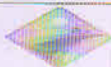




ग्रामीण कार्य विभाग

Rural Works Department, Govt of Bihar



BIHAR RURAL ROAD DEVELOPMENT AGENCY (BRRDA)

F.D.R. PART - A (2021 - 22)

DETAILED ESTIMATE FOR F.D.R. RESTORATION WORK



DISTRICT :	Bhagalpur	BLOCK :	Navgachhiya
NAME OF ROAD :	L036- Khairpur Bazar to Loori Das Tola (VR12)		

TOTAL LENGTH OF ROAD	:	8.034	KM
TOTAL COST OF FDR PART-A	:	2.628	LAKH
	:	2.730	
GST @ 12 %	:	0.316	LAKH
	:	0.328	
LABOUR CESS @ 1 %	:	0.027	LAKH
	:	0.027	
SEIGNIORAGE FEE @ 10 %	:	0.151	LAKH
TOTALCOST OF RESTORATION WORK	:	3.121	LAKH
	:	3.236	

Submitted By :-

Executive Engineer

Rural Work Department
Works Division, Navgachhiya

GENERAL ABSTRACT OF COST

Name of Road :

L036- Khairpur Bazar to Loori Das
Tola (VR12)

District : Bhagalpur

Length (Km) :

8.034

Block : Navgachhiya

Sl. No.	Particulars	Details (Km)	Total Cost (in Rs.)
1	Cost of Road Restoration work	:	262784.00 273,016.00
2	Add G.S.T @ 12 %	:	31584.00 32,762.00
3	Add L.C. @ 1 %	:	2627.84 2,730.00
4	Add 10% S.F. on Basic rate of Mines material	:	31206.20 15,116.00
	Total Cost of Restoration work	:	31206.20 323,624.00
		Say,	323,624.00

312062.00
2,12,100.20

[Signature]
01/11/21
J. E.

[Signature]
01-11-2021
A. E.

[Signature]
01/11/21
E. E.

Technically sanctioned for Rs- 2,12,100.20 (Rupees three lak twelve thousand and one hundred) only.

[Signature]
Superintending Engineer
Rural Works Department
Works Circle, Bhagalpur
01/11/21

ESTIMATE FOR ROAD RESTORATION WORK

1300-Khalrpur Bazar to Loori Das Tola

Block: Navagachhiya

District: Bhagalpur

Length : 0.034 Km

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A. E.

Ref. 11/12/20
E.E.

ANNEXURE - " A "

Brick Bat Measurement

Name of Road : L036- Khairpur Bazar to Looori Das Tola (VR12)

Length (Km) : 8.034

Sr. No.	Chainage (m)	No.	Length (m)	Width (m)	Average Width (m)	Depth (m)	Average Depth (m)	Quantity (Cum)
1	2700 - 2750	1	5.00	4.40	4.40	0.60	0.60	13.20
1		1	5.00	4.60	4.60	0.50	0.50	12.00
2	2800 - 2830	1	4.00	2.70	2.70	0.40	0.40	4.32
2		1	11.00	6.00	6.00	1.20	1.20	79.20
3	4300 - 4320	1	2.00	2.20	2.20	1.10	1.10	4.84
3		1	5.00	1.60	1.60	0.50	0.50	4.00
4	4355 - 4365	1	2.00	1.20	1.20	0.90	0.90	2.16
4		1	1.00	1.00	1.00	1.00	1.00	1.00
5	4430 - 4450	1	10.00	2.00	2.00	0.60	0.60	12.00
5		1	2.00	1.50	1.50	0.70	0.70	2.10
6		1	3.00	1.60	1.60	1.20	1.20	5.76
6		1	2.00	0.90	0.90	0.30	0.30	0.54
							Total =	141.12

S. F.	-	141.12	Cum	@	Rs.	1051.00	x	10%	=	Rs.	14,832.00
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ANNEXURE - "B"

F. C. Bags Measurement

Name of Road : L036- Khairpur Bazar to Leori Das Tola (VR12)

Length (Km) : 8.034

Sr. No.	Chainage (m)	Nos.	Length (m)	Width (m)	Average Width (m)	Depth (m)	Average Depth (m)	Quantity (Cum)	Quantity (No of bag)
1	0 - 9.0 RHS	1	9.00	1.20	1.20	0.70	0.70	7.56	222
2	20 - 26.0 LHS	1	6.00	1.00	1.00	0.30	0.30	1.80	53
3	29 - 32.0 RHS	1	3.00	1.20	1.20	0.20	0.20	1.44	42
4	60 - 80.0 LHS	1	8.50	0.90	0.90	1.00	1.00	7.65	225
5	LHS	1	4.00	0.80	0.80	0.50	0.50	1.60	47
								Total =	589

