



ग्रामीण कार्य विभाग

Rural Works Department, Govt of Bihar

DETAILED PROJECT REPORT FOR REPAIRING OF ROAD F.D.R. PART - A (2020 - 21)

DETAILED ESTIMATE FOR F.D.R. RESTORATION WORK

DISTRICT :	BHAGALPUR	BLOCK :	KHARIK
NAME OF ROAD :	MD. MUSTAKIN KE GHAR TO MURLIDHAR THAKUR KE GHAR TAK VIA MAHADALIT TOLA		
TOTAL LENGTH OF ROAD	:	1.244	KMS
TOTAL COST OF FDR. PART - A	:	17.004	LACS
ADD G.S.T. @ 12 %	:	2.041	LACS
ADD LABOUR CESS @ 1%	:	0.170	LACS
ADD SF @ 10%	:	0.228	LACS
	:	19.443	LACS

SUBMITTED BY
The Executive Engineer
Works Division, Naugachhiya

GENERAL ABSTRACT OF COST

Name of Road : Md. Mustakin ke Ghar to Murlidhar Thakur ke
Ghar tak via Mahadalit Tola

District : BHAGALPUR

Length : 1.244 KM

Block : Bihpur

S.No.	Particulars		Details	Total Cost (in Rs.)
1.	Cost of Road Restoration work	:	1.244 KM	1700436.00
2.	ADD GST @ 12 %	:		204052
3.	ADD LC @ 1 %	:		17004
4.	EST @ 10%	:		22835
	Total Cost of Restoration work	:		1944328
			Say	19,44,328 ²⁰⁰ 1944328

A.E.
21-10-2020
A.E.

16/11/20
Executive Engineer
RWD(W) Division
Nagachhia

*Technically approved for Rs 19,44,328 (Rupees
ninteen lac forty four thousand three hundred and
eighty eight only)*

16/11/20
Superintending Engineer
Rural Works Department
Works Circle, Bhagalpur

ESTIMATE FOR ROAD RESTORATION WORK

Name of Road: MD. MUSTAKIN KE GHAR TO MURLIDHAR THAKUR KE GHAR TAK
VIA MAHADALIT TOLA
Length: 1.244KM
BIDR: KHARAK
District: BHAGALPUR

Sl. No.	S.S.R. Item No.	Description	No	Length (M)	Width (M)	H/D (M)	Qty.	Unit	Rate (In Rs.)	Amount (In Rs.)
	8.7.83	Providing sand bag with sand and labour including cartage, laying, filling etc. all complete job as per specification and direction of E.I.					27,771			
		As per attached "Annexure - B"					27,771	/ bags	31.22	8,67,011.00
	8.7.83	Providing New bag and N.C with labour for filling item E.C. bag with local sand, stitching on two lines by approval (1mx1mx1m)					783			
		As per attached "Annexure - C"					783	/ N.C.	1064.42	83425.00
							Total Cost of Flood Protective work =			17,00,436.00

Seal
21/10/2020
J. E.

A
21-10-2020
A. E.

Seal
16/12/20
E. E.

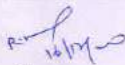
ANNEXURE "B"
Measurement of E.C.

Name of Road -> MD. MUSTAKIN KE GHAR TO MURLIDHAR THAKUR KE GHAR TAK VIA MAHADALIT TOLA
Length -> 2.244 KM

Block :- Kkarik

No.	Chainage (m)	No.	Length (m)	Width (m)			Average width (m)	Depth (m)			Average depth (m)	Qty. (cum)	No. of E.C. (Bags)
1.	0m-215 m RHS	1	215.0	2.0	1.0		1.50	0.90			0.90	290.25	8537
2.	0m-215 m LHS	1	215.0	2.0	1.0		1.50	1.00			1.00	322.50	9485
3.	215m-278 m LHS	1	59.0	2.0	1.0		1.30	0.80			0.80	70.80	2082
4.	278m-294 m LHS	1	20.0	2.0	1.0		1.50	0.60			0.60	18.00	529
5.	278m-294 m RHS	1	20.0	2.0	1.0		1.50	0.80			0.80	24.00	706
6.	297m-327 m LHS	1	20.0	2.0	1.0		1.50	0.50			0.50	15.00	441
7.	320m-330 m LHS	1	8.0	2.0	1.0		1.50	0.80			0.80	9.60	282
8.	400m-420 m RHS	1	20.0	2.0	1.0		1.50	1.00			1.00	30.00	882
9.	420m-420 m RHS	1	12.0	2.0	1.0		1.50	0.90			0.90	16.20	476
10.	480m-495 m RHS	1	8.0	2.0	1.0		1.50	1.10			1.10	13.20	388
11.	500m-500 m RHS	1	10.0	2.0	1.0		1.50	1.50			1.50	22.50	662
12.	500m-560 m RHS	1	19.0	2.0	1.0		1.50	1.40			1.40	39.90	1174
Near Culvert													
		1	19.0	2.0	1.0		1.50	1.00			1.00	21.00	618
		1	10.0	2.0	1.0		1.50	1.50			1.50	22.50	662
		1	12.0	2.0	1.0		1.50	1.60			1.60	28.80	847
											Total =	944.25	27771


