

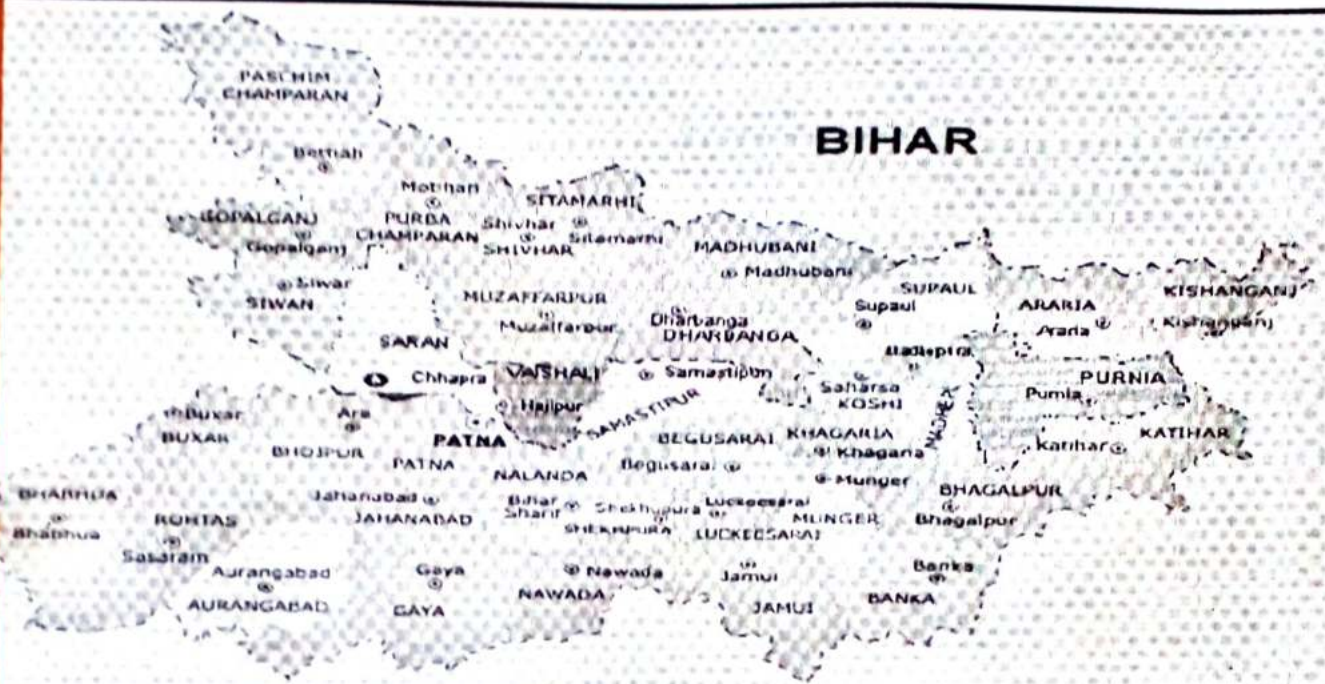


ग्रामीण कार्य विभाग

Rural Works Department, Govt of Bihar

2021-22

FLOOD DAMAGED REPORT



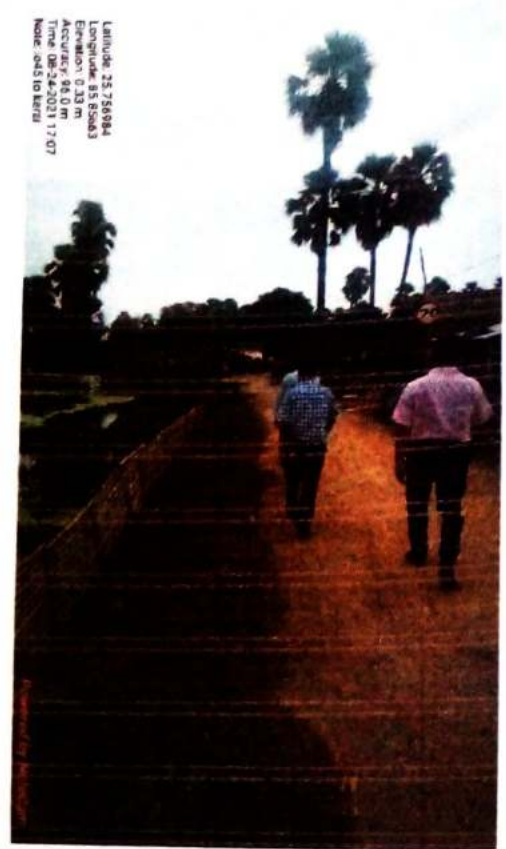
L043 to Keri

DISTRICT	:-	Samastipur	
DIVISION	:-	Dalsingh Sarai	
BLOCK	:-	Bibhutipur	
TOTAL LENGTH OF ROAD	:-	3.85	KM
TOTAL COST OF PROJECT	:-	11.45	Lac

Site Photograph

of Road:- L043to Keri
Bibhutipur

Dist- Samastipur



28/01/21

28/01/21

FDR
YEAR (2021-2022)
GENERAL ABSTRACT OF COST

BLOCK :- BIBHUTIPUR

DISTRICT :- SAMASTIPUR

NAME OF ROAD :- L043 to Keri

S.NO	ITEM OF WORK						AMOUNT	
A								
	TOTAL COST OF CONSTRUCTION						Rs.	1144676
					SUB TOTAL		Rs.	1144676


28/10/21

Junior Engineer

RWD (W) Section, Bibhutipur


28/10/21

Assistant Engineer

RWD (W) Sub Division,
Bibhutipur

Executive Engineer
RWD, Works Division,
Dalsinghsarai

SUMMARY OF COST ESTIMAT FOR THE PROJECT

NAME OF ROAD :- L043 to Keri

DISTRICT SAMASTIPUR

BLOCK BIBHUTIPUR

S.NO	DESCRIPTION	AMOUNT LAKH
1	BAMBOO WORK	115098.0958
2	BRICK BATS	700762.500
3	SAND FILLED BAGS	127147.320
4	GSB	69979.349
	SUB TOTAL:-	1012987.265
	12% GST on Total Amount:-	121558.472
	1% lab cess	10129.873
	Total Cost (including GST and Labour Cess	1144675.609



