11/890	60	
Ch. 17/250 - 17/350	100	
Ch. 17/600 - 18/600	300	
<b>Total</b>	<b>1524</b>	Mtrs

**3.0 mtr height**

Ch. 12/820 - 13/920	200	
<b>Total</b>	<b>200</b>	Mtrs

S.N.	Description of Item	Length	L*B*H	Total	Quantity
1	3	4	5	6	7
1	Earth Work in excavation for structures as per drawing and technical specification Clause 305.1 including setting out, construction of shoring and bracing, removal of stumps and other deleterious material and disposal upto a lead of 50m, dressing of sides and bottom and backfilling in trenches with excavated suitable material. Ordinary Soil. Upto 3 m depth.				
	Two Mtr Height	1524	1*1.75*1.0	1.75	2667.00
	Three Mtr height	200	1.0*2.20*1.0	2.20	440.00
	<b>Total</b>				<b>3107.00</b>
2	Providing concrete for plain/reinforced concrete in open foundations complete as per drawings and technical specifications clause 802, 803, 1202 & 1203, P.C.C. grade M-10 Nominal mix 1:3:6				
	Two Mtr Height	1524	1*1.75*0.15	0.26	400.05
	Three Mtr height	200	1.0*2.20*0.15	0.33	66.00
	<b>Total</b>				<b>466.05</b>
3	Stone masonry work in cement mortar for sub-structure complete as per drawing and technical specifications clauses 702, 704, 1202 & 1204. Random Rubble masonry in cement mortar 1:5.				

		Two Mtr Height	1524	$1.0*(0.5+1.35)/2*2.50$	2.31	3524.25
		Three Mtr height	200	$1.0*(0.5+1.80)/2*3.9$	4.49	897.00
		<b>Total</b>				<b>4421.25</b>
4		Plain/reinforced cement concrete in substructure complete as per drawing and technical specifications Clauses 802,804,805, 806, 807, 1202 and 1204 for height up to 5 meter P.C.C. grade M-20 nominal mix 1:2:4				
		Two Mtr Height	1524	$1*1.0*0.5*0.05$	0.03	38.10
		Three Mtr height	200	$1*1.0*0.5*0.05$	0.03	5.00
		<b>Total</b>				<b>43.10</b>
5		Pointing with cement mortar (1:3) on stone work as per drawing and technical specification Clauses 613.3 and 1204.				
		Two Mtr Height		$1.0*2.0$	2.00	
				$1*1.0*(1.35+0.5)/2$	0.93	
		<b>Total</b>	1524		2.93	4457.70
		Three Mtr height		$1.0*3.0$	3.00	
				$1*1.0*(1.80+0.5)/2$	1.15	
		<b>Total</b>	200		4.15	830.00
		<b>G.TOTAL</b>				<b>5287.70</b>

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**NAME OF WORK :- STRENGTHENING & WIDENING OF FATEHNAGAR-DARIBA ROAD (MDR-33) KM 1/500 TO 19/500 (UNDER B.O.T.)**

**DETAIL**

Part "G" : Road Furniture

S.N.	Description of Item	Quantity	Unit
1	3	4	5
1	Kilometre stone. Reinforced cement concrete M-15 grade kilometre stone of standard design as per IRC :8 fixing in position including painting and printing, etc. as per drawing and technical specification Clause 1703.		
(a)	5th Kilometer Stone ( Precast )	5	No.
(b)	Ordinary kilometer stone (Percast)	13.00	No.
(c)	200 M stone (precast)	72.00	No.
2	Boundary pillar. Reinforced cement concrete M-15 grade boundary pillars/local stone of standard design as per IRC : 25, fixed in position including finishing and lettering but excluding painting as per drawing and Technical specification Clause 1704.	360.00	No.
3	Direction and Place identification signs with size more than 0.9 Sqm. Size board. Semi-reflective Traffic signs. Direction and place identification signs more than 0-90 Sqm sign board. Providing and erecting direction and place identification of semi reflective sign boards as per IRC-67 made of 2 mm thick M.S.Sheet dulystove enameled paint white colour in front and grey colour on back with reflective border of 70 mm width And required message, letters, figures with reflective tape of engineering grade as per MORD specifications of required shade and colour, supported and welded on two Nos 47 mm x 47 mm of 12 SWG square tube of 3050 mm height duly strengthened by 25mm x 5mm MS flat iron on edges on back firmly fixed to the ground by means of properly designed foundations with M-15 grade cement concrete 450mm x 450mm x 600mm, 600 mm below ground level as per approved drawing and technical specification Clause 1701.		
	18*1.2*0.9	19.44	Sqm.
	9*2*2.5	45.0	Sqm.
	Total	64.44	Sqm.
4	Traffic signs, Semi Reflective Traffic Signs. Providing and fixing of semi reflective cautionary, mandatory and informatory sign board as per IRC : 67 made of 1.5 mm thick MS sheet duly stove white colour in front and gray colour on back with red reflective border of 65 mm width and required letters and figures with reflective tape engineering grade as per Clause 1701.3.9 of MORD for Rural Roads of required shade and colour supported and welded on 47mm x 47mm x 12SWG sheet tube firmly fixed to the ground by mean of properly designed foundation with M-15 grade cement concrete 450 x 450 600 mm below ground level as per approved drawing clause 1701.2.2. 600 mm equilateral triangle size.	144.00	No.