S. F.	-	589	Nos @	Rs.	4.02	x	10%	=	Rs.	284.00
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Rate Analysis

Sl. No.	DESCRIPTION	Unit	QTY	Rate	Amount in Rs
5.7.6	Providing and Laying of Brick Bats				
	Backer loader at loading point loading with front end loader				
	Charging, dumping for return trip excluding time for haulage and				
	Backer trip				
	Working output = 2.832 cum				
	Labour				
	Bamboos (Unskilled)	day	2.17	292	633.64
	Material				
	Cartage	cum	2.832	1,051.00	2974.33
	Cost for 3.5 cum = a+b+c	cum	2.832	462.80	1190.27
	Rate per cum = (a+b+c)/2.832	cum		475.14	1244.65
	Total per cum	cum			4952.62
	Labour for fitting and fixing 62 mm to 75 mm dia bamboo	cum			1750.04
	poors in position at every vehicle pile with 150 mm long				
	nails or 38 swg G.I. wire including cost of G.I. or nails				
	complete job as per specification and direction of E.I.				1677.59
	Unit = Per mt.				
	Taking Out Put = 30.50 m				
	Materials				
	Cost of 150 mm long nails				
	Labour	Kg	0.59	61.74	30.87
	Carpenter Gr-II	No.	0.125	351	43.88
	Unskilled Labour	No.	0.25	292	73.00
	Rate for 30.5 m				147.75
	Rate for 1 m				147.75
	Bamboo(2nd class) 75mm dia, 1.8 - 2.5m long	m	1.00	23.58	23.58
	Rate per m				23.58
5.7.7	Labour for cutting 62 mm to 75 mm dia bamboo piles in size			Say.	28.43
	and making shoes and driving etc. complete job as per				
	specification and direction E.I.				
	Unit = Per m				
	Taking Out Put = 30.50 m				
	Assuming				
	20 no pile sunk 1.525 m deeps				
	Total depth sunk 30.50 m				
(i)	Labour				
	Carpenter Gr-II	No.	0.25	351	87.75
	Unskilled Labour for piling	No.	2.50	292	730.00
	Rate for 30.5 m				817.75
	Rate for 1 m				817.75
(ii)	Bamboo(2nd class) 75mm dia, 1.8 - 2.5m long	m	1.00	23.58	23.58
	Rate per m				23.58
5.7.8	Labour for fitting and and fixing split bamboo (sawn chuchari)			Say.	50.39
WRD	in position with 20 swg G.I. wire of 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.I.				
	(Assuming strip of 3.05x3.05 = 9.30 sqm				
	Unit = per sqm				
	Taking Out = 9.30 sqm				

a	Labour				
	Carpenter (Skilled)	No.	1.00	351	351.00
b	Machinery				
	Machine (Unskilled) for piling	No.	1.00	292	292.00
c	Materials				
	75 mm to 100 mm long nails	kg	0.25	61.74	15.41
	20mm (2nd class) 75mm dia, 1.8 - 2.5m long	m	11	23.58	259.42
	Rate Per Sqm = (a+b+c)/9.30				917.85
					98.69
d	Labour for filling Cement Bag, swing and laying materials 1:1:4				
	1:1:4 Bag				
e	Supply Empty cement Bag with Sand (2.92-4.82)	No	100	7.74	774.00
	Working Roll (Nylon)	No	2	30.00	60.00
	Total (A)				834.00
f	Unskilled Labour for filling stitching and soiling	No	1.67	292	487.64
	Unskilled Labour for carrying and Placing at work site	No	3	292	876.00
	Skilled Labour for stitching	No	0.33	370	122.10
	Total per bag				1,485.74
g	Charges of Machine				
	Charge of Stitching Machine	No	0.33	50	16.50
	Charge of Generator 3 K.V.A	No	2.67	74	197.58
	Total per bag				214.08
h	Carriage Cost of Local Sand				
	1.2 CB = 0.034 m ³	cum	3.40	157.83	536.62
	Total cost of (A+B+C+D) =	Bag			536.62
	Rate per Bag				3,070.44
					30.70
4.3 Granular Sub-base with Well Graded Material (Table 400.1)					
By mix in place method i) 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 or (MAC), and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification (Clause 40).					
a)	For Grading II Material				
	Unit = cum				
b)	Taking output = 300 cum				
	Labour				
c)	Male	day	0.40	304.00	121.60
	Machine (Skilled)	day	2.00	370.00	740.00
	Machine (Unskilled)	day	8.00	292.00	2336.00
d)	Machinery				
	Tractor mounted grader arrangement for grading @ 100 cum per	hour	12.00	573.20	6878.40
	Three wheel 80-100 kN static roller @ 10 cum per hour	hour	12.00	803.00	9636.00
	Tractor with Rotavator 25 cum per hour	hour	17.00	573.20	6878.40
	Water tanker 6 kl capacity	hour	5.00	384.00	920.00
e)	Material				
	Well graded granular sub-base material as per Table 400.1				
	20.5 mm to 9.5 mm @ 35 per cent	cum	134.40	604.91	81299.90
	9.5 mm to 2.36 mm @ 25 per cent	cum	96.00	582.80	55948.80
	2.36 mm below @ 40 per cent - Local Sand	cum	153.60	514.58	79039.49
	Water	kl	30.00	40.00	1200.00
	Cost of GSB for 300 cum				214998.59
	A) Cost of GSB without carriage per cum	cum			816.66
CARRIAGE					
f)	Carriage for GSB material	Cum	0.768	1187.62	912.09
	Carriage for material below 2.36 mm (Local Sand)	Cum	0.512	1187.62	608.06

