



ग्रामीण कार्य विभाग

Rural Works Department, Govt of Bihar

PLAN HEAD- FDR(2245) YEAR 2020-21

DISTRICT :- East Champaran

BLOCK :- Phenhara

Estimate for Repair of Road breaches
(Damaged by Flood) for Motorability in
SHEKHAUNA TO MARPA KOTHIA.

ESTIMATED COST - ~~14.36~~ Lacs
13.898

SUBMITTED BY:
EXECUTIVE ENGINEER,
RWD WORKS DIVISION,
PAKRIDAYAL

Technical Report

F.D.R.(2020-21)

Name of Road:- Shekhauna To Marpa Kothia
Length of Road:- 3.200 K.M
Name of Block:- Phenhara
Project Head:- P.M.G.S.Y
Package No:- BR-11R-303
Estimated Cost:- 14.36 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.

W
10.12.2020
J.E

A.E
10/12/2020
A.E

R.W.D.
10/12/2020
E.E.

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

Name of Work:-

Estimate for Repair of Road breaches (Damaged by Flood) for Motorability in SHEKHAUNA TO MARPA KOTHIA.

Head - 2245

Length- 3.200 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			666.538	2153.83 2085.03	1435609.54 1389751.72
TOTAL (in Re.)										1435609.54

Say Re ~~1436000.00~~
1389800

W
10.12.2020

Junior Engineer,
Rural Works Department,
Works Section, Phenhara

Ami
10/12/20

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

Kanjay
10/12/20

Executive Engineer,
Rural Works Department,
Works Division, Pakridayal

Post Facto T.A./D.S is accorded for Rs. 13,89,800 = ru
(.....crore Thirteen lacs Eighty Nine
.....thousand
.....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
SHEKHAUNA TO MARPA KOTHIA.**

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	0.000-0.015	14.000	4.100	0.300	17.220
2.00	0.015-0.080	52.000	3.750	0.300	58.500
3.00	0.080-0.120	16.000	3.800	0.600	36.480
4.00	0.120-0.150	8.000	1.200	0.500	4.800
5.00	0.150-0.230	25.500	4.000	0.900	91.800
6.00	0.230-0.300	7.300	1.200	0.600	5.256
7.00	0.300-0.320	25.000	1.50+1.30+1.20/3	0.750	25.000
8.00	0.320-0.350	2.600	1.400	0.800	2.912
9.00	0.350-0.430	16.000	1.00+1.30+1.10/3	0.600	10.880
10.00	0.430-0.450	12.500	2.40+2.40+2.00/3	0.900	25.500
11.00	0.450-0.470	14.200	4.00+3.50/2	0.750	39.940
12.00	0.470-0.490	3.400	1.000	0.600	2.040
13.00	0.490-0.510	15.000	4.000	0.900	54.000
14.00	0.510-0.530	7.000	0.900+1.00/2	0.750	4.990
15.00	0.530-0.540	9.000	2.00+1.30+2.00/3	0.900	14.310
16.00	0.540-0.550	17.400	5.00+4.50+5.00/3	0.600	50.460
17.00	0.550-0.920	30.000	4.500	0.750	101.250
18.00	0.920-1.020	50.500	4.000	0.600	121.200
				Total	666.538

4/10.12.2020

Junior Engineer

Rural Works Department,
Works Section, Phenara

10/12/2020

Asistant Engineer

Rural Works Department,
Works Sub Division, Phenara

10/12/2020

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				775.87
	Rate per t.Km = (a+b+c)/36				21.55
	Say Rs. -				21.55

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	5		
Unsurface Lead	KM	1		
Factor (3.6/2.25)	Cum	1.60		
B. Carriage (with OH)				
(1.6 x 5 x 17.25) + (1.6 x 1 x 21.55) + 182.39				354.87
C. Cost of Labour for Pitching and Light Ramming as per WRD SOR 6.6.1 (with OH)				-383.15
Total (A+B+C) -				-1816.04
Add 1% Labour Cess (A+B+C)				18.16
Add 12% GST (A+B+C)				217.92
Add 10% cost of Material for Seigniorage Fee		1	101.70	101.70
Total Cost per Cum			Rs.-	2153.83

2085=03