ग्रामीण कार्य विभाग

Rural Works Department, Govt of Bihar

2021-22

FLOOD DAMAGED REPORT

Chakdaulat To Akha Road

DISTRICT	:-	Samastipur	
DIVISION	:-	Dalsingh Sarai	
BLOCK	:-	Ujiarpur	
TOTAL LENGTH OF ROAD	:-	0.028	KM
TOTAL COST OF SURFACE RENEUAL	:-	2.120 ~~2.633~~	Lac
TOTAL COST OF PROJECT	:-	2.120 ~~2.633~~	Lac

2.3	**Site Photographs**
	NAME OF ROAD :-Chakdaulat To Akha Road Village
	BLOCK ;- Ujiyarpur — Distric:-Samastipur

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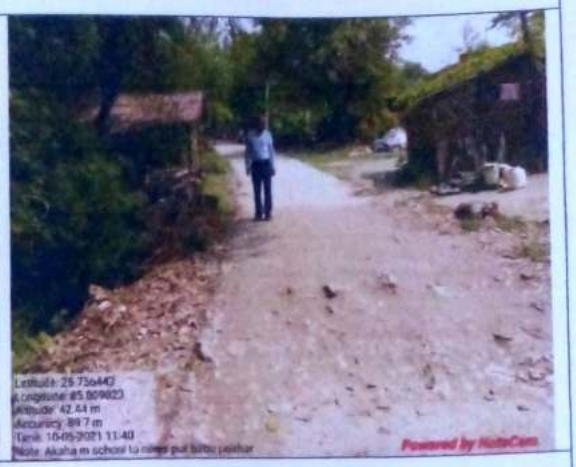

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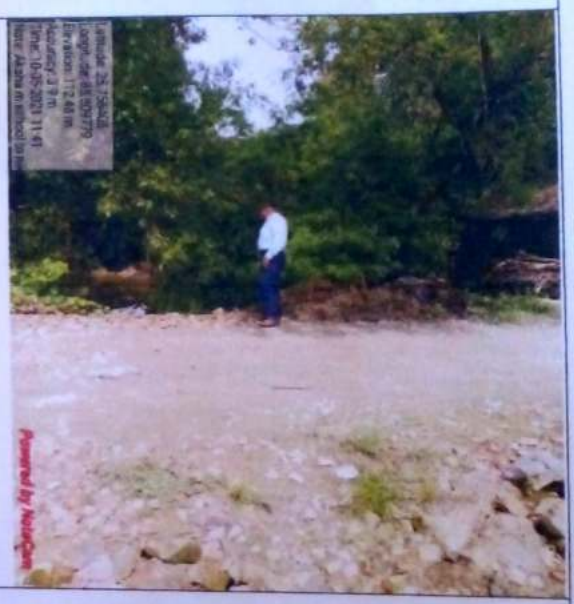

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25/10/2021

25/10/21
AE

FLOOD DAMAGED REPORT

GENERAL ABSTRACT OF COST

Block:-- Ujiarpur **District:- Samastipur**

Length of Road:-- 0.028 KM

Name of Road:-- Chakdaulat To Akha Road

SL. No.	Item of Work		Amount
A	TOTAL COST OF CONSTRUCTION	:	2.120 ~~2.633 Lacs~~
	TOTAL	:	~~2.655 Lacs~~

2.120 Lacs.

Junior Engineer

Asstt. Engineer

Executive Engineer

SE
RWD

GENERAL ABSTRACT OF COST FOR MAINTENANCE OF ROAD

NAME OF ROAD : Chakdaulat To Akha Road
DISTRICT Samastipur
BLOCK Ujiarpur
DIVISION Dalsingh Sarai
LENGTH OF ROAD (in Km) 0.028

Sl. No.	DESCRIPTION	Amount	1 % Labour Cess	12 % GST	1% Labour Cess & 12% GST AMOUNT (LAKHS)
PART-A	INITIAL RECTIFICATION INCLUDING SURFACE RENEWAL				
1	Brick Bats	1.794 ~~2.248~~	0.022	0.270	2.540
2	(By mix in place method) For Grading II Material	0.082	0.001	0.010	0.093
3	Supply For Bamboo	0.000	0.000	0.000	0.000
4	Bamboo Piles	0.000	0.000	0.000	0.000
5	Bamboo Waven Chachari	0.000	0.000	0.000	0.000
6	Bamboo Runers	0.000	0.000	0.000	0.000
	SUB TOTAL OF SURFACE RENEWAL	1.877 ~~2.330~~	.018 ~~0.023~~	.225 ~~0.280~~	2.120 ~~2.633~~
	TOTAL COST OF PROJECT IN LACS =	~~2.330~~ 1.877	0.023 .018	0.280 0.225	~~2.633~~ 2.120

25/07/2024

JE
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25/10/24

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RWD

Sl. No.	SDB SL.NO	MORD Ref.No	Description	Unit	NOS	LENGTH	WIDTH	HEIGHT	QUANTITY	RATE	AMOUNT (In Rs.)
1	3.2	301.4	**Brick Bats**								
			Providing brick bats including spreading laying hand packing and compacting with C.I. Hammer in layers not exceeding 75 mm thick including cost of light barriers, danger signals,chowkidar,taxes,royality etc.all complete job as per specification and direction of E/I including carriage cost of bricks.								
				Cum	1	10.00	5.0+6.0	1.50	82.50		
							2.0				
				Cum	2	6.00	1.0	0.90	10.80		
				Cum	1	6.00	3.0	~~1.50~~ 0.15	27.00 ~~120.30~~ 96.00	2.70 1,868.70	179395 ~~2,24,805.00~~
2	4.1	401	**Granular Sub-base with Well Graded Material (Table 400.1)**								
		(ii)	**(By mix in place method) For Grading II Material**								
			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.								
			Net GSB Qty	Cum	1	10.00	3.75	0.100	3.75	2,193.71	8,226.00
									A) SUB TOTAL OF CRUST =		~~2,33,031.00~~ 187621

