



ग्रामीण कार्य विभाग

Rural Works Department, Govt of Bihar

PLAN HEAD- FDR(2245) YEAR 2020-21

DISTRICT :- East Champaran

BLOCK :- Patahi

Estimate for Repair of Road breaches
(Damaged by Flood) for Motorability in JIHULI
TO JIHULI GHAT VIA JAMUNIYA TOLA.

ESTIMATED COST - 16.39 Lacs

15.882

SUBMITTED BY:
EXECUTIVE ENGINEER,
RWD WORKS DIVISION,
PAKRIDAYAL

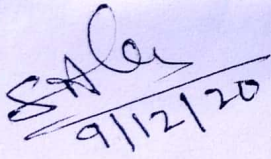
Technical Report

F.D.R.(2020-21)

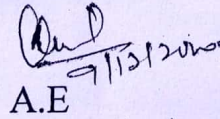
Name of Road:- Jihuli To Jihuli Ghat Via Jamuniya Tola.
Length of Road:- 3.600 K.M
Name of Block:- Patahi
Project Head:- New Maintenance Policy 2018
Package No:- M.R. -N/2019-20 Pakridayal/09
Estimated Cost:- 16.39 Lacs

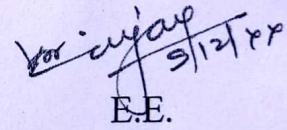
This estimate has been prepared for temporary restoration of the above road damaged due to heavy rain/ Flood - 2020 under instruction of Rural Works Department vide letter no- 2789 dated. 21.08.2020. Brick Bats/ Local Sand Bag / Humepipe / Bamboo Pile / Soil has been provided as per need of the above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


9/12/20

J.E


9/12/2020
A.E


9/12/20
E.E.

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

Time of Work:-

Estimate for Repair of Road breaches (Damaged by Flood) for Motorability in JIHULI TO JIHULI GHAT VIA JAMUNIYA TOLA.

Head - 2245

Length- 3.600KM

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			739.61563	2216.20 2147.40	1639136.15 1588239=
TOTAL (in Re.)									1639136.15	

Say Re 1639000.00 15,88,200=

S. A. L.
9/12/20

Junior Engineer,
Rural Works Department,
Works Section, Patahi

Qul
9/12/20

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

K. S. J.
9/12/20

Executive Engineer,
Rural Works Department,
Works Division, Pakridayal

Post facto T.A./TS is accorded for Rs. 15,88,200 = ~
(..... crore Fifteen lacs Eighty Eight thousand
Two hundred) only.

Qul
29/12/20
S.E. (R.W.D.)
works Circle
Motihari

SA
29/12/20

Name of Work:-

Estimate for Repair of Road breaches (Damaged by Flood) for Motorability in JIHULI
TO JIHULI GHAT VIA JAMUNIYA TOLA.

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	0.200 - 0.700	10.000	1.800	0.850	15.300
2.00	0.700 - 0.800	15.000	2.800	0.600	25.200
3.00	0.800 - 0.850	9.000	3.000	0.750	20.250
4.00	0.850 - 0.900	15.000	3.750	0.900	50.625
5.00	0.900 - 1.000	19.800	4.000	0.800	63.360
6.00	1.000 - 1.100	12.500	3.300	1.200	49.500
7.00	1.100 - 1.200	23.500	3.700	2.000	173.900
8.00	1.200 - 1.300	14.250	3.750	1.800	96.188
9.00	1.300 - 1.500	19.450	2.750	0.950	50.813
10.00	1.500 - 1.600	15.600	2.000	0.700	21.840
11.00	1.600 - 1.700	20.000	2.900	1.500	87.000
12.00	1.700 - 1.800	15.900	3.000	1.200	57.240
13.00	1.800 - 2.900	4.000	2.800	2.000	22.400
14.00	2.900 - 3.000	2.000	1.500	2.000	6.000
				Total	739.616

S. A. L.
9/12/20

Junior Engineer
Rural Works Department,
Works Section, Patahi

Q. M. S.
9/12/20

Asistant Engineer
Rural Works Department,
Works Sub Division, Patahi

V. S. S.
9/12/20

Executive Engineer,
Rural Works Department,
Works Division, Pakridayal

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				
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

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	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

RED	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.	Suplying 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