



Bihar Rural Road
Development Agency



ग्रामीण कार्य विभाग

Rural Works Department, Govt of Bihar



Bihar Rural Road
Development Agency

BIHAR RURAL ROAD DEVELOPMENT AGENCY (BRRDA)

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

DETAILED ESTIMATE FOR F.D.R. RESTORATION WORK



DISTRICT :

Bhagalpur

BLOCK :

Shahkund

NAME OF ROAD :

Main road (PMGSY) to middle school Makandpur & Harijan tola

TOTAL LENGTH OF ROAD	:	0.650	KM
TOTAL COST OF FDR PART-A	:	5.428	LAKH
GST @ 12 %	:	0.651	LAKH
LABOUR CESS @ 1 %	:	0.054	LAKH
SEIGNIORAGE FEE @ 10 %	:	0.273	LAKH
TOTALCOST OF RESTORATION WORK	:	6.407	LAKH

Submitted By :-

EXECUTIVE ENGINEER

Rural Work Department
Works Division, Bhagalpur

Inspection Report For Flood Damage Work

Date:- 24.11.2024

1. Name of PIUs - EE, RWD (W) Division, Bhagalpur

2. Name of Block/ Road Shahrud / Main road (R.M.W.) to middle School Mandarh & Hanjey talq.

A. For Road

1. Damage Location/Chainage CH 0 m to 60 m.

2. Damage length 60 m

3. Nature of Damage Cutting

4. Detail of Restoration Works

(i) Material being used in Restoration Works: Brick Bat, Bamboo, Sand 106

(ii) Equipment's/ Tools Being used in Restoration Works:

(iii) Procedure Taken up in Restoration Works:

(iv) Restored Length: 60 m

B. For Bridge

1. Damage Location/Chainage

2. Damage length

3. Nature of Damage

4. Detail 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/Bridges

(i) Name of Road:

(ii) Location/ Chainage

(iii) Type of CD Work/Length required

Notes:-

- Upload one Photograph of damaged portion if available
- Attach minimum Two Photograph (during restoration & after restoration) Photographs should be Geotags and at Least one Photo be captured in selfie mode.

Signature of JE/AE/EE

24/11/24
30/11/24
24/11/24
AE

24/11/24
EE

Signature

(Name of Inspector)

RAMAKISHAN PANDAY

ehh

Sl. No	Name Of District	Name of Work Division	Road Name	Head/ Scheme	Road Status (Complete/ Ongoing)	Whether Is In Maintenance Period(Y/N)	Length Of The Road (KM)	Length Of Damaged Part Due To Flood	Amount Of Restoration	Remarks
1	2	3	4	5	6	7	8	9	10	11
1			Bethoo To Bhikhanpur Part-2	PMGSY	Complete	No	4.461	584.75M	4.621Lacs	
2	Bhagalpur	Bhagalpur	Main Road (PMGSY) To Middle School Makandpur & Harijan Tola	MMGSY	Complete	Yes	0.65	60M	6.407 Lacs	
3			Shivshankarpur More To Kajrauli Via Sajour Radha Nagar	MR-3054	Complete	Yes	16.05	63M	5.740 Lacs	

12/12/21

I.E.
RWD (Works) Division
Bhagalpur
Sub Division Sahakund

12/12/21

A.E.
RWD (Works) Division
Bhagalpur
Sub Division Sahakund

12/12/21

Executive Engineer
RWD (Works) Division
Bhagalpur

प्रतिवेदन

योजना का नाम : Main road (PMGSY) to middle school Makandpur & Harijan tola
प्रमंडल : ग्रामीण कार्य विभाग, कार्य प्रमंडल, भागलपुर।
अंचल : ग्रामीण कार्य विभाग, कार्य अंचल, भागलपुर।
पथ की लम्बाई : 0.650 कि०मी०
प्राक्कलित राशि : ₹ 6.407 लाख

वर्ष 2021 में गंगा नदी में आयी भयंकर बाढ़/अतिवृष्टि से ग्रामीण कार्य विभाग, कार्य प्रमंडल, भागलपुर अन्तर्गत शाहकुण्ड/जगदीशपुर/गौरडीह/नाथनगर/सुलतानगंज प्रखंड के लगभग 58 पथ/पुल बाढ़ से प्रभावित हुये हैं। इनमें से कुछ पथों में कटाव/गड्ढे हो जाने के कारण विभाग द्वारा समय-समय पर प्राप्त दिशा-निर्देशों/आदेशों के आलोक में इन पथों को तत्काल मरम्मत कर, यातायात पुनः बहाल करने हेतु प्राक्कलन तैयार किया गया है।