5	Semi-Reflective Traffic signs. Direction and place identification signs up to 0.9sqm size board providing and erecting direction and place identifications of semi reflective sign boards as per IRC : 67 made of 2 mm M.S.Sheet duly stove enameled paint in white colour in front and grey colour on back with red reflective border of 70 mm width and required message, letters, figures with reflective engineering grade tape as per MORD specifications of required shade and colour, Supported and welded on 47 mm x 47 mm of 12 SWG square tube of 3050 mm height duly strengthened by 25 mm x 5 mm M/s flat iron on edges on back firmly fixed to the ground by means of properly designed foundations with M-15 grade cement concrete 450mm x 450mm x 600mm, 600 mm below ground level as per approved drawing and technical specification Clause 1701.		
	10*0.9*0.6	5.4	Sqm.
6	Add extra for providing & fixing definition plate 1.5 mm thick of M S Sheet size 0.60 x 0.40 m on cautionary, mandatory & informatory sign board as per IRC 67, stove enameled painted, lettering & figing complete in all respect as per specification	144.00	No.
7	Providing and Erecting typical Citizens Information Board as per approved drawing & specification of MoRD,Made of two MS sheet of 1:6 mm thick each of size 900mm x 750mm stiffened by angel iron 25mmx25mmx3mm all around the plate ans plates fixed on frame of 75mm dia pipe of 12 SWG sheet (vertical post 3050mm with angle holdfasts and horizontal member 900mm ) to be joined by 5mm thick MS plate at 12 places ( 65mmx50mm duly embedded in cernent concrete M-15 grade of block of 600mm x 600mm x 750mm size below ground leval as per enclosed drawing & as directed by Engineering-in-charge. All MS will be stove enameled on both side, Lettering, Figuring and border will be with ready mixed synthetic enamel paint of superior quality in required shade and colour etc. complete in all respect. All section of framed post and steel tube will be painted with primer and two coat of epoxy paint as per drawing and as per MoRD specification.	2.00	No.
8	Marking center lines , stop lines etc. on road as per IRC pattern with thermoplastic paint of approved quality and make with 8% glass beads laid on the road surface at temperature 160° C with a special applicator machine complete with labour, material and traffic diversion arrangement.		
	18000*0.10	1800.00	Sqm.

9	Supplying & fixing of <b>Swiss Type Bollard</b> made out of 1.25 mm thick M.S. sheet, total height 135 cm, the lower portion is made in tapered circular section having upper dia 15 cm and lower dia 20 cm with attachment of one mandatory plate 7 mm thick fixed with the help of 7 cm long, 30mm dia. chrome plated M.S. tube, this part fixed on the body with another attachment of a cap 30x7 cm, whole body is processed in black stove enamel and mandatory plate in azure blue, with one compulsory keep left arrow with 10mm border reflective strip and 3 numbers reflective yellow band each of 7.5 cm on body, complete in all respect.		
		16.00	No.
10	P & F <b>Delineator</b> with 30 cm dia. RCC hume pipe NP-2 (as per IS 458:1971) 1.80m long, embedded in the earth upto 0.90m depth, inside of pipe shall be filled with earth upto 10cm from top and remaining filled with cement concrete 1:4:8 (1 cement, 4 coarse sand: 8 coarse aggregate 20 mm nominal size) with semi-circular hump at top, the pipe shall be painted in 15 cm wide alternate strips black / white with enamel paint ( black strip at top) with white round reflector 7.5 cm dia at top, on side facing the traffic and opposite side (as per IRC-79)		
		150.00	No.