25/10/2024

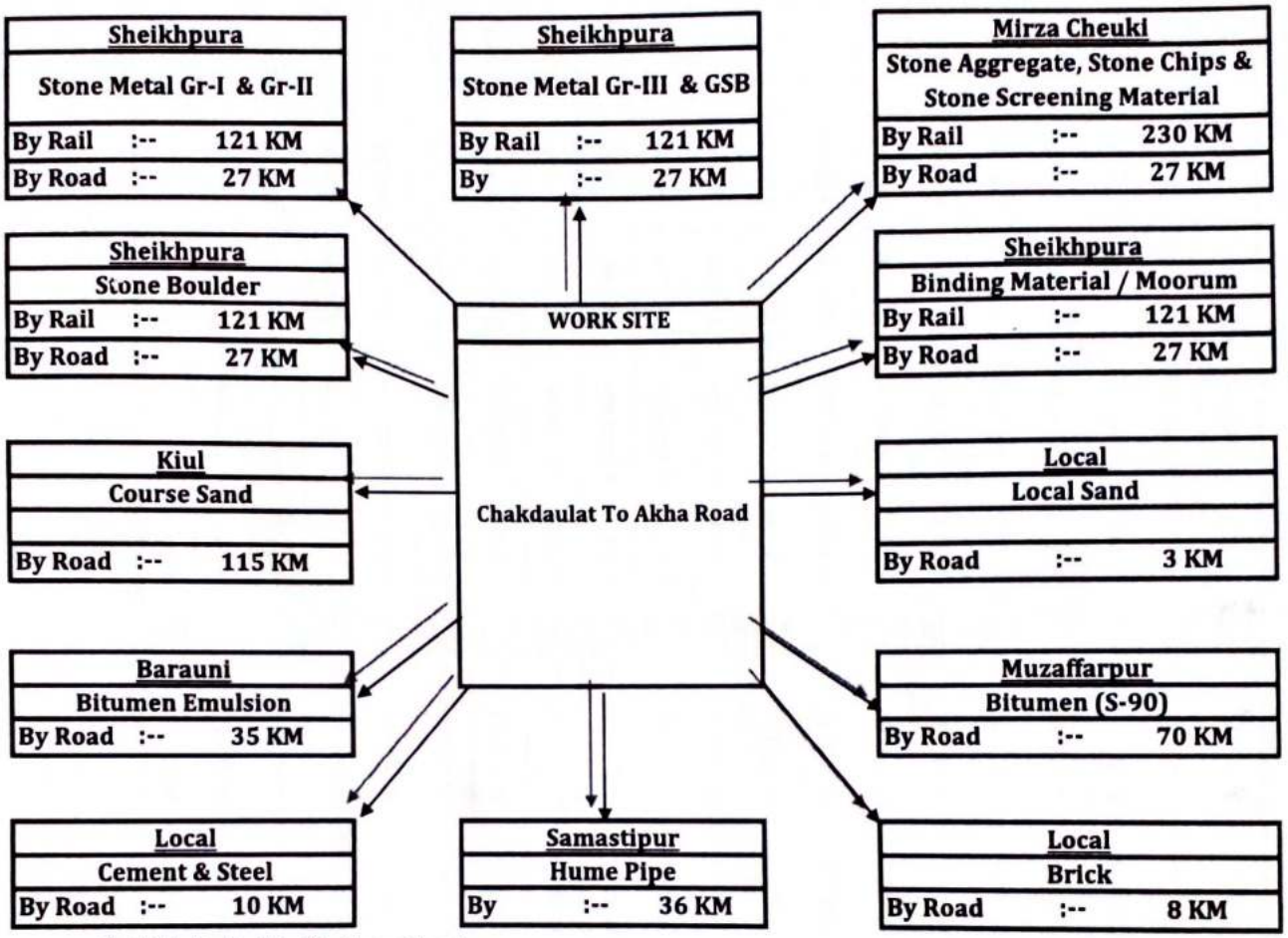
23/10/21 AE

Figure -3 :---

Quarry Map

Name of Road :-- Chakdaulat To Akha Road
Block :-- Ujiarpur
District :-- Samastipur

