



Bihar Rural Road
Development Agency



ग्रामीण कार्य विभाग

Rural Works Department, Govt of Bihar



ग्रामीण कार्य विभाग

BIHAR RURAL ROAD DEVELOPMENT AGENCY (BRRDA)

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

DETAILED ESTIMATE FOR F.D.R. RESTORATION WORK



DISTRICT :

BHAGALPUR

BLOCK :

ISMILEPUR

NAME OF ROAD :

RAMDIRI TO KELABARI

TOTAL LENGTH OF ROAD		:	3.050	KM
TOTAL COST OF FDR PART-A		:	14.263	LAKH
GST @ 12 %		:	1.712	LAKH
LABOUR CESS @ 1 %		:	0.143	LAKH
SEIGNIORAGE FEE @ 10 %		:	0.764	LAKH
TOTALCOST OF RESTORATION WORK		:	16.881	LAKH

Submitted By :-

EXECUTIVE ENGINEER

Rural Work Department
Works Division, Naugachhia

—: प्रतिवेदन :—

पथ का नाम :- Ramdiri To Kelabari .

प्रखण्ड का नाम :- ईस्माईलपुर।

प्रमंडल :- ग्रामीण कार्य विभाग, कार्य प्रमंडल, नवगछिया।

अंचल :- ग्रामीण कार्य विभाग, कार्य अंचल, भागलपुर।

पथ की लंबाई :- 3.050 Km

क्षतिग्रस्त पथ की लंबाई :-

प्राक्कलित राशि :- 16.88 Lakh

प्रस्तुत प्राक्कलन वर्ष 2021 में आई बाढ़/अतिवृष्टि से क्षतिग्रस्त पथों की तत्काल मरम्मत कर, यातायात पुनः बहाल करने हेतु प्राक्कलन तैयार किया गया है। प्राक्कलन का निर्माण अभियंता प्रमुख, ग्रामीण कार्य विभाग, बिहार, पटना के पत्रांक-मु0अ0-(मु0) विविध (कार्य) 23-291/2019-4275 दिनांक-22.10.2021 के आलोक में अधीक्षण अभियंता, ग्रामीण कार्य विभाग, कार्य अंचल, भागलपुर के ज्ञापांक-822 दिनांक-25.10.2021 के आदेश एवं कार्यपालक अभियंता, नवगछिया के आदेश के अनुपालन में तैयार किया गया है।

माह अगस्त-अक्टूबर-2021 को बाढ़ के कारण जगह-जगह पर रोड क्रस्ट में कटाव के साथ-साथ पथ का फलैंक भी क्षतिग्रस्त होने से बचाने हेतु कार्य किया गया है।

अतः आपातकालीन प्रकृति के कार्य को देखते हुए इस क्षतिग्रस्त पथांश में आवश्यकता एवं उपलब्धतानुसार ईट के टुकड़े (Brick Bats/Sand Bag/NC Bag इत्यादि) के द्वारा पथ के पुर्नस्थापन का प्रावधान किया गया है। प्राक्कलन में मर्दों का दर वर्तमान अनुसूचित दर विश्लेषण पर आधारित है। प्राक्कलन में Contractor Profit and Over head charge नहीं जुड़ा हुआ है। S.F. का प्रावधान करते हुए GST and Labour Cess को जोड़ा गया है।

अतः प्राक्कलन का तकनीकी अनुमोदन अपेक्षित है।


18/10/22

कनीय अभियन्ता
ग्रामीण कार्य विभाग
कार्य प्रशाखा, ईस्माईलपुर


18/10/22

सहायक अभियन्ता
ग्रामीण कार्य विभाग
कार्य अवर प्रमण्डल, ईस्माईलपुर


18/10/22

कार्यपालक अभियन्ता
ग्रामीण कार्य विभाग
कार्य प्रमण्डल, नवगछिया।

Inspection Report for Flood Damage Work

Date :-

Est. Cost Rs. 17.443 lacs.

