

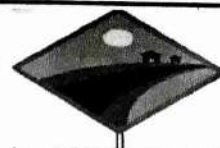


Bihar Rural Road
Development Agency



ग्रामीण कार्य विभाग

Rural Works Department, Govt of Bihar

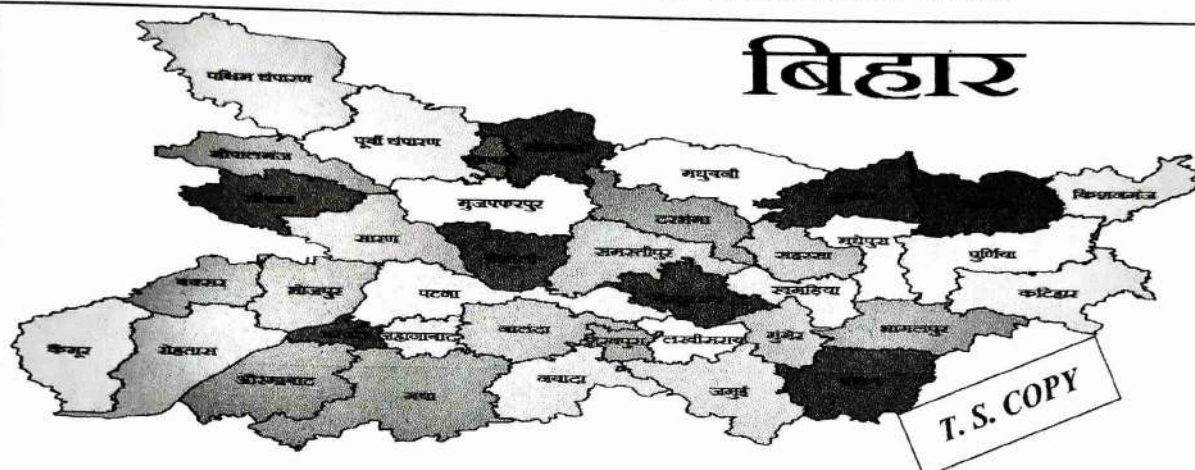


मुख्यमंत्री ग्राम सड़क योजना

BIHAR RURAL ROAD DEVELOPMENT AGENCY (BRRDA)

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

DETAILED ESTIMATE FOR F.D.R. RESTORATION WORK



DISTRICT :

Bhagalpur

BLOCK :

Narayanpur

NAME OF ROAD :

Shahpur REO Road TO Gangachak

TOTAL LENGTH OF ROAD		:	3.060	KM
TOTAL COST OF FDR PART-A		:	15.266	LAKH
GST @ 12 %		:	1.832	LAKH
LABOUR CESS @ 1 %		:	0.153	LAKH
SEIGNIORAGE FEE @ 10 %		:	0.956	LAKH
TOTALCOST OF RESTORATION WORK		:	18.207	LAKH

Submitted By :-

EXECUTIVE ENGINEER

Rural Work Department
Works Division, Naugachhia

—: प्रतिवेदन :—

पथ का नाम :— Shahpur REO Road to Mangachak.

प्रखण्ड का नाम :—नारायणपुर।

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

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

पथ की लंबाई :— 3.060 Km

क्षतिग्रस्त पथ की लंबाई :—

प्राक्कलित राशि :— 18.207 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 फलैक भी क्षतिग्रस्त होने से बचाने हेतु कार्य किया गया है।

अतः आपातकालीन प्रकृति के कार्य को देखते हुए इस क्षतिग्रस्त पथांश में आव यकता 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 वि लेशन 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, नारायणपुर


18/10/22

सहायक अभियन्ता
ग्रामीण कार्य विभाग
कार्य अवर प्रमंडल, नारायणपुर


18/10/22

कार्यपालक अभियन्ता
ग्रामीण कार्य विभाग
कार्य प्रमंडल, नवगछिया।

Inspection Report for Flood Damage Work

Date :-

Est. Cert - 16.10.2022

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

2. Name of Block/Road :- Narayanpur / Shampur RD Road to Mangachak.

(A) For Road :-

1. Damage Location/Chainage :- CH-1800-1850 m
2. Damage Length :- 26 m
3. Nature of Damage :- Erosion by flood water
4. Details of Restoration works :-
 - (i) Material being used in Restoration works :- Brick Ball
 - (ii) Equipment's/Tools being used in Restoration works :-
 - (iii) Procedure taken up in Restoration works :-
 - (iv) Restored Length :- 26 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)

Signature of JE/AE/EE
29/10/22
29.10.22

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

Signature
(Name of Inspection)

29/10/22
JB
10.5.22
AE

10/10/22
AB

GENERAL ABSTRACT OF COST

Name of Road : Shahpur REO Road TO Gangachak

District : Bhagalpur

Length (Km) : 3.060

Block : Narayanpur

Sl. No	Particulars		Details (Km)	Total Cost (in Rs.)
1	Cost of Road Restoration work	:	3.06	15,26,561.00
2	Add G.S.T @ 12 %	:		1,83,187.00
3	Add L.C. @ 1 %	:		15,266.00
4	S. F. @ 10 %	:		95,641.00
	Total Cost of Restoration work	:		18,20,655.00
			Say,	18,20,655.00

Verif.
18/01/22

J. E.

Q. No. 1
18/01/22

A. E.

R. S.
18/01/22

E. E

Post-facto Technically Sanction for Rs-18.207 Lacs (Rupees Eighteen Lacs twenty thousand seven hundred) only.

