



ग्रामीण कार्य विभाग

Rural Works Department, Govt of Bihar

PLAN HEAD- FDR YEAR 2024-25

DISTRICT :- WEST CHAMPARAN
BLOCK :- BHITAH

Scheme Head - MMGSY (In Maintenance)

Estimate for Repair of ROAD breaches
(Damaged by Flood) for Motorability in
Karaihiya Basauli East tola to Karaihiya
Basauli Bichla tola

LENGTH OF ROAD (In Km) - 0.70 KM
DAMAGED LENGTH (In Km) - 0.20KM

ESTIMATED COST - 13.942 Lacs

SUBMITTED BY:
EXECUTIVE ENGINEER,
RWD WORKS DIVISION,
BAGHA 2



GENERAL ABSTRACT OF COST

ESTIMATE FOR REPAIR OF ROAD BREACHES (DAMAGED BY FLOOD) FOR
MOTORIBILITY IN KARAIHIYA BASAULI EAST TOLA TO KARAIHIYA
BASAULI BICHLA TOLA

DISTRICT - WEST CHAMPARAN

DIVISION - BAGAHA 2

BLOCK - BHITAHA

LENGTH OF ROAD (in Km)- 0.7 KM

Scheme Head - MMGSY (In Maintenance)

SL. No.	Item of Work	Amount
1	EARTH WORK :	0.000 Lacs
2	BRICK BATS :	7.452 Lacs
3	SAND BAGS :	0.061 Lacs
4	BAMBOOS PILING AND RUNNER :	0.608 Lacs
5	HUME PIPE :	2.982 Lacs
	COST OF RESTORATION :	11.102 Lacs
	ADD SEIGNIORAGE FEE @ 10% OF MATERIAL COST :	0.711 Lacs
	ADD LABOUR CESS @ 1% :	0.111 Lacs
	ADD GST @ 18% (Cost of Restoration+Labour Cess) :	2.018 Lacs
	TOTAL COST OF RESTORATION OF ROAD :	13.942 Lacs

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18/11/24
Junior Engineer

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18/11/24
Asstt. Engineer

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18-11-24
Executive Engineer

Technical sanction for Rs 13.942 lacs (Rupees thirteen lacs
Ninety four thousand and two hundred) only.

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अधीक्षण अभियंता
ग्रामीण कार्य विभाग
कार्य अंचल, बेतिया
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Name of Work:- Estimate for Repair of ROAD breaches (Damaged by Flood) for Motorability in Karahiya Basauli
East tola to Karahiya Basauli Bichla tola

Head - FDR

Sl No.	Item No.	Name of Item	unit	No	Length	Width	Height	Qty.	Rate	Amount
1		EARTH WORK - Construction of embankment with approved material obtained from borrow pits with a lift upto 1.5 m, transporting to site, spreading, grading to required slope and compacting to meet requirement of Tables 300.1 and 300.2 with a lead upto 1000 m as per Technical Specification Clause 301.5	cum		As Per Appendix I			0	154.27	0
2		Providing and Labour for laying dry graded Brick Bats including light ramming etc. all complete as per approved design, specification and direction of E/I.	cum		As Per Appendix II			369.180	2018.43	745163.99
3		Providing, Filling Sand Bag, Stitching and Placing etc. all complete as per specification and direction of E/I.	Nos.		As Per Appendix III			371.000	16.50	6121.50
4		Providing and Labour for cutting 62 mm to 75 dia Bamboo piles to size and making shoes and driving etc. complete job as per specification and direction of E/I.	RM		As Per Appendix IV			828.800	59.48	49297.02
5		Providing and Labour for fitting & fixing 62 mm to 75 dia Bamboo runners in position at every vertical pile with 150 mm long nails or 38 swg G.I. wire including cost of G.I. wire or nails etc. complete job as per specification and direction of E/I.	RM		As Per Appendix IV			420.000	27.29	11461.80
6		Providing and laying 1000 mm dia reinforced cement concrete pipe NP3 for culvert on first class bedding of granular material in single row excluding excavation, protection works, backfilling, concrete and masonry.	RM		18 Nos*2.5m			45.000	6626.07	298173.15
7		Providing and laying 600 mm dia reinforced cement concrete pipe NP3 for culvert on first class bedding of granular material in single row excluding excavation, protection works, backfilling, concrete and masonry.	RM		0 Nos*2.5m			0.000	2891.42	0.00
TOTAL (in Re.)										1110217.46