Rate per cum with carriage					2336.82
Providing and Laying Reinforced Cement Concrete Pipe NP3 as per design in Single Row					
Providing and laying reinforced cement concrete pipe NP3 for 1st class bedding of granular material in single row including fixing collar with cement mortar 1:2 and including excavation, protection works, backfilling, concrete and masonry works in head walls and parapets Clause 1106.					
1000 MM DIA (Double Row)					
a) Material					
RCC NP3 pipe including collar					
b) Labour					
Male					m
Mason (1st class)					day
Mazdoor (Unskilled)					day
Cost for 7.5m = (a+b+c)					day
A) Basic Cost per m = (a+b+c)/7.5					
CARRIAGE COST					m
NP3 Pipe					
Carriage cost of 7.5 m					m
B) Carriage cost per m					m
Rate per m = (A+B)					
1000 MM DIA (Single Row)					
a) Material					
RCC NP3 pipe including collar					
b) Labour					
Male					m
Mason (1st class)					day
Mazdoor (Unskilled)					day
Cost for 7.5m = (a+b+c)					day
A) Basic Cost per m = (a+b+c)/7.5					
CARRIAGE COST					m
NP3 Pipe					
Carriage cost of 7.5 m					m
B) Carriage cost per m					m
Rate per m = (A+B)					
600 MM DIA (Double Row)					
a) Material					
RCC NP3 pipe including collar					
b) Labour					
Male					m
Mason (1st class)					day
Mazdoor (Unskilled)					day
Cost for 7.5m = (a+b+c)					day
A) Basic Cost per m = (a+b+c)/7.5					
CARRIAGE COST					m
NP3 Pipe					
Carriage cost of 7.5 m					m
B) Carriage cost per m					m
Rate per m = (A+B)					
600 MM DIA (Single Row)					
a) Material					
RCC NP3 pipe including collar					
b) Labour					
Male					m
Mason (1st class)					day
Mazdoor (Unskilled)					day
Cost for 7.5m = (a+b+c)					day
A) Basic Cost per m = (a+b+c)/7.5					
CARRIAGE COST					m
NP3 Pipe					
Carriage cost of 7.5 m					m
B) Carriage cost per m					m
Rate per m = (A+B)					

	Carriage cost of 7.5 m				1462.13
	B) Carriage cost per m	m			194.99
	Rate per m = (A+B)	m			1822.32
10.2	Local Sand filling in as per drawing and technical specification Clause 305.3.9				
	Sand filling				
	Unit - cum				
	Labour				
	Mate	day	0.01	304.00	3.04
	Mazdoot (Unskilled)	day	0.30	292.00	87.60
	Material				
	Sand (assuming 20 per cent voids)	cum	1.20	141.85	170.22
	Rate per cum = (a+b)				260.86
	Carriage Cost				189.40
	Sand (assuming 20 per cent voids)	cum	1.20	157.00	188.40
	Rate per cum = a+b+c	cum			450.26
					430.22


 01-11-2021
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