Length of the Road:- 0.028 KM



* Subjected to Verification of Lead

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FORM F8

Analysis for Carriage by Road & Rail

Name of Road:-- Chakdaulat To Akha Road

District:- Samastipur **Block :-** Ujiarpur

Sl No	Item with Source	Unit	Source Up to	Carriage Cost & Lead in Km		Loading & Unloading Cost	Carriage Cost by Rail Head	Total ₹	Total ₹ Minimum
				Pucka / Surface	Katcha				
1	Stone Metal Gr-I & Gr-II (Sheikhpura by Rail 121 Km)	Cum	Sheikhpura	8.00/4.59 x 10.10 x 27.00 Km = Rs 475.29	8.00/4.59 x 24.30 x 0.00 Km = Rs 0.00	105.12	1025.87	Rs. 1606.28	Rs. 1606.28
	Stone Metal Gr-I & Gr-II	Cum	Sheikhpura	8.00/4.59 x 7.94 x 116.00 Km = Rs 1605.30	8.00/4.59 x 19.22 x 0.00 Km = Rs 0.00	210.19		Rs. 1815.49	
2	Stone Metal Gr-III (Sheikhpura by Rail 121 Km)	Cum	Sheikhpura	8.00/4.99 x 10.10 x 27.00 Km = Rs 437.19	8.00/4.99 x 24.30 x 0.00 Km = Rs 0.00	105.12	1128.34	Rs. 1670.65	Rs. 1670.65
	Stone Metal Gr-III	Cum	Sheikhpura	8.00/4.99 x 7.94 x 116.00 Km = Rs 1476.62	8.00/4.99 x 19.22 x 0.00 Km = Rs 0.00	210.19	1128.34	Rs. 2815.15	
3	Stone Aggregate / Chips (Mirza Chowki by Rail 230 Km)	Cum	Sheikhpura	8.00/4.99 x 10.10 x 27.00 Km = Rs 437.19	8.00/4.99 x 24.30 x 0.00 Km = Rs 0.00	105.12	1588.15	Rs. 2130.46	Rs. 2130.46
	Stone Aggregate / Chips	Cum	Sheikhpura	8.00/4.99 x 7.94 x 116.00 Km = Rs 1476.62	8.00/4.99 x 19.22 x 0.00 Km = Rs 0.00	210.19	1588.15	Rs. 3274.96	
4	Stone Boulder (Sheikhpura by Rail 121 Km)	Cum	Sheikhpura	8.00/4.80 x 10.10 x 27.00 Km = Rs 454.50	8.00/4.80 x 24.30 x 0.00 Km = Rs 0.00	105.12	1159.81	Rs. 1719.43	Rs. 1719.43
	Stone Boulder	Cum	Sheikhpura	8.00/4.80 x 7.94 x 116.00 Km = Rs 1535.07	8.00/4.80 x 19.22 x 0.00 Km = Rs 0.00	210.19	1159.81	Rs. 2905.07	
5	Course Sand	Cum	Kiul	8.00/4.99 x 7.94 x 115.00 Km = Rs 1463.89	8.00/4.99 x 19.22 x 0.00 Km = Rs 0.00	113.67		Rs. 1577.56	Rs. 1577.56
6	Binding Material/Moorum (Sheikhpura by Rail 121 Km)	Cum	Sheikhpura	8.00/6.00 x 10.10 x 27.00 Km = Rs 363.60	8.00/6.00 x 24.30 x 0.00 Km = Rs 0.00	113.67	851.49	Rs. 1328.76	Rs. 1328.76
	Binding Material/Moorum	Cum	Sheikhpura	8.00/6.00 x 7.94 x 116.00 Km = Rs 1228.05	8.00/6.00 x 19.22 x 0.00 Km = Rs 0.00	66.31	851.49	Rs. 2145.85	
7	Local Sand	Cum	Local	8.00/4.99 x 10.10 x 2.00 Km = Rs 32.38	8.00/4.99 x 24.30 x 1.00 Km = Rs 38.96	113.67		Rs. 185.01	Rs. 185.01
8	Brick	1000 Nos	Local	8.00/2.00 x 7.94 x 7.00 Km = Rs 222.32	8.00/2.00 x 19.22 x 1.00 Km = Rs 76.88	477.44		Rs. 776.64	Rs. 776.64
9	Cement	MT	Local	8.00/8.00 x 7.94 x 10.00 Km = Rs 79.40	8.00/8.00 x 19.22 x 0.00 Km = Rs 0.00	347.32		Rs. 426.72	Rs. 426.72
10	Steel	MT	Local	8.00/8.00 x 7.94 x 10.00 Km = Rs 79.40	8.00/8.00 x 19.22 0.00 Km = Rs 0.00	370.58		Rs. 449.98	Rs. 449.98
11	Bitumen Emulsion	MT	Barauni	8.00/8.00 x 7.94 x 35.00 Km = Rs 277.90	8.00/8.00 x 19.22 x 0.00 Km = Rs 0.00	396.98		Rs. 674.88	Rs. 674.88
12	Bitumen	MT	Muzaffarpur	8.00/8.00 x 7.94 x 70.00 Km = Rs 555.80	8.00/8.00 x 19.22 x 0.00 Km = Rs 0.00	396.98		Rs. 952.78	Rs. 952.78
13	Hume Pipe (1000 mm)	m	Samastipur	8.00/10.00 x 7.94 x 36.00 Km = Rs 228.67	8.00/10.00 x 19.22 x 0.00 Km = Rs 0.00	70.84		Rs. 299.51	Rs. 299.51
14	Hume Pipe (600 mm)	m	Samastipur	8.00/25.00 x 7.94 x 36.00 Km = Rs 91.47	8.00/25.00 x 19.22 x 0.00 Km = Rs 0.00	30.36		Rs. 121.83	Rs. 121.83
15	Hume Pipe (300 mm)	m	Samastipur	8.00/60.00 x 7.94 x 36.00 Km = Rs 38.11	8.00/60.00 x 19.22 x 0.00 Km = Rs 0.00	30.36		Rs. 68.47	Rs. 68.47

FORM F8

Cost of Haulage Excluding Loading & Unloading as per SOR aa

Type of Road	₹ Per Ton. Km by Tipper	₹ Per Ton. Km by Truck
For Surface Road	10.10	7.94
Unsurface Gravel Road	12.10	9.55
Kachha Road	24.30	19.22

*** Subjected to Verification of Lead**

24/10/2024
JE
RWD

25/10/24
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RWD

Analysis for Carrige Through Railway from Quarry Site to Work Site

Sheikhpura to Karpurigram

Material -Stone Metal Gr-I & Gr-II

Quarry Site to Sheikhpura Railway Yard (By Road)

Carriage Cost & Lead in Km														Loading & Unloading		Total
Pucka / Surface							Katcha									
8.00 / 4.59	x	10.10	x	4.00 Km	=	Rs 70.41	+	8.00 / 4.59	x	24.30	x	0.00 Km	= Rs 0.00	+ Rs 105.12	=	Rs 175.53
UnSurface								8.00 / 4.59	x	12.10	x	1.00 Km			=	Rs 21.09
Loading & Unloading Cost by manual								=						= Rs 210.19	=	Rs 210.19
														Total	=	Rs 406.81
Less for O.H & C.P					=	Rs 406.81 / 1.166					=	Rs 348.89		Total "A"	=	Rs 348.89

Sheikhpura Railway Yard to Karpurigram Railway Yard = 121.00 Km

Railway freight charge from Sheikhpura Railway station to Karpurigram Railway station	=	For 1 MT	121.00 Km	=	Rs 231.30 =	Rs 231.30
Busy Seasion charge 15% of Railway freight charge	=	For 1 MT		=	15% =	Rs 34.70
Railway Development Charge to 5% of Railway freight Charge		For 1 MT		=	5% =	Rs 11.57
Terminal charge @Rs.40.00 per Terminal per MT		For 1 MT		x	Rs 40.00 =	Rs 0.00
GST 0 % "(4% included in Overhead Charges) = Rs 277.57 x		0%			=	Rs 0.00
Total	=	For 1 MT			=	Rs 277.57
Rail Fright = 1.743 x Rs 277.57		For 1 MT			"B" =	Rs 483.80
Gross Cost for Railway freight charge "A" + "B"		For 1 MT			=	Rs 832.69
		Add 12% Overhead Charge		=	12% =	Rs 99.92
		Add 10% Contractor Profit		=	10% =	Rs 93.26
Carriage Cost from Quarry to Karpurigram Railway Yard		For 1 Cum			=	Rs 1025.87

Analysis for Carrige Through Railway from Quarry Site to Work Site

Sheikhpura to Karpurigram

Material -Stone Metal Gr-III / GSB

Quarry Site to Sheikhpura Railway Yard (By Road)

Carriage Cost & Lead in Km														Loading & Unloading		Total
Pucka / Surface							Katcha									
8.00 / 4.99	x	10.10	x	4.00 Km	=	Rs 64.77	+	8.00 / 4.99	x	24.30	x	0.00 Km	= Rs 0.00	+ Rs 105.12	=	Rs 169.89
UnSurface								8.00 / 4.99	x	12.10	x	1.00 Km			=	Rs 19.40
Loading & Unloading Cost by manual														= Rs 210.19	=	Rs 210.19
														Total	=	Rs 399.48
Less for O.H & C.P					=	Rs 399.48 / 1.166					=	Rs 342.61		Total "A"	=	Rs 342.61