1. Name of PIU :- R.W.D., Works Division, Navgachhiya

2. Name of Block/Road :- 12 M: LEPUR / Ramdiri to Kalabari.

(A) For Road :-

1. Damage Location/Chainage :-

CH- 0-100M, 800-850M, 1400-1600M, 2600-2850

2. Damage Length :-

8M, 6.30M, 94.20M, 115.0M,
Total = 223.50 M

3. Nature of Damage :-

Erosion by Flood water.

4. Details of Restoration works :-

(i) Material being used in Restoration works :- Local sand, E.C bag & Brick Ball.

(ii) Equipment's/Tools being used in Restoration works :-

(iii) Procedure taken up in Restoration works :-

(iv) Restored Length :- 223.50 M.

(B) For Bridge :-

1. Damage Location/Chainage :-

2. Damage Length :-

3. Nature of Damage :-

4. Details of Restoration works :-

(i) Material being used in Restoration works :-

(ii) Equipment's/Tools being used in Restoration works :-

(iii) Procedure taken up in Restoration works :-

(iv) Restored Length :-

(C) Requirement of New CD/Bridge :-

(i) Name of Road :-

(ii) Location/Chainage :-

(iii) Type of CD work /length required :-

NOTES :-

- Upload one photograph of damage portion if available.
- Attach minimum two photographs (during restoration & after restoration) photographs should be Geotags and at least one photo be captured in selfie mode.
- Restoration work has been done during flood season, but at present exact measurement can't be possible as per actual work done.

(Motorable work found Satisfactory)

Ugpl.
29/4/22
J.E

Qewl
29/4/22
PK

Signature of JE/AE/EE

Executive Engineer /
R. W. D. W. D. Naugachia

Signature

(Name of Inspection)

Ar
29/4/22

Pwto
29/4/22
A.E

Signature
29/4/22
AB

GENERAL ABSTRACT OF COST

Name of Road : RAMDIRI TO KELABARI

District : BHAGALPUR

Length (Km) : 3.050

Block : ISMILEPUR

Sl. No	Particulars		Details (Km)	Total Cost (in Rs.)
1	Cost of Road Restoration work	:	3.050	14,26,305.00
2	Add G.S.T @ 12 %	:		1,71,157.00
3	Add L.C. @ 1 %	:		14,263.00
4	S. F. @ 10 %	:		76,416.00
	Total Cost of Restoration work	:		16,88,141.00
			Say,	16,88,141.00

Wipd.
18/01/22
J. E.

Don't
18/01/22
A. E.

NP
18/01/22
E. E.

Post facto Technically Sanction for Rs-16.881 Lacs (Rupees sixteen lacs eighty eight thousand one hundred) only.

Hy
12/07/22
Superintending Engineer
Rural Works Department
Works Circle, Bhagalpur
As
12/07/22
Pravin
12/07/22

ESTIMATE FOR ROAD RESTORATION WORK

Name of Road: **RANDIRI TO KELABARI**

Block: **ISMILEPUR**

District: **BHAGALPUR**

Length : **3.050 Km**

Sl. No.	SSR Item No.	Description	No	Length (M)	Width (M)	H/D (M)	Qty.	Unit	Rates (in Rs.)	Amount (in Rs.)
1	4.5	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 excluding carriage cost of bricks.								
		As per attached " Annexure - A "					685.86			
							685.86	Cum	1677.54	11,50,558.00
2	5.7.53	Providing sand bag with sand and labour including carriage laying, filling etc all complete job as per specification and direction of E/I								
		As per attached " Annexure - B "					8982	/ bags	30.70	2,75,747.00
							Total Cost of Flood Protective work =			14,26,305.00

U. Singh
18/01/22

J. E.

Q. Singh
18/01/22

A. E.

R. Singh
18/01/22

E. E.

ANNEXURE - " A "