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**NAME OF WORK :- STRENGTHENING & WIDENING OF FATEHNAGAR-DARIBA ROAD (MDR-33) KM 1/500 TO 19/500 (UNDER B.O.T.)**

**ABSTRACT**

Part "G" : Road Furniture

S.N	Description of Item	Quantity	Rate (Rs.)	Unit	Amount (Rs.)
1	3	4	5	6	7
1	Kilometre stone. Reinforced cement concrete M-15 grade kilometre stone of standard design as per IRC :8 fixing in position including painting and printing, etc. as per drawing and technical specification Clause 1703.				
(a)	5th Kilometer Stone ( Precast )	5	1436.00	Each	7180.00
(a)	Ordinary kilometer stone (Percast)	13	850.00	Each	11050.00
(b)	200 M stone (precast)	72	259.00	Each	18648.00
2	Boundary pillar. Reinforced cement concrete M-15 grade boundary pillars/local stone of standard design as per IRC : 25, fixed in position including finishing and lettering but excluding painting as per drawing and Technical specification Clause 1704.	360	204.00	Each	73440.00
3	Direction and Place identification signs with size more than 0.9 Sqm. Size board. Semi-reflective Traffic signs. Direction and place identification signs more than 0-90 Sqm sign board. Providing and erecting direction and place identification of semi reflective sign boards as per IRC-67 made of 2 mm thick M.S.Sheet dulystove enameled paint white colour in front and grey colour on back with reflective border of 70 mm width And required message, letters, figures with reflective tape of engineering grade as per MORD specifications of required shade and colour, supported and welded on two Nos 47 mm x 47 mm of 12 SWG square tube of 3050 mm height duly strengthened by 25mm x 5mm MS flat iron on edges on back firmly fixed to the ground by means of properly designed foundations with M-15 grade cement concrete 450mm x 450mm x 600mm, 600 mm below ground level as per approved drawing and technical specification Clause 1701	64.44	2549.00	P.Sqm	164258.00

4	Traffic signs, Semi Reflective Traffic Signs. Providing and fixing of semi reflective cautionary, mandatory and informatory sign board as per IRC : 67 made of 1.5 mm thick MS sheet duly stove white colour in front and gray colour on back with red reflective border of 65 mm width and required letters and figures with reflective tape engineering grade as per Clause 1701.3.9 of MORD for Rural Roads of required shade and colour supported and welded on 47mm x 47mm x 12SWG sheet tube firmly fixed to the ground by means of properly designed foundation with M-15 grade cement concrete 450 x 450 600 mm below ground level as per approved drawing clause 1701.2.2. 600 mm equilateral triangle size.	19.44	1059.00	Each	20587.00
5	Semi-Reflective Traffic signs. Direction and place identification signs up to 0.9sqm size board providing and erecting direction and place identifications of semi reflective sign boards as per IRC : 67 made of 2 mm M.S. Sheet duly stove enameled paint in white colour in front and grey colour on back with red reflective border of 70 mm width and required message, letters, figures with reflective engineering grade tape as per MORD specifications of required shade and colour, Supported and welded on 47 mm x 47 mm of 12 SWG square tube of 3050 mm height duly strengthened by 25 mm x 5 mm M/s flat iron on edges on back firmly fixed to the ground by means of properly designed foundations with M-15 grade cement concrete 450mm x 450mm x 600mm, 600 mm below ground level as per approved drawing and technical specification Clause 1701.	5.40	2326.00	P.Sqm	12560.00
6	Add extra for providing & fixing definition plate 1.5 mm thick of M S Sheet size 0.60 x 0.40 m on cautionary, mandatory & informatory sign board as per IRC 67, stove enameled painted, lettering & fixing complete in all respect as per specification	144.00	171.00	Each	24,624.00

