



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
CHAMPAPUR JAI MANGAL RAY HOUSE TO
MIRZAPUR SIWAN.

ESTIMATED COST - 10.37 Lacs

10.052

SUBMITTED BY:
EXECUTIVE ENGINEER,
RWD WORKS DIVISION,
PAKRIDAYAL

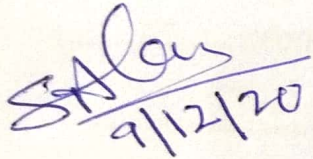
Technical Report

F.D.R.(2020-21)

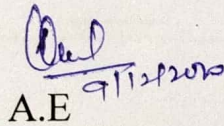
Name of Road:- Champapur Jai Mangal Ray House To Mirzapur Siwan.
Length of Road:- 2.500 K.M
Name of Block:- Patahi
Project Head:- New Maintenance Policy 2018
Package No:- M.R. -N/2019-20 Pakridayal/10
Estimated Cost:- 10.37 Lacs

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~~.

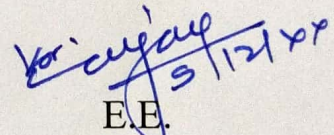
All items of this estimate has been taken from approved current schedule rate of works circle Motihari. This estimate is submitted for technical approval /Sanction.


9/12/20

J.E


9/12/2020

A.E


9/12/20

E.E.

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

Name of Work:-

Estimate for Repair of Road breaches (Damaged by Flood) for Motorability in CHAMPAPUR JAI MANGAL RAY HOUSE TO MIRZAPUR SIWAN.

Head - 2245

Length- 2.500KM

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			468.116	2216.20 2147.40	1037438.68 1005238
TOTAL (in Re.)									1037000.00 10,05,200 = ₹	1037438.68

Say Re

10,05,200 = ₹

SALAY
9/12/20

Junior Engineer,
Rural Works Department,
Works Section, Patahi

Am
9/12/20

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

For Engineer
9/12/20

Executive Engineer,
Rural Works Department,
Works Division, Pakridayal

Post Fee to

T A T S is accorded for Rs. 10,05,200 = ₹

(.....crore.....Ten.....lacs.....Five.....Thousand
.....Two.....hundred.....) only

Am
28/12/20
S.E. (R.W.D.)
works Circle
Motihari

Am
29/12/20

Name of Work:-

Estimate for Repair of Road breaches (Damaged by Flood) for Motorability in
CHAMPAPUR JAI MANGAL RAY HOUSE TO MIRZAPUR SIWAN.

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	0.100 - 0.200	7.800	2.000	0.650	10.140
2.00	0.200 - 0.300	5.600	2.100	0.700	8.232
3.00	0.300 - 0.350	18.900	2.600	0.850	41.769
4.00	0.350 - 0.400	11.400	3.400	0.900	34.884
5.00	0.400 - 0.450	8.000	2.000	0.950	15.200
6.00	0.450 - 0.700	10.000	3.200	1.200	38.400
7.00	0.700 - 0.750	5.000	2.500	0.900	11.250
8.00	0.750 - 0.800	15.700	2.500	0.800	31.400
9.00	0.800 - 0.850	8.000	3.750	1.200	36.000
10.00	0.850 - 0.900	10.000	3.750	0.900	33.750
11.00	0.900 - 0.950	8.000	2.500	0.800	16.000
12.00	0.950 - 1.000	5.900	3.700	0.700	15.281
13.00	1.000 - 1.100	8.000	3.000	0.850	20.400
14.00	1.100 - 1.150	15.200	3.700	0.950	53.428
15.00	1.150 - 1.200	11.800	3.700	0.900	39.294
16.00	1.200 - 1.250	8.900	3.000	0.800	21.360
17.00	1.250 - 1.300	16.400	3.600	0.700	41.328
				Total	468.116

SALAN
9/12/20

Junior Engineer
Rural Works Department,
Works Section, Patahi

Asistant Engineer
9/12/20

Asistant Engineer
Rural Works Department,
Works Sub Division, Patahi

Executive Engineer
9/12/20

Executive Engineer,
Rural Works Department,
Works Division, Pakridayal

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

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
Re:-	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