Junior Engineer



Assistant Engineer

Executive Engineer

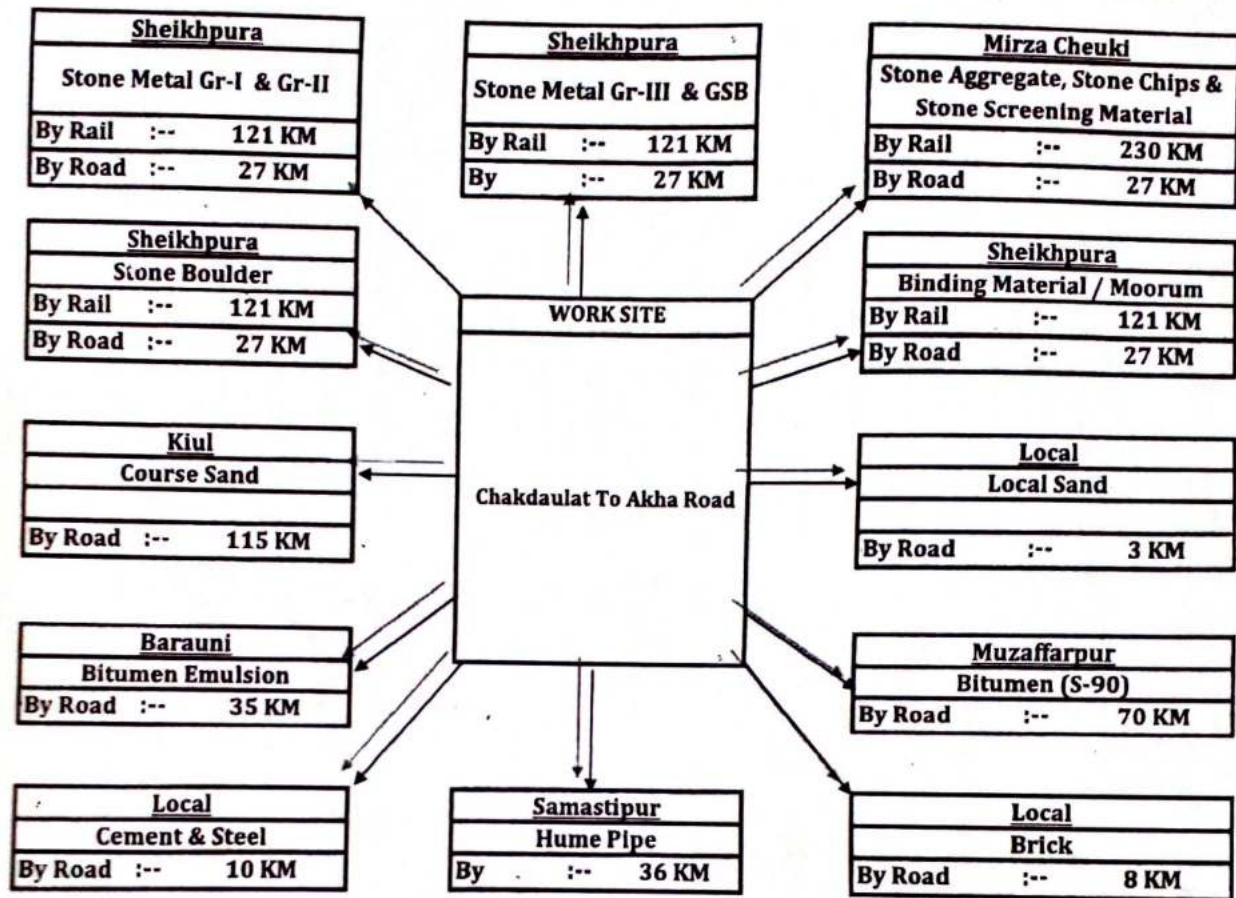
SL.NO	SDB SL.NO	MORD Ref. No	Description	Unit					Quantity	Rate	Amount
1			Supply for Bamboo								
		A	Vertical Bamboo								
			Runners			161.0	x	4	644.00		
						75	x	3	225.00		
									869.00	28.4	24679.6
			Chachari			869	/	6	144.83		
								No	144.83		
						75	x	3	225.00		
						225	/	1,413	159.24		
								No	159.24		
								Total	304.07		
2	5.7.7		Bamboo Piles						319.27	141	45017.41576
			Labour for cutting 62mm to 75mm dia bamboo piles to size and making shoes and driving etc complete job as per specification and direction of E/L								
			Vertical Bamboo	1	x	161.0	x	4,000	644.00		
3	5.7.8		Bamboo waven Chachari						644.00	34.82	22424.08
			Labour for fitting and fixing split bamboo woven chachari in position with 20 swg G.I. wire to 75 mm to 100 mm long nails complete job as per specification and direction of E/L	Sqm	75	x	3		225		
4	5.7.9		Bamboo Runner						225.00	96.37	21683.25
			Labour for fitting and fixing 62mm to 75mm dia bamboo runner in position at every vertical pile with 150 mm long nails or 38 swg G.I wire on nails complete job as per specification and direction of E/L		75	x	3		225		
									225.00	5.75	1293.75

Figure -3

Quarry Map

Name of Road :-- L043 to Keri
Block :-- Bibhutipur
District :-- Samastipur

Length of the Road:- 3.85 KM



* Subjected to Verification of Lead

[Signature]
J.E.

[Signature]
A.E.

E.E.

S.E.