Sheikhpura Railway Yard to Karpurigram — Railway Yard = 121.00 Km

Railway freight charge from Sheikhpura Railway station to Karpurigram Railway station	= For 1 MT	121.00 Km		=	Rs 231.30	= Rs 231.3
Busy Seasion charge 15% of Railway freight charge	= For 1 MT			=	15%	= Rs 34.7
Railway Development Charge to 5% of Railway freight Charge	For 1 MT			=	5%	= Rs 11.5
Terminal charge @Rs.40.00 per Terminal per MT	For 1 MT		2	x	Rs 40.00	= Rs 80.0
GST 0 % "(4% included in Overhead Charges) = Rs 357.57 x 0%						= Rs 0.0
Total	= For 1 MT					= Rs 357.5
Rail Fright = 1.603 x Rs 357.57	For 1 MT				"B"	= Rs 573.2
Gross Cost for Railway freight charge "A" + "B"	For 1 MT					= Rs 915.
	Add 12% Overhead Charge			=	12%	= Rs 109.9
	Add 10% Contractor Profit			=	10%	= Rs 102.5
Carriage Cost from Quarry to Karpurigram Railway Yard	For 1 Cum					= Rs 1128.3

Analysis for Carrige Through Railway from Quarry Site to Work Site

Mirza Chowki to Karpurigram

Material -Stone Aggregate / Chips

Quarry Site to Mirza Chowki Railway Yard (By Road)

Carriage Cost & Lead in Km: Pucka / Surface		Katcha		Loading & Unloading	Total
$\frac{8.00}{4.99}$ x 10.10 x 4.00 Km = Rs 64.77	+ $\frac{8.00}{4.99}$ x	24.30 x 0.00 Km	= Rs 0.00	+ Rs 105.12 =	Rs 169.8
UnSurface	$\frac{8.00}{4.99}$ x	12.10 x 1.00 Km		=	Rs 19.4
Loading & Unloading Cost by manual	=			= Rs 210.19 =	Rs 210.1
				Total =	Rs 399.
Less for O.H & C.P = Rs 399.48 / 1.166		= Rs 342.61		Total "A" =	Rs 342.6

Mirza Chowki Railway Yard to Karpurigram — Railway Yard = 230.00 Km

Railway freight charge from Mirza Chowki Railway station to Karpurigram Railway station	= For 1 MT	230.00 Km		=	Rs 425.30	= Rs 425.3
Busy Season charge 15% of Railway freight charge	= For 1 MT			=	15%	= Rs 63.8
Railway Development Charge to 5% of Railway freight Charge	For 1 MT			=	5%	= Rs 21.2
Terminal charge @Rs.40.00 per Terminal per MT	For 1 MT		2	x	Rs 40.00	= Rs 80.0
GST 0 % "(4% included in Overhead Charges) = Rs 590.37 x 0%						= Rs 0.0
Total	= For 1 MT					= Rs 590.3
Rail Fright = 1.603 x Rs 590.37	For 1 MT				"B"	= Rs 946.4
Gross Cost for Railway freight charge "A" + "B"	For 1 MT					= Rs 128
	Add 12% Overhead Charge			=	12%	= Rs 154.
	Add 10% Contractor Profit			=	10%	= Rs 144.
Carriage Cost from Quarry to Karpurigram Railway Yard	For 1 Cum					= Rs 158

Analysis for Carrige Through Railway from Quarry Site to Work Site

Sheikhpura to Karpurigram

Material -Stone Boulder

Quarry Site to Sheikhpura Railway Yard (By Road)

Carriage Cost & Lead in Km														Loading & Unloading		Total
Pucka / Surface							Katcha									
8.00 / 4.80	x	10.10	x	4.00 Km	=	Rs 67.33	+ 8.00 / 4.80	x	24.30	x	0.00 Km	= Rs 0.00	+	Rs 105.12	=	Rs 172.45
UnSurface							8.00 / 4.80	x	12.10	x	1.00 Km				=	Rs 20.17
Loading & Unloading Cost by manual							=						=	Rs 210.19	=	Rs 210.19
														Total	=	Rs 402.81
Less for O.H & C.P	=	Rs 402.81 /	1.166						=	Rs 345.46				Total "A"	=	Rs 345.46

Sheikhpura Railway Yard to Karpurigram **Railway Yard = 121.00 Km**

Railway freight charge from Sheikhpura Railway station to Karpurigram Railway station	=	For 1 MT	121.00 Km	=	Rs 231.30 =	Rs 231.30
Busy Season charge 15% of Railway freight charge	=	For 1 MT		=	15% =	Rs 34.70
Railway Development Charge to 5% of Railway freight Charge		For 1 MT		=	5% =	Rs 11.57
Terminal charge @Rs.40.00 per Terminal per MT		For 1 MT	2	x	Rs 40.00 =	Rs 80.00
GST 0 % "(4% included in Overhead Charges) = Rs 357.57 x		0%			=	Rs 0.00
Total	=	For 1 MT			=	Rs 357.57
Rail Fright = 1.667 x Rs 357.57		For 1 MT			"B" =	Rs 595.94
Gross Cost for Railway freight charge "A" + "B"		For 1 MT			=	Rs 941.41
		Add 12% Overhead Charge		=	12% =	Rs 112.97
		Add 10% Contractor Profit		=	10% =	Rs 105.44
Carriage Cost from Quarry to Karpurigram Railway Yard		For 1 Cum			=	Rs 1159.81

Analysis for Carrige Through Railway from Quarry Site to Work Site

Sheikhpura to Karpurigram

Binding Material /Moorum

Quarry Site to Sheikhpura Railway Yard (By Road)

Carriage Cost & Lead in Km														Loading & Unloading		Total
Pucka / Surface							Katcha									
8.00 / 6.00	x	10.10	x	4.00 Km	=	Rs 53.87	+ 8.00 / 6.00	x	24.30	x	0.00 Km	= Rs 0.00	+	Rs 66.31	=	Rs 120.18
UnSurface							8.00 / 6.00	x	12.10	x	1.00 Km				=	Rs 16.13
Loading & Unloading Cost by manual							=						=	Rs 113.67	=	Rs 113.67
														Total	=	Rs 249.98
Less for O.H & C.P	=	Rs 249.98 /	1.166						=	Rs 214.39				Total "A"	=	Rs 214.39

