



ग्रामीण कार्य विभाग

Rural Works Department, Govt of Bihar

FLOOD DAMAGED REPAIR (F.D.R.)

STATE :- BIHAR
DISTRICT :- GOPALGANJ
BLOCK :- MANJHA

Motorable Work of Bhaisahi to Nimuyia PMGSY Road

Estimated Cost:- Rs 4209312.00

Submitted By: -

Executive Engineer

Rural works Division Gopalganj – 2

Inspection Report For Flood Damage Work

2:

Name of PIUs : E.E, R.W.D, Works division, Gopalgarh-2

Name of Block/Road : Manjha / Bhaisahi to Nimuyia PMGSY Road.

For Road

Damage Location / Chainage : 668 to 750, 1462 to 1550
2560 to 2600

Damage Length : 83.00 M

Nature of Damage: Breaches develops due to flood.

Details of Restoration Works:

- i. Material being used in Restoration Works: Bricks Bats and Sand Bags
- ii Equipments / Tools being used in Restoration Works : JCB, Tractor and Manpower
- iii Procedure taken up in Restoration Works: As per SOP
- iv Restored Length: 83.00 M

For Bridge

Damage Location / Chainage:

Damage Length:

Nature of Damage:

Details of Restoration Works:

- i. Material being used in Restoration Works :
- ii Equipments / Tools being used in Restoration Works :
- iii Procedure taken up in Restoration Works:
- iv Restored Length :


Sanjit Singh
23/09/2022
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(Name of Inspector)

	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	Providing empty cement Bag filled with local sand stitching, placing on proper place with all respect.				
A.	Basic Rate of Sand Bag	Per Bag		8.46	8.46
	Add overhed Charges		6%		0.51
	Total -				8.97
	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				
	Surface Lead	KM	2		
	Katcha Lead	KM	1		
	Factor (3.6/2.25)	Cum	1.60		
B.	Carriage (with OH)				
	(1.6 x 2 x 17.25) + (1.6 x 1 x 26.95) + 182.39				280.71
	Cost of Carriage of Sand in Filling of one Sand Bag				
			280.71	0.034	9.54
C.	Cost of Labour for Filling Sand Bag, Stitching and Placing (with OH)				6.08
D.	Contractor Profit @10% on (A+B+C)				2.46
	Total (A+B+C+D) -				27.05
	Add 1% Labour Cess (A+B+C+D)				0.27
	Add 12% GST (A+B+C)				3.25
	Add 10% cost of Material for Seigniorage Fee		0.034	14.19	0.48
	Total Cost per Bag			Rs.-	31.04


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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 (=100 cft)				
	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				775.87
	Rate per t.Km = (a+b)/36				21.55
	Say Rs. -				21.55

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DETAILED ESTIMATE FOR MOTORABLE WORK

Name of Work :- Motorable work of Bhaisahi to Nimuyia PMGSY Road

Length :- 4.779 KM

SI No.	Description of Item	Chainage		No.	Length (M)	Avg. width (M)	Avg. Depth (M)	Qty	Unit	Unit rate (in Rs.)	Amount
		From	To								
1	Providing brick bats filled in ditches including all cost of material and labour in all respect complete the job as per direction of Engineer in Charge.	668	750	1	21.00	$(6.5+3.5)/2$	3.80	399.00	Cum		
		1462	1550	1	14.00	$(11.7+9)/2$	2.80	405.72	Cum		
				1	3.00	3.50	0.50	5.25	Cum		
				1	9.30	$((6.8+9.2+10.7)/3)$	2.80	231.76	Cum		
				1	4.30	3.55	1.30	19.84	Cum		
		2553	2600	1	7.70	4.40	1.30	44.04	Cum		
				1	9.00	3.75	1.50	50.63	Cum		
				1	14.00	3.30	1.70	78.54	Cum		
		4300	4500	1	30.00	6.10	0.50	91.50			
				1	30.00	5.10	1.40	214.20			
				1	30.00	4.40	1.05	138.60			
				1	8.00	4.50	0.45	16.20			
								Total Qty	1695.28	Cum	2427.65
											4115545.28
2	Labour for Filling Sand Bag, Stitching and Placing etc. all complete as per specification and direction of E/I.	668	750	1				170	Nos.		
		1462	1550	1				260	Nos.		
		4300	4500	1				220	Nos.		
								Total Qty	650.00	Nos.	29.74
3	Providing and Laying 600 mm dia NP-3 Hume Pipe culvert and fixing as per direction E/I	4300	4500	6	2.5			15.00	Nos.	31.04	193312
										2058.38	20176.00
										2127.65	30876.20
										4139409	31914.75
										Total Cost	4167636.03
										Add Labour cess 1%	41676.36
										Say Rs.	4209312.00