SI No	Item with Source	Unit	Source Up to	Carriage Cost & Lead in Km		Carriage Cost by Rail Head	Total ₹	Total ₹ Minimum
				Pucka / Surface	Katcha	Loading & Unloading Cost		
1	Stone Metal Gr-I & Gr-II (Sheikhpura by Rail 121 Km)	Cum	Sheikhpura	8.00 x 10.10 x 38.00 Km = Rs 668.93	8.00 x 24.30 x 0.00 Km = Rs 0.00	105.12	Rs. 1799.92	Rs. 1799.92
	Stone Metal Gr-I & Gr-II	Cum	Sheikhpura	8.00 x 7.94 x 137.00 Km = Rs 1895.91	8.00 x 19.22 x 0.00 Km = Rs 0.00	210.19	Rs. 2106.10	
2	Stone Metal Gr-III (Sheikhpura by Rail 121 Km)	Cum	Sheikhpura	8.00 x 10.10 x 38.00 Km = Rs 615.31	8.00 x 24.30 x 0.00 Km = Rs 0.00	105.12	Rs. 1848.77	Rs. 1848.77
	Stone Metal Gr-III	Cum	Sheikhpura	8.00 x 7.94 x 137.00 Km = Rs 1743.94	8.00 x 19.22 x 0.00 Km = Rs 0.00	210.19	Rs. 3082.47	Rs. 3082.47
3	Stone Aggregate / Chips (Mirza Chowki by Rail 230 Km)	Cum	Sheikhpura	8.00 x 10.10 x 38.00 Km = Rs 615.31	8.00 x 24.30 x 0.00 Km = Rs 0.00	105.12	Rs. 2308.58	Rs. 2308.58
	Stone Aggregate / Chips	Cum	Sheikhpura	8.00 x 7.94 x 137.00 Km = Rs 1743.94	8.00 x 19.22 x 0.00 Km = Rs 0.00	210.19	Rs. 3542.28	Rs. 3542.28
4	Stone Boulder (Sheikhpura by Rail 121 Km)	Cum	Sheikhpura	8.00 x 10.10 x 38.00 Km = Rs 639.67	8.00 x 24.30 x 0.00 Km = Rs 0.00	105.12	Rs. 1904.60	Rs. 1904.60
	Stone Boulder	Cum	Sheikhpura	8.00 x 7.94 x 137.00 Km = Rs 1812.97	8.00 x 19.22 x 0.00 Km = Rs 0.00	210.19	Rs. 3182.97	Rs. 3182.97
5	Course Sand	Cum	Kilal	8.00 x 7.94 x 208.00 Km = Rs 2647.73	8.00 x 19.22 x 0.00 Km = Rs 0.00	113.67	Rs. 2761.40	Rs. 2761.40
6	Binding Material/Moorum (Sheikhpura by Rail 121 Km)	Cum	Sheikhpura	8.00 x 10.10 x 38.00 Km = Rs 511.73	8.00 x 24.30 x 0.00 Km = Rs 0.00	113.67	Rs. 1476.89	Rs. 1476.89
	Binding Material/Moorum	Cum	Sheikhpura	8.00 x 7.94 x 137.00 Km = Rs 1450.37	8.00 x 19.22 x 0.00 Km = Rs 0.00	66.31	Rs. 2368.17	Rs. 2368.17
7	Local Sand	Cum	Local	8.00 x 10.10 x 2.00 Km = Rs 32.38	8.00 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 x 7.94 x 7.00 Km = Rs 222.32	8.00 x 19.22 x 1.00 Km = Rs 76.88	477.44	Rs. 776.64	Rs. 776.64
9	Cement	MT	Local	8.00 x 7.94 x 10.00 Km = Rs 79.40	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 x 7.94 x 10.00 Km = Rs 79.40	8.00 x 19.22 x 0.00 Km = Rs 0.00	370.58	Rs. 449.98	Rs. 449.98
11	Bitumen Emulsion	MT	Barauni	8.00 x 7.94 x 82.00 Km = Rs 651.08	8.00 x 19.22 x 0.00 Km = Rs 0.00	396.98	Rs. 1048.06	Rs. 1048.06
12	Bitumen	MT	Muzaffarpur	8.00 x 7.94 x 91.00 Km = Rs 722.54	8.00 x 19.22 x 0.00 Km = Rs 0.00	396.98	Rs. 1119.52	Rs. 1119.52
13	Hume Pipe (1000 mm)	m	Samastipur	8.00 x 7.94 x 36.00 Km = Rs 228.67	8.00 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 x 7.94 x 36.00 Km = Rs 91.47	8.00 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 x 7.94 x 36.00 Km = Rs 38.11	8.00 x 19.22 x 0.00 Km = Rs 0.00	30.36	Rs. 68.47	Rs. 68.47

Cost of Haulage Excluding Loading & Unloading as per SON 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

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AE

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FORM F8

RWD

PWD

RWD

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)