Sheikhpura	**Railway Yard to**	**Karpurigram**	**Railway Yard**	=	121.00 Km			
Railway freight charge from Sheikhpura Railway station to Karpurigram Railway station	=	For 1 MT	121.00 Km		=	Rs 231.30	=	Rs 231.30
Busy Seasion charge 15% of Railway freight charge	=	For 1 MT			=	15%	=	Rs 34.70
Railway Development Charge to 5% of Railway freight Charge		For 1 MT			=	5%	=	Rs 11.57
Terminal charge @Rs.40.00 per Terminal per MT		For 1 MT		2	x	Rs 40.00	=	Rs 80.00
GST 0 % "(4% included in Overhead Charges) =	Rs 357.57	x	0%				=	Rs 0.00
Total		=	**For 1 MT**				=	**Rs 357.57**
Rail Fright =	**1.333**	**x**	**Rs 357.57**	**For 1 MT**		**"B"**	=	**Rs 476.75**
Gross Cost for Railway freight charge "A" + "B"				**For 1 MT**			=	**Rs 691.14**
				Add 12% Overhead Charge	=	12%	=	**Rs 82.94**
				Add 10% Contractor Profit	=	10%	=	**Rs 77.41**
Carriage Cost from Quarry to Karpurigram Railway Yard				**For 1 Cum**			=	**Rs 851.49**

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref.No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
			Haulage BY TIPPER				
1	1.10	(i)	**Haulage excluding Loading & Unloading**				
			Haulage of materials by tipper excluding cost of loading, unloading and stacking.				
			Unit = t.km				
			Taking output 10 t load and lead 10 km = 100 t.km				
			Case-I : Surfaced Road				
			Speed with load: 25 km per hour				
			Speed while returning empty: 35 km per hour				
		a)	**Machinery**				
			Tipper 10 t capacity				
			Haulage with load	hour	0.40	1183.00	473.20
			Empty return trip	hour	0.29	1183.00	343.07
		b)	Overheads @ 12%				**97.95**
		c)	Contractor's profit @ 10% on (a+b)				**91.42**
			Cost for 100 t-km = a+b+c				1005.64
			Rate per cum = (a+b+c) /100				**10.06**
			Rate Per Km.	**Cum**			**10.10**
2	1.10	(ii)	**Haulage excluding Loading & Unloading**				
			Haulage of materials by tipper excluding cost of loading, unloading and stacking.				
			Unit = t.km				
			Taking output 10 t load and lead 10 km = 100 t.km				
			Case-II: Unsurfaced Gravel Road.				
			Speed with load: 20 km/hour				
			Speed for empty return trip: 30 km/hour				
		a)	**Machinery**				
			Tipper 10 t capacity				
			Haulage with load	hour	0.50	1183.00	591.50
			Empty return trip	hour	0.33	1183.00	390.39
		b)	Overheads @ 12%				**117.83**
		c)	Contractor's profit @ 10% on (a+b)				**109.97**
			Cost for 100 t-km = a+b+c				1209.69
			Rate per cum = (a+b+c) /100				**12.10**
			Rate Per Km.	**Cum**			**12.10**
3	1.10	(iii)	**Haulage excluding Loading & Unloading**				
			Haulage of materials by tipper excluding cost of loading, unloading and stacking.				
			Unit = t.km				
			Taking output 10 t load and lead 10 km = 100 t.km				
			Case-III : Katcha Track and Track in River Bed/Nallah Bed and Choe Bed.				
			Speed with load: 10 km per hour				
			Speed while returning empty: 15 km per hour				
		a)	**Machinery**				
			Tipper 10 t capacity				
			Haulage with load	hour	1.00	1183.00	1183.00
			Empty return trip	hour	0.67	1183.00	792.61
		b)	Overheads @ 12%				**237.07**
		c)	Contractor's profit @ 10% on (a+b)				**221.27**
			Cost for 100 t-km = a+b+c				2433.95
			Rate per cum = (a+b+c) /100				**24.34**
			Rate Per Km.	**Cum**			**24.30**
			Haulage BY TRUCK				
4	1.10	(i)	**Haulage excluding Loading & Unloading**				
			Haulage of materials by tipper excluding cost of loading, unloading and stacking.				

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount
			Unit = t.km				
			Taking output 10 t load and lead 10 km = 100 t.km				
			Case-I : Surfaced Road				
			Speed with load: 25 km per hour				
			Speed while returning empty: 35 km per hour				
		a)	**Machinery**				
			Truck 10 t capacity				
			Haulage with load	hour	0.40	934.30	
			Empty return trip	hour	0.29	934.30	3
		b)	Overheads @ 12%				2
		c)	Contractor's profit @ 10% on (a+b)				
			Cost for 100 t-km = a+b+c				
			Rate per cum = (a+b+c) /100				7
			Rate Per Km.	**Cum**			
5	1.10	(ii)	**Haulage excluding Loading & Unloading**				
			Haulage of materials by tipper excluding cost of loading, unloading and stacking.				
			Unit = t.km				
			Taking output 10 t load and lead 10 km = 100 t.km				
			Case-II: Unsurfaced Gravel Road.				
			Speed with load: 20 km/hour				
			Speed for empty return trip: 30 km/hour				
		a)	**Machinery**				
			Truck 10 t capacity				
			Haulage with load	hour	0.50	934.30	4
			Empty return trip	hour	0.33	934.30	3
		b)	Overheads @ 12%				
		c)	Contractor's profit @ 10% on (a+b)				
			Cost for 100 t-km = a+b+c				
			Rate per cum = (a+b+c) /100				9
			Rate Per Km.	**Cum**			
6	1.10	(iii)	**Haulage excluding Loading & Unloading**				
			Haulage of materials by tipper excluding cost of loading, unloading and stacking.				
			Unit = t.km				
			Taking output 10 t load and lead 10 km = 100 t.km				
			Case-III : Katcha Track and Track in River Bed/Nallah Bed and Choe Bed.				
			Speed with load: 10 km per hour				
			Speed while returning empty: 15 km per hour				
		a)	**Machinery**				
			Truck 10 t capacity				
			Haulage with load				
			Empty return trip	hour	1.00	934.30	9
		b)	Overheads @ 12%	hour	0.67	934.30	6
		c)	Contractor's profit @ 10% on (a+b)				1
			Cost for 100 t-km = a+b+c				1
			Rate per cum = (a+b+c) /100				19
			Rate Per Km.	**Cum**			1
7	1.10	RCD	Loading and Unloading of Stone Boulder/Stone aggregates/Sand/Kanker/Moorum.				
			Placing tipper at loading point, loading with front end loader, dumping, turning for return trip, excluding time for haulage and				
			Unit = cum				
			Taking output = 5.5 cum				
			Time required for				
			i) Positioning of tipper at loading point				
			ii) Loading by front end loader 1 cum bucket capacity @ 25 cum per hour		1 Min		
			iii) Maneuvering, reversing, dumping and turning for return		13 Min		
			iv) Waiting time, unforeseen contingencies etc				
			Total		2 Min		
			a) Machinery		4 Min		
			Tipper 5.5 tonnes capacity		**20 Min**		
			Front end-loader 1 cum bucket capacity @ 25 cum/hour	hour	0.33	1183.00	3
			Overheads @ 12%	hour	0.33	1403.00	4
							1