7	<p>Providing and Erecting typical Citizens Information Board as per approved drawing &amp; specification of MoRD, Made of two MS sheet of 1.6 mm thick each of size 900mm x 750mm stiffened by angle iron 25mmx25mmx3mm all around the plate and plates fixed on frame of 75mm dia pipe of 12 SWG sheet (vertical post 3050mm with angle holdfasts and horizontal member 900mm ) to be joined by 5mm thick MS plate at 12 places ( 65mmx50mm duly embedded in cement concrete M-15 grade of block of 600mm x 600mm x 750mm size below ground level as per enclosed drawing &amp; as directed by Engineering-in-charge. All MS will be stove enameled on both side, Lettering, Figuring and border will be with ready mixed synthetic enamel paint of superior quality in required shade and colour etc. complete in all respect. All section of framed post and steel tube will be painted with primer and two coat of epoxy paint as per drawing and as per MoRD specification.</p>	2.00	6400.00	Each	12800.00
8	<p>Marking center lines , stop lines etc. on road as per IRC pattern with thermoplastic paint of approved quality and make with 8% glass beads laid on the road surface at temperature 160° C with a special applicator machine complete with labour, material and traffic diversion arrangement.</p>				
		1800	650.00	P.Sqm	1170000.00
9	<p>Supplying &amp; fixing of <b>Swiss Type Bollard</b> made out of 1.25 mm thick M.S. sheet, total height 135 cm, the lower portion is made in tapered circular section having upper dia 15 cm and lower dia 20 cm with attachment of one mandatory plate 7 mm thick fixed with the help of 7 cm long, 30mm dia. chrome plated M.S. tube, this part fixed on the body with another attachment of a cap 30x7 cm, whole body is processed in black stove enamel and mandatory plate in azure blue, with one compulsory keep left arrow with 10mm border reflective strip and 3 numbers reflective yellow band each of 7.5 cm on body, complete in all respect.</p>				
		16.00	1430.00	Each	22880.00

10	P & F <b>Delineator</b> with 30 cm dia. RCC hume pipe NP-2 (as per IS 458:1971) 1.80m long, embedded in the earth upto 0.90m depth, inside of pipe shall be filled with earth upto 10cm from top and remaining filled with cement concrete 1:4:8 (1 cement, 4 coarse sand: 8 coarse aggregate 20 mm nominal size) with semi-circular hump at top, the pipe shall be painted in 15 cm wide alternate strips black / white with enamel paint ( black strip at top) with white round reflector 7.5 cm dia at top, on side facing the traffic and opposite side (as per IRC-79)				
		150.00	340.00	Each	51000.00
	Total :-				<b>1589027.00</b>

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**NAME OF WORK :- STRENGTHENING & WIDENING OF FATEHNAGAR-DARIBA ROAD  
(MDR-33) KM 1/500 TO 19/500 (UNDER B.O.T.)**

**DETAILS  
Part "I" Renewal Work**

S.N.	Description of Item	No	L (M)	B (m)	D (m)	Quantity	Unit
1	3	4	5	6	7	8	9
1	Granular Sub-base with well Graded material (Table 400.1) By Mix in place Method. Construction of granular sub-base by providing well graded material, spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC and compacting with smooth wheel roller to achieve the desired density, complete as per Technical specification Clause 401, For Grading III Material G.S.B. Grading III						
	For Berms	2	18000	2.00	0.1	7200.00	Cum
	Total					7200.00	Cum
	Add 2% For Curve					144.00	Cum
	Total					7344.00	Cum
2	Tack coat. Providing and applying tack coat with Bitumen emulsion (RS-1) using emulsion distributor at the rate of 0.25 to 0.30 Kg. Per Sqm on the prepared granular surfaces treated with primer as per Technical specification Clauses 503.						
		1	16222	7.00		113554.00	Sqm.
	Dariba	1	750	13.00		9750.00	Sqm.
	Total					123304.00	Cum
	Add 2% For Curve					2466.08	Sqm.
	Total					125770.08	Sqm.
3	Providing and laying bituminous concrete as per design mix on prepared surface with specified graded stone aggregate as per table 500-18 for wearing course including loading of aggregates with F.E. loader and hot mixing of binder (including cost of anti-stripping compound wherever .required) and 3% cement filler with aggregates in hot mix ,plant 40 - 60 TPH, transporting the mixed material with tipper to paver and laying with sensor paver finisher (as per clause 504.3.5) to the required level and grade and rolling with vibratory compactor and pneumatic tyred roller 150 to 250 KN, TP 0.7 MPa to achieve the desired density (approved by. the dept.) excluding cost of primer/ tack coat as per MoRTH specification Cl. 509. Binder variation to be paid/deducted as' per job mix formula as per item No 16.8. 30-45 mm compacted using 6.0% binder with all lead of mix material. Bitumen S-65.						
		1	16222	7.00	0.03	3406.62	Cum
	Dariba	1	750	13.00	0.03	292.50	Cum