Pucka / Surface		Carriage Cost & Lead in Km		Katcha		Loading & Unloading		Total
$\frac{8.00}{4.80} \times 10.10$	$\times 4.00 \text{ Km}$	= Rs 67.33	+	$\frac{8.00}{4.80} \times 24.30$	$\times 0.00 \text{ Km}$	= Rs 0.00	+	Rs 105.12 =
UnSurface		$\frac{8.00}{4.80} \times 12.10$	$\times 1.00 \text{ Km}$					Rs 20.17
Loading & Unloading Cost by manual								Rs 210.19
								Total = Rs 402.81
Less for O.H & C.P.								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

Rail Freight = 1.667 x Rs 357.57 = Rs 595.94

Carriage Cost for Railway freight charge 'A' = 'B'

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)

Pucka / Surface		Carriage Cost & Lead in Km		Katcha		Loading & Unloading		Total
$\frac{8.00}{6.00} \times 10.10$	$\times 4.00 \text{ Km}$	= Rs 53.87	+	$\frac{8.00}{6.00} \times 24.30$	$\times 0.00 \text{ Km}$	= Rs 0.00	+	Rs 66.31 =
UnSurface		$\frac{8.00}{6.00} \times 12.10$	$\times 1.00 \text{ Km}$					Rs 16.13
Loading & Unloading Cost by manual								Rs 113.67
								Total = Rs 249.98
Less for O.H & C.P.								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 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 357.57

Total

For 1 MT

Rail Freight = 1.333 x Rs 357.57 = For 1 MT = Rs 476.77

Gross cost for Railway freight = Rs 476.77

Add 12% Overhead Charge = 12% = Rs 57.41

Add 10% Contractor Profit = 10% = Rs 57.41

Gross cost from Queen to Karpurigram Railway Yard For 1 Cum = Rs 115.18

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD R. No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs.
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 Empty return trip 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	hour hour	0.40 0.29	1183.00 1183.00	473.20 343.07 97.98 91.42 1005.64 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 Empty return trip 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	hour hour	0.50 0.33	1183.00 1183.00	591.50 390.39 117.83 109.97 1209.69 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 Empty return trip 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	hour hour	1.00 0.67	1183.00 1183.00	1183.00 792.61 237.07 221.27 2433.95 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 Empty return trip 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	hour hour	0.40 0.29	934.30 934.30	373 270 77 72 794 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 Empty return trip 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	hour hour	0.50 0.33	934.30 934.30	467 308 93 86 955 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 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	hour hour	1.00 0.67	934.30 934.30	934 625 187 174 1922 19
			Rate Per Km.	Cum			
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 iii) Maneuvering, reversing, dumping and turning for return iv) Waiting time, unforeseen contingencies etc Total a) Machinery Tipper 5.5 tonnes capacity Front end-loader 1 cum bucket capacity @ 25 cum/hour Overheads @ 12%	hour hour	1 Min 13 Min 2 Min 4 Min 20 Min	1183.00 1403.00	39 46 10

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref. No.	DESCRIPTION	Unit	Quantity	Rate	Rs
			c) Contractor's profit @ 10% on (a+b) Cost for 5.5 cum = a+b+c Rate per cum = (a+b+c) / 5.5				95.58 1051.36 191.16
8	1.20	RCD	Unloading will be by tipping. Loading and Unloading of Boulders by Manual Means Unit = cum Taking output = 5.5 cum a) Labour Mate Mazdoor for loading and unloading b) Machinery Tipper 5.5 tonne capacity 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	day day hour	0.11 0.75 0.75	321.00 304.00 1183.00	35.31 228.00 887.25 138.07 128.86 1417.49 257.73
			Unloading will be by tipping.			say	191.20
9	1.30	RCD	Loading and Unloading of Cement or Steel by Manual Means and Unit = tonne Taking output = 10 tonnes a) Labour Mate Mazdoor for loading and unloading b) Machinery Truck 10 tonne capacity Overheads @ 12% d) Contractor's profit @ 10% on (a+b+c) Cost for 10 tonnes = a+b+c+d Rate per tonnes = (a+b+c+d) / 10	day day hour	0.08 2.00 2.00	321.00 304.00 934.30	25.68 608.00 1868.60 300.27 280.26 3082.81 308.28
			Unloading will be by tipping.			say	257.75
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 Mazdoor (Unskilled) b) Machinery 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	day day hour	0.02 0.50 0.50	321.00 304.00 934.30	6.42 152.00 467.15 75.07 70.06 770.70 140.13
			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 Mazdoor (Unskilled) b) Machinery 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	day day hour	0.01 0.25 0.25	321.00 304.00 934.30	3.21 76.00 233.58 37.53 35.03 385.35 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 Mate	day	0.01	321.00	3.21