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
			c) Contractor's profit @ 10% on (a+b)				95.58
			Cost for 5.5 cum = a+b+c				1051.36
			Rate per cum = (a+b+c)/ 5.5				191.16
			Unloading will be by tipping.			*say*	***191.20***
8	1.20	RCD	**Loading and Unloading of Boulders by Manual Means**				
			Unit = cum				
			Taking output = 5.5 cum				
			a) Labour				
			Mate	day	0.11	321.00	35.31
			Mazdoor for loading and unloading	day	0.75	304.00	228.00
			b) Machinery				
			Tipper 5.5 tonne capacity	hour	0.75	1183.00	887.25
			Overheads @ 12%				138.07
			d) Contractor's profit @ 10% on (a+b+c)				128.86
			Cost for5.5 cum = a+b+c+d				1417.49
			Rate per cum = (a+b+c+d)/5.5				257.73
			Unloading will be by tipping.			*say*	***257.75***
9	1.30	RCD	**Loading and Unloading of Cement or Steel by Manual Means and**				
			Unit = tonne				
			Taking output = 10 tonnes				
			a) Labour				
			Mate	day	0.08	321.00	25.68
			Mazdoor for loading and unloading	day	2.00	304.00	608.00
			b) Machinery				
			Truck 10 tonne capacity	hour	2.00	934.30	1868.60
			Overheads @ 12%				300.27
			d) Contractor's profit @ 10% on (a+b+c)				280.26
			Cost for10 tonnes = a+b+c+d				3082.81
			Rate per tonnes = (a+b+c+d)/10				308.28
						say	***308.30***
10	1.1	(i)	Loading of Lime, Aggregate, Stone Boulder, Brick Aggregate, Kankar, Building Rubbish, Crushed Slag, Stone for Masonry Work by manual means including a lead upto 30 m				
			Unit = cum				
			Taking output = 5.5 cum				
		a)	**Labour**				
			Mate	day	0.02	321.00	6.42
			Mazdoor (Unskilled)	day	0.50	304.00	152.00
		b)	**Machinery**				
			Truck	hour	0.50	934.30	467.15
		c)	Overheads @ 12%				**75.07**
		d)	Contractor's profit @ 10% on (a+b+c)				**70.06**
			Cost for 5.5 cum = a+b+c+d				770.70
			Rate per cum = (a+b+c+d) /5.5				**140.13**
			Total Cost	**Cum**			**140.13**
11		(ii)	Loading of Earth, Sand, Moorum, Manure, Flyash by manual means including a lead upto 30 m.				
			Unit = cum				
			Taking output = 5.5 cum				
		a)	**Labour**				
			Mate	day	0.01	321.00	3.21
			Mazdoor (Unskilled)	day	0.25	304.00	76.00
		b)	**Machinery**				
			Truck	hour	0.25	934.30	233.58
		c)	Overheads @ 12%				**37.53**
		d)	Contractor's profit @ 10% on (a+b+c)				**35.03**
			Cost for 5.5 cum = a+b+c+d				385.35
			Rate per cum = (a+b+c+d) /5.5				**70.06**
			Total Cost	**Cum**			**70.06**
12		(iii)	Unloading of Lime, Aggregate, Stone Boulder, Brick Aggregate, Kankar, Building Rubbish, Crushed Slag, Stone for Masonry Work by mechanical means including a lead upto 30 m				
			Unit = cum				
			Taking output = 5.5 cum				
		a)	**Labour**	day	0.01	321.00	3.21
			Mate				

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount
			Mazdoor (Unskilled)	day	0.25	304.00	
		b)	**Machinery**	hour	0.25	934.30	
			Truck				
		c)	Overheads @ 12%				
		d)	Contractor's profit @ 10% on (a+b+c)				
			Cost for 5.5 cum = a+b+c+d				
			Rate per cum = (a+b+c+d) /5.5				
			Total Cost	**Cum**			
			Total Loding & Unloading of Stone Aggregate	***Cum***		***= 140.13 + 70.06 =***	
13		(iv)	Unloading of Earth, Sand, Moorum, Manure, Flyash by manual means including a lead upto 30 m.				
			Unit = cum				
			Taking output = 5.5 cum				
		a)	**Labour**				
			Mate	day	0.01	321.00	
			Mazdoor (Unskilled)	day	0.13	304.00	
		b)	**Machinery**				
			Truck	hour	0.17	934.30	
		c)	Overheads @ 12%				
		d)	Contractor's profit @ 10% on (a+b+c)				
			Cost for 5.5 cum = a+b+c+d				
			Rate per cum = (a+b+c+d) /5.5				
			Total Cost	**Cum**			
			Total Loding & Unloading of Sand / Moorum	***Cum***		***= 70.06 + 43.61 =***	
14	1.3		**Loading, Unloading and Stacking of Bricks by Manual Means**				
		(i)	Loading of Bricks by manual means including a lead upto 30 m				
			Unit = 1000 Nos.				
			Taking output = 2000 Nos.				
		a)	**Labour**				
			Mate				
			Mazdoor (Unskilled)	day	0.01	321.00	
		b)	**Machinery**	day	0.25	304.00	
			Truck				
		c)	Overheads @ 12%	hour	0.33	934.30	
		d)	Contractor's profit @ 10% on (a+b+c)				
			Cost for 2000 Nos. = a+b+c+d				
			Rate for 1000 bricks = (a+b+c+d)/2				
			Total Cost	**no.**			
15		(ii)	Unloading and Stacking of Bricks by manual means including a lead upto 30 m				
			Unit = 1000 Nos.				
			Taking output = 2000 Nos.				
		a)	**Labour**				
			Mate				
			Mazdoor (Unskilled)	day	0.01	321.00	
		b)	**Machinery**	day	0.25	304.00	
			Truck				
		c)	Overheads @ 12%	hour	0.33	934.30	
		d)	Contractor's profit @ 10% on (a+b+c)				
			Cost for 2000 Nos. = a+b+c+d				
			Rate for 1000 bricks = (a+b+c+d)/2				
			Total Cost	**no.**			
16			***Total Loding & Unloading of Brick Per 1000***			***= 238.72 + 238.72 =***	
		(i)	**Loading and Unloading of Cement by Manual Means**				
			Loading of Cement by manual means including a lead upto 30 m				
			Unit = t				
			Taking output = 10 t				
		a)	**Labour**				
			Mate				
			Mazdoor (Unskilled)	day	0.06	321.00	
				day	1.50	304.00	

