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 Motoribility in MATHIA TO CHAMPAPUR.

ESTIMATED COST -   4.12   Lacs
                      3.994

SUBMITTED BY:
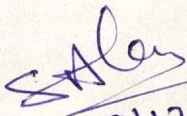EXECUTIVE ENGINEER,
RWD WORKS DIVISION,
PAKRIDAYAL

Technical Report
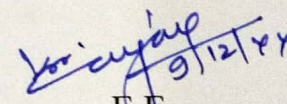
Name of Road:-   Mathia To Champapur.

Length of Road:-   8.500 K.M

Name of Block:-   Patahi

Project Head:-   MR-3054 (Class-I)

Package No:-   N/A

Estimated Cost:-   4.12 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 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

9/12/૪૪

E.E.

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

of Work:- **Estimate for Repair of Road breaches (Damaged by Flood) for Motoribility in MATHIA TO CHAMPAPUR.**

- 2245   Length- 8.500 KM

Sl N.	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			185.994	2216.20 ~~2147.40~~	412199.903 ~~399403.4~~
									TOTAL (in Re.)	~~412199.90~~
									Say Re	412000.00 399,400/-

S.Alay
9/12/20

Junior Engineer,
Rural Works Department,
Works Section, Patahi

9/12/2020.

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

for Vijay 9/12/PP

Executive Engineer,
Rural Works Department,
Works Division, Pakridayal

Post facto
T.A./T.S is accorded for Rs. 3,99,400.00
(................crore..Three..lacs..ninetynine..thousand
Four..hundred ....)only.

29/1/22
S.E. (R.W.D)
works Circ...
29/12/20 **Motihari**

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Estimate for Repair of Road breaches (Damaged by Flood) for Motoribility in MATHIA TO CHAMPAPUR.

of Work:-

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	8.000 – 8.100	18.550	2.300	0.800	34.132
1.00	8.100 – 8.150	15.500	2.200	0.700	23.870
1.00	8.400 – 8.400	35.600	3.900	0.600	83.304
1.00	8.400 – 8.450	16.800	3.800	0.700	44.688
				Total	185.994

9/12/20

Junior Engineer
Rural Works Department,
Works Section, Patahi

9/12/2020

Asistant Engineer
Rural Works Department,
Works Sub Division, Patahi

9/12/??

Executive Engineer,
Rural Works Department,
Works Division, Pakridayal

3.1 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 h	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**

Loading and Unloading of Stone Boulder/ Stoneaggregates/Sand /Kanker/Moorum

Placing Tractor at loading point, loading with frontloader, dumping, turning for return trip, excludingfor 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.	**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**