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD R. No.	DESCRIPTION	Unit	Quantity	Rate	Amount
		b)	Mazdoor (Unskilled)	day	0.25	304.00	76.00
		b)	Machinery	hour	0.25	934.30	233.58
		c)	Truck				37.50
		c)	Overheads @ 12%				35.00
		d)	Contractor's profit @ 10% on (a+b+c)				385.30
			Cost for 5.5 cum = a+b+c+d				70.06
			Rate per cum = (a+b+c+d) / 5.5				70.06
			Total Cost	Cum			70.06
			Total Loading & Unloading of Stone Aggregate	Cum		= 140.13 + 70.06 =	210.19
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	1.61
			Mazdoor (Unskilled)	day	0.13	304.00	38.00
		b)	Machinery				
			Truck	hour	0.17	934.30	155.00
		c)	Overheads @ 12%				23.34
		d)	Contractor's profit @ 10% on (a+b+c)				21.81
			Cost for 5.5 cum = a+b+c+d				239.87
			Rate per cum = (a+b+c+d) / 5.5				43.61
			Total Cost	Cum			43.61
			Total Loading & Unloading of Sand / Moorum	Cum		= 70.06 + 43.61 =	113.67
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	day	0.01	321.00	3.21
			Mazdoor (Unskilled)	day	0.25	304.00	76.00
		b)	Machinery				
			Truck	hour	0.33	934.30	308.30
		c)	Overheads @ 12%				46.50
		d)	Contractor's profit @ 10% on (a+b+c)				43.40
			Cost for 2000 Nos. = a+b+c+d				477.40
			Rate for 1000 bricks = (a+b+c+d)/2				238.70
			Total Cost	no.			238.70
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	day	0.01	321.00	3.21
			Mazdoor (Unskilled)	day	0.25	304.00	76.00
		b)	Machinery				
			Truck	hour	0.33	934.30	308.30
		c)	Overheads @ 12%				46.50
		d)	Contractor's profit @ 10% on (a+b+c)				43.40
			Cost for 2000 Nos. = a+b+c+d				477.40
			Rate for 1000 bricks = (a+b+c+d)/2				238.70
			Total Cost	no.			238.70
			Total Loading & Unloading of Brick Per 1000			= 238.72 + 238.72 =	477.44
16		(i)	Loading and Unloading of Cement by Manual Means Unit = t Taking output = 10 t				
		a)	Labour				
			Mate	day	0.06	321.00	19.26
			Mazdoor (Unskilled)	day	1.50	304.00	456.00

Analysis of Rates (FORMAT F8)