[Signature]
Superintending Engineer
Rural Works Department
Works Circle, Bhagalpur
[Signature] 12/07/22 *[Signature]* 12/07/22

ESTIMATE FOR ROAD RESTORATION WORK

Name of Road: Shahpur REO Road TO Gangachak

Block: Narayanpur

District: Bhagalpur

Length : 3.060 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 "					910.00			
							910.00	Cum	1677.54	15,26,561.00
							Total Cost of Flood Protective work =			15,26,561.00

Vijay
18/01/22
J. E.

Q. D. J.
18/01/22
A. E.

R. M.
18/01/22
E. E.

ANNEXURE - " A "

Brick Bat Measurement

Name of Road : Shahpur REO Road TO Gangachak

Length (Km) : 3.060

Length (Km) : 3.000														
Sr. No.	Chainage (m)			Nos.	Length (m)	Width (m)			Average Width (m)	Depth (m)			Average Depth (m)	Quantity (Cum)
1	1800	-	1850	1	10.00	5.00	13.00		9.00	2.00	4.00		3.00	270.00
2				1	8.00	6.00	14.00		10.00	4.00	5.00		4.50	360.00
3				1	8.00	6.00	14.00		10.00	5.00	2.00		3.50	280.00
													Total =	910.00

	S. F.	-	910.00	Cum	@	Rs,	1051.00	x	10%	=	Rs.	95,641.00
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[Signature]
18/01/22
J. E.

[Signature]
18/01/22
A. E.

[Signature]
18/01/22
E. E.

Carriage Cost of Material via Road

RWD, works Division, Bhagalpur

Name of Road :				Shahpur REO Road TO Gangachak				Block : Narayanpur			
SI 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	x 7.47 x 188 Km	= Rs 1145.73	8.00	x 18.09 x 10 Km	= Rs 0.00	1339.35	
2	Stone Metal Gr-III / GSB Via Road	Cum	Mirza Cheuki	4.59			4.59				
3	Stone Aggregate / Chips Via Road	Cum	Mirza Cheuki	8.00	x 7.47 x 188 Km	= Rs 1053.88	8.00	x 18.09 x 10 Km	= Rs 0.00	1247.50	
4	Stone Boulder /Via Road	Cum	Mirza Cheuki	4.99			4.99				
5	Coarse Sand/Via Road	Cum	Hanmara	8.00	x 7.47 x 188 Km	= Rs 1053.88	8.00	x 18.09 x 10 Km	= Rs 0.00	1247.50	
6	Mooram/Via Road	Cum	Mirza Cheuki	4.99			4.99				
7	Bitumen Barauni/ Via Road	MT	Barauni	8.00	x 7.47 x 185 Km	= Rs 1095.60	8.00	x 18.09 x 10 Km	= Rs 0.00	1289.22	
8	Bitumen Emulsion /Via Road	MT	Fatuha	4.80			4.80				
9	Local Sand	Cum	Local	8.00	x 7.47 x 145 Km	= Rs 1017.96	8.00	x 18.09 x 10 Km	= Rs 0.00	1122.84	
10	Brick	1000 Nos	Local	8.00	x 7.47 x 188 Km	= Rs 876.48	8.00	x 18.09 x 10 Km	= Rs 0.00	981.36	
11	Cement	MT	Local	8.00	x 7.47 x 195 Km	= Rs 1083.15	8.00	x 18.09 x 10 Km	= Rs 0.00	1448.15	
12	Steel	MT	Local	8.00	x 7.47 x 145 Km	= Rs 1456.65	8.00	x 18.09 x 10 Km	= Rs 0.00	1821.65	
13	Hume Pipe (1000 mm)	M	Godda	8.00	x 7.47 x 195 Km	= Rs 23.95	8.00	x 18.09 x 1 Km	= Rs 29.00	157.83	
14	Hume Pipe (600 mm)	M	Godda	4.99			4.99				
15	Hume Pipe (300 mm)	M	Godda	8.00	x 7.47 x 7 Km	= Rs 209.16	8.00	x 18.09 x 1 Km	= Rs 72.36	723.14	
16	Bamboo	Nos	Kursela	8.00	x 7.47 x 7 Km	= Rs 52.29	8.00	x 18.09 x 0 Km	= Rs 0.00	369.93	
17	Brick bats	Cum	Local	8.00	x 7.47 x 7 Km	= Rs 52.29	8.00	x 18.09 x 0 Km	= Rs 0.00	389.99	
18	Klin Rubbish	Cum	Local	8.00	x 7.47 x 7 Km	= Rs 52.29	8.00	x 18.09 x 0 Km	= Rs 0.00	389.99	
				8.00	x 7.47 x 65 Km	= Rs 388.44	8.00	x 18.09 x 0 Km	= Rs 0.00	464.13	
				10.00			10.00				
				8.00	x 7.47 x 65 Km	= Rs 155.38	8.00	x 18.09 x 0 Km	= Rs 0.00	187.82	
				25.00			25.00				
				8.00	x 7.47 x 65 Km	= Rs 64.74	8.00	x 18.09 x 0 Km	= Rs 0.00	97.18	
				60.00			60.00				
				8.00	x 7.47 x 53 Km	= Rs 395.91	8.00	x 19.82 x 0 Km	= Rs 0.00	713.55	
				8.00			8.00				
				8.00	x 7.47 x 7 Km	= Rs 209.16	8.00	x 18.09 x 1 Km	= Rs 72.36	475.14	
				2.00			2.00				
				8.00	x 7.47 x 7 Km	= Rs 209.16	8.00	x 18.09 x 1 Km	= Rs 72.36	157.83	
				2.00			2.00				

