



ग्रामीण कार्य विभाग

Rural Works Department, Govt of Bihar

PLAN HEAD- FDR(2245) YEAR 2020-21

DISTRICT :- East Champaran

BLOCK :- Madhuban

Estimate for Repair of Road breaches
(Damaged by Flood) for Motorability in
KAURIYA TO DUBHA.

ESTIMATED COST -	3.03 2.938	Lacs
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SUBMITTED BY:
EXECUTIVE ENGINEER,
RWD WORKS DIVISION,
PAKRIDAYAL

Technical Report

F.D.R.(2020-21)

Name of Road:- Kauriya To Dubha.
Length of Road:- 5.443 K.M
Name of Block:- Madhuban.
Project Head:- P.M.G.S.Y
Package No:- BR-11R-262
Estimated Cost:- 3.03 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 Construction/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.

4/10.12.2020
J.E

10.12.20
A.E

10/12/20
E.E.
R.W.D.(w) Div. Pakridayal.

Name of Work:- Estimate for Repair of Road breaches (Damaged by Flood) for Motorability in KAURIYA TO DUBHA.

Head - 2245 Length- 5.443 K.M

SI 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/L.	cum		As Per Appendix I			136.81825	2216.20 2147.40	303216.606 293803.50
TOTAL (in Re.)									303000.00	303216.61
Say Re									303000.00	293800

W
10/12/2020

Junior Engineer,
Rural Works Department,
Works Section, Madhuban

Chh
10.12.20

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

Signature
10/12/20

Executive Engineer,
Rural Works Department,
Works Division, Pakridayal

Post facto is accorded for Rs. 2,93,800.00
(Two lacs ninety-three thousand
Eight hundred) only.

S.E. (R.W.D.)
works Circle
Motihari

29/12/20

Name of Work:-

**Estimate for Repair of Road breaches (Damaged by Flood) for Motorability in
KAURIYA TO DUBHA.**

Appendix - I


Measurement for surfacing the Breach with Brick Bats

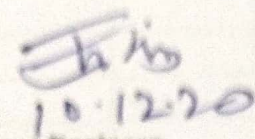
Sl. No.	Chainage	Length (M)	Avg. Width In Meter	Avg. Depth In Meter	Quantity (Cum)
1.00	0.00 - 0.800	8.500	$3.00+2.80+2.00/3$	0.300	6.630
2.00	0.800 - 1.200	4.500	2.300	0.300	3.110
3.00	1.200 - 1.350	4.700	1.200	0.300	1.690
4.00	1.350 - 1.400	3.500	3.750	0.450	5.906
5.00	1.400 - 1.700	9.000	3.200	0.300	8.640
6.00		1.800	2.000	0.300	1.080
7.00	1.700 - 2.000	3.000	2.600	0.300	2.340
8.00		2.500	0.600	0.300	0.450
9.00		3.200	2.700	0.300	2.592
10.00		6.700	0.900	0.300	1.809
11.00	2.00 - 2.050	5.400	0.800	0.300	1.296
12.00		4.700	1.500	0.300	2.110
13.00	2.050 - 2.300	7.200	3.000	0.400	8.640
14.00	2.300 - 2.400	13.000	$2.00+2.50+2.30/3$	0.300	8.840
15.00		3.500	1.500	0.400	2.100
16.00	2.400 - 2.820	15.500	3.000	0.600	27.900
17.00	2.820 - 2.840	6.000	2.800	0.300	5.040
18.00	2.840 - 2.900	3.000	2.800	0.300	2.520
19.00	2.900 - 3.000	2.500	3.000	0.200	1.500
20.00	3.000 - 3.050	2.500	2.500	0.300	1.875
21.00	3.050 - 3.100	3.500	0.750	0.200	0.525
22.00	3.100 - 3.120	2.500	0.800	0.300	0.600
23.00	3.120 - 3.200	3.400	1.500	0.200	1.020
24.00		7.000	3.100	0.250	5.425
25.00		3.200	2.200	0.300	2.112
26.00		4.000	2.200	0.300	2.640
27.00		8.500	3.200	0.300	8.160
28.00	3.200 - 3.250	4.600	2.000	0.300	2.760
29.00		4.600	2.200	0.300	3.036
30.00	3.250 - 3.350	20.500	2.600	0.300	15.990
31.00		1.400	1.000	0.300	0.420
32.00		2.400	1.600	0.300	1.152

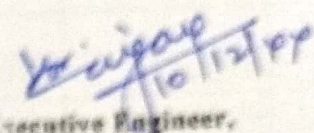
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Chainage	Length (M)	Avg. Width In Meter	Avg. Depth In Meter	Quantity (Cum)
3.337 - 3.400	2.500	1.200	0.300	0.900
	4.000	2.200	0.300	2.640
			Total	136.818


 10.12.2020
 Junior Engineer
 Rural Works Department,
 Works Section, Madhuban


 10.12.20
 Asistant Engineer
 Rural Works Department,
 Works Sub Division, Madhuban


 10/12/20
 Executive Engineer,
 Rural Works Department,
 Works Division, Pakridiyal

BRICK BATS PITCHING MANUAL MEANS

6.6.1 WRD 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				861.00
	Unskilled Mazdoor	Nos.	3	287.00	51.66
	Add 6% Overhead Charges				912.66
	Rate for 2.832 Cum				383.15 322.27
	Rate per Cum (Rs.) -				
1.4 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	0.500	549.10	274.55
	b) Overhead charges @ 0.06 on (a)				43.92
	Cost for 36 t .km = a+b+c				775.87
	Rate per t.Km = (a+b+c)/36				21.55
	Say Rs. -				21.55

1.1 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
	Mazdoor for loading and unloading	day	0.72	287.00
	b) Machinery			
	Tractor 3.60 tonnes capacity	hour	0.1	549.10
	Front end-loader 1 cum bucket capacity @ 25 cum/hour	hour	0.083	1403.00
	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)			322.27
	Total (A+B+C) -		1810.36	1871.24
	Add 1% Labour Cess (A+B+C)		18.10	18.71
	Add 12% GST (A+B+C)		217.24	224.55
	Add 10% cost of Material for Seigniorage Fee	1	101.70	101.70
	Total Cost per Cum		Rs.-	2216.20

2147.40