अतः आपातकालीन प्रकृति के कार्य को देखते हुए इस क्षतिग्रस्त पथांश में आवश्यकता एवं उपलब्धतानुसार ईंट के टुकड़े (Brick Bats) / Sand Bag / Bamboo Pilling एवं GSB इत्यादि के द्वारा मोटरेबुल कार्य कराया गया है। मोटरेबुल कार्य के बाद सभी पथों में आवागमन चालू हो सका है।

कराये गये कार्य का प्राक्कलन ग्रामीण कार्य विभाग, कार्य अंचल, भागलपुर के पत्रांक-467 दिनांक- 21.06.2021 के द्वारा स्वीकृत दर पर तैयार किया गया है तथा इस कार्य का विवरण विभागीय MIS पर FDR Module में प्रविष्टि कर दी गयी है।

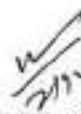
अतः कार्य के उपरान्त इसकी तकनीकी अनुमोदन सह तकनीकी स्वीकृति अपेक्षित है।


02/07/21

कनीय अभियंता
ग्रामीण कार्य विभाग
कार्य प्रशाखा, शाहकुण्ड


02/07/21

सहायक अभियंता
ग्रामीण कार्य विभाग
कार्य अवर प्रमंडल, शाहकुण्ड


02/07/21

कार्यपालक अभियंता
ग्रामीण कार्य विभाग
कार्य प्रमंडल, भागलपुर

GENERAL ABSTRACT OF COST

Name of Road : Main road (PMGSY) to middle school
Makandpur & Harijan tola District : Bhagalpur

Length (Km) : 0.650 Block : Shahkunda

Sl. No	Particulars		Details (Km)	Total Cost (in Rs.)
1	Cost of Road Restoration work	:	0.650	5,42,789.00
2	Add G.S.T @ 12 %	:		65,135.00
3	Add L.C. @ 1 %	:		5,428.00
4	S. F. @ 10 %	:		27,322.00
	Total Cost of Restoration work	:		6,40,674.00
			Say,	6,40,700.00

[Signature]
J. E.

[Signature]
A. E.

[Signature]
E. E.

Technically sanctioned for Rs 6.407 lac (Rupees Six
lac four thousand seven hundred) only.

[Signature]
Superintending Engineer
Rural Works Department
Works Circle, Bhagalpur

ESTIMATE FOR ROAD RESTORATION WORK

Name of Road: Main road (PMGSY) to middle school
Makandpur & Harjan tota

Block: Shahkum

District: Bhagalpur

Length : 0.650 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 pecking 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"					249.75			
							249.75	Cum	1750.04	4,37,072.00
2	5.7.7	Rate for cutting 62 mm to 75 mm dia bamboo pile to size and making shoes and driving etc. all complete job as per specification and direction of E/I								
			200	2.50			500.00			
							500.00	m	50.39	25,195.00
3	5.7.9	Rate for fitting & fixing 62mm to 75 mm dia bamboo runners in position at every vertical piles with 150 m long nails or 38 swg G.I. wire including cost of G.I. or nails all complete job as per specification and direction of E/I								
			3	60			180.00			
							180.00	m	28.43	5,117.00
4	5.7.8 WRD	Labour for fitting and end 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.								
			1	60	1.20		72.00			
							72.00	Sqm	98.69	7106.00
5	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"					2224	/ bags	30.71	68,299.00
Total Cost of Flood Protective work =										5,42,789.00

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J. E.

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A. E.

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02/11/21
E. E.