Brick Bat Measurement

Name of Road : RAMDIRI TO KELABARI

Length (Km) : 3.050

Sr. No.	Chainage (m)			Nos.	Length (m)		Width (m)		Average Width (m)	Depth (m)		Average Depth (m)	Quantity (Cum)
1	0	-	100	1	4.00	3.00			3.00	0.40		0.40	4.80
				2	2.00	1.50			1.50	0.40		0.40	2.40
2	800	-	850	1	3.80	1.00			1.00	0.80		0.80	3.04
				1	2.50	1.00			1.00	1.00		1.00	2.50
3	1400	-	1600	1	3.00	0.50	1.70		1.10	0.50		0.50	1.65
				1	10.00	1.50			1.50	0.60		0.60	9.00
				1	29.00	4.00	5.50		4.75	0.90	1.20	1.05	144.64
				1	6.00	2.00			2.00	0.90		0.90	10.80
				1	9.00	3.50			3.50	1.20		1.20	37.80
				1	10.00	3.60	5.50		4.55	1.00		1.00	45.50
				1	10.00	4.00	5.80		4.90	1.50		1.50	73.50
				1	10.00	4.50	6.00		5.25	1.20		1.20	63.00
				1	7.20	3.50			3.50	1.00		1.00	25.20
Near Kelabari Village				1	11.70	3.60			3.60	1.10		1.10	46.33
				1	15.40	3.60			3.60	0.80		0.80	44.35
				1	7.80	3.50			3.50	0.60		0.60	16.38
				1	30.00	3.50			3.50	0.50		0.50	52.50
				1	25.00	3.50			3.50	0.50		0.50	43.75
				1	19.00	3.40			3.40	0.70		0.70	45.22
				1	6.00	2.50			2.50	0.90		0.90	13.50
Total =													685.86

S. F.	-	685.86	Cum	@	Rs.	1051.00	x	10%	=	Rs.	72,084.00
-------	---	--------	-----	---	-----	---------	---	-----	---	-----	-----------

18/01/22
J. E.

18/01/22
A. E.

18/01/22
E. E.

ANNEXURE - " B "

E. C. Bags Measurement

Name of Road : RAMDIRI TO KELABARI

Length (Km) : 3.050

Sr. No.	Chainage (m)			Nos.	Length (m)	Width (m)			Average Width (m)	Depth (m)			Average Depth (m)	Quantity (Cum)	Quantity (No of bag)
1	1400	-	1600	1	31.30	0.80	1.60		1.20	0.60			0.60	22.54	663
			L.H.S.	1	29.20	0.90	1.60		1.25	1.00			1.00	36.50	1074
			L.H.S.	2	23.40	0.75	1.50		1.13	0.90			0.90	47.60	1400
			L.H.S.	1	9.00	0.80	1.60		1.20	0.80			0.80	8.64	254
			L.H.S.	2	37.40	0.60	1.50		1.05	1.10			1.10	86.39	2541
			R.H.S.	1	29.20	0.75	1.50		1.13	1.00			1.00	33.00	971
			R.H.S.	2	37.40	0.70	1.40		1.05	0.90			0.90	70.69	2079
													Total =	305	8,982

	S. F.	-	8982	Nos.	@	Rs,	4.82	x	10%	=	Rs.	4,332.00
--	-------	---	------	------	---	-----	------	---	-----	---	-----	----------

Veigh.
18/01/22
J. E.

Amol
18/01/22
A. E.

