



ग्रामीण कार्य विभाग

Rural Works Department, Govt of Bihar

PLAN HEAD- FDR(2245) YEAR 2020-21

DISTRICT :- East Champaran

BLOCK :- Pakridayal

Estimate for Repair of Road breaches
(Damaged by Flood) for Motorability in RCC
Bridge over Kachhua Moti River at Parsauni
village.

ESTIMATED COST - 8.618 Lacs

SUBMITTED BY:
EXECUTIVE ENGINEER,
RWD WORKS DIVISION,
PAKRIDAYAL

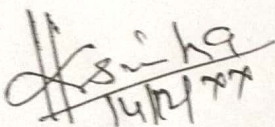
Technical Report

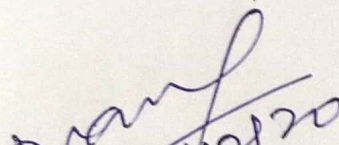
F.D.R.(2020-21)

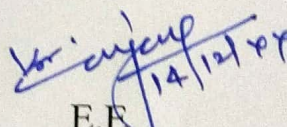
Name of Road:- RCC Bridge over Kachhua Moti River at Parsauni village.
Length of Road:- 45.370 M
Name of Block:- Pakridayal.
Project Head:- STATE SCHEME (NABARD) Package No:-
Estimated Cost:- 8.61 Lacs

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.


J.E.


A.E.


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

Name of Work:-

Estimate for Repair of Road breaches (Damaged by Flood) for Motorability in RCC Bridge over Kachhua Moti River at Parsauni village.

Head - 2245

Length- 45.370 METER

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/I.	cum		As Per Appendix I			373.04	2147.41 2147.40	801069.826 801066.10
2		Providing & Supplying NP3 HP 1000 MM DIA Fixed In Proper Palace.	cum		2X3X2.5 = 15 Meter			15	3981.91	59728.65
TOTAL (in Re.)										860798.48 860794.2

Say Re

861000.00

860794.2

860800.2

[Signature]
14/12/20

Junior Engineer,
Rural Works Department,
Works Section, Pakridayal

[Signature]
14/12/20

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

[Signature]
14/12/20

Executive Engineer,
Rural Works Department,
Works Division, Pakridayal

Post Facto T.A./TS is accorded for Rs. 86,0,800.20
(.....crore Eight lacs Sixty thousand
Eight hundred only.

[Signature]
29/12/20
S.E. (R.W.D.)
works Circle
Motihari

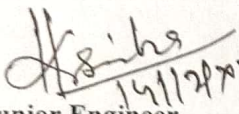
Name of Work:-

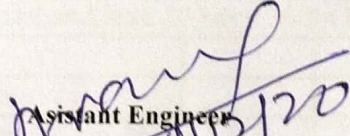
Estimate for Repair of Road breaches (Damaged by Flood) for Motorability in RCC Bridge over Kachhua Moti River at Parsauni village.

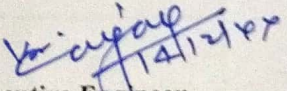
Appendix - I

Measurement for surfacing the Breach with Brick Bats

Sl. No.	Chainage	Length (M)	Avg. Width In Meter	Avg. Depth In Meter	Quantity (Cum)
1	Just Side Of Under Construction H.L BRIDGE.	60.000	5.000	1.300	390.000
	0.000 - 0.1700			Total	390.000
	Deduction For Hume Pipe 0.7854X1.44X15				16.960
			Net Quantity Of Bricks Bat		373.040


Junior Engineer
Rural Works Department,
Works Section, Pakridayal


Assistant Engineer
Rural Works Department,
Works Sub Division, Pakridayal


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.) -				322.27
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

1.1 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.	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)			322.27
	Total (A+B+C) -			1810.36
	Add 1% Labour Cess (A+B+C)			18.10
	Add 12% GST (A+B+C)			217.24
	Add 10% cost of Material for Seigniorage Fee	1	101.70	101.70
	Total Cost per Cum		Rs.-	2147.41

QUANTITY FOR NEW H.P. CULVERT

Proposed and New H.P. C
Internal Diameter
No. of Rows

0 nos
1000 mm
1 nos

Sl. No.	Description of Items				Qty for single row one	Rate	Amount
1	Earth work in excavation for foundation of structures upto 3.0 m depth as per drawing and technical specification clause 1104						
	H.W. Below Pipe	2 1	x x	6.450 5.000	x x	1.675 0.540	= =
						33.492 4.131	
2	Sand Filling in Foundation Trenches as per drawing and technical specification Clause 1108 - rate as per item No. 11.2 (I) of Chapter 11				37.62	cum	269.32
	H.W. Below Pipe	2 1	x x	6.450 5.593	x x	0.100 0.100	= =
						2.000 0.856	
					2.86	cum	400.59
3	Brick Flat Soling in foundation:- Brick Flat Soling in foundation Trenches as per drawing and technical specification Clause 1108						
	H.W. Below Pipe	2 1	x x	6.450 5.653	x x	1.550 1.530	= =
						19.995 8.650	
					28.64	sqm	289.47
4	Plain cement concrete M15 (PCC 1:2.5:5) in levelling course below open foundation of head walls as per drawing and technical specification clause 1109						
	H.W. Below Pipe	2 1	x x	6.300 5.766	x x	1.400 1.530	= =
	Less for pipe	0.188	x	0.7857	x	1.230 ²	=
						5.955	
					6.17	cum	5,350.00
					6.17	cum	33,010.00
5	Brick Masonry work in cement mortar (1:4) in head wall complete as per drawing and technical specification clause 1109 in cement mortar 1:4						
	H.W. Parapet	2 2 2	x x x	6.150 6.150 0.7857	x x x	0.825 0.400 1.230 ²	= =
	Less for pipe					2.465 0.600 0.612	= =
						25.014 2.952 1.455	
					26.51	cum	5,484.54
6	Providing and laying 1000 mm Dia RCC pipe NP-3 for culverts on first class bedding of PCC M10 (1:3:6) in single row including fixing collar with cement mortar 1:2 but excluding excavation, protection works, backfilling concrete and masonry works in head						
		3	x	2.50			=
						7.50	
7	Plastering with cement mortar (1:4) on brick work in sub-structure as per Technical Specifications						
	Outer Sides	2	x	6.150	x	1.830	=
	Inner Sides	2	x	6.150	x	0.600	=
						22.509 7.380	
					7.50	m	3,981.91
					7.50	m	29,864.00

Top	2	"	6.180	"	6.400	"	6.500
Ends	4	"	6.818	"	1.800	"	5.111
Ends (Parapet)	4	"	6.400	"	6.800	"	5.500
Less	2	"	6.7857	"	1.800	"	5.377
							16.400
							197.000
							6,118.000
2. Providing 1.5 mm cement pointing including cutting carriage of water with all heads and 10% on per building specifications and direction of E/I							
Top	2	"	6.180	"	6.400	"	6.500
Ends	4	"	6.800	"	6.800	"	5.500
Inner Sides	2	"	6.180	"	6.800	"	7.500
							13.200
							100.000
							545.000
							5,345.000.000

COST OF ONE HP. CULVERT Size (1000mm x Single Row) Rs.

Cost of 6 H.P. CULVERT Size (1000 mm) Rs. =

3.300

A.E.

E.E.

[Signature]
12/11/2024
J.E.