



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
PHENHARA TO IJORBARA.

ESTIMATED COST - ~~7.59~~ Lacs

7.357

SUBMITTED BY:
EXECUTIVE ENGINEER,
RWD WORKS DIVISION,
PAKRIDAYAL

Name of Road:- Phenhara To Ijorbara.
Length of Road:- 4.784 K.M
Name of Block:- Phenhara
Project Head:- P.M.G.S.Y
Package No:- BR-11R-266
Estimated Cost:- 7.59 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

Am
10/12/20
A.E

P. W. D. (w)
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 PHENHARA TO IJORBARA.

Head - 2245

Length- 4.784 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			342.585	2216.20 2147=40	759236.877 735667=0
TOTAL (in Re.)										759236.88

Say Re ~~759000.00~~

7,357000=0

4/10.12.2020

Junior Engineer,
Rural Works Department,
Works Section, Phenhara

10/12/20

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

10/12/20

Executive Engineer,
Rural Works Department,
Works Division, Pakridayal

Post Fee to -

T.A / D is accorded for Rs. 7,35,700 = 0

(.....) crore Seven lacs Thirty Five thousand

Seven hundred only

S.E. (R. & W.)
works Circle

Motihari

29/12/20

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 - 0.080	7.500	3.500	0.200	5.250
2.00		4.000	1.400	0.300	1.680
3.00		4.800	2.00+1.50/2	0.300	2.520
4.00		7.200	1.800	0.300	3.888
5.00		3.400	0.600	0.300	0.612
6.00		3.500	0.800	0.300	0.840
7.00		3.400	2.400	0.300	2.448
8.00	0.080 - 0.090	7.500	3.000	0.300	6.750
9.00	0.090 - 0.100	5.500	2.500	0.300	4.125
10.00	0.100 - 0.200	5.100	3.00+1.50/2	0.300	3.440
11.00		3.300	2.800	0.300	2.772
12.00		4.400	3.500	0.300	4.620
13.00		5.000	3.500	0.300	5.250
14.00		3.000	3.500	0.300	3.150
15.00		2.200	1.800	0.200	0.792
16.00		4.000	2.800	0.300	3.360
17.00		2.500	1.500	0.300	1.125
18.00		2.000	2.000	0.300	1.200
19.00	0.200 - 0.300	2.000	3.000	0.300	1.800
20.00		4.700	1.600	0.300	2.256
21.00		5.200	1.20+1.00/2	0.300	1.720
22.00		3.600	2.500	0.300	2.700
23.00		3.800	2.300	0.300	2.622
24.00	0.300 - 0.350	1.800	0.800	0.300	0.432
25.00	0.350 - 0.500	5.00+3.50/2	4.000	0.350	5.950
26.00		2.600	1.500	0.300	1.170
27.00		3.500	2.700	0.300	2.835
28.00		5.800	2.800	0.400	6.496
29.00		1.200	1.000	0.300	0.360
30.00		2.800	2.000	0.300	1.680
31.00	0.500 - 0.550	2.500	2.800	0.300	2.100
32.00		2.000	2.000	0.300	1.200
33.00		5.000	2.500	0.150	1.875
34.00	0.550 - 0.600	1.500	0.600	0.200	0.180
35.00	0.600 - 0.650	3.800	2.500	0.300	2.850
36.00		2.600	2.000	0.300	1.560
37.00		5.700	1.500	0.300	2.565
38.00		4.600	1.600	0.300	2.208
39.00		2.000	1.400	0.300	0.840
40.00		45.000	3.800	0.300	51.300
41.00	0.650 - 0.800	10.000	3.750	0.300	11.250
42.00	0.800 - 1.000	5.000	3.000	0.300	4.500
43.00	1.000 - 1.300	2.800	2.600	0.400	2.912
44.00		3.700	3.000	0.450	4.995
45.00		2.300	1.900	0.300	1.311

	Chainage	Length (M)	Avg. Width In Meter	Avg. Depth In Meter	Quantity (Cum)
47.00	1.300 - 1.350	7.000	2.800	0.300	5.880
48.00		7.000	2.700	0.300	5.670
49.00	1.350 - 1.400	4.000	4.000	0.450	7.200
50.00		23.000	3.500	0.300	24.150
51.00	1.400 - 1.550	12.500	1.500	0.350	6.563
52.00	1.550 - 1.620	9.400	1.800	0.300	5.076
53.00	1.620 - 1.900	4.000	2.500	0.400	4.000
54.00		2.500	2.000	0.300	1.500
55.00	1.900 - 2.200	3.500	1.500	0.300	1.575
56.00	2.200 - 2.600	36.000	4.000	0.300	43.200
57.00		3.500	3.000	0.450	4.725
58.00	2.600 - 2.650	2.000	1.000	0.300	0.600
59.00		6.400	4.200	0.450	12.096
60.00		4.300	2.500	0.450	4.838
61.00	2.650 - 2.700	4.000	2.800	0.300	3.360
62.00		3.200	2.200	0.350	2.464
63.00	2.700 - 2.750	10.000	3.800	0.450	17.100
	2.750 - 2.850	7.500	3.800	0.600	17.100
				Total	342.585

4
10-12-2020

Junior Engineer

Rural Works Department,
Works Section, Phenhara

10/12/20

Assistant Engineer

Rural Works Department,
Works Sub Division, Phenhara

10/12/20

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
	Add 6% Overhead Charges			861.00
	Rate for 2.832 Cum			51.66
	Rate per Cum (Rs.) -			912.66
				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
	Time taken for empty return trip.	hour	0.400	549.10
	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
	Time taken for empty return trip hour 0.50	hour	0.500	549.10
	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

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.	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
	Total Cost per Cum		Rs.-	2216.20