R. T.
18/01/22
E. E.

Carriage Cost of Material via Road

RWD, works Division, Bhagalpur

Name of Road :				RAMDIRI TO KELABARI				Block ISMILEPUR					
SI No	Item	Unit	Source	Carriage Cost & Lead in Km				Loading & Unloading Cost	Carriage By Road	Total			
				Pukka / Surface		Katcha							
1	Stone Metal Gr-II/Via Road	Cum	Mirza Cheuki	8.00 4.59	x 7.47	x 110 Km	= Rs 1432.16	8.00 4.59	x 18.09	x 0 Km	= Rs 0.00	193.62	1625.78
2	Stone Metal Gr-III / GSB Via Road	Cum	Mirza Cheuki	8.00 4.99	x 7.47	x 110 Km	= Rs 1317.35	8.00 4.99	x 18.09	x 0 Km	= Rs 0.00	193.62	1510.97
3	Stone Aggregate / Chips Via Road	Cum	Mirza Cheuki	8.00 4.99	x 7.47	x 110 Km	= Rs 1317.35	8.00 4.99	x 18.09	x 0 Km	= Rs 0.00	193.62	1510.97
4	Stone Boulder /Via Road	Cum	Mirza Cheuki	8.00 4.80	x 7.47	x 110 Km	= Rs 1369.50	8.00 4.80	x 18.09	x 0 Km	= Rs 0.00	193.62	1563.12
5	Coarse Sand/Via Road	Cum	Hanbara	8.00 4.99	x 7.47	x 92 Km	= Rs 1101.79	8.00 4.99	x 18.09	x 0 Km	= Rs 0.00	104.88	1206.67
6	Mooram/Via Road	Cum	Mirza Cheuki	8.00 6.00	x 7.47	x 110 Km	= Rs 1095.60	8.00 6.00	x 18.09	x 0 Km	= Rs 0.00	104.88	1200.48
7	Bitumen Barauni/ Via Road	MT	Barauni	8.00 8.00	x 7.47	x 115 Km	= Rs 859.05	8.00 8.00	x 18.09	x 0 Km	= Rs 0.00	365.00	1224.05
8	Bitumen Emulsion /Via Road	MT	Fatuha	8.00 8.00	x 7.47	x 202 Km	= Rs 1508.94	8.00 8.00	x 18.09	x 0 Km	= Rs 0.00	365.00	1873.94
9	Local Sand	Cum	Local	8.00 4.99	x 7.47	x 2 Km	= Rs 23.95	8.00 4.99	x 18.09	x 1 Km	= Rs 29.00	104.88	157.83
10	Brick	1000 Nos	Local	8.00 2.00	x 7.47	x 7 Km	= Rs 209.16	8.00 2.00	x 18.09	x 1 Km	= Rs 72.36	441.62	723.14
11	Cement	MT	Local	8.00 8.00	x 7.47	x 7 Km	= Rs 52.29	8.00 8.00	x 18.09	x 0 Km	= Rs 0.00	317.64	369.93
12	Steel	MT	Local	8.00 8.00	x 7.47	x 7 Km	= Rs 52.29	8.00 8.00	x 18.09	x 0 Km	= Rs 0.00	337.70	389.99
13	Hume Pipe (1000 mm)	M	Godda	8.00 10.00	x 7.47	x 96 Km	= Rs 573.70	8.00 10.00	x 18.09	x 0 Km	= Rs 0.00	75.69	649.39
14	Hume Pipe (600 mm)	M	Godda	8.00 25.00	x 7.47	x 96 Km	= Rs 229.48	8.00 25.00	x 18.09	x 0 Km	= Rs 0.00	32.44	261.92
15	Hume Pipe (300 mm)	M	Godda	8.00 60.00	x 7.47	x 96 Km	= Rs 95.62	8.00 60.00	x 19.82	x 0 Km	= Rs 0.00	32.44	128.06
16	Bamboo	Nos	Kursela	8.00 8.00	x 7.47	x 23 Km	= Rs 171.81	8.00 8.00	x 19.82	x 0 Km	= Rs 0.00	317.64	489.45
17	Brick bats	Cum	Local	8.00 2.00	x 7.47	x 7 Km	= Rs 209.16	8.00 2.00	x 18.09	x 1 Km	= Rs 72.36	193.62	475.14
18	Klin Rubbish	Cum	Local	8.00 2.00	x 7.47	x 7 Km	= Rs 209.16	8.00 2.00	x 18.09	x 1 Km	= Rs 72.36	104.88	386.40

