



ग्रामीण कार्य विभाग

Rural Works Department, Govt of Bihar

PLAN HEAD- FDR(2245) YEAR 2020-21

DISTRICT :- East Champaran

BLOCK :- Patahi Tetaria

Estimate for Repair of Road breaches
(Damaged by Flood) for Motorability in
TETARIA TO MANIYARPUR.

ESTIMATED COST - 14.67 Lacs

14.213

SUBMITTED BY:
EXECUTIVE ENGINEER,
RWD WORKS DIVISION,
PAKRIDAYAL

Technical Report

F.D.R.(2020-21)

Name of Road:- Tetaria To Maniyarpur.

Length of Road:- 4.00 K.M

Name of Block:- Tetaria

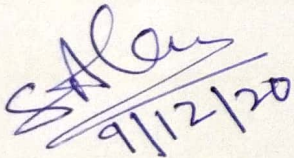
Project Head:- P.M.G.S.Y.

Package No:-

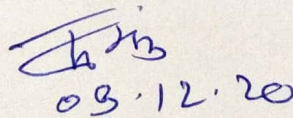
Estimated Cost:- 14.67 Lacs

This estimate has been prepared for temporary restoration of the above road damaged due to heavy rain/ Flood - 2020 under instruction of Rural Works Department vide letter no- 2789 dated. 21.08.2020. Brick Bats/ Local Sand Bag / Humepipe / Bamboo Pile / Soil has been provided as per need of the above damaged road. This road is under maintenance / out of maintenance.

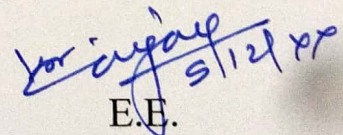
All items of this estimate has been taken from approved current schedule rate of works circle Motihari. This estimate is submitted for technical approval /Sanction.


9/12/20

J.E


03.12.20

A.E


5/12/20

E.E.

R.W.D.(w) Div. Pakridayal.

Name of Work:-

Estimate for Repair of Road breaches (Damaged by Flood) for Motorability in TETARIA TO MANIYARPUR.

Head - 2245

Length- 4.00 K.M

Sl No.	Item No.	Name of Item	unit	No	Length	Width	Height	Qty.	Rate	Amount
1		Labour for laying dry graded Jhama Khoa or stone filter under Brick Pitching or Boulder Pitching in slope or apron including light ramming etc. all complete as per approved design, specification and direction of E/I.	cum		As Per Appendix I			661.858	2216.20	1466809.7
									TOTAL (in Re.)	1466809.70

Say Re

1467000.00

S. Alan
9/12/20

Junior Engineer,
Rural Works Department,
Works Section, Tetaria

Ch. S. S.
09.12.20

Assistant Engineer,
Rural Works Department,
Works Sub Division, Tetaria

Pratibha
5/12/20

Executive Engineer,
Rural Works Department,
Works Division, Pakridayal

Post facto
T.A./T.S. is accorded for Rs. 14,21,300.00
(fourteen lacs twenty one thousand three hundred only)

Amu
29.12.20
S.E. (R.W.D.)
works Circ.
Motihari

Name of Work:-

Estimate for Repair of Road breaches (Damaged by Flood) for Motorability in TETARIA
TO MANIYARPUR.

Appendix - I

Measurement for surfacing the Breach with Brick Bats

Sl. No.	Chainage	Length (M)	Avg. Width In Meter	Avg. Depth In Meter	Quantity (Cum)
1.00	1.000 - 1.400	21.000	4.500	0.650	61.425
2.00	1.400 - 1.450	18.000	4.000	0.450	32.400
3.00	1.450 - 1.500	4.000	2.000	0.600	4.800
4.00	1.500 - 1.550	5.000	5.00+2.00/2	0.500	8.750
5.00	1.550 - 1.600	4.000	3.750	0.450	6.750
6.00	1.600 - 1.650	5.000	3.500	0.400	7.000
7.00	1.650 - 1.700	8.000	2.000	0.550	8.800
8.00	1.700 - 1.750	11.800	3.000	0.600	21.240
9.00	1.750 - 1.800	18.100	3.100	0.650	36.472
10.00	1.800 - 1.850	12.000	3.750	0.750	33.750
11.00	1.850 - 1.900	20.000	2.100	0.550	23.100
12.00	1.900 - 2.000	16.500	2.800	0.950	43.890
13.00	2.000 - 2.050	14.200	0.900	0.550	7.029
14.00	2.050 - 2.100	13.500	4.000	0.750	40.500
15.00	2.100 - 2.200	8.900	2.500	0.650	14.463
16.00	2.200 - 2.300	25.000	3.500	0.550	48.125
17.00	2.300 - 2.400	4.600	3.500	0.450	7.245
18.00	2.400 - 2.500	14.000	3.750	1.000	52.500
19.00	2.500 - 2.550	4.000	2.000	0.550	4.400
20.00	2.550 - 2.600	21.800	3.800	1.000	82.840
21.00	2.600 - 2.700	13.000	3.000	0.400	15.600
22.00	2.700 - 2.800	5.000	1.000	0.400	2.000
23.00	2.800 - 2.900	5.000	2.500	0.450	5.625
24.00	2.900 - 3.000	7.000	3.000	0.400	8.400
25.00	3.000 - 3.050	15.400	3.500	0.950	51.205
26.00	3.050 - 3.150	2.000	3.500	0.650	4.550
27.00	3.150 - 3.300	10.000	3.80+2.00/2	1.000	29.000
				Total	661.858