Prayash
23/09/2020

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Technically Approved for Rs 41.808 lac (Rupees Forty one lac. Eighty Thousand & Eight Hundred) only

13/11/20

Superintending Engineer
RWD Work Circle-Sawar


11/01/2021

23/9/20

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418080320
Say Rs 41.808 lac

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			410.38
	Rate per cum = (a+b+c)/ 2.25			182.39
Note:-	Unloading will be done manually.			
1.	Providing Brick filling in ditches including all cost of labour and materials			
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
D.	Contractor profit @ 10 % on (A+B+C)			187.12
	Total (A+B+C+D) -			2058.36
	Add 1% Labour Cess (A+B+C)			20.58
	Add 12% GST (A+B+C)			247.00
	Add 10% cost of Material for Seigniorage Fee	1	101.70	101.70
	Total Cost per Cum		Rs.-	2427.65


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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	Nos.	15	287.00
	Unskilled Mazdoor			4305.00
	Add 6% Overhead Charges			258.30
	Rate for 750 Bag			4563.30
	Mazdoor Rate per Bag (Rs.) -			6.08
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
	(iii) Katcha Track			
	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	1.000	549.10
	Time taken for empty return trip	hour	0.667	549.10
	b) Overhead charges @ 0.06 on (a)			54.92
	Cost for 36 t .km =			970.27
	Rate per t.Km =			26.95
	Say Rs. -			26.95
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	


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STATEMENT OF CASE

Name of Work :- Motorable work of Bhaisahi to Nimuyia PMGSY Road

Estimated Cost :- Rs. 4209312.00

Length :- 4.779 KM

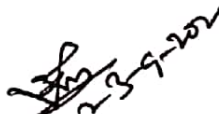
Description:- The estimate has been framed under the supervision of Assistant Engineer in accordance with the order of Executive Engineer, RWD Work Division Gopalganj – 2, letter No. -1574 dated 18.08.2020. The part of above mentioned road has been damaged due to heavy rain /flood and due to this reason damage the transportation facility has been obstructed. The immediate Motorable work is necessary to public interest. Villagers and transport facility will be benefitted by the completion of this Motorable work.

In the Estimate there has been a provision of repairing the damaged part of the road & making it Motorable by filling of Brickbats etc. In the context of post flood scenario there is still the flow of water which prevails through the damaged part of road.

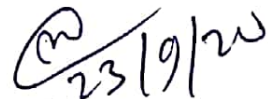
In this estimate the rate of raw material and labour wages has been prepared after the analysis of new rate. This estimate is as per the specifications. The estimate is submitted for technical and administrative acceptance.