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Junior Engineer,
Rural Works Department,
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Assistant Engineer,
Rural Works Department,
Works Sub Division, BHITAHA

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Executive Engineer,
Rural Works Department,
Works Division, BAGAHA 2

SEIGNIORAGE FEE CALCULATION SHEET

Item description	unit	Quantity of Consuming Item	Materials Required/ Unit	Unit	Quantity/ Unit	Total Quantity Requeired	Rate	Amount	Seigniorage Fee (RS)	Final Amount (RS)
Earth Work	Cum	0.00	Earth	Cum	1.0	0.00	35.25	0.00	0.00	0.00
Brick bats	Cum	369.18	Brick bats	Cum	1.2	443.02	1600.00	708825.60	70882.56	70882.56
Sand Bags	per bag	371.00	sand	Cum	0.034	12.61	150.00	1892.10	189.21	189.21
1000 MM Dia	RM	45.00	Sand at site	Cum	0.04	1.80	0.00	0.00	0.00	0.00
600 MM Dia	RM	0.00	Sand at site	Cum	0.0032	0.00	0.00	0.00	0.00	0.00
Total Amount of seginorage fee in construction (Rs)										71071.77

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Executive Engineer
RWD (W) Div Badha-2



Name of Work:-

Estimate for Repair of ROAD breaches (Damaged by Flood) for Motorability in Karaihiya Basauli East tola to Karaihiya Basauli Bichla

Appendix - II							
Measurement for surfacing the Breach with Brick Bats							
Sl. No.	Chainage	Nos	Length (M)	Av. Width (M)	Thickness (M)	Quantity (cum)	
1		1	4.00	5.50 Av.	1.00 Av.	22.00	
2		1	11.00	5.50 Av.	1.30 Av.	78.65	
3		1	4.50	5.50 Av.	1.00 Av.	24.75	
4		1	5.50	5.50 Av.	1.50 Av.	45.38	
5	Slope Portion (1:1)	2	11.00	0.65 Av.	1.30 Av.	18.59	
6	Slope Portion (1:1)	2	4.50	0.50 Av.	1.00 Av.	4.50	
7	Slope Portion (1:1)	2	5.50	0.75 Av.	1.50 Av.	12.38	
8		1	6.50	5.00 Av.	1.20 Av.	39.00	
9		1	2.00	5.00 Av.	1.10 Av.	11.00	
10		1	2.50	5.00 Av.	1.50 Av.	18.75	
11	Slope Portion (1:1)	2	6.50	0.60 Av.	1.20 Av.	9.36	
12	Slope Portion (1:1)	2	2.00	0.55 Av.	1.10 Av.	2.42	
13	Slope Portion (1:1)	2	2.50	0.75 Av.	1.50 Av.	5.63	
13	Approch Road	2	4.00	3.00 Av.	0.60 Av.	14.40	
14		1	2.50	3.00 Av.	0.45 Av.	3.38	
15		1	3.00	3.00 Av.	0.45 Av.	4.05	
16		1	3.00	2.50 Av.	0.45 Av.	3.38	
17		1	2.50	2.50 Av.	0.45 Av.	2.81	
18	Slope Portion (1:1) - Approach Road	1	15.00	0.37 Av.	0.73 Av.	4.03	
19	Re Damaged at Hume Pipe section	2	21.00	1.00 Av.	1.27 Av.	53.20	
20	Slope (1:1) - Re Damaged at Hume Pipe	2	21.00	0.63 Av.	1.27 Av.	33.69	
21	Approch Road - Re damaged	1	2.50	1.00 Av.	0.45 Av.	1.13	
22		1	3.50	2.50 Av.	0.30 Av.	2.63	
23		1	2.50	2.50 Av.	0.35 Av.	2.19	
24		1	2.50	2.50 Av.	0.45 Av.	2.81	
			Total				420.08
	Deduction for 18Nos old 1000 mm HP at 45 m (3.142*0.36*45)						-50.90
	Deduction for 0Nos old 600 mm HP at 0 m (3.142*0.22*0)						0.00
	Net Quantity of Brick Bats						369.18