21-10-2020
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16/11/20
E.E.

MEASUREMENT OF R.C. ROAD

Name of Road :- MCD. MUSTAFIKI KE GINAR TO MAURUDHAR THAKUR KE GINAR VIA MAHADALI TOLA
Block :- Kharik
Length :- 1.344 KM

sr. no.	chainage (m)	Nos.	Length (m)	Width (m)		Average width (m)	Depth (m)		Average depth (m)	Qty. (cum)	No. of N.C. (Bags)
1	0 m-215 m RHS	1	40.0	2.0	1.0	1.50	2.00		2.00	120.00	120
2	0 m-215 m LHS	1	60.0	2.0	1.0	1.50	2.00		2.00	180.00	180
3	215 m-245 m LHS	1	30.0	2.0	1.0	1.50	2.00		2.00	90.00	90
4	245 m-294 m LHS	1	20.0	2.0	1.0	1.50	2.00		2.00	60.00	60
5	274 m-289 m RHS	1	15.0	2.0	1.0	1.50	2.00		2.00	45.00	45
6	307 m-325 m LHS	1	18.0	2.0	1.0	1.50	2.00		2.00	54.00	54
7	580 m-588 m LHS	1	8.0	2.0	1.0	1.50	2.00		2.00	24.00	24
8	600 m-616 m RHS	1	16.0	2.0	1.0	1.50	2.00		2.00	48.00	48
9	620 m-632 m RHS	1	12.0	2.0	1.0	1.50	2.00		2.00	36.00	36
10	908 m-919 m LHS	1	11.0	2.0	1.0	1.50	2.00		2.00	33.00	33
11	926 m-938 m LHS	1	12.0	2.0	1.0	1.50	2.00		2.00	36.00	36
12	950 m-969 m LHS	1	19.0	2.0	1.0	1.50	2.00		2.00	57.00	57
Total =										783.00	783

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16/11/24
E.E.

Rate Analysis for Carriage of Materials

Name of Road : MD. MUSTAKIN REGHAR TO MURIDHAR THAKUR KE GHAR TAK VIA MAHADATTI TOLA

Sl No	Item	Unit	Source	Carriage Cost & Lead in Km										Loading & Unloading Cost	Carriage Cost per Ton. Km (By Road)		
				Pucca / Surface					Katcha								
				8.00	x	16.32	x	80.00 Km	=	Rs 2093.21	0.00	x	25.47			x	0.00 Km
1	Stone Metal Gr-III / GSB	Cum	Mirachanta	4.99	x		x		=		4.99	x		x		=	
2	Brick/ Brick Bats	Cum	Local	3.60	x	16.32	x	7.00 Km	=	Rs 215.33	3.60	x	25.47	x	1.00 Km	=	Rs 48.01
				1.91	x		x		=		1.91	x		x		=	
3	Local Sand	Cum	Local	3.60	x	16.32	x	2.00 Km	=	Rs 57.60	3.60	x	25.47	x	1.00 Km	=	Rs 44.05
				2.01	x		x		=		2.01	x		x		=	
4	Earth	Cum	Local	8.00	x	16.32	x	0.00 Km	=	Rs 0.00	8.00	x	25.47	x	1.00 Km	=	Rs 33.96
				6.00	x		x		=		6.00	x		x		=	
5	House Pipe (1000 mm)	M	Purnia	8.00	x	16.32	x	52.00 Km	=	Rs 678.93	8.00	x	25.47	x	0.00 Km	=	Rs 0.00
				10.00	x		x		=		10.00	x		x		=	
6	House Pipe (600 mm)	M	Purnia	8.00	x	16.32	x	52.00 Km	=	Rs 771.57	8.00	x	25.47	x	0.00 Km	=	Rs 0.00
				25.00	x		x		=		25.00	x		x		=	

* Subjected to Verification of Lead

Cost of Haulage Excluding Loading & Unloading as per SDR

Type of Road	Per Ton. Km by Tractor	Per Ton. Km by Tipper
For Surface Road	16.32	
Unsurface Gravel Road	0.00	
Katcha Road	25.47	

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E. E.