ANNEXURE - " A "

Brick Bat Measurement

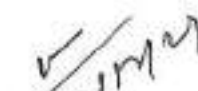
Name of Road : Main road (PMGSY) to middle school Makandpur & Harijan tola Length (Km) : 0.650

Sr. No.	Chainage (m)			Nos.	Length (m)	Width (m)			Average Width (m)	Depth (m)			Average Depth (m)	Quantity (Cum)
1	0	-	15	1	15.00	1.50	2.50		2.00	1.80			1.80	54.00
2	15	-	30	1	15.00	1.50	3.00		2.25	1.80			1.80	60.75
3	30	-	45	1	15.00	1.50	3.50		2.50	1.80			1.80	67.50
4	45	-	60	1	15.00	1.50	3.50		2.50	1.80			1.80	67.50
													Total =	249.75

	S. F.	-	249.75	Cum	@	Rs.	1051.00	x	10%	=	Rs.	26,249.00
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J. E.


A. E.


E. E.

ANNEXURE - " B "

E. C. Bags Measurement

Name of Road : Main road (PMGSY) to middle school Makandpur & Harijan tola

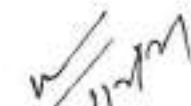
Length (Km) : 0.650

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	-	60	1	60.00	1.20	0.90		1.05	1.20			1.20	75.60	2224
														Total =	2,224

	S. F.	-	2224	Nos.	@	Rs.	4.82	x	10%	=	Rs.	1,073.00
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J. E.


A. E.


E. E.

Carriage Cost of Material via Road

RWD, works Division, Bhagalpur

Name of Road :				Main road (PMGSY) to middle school Makandpur & Harijan tola										Block : Shahkund		
Sl No	Item	Unit	Source	Carriage Cost & Lead in Km										Loading & Unloading Cost	Carriage By Road	Total
				Pucka / Surface					Katcha							
1	Stone Metal Gr-II/Via Road	Cum	Mirza Cheuki	8.00 4.59	x 7.47	x 83 Km	= Rs 1080.63	8.00 4.59	x 18.09	x 10 Km	= Rs 0.00	193.62	1274.25			
2	Stone Metal Gr-III / GSB Via Road	Cum	Mirza Cheuki	8.00 4.99	x 7.47	x 83 Km	= Rs 994.00	8.00 4.99	x 18.09	x 10 Km	= Rs 0.00	193.62	1187.62			
3	Stone Aggregate / Chipps Via Road	Cum	Mirza Cheuki	8.00 4.99	x 7.47	x 83 Km	= Rs 994.00	8.00 4.99	x 18.09	x 10 Km	= Rs 0.00	193.62	1187.62			
4	Stone Boulder /Via Road	Cum	Mirza Cheuki	8.00 4.80	x 7.47	x 83 Km	= Rs 1033.35	8.00 4.80	x 18.09	x 10 Km	= Rs 0.00	193.62	1226.97			
5	Coarse Sand/Via Road	Cum	Hannara	8.00 4.99	x 7.47	x 36 Km	= Rs 431.13	8.00 4.99	x 18.09	x 10 Km	= Rs 0.00	104.88	536.01			
6	Mooram/Via Road	Cum	Mirza Cheuki	8.00 6.09	x 7.47	x 83 Km	= Rs 836.68	8.00 6.09	x 18.09	x 10 Km	= Rs 0.00	104.88	931.56			
7	Bitumen Barauni/ Via Road	MT	Barauni	8.00 8.00	x 7.47	x 125 Km	= Rs 933.75	8.00 8.00	x 18.09	x 10 Km	= Rs 0.00	365.00	1298.75			
8	Bitumen Emulsion /Via Road	MT	Fatuha	8.00 8.00	x 7.47	x 212 Km	= Rs 1583.64	8.00 8.00	x 18.09	x 10 Km	= Rs 0.00	365.00	1948.64			
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	000 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 10 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 10 Km	= Rs 0.00	337.70	389.99			
13	Hume Pipe (1000 mm)	M	Godda	8.00 10.00	x 7.47	x 68 Km	= Rs 406.37	8.00 10.00	x 18.09	x 10 Km	= Rs 0.00	75.69	482.06			
14	Hume Pipe (600 mm)	M	Godda	8.00 25.00	x 7.47	x 68 Km	= Rs 162.55	8.00 25.00	x 18.09	x 10 Km	= Rs 0.00	32.44	194.99			
15	Hume Pipe (300 mm)	M	Godda	8.00 60.00	x 7.47	x 68 Km	= Rs 67.73	8.00 60.00	x 19.82	x 10 Km	= Rs 0.00	32.44	100.17			
16	Bamboo	Nos	Kursela	8.00 8.00	x 7.47	x 42 Km	= Rs 313.74	8.00 8.00	x 19.82	x 10 Km	= Rs 0.00	317.64	631.38			
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	1274.25			
18	Kila 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	157.83			