SALAN
9/12/20

Junior Engineer
Rural Works Department,
Works Section, Tetaria

Thib
03.12.20

Asistant Engineer
Rural Works Department,
Works Sub Division, Tetaria

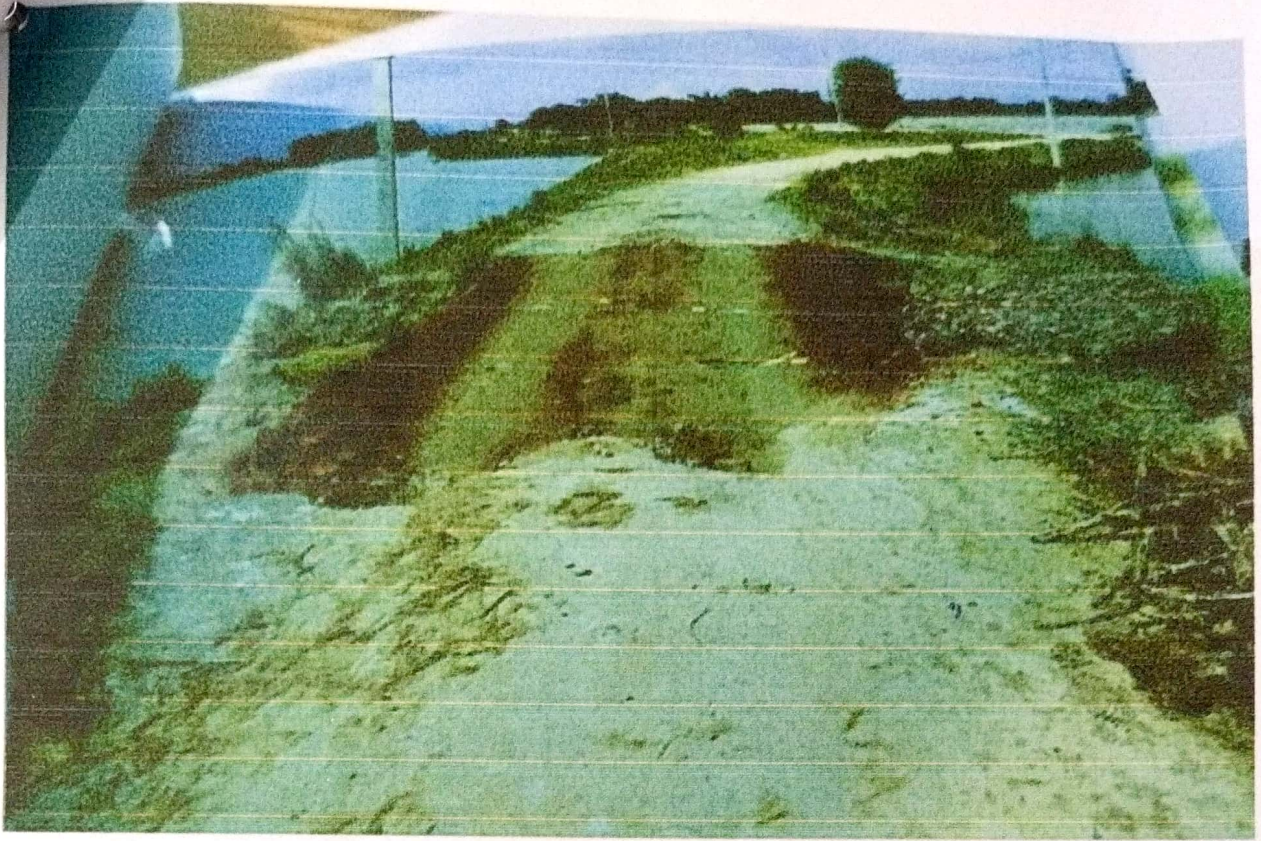
K. Rajan
5/12/20

Executive Engineer,
Rural Works Department,
Works Division, Pakridayal

BRICK BATS PITCHING MANUAL MEANS

5.6.1 NRD Bihar	Labour for laying dry graded Jhama Khoa or stone filter under Brick Pitching or Boulder Pitching in slope or apron including light ramming etc. all complete as per approved design, specification and direction of E/I.				
	Unit :- Per Cum				
	Taking Output = 2.832 Cum				
	Unskilled Mazdoor	Nos.	3	287.00	861.00
	Add 6% Overhead Charges				51.66
	Rate for 2.832 Cum				912.66
	Rate per Cum (Rs.) -				383.15
4 RCD	Cost of Haulage Excluding Loading and Unloading				
	Haulage of materials by Tractor excluding cost of loading, unloading and stacking.				
	Unit = t.km				
	Taking output 3.60 tonnes load and lead 10 km = 36.0 t.km				
	(i) Surfaced Road				
	Speed with load : 15 km / hour.				
	Speed while Returning empty :25 km / hour.				
	a) Machinery.				
	Tractor 3.6 tonne capacity				
	Time taken for onward haulage with load	hour	0.667	549.10	366.25
	Time taken for empty return trip.	hour	0.400	549.10	219.64
	b) Overhead charges @ 0.06 on (a)				35.15
	cost for 36 t km = a+b+c				621.04
	Rate per t.km = (a+b+c)/36				17.25
	Say Rs. -				17.25
	(ii) Unsurfaced Graveled Road				
	Speed with load: 12 km / hour				
	Speed for empty return trip :20 km / hour				
	a) Machinery				
	Tractor 3.6 tonnes capacity				
	Time taken for onward haulage with load	hour	0.833	549.10	457.40
	Time taken for empty return trip hour 0.50	hour	0.500	549.10	274.55
	b) Overhead charges @ 0.06 on (a)				43.92
	Cost for 36 t .km = a+b+c 840.34				775.87
	Rate per t.Km = (a+b+c)/36 23.34				21.55
	Say Rs. -				21.55