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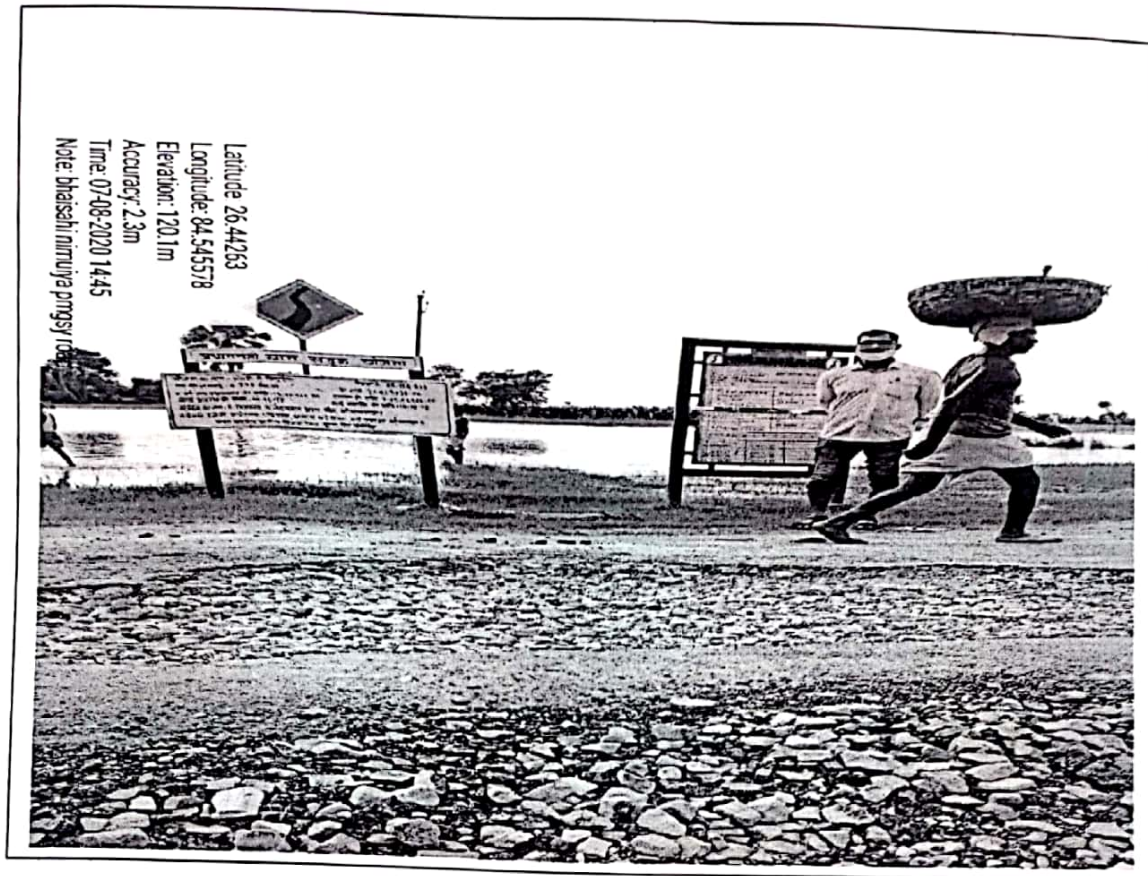


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Motorable work of Bhaisahi to Nimuyia PMGSY Road