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Junior Engineer

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Executive Engineer
RWD (W) Div. Bahadur

Name of Work:- Estimate for Repair of ROAD breaches (Damaged by Flood) for Motorability in Karaihiya Basauli East tola to Karaihiya Basauli Bichla tola

Appendix - III						
Measurement for surfacing the Breach with Sand Bags						
Sl. No.	Chainage	Nos	Length (M)	Av. Width	Thicknes s (M)	Quantity (cum)
1		2	25.00	0.50 Av.	0.60 Av.	15.00
2		2	2.50	0.50 Av.	0.40 Av.	1.00
3		1	4.00	0.50 Av.	0.20 Av.	0.40
4		0	0.00	0.00 Av.	0.00 Av.	0.00
			Total			16.40

16.40 X 35.28 578.59
 LESS 20% 462.8736
BAGS 462.8736 / 1.25 371 Nos.

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 Executive Engineer
 RWD (W) Div Badha-2

Name of Work:- Estimate for Repair of ROAD breaches (Damaged by Flood) for Motorability in Karaihiya Basauli East tola to Karaihiya Basauli Bichla tola

Appendix - IV						
Measurement for Bamboo Piles						
Sl. No.	Chainage	Nos	Length (M)		C/C (M)	Quantity (Nos.)
1		2	88.00	/	0.600	296.00
			Total			296.00

296.00 X 2.8 M 828.80
Bamboo Length for Piles 828.80 M

Measurement for Bamboo Runner						
Sl. No.	Chainage	Nos	Length (M)		No.	Quantity (M)
1		4	35.00	/	3	420.00
			Total			420.00

Bamboo Length for Runner 420.00 M

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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	395.00	1185.00
	Add 6% Overhead Charges				0
	Rate for 2.832 Cum				1185.00
	Rate per Cum (Rs.) -				418.43
1.	Supplying for Brick Bats (without Seigniorage Fee)				
A.	Brick Bats with Carriage	Per Cum		1600.00	1600.00
B.	Cost of Labour for Pitching and Light Ramming as per WRD SOR 6.6.1				418.43
	Total (A+B) -				2018.43
	Add 1% Labour Cess (A+B+C)				0.00
	Add 12% GST (A+B+C)				0.00
	Add 10% cost of Material for Seigniorage Fee		1	0.00	0.00
	Total Cost per Cum			Rs.-	2018.43

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Executive Engineer
RWD, Works Division, Bagaha-2
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PROVIDING AND PLACING SAND BAGS