		Total					3699.12	Cum
		Add 2% For Curve					73.98	Cum
		Total					3773.10	Cum

RESIDENT ENGINEER  
R.S.R.D.C.C. Ltd., Udaipur

**NAME OF WORK :- STRENGTHENING & WIDENING OF FATEHNAGAR-DARIBA  
ROAD (MDR-33) KM 1/500 TO 19/500 (UNDER B.O.T.)**

**ABSTRACT  
Part "I" Renewal Work**

S.N.	Description of Item	Quantity	Rate (Rs.)	Unit	Amount (Rs.)
1	3	4	5	6	7
1	Granular Sub-base with well Graded material (Table 400.1) By Mix in place Method. Construction of granular sub-base by providing well graded material, spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC and compacting with smooth wheel roller to achieve the desired density, complete as per Technical specification Clause 401, For Grading III Material G.S.B. Grading III	7344.00	169.00	P.Cum	1241136.00
2	Providing and applying tack coat with Bitumen emulsion (RS-1) using emulsion distributor at the rate of 0.25 to 0.30 Kg. Per Sqm on the prepared granular surfaces treated with primer & cleaned with hydraulic broom as per Technical specification Clauses 503.	125770.08	7.50	P.Sqm	943276.00
3	Providing and laying bituminous concrete as per design mix on prepared surface with specified graded stone aggregate as per table 500-18 for wearing course including loading of aggregates with F.E. loader and hot mixing of binder (including cost of anti-stripping compound wherever .required) and 3% cement filler with aggregates in hot mix ,plant 40 - 60 TPH, transporting the mixed material with tipper to paver and laying with sensor paver finisher (as per clause 504.3.5) to the required level and grade and rolling with vibratory compactor and pneumatic tyred roller 150 to 250 KN, TP 0.7 MPa to achieve the desired density (approved by. the dept.) excluding cost of primer/ tack coat as per MoRTH specification Cl. 509. Binder variation to be paid/deducted as' per job mix formula as per item No 16.8. 30-45 mm compacted using 6.0% binder with all lead of mix material. Bitumen S-65.	3773.10	6431.00	P.Cum	24264822.00
	<b>TOTAL</b>				<b>26449234.0</b>
	<b>Say</b>				<b>264.49</b>
	After 6 Year Add Escalation @ 60%				158.70

	<b>TOTAL</b>				<b>423.19</b>
	After 6 Year Add Escalation @ 60%				253.91
	<b>TOTAL</b>				<b>677.10</b>
	After 6 Year Add Escalation @ 60%				406.26
	<b>TOTAL</b>				<b>1083.36</b>
	After 6 Year Add Escalation @ 60%				650.02
	<b>TOTAL</b>				<b>1733.38</b>

RESIDENT ENGINEER  
R.S.R.D.C.C. Ltd., Udaipur

**FIELD DATA SHEET FOR TRAFFIC CENSUS.**

NAME OF WORK :- FATEHNAGAR DARIBA ROAD (MDR - 33)

KILOMETER AGE OF COUNT STATION : 17/0

PLACE OF COUNT STATION:- Dariba

LOCATION OF THE ROAD :- Km. 17/0

DISTRICT :- RAJSAMAND, STATE:- RAJASTHAN

Period		Fast / Power Driven Vehicle							Slow Vehicles			
From (2.00Pm)	To (2.00 Am)	Car, Jeep, Vans, Three Wheelers	Two Wheelers/ Motor Cycle/ Scooters etc.	Light Commecial Vehicle	Bus	Two Axle Truck / Tanker	Multi Axle Truck/ Truck Traller/ Tanker	Agricultural Tractor Trailors	Cycle / Cycle Rickshwa/ powered human powered cuted	Bullock cart/ horse cart/ other animal driven	Other (Specify)	Remarks
05/01/2010	06/01/2010	612		47	46	64	114	83				
06/01/2010	07/01/2010	776		150	46	80	125	142				
07/01/2010	08/01/2010	708		135	36	64	165	149				
08/01/2010	09/01/2010	696		128	45	68	141	130				
09/01/2010	10/01/2010	712		106	49	60	135	131				
10/01/2010	11/01/2010	692		98	39	75	131	115				
11/01/2010	12/01/2010	695		111	37	74	132	125				
Average		699		111	43	69	135	125				
P.C.U. Factors		1.00	0.50	1.50	3.00	3.00	4.50	1.00	0.50	8.00		
Average Daily Traffic PCU		699	0	166	128	208	606	125	0	0	0	
CVPD				111	43	69	135	125				

**Seasonality Factor Used:**

**PCU                    1932**  
**CVPD                 483**