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
		b)	**Machinery**				
			Truck	hour	1.00	934.30	934.30
		c)	Overheads @ 12%				**169.15**
		d)	Contractor's profit @ 10% on (a+b+c)				**157.87**
			Cost for 10 t = a+b+c+d				1736.58
			Rate per tonnes = (a+b+c+d)/10				**173.66**
17		(ii)	**Total Cost including** Unloading of Cement by manual means including a lead upto 30 m	t			**173.66**
			Unit = t				
			Taking output = 10 t				
		a)	**Labour**				
			Mate				
			Mazdoor (Unskilled)	day	0.06	321.00	19.26
		b)	**Machinery**	day	1.50	304.00	456.00
			Truck				
		c)	Overheads @ 12%	hour	1.00	934.30	934.30
		d)	Contractor's profit @ 10% on (a+b+c)				**169.15**
			Cost for 10 t = a+b+c+d				**157.87**
			Rate per tonne = (a+b+c+d)/10				1736.58
							173.66
			Total Cost	t			**173.66**
18	1.5		***Total Loding & Unloading of Cement***	*t*		*= 173.66 + 173.66 =*	*347.32*
			Loading and Unloading of Structural Steel and Steel Bars by manual means				
		(i)	Loading of Structural Steel, Steel Bars by manual means including a lead upto 30 m				
			Unit = t				
			Taking output = 10 t				
		a)	**Labour**				
			Mate				
			Mazdoor (Unskilled)	day	0.07	321.00	22.47
		b)	**Machinery**	day	1.80	304.00	547.20
			Truck				
		c)	Overheads @ 12%	hour	1.00	934.30	934.30
		d)	Contractor's profit @ 10% on (a+b+c)				**180.48**
			Cost for 10 t = a+b+c+d				**168.44**
			Rate per tonnes = (a+b+c+d)/10				1852.89
							185.29
			Total Cost	t			**185.29**
19		(ii)	Unloading of Structural Steel, Steel Bars by manual means including a lead upto 30 m				
			Unit = t				
			Taking output = 10 t				
		a)	**Labour**				
			Mate	day	0.07	321.00	22.47
			Mazdoor (Unskilled)	day	1.80	304.00	547.20
		b)	**Machinery**				
			Truck	hour	1.00	934.30	934.30
		c)	Overheads @ 12%				**180.48**
		d)	Contractor's profit @ 10% on (a+b+c)				**168.44**
			Cost for 10 t = a+b+c+d				1852.89
			Rate per t = (a+b+c+d)/10				**185.29**
			Total Cost	t			**185.29**
			Total Loding & Unloading of Steel	*t*		*= 185.29 + 185.29 =*	*370.58*
20	1.6		**Loading and Unloading of Bitumen Drums by Manual Means**				
		(i)	Loading of Bitumen Drums by manual means including a lead upto 30 m				
			Unit = t				
			Taking output = 10 t				
		a)	**Labour**	day	0.06	321.00	19.26
			Mate	day	1.60	304.00	486.40
			Mazdoor (Unskilled)				
		b)	**Machinery**	hour	1.25	934.30	1167.88
			Truck				**200.82**
		c)	Overheads @ 12%				**187.44**
		d)	Contractor's profit @ 10% on (a+b+c)				2061.80
			Cost for 10 t = a+b+c+d				

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount
			Rate per tonnes = (a+b+c+d)/10 **Total Cost**	t			
21		(ii)	Unloading of Bitumen Drums by Manual Means including a lead upto 30 m				
			Unit = t				
			Taking output = 10 t				
		a)	**Labour**				
			Mate	day	0.05	321.00	
			Mazdoor (Unskilled)	day	1.20	304.00	
		b)	**Machinery**				
			Truck	hour	1.25	934.30	
		c)	Overheads @ 12%				
		d)	Contractor's profit @ 10% on (a+b+c)				
			Cost for 10 t = a+b+c+d				
			Rate per t = (a+b+c+d)/10				
		Note :-	The rate is inclusive of the self weight of drum				
			Total Cost	t			
			Total Loding & Unloading of Bitumen Drums	*t*		*= 206.18 + 190.8 =*	
22	1.9		**Loading and Unloading of Hume Pipes**				
		(i)	Loading of RCC Hume pipes by mechanical means including a lead upto 30 m				
		A.	**1000 / 1200 mm dia Hume pipe**				
			Unit = per pipe				
			Taking output = 9 pipes				
		a)	**Labour**				
			Mate	day	0.02	321.00	
			Mazdoor (Unskilled)	day	0.50	304.00	
		b)	**Machinery**				
			Truck	hour	0.33	934.30	
			Crane	hour	0.33	909.00	
		c)	Overheads @ 12%				
		d)	Contractor's profit @ 10% on (a+b+c)				
			Cost for 9 pipes = a+b+c+d				
			Rate per pipe = (a+b+c+d)/9				
			Total Cost	per p			
23		C.	**600/450 mm dia Hume pipe**				
			Unit = per pipe				
			Taking output = 21 pipe				
		a)	**Labour**				
			Mate				
			Mazdoor (Unskilled)	day	0.02	321.00	
		b)	**Machinery**	day	0.50	304.00	
			Truck				
			Crane	hour	0.33	934.30	
		c)	Overheads @ 12%	hour	0.33	909.00	
		d)	Contractor's profit @ 10% on (a+b+c)				
			Cost for 21 pipes = a+b+c+d				
			Rate per pipe = (a+b+c+d)/21				
			Total Cost	per p			
24		(ii)	Unloading of RCC Hume pipe by mechanical means including a lead upto 30 m				
		A.	**1000/1200 mm dia RCC Hume pipes**				
			Unit = per pipe				
			Taking output = 9 pipes				
		a)	**Labour**				
			Mate				
			Mazdoor (Unskilled)	day	0.02	321.00	
		b)	**Machinery**	day	0.50	304.00	
			Truck				
			Crane	hour	0.20	934.30	
		c)	Overheads @ 12%	hour	0.20	909.00	
		d)	Contractor's profit @ 10% on (a+b+c)				
			Cost for 9 pipes = a+b+c+d				
			Rate per pipe = (a+b+c+d)/9				
			Total Loding & Unloading of RCC Hume Pipe **Total Cost**	per p			
			Total Loding & Unloading of RCC Hume Pipe	*per Pipe*		*= 104.95 + 72.15 =*	