Ref. RCD SoR (12.9)	Labour for Filling Sand Bag, Stitching and Placing etc. all complete as per specification and direction of E/I.				
	Unit :- Per Bag				
	Taking Output = 750 Bag				
	Unskilled Mazdoor	Nos.	15	395.00	5925.00
	Add 6% Overhead Charges				0.00
	Rate for 750 Bag				5925.00
	Mazdoor Rate per Bag (Rs.) -				7.90
1.	Supplying of Empty Cement Bag filled with Local Sand				
A.	Rate of Empty Cement Bag	Per Bag		3.50	3.50
	Add Royalty (450 Bricks/Cum)		450	0.000	0.00
	Add overhed Charges		0%		0.00
	Total -				3.50
B.	Suplying for Local Sand (without Seigniorage Fee)				
	Rate of Local Sand with Carriage	Cum		150.00	150.00
	Add Royalty (450 Bricks/Cum)		450	0.000	0.00
	Add overhed Charges		0%		0.00
	1 No. Cement Bag filled with 40 Kg. / 1.2 CuFt Sand				
	Conversion factor: 1 m3 = 35.3146667 ft3				
	1) Cubic Meter = Cubic Foot / 35.3146667				
	2) Cubic Meter = 1.2 / 35.3146667				
	3) Cubic Meter = 0.034				
	Hence 1 No. Sand Bag Filled with 0.034 Cum Sand				
	Total Cost of Local Sand -		0.034	150.00	5.10
C.	Cost of Labour for Filling Sand Bag, Stitching and Placing (with OH)				
					7.90
	Total (A+B+C) -				16.50
	Add 1% Labour Cess (A+B+C)				0.00
	Add 12% GST (A+B+C)				0.00
	Add 10% cost of Material for Seigniorage Fee		0.034	14.48	0.00
	Total Cost per Bag			Rs.-	16.50

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Executive Engineer
RWD, Works Division, Bagaha-2

Chapter 9

PIPE CULVERTS

Sr. No.	Reference to MORD Specifications	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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9.3

1100

Providing and Laying Reinforced Cement Concrete Pipe NP3 as per design in Single Row

Providing and laying reinforced cement concrete pipe NP3 in single row including fixing collar but excluding excavation, protection works, backfilling, concrete and masonry.

Unit = m

Taking output = 7.5 m

(3 pipes of 2.5 m length each)

(B) 1000 mm dia

a) Labour

Mate

day 0.09 411.00 36.99

Mason (1st Class)

day 0.25 474.00 118.50

Mazdoor (Unskilled)

day 2.00 395.00 790.00

b) Material

RCC pipe NP3 concrete pipe including collar at site

m 7.50 6,500.00 48,750.00

Cost for 7.5 m = a+b+c+d

49,695.49

Rate per m = (with carriage)

6,626.07

(C) 600 mm dia

a) Labour

Mate

day 0.05 411.00 20.55

Mason (1st Class)

day 0.15 474.00 71.10

Mazdoor (Unskilled)

day 1.20 395.00 474.00

b) Material

RCC pipe NP3 concrete pipe including collar at site

m 7.50 2,816.00 21,120.00

Cost for 7.5 m = a+b+c

21,685.65

Rate per m = (with carriage)

2,891.42

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AE

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Executive Engineer
RWD, Works Division, Bagaha-2

SOR WRD 5.7.7 Labour for cutting 62 mm to 75 dia Bamboo piles to size and making shoes and driving etc. complete job as per specification and direction of E/I.

Unit :- Per M
Taking Output :- 30.5 M

(Assuming 20 nos pile sunk 1.525 M deep) total
depth sunk = 9.30 M

Carpentar	0.25 Nos.	500.00	125.00
Unskilled Mazdoor	2.5 Nos.	395.00	987.50

Rate for 30.50 M			1112.50
Cost of Labour for cutting per M			36.48
Supplying for Bamboos 75mm dia, 6m to 8m long	1 M	23.00	23.00
Final Rate per M			59.48

SOR WRD 5.7.9 Labour for fitting & fixing 62 mm to 75 dia Bamboo runners in position at every vertical pile with 150 mm long nails or 38 swg G.I. wire including cost of G.I. wire or nails etc. complete job as per specification and direction of E/I.

Unit :- Per M
Taking Output :- 30.5 M

(Assuming 20 nos pile sunk 1.525 M deep) total
depth sunk = 9.30 M

Cost of 150 mm Long Nails	0.5 Kg	64.41	32.21
Carpentar	0.125 Nos.	-	0.00
Unskilled Mazdoor	0.25 Nos.	395.00	98.75

Rate for 30.50 M			130.96
Cost of Labour for fitting & fixing per M			4.29
Supplying for Bamboos 75mm dia, 6m to 8m long	1 M	23.00	23.00
Final Rate per M			27.29

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