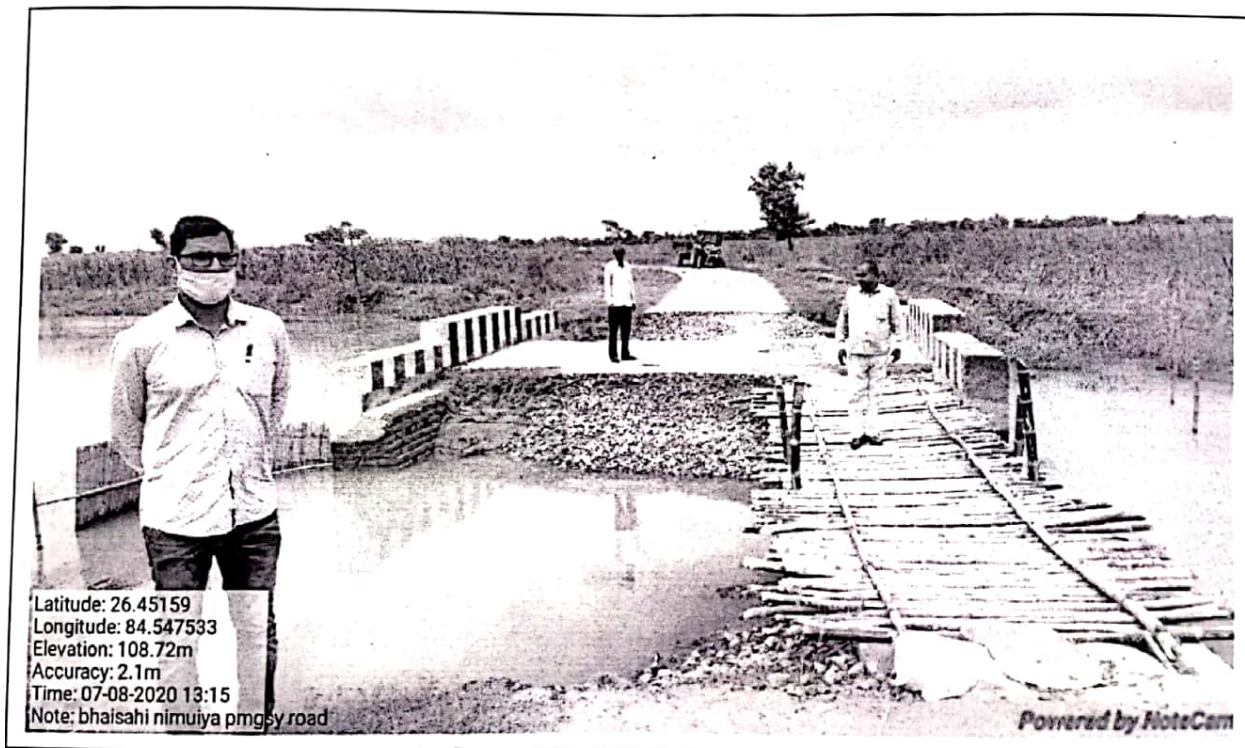
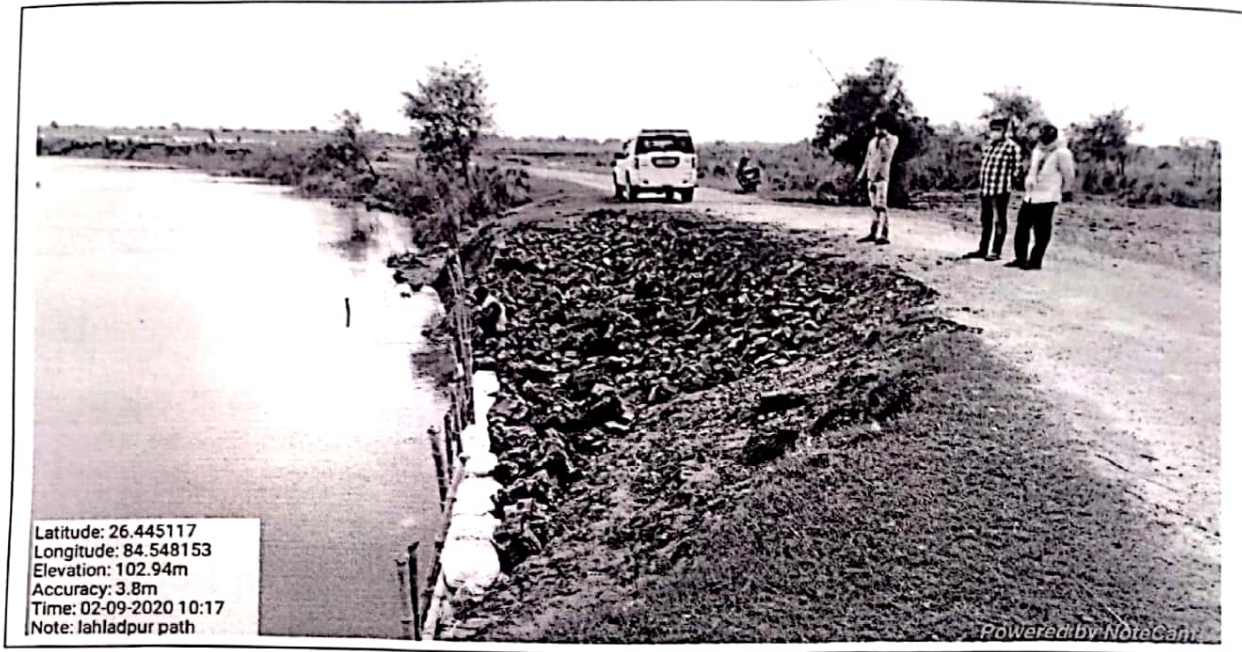