18/01/22
Junior Engineer

20/01/22
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 dumpoing ,turning for return trip exluding time for haulage and return tirp				
	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				15.44
	75 mm to 100 mm long nails	kg	0.25	61.74	259.42
c	Bamboo(2nd class) 75mm dia, 1.8 - 2.5m long	m	11	23.58	917.85
					98.69
	Rate Per Sqm = (a+b+c)/9.30				
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				16.50
	Hire charge of Stiching Machine	No	0.33	50	197.58
	Hire charge of Generator 3 K.V.A	No	2.67	74	214.08
	Total per bag			Total (C)	214.08
D	Carriage Cost of Local Sand				536.62
	1.2 Cft = 0.034 m ³	cum	3.40	157.83	536.62
				Total (D)	536.62
					3,070.44
	Total cost of (A+B+C+D) =	Bag			30.70
	Rate per Bag				
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	day	0.40	304.00	121.60
	Mate	day	2.00	370.00	740.00
	Mazdoor (Skilled)	day	8.00	292.00	2336.00
	Mazdoor (Unskilled)				
b)	Machinery				
	Tractor 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	cum	134.40	604.91	81299.90
	26.5 mm to 9.5 mm @ 35 per cent	cum	96.00	582.80	55948.80
	9.5 mm to 2.36 mm @ 25 per cent	cum	153.60	514.58	79039.49
	2.36 mm below @ 40 per cent - Local Sand	kl	30.00	40.00	1200.00
	Water				244998.59
	Cost of GSB for 300 cum	cum			816.66
	A) Cost of GSB without carriage per cum				
e)	CARRIAGE	Cum	0.768	1247.50	958.08
	Carriage for GSB material	Cum	0.512	1247.50	638.72
	Carriage for material below 2.36 mm (Local Sand)				2413.47
	Rate per cum with carriage				

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
b)	Labour			
	Mate	day	0.22	304.00
	Mason (1st class)	day	0.60	351.00
	Mazdoor (Unskilled)	day	4.80	292.00
	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	464.13
	Carriage cost of 7.5 m			6961.95
	B) Carriage cost per m	m		6961.95
	Rate per m = (A+B)	m		928.26
				6663.14
B.	1000 MM DIA (Single Row)			
a)	Material			
	RCC NP3 pipe including collar	m	7.50	2755.50
b)	Labour			
	Mate	day	0.09	304.00
	Mason (1st class)	day	0.25	351.00
	Mazdoor (Unskilled)	day	2.00	292.00
	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	464.13
	Carriage cost of 7.5 m			3480.98
	B) Carriage cost per m	m		3480.98
	Rate per m = (A+B)	m		464.13
				3312.84
C.	600 MM DIA (Double Row)			
a)	Material			
	RCC NP3 pipe including collar	m	15	1582.72
b)	Labour			
	Mate	day	0.04	304.00
	Mason (1st class)	day	0.12	351.00
	Mazdoor (Unskilled)	day	0.96	292.00
	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	187.82
	Carriage cost of 7.5 m			2817.30
	B) Carriage cost per m	m		2817.30
	Rate per m = (A+B)	m		375.64
				3585.69
D.	600 MM DIA (Single Row)			
a)	Material			
	RCC NP3 pipe including collar	m	7.50	1582.72
b)	Labour			
	Mate	day	0.04	304.00
	Mason (1st class)	day	0.12	351.00
	Mazdoor (Unskilled)	day	0.96	292.00
	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	187.82
	Carriage cost of 7.5 m			1408.65
	B) Carriage cost per m	m		1408.65
	Rate per m = (A+B)	m		187.82
				1815.15

U.S.P.
18/01/22
J.E

Don't
18/01/22
P.C

R. T.
18/01/22