1 RCD	Loading and Unloading of Stone Boulder/ Stone aggregates/Sand /Kanker/Moorum				
	Placing Tractor at loading point, loading with frontloader, dumping, turning for return trip, excluding for haulage and return trip				
	Unit = cum				
	Taking output = 2.25 cum				
	Time required for				
	i) Positioning of Tractor at loading point		1 Min		
	ii) Loading by front end loader 1 cum bucket capacity @ 25 cum per hour		5 Min		
	iii) Maneuvering, reversing, dumping and turning for return		0 Min		
	iv) Waiting time, unforeseen contingencies etc		0 Min		
	Total		6 Min		
	a) Labour				
	Mate	day	0.03	305.00	9.15
	Mazdoor for loading and unloading	day	0.72	287.00	206.64
	b) Machinery				
	Tractor 3.60 tonnes capacity	hour	0.1	549.10	54.91
	Front end-loader 1 cum bucket capacity @ 25 cum/hour	hour	0.083	1403.00	116.45
	c) Overhead charges @ 0.06 on (a+b)				23.23
	Cost for 2.25 cum = a+b+c+d				410.38
	Rate per cum = (a+b+c+d)/ 2.25				182.39
Note:-	Unloading will be done manually.				
1.	Supplying for Brick Bats (with OH)				
A.	Basic Rate of Brick Bats	Per Cum		1017.00	1017.00
	Add overhed Charges		6%		61.02
	Total -				1078.02
	Surface Lead	KM	7		
	Unsurface Lead	KM	1		
	Factor (3.6/2.25)	Cum	1.60		
B.	Carriage (with OH)				
	(1.6 x 7 x 17.25) + (1.6 x 1 x 21.55) + 182.39				410.07
C.	Cost of Labour for Pitching and Light Ramming as per WRD SOR 6.6.1 (with OH)				383.15
	Total (A+B+C) -				1871.24
	Add 1% Labour Cess (A+B+C)				18.71
	Add 12% GST (A+B+C)				224.55
	Add 10% cost of Material for Seigniorage Fee		1	101.70	101.70
	Total Cost per Cum			Rs.-	2216.20



Sally
 10/12/20
 S-E

John
 10.12.20
 A-C

John
 10/12/20
 E-E



1
Chij
10.12.20
D.C



S. Alan
10/12/20
S.E

1
10/12/20
P2

File: 16.204704
Altitude: 52.54 m
Date: 2020-12-10 12:19
Site: Puri Chandra, Sri Lanka



Saleh
10/12/20
SE

JTB
10.12.20
A-G

L
10/12/20
BR