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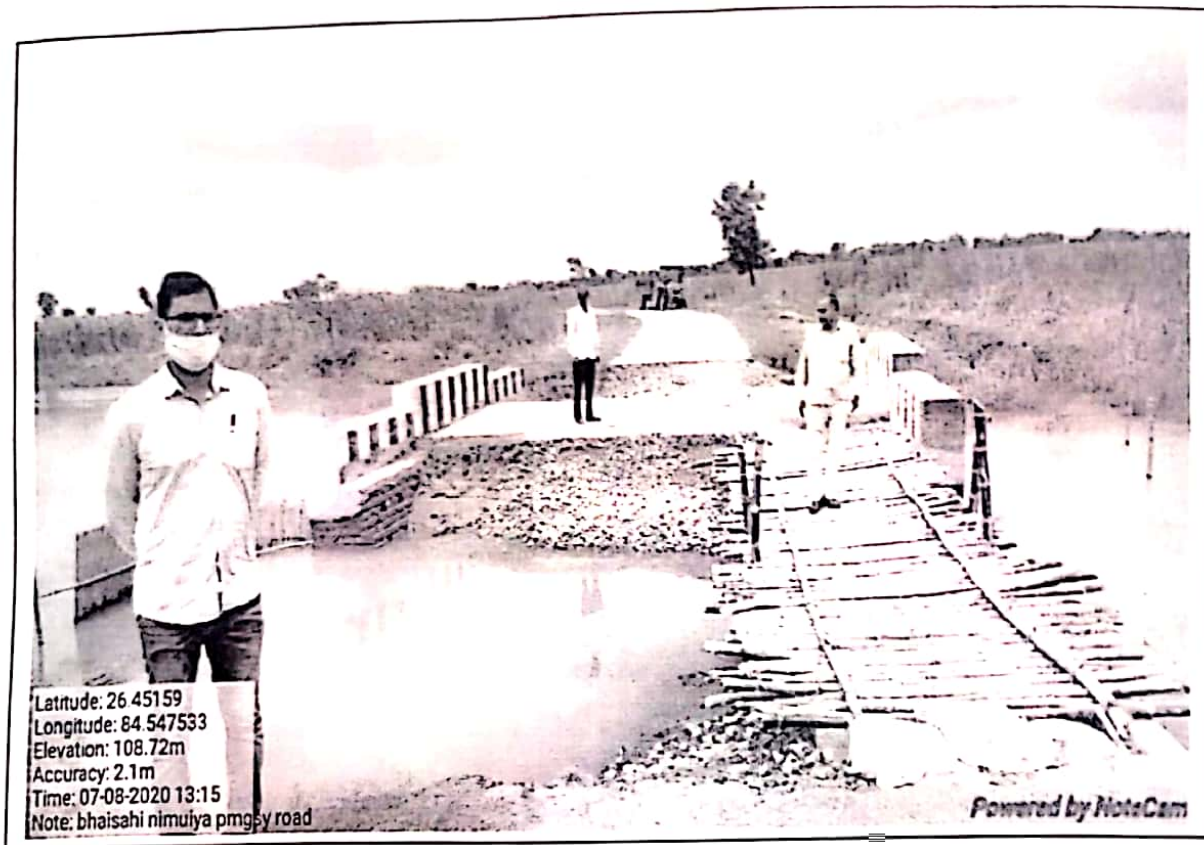
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Pravin
23/09/2020
JR.

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