18/01/22
Junior Engineer

18/01/22
Assistant Engineer

18/01/22
Executive Engineer

Superintending Engineer
Rural Works Department
Bhagalpur
18/01/22

Rate Analysis

SDB Sl. No.	DESCRIPTION	Unit	QTY	Rate	Amount in Rs
4.5	Providing and Laying of Brick Bats				
	Placing tractor at loading point loading with front end loader dump on ,turning for return trip excludng time for haulage and return trip				
	Unit = cum				
	Taking output = 2.832 cum				
a)	Labour				
	Mazdoor (Unskilled)	day	2.17	292	633.64
b)	Materilas				
	Brick Bats	cum	2.832	1,051.00	2976.43
c)	Carriage				
		cum	2.832	402.80	1140.73
	Cost for 5.5 cum = a+b+c				4750.80
	Rate per cum = (a+b+c+d)/2.832	cum			1677.54
	Total per cum	cum			1,677.54
5.7.9	Labour for fitting and fixing 62 mm to 75 mm dia bamboo runners in position at every verticle 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				
	Unit = Per mt.				
	Taking Out Put = 30.50 m				
(i)	Materials				
	Cost of 150 mm long nails	Kg	0.50	61.74	30.87
(ii)	Labour				
	Carpenter Gr -II	No.	0.125	351	43.88
	Unskilled Labour	No.	0.25	292	73.00
	Rate-for 30.5 m				147.75
					147.75
	Rate for 1 m				4.84
(iii)	Bamboo(2nd class) 75mm dia, 1.8 - 2.5m long	m	1.00	23.58	23.58
	Rate per m			Say.	28.43
5.7.7	Labour for cutting 62 mm to 75 mm dia bamboo piles in size and making shoes and driving etc. complete bob as per specification and direction E/I.				
	Unit = Per m				
	Taking Out Put = 30.50 m				
	Assurning				
	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
					817.75
	Rate for 30.5 m				817.75
	Rate for 1 m				26.81
(ii)	Bamboo(2nd class) 75mm dia, 1.8 - 2.5m long	m	1.00	23.58	23.58
	Rate per m			Say.	50.39
5.7.8	Labour for fitting and and fixing split bamboo woven chachari 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.				
WRD	(Assuming strip of 3.05x3.05 = 9.30 sqm				
	Unit = per sqm				
	Taking Out = 9.30 sqm				
a	Labour				

	Carpenter Gr-II	No.	1.00	351	351.00
	Mazdoor (Unskilled) for pilling	No.	1.00	292	292.00
b	Materials				
	75 mm to 100 mm long nails	kg	0.25	61.74	15.44
c	Bamboo(2nd class) 75mm dia, 1.8 - 2.5m long	m	11	23.58	259.42
					917.85
	Rate Per Sqm = (a+b+c)/9.30				98.69
10.7.40 WRD	Labour for filling Cement Bag, swing and laying materilas Unit = Per Bag				
A	Supply Empty cement Bag with Sand	No	100	7.74	774.00
	Stiching Roll (Nylon)	No	2	30.00	60.00
				Total (A)	834.00
B	Unskilled Labour for filling stiching and staking	No	1.67	292	487.64
	Unskilled Labour for carrying and Placing at work site	No	3	292	876.00
	Skilled Labour for stiching	No	0.33	370	122.10
	Total per bag			Total (B)	1,485.74
C	Hire charge of Machine				
	Hire charge of Stiching Machine	No	0.33	50	16.50
	Hire charge of Generator 3 K.V.A	No	2.67	74	197.58
	Total per bag			Total (C)	214.08
D	Carriage Cost of Local Sand				
	1.2 Cft = 0.034 m ³	cum	3.40	157.83	536.62
				Total (D)	536.62
	Total cost of (A+B+C+D) =	Bag			3,070.44
	Rate per Bag				30.70
4.1	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				
	Mate	day	0.40	304.00	121.60
	Mazdoor (Skilled)	day	2.00	370.00	740.00
	Mazdoor (Unskilled)	day	8.00	292.00	2336.00
b)	Machinery				
	Tractar mounted grader arrangement for grading @ 100 cum pe	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	12.00	573.20	6878.40
	Water tanker 6 kl capacity	hour	5.00	184.00	920.00
c)	Material				
	Well graded granular sub-base material as per Table 400.1				
	26.5 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				244998.59
e)	A) Cost of GSB without carriage per cum	cum			816.66
	CARRIAGE				
	Carriage for GSB material	Cum	0.768	1510.97	1160.43
	Carriage for material below 2.36 mm (Local Sand)	Cum	0.512	1510.97	773.62
	Rate per cum with carriage				2750.71