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BASIC RATES AS PER LATEST SOR AS ON 06/05/2020 vide RCD letter no- 53 (Encl.), dated- 11.05.2020
(A) LABOUR

Sl. No.	Description of Labour	Unit	Rate (Rs.)
L-01	Ghisi	day	257
L-02	Bitumen Sprayer(semi skilled)	day	302
L-03	Blacksmith, special	day	388
L-04	Blaster, 2nd class	day	477
L-05	Carpenter 1st Class	day	388
L-06	Chips spreader, semi-skilled	day	345
L-07	Chieffor	day	384
L-08	Dresser (Skilled)	day	334
L-09	Drifter, 2nd class	day	345
L-10	Electrician, skilled	day	367
L-11	Fitter, skilled	day	383
L-12	Mason (1st class)	day	288
L-13	Mason (2nd Class)	day	345
L-14	Mole, Semi skilled	day	306
L-15	Mazdoor (Unskilled)	day	287
L-16	Mazdoor (Semi skilled)	day	299
L-17	Mazdoor (Skilled)	day	354
L-18	Painter (1st class)	day	337
L-19	Plumber, Special	day	367
L-20	Surveyor	day	349
L-21	White Washer	day	387

SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	QTY	Rate	Amount in Rs
		Crane	hour	0.33	1289.30	425.47
		Cost for 21 pipes = a+b+c+d				883.39
		Rate per pipe = (a+b+c+d)/21	per p			98.15
		Total per p				98.15
	(ii)	Unloading of RCC Hume pipe by Mechanical means including a lead upto 30 m				
	A.	1000/1200 mm dia RCC Hume pipes				
		Unit = per pipe				
		Taking output = 9 pipes				
	a)	Labour	day	0.02	305.00	6.10
		Mate	day	0.50	287.00	143.50
		Mazdoor (Unskilled)				
	b)	Machinery	hour	0.20	934.30	186.86
		Truck	hour	0.20	1289.30	257.86
		Crane				594.32
		Cost for 9 pipes = a+b+c+d				66.04
		Rate per pipe = (a+b+c+d)/9	per p			66.04
		Total per p				
	C.	600/450 mm dia Hume pipe				
		Unit = per pipe				
		Taking output = 21 pipes				
	a)	Labour	day	0.03	505.00	7.63
		Mate	day	0.50	287.00	143.50
		Mazdoor (Unskilled)				
	b)	Machinery	hour	0.20	934.30	186.86
		Truck	hour	0.20	1289.30	257.86
		Crane				595.85
		Cost for 21 pipes = a+b+c+d				66.21
		Rate per pipe = (a+b)/21	per p			66.21
		Total per p				
1.10		Haulage excluding Loading & Unloading				
		Haulage of materials by truck excluding cost of Loading, Unloading and stacking				
		Unit = 1 km				
		Taking output 10t load and load 10km = 100t km				
		Case - I : Surfaced Road				
		Speed with load : 25km per hour				
		Speed while returning empty : 35km per hour				
	a)	Machinery				
		Tipper	hour	0.40	1043.00	417.20
		Haulage with load	hour	0.29	1043.00	302.47
		Empty return trip				719.67
		Cost for 100t km = a+b+c				7.20
		Cost for 1 t km = a+b+c/100				7.20
		Total per t per km				
		Case - II : Unsurfaced Road				
		Speed with load : 20km per hour				
		Speed while returning empty : 30km per hour				
	a)	Machinery				
		Tipper	hour	0.50	1043.00	521.50
		Haulage with load	hour	0.33	1043.00	344.39
		Empty return trip				865.89
		Cost for 100t km = a+b+c				8.66
		Cost for 1 t km = a+b+c/100				8.66
		Total per t per km				
		Case - III Katcha Track and/Truck in River Bed / Nallah Bed and Choe Bed				
		Speed with load : 10km per hour				
		Speed while returning empty : 15km per hour				
	a)	Machinery				

SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	QTY	Rate	Amount in Rs
		Tipper	hour	1.00	1043.00	1043.00
		Haulage with load	hour	0.67	1043.00	698.81
		Empty return trip				1921.81
		Cost for 100t km = a+b+c				17.42
		Cost for 1 t km = a+b+c/100				17.42
		Total per t per km				
1.10		Haulage excluding Loading & Unloading				
		Haulage of materials by truck excluding cost of Loading, Unloading and stacking				
		Unit = 1km				
		Taking output 10t load and lead 10km = 100t km				
		Case - I : Surfaced Road				
		Speed with load : 25km per hour				
		Speed while returning empty : 35km per hour				
	a)	Machinery				
		truck	hour	0.40	934.30	373.72
		Haulage with load	hour	0.29	934.30	270.95
		Empty return trip				644.87
		Cost for 100t km = a+b+c				6.45
		Cost for 1 t km = a+b+c/100				6.45
		Total per t per km				
		Case - II : Unsurfaced Road				
		Speed with load : 20km per hour				
		Speed while returning empty : 30km per hour				
	a)	Machinery				
		truck	hour	0.50	934.30	467.15
		Haulage with load	hour	0.33	934.30	308.32
		Empty return trip				775.47
		Cost for 100t km = a+b+c				7.75
		Cost for 1 t km = a+b+c/100				7.75
		Total per t per km				
		Case - III Kutcha Track and Track in River Bed / Nallah Bed and Choe Bed				
		Speed with load : 10km per hour				
		Speed while returning empty : 15km per hour				
	a)	Machinery				
		truck	hour	1.00	934.30	934.30
		Haulage with load	hour	0.67	934.30	625.98
		Empty return trip				1560.28
		Cost for 100t km = a+b+c				15.60
		Cost for 1 t km = a+b+c/100				15.60
		Total per t per km				

Sl. No.	DESCRIPTION	Unit	QTY	Rate	Amount in Rs.
4.5	Providing and Laying of Brick Bats				
	Placing tractor at loading point loading with front end loader dumping, turning for return trip excluding time for handling and return trip				
	Unit = cum				
	Taking output = 2.832 cum				
a)	Labour	day	2.170	287.00	622.79
	Mazdoor (Unskilled)				
b)	Materials	cum	2.830	1,063.00	3008.29
	Brick Bats				
c)	Carriage	cum	2.830	435.40	1232.19
	Cost for 5.5 cum = a+b+c				4863.27
	Rate per cum = (a+b+c+d)/2.83	cum			1718.47
	Total per cum	cum			1718.47
4.6, 4.0	Labour for filling Cement Bag, swing and laying materials				
W.K.D	Unit = Per Bag	kg	1	7.460	7.46
A	Supply Empty cement Bag with Sand				7.46
B	Unskilled Mazdoor for filling sand into bag and swing	No	2	287.00	574.00
	Unskilled Mazdoor for filling sand Bag to work site	No	3	287.00	861.00
	Rate per 100 Nos.				1442.46
	Total per bag				14.42
C	Supply Local sand Cost of Fine Sand				
	Supply Empty Cement Bag				
	Unit = No.				
	Taking output = 1 No.				14.42
	Labour				7.46
	Cost of cement bag with Sand				
	Cost of Local Sand	cum	0.034	274.62	9.34
	1.2 Cft = 0.034 m ³				
	Carriage	Bag			31.22
	Total per bag				31.22
	Total cost of (A + B+C) =				
4.7, 4.2	Supply of New bag and N.C with labour for filling item E.C. bag with local sand, stitching on two lines by approval (1mx1mx1m)				
	Unit = Per N.C.				
	Taking output = 100 Nos filled new bags in 4 nos N.C.	No	100	14.30	1430.00
A	Supply Empty cement Bag with Sand	No	4	39.85	159.40
	Swing rate (N.C.)				1589.40
	Total =				297.35
	Rate of Material for each N. C. (Total x 25/100)				479.29
B	Labour for filling, stitching and stacking in dry position	No	1.67	287	861.00
	Labour for carrying and placing at work site	No	3	287	120.12
	skilled Mazdoor for stitching	No	0.33	364	60.00
	Stitching roll (Nylone)	No	2	30	16.50
	Hire charge of stitching Machine	day	0.33	50	197.58
	Hire charge of Generator 3 KVA	hrs	2.67	74	174.49
	Total =				473.62
	Rate of Material for each N. C. (Total x 25/100)				830.97
	Rate for each N. C. in dry portion (A + B) =				
C	Carriage :				
	Local sand	cum	0.85	274.62	233.43
	25 bags = 0.85 m ³	No			233.43
	Carriage for each N. C.	No			1064.40
	Total cost of (A + B+C) =				