12/11/2019

Assistant Engineer

[Signature]
Executive Engineer

Executive Engineer

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 dumping, turning for return trip excluding time for haulage and return trip				
	Unit = cum				
	Taking output = 2.832 cum				
a)	Labour				
	Mazdoor (Unskilled)	day	2.17	292	633.64
b)	Materials				
	Brick Bats	cum	2.83	1,051.00	2974.33
c)	Carriage				
		cum	2.83	475.14	1344.65
	Cost for 5.5 cum = a+b+c				4952.62
	Rate per cum = (a+b+c)/2.83	cum			1750.04
	Total per cum	cum			1,750.04
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 job 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 WRD	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.				
	(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 materials Unit = Per Bag				
A	Supply Empty cement Bag	No	100	2.92	292.00
	Supply Local Sand	Cum	3.40	141.85	482.29
	Stiching Roll (Nylon)	No	2	30.00	60.00
				Total (A)	834.29
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	Day	0.33	50	16.50
	Hire charge of Generator 3 K.V.A	Hrs	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			3,070.73
	Rate per Bag				30.71
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				
	Tractor mounted grader arrangement for grading @ 100 cum per hour	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
	A) Cost of GSB without carriage per cum	cum			816.66
e)	CARRIAGE				
	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

9.3	Providing and Laying Reinforced Cement Concrete Pipe NP3 as per design in Single Row				
1100	Providing and laying reinforced cement concrete pipe NP3 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 head walls and parapets Clause 1106.				
A.	1000 MM DIA (Double Row)				
a)	Material				
	RCC NP3 pipe including collar	m	15.00	2755.50	41332.50
b)	Labour				
	Mate	day	0.22	304.00	66.88
	Mason (1st class)	day	0.60	351.00	210.60
	Mazdoor (Unskilled)	day	4.80	292.00	1401.60
	Cost for 7.5m = (a+b+c)				43011.58
	A) Basic Cost per m = (a+b+c+d)/7.5	m			5734.88
	CARRIAGE COST				
	NP3 Pipe	m	15.00	482.06	7230.90
	Carriage cost of 7.5 m				7230.90
	B) Carriage cost per m	m			964.12
	Rate per m = (A+B)	m			6699.00
B.	1000 MM DIA (Single Row)				
a)	Material				
	RCC NP3 pipe including collar	m	7.50	2755.50	20666.25
b)	Labour				
	Mate	day	0.09	304.00	27.36
	Mason (1st class)	day	0.25	351.00	87.75
	Mazdoor (Unskilled)	day	2.00	292.00	584.00
	Cost for 7.5m = (a+b+c)				21365.36
	A) Basic Cost per m = (a+b)/7.5	m			2848.71
	CARRIAGE COST				
	NP3 Pipe	m	7.50	482.06	3615.45
	Carriage cost of 7.5 m				3615.45
	B) Carriage cost per m	m			482.06
	Rate per m = (A+B)	m			3330.77
C.	600 MM DIA (Double Row)				
a)	Material				
	RCC NP3 pipe including collar	m	15	1582.72	23740.80
b)	Labour				
	Mate	day	0.04	304.00	12.16
	Mason (1st class)	day	0.12	351.00	42.12
	Mazdoor (Unskilled)	day	0.96	292.00	280.32
	Cost of 7.5m = (a+b+c+d)				24075.40
	A) Basic Cost per m = (a+b)/7.5	m			3210.05
	CARRIAGE COST				
	NP3 Pipe	m	15	194.99	2924.85
	Carriage cost of 7.5 m				2924.85
	B) Carriage cost per m	m			389.98
	Rate per m = (A+B)	m			3600.03
D.	600 MM DIA (Single Row)				
a)	Material				
	RCC NP3 pipe including collar	m	7.50	1582.72	11870.40
b)	Labour				
	Mate	day	0.04	304.00	12.16
	Mason (1st class)	day	0.12	351.00	42.12
	Mazdoor (Unskilled)	day	0.96	292.00	280.32
	Cost of 7.5m = (a+b+c+d)				12205.00
	A) Basic Cost per m = (a+b)/7.5	m			1627.33
	CARRIAGE COST				
	NP3 Pipe	m	7.5	194.99	1462.43
	Carriage cost of 7.5 m				1462.43
	B) Carriage cost per m	m			194.99
	Rate per m = (A+B)	m			1822.32