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
25		C.	**600/450 mm dia Hume pipe**				
			Unit = per pipe				
			Taking output = 21 pipes				
		a)	**Labour**				
			Mate				
			Mazdoor (Unskilled)	day	0.02	321.00	6.42
		b)	**Machinery**	day	0.50	304.00	152.00
			Truck				
			Crane	hour	0.20	934.30	186.86
		c)	Overheads @ 12%	hour	0.20	909.00	181.80
		d)	Contractor's profit @ 10% on (a+b+c)				**63.25**
			Cost for 21 pipes = a+b+c+d				**59.03**
			Rate per pipe = (a+b+c+d)/21				649.36
							30.92
			Total Cost	**per p**			**30.92**
			Total Loding & Unloading of RCC Hume Pipe	***per Pipe***	***= 44.98 + 30.92 =***		***75.90***
			Total Loding & Unloading of RCC Hume Pipe	***m***	***= 75.9 / 2.50 =***		***30.36***
26	1.16	100	**Setting Out Pillars**				
			Unit = 1 No.				
			Analysis of rates per pillar shall account for following :				
			Typical Benchmark 1 no. as per Dwg no. 200.1				
			of MORD Data Book (Page 1-18)				
			The rate analysis for a typical benchmark as per dwg.				
			1. Excavation	cum	0.33	334.58	108.74
			2. P.C.C. grade M 10	cum	0.10	5942.23	594.22
			3. Brick Masonry in CM 1:4	cum	0.48	5938.84	2820.95
			4. Plastering with CM 1:4 , 15 mm thick cement plaster on Brick work.	sqm	2.63	186.79	491.26
			Add 5 per cent cost of items No.1 to 4 for white washing,				200.76
			Sub Total	NO			**4215.93**
			A Total 6 Nos. of Pillars required for 1 Km.	**NO**	**6.00**	**4215.93**	**25295.58**
27	1.16	100	**Setting Out Pillars**				
			Unit = 1 No.				
			Analysis of rates per pillar shall account for following :				
			Reference Pillar 1 no. as per Dwg no. 200.2				
			of MORD Data Book (Page 1-18)				
			The rate analysis for a typical benchmark as per dwg.				
			1. Excavation	cum	0.192	334.58	64.24
			2. P.C.C. grade M 10	cum	0.060	5942.23	356.53
			3. Brick Masonry in CM 1:4	cum	0.193	5938.84	1146.20
			4. Plastering with CM 1:4 , 15 mm thick cement plaster on Brick work.	sqm	1.50	186.79	280.19
			Add 5 per cent cost of items No.1 to 4 for white washing,				92.36
			Sub Total	NO			**1939.51**
			B Total 2 Nos. of reference pillars required for 1 Km.	**NO**	**2.00**	**1939.51**	**3879.02**
			Cost of Setting out	**Km**	**A + B**		**29174.60**
			Total Cost	***Km***			***29174.60***
26	OLD SOR		**Providing brick bats including spreading laying hand packing and compacting with C.I. Hammer in layers not exceeding 75 mm thick including cost of light barriers, danger signals,chowkidar,taxes,royality etc.all complete job as per specification and direction of E/I including carriage cost of bricks.**				
	8.1.3.2 (iii)		**Unit = cum**				
			Assuming- 2.832 Cum				
		a)	**Labour (Unskilled)**				
			i) Carrying,spreading,laying & Packing	**nos**	**1.50**	**304.00**	**456.00**
			ii) Compaction brick bats with C.I. Hammer.	**nos**	**0.67**	**304.00**	**203.68**
			iii) Brick Bat	**Cum**	**2.83**	**1063.00**	**3010.42**
			iv) Local Sand	**Cum**	**0.63**	**141.85**	**89.65**
			Over Heads @ 12 % on (a+b+c)				**451.17**
			C. Profit @ 10 % on (a+b+c+d)				**421.09**
		d)	**Cost for 2.832 cum = a+b+c+d**				**4632.01**
		e)	**Rate Per cum=(a+b+c+d)/2.832**	**cum**			**1635.60**
			CARRIAGE Load Sand 0.22 m³ @ 177.94				28 %
			Carriage for Brick (1 cum Bats = 300 nos Bricks)	**nos**	**0.300**	**776.64**	**233.10**
			Rate per cum with carriage				**1868.70**
			Total Cost	**CUM**			**1868.70**

1896.72

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount Rs
35	4.10	401	**Granular Sub-base with Well Graded Material (Table 400.1)**				
			(By mix in place method) For Grading II Material				
			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.				
		(ii)	**For Grading II Material**				
			Unit = cum				
			Taking output = 300 cum				
		a)	**Labour**	day	0.48	321.00	
			Mate	day	2.00	385.00	154.00
			Mazdoor (Skilled)	day	10.00	304.00	770.00
			Mazdoor (Unskilled)				3040.00
		b)	**Machinery**	hour	12.00	573.20	
			Tractar mounted grader arrangement for grading @ 100 cum per hou	hour	30.00	803.00	6878.40
			Three wheel 80-100 kN static roller @ 10 cum per hour	hour	12.00	629.00	24090.00
			Tractor with Rotavator 25 cum per hour	hour	5.00	907.00	7548.00
			Water tanker 6 kl capacity				4535.00
		c)	**Material**				
			Well graded granular sub-base material as per Table 400.1	cum	134.40	595.36	80016.38
			26.5 mm to 9.5 mm @ 35 per cent	cum	96.00	506.92	48664.32
			9.5 mm to 2.36 mm @ 25 per cent	cum	153.60	141.85	21788.16
			2.36 mm below @ 40 per cent - Local Sand	kl	30.00	40.00	1200.00
			Water				23842.12
		d)	Overheads @ 12%				22252.65
		e)	Contractor's profit @ 10% on (a+b+c+d)				**244779.13**
			Cost of GSB for 300 cum				
			A) Cost of GSB without carriage per cum	**cum**			815.93
		f)	***CARRIAGE***				
			Carriage for GSB material	Cum	0.768	1670.65	1283.06
			Carriage for material below 2.36 mm (Local Sand)	Cum	0.512	185.01	94.72
			Rate per cum with carriage				**2193.71**
			Total Cost	**CUM**			**2193.71**