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

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				206.18
			Total Cost	t			206.18
21		(II)	Unloading of Bitumen Drums by Manual Means including a lead upto 30 m Unit = t Taking output = 10 t				
		a)	Labour	day	0.05	321.00	16.05
			Mate	day	1.20	304.00	364.80
		b)	Machinery	hour	1.25	934.30	1167.88
			Truck				
		c)	Overheads @ 12%				185.85
		d)	Contractor's profit @ 10% on (a+b+c)				173.46
			Cost for 10 t = a+b+c+d				1908.03
			Rate per t = (a+b+c+d)/10				190.80
		Note :-	The rate is inclusive of the self weight of drum				
			Total Cost	t			190.80
			Total Loading & Unloading of Bitumen Drums	t		= 206.18 + 190.8 =	396.98
22	1.9	(I)	Loading and Unloading of Hume Pipes				
		A.	Loading of RCC Hume pipes by mechanical means including a lead upto 30 m 1000 / 1200 mm dia Hume pipe Unit = per pipe Taking output = 9 pipes				
		a)	Labour	day	0.02	321.00	6.42
			Mate	day	0.50	304.00	152.00
		b)	Machinery	hour	0.33	934.30	308.31
			Truck	hour	0.33	909.00	299.97
		c)	Overheads @ 12%				92.00
		d)	Contractor's profit @ 10% on (a+b+c)				85.81
			Cost for 9 pipes = a+b+c+d				944.50
			Rate per pipe = (a+b+c+d)/9				104.94
			Total Cost	per p			104.94
23		C.	600/450 mm dia Hume pipe Unit = per pipe Taking output = 21 pipe				
		a)	Labour	day	0.02	321.00	6.42
			Mate	day	0.50	304.00	152.00
		b)	Machinery	hour	0.33	934.30	308.31
			Truck	hour	0.33	909.00	299.97
		c)	Overheads @ 12%				92.00
		d)	Contractor's profit @ 10% on (a+b+c)				85.81
			Cost for 21 pipes = a+b+c+d				944.50
			Rate per pipe = (a+b+c+d)/21				44.98
			Total Cost	per p			44.98
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	day	0.02	321.00	6.42
			Mate	day	0.50	304.00	152.00
		b)	Machinery	hour	0.20	934.30	186.86
			Truck	hour	0.20	909.00	181.80
		c)	Overheads @ 12%				63.49
		d)	Contractor's profit @ 10% on (a+b+c)				59.80
			Cost for 9 pipes = a+b+c+d				649.37
			Rate per pipe = (a+b+c+d)/9				72.15
			Total Cost	per p			72.15
			Total Loading & Unloading of RCC Hume Pipe	per Pipe		= 104.95 + 72.15 =	177.10

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	day	0.02	321.00	6.42
			Mazdoor (Unskilled)	day	0.50	304.00	152.00
		b)	Machinery				
			Truck	hour	0.20	934.30	186.86
			Crane	hour	0.20	909.00	181.80
		c)	Overheads @ 12%				63.25
		d)	Contractor's profit @ 10% on (a+b+c)				59.03
			Cost for 21 pipes = a+b+c+d				649.36
			Rate per pipe = (a+b+c+d)/21				30.92
			Total Cost per p				30.92
			Total Loading & Unloading of RCC Hume Pipe per Pipe = 44.98 + 30.92 =				75.90
			Total Loading & 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	6681.46	668.15
			3. Brick Masonry in CM 1:4	cum	0.48	6237.17	2962.66
			4. Plastering with CM 1:4, 15 mm thick cement plaster on Brick work.	sqm	2.63	216.63	569.74
			Add 5 per cent cost of items No.1 to 4 for white washing.				215.46
			Sub Total	NO			4524.74
		A	Total 6 Nos. of Pillars required for 1 Km.	NO	6.00	4524.74	27148.44
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	6681.46	400.89
			3. Brick Masonry in CM 1:4	cum	0.193	6237.17	1203.77
			4. Plastering with CM 1:4, 15 mm thick cement plaster on Brick work.	sqm	1.50	216.63	324.95
			Add 5 per cent cost of items No.1 to 4 for white washing.				99.69
			Sub Total	NO			2093.54
		B	Total 2 Nos. of reference pillars required for 1 Km.	NO	2.00	2093.54	4187.08
			Cost of Setting out	Km	A + B		31335.52
			Total Cost	Km			31335.52
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, royalty 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				
			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

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref. No.	DESCRIPTION	Unit	Quantity	Rate	Amount
27	5.7.6		Labour for cutting 62 mm to 75 mm dia bamboo piles to size and making shoes and driving etc complete job as per specification and direction of E/L.				
			Unit = Per M Taking Out put = 10 Joint (Assuming 10 Joints)				
		a)	Materials Nut And Bolts 16 mm Dia 225mm Long With Washer etc.	nos	20.00	32.88	657.60
		b)	Laber Carpenter Gril	nos	0.50	408.00	204.00
			Unskilled Mazdoor	nos	0.25	304.00	76.00
		c)	Overheads @ 12%				112.51
		d)	Contractor's profit @ 10% on (a+b+c+d)				105.01
		e)	Rate Per cum = (a+b+c+d)/10	Per M			115.51
			Total Cost	Per M			115.51
28	5.7.7		Labour for cutting 62 mm to 75 mm dia bamboo piles to size and making shoes and driving etc complete job as per specification and direction of E/L.				
			Unit = Per M Taking Out put = 30.50 M (Assuming 20 nos, Pile Sunk 1.525 Mtr Deep)				
		b)	Laber Carpenter Gril	nos	0.25	408.00	102.00
			Unskilled Mazdoor	nos	2.50	304.00	760.00
		c)	Overheads @ 12%				103.44
		d)	Contractor's profit @ 10% on (a+b+c+d)				96.54
		e)	Rate Per cum = (a+b+c+d)/30.5	Per M			34.82
			Total Cost	Per M			34.82
29	5.7.8		Labour for fitting and fixing split bamboo woven chachari in position with 20 swg G.I. wire or 75 mm to 100 mm long nails alternatively including cost of G.I. wire or nails complete job as per specification and direction of E/L.				
			Unit = Per M Taking Out put = 9.30 M (Assuming 20 nos, Pile Sunk 1.525 Mtr Deep)				
		a)	Materials 75 mm To 100 mm Lon Nails	Kg	0.25	61.74	15.44
		b)	Laber Carpenter Gril	nos	1.00	408.00	408.00
			Unskilled Mazdoor	nos	1.00	304.00	304.00
		c)	Overheads @ 12%				87.25
		d)	Contractor's profit @ 10% on (a+b+c+d)				81.47
		e)	Rate Per cum = (a+b+c+d)/9.30	Per M			96.37
			Total Cost	Per M			96.37
30	5.7.9		Labour for fitting and fixing 62 mm to 75 mm dia bamboo runners in position at every vertical pile with 150 mm long nails or 38 swg G.I wire including cost of G.I wire or nails complete job as per specification and direction of E/L.				
			Unit = Per M Taking Out put = 30.50 M				
		a)	Materials 75mm To 100 mm Lon Nails	Kg	0.25	61.74	15.44
		b)	Laber Carpenter Gril	nos	0.125	408.00	51.00
			Unskilled Mazdoor	nos	0.250	304.00	76.00
		c)	Overheads @ 12%				17.0
		d)	Contractor's profit @ 10% on (a+b+c+d)				15.9
		e)	Rate Per cum = (a+b+c+d)/30.5	Per M			5.7
			Total Cost	Per M			5.7

Analysis of Rates (FORMAT F8)

Sl. No.	SDB SL No.	WORD	DESCRIPTION	Unit	Quantity	Rate	R1
25	4.10	401	Granular sub-base with Well Graded Material (Table 401.1) (By site in place method) For Grading II Material Construction of granular sub-base by spreading well graded material, spreading in uniform layers with motor grader on prepared surface, mixing by site in place method with rotavator or DMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Chapter 405. (10) For Grading II Material Unit = cum Taking output = 300 cum				
		a)	Labour				
			Mate	day	5.00	151.00	151.00
			Masdoor (Skilled)	day	5.00	105.00	775.00
			Masdoor (Unskilled)	day	13.00	104.00	1040.00
		b)	Machinery				
			Tractor mounted grader arrangement for grading @ 300 cum per hour	hour	1.20	775.00	927.00
			Three wheel 80-100 kN static roller @ 15 cum per hour	hour	31.00	405.00	12555.00
			Tractor with Rotavator 25 cum per hour	hour	1.20	420.00	750.00
			Water tanker 6 kl capacity	hour	1.00	307.00	307.00
		c)	Material				
			Well graded granular sub-base material as per Table 401.1				
			24.5 mm to 9.5 mm @ 35 per cent	cum	134.40	105.30	14154.00
			9.5 mm to 2.36 mm @ 25 per cent	cum	46.00	104.00	4784.00
			2.36 mm below @ 40 per cent - Local Sand	cum	133.60	141.00	18937.60
			Water	m	10.00	40.00	1200.00
		d)	Overheads @ 12%				23845.12
		e)	Contractor's profit @ 10% on (a+b+c+d)				22353.40
			Cost of GSB for 300 cum				245779.52
			A) Cost of GSB without carriage per cum	cum			819.26
		f)	CARRIAGE				
			Carriage for GSB material	Cum	0.748	1479.45	1107.06
			Carriage for material below 2.36 mm (Local Sand)	Cum	0.512	185.01	94.72
			Rate per cum with carriage				820.04
			Total Cost